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# Sugar Enterprise 7.7 Administration Guide

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Sugar Enterprise 7.7 Administration Guide .....	23
Introduction .....	23
Overview .....	23
Core Admin Features .....	23
Admin Wizard .....	24
Overview .....	24
Login Screen .....	24
Language .....	24
Your Information .....	25
Your Locale .....	26
Team Management .....	28
Overview .....	28
Teams Module Tab .....	28
Team Types .....	29
The Global Team .....	29
Standard Teams .....	29
Private Teams .....	29
Team Membership Types .....	30
Creating Teams .....	31
Creating Via Teams Module .....	31
Creating Via Duplication .....	32
Adding Users to Teams Via Teams Module .....	32
Adding Users to Teams Via Users Module .....	33
Viewing Teams .....	35
Viewing Via List View .....	35
Viewing Via Detail View .....	35
Viewing Via Recently Viewed .....	35
Viewing Via Dashlets .....	37
Viewing Via Reports .....	37
Searching Teams .....	38
Teams List View .....	39
Pagination .....	39
Checkbox Selection .....	39
Actions Menu .....	40
Column Sorting .....	40
Teams Detail View .....	41
Actions Menu .....	41
Users Subpanel .....	41
Next or Previous Record .....	42
Editing Teams .....	43
Editing Via Detail View .....	43
Editing Via List View .....	43
Editing Via Users Module .....	44
Deleting Teams .....	44
Deleting Via Detail View .....	44
Deleting Via List View .....	45

---

Removing Users From Teams	45
Repairing Teams	47
<b>Role Management</b>	47
Overview	47
Roles Module Tab	48
<b>Creating Roles</b>	48
Creating Roles Via Role Management	48
Creating Roles Via Duplication	49
Setting Module-Level Permissions	50
Setting Field-Level Permissions	54
Assigning Users to Roles	55
Assigning Via Role Management	56
Assigning Via User Management	57
<b>Viewing Roles</b>	58
Viewing Via List View	58
Viewing Via Detail View	58
Viewing Via Recently Viewed	58
Viewing Roles by User	59
Viewing Via Users Module	59
<b>Searching Roles</b>	61
<b>Roles List View</b>	61
Pagination	62
Checkbox Selection	62
Column Sorting	63
<b>Roles Detail View</b>	63
Actions Menu	63
Module-Level Permissions	64
Field-Level Permissions	64
Users Subpanel	64
<b>Editing Roles</b>	65
Editing Via Detail View	65
Editing Via List View	66
Editing Via Users Module	66
<b>Deleting Roles</b>	67
Deleting Via Detail View	67
Mass Deleting Via List View	67
<b>Password Management</b>	68
Overview	68
<b>Password Requirements</b>	68
Advanced Options	69
<b>System-Generated Passwords</b>	70
<b>User Reset Password</b>	70
CAPTCHA Validation	71
Honeypot Validations	71
<b>Email Templates</b>	72
<b>User-Generated Password Expiration</b>	73

---

Login Lockout	73
External Authentication	74
LDAP	74
SAML	77
Setting User Passwords	78
User Management	79
Overview	79
User Types	79
Regular User	79
System Administrator	79
Group User	80
Portal API User	80
User Fields	81
Users Module Tab	86
Creating Users	87
Creating Via Module Tab	87
Regular and Admin Users	87
Group Users	90
Portal API Users	91
Creating Via Duplication	92
Creating Via Import	93
Viewing Users	94
Viewing Via Recently Viewed	94
Viewing Via List View	94
Viewing Via Detail View	95
Viewing Via Dashlets	95
Viewing Via Reports	95
Searching Users	96
Basic Search	96
Advanced Search	97
Users List View	98
Checkbox Selection	98
Actions Menu	98
Pagination	99
Column Sorting	99
Users Detail View	100
Actions Menu	100
Tabs	101
User Profile	101
Advanced	101
Access	101
Subpanels	102
Editing Users	103
Editing Via Detail View	103
External Accounts	103
Editing Via List View	105



---

Deleting Users	105
Exporting Users	106
Mass Updating Users	107
Resetting User Preferences	108
Resetting User Passwords	108
Reassigning Records	110
<b>Sugar Connect</b>	<b>112</b>
Overview	112
License Management	113
Download Key	113
Editing the License Key	114
License Validation	115
License Expiration	115
Re-validating the License	115
Manual Validation	116
Sugar Updates	117
Online Documentation	118
<b>System</b>	<b>120</b>
Overview	120
System Settings	121
User Interface	122
Proxy Settings	123
Customer Self-Service Portal	124
SkypeOut	124
Tweet to Case	125
Preview Pane Settings	125
Advanced	125
Logger Settings	126
View Log	128
Locale	128
User Interface	129
System Currency	129
Export Settings	130
Database Collation	130
Currencies	131
Updating Conversion Rates	132
Languages	132
Search	133
Configuring Full Text Search	133
Activating Full Text Search	134
Indexing Full Text Search	135
Configuring Legacy Global Search	137
Connectors	138
Setting Connector Properties	138
Enabling Connectors	139
Mapping Connector Fields	140

---

Managing Connector Search .....	142
OAuth Keys .....	142
OAuth Keys Fields .....	142
OAuth Keys Module Tab .....	143
Creating OAuth Keys .....	143
Creating Via OAuth Keys Module .....	144
Creating Via Duplication .....	144
Viewing OAuth Keys .....	145
Viewing Via List View .....	145
Viewing Via Detail View .....	145
Viewing Via Recently Viewed .....	145
Searching OAuth Keys .....	146
Basic Search .....	146
Advanced Search .....	147
OAuth Keys List View .....	148
Pagination .....	148
Checkbox Selection .....	148
Actions Menu .....	149
Column Sorting .....	149
OAuth Keys Detail View .....	150
Actions Menu .....	150
Next or Previous Record .....	150
Tokens .....	151
Editing OAuth Keys .....	151
Editing Via Detail View .....	152
Editing Via List View .....	152
Deleting OAuth Keys .....	153
Deleting Via Detail View .....	153
Mass Deleting Via List View .....	153
Exporting OAuth Keys .....	154
Mass Updating OAuth Keys .....	154
Import Wizard .....	155
Upgrade Wizard .....	155
Backups .....	156
Repair .....	156
Diagnostic Tool .....	157
Tracker .....	159
Scheduler .....	161
PDF Manager .....	161
Mobile .....	161
Configuring SugarCRM Mobile .....	161
Configuring Mobile Browser Access .....	162
Enabling Modules for Mobile Access .....	162
Enabling Offline Mobile Access .....	163
Repair .....	163
Overview .....	163

---

Quick Repair and Rebuild	164
Upgrade Teams	165
Expand Column Width	165
Rebuild .htaccess File	166
Rebuild Config File	166
Rebuild Sugar Logic Functions	167
Rebuild Relationships	167
Rebuild Schedulers	167
Rebuild Sugar Dashlets	169
Rebuild WorkFlow	169
Rebuild Javascript Languages	169
Rebuild Sidecar Files	169
Rebuild JS Grouping Files	169
Rebuild Sprites	169
Repair Non-Lowercase Fields	170
Repair Teams	170
Repair Roles	171
Repair Inbound Email Accounts	171
Remove XSS	171
Repair Activities	172
Enable/Disable Seed Users	172
Clear Additional Cache	173
<b>Schedulers</b>	173
Overview	173
Schedulers Fields	173
Default Schedulers	174
Check Inbound Mailboxes	176
Clean Jobs Queue	176
Create Future TimePeriods	176
Process Author Scheduled Job	177
Process Workflow Tasks	177
Prune Database on 1st of Month	177
Prune Old Record Lists	178
Prune Tracker Tables	178
Remove Diagnostic Tool Files	178
Remove Temporary Files	179
Remove Temporary PDF Files	179
Run Email Reminder Notifications	179
Run Nightly Mass Email Campaigns	179
Run Nightly Process Bounced Campaign Emails	180
Run Report Generation Scheduled Tasks	180
Sugar Heartbeat	181
Update tracker_sessions Table	181
Schedulers Module Tab	181
Creating Schedulers	183
Creating via Schedulers Module	183

Creating via Duplication	185
Viewing Schedulers	187
Viewing via List View	187
Viewing via Detail View	187
Viewing via Recently Viewed	187
Searching Schedulers	189
Schedulers List View	189
Pagination	190
Checkbox Selection	190
Actions Menu	191
Favorite Designation	191
Column Sorting	192
Schedulers Detail View	192
Actions Menu	192
Favorite Designation	193
Next or Previous Record	193
Job Log	193
Editing Schedulers	194
Editing via Detail View	195
Editing via List View	195
Deleting Schedulers	196
Deleting via Detail View	196
Mass Deleting via List View	196
Exporting Schedulers	197
Mass Updating Schedulers	197
Favoriting Schedulers	198
Favoriting via List View	198
Favoriting via Detail View	199
Advanced Options	199
Setting up Cron Scheduler	201
Setting Up in Unix/Linux	201
PDF Manager	201
Overview	202
PDF Manager Fields	202
PDF Manager Module Tab	203
Creating PDF Templates	203
Creating Via PDF Manager Module	204
Creating Via Duplication	204
Creating Content	205
Viewing PDF Templates	206
Viewing Via List View	206
Viewing Via Detail View	207
Viewing Via Recently Viewed	207
Searching PDF Templates	207
PDF Manager List View	208
Pagination	208

Checkbox Selection	209
Actions Menu	209
Column Sorting	210
PDF Manager Detail View	210
Actions Menu	210
Next or Previous Record	212
Editing PDF Templates	212
Editing Via Detail View	213
Editing Report PDF Template	213
Deleting PDF Templates	213
Deleting Via Detail View	214
Mass Deleting Via List View	214
Adding a Header Image to PDF Template	215
Previewing PDF Templates	216
Web Logic Hooks	216
Overview	216
Web Logic Hook Fields	217
Web Logic Hooks Module Tab	217
Creating Web Logic Hooks	218
Creating Via Web Logic Hooks Module	218
Creating Via Duplication	219
Viewing Web Logic Hooks	220
Viewing Via List View	220
Viewing Via Record View	220
Viewing Via Recently Viewed	220
Searching Web Logic Hooks	221
Module Search	221
Creating a Filter	222
Saving a Filter	223
Web Logic Hooks List View	224
Checkbox Selection	224
Total Record Count	225
Mass Actions Menu	226
Column Sorting	226
Column Selection	227
Preview	227
Record Actions Menu	228
More Web Logic Hooks	228
Right Hand Side Drawer	229
Web Logic Hooks Record View	229
Actions Menu	229
Next or Previous Record	230
Sharing Web Logic Hooks	230
Viewing Web Logic Hook Change Logs	231
Editing Web Logic Hooks	231
Editing Inline Via Record View	231

Editing Via Record View	232
Editing Via List View	232
Deleting Web Logic Hooks	233
Deleting Via Record View	233
Deleting Via List View	233
Mass Deleting Via List View	234
Exporting Web Logic Hooks	235
Mass Updating Web Logic Hooks	235
Finding Duplicate Web Logic Hooks	237
Merging Web Logic Hooks	238
Merging Via List View	238
<b>Email</b>	240
Overview	240
Email Settings	240
Outgoing Mail Configuration	240
Email Options	242
Email Security Settings	242
Related Contacts Emails	243
Campaign Email Settings	243
Email Archiving	245
Enabling Email Archiving	245
Using Email Archiving	246
<b>Inbound Email</b>	247
Inbound Email Fields	247
Inbound Email Module Tab	250
Creating Inbound Email Records	251
Creating Group Mail Accounts	251
Creating Bounce Handling Accounts	252
Creating Via Duplication	254
Viewing Inbound Email Records	256
Viewing Via List View	256
Viewing Via Detail View	256
Viewing Via Recently Viewed	257
Inbound Email List View	257
Modifying the Case Macro	257
Pagination	258
Checkbox Selection	258
Action Buttons	259
Column Sorting	259
Inbound Email Detail View	259
Action Buttons	259
Editing Inbound Email Records	260
Editing Via Detail View	260
Editing Via List View	261
Deleting Inbound Email Records	261
Deleting Via Detail View	261

Mass Deleting Via List View	261
Creating Cases From Email	262
<b>Email Queue</b>	263
Viewing Via List View	263
Searching Queued Email	263
Basic Search	263
Advanced Search	264
Email Queue List View	265
Pagination	265
Checkbox Selection	266
Actions Menu	266
Column Sorting	267
Deleting Queued Email	267
Mass Deleting Via List View	267
Mass Updating Queued Email	268
Sending Queued Email	268
<b>Developer Tools</b>	269
Overview	269
Studio	270
Module Builder	271
Module Loader	271
Sugar Portal	271
Dropdown Editor	271
Adding Dropdown Lists	272
Viewing Dropdown Lists	273
Editing Dropdown Lists	275
Editing Sales Stages	277
Editing Time Intervals	278
Editing Role-Based Availability	279
Rename Modules	280
Display Modules and Subpanels	282
Configure Navigation Bar Quick Create	283
Workflow Management	284
<b>Studio</b>	284
Overview	285
Navigation	285
Main Panel	285
Modules Panel	286
Footer	287
Editing Labels	287
Fields	289
Field Types	289
Field Options	291
Creating Fields	299
Editing Fields	301
Deleting Fields	302

Cloning Fields	303
Relationships	305
Relationship Types	306
Creating Relationships	308
Editing Relationships	310
Deleting Relationships	311
Layouts	313
Layout Types	314
Layout Options	315
Panels	316
Tabs	316
Restoring Layouts	317
Sync And Copy (Legacy Modules)	317
Editing Layouts	318
Editing Record View Layout	318
Creating Role-Based Record View Layouts	321
Copying a Role-View From a Customized Role-View Layout	322
Restoring Customized Role-Views to the Default Role-View Layout	323
Restoring the Default Role-View to the System Default Layout	323
Editing List View Layout	324
Editing Search Layout	327
Editing Convert Lead Layout	327
Subpanels	329
Subpanel Options	329
Editing Subpanels	330
Mobile Layouts	332
Mobile Layout Types	333
Mobile Layout Options	333
Editing Mobile Layouts	334
Using Sugar Logic	338
Functions	338
Fields	345
Related Field	345
Rollup	346
Viewing Layout History	347
Restoring Default Layouts	348
Resetting Modules	349
Exporting Customizations	350
Exporting Role-Based Customizations	351
Module Builder	352
Overview	352
Navigation	352
Main Panel	352
Packages Panel	353
Footer	353
Packages	354



Creating Packages	354
Deploying Packages	355
Deleting Packages	357
Modules	358
Module Types	358
Module Options	359
Creating Modules	359
Creating Modules Via Package	360
Creating Modules Via Duplication	361
Modifying Modules	362
Modifying Labels	363
Fields	364
Field Types	364
Field Options	366
Creating Fields	374
Editing Fields	376
Deleting Fields	377
Cloning Fields	379
Relationships	380
Relationship Types	381
Creating Relationships	384
Editing Relationships	385
Deleting Relationships	386
Layouts	387
Layout Types	388
Layout Options	389
Editing Layouts	390
Editing Record View Layout	390
Editing List View Layout	392
Mobile Layouts	395
Mobile Layout Types	395
Mobile Layout Options	396
Editing Mobile Layouts	396
Available Subpanels	399
Subpanel Options	400
Editing Subpanel Layout	400
Using Sugar Logic	403
Functions	403
Fields	410
Related Field	410
Rollup	411
Viewing Layout History	412
Restoring Layout Defaults	413
Deleting Modules	413
Module Loader	414
Overview	414

Module Loader Layout	415
Module Loader Fields	415
Uploading Packages	417
Installing Packages	417
Uninstalling Packages	418
Installing Role-Based Customizations	420
Importing Role-Based Custom Record Views	421
Importing Role-Based Custom Dropdown Lists	421
<b>Sugar Portal</b>	<b>425</b>
Overview	425
Configure Portal	425
Theme Portal	427
Layouts	428
Record View	428
List View	429
<b>Workflow Management</b>	<b>430</b>
Overview	430
Workflow Fields	431
Workflow Module Tab	432
Creating Workflows	433
Creating Via Workflow Module	433
Creating Via Duplication	434
Creating Workflow Conditions	435
Creating "After Time Elapsed" Workflow Conditions	435
Creating "When Record Saves" Workflow Conditions	436
Creating Workflow Alerts	437
Creating Workflow Actions	440
Workflow Action Types	441
Viewing Workflows	443
Viewing Via List View	443
Viewing Via Detail View	443
Viewing Via Recently Viewed	443
Searching Workflows	444
Basic Search	444
Advanced Search	445
Workflows List View	446
Pagination	446
Checkbox Selection	446
Column Sorting	447
Workflow Detail View	447
Actions Menu	447
Next or Previous Record	448
Conditions Subpanel	448
Alert Subpanels	449
Actions Subpanel	450
Editing Workflows	450

Editing Via Detail View	451
Editing Via List View	451
Deleting Workflows	451
Deleting Via Detail View	451
Mass Deleting Via List View	452
Workflow Alert Templates	453
Alert Template Fields	453
Creating Alert Templates	454
Creating Alert Templates Via Workflows Module	454
Creating Alert Templates Via Duplication	456
Inserting Variables	456
Viewing Alert Templates	458
Viewing Alert Templates Via List View	458
Viewing Alert Templates Via Detail View	458
Viewing Alert Templates Via Emails Module	459
Editing Alert Templates	459
Deleting Alert Templates	459
Time Intervals for Time Elapsed Workflows	460
Workflow Sequence	462
Products and Quotes	463
Overview	463
Working With Product Catalog and Categories	464
Product Catalog	466
Product Catalog Fields	466
Product Catalog Menus	468
Module Tab Menu	469
List View Menus	470
Mass Actions Menu	470
Record Actions Menu	471
Record View Actions Menu	471
Product Categories	472
Product Category Fields	472
Product Category Menus	473
Module Tab Menu	473
List View Menus	474
Mass Actions Menu	474
Record Actions Menu	474
Record View Actions Menu	475
Product Types	476
Product Type Fields	476
Product Types Module Tab	476
Creating Product Types	477
Importing Product Types	478
Product Types List View	478
Column Sorting	478
Ordering Product Types	479

Editing Product Types .....	479
Deleting Product Types .....	479
<b>Manufacturers .....</b>	<b>480</b>
Manufacturers Fields .....	480
Manufacturers Module Tab .....	480
Creating Manufacturers .....	481
Importing Manufacturers .....	482
Manufacturers List View .....	482
Column Sorting .....	482
Ordering Manufacturers .....	483
Editing Manufacturers .....	483
Deleting Manufacturers .....	483
<b>Shipping Providers .....</b>	<b>484</b>
Shipping Provider Fields .....	484
Shipping Providers Module Tab .....	484
Creating Shipping Providers .....	485
Shipping Providers List View .....	486
Column Sorting .....	486
Ordering Shipping Providers .....	486
Editing Shipping Providers .....	486
Deleting Shipping Providers .....	487
<b>Tax Rates .....</b>	<b>487</b>
Tax Rate Fields .....	487
Tax Rates Module Tab .....	488
Creating Tax Rates .....	488
Importing Tax Rates .....	489
Tax Rates List View .....	489
Column Sorting .....	489
Ordering Tax Rates .....	490
Editing Tax Rates .....	490
Deleting Tax Rates .....	490
<b>Bug Tracker .....</b>	<b>491</b>
Overview .....	491
Release Fields .....	491
Release Module Tab .....	492
Creating Releases .....	492
Viewing Releases .....	493
Viewing Via Module .....	493
Editing Releases .....	493
Deleting Releases .....	494
<b>Forecast Configuration .....</b>	<b>495</b>
Overview .....	495
Configuring Forecasts .....	495
Time Periods .....	496
Ranges .....	498
Two Ranges .....	498

Three Ranges .....	498
Custom Ranges .....	499
Scenarios .....	500
Worksheet Columns .....	501
Editing Forecast Configurations .....	502
<b>Opportunities Configuration .....</b>	<b>502</b>
Overview .....	502
Configuring Opportunities .....	503
Moving to Opportunities With Revenue Line Items .....	503
Effects of the Change .....	504
Moving to Opportunities Only .....	505
Effects of the Change .....	505
<b>Contract Types .....</b>	<b>506</b>
Overview .....	506
Contract Type Fields .....	506
Contract Types Module Tab .....	507
Creating Contract Types .....	507
Viewing Contract Types .....	508
Viewing Via List View .....	508
Viewing Via Detail View .....	508
Viewing Via Recently Viewed .....	509
Searching Contract Types .....	509
Basic Search .....	509
Advanced Search .....	510
Contract Types List View .....	511
Pagination .....	511
Checkbox Selection .....	511
Actions Menu .....	512
Column Sorting .....	512
Contract Types Detail View .....	513
Documents Subpanel .....	513
Editing Contract Types .....	513
Editing Via List View .....	514
Ordering Contract Types .....	514
Deleting Contract Types .....	514
Mass Deleting Via List View .....	514
Exporting Contract Types .....	515
<b>Knowledge Base Administration .....</b>	<b>516</b>
Overview .....	516
Working With KB Templates .....	516
KB Template Menus .....	519
List View Menus .....	519
List View Mass Actions Menu .....	519
List View Record Actions Menu .....	520
Record View Actions Menu .....	521
Settings .....	521

---

Tag Management	522
Overview	523
Understanding Tag Behavior	523
Tag Fields	523
Working With Tags	524
Tag Menus	526
Module Tab Menus	527
List View Menus	528
List View Mass Actions Menu	528
List View Record Actions Menu	529
Record View Actions Menu	529
Consolidating Synonymous Tags	530
Creating a Tags Administrator	531
Employee Records	533
Overview	533
Employee Fields	534
Employees Module Tab	535
Creating Employees	537
Creating Via Employees Module	537
Creating Via Users Module	538
Creating Via Duplication	538
Viewing Employees	539
Viewing Via List View	539
Viewing Via Detail View	539
Viewing Via Recently Viewed	540
Searching Employees	540
Basic Search	540
Advanced Search	541
Employees List View	542
Pagination	542
Checkbox Selection	543
Actions Menu	543
Column Sorting	544
Employees Detail View	544
Next or Previous Record	544
Editing Employees	545
Editing Via Detail View	546
Editing Via List View	546
Deleting Employees	546
Exporting Employees	547
Mass Updating Employees	548
Process Author	548
Overview	549
Scope	549
Prerequisites	549
Core Concepts	550

---

Process Author Modules	550
Basic Visual Notation Elements	553
Basic Steps to Automate a Business Process	556
Creating a Process Author Dashboard	557
Processes Dashlet	558
Process Definitions Dashlet	559
Process Email Templates Dashlet	561
Process Business Rules Dashlet	563
Process Management List View	564
Preview	566
Record Actions Menu	566
Searching Processes	568
Unattended Processes	569
Terminated vs. Cancelled Processes	571
Importing and Exporting Process Author Module Records	571
Process Author Settings	573
Process Author Log Viewer	574
Process Author Scheduler	575
Process Business Rules	575
Overview	575
Process Business Rule Fields	576
Working With Process Business Rules	577
Process Business Rules Menus	579
Module Tab Menus	579
List View Record Actions Menu	580
Record View Actions Menu	581
Creating Process Business Rules	582
Designing Process Business Rules	583
The Rules Builder Interface	583
Creating Rule Sets	585
Condition and Conclusion Elements	585
Operator Elements	586
Process Email Templates	587
Overview	587
Process Email Template Fields	588
Working With Process Email Templates	588
Process Email Template Menus	590
Module Tab Menus	590
List View Record Actions Menu	592
Record View Actions Menu	592
Creating Process Email Templates	593
Designing Process Email Templates	594
The Design Toolbar	595
Using the Fields Selector Tool	597
Using the Related Link Selector Tool	598
Process Definitions	600

Overview	600
Process Definition Fields	601
Working With Process Definitions	602
Process Definition Menus	604
Module Tab Menus	604
List View Record Actions Menu	605
Record View Actions Menu	606
Process Definitions List View Dashlets	607
Pending Activities by Process	607
Process Summary Dashlet	608
Creating Process Definitions	609
Designing Process Definitions	610
Editing and Annotating Process Definitions	611
Sequence Flow	611
Adding Sequence Connectors	611
Removing Sequence Connectors	612
Comments	613
Editing Tools	614
Moving and Deleting Design Elements	614
Adding a Start Event	616
Adding Multiple Start Events	618
Adding Intermediate Events	619
Wait Events	620
Receive Message Events	622
Send Message Events	623
Adding Form Activities	625
Forms Setting	626
General Tab	627
Read-Only Fields Tab	629
Required Fields Tab	629
Expected Time Tab	630
Users Setting	630
Static Assignment	631
Round-Robin	632
Self Service	632
Adding Actions	633
Business Rule	634
Assign User	636
Round Robin	637
Change Field	638
Add Related Record	642
Adding Gateway Elements	646
Default Sequence Flows	647
Exclusive Gateways	648
Divergent Exclusive Gateway	648
Convergent Exclusive Gateway	650



Inclusive Gateways	651
Parallel Gateways	653
Divergent Parallel Gateway	653
Convergent Parallel Gateway	654
Event-Based Gateways	654
Adding End Events	655
Do Nothing	656
Terminate Process	656
Send Message	657
Setting Conditions	658
Creating Conditions for Events and Actions	658
Logical Operations	658
Module Field Evaluation	659
User Evaluation	660
Mathematical Operations	664
Fixed Date	665
Time Span	667
Sugar Date Variables	668
Creating Conditions for Activities and Gateways	669
Form Response Evaluations	669
Business Rule Evaluations	672
Configuring Process Termination Settings	676
Resolving Errors in the Element Errors Panel	677
Exiting the Visual Designer	679
Returning to the Visual Designer	679
Enabling and Disabling Process Definitions	680
Enabling Process Definitions	681
Disabling Process Definitions	682
Advanced Configuration Options	682
Overview	682
System Configuration	683
Configuring File Permissions	683
Allowing POP Email Accounts	684
Security Options	684
Locking Down Admin Control	685
Locking Down Module Loader	685
Locking Down Backups	686
Enabling Sites as Referers	686
Performance	686
Recommended Server Settings	686
Limiting System Resources	687
Configuring a Slave Database	688
Changing the Upload Directory	688
Changing the Cache Directory	689
Configuring Count Queries	689
Disabling Related Calculation Fields	690

---

Disabling Automatic Searches .....	690
Using a Custom Page For Campaign Trackers .....	691
Configuring Cron for Schedulers .....	692

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# Sugar Enterprise 7.7 Administration Guide

This guide describes options that enable Sugar administrators to configure the application to meet their organization's requirements.

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## Introduction

### Overview

Welcome to Sugar - a commercial, open source Customer Relationship Management (CRM) application. Strong relationships are at the core of every organization's success. Sugar brings ease and order to the creation, development, and maintenance of your organization's important relationships.

Sugar consists of interrelated records in modules such as Accounts, Contacts, Opportunities, Cases, Meetings, Emails, etc. and wraps your data in an intuitive user interface which helps make sense of these different elements of your business. Whatever your organization's focus - sales, marketing, support, or other ventures - Sugar's flexible modules bend to align with your business' models and practices. Manage your relationships from inception to fruition and beyond with Sugar's built-in modules and relationships as well as your custom modules and configurations available to Sugar administrators.

### Core Admin Features

- [User](#), [Password](#), [Team](#), and [Role](#) management to manipulate user access
- [Email](#) management to configure incoming and outgoing system email accounts and behaviors
- [System](#) management to control functional aspects and system-wide preferences within Sugar
- [PDF Manager](#) to create templates controlling the appearance of generated PDF files
- [Studio](#) to tailor existing modules to your organization's needs by adding or modifying fields, relationships, and layouts
- [Module Builder](#) to create new, custom modules as needed to fully match your organization's processes

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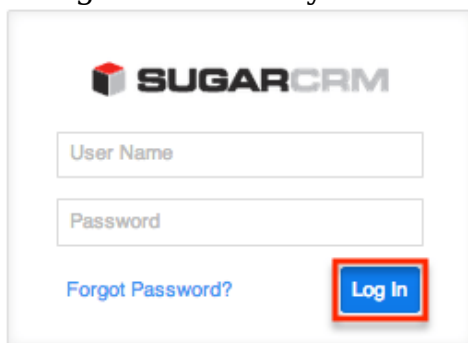
# Admin Wizard

## Overview

Sugar offers administrators a wide range of configuration options to set up their account. Upon your initial log into Sugar, you will go through configuring some basic settings (i.e. Your Information, Your Locale, etc.) for your user profile. You may skip these steps and configure these settings in your user preferences at a later time. Once your user profile set up is complete, you will be able to navigate to a specific area of Sugar to perform various administrative functions (e.g. importing data, creating users, configuring the application via Studio, etc.) as well. Please note that system administrators can also set up each user's basic settings when creating a user in Sugar. This documentation will cover the various options available when first accessing your Sugar account.

## Login Screen

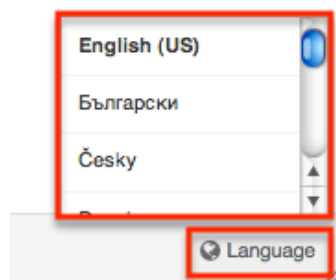
The Sugar login screen is where you enter your login credentials (user name and password) to access your instance. Enter in your instance URL (e.g. <https://example.sugarondemand.com>) on your web browser to load Sugar's login screen. If you do not know your instance URL or login credentials, please reach out to another system administrator in your organization for assistance. The Admin Wizard will launch upon your first successful log in to Sugar allowing you to configure various system-wide settings as well as some personal settings.



## Language

Users have the option to choose the primary language they want displayed in Sugar by clicking the Language icon on the bottom right of the Login screen. The Language dropdown list will appear allowing you to select the appropriate language you want displayed in your Sugar account. The out-of-the-box default language in Sugar is English (US), but administrators can change the default

language globally via Admin > Locale. For more information on configuring the default language in Sugar, please refer to the [Locale](#) section of the System documentation. Once the default language is changed, it will display as the default selection on the login screen for all users. Please note that you will need to select the language you want displayed each time you log in or the default language will display in Sugar. Administrators can also configure what languages are available to select in the Language dropdown list via Admin > Languages. For more information on managing the available languages, please refer to the [Languages](#) section of the System documentation.



The following languages are available to display in Sugar:

Albanian	Italian
Arabic	Japanese
Brazilian Portuguese	Korean
Bulgarian	Latvian
Catalan	Lithuanian
Chinese	Norwegian
Czech	Polish
Danish	Portuguese
Dutch	Romanian
English (UK)	Russian
English (US)	Serbian
Estonian	Slovak
Finnish	Spanish
French	Spanish (Latin)
German	Swedish
Greek	Turkish
Hebrew	Ukrainian
Hungarian	

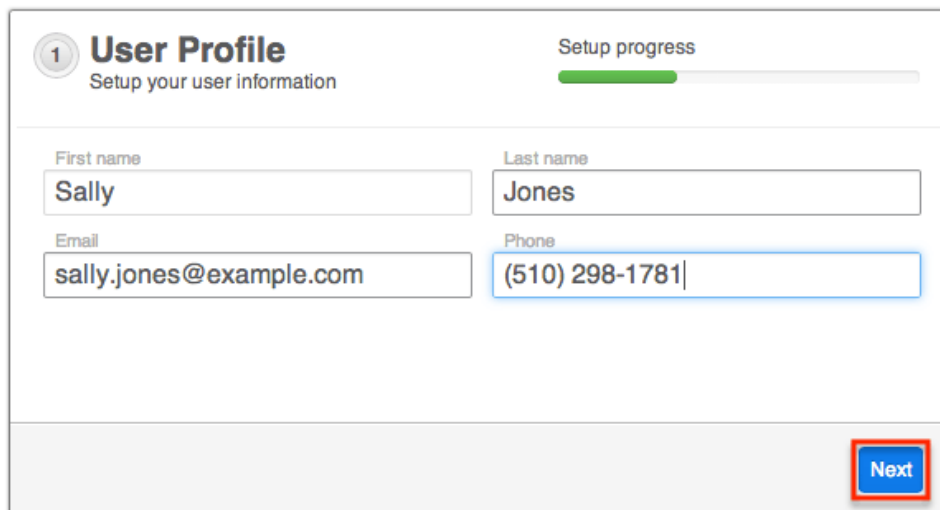
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## Your Information

Once the Admin Wizard is completed, you will have the option to configure some of your personal settings via the User Wizard. The Your Information step is where you can enter key information (i.e. name, email address, and phone) about yourself to be stored in your user profile. Please note that the information you provide on this step can be updated in your user preferences at a later time if desired. For more information on configuring your personal information under user preferences, please refer to the [User Profile Tab](#) section of the Getting Started documentation.

The following options are available to configure your user profile:

- First Name : Enter your first name.
- Last Name : Enter your last name.
- Email Address : Enter your email address.
- Office Phone : Enter your office number.



The screenshot shows a 'User Profile' setup wizard. At the top left, there is a step indicator '1' and the title 'User Profile' with the subtitle 'Setup your user information'. To the right, there is a 'Setup progress' indicator with a green bar. Below this, there are four input fields arranged in a 2x2 grid: 'First name' with the value 'Sally', 'Last name' with the value 'Jones', 'Email' with the value 'sally.jones@example.com', and 'Phone' with the value '(510) 298-1781'. At the bottom right of the form, there is a blue 'Next' button.

Please note that all required fields will indicate "Required" in the field and must be completed prior to moving to the next step of the wizard. Once your personal information is entered, click "Next".

## Your Locale

The Your Locale step is where you can configure the date, time, and name format you want displayed in Sugar based on your current geographical location. Please note that the information you provide on this page will override the system locale settings and can be updated in your user preferences at a later time if desired. For more information on configuring your locale settings, please refer to the [Locale](#)

[Settings](#) section of the Getting Started documentation.

The following options are available to configure your locale settings:

- Time Zone : Select the time zone based on your current location.
- Date Format : Select the format you want the date stamps displayed in Sugar.
- Time Format : Select the format you want the time stamps displayed in Sugar.
- Name Format : Select the format you want the concatenated name fields displayed in Sugar's list view and record view.

Once your locale information is entered, click "Next".

**2 User Locale Settings**  
Set your time zone, date, and name formats

Setup progress

Time Zone: America/New York (GMT-4:00) | Time Format: 11:00pm

Date Format: 12/23/2010 | Name Format: Dr. David Livingstone

Back Next

The following page confirms that you are ready to use Sugar and allows you to perform various administrative functions (e.g. importing data, creating users, configuring the application via Studio, etc.). Selecting the action item(s) will take you directly to the specific area of the Admin page to create new users, import data from external sources, etc. Please note that you can click "Start Sugar" to go directly into your Sugar account if you wish to configure these settings at a later time.

**Setup Complete**  
Start using Sugar!

Setup progress

Locale Settings | Email Settings | System Settings | Create Users | Import Data | Studio

Sugar Training | Documentation | Knowledge Base | Forums

Back Start Sugar

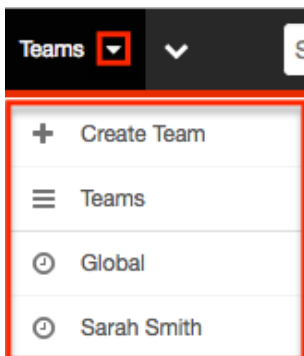
# Team Management

## Overview

Team Management is used in Sugar to define permissions and groupings for users. These permissions cover what records a user is and is not able to access. Teams are used in conjunction with [Roles](#) to form a robust security model for non-admin users in Sugar. Users can use team settings on specific records to allow different users within Sugar the option to view these given records. Team settings can also be used as a form of organization, thereby separating records to be associated to specific teams for better tracking. Teams can be based on departments, geographic regions, or whatever else works best in a given organization.

## Teams Module Tab

The Teams module tab can be accessed by navigating to the Admin page and clicking "Team Management" in the Users section. Once in the Teams list view, you can click the triangle in the Teams module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed](#) menu displays the list of teams you last viewed in the module. Please note that clicking the module tab allows you to access the Teams list view.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Team</a>	Opens the edit view to create a new team
<a href="#">Teams</a>	Opens the list view layout to search and display teams



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## Team Types

From an administrative standpoint, teams will be handled differently based on their types. From a user standpoint, all teams will be treated pretty much the same. Each team type has their own special set of characteristics that aid in defining it. The team types defined as:

- [The Global Team](#)
- [Standard Teams](#)
- [Private Teams](#)

### The Global Team

The Global team is created automatically when a Sugar instance is created. Global is the default team for all new users, and every user is a member of the team by default. Global is a universal team, so any records associated to the global team will be viewable by the users on this team. The global team is intended to be available for all users and a shared team for all users in Sugar.

Note: You cannot delete the Global team.

### Standard Teams

Standard Teams can be created by administrators via Team Management. These are to be used throughout Sugar to organize and grant access on organizational specifics to your organization. Standard teams are often broken out into groups by departments, geographical regions, or duties. For example, you may have an East and West team, and also a Sales and Support team.

### Private Teams

For every user that is created in Sugar, a corresponding private team is automatically created in the Teams module. By default, the private team name is the user's first and last name. A private team name will be updated any time the corresponding user's profile is edited and re-saved, even if the change was not made to the user's first or last name. For example, the private team for Jane Smith will be automatically named "Jane Smith". If the administrator edits private team "Jane Smith" to "Jane Smith-HR", and then user Jane Smith later updates the phone

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number on her user profile, Sugar will revert the private team name back to the user's first and last name, "Jane Smith".

If your organization plans to edit private team names, you must disable the automatic update feature. Navigate to Admin > System Settings and select the checkbox next to "Prevent private team names from inheriting the user's name fields". For more information on this setting, please refer to the [System](#) documentation.

Note: Private teams are not deleted in the same method as other teams. For more information on deleting private teams, please review the [Deleting Teams](#) section of this guide.

## Team Membership Types

Team memberships are given to users in one of two ways, either by explicit or implicit membership. Regardless of the type, membership will control what records [regular users](#) are able to see. Each membership can be granted in different ways and can constitute different functionality. Team membership is represented in the team's [detail view](#), as well as the user's [detail view](#).

Note: Administrators do not adhere to team security and therefore can see all records.

Explicit team membership is forged when the relationship is defined from either the team's or user's detail view. In addition, explicit relationships are also represented with [private team](#) memberships. Explicit memberships, other than private teams, can be [removed](#) as necessary from the team's or user's detail view. Explicit memberships will also include membership functionality for actions such as [workflows](#) or [inbound email](#).

Implicit team membership is used for record visibility. Implicit membership relies on the "Reports To" field in the [User Profile](#). When one user reports to another, the hierarchy of the "Reports To" field is kept in tact. The user being reported to will inherit the team membership of the subordinate user and be able to see any records on both his or her own team, and the teams of which the subordinate user is a member. The subordinate's teams can either be explicit or implicit teams in this scenario.

Note: Implicit relationships cannot be removed, but the cause for their relationship can be broken by changing the reporting hierarchy.

In the Team's detail view, the user's subpanel will showcase which relationships are explicit and which are implicit. In the "Membership" column of the Users subpanel, the user will either be marked as a "Member", meaning that they are an

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explicit member, or "Member Reports-to", meaning they are an implicit member. In addition, the users marked with the "Member Reports-to" will not include an "Unlink" button, as they have another user (or users) reporting to them on this team.

Users

Name	User Name	Membership	Email	Phone
Jim Brennan	jim	Member Reports-to	jim@example.com	
Will Westin	will	Member	will@example.com	unlink

## Creating Teams

There are two methods that can be used to create teams in Sugar. These are via the Teams module tab's action list or by duplicating an existing team and then editing it. After initially creating the team, the administrator will need to associate users to the [newly created team](#).

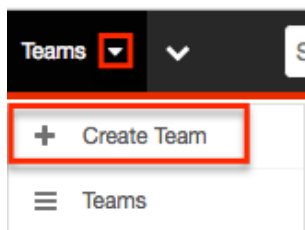
For information on creating Private Teams, please review the [Repairing Teams](#) section of this documentation.

## Creating Via Teams Module

The most common way to create a new team is via the Create Team option in the . This opens up the edit view layout which allows you to enter in all the relevant information for the team.

Use the following steps to create a team via the Teams module:

1. Navigate to Admin > Team Management.  
Note: The [Teams list view](#) will open displaying all existing teams that are currently available.
2. Click the triangle in the Teams module tab and select "Create Team".



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3. Enter the appropriate values for fields in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
  4. On the team's detail view, [add users](#) that are members of this team.

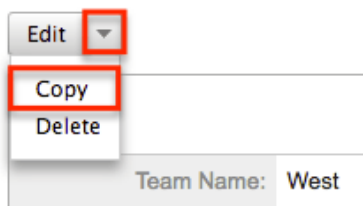
## Creating Via Duplication

You can also create a new team by duplicating an existing team. The Copy option is useful if the team you are creating has a similar set of members or a similar description to an existing team

Use the following steps to create a team by duplicating an existing record:

1. Navigate to a team record's detail view.
2. Click the Actions menu and select "Copy".

Teams: West



3. The displayed edit view is pre-populated with the original team's values. Update the name field, and description if need be, then click "Save".
4. On the team's detail view, [add any users](#) that are members of this team that are not on the original team, and [remove](#) any unwanted users.

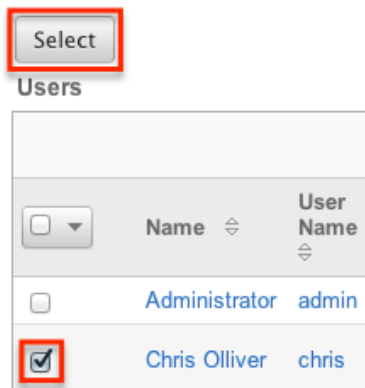
## Adding Users to Teams Via Teams Module

A user has to be associated to a team to be able to view records that are associated to the specific team. Assigning a team is much like any other many to many relationship in Sugar, where many users can be associated to one particular team, and one user can also be assigned to multiple teams. From Team Management, a user can be associated to a team via the Users subpanel at the bottom of the detail view. To associate users to a team, follow the following steps:

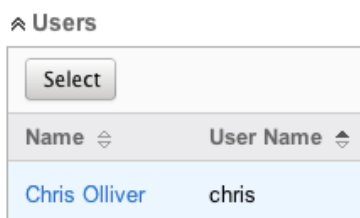
1. Navigate to Admin > Team Management
2. From the Teams list view, select the team that you are working with
3. At the bottom of the page, click "Select User" from the Users subpanel



- Use the popup search menu to search for and select the user(s) you would like to add to this team where you can either click on the user's name or, if selecting multiple users, click their corresponding checkboxes and then click "Select"



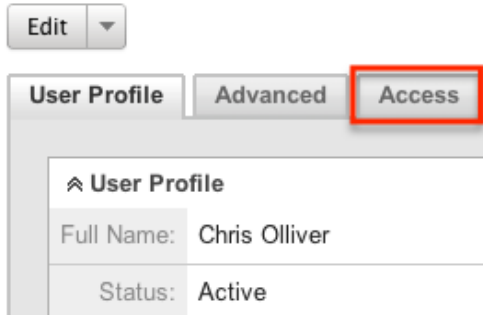
- After selecting the user(s) the popup search box will close and the user(s) will now be displayed in the Users subpanel for the team to complete the relationship



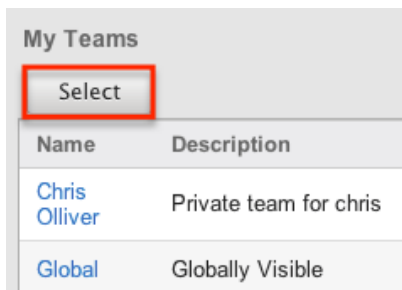
## Adding Users to Teams Via Users Module

A regular user must be associated to a team to be able to view records that are associated to that team. Assigning a team is much like any other many to many relationship in Sugar, where many users can be associated to one particular team, and one user can also be assigned to multiple teams. From User Management, a user can be associated to a team via the user's detail view. For more information on User Management, please refer to the [User Management](#) documentation. To associate a team to a user via User Management, follow the following steps:

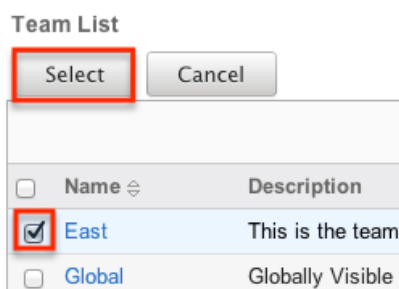
1. Navigate to Admin > User Management
2. From the Users list view, open the user record that you would like to edit
3. From the user's detail view, click on the "Access" tab



4. Scroll past the role chart to the "My Teams" subpanel and click "Select"



5. Use the popup search menu to search for and select the team(s) you would like to add to this user where you can either click on the team's name or, if selecting multiple teams, click their corresponding checkboxes and then click "Select"



6. After selecting the team(s) the popup search box will close and the team(s) will now be displayed in the My Teams subpanel for the user to complete the relationship

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My Teams	
Name	Description
<a href="#">Chris Olliver</a>	Private team for chris
<a href="#">East</a>	This is the team for the East

## Viewing Teams

There are various options available for viewing team records in Sugar including via the Teams list view, Teams detail view, Teams Last Viewed menu, from dashlets, and from reports.

### Viewing Via List View

The Teams list view displays all team records meeting the current search criteria. To access the list view, simply navigate to Admin > Team Management. Alternately, if you are looking at a team's detail view, you can click the Teams module tab to return to the list view. You can click the team's name to open the record in detail view. For more information on viewing teams via list view, please refer to the [Teams List View](#) section of this documentation.

### Viewing Via Detail View

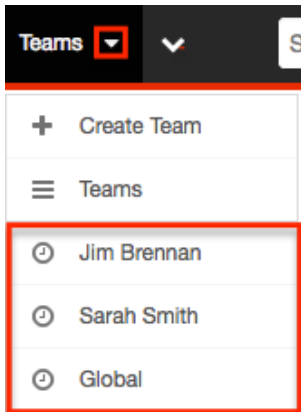
The Teams detail view displays thorough team information showing the name and description of the team, followed by a subpanel of the users associated to the team. The detail view can be reached by clicking a team's link from anywhere in the application including from the Teams list view. For more information on viewing teams via detail view, please refer to the [Teams Detail View](#) section.

### Viewing Via Recently Viewed

As you access different teams, Sugar will keep track of which teams you have recently viewed. Click the triangle in the [Teams module tab](#) to see a list of the 3 records you most recently viewed in the module. Clicking the record's name within the list will open it in detail view.







## Viewing Via Dashlets

The Home page displays a collection of Sugar Dashlets which allow users to get a quick view of various records, activities, reports, etc. You can view team information in most module specific dashlets. Clicking a team's name from any dashlet will open the team in detail view. For more information on using dashlets, please refer to the [Dashlets](#) section of the Home documentation.

Close	Subject	Related to	Start Date	Accept?	Team
	Discuss review process	XY&Z Funding Inc	03/18/2014 12:15pm		East
	Bad time, will call back	Avery Software Co	03/03/2014 02:15am		West+

## Viewing Via Reports

Administrators have the option to build, run, and manage reports to gather key data from records within Sugar. When building a report, there are options to either run the report from the Teams module or add links to teams related to the records that are being reported on. Once the report is run, you will be able to view the team record's detail view by clicking the team's name in the report results. Please note that you can only directly access team detail views with Rows and Columns and Summation with Details-type reports as Summation and Matrix-type reports do not include hyperlinks in their display columns. For more information on using reports, please refer to the [Reports](#) documentation.

**Name:** Teams report  
**Modules:** Teams, Teams > Users  
**Display Columns:** Primary Team Name, Private, Description, User Name  
**Schedule:** None  
**Filters:** None

Primary Team Name	Private	Description
Administrator	<input checked="" type="checkbox"/>	Private team for admin
Jim	<input checked="" type="checkbox"/>	Private team for Jim
Global	<input type="checkbox"/>	Globally Visible

## Searching Teams

The Teams list view search function searches for the name of the team to help you locate records easily and effectively. Once the search is performed, the relevant results will be displayed in the Teams list view below.

The buttons in the search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search
- Clear : Click the Clear button to clear all criteria from the searchable fields

To see all Team records, simply click "Clear" and then "Search" to perform a blank search with no name filter.

### Search Teams

The screenshot shows a search panel with a text input field labeled "Team Name". To the right of the input field are two buttons: "Search" and "Clear". Below the input field is a dropdown menu with a "Delete" label and a downward arrow.

Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %Administrator). This will pull up any record that has the word "administrator" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how

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wildcards are used, please refer to the [Search](#) documentation.

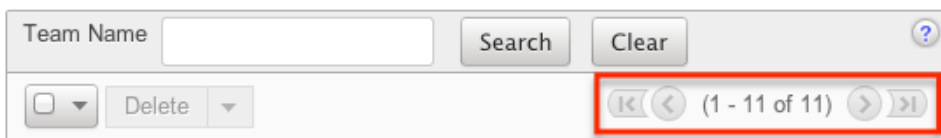
## Teams List View

The Teams list view displays all teams meeting the current search criteria, if any. You can view the name and description of each team within the field columns. Click on the name of the team to access the [detail view](#) for the team and review the settings further.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

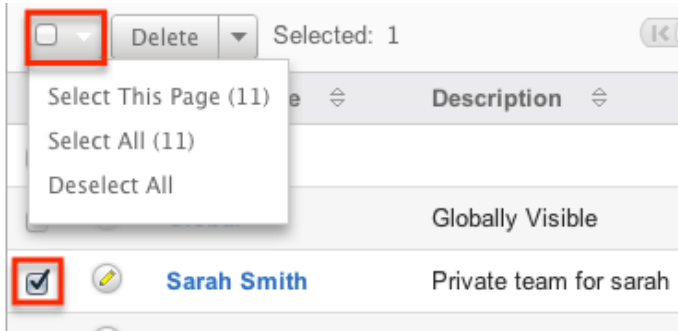
By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

Teams can be deleted in a mass-delete fashion via the list view by selecting all of the team records. To select individual team records on the Teams list view, mark the checkbox on the left of each row. To select or deselect multiple teams on the list view, use the options in the checkbox dropdown menu:

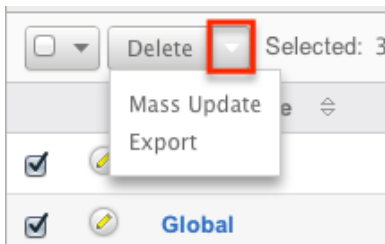
- Select This Page : Selects all records shown on the current page of results
- Select All : Selects all records in the current search results across all pages of results
- Deselect All : Deselects all records that are currently selected



For more information on deleting teams, please refer to the [Deleting Teams](#) section of this documentation.

## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.

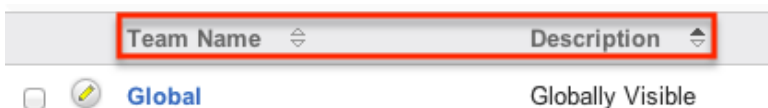


The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more teams at a time
Mass Update	Mass update one or more teams at a time
<a href="#">Export</a>	Export one or more teams to a CSV file

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header for either "Name" or "Description". The list view may be sorted by only one column at a time.



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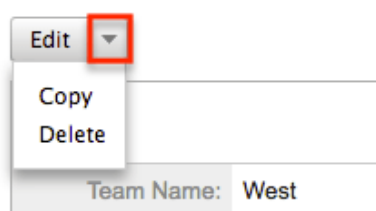
## Teams Detail View

The Teams detail view displays thorough information about the team, as well as the ability to perform most actions related to team management. The detail view also includes a Users subpanel where users can be associated to the team and will therefore take on the team's properties.

### Actions Menu

The Actions menu on the top left of each team's detail view allows you to perform various actions on the current record. Administrator users can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the [System](#) documentation in the Administration guide.

Teams: West



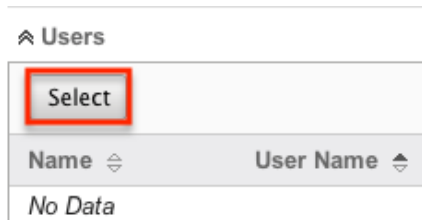
The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit the name and description of this team
<a href="#">Copy</a>	Duplicate this team to create a new team
<a href="#">Delete</a>	Delete this team

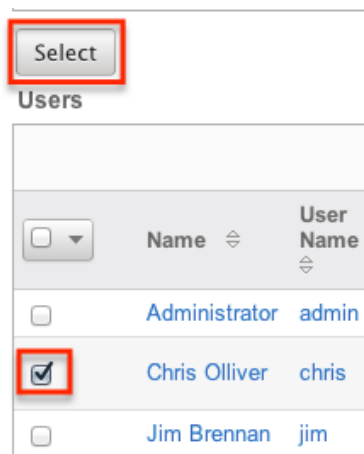
### Users Subpanel

A user has to be associated to a team to be able to take on the team's membership settings. Assigning a user is much like any other many to many relationship in Sugar, where many users can be associated to one particular team, and one user can also be assigned to multiple teams. From Team Management, a user can be associated to a team via the Users subpanel at the bottom of the page. To associate users to a team, follow the following steps:

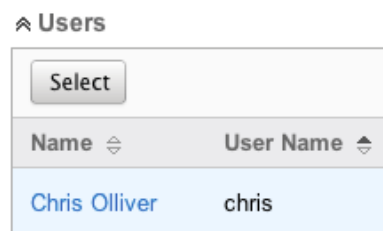
1. Navigate to the detail view of the team that you would like to edit.
2. At the bottom of the page, click "Select User" from the Users subpanel



3. Use the popup search menu to search for and select the user(s) you would like to add to this team. You can either click on the user's name or, if selecting multiple users, click their corresponding checkbox and then click "Select"



4. After selecting the user(s) the popup search box will close and the user(s) will now be displayed in the Users subpanel for the team to complete the relationship



## Next or Previous Record

On the upper right of the Teams detail view, there are two buttons that allow you to page through each team in the Teams list view's current search results. Clicking the Previous button displays the previous team of the current search results while clicking the Next button displays the next team of the current search results. The

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text in between shows which team result you are currently viewing within the total number of current results.

Teams: Chris Olliver



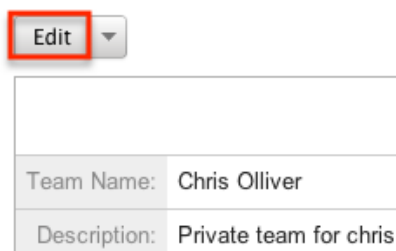
## Editing Teams

Teams may be edited at any time to update or add information to the record or to edit existing information. You can make changes to existing team records via the Teams detail view and edit view, or from the Users module. Edit view is available within the Teams module and includes the Name and Detail fields.

### Editing Via Detail View

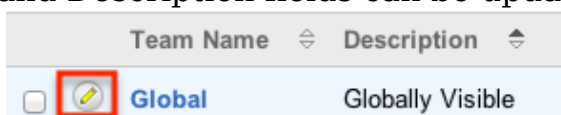
You can edit teams via the detail view by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update either the Name or Description fields, then click "Save" to preserve the changes made.

Teams: Chris Olliver



### Editing Via List View

You can edit teams via the list view by clicking the Pencil icon to the left of each team's name. After clicking the pencil, the window will move to the edit view. Update the necessary fields, then click "Save" to preserve the changes. After saving from the edit view, you will be returned to the detail view for the record that you just updated. Because this method brings you to the edit view, the Name and Description fields can be updated.



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## Editing Via Users Module

The users module allows you to see all of the teams associated to a specific user in one place under the "Access" tab. The page will show the "My Teams" subpanel with a list of all of the teams associated to the user. For more information about viewing the teams from the Users module, please review the [User Management](#) documentation.

On the "My Teams" subpanel, there is an option to edit the team. After clicking the "Edit" button, the window will move to the edit view. Update the necessary fields, then click "Save" to preserve the changes. After saving from the edit view, you will be returned to the detail view for the record that you just updated. Because this method brings you to the edit view, only the Name and Description fields can be updated.



## Deleting Teams

If a team record is invalid or is no longer being used in your organization's Sugar instance, it may be deleted from either the Teams detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once. Deleting team records will not delete any related user records and will only remove the relationship.

The exception to this is found when trying to delete any [private teams](#). Private teams are only able to be deleted when the user that the team is for has been deleted. To delete a private team, first delete the user via the user's detail view, following the steps from [User Management](#).

## Deleting Via Detail View

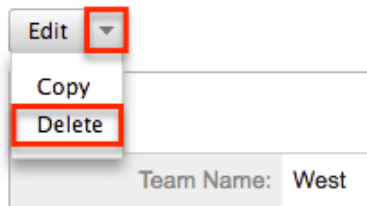
Use the following steps to delete a team via the detail view:

1. Navigate to the team record's detail view.



- 
2. Select "Delete" from the Actions menu.

Teams: West

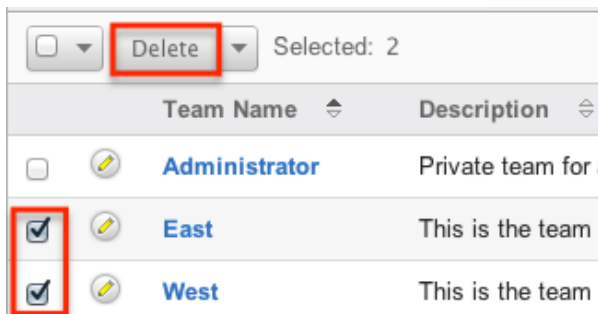


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Deleting Via List View

Use the following steps to delete one or more teams via the list view:

1. Navigate to the Teams list view by navigating to Admin > Team Management.
2. Use the [Search](#) functionality to search to find the Team records you wish to delete.
3. Select the desired team records individually or using the [checkbox dropdown's options](#).
4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of team records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Removing Users From Teams

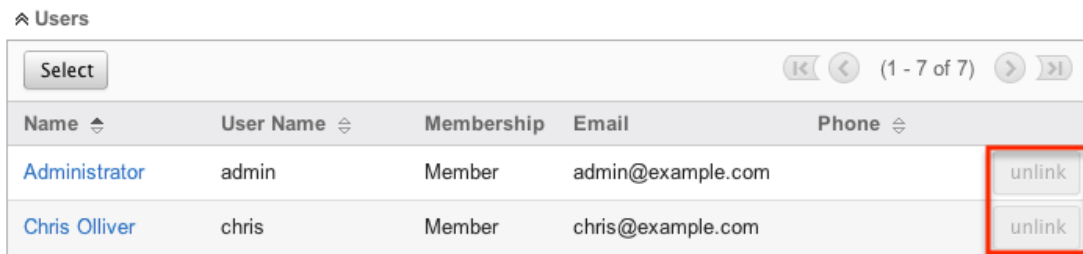
Users can be associated to multiple teams, and one team can also be associated to many users. As changes occur within an organization, there may be times that users need to be removed from specific teams. Breaking the relationship between

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a team and a user can be done both from the Teams detail view and from the Users detail view. Both modules include a subpanel to represent the relationship to the other module.

To remove a user from a team, use the following steps:

1. Navigate to the team record's detail view
2. Click "unlink" to the right of the user's row



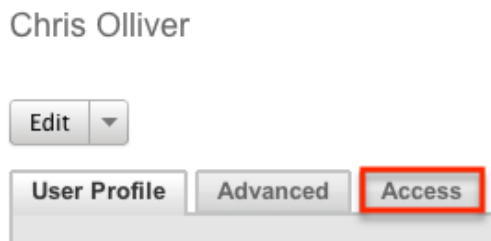
The screenshot shows a table titled "Users" with columns: Name, User Name, Membership, Email, and Phone. There are two rows: "Administrator" and "Chris Olliver". Each row has an "unlink" button to its right, which is highlighted with a red box.

Name	User Name	Membership	Email	Phone	
Administrator	admin	Member	admin@example.com		unlink
Chris Olliver	chris	Member	chris@example.com		unlink

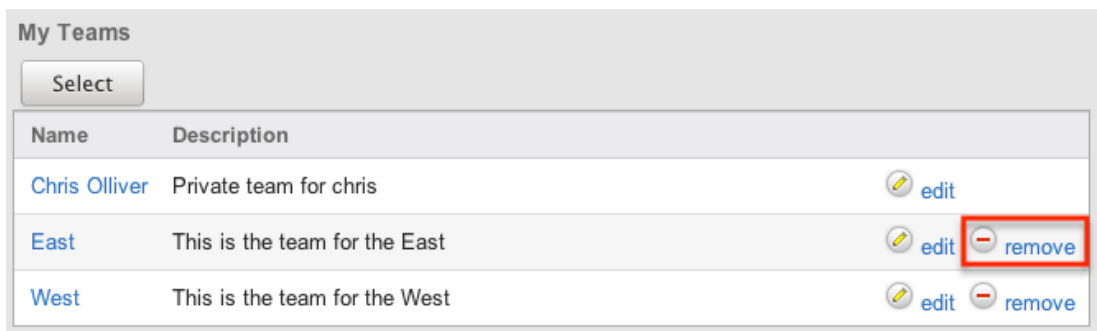
3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

To remove a team from a user, use the following steps:

1. Navigate to the user's detail view
2. From the user's detail view, click on the "Access" tab



3. Scroll past the role chart to the "My Teams" subpanel and click "Remove" on the row of the team you would like to remove



The screenshot shows the "My Teams" subpanel with a table of teams. Each row has an "edit" and a "remove" button. The "remove" button for the "East" team is highlighted with a red box.

Name	Description	edit	remove
Chris Olliver	Private team for chris	edit	
East	This is the team for the East	edit	remove
West	This is the team for the West	edit	remove

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4. A pop-up message will display asking for confirmation. Click "Ok" to proceed

## Repairing Teams

Sugar's Repair menu includes two options to administrators to have automated repairs to make improvements to the Team structures and functionality. These processes should not be needed often, and are only used when the necessary changes are to be made. The repair options are as follows:

Type	Description
<a href="#">Upgrade Teams</a>	Checks to make sure that all users have associated private teams
<a href="#">Repair Teams</a>	A combination of four different repair functions to rebuild team accesses

Last Modified: 01/24/2017 08:15pm

## Role Management

### Overview

Sugar roles define permissions for users such as what kinds of records they can access and what level of access they are allowed. Roles work in conjunction with [Teams](#) to form a robust security model for non-admin users in Sugar. Roles control three different layers of access for users within Sugar: module, field, and action-level access.

Administrators have the ability to create different roles and assign regular users to the roles. A user can be associated to any number of roles, and when multiple roles or role settings are applied, Sugar adheres to a most-restrictive policy to determine the user's appropriate access levels. Administrators cannot be associated to roles as their administrative rights supersede any restrictions imposed by Role Management. For more information on System Administrator users, please review the [User Management](#) documentation.

Note: Roles are only able to allow or deny access to the entire Forecasts module. Because the data used in the Forecasts module makes use of data in the Opportunities, Products, Quotas, Worksheet and TimePeriod modules, the Forecasts module does not respect the module or field-level ACLs specified in these modules. For example, the opportunities data that is shown in the Forecasts module worksheets will be shown and editable regardless of whether or not the user has access to the Opportunities module or has field-level restrictions in that

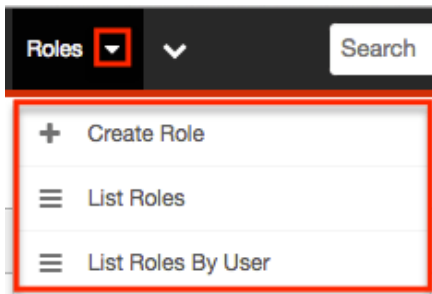
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module.

In addition, the Reports module does not respect certain field-level role restrictions meaning that generated reports may display field data for which a user's role is set to restrict visibility.

## Roles Module Tab

The Roles module tab can be accessed by navigating to the Admin page and clicking "Role Management" in the Users section. Once in the Roles list view, you can click the triangle in the Roles module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of roles you last viewed in the module. Please note that clicking the module tab allows you to access the Roles list view.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Role</a>	Opens the edit view to create a new role
<a href="#">List Roles</a>	Opens the list view layout to search and display roles
<a href="#">List Roles By User</a>	Opens a page for viewing each user's access according to their combined roles

## Creating Roles

There are two methods that can be used to create roles in Sugar: via the Create Role option or by duplicating and then editing an existing role. After initially creating the role, the administrator will need to set the necessary module and field permissions, and assign users to the role.

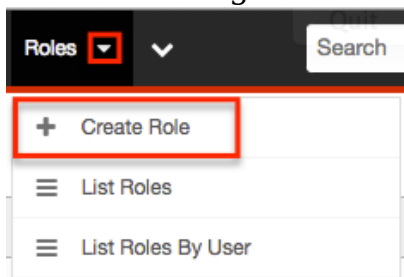
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## Creating Roles Via Role Management

The most common way to create a role is via the Create Role option in the Role Management module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the role.

Use the following steps to create a role via Role Management:

1. Navigate to Admin > Role Management.
  - Note: The [Roles list view](#) will open displaying all existing roles that are currently available.
2. Click the triangle in the Roles module tab and select "Create Role".



3. Enter the appropriate values for fields in the edit view layout. All required fields will indicate "Required" in the field and must be completed prior to saving.
4. On the role chart screen, configure the [module](#) and [field permissions](#), and [assign users to the role](#).

## Creating Roles Via Duplication

You can also create a new role by duplicating an existing role. The duplicate option is useful if the role you are creating has similar information to an existing role.

Use the following steps to create a role by duplicating an existing record:

1. Navigate to a role record's detail view.
2. Click the Actions menu and select "Duplicate".

Customer Support Administrator



3. The displayed edit view is pre-populated with the original role's values.

Update the necessary fields, then click "Save".

4. On the role chart screen, update the [module](#) and [field permissions](#), and [assign users to the role](#).

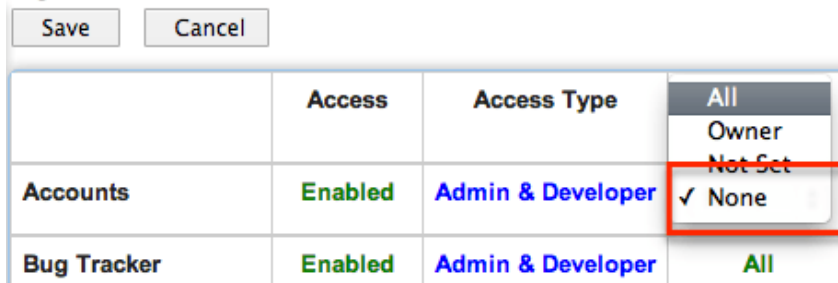
## Setting Module-Level Permissions

The Role Chart is comprised of ten columns and a row for each module down the left-hand side. The columns each represent a type of action within Sugar, and the corresponding points between the columns and module roles define the role's permissions.

	Access	Access Type	Delete	Edit	Export	Import	List	Mass Update	View
Accounts	Enabled	Admin & Developer	None	All	All	None	All	All	All
Bug Tracker	Enabled	Admin & Developer	All	All	All	None	All	All	All

To make changes to a role after it has been created, follow the steps below:

1. Navigate to Admin > Role Management.
2. On the Roles list view, click on the role that you would like to edit.
3. Find the intersection of the action and module you would like to change and click on the square once.
4. A dropdown list will appear giving you the options available for that square.



5. Select the new option that you are changing to.
6. Repeat steps 3-5 on any other fields you would like to change.
7. Click "Save" when complete to secure the changes.

Note: The most restrictive role setting will always take precedence when Sugar has to choose between two or more settings.

Please scroll below this table for an explanation of each configuration option listed in "Standard Cell Options":

Column Header	Standard Cell Options	Description
Module (Blank)	N/A	The module for which the change is being made

Access	Enabled Not Set Disabled	Select whether the user should have any access to this module  Note: If set to disabled, the user will not see a module tab for the module, any subpanels, or be able to access any records from this module.
Access Type	Normal Not Set Admin Developer Admin & Developer	This field can grant users the ability to supersede team settings or access some sections of the Admin menu
Delete	All Owner Not Set None	Restrict users from deleting records in this module
Edit	All Owner Not Set None	Restrict users from editing, creating, or merging records in this module  Note: This role setting affects the create functionality because the process of creating a record functions the same way as editing. It also affects the merge functionality in Sugar which modifies existing records.
Export	All Owner Not Set None	Restrict users from exporting data from this module to their local computers  Note: This role setting affects usage of the Sugar API, which is the framework used for external connections, such

		as the Outlook Plug-in. For more information on exporting, please refer to the <a href="#">Export</a> documentation in the Application guide.
Import	All Not Set None	<p>Restrict users from importing data into this module</p> <p>Note: This role setting affects usage of the Sugar API, which is the framework used for external connections, such as the Outlook Plug-in. For more information on importing, please refer to the <a href="#">Import</a> documentation in the Application guide.</p>
List	All Owner Not Set None	<p>Restrict a user's ability to see records in a list view or subpanel</p> <p>Note: A module's list view will not be visible for users where "List" is set to "None".</p>
Mass Update	All Not Set None	<p>Restrict users from using the Mass Update functionality in this module</p> <p>Note: The Mass Update option will not be visible on the list view's Actions menu when "Mass Update" is set to "None".</p>
View	All Owner Not Set None	<p>Restrict access to the record view of specific records</p> <p>Note: If "View" is set to "None", the module's list view will display record</p>



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	<p>names that are not hyperlinked to the corresponding record view. Users with View permission will be able to click on the record names from list view to see the record's details.</p>
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	<p>If a module's View setting is "None" or "Owner", the access level for "Edit" and "List" must be set to the same value. This will ensure desired functionality for <a href="#">SugarCRM Mobile</a> and other API-based applications.</p>
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The "Access" column provides the following options:

- Enabled : The user is allowed access to this module in Sugar.
- Not Set : The user is neither restricted nor granted access to this module. When permission is "Not Set" the user will default to having "Enabled" access in Sugar.
- Disabled : The user will not be able to access this module, view any of its records, or see any trace of its existence in Sugar.

Note: To ensure proper functionality, a user's access to the Revenue Line Items and Opportunities modules should be consistently configured. The user should not have access to one module without access to the other.

The "Access Type" column provides the following options:

- Normal : The user will be able to perform standard functions in this module barring restrictions from other roles or team settings. The user will not have any type of access to the Admin menu for this module.
- Not Set : The user is neither restricted nor granted access to this module. When permission is "Not Set" the user will default to having "Normal" access in Sugar.
- Admin : The user will supersede any [Teams](#) restrictions for this module and be able to view all records, barring other role restrictions.
- Developer : The user will be given access to the module-specific sections of Studio, Workflow Management, Dropdown Editor, and any other necessary

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menus in Admin that are specific to the module.

Note: For more information on developer tools, please refer to the [Developer Tools](#) documentation.

- Admin & Developer : The user will be given the rights defined with the Admin and Developer role settings.

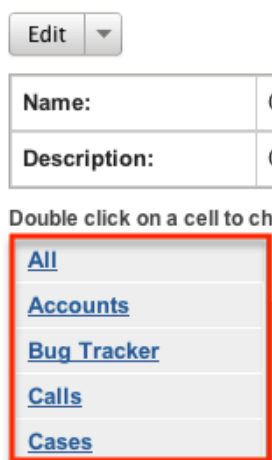
The function specific columns (Edit, Delete, etc.) provide the following options:

- All : The user will be able to perform this action on any and all records that can be accessed in Sugar.
- Owner : The user will only be able to perform this action if he or she is the "Assigned To" user on the record.
- Not Set : The user is neither restricted nor granted access to this function. When permission is "Not Set" the user will default to having "All" access in Sugar.
- None : The user is not able to perform this action while using this module in Sugar.

## Setting Field-Level Permissions

In addition to changing the permissions for specific modules, Role Management also provides the option to set permissions and restrictions on specific fields within modules. To change the field-level permissions on a module, follow the following steps:

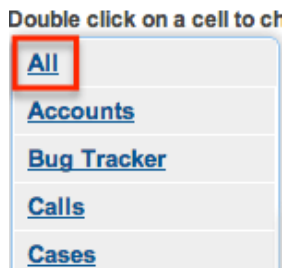
1. Navigate to Admin > Role Management
2. Select the module you would like to edit the field-level permissions for from the far left list



3. On the next screen, find the field that you would like to restrict access for and click the corresponding permission box

Field Permissions			
Type [+]	<input checked="" type="checkbox"/> Not Set <input type="checkbox"/> Read/Write	Annual Revenue [+]	Not Set
Campaign [+]	<input type="checkbox"/> Read/Owner Write <input type="checkbox"/> Read Only <input type="checkbox"/> Owner Read/Owner Write <input type="checkbox"/> None	Created By [+]	Not Set
Employees [+]		Industry [+]	Not Set
Ownership [+]		Member of [+]	Not Set

4. Select the new option to which you are changing
5. Repeat steps 3 and 4 on any other fields you would like to change
6. Click "Save" when complete to secure the changes
7. To access the full details of the role, click the "All" in the top of module list



The field-level access options are explained below:

- Not Set : The user is neither restricted nor granted access to this field. When permission is "Not Set" the user will default to having "Read/Write" access.
- Read/Write : The user will be able to see the value of this field in all views and be able to make changes to it via the record view (for Sidecar modules) or edit view (for Legacy modules) layout.
- Read/Owner Write : The user will be able to see the value of this field in all views but only able to make changes in the record view (for Sidecar modules) or edit view (for Legacy modules) layout if he or she is the "Assigned To" user on the record.
- Read Only : The user will be able to see this field in all views but not make any changes to it in Sugar.
- Owner Read/Owner Write : The user will only be able to see this field in all views and make changes in the edit view or quick edit if he or she is the "Assigned To" user on the record.
- None : This field will appear on the layout (e.g. Record View) but will display "No Access" for Sidecar modules (e.g. Accounts). For Legacy modules (e.g. Quotes), the field will not appear on any layout and will display a blank space for the edit view and detail view layouts.

## Assigning Users to Roles

A user has to be associated to a role to be able to take on the role's permission

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settings. Assigning a role is much like any other many to many relationship in Sugar, where many users can be associated to one particular role, and one user can also be assigned to multiple roles.

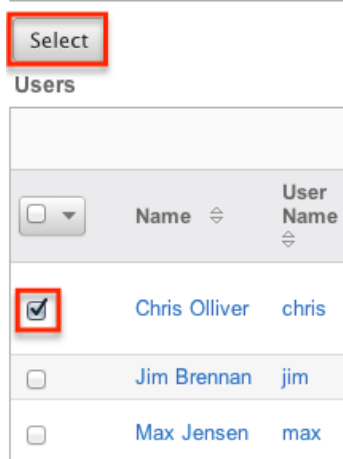
### Assigning Via Role Management

From Role Management, a user can be associated to a role via the Users subpanel at the bottom of the detail view. To associate users to a role, follow the following steps:

1. Navigate to Admin > Role Management
2. From the Roles list view, select the desired role
3. At the bottom of the page, click "Select User" from the Users subpanel



4. Use the popup search menu to search for and select the user(s) you would like to add to this role where you can either click on the user's name or, if selecting multiple users, click their corresponding checkbox and then click "Select"



5. After selecting the user(s), the popup search box will close and the user(s) will now be displayed in the Users subpanel for the role to complete the relationship

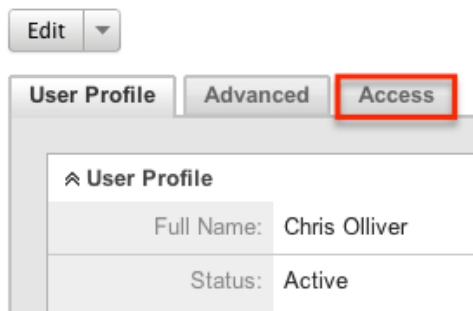
⌄ Users

Name ⌄	User Name ⌄
Chris Olliver	chris

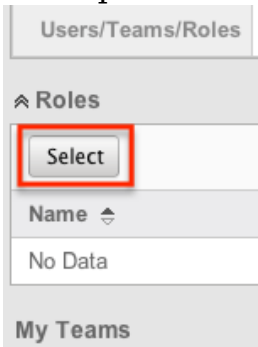
## Assigning Via User Management

From User Management, a user can be associated to a role via the user's detail view. For more information on User Management, please refer to the [User Management](#) documentation. To associate a role to a user via User Management, follow the following steps:

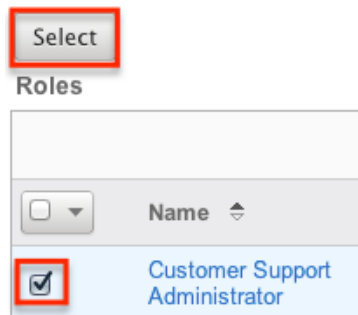
1. Navigate to Admin > User Management
2. From the Users list view, open the user record that you would like to edit
3. From the user's detail view, click on the "Access" tab



4. Scroll past the role chart to the subpanel for "Roles" and click "Select"



5. Use the popup search menu to search for and select the role(s) you would like to add to this user where you can either click on the role's name or, if selecting multiple roles, click the corresponding checkboxes and then click "Select"



After selecting the role(s) the popup search box will close and the role(s) will now be displayed in the Roles subpanel for the user to complete the relationship

## Viewing Roles

There are various options available for viewing role records in Sugar including via the Roles list view, Roles detail view, Roles Recently Viewed menu, the List Roles by User function, and from the Users module.

### Viewing Via List View

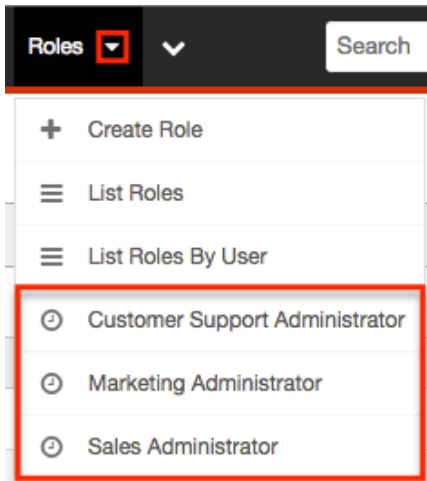
The Roles list view displays all role records meeting the current search criteria. To access the list view, simply navigate Admin > Role Management. Alternately, if you are looking at a role's detail view, you can click the Roles module tab to return to the list view. You can click the role's name to open the record in detail view. For more information on viewing roles via list view, please refer to the [Roles List View](#)

### Viewing Via Detail View

The Roles detail view is where all of the modifications to the role settings can be made. This page includes the name and description of the role, the chart where module settings can be manipulated, links to the field-level action settings, and the Users subpanel where users can be added to the role. For more information on viewing roles via detail view, please refer to the [Roles Detail View](#) section of this documentation.

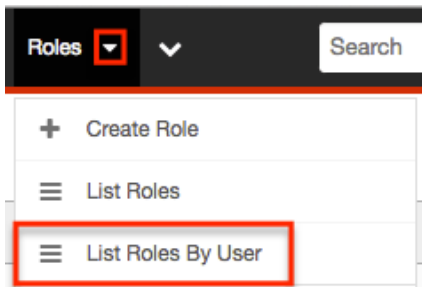
### Viewing Via Recently Viewed

As you access different roles, Sugar will keep track of which roles you have recently viewed. Click the triangle in the [Roles module tab](#) to see a list of the 3 roles you most recently viewed in the module. Clicking the role's name within the list will open it in detail view.



## Viewing Roles by User

Role Management offers the option to view all roles assigned to specific users. Click the triangle in the Roles module tab and select "List Roles By User" to view these roles.



You will be redirected to the [Users](#) module and a screen will appear with a dropdown list with all users' names included. Select the user you would like to view and a chart will show which is a compilation of all of the roles listed for the user in the Roles subpanel, at the bottom of the page.



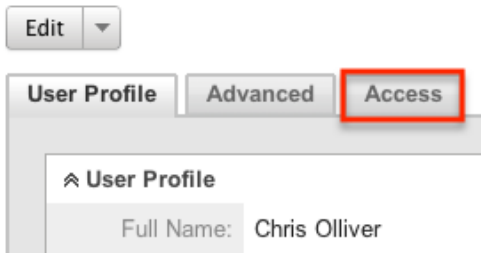
	Access	Access Type	Delete	Edit
Accounts	Enabled	Admin & Developer	All	All
Bug Tracker	Enabled	Admin & Developer	All	All
Calls	Enabled	Normal	All	All

## Viewing Via Users Module

User profiles allow the option to see both what roles the user is associated to and

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how the user's role match together. When viewing a user profile, all role information can be found by navigating to the "Access" tab. For information about accessing the users module, please refer to the [Users](#) documentation.



The access tab contains a chart showing all of the modules and actions available in Role Management. This chart is a compilation of all of the roles listed for the user in the Roles subpanel, at the bottom of the page.

Chris Olliver

The screenshot shows the 'Access' tab selected. It contains a table with the following data:

	Access	Access Type	Delete	Edit
Accounts	Enabled	Admin & Developer	None	All
Bug Tracker	Enabled	Admin & Developer	All	All
Calls	Enabled	Normal	All	All

When viewing the chart, the most restrictive setting for the specific intersection will take precedence, and will represent the option for the user. Therefore, if the user has two roles assigned, one of which allows him or her to delete a record, and another which does not, Sugar will enforce the option where the user cannot delete the record. The table shown in User Management is not able to be edited. Instead, the role itself must be edited which will change the setting for any other users associated to the role.

To view the role settings from User Management and make any necessary changes, simply click the role's name from the Roles subpanel, which will take you to the [role's detail view](#).



Roles	
Name	Description
Customer Support Administrator	Customer Support Administrator Role
Sales Administrator	Sales Administrator Role

## Searching Roles

The Roles list view search function allows you to search for the name of the role to help you locate records easily and effectively. Once the search is performed, the relevant results will be displayed in the Roles [list view](#) below.

The buttons in the search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search
- Clear : Click the Clear button to clear all criteria from the searchable fields

To see all Role records, simply click "Clear" and then "Search" to perform a blank search with no name filter.

### Roles

Name	<input type="text"/>	Search	Clear
<input type="checkbox"/>	Delete		

Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %Administrator). This will pull up any record that has the word "administrator" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used, please refer to the Search documentation.

## Roles List View

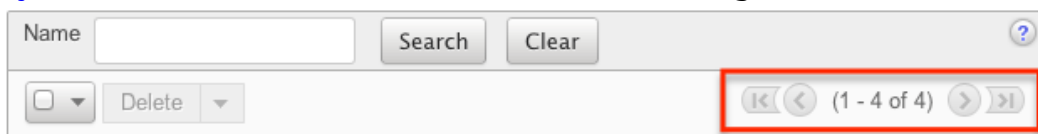
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The Roles list view displays all roles meeting the current search criteria, if any. You can view the name and description of each role within the field columns. Click on the name of the role to access the [detail view](#) for the role and review the settings further.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

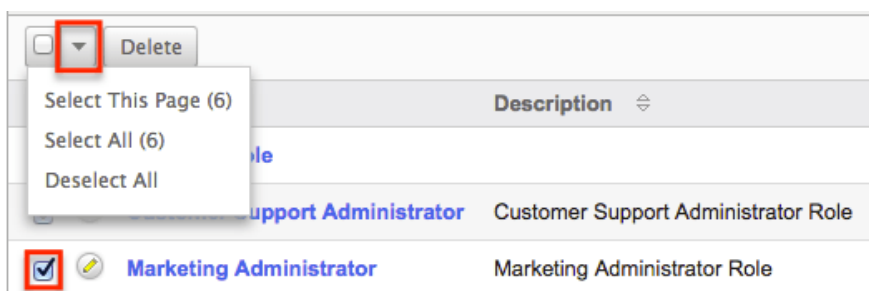
By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via the System menu in Admin. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

Roles can be deleted in a mass-delete fashion via the list view by selecting all of the role records. To select individual role records on the Roles list view, mark the checkbox on the left of each row. To select or deselect multiple roles on the list view, use the options in the checkbox dropdown menu:

- Select This Page : Selects all records shown on the current page of results
- Select All : Selects all records in the current search results across all pages of results
- Deselect All : Deselects all records that are currently selected

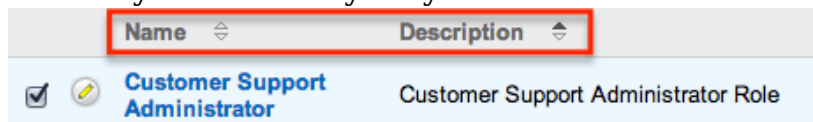


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For more information on deleting roles, please refer to the [Mass Deleting Via List View](#) section of this documentation.

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header for either "Name" or "Description". The list view may be sorted by only one column at a time.

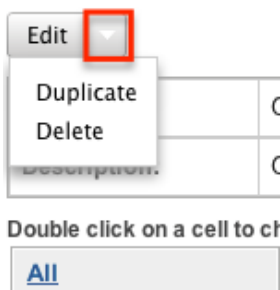


## Roles Detail View

The Roles detail view displays thorough information about the role, as well as the ability to perform most actions related to role management. It comprises of a chart showing all modules in Sugar and actions that the user can have access to or be restricted from. The detail view also provides links to drill down into each module to make field level permission changes. Finally, the detail view includes a Users subpanel where users can be associated to the role and will therefore take on the role's properties.

## Actions Menu

The Actions menu on the top left of each role's detail view allows you to perform various actions on the current record. Administrator users can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the [System](#) documentation in the Administration guide.



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
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<a href="#">Edit</a>	Edit the name and description of this role
<a href="#">Duplicate</a>	Duplicate this role to create a new role
<a href="#">Delete</a>	Delete this role

## Module-Level Permissions

The Role Chart comprises of ten columns and a row for each module down the left hand side. The columns each represent a type of action within Sugar, and the corresponding point between the columns and module roles defines the role's permissions. The role permissions are able to be updated from the detail view of each role. For an explanation on each action and how to update roles, please review the [Setting Module-Level Permissions](#) section of this documentation.

	Access	Access Type	Delete	Edit	Export	Import	List	Mass Update	View
Accounts	Enabled	Admin & Developer	None	All	All	None	All	All	All
Bug Tracker	Enabled	Admin & Developer	All	All	All	None	All	All	All

## Field-Level Permissions

In addition to changing the permissions for specific modules, Role Management also provides the option to set permissions and restrictions on specific fields within modules. The field-level permissions are able to be updated from the detail view of each role. For an explanation on each action and how to update field-level permissions, please review the [Setting Field-Level Permissions](#) section of this documentation.

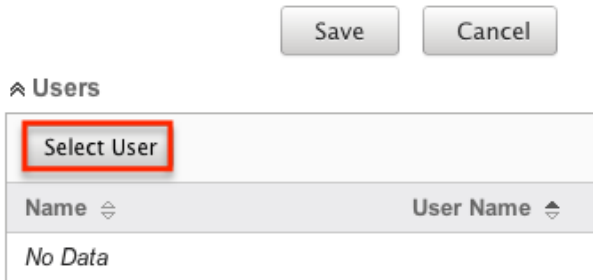
Field Permissions

Type <a href="#">[+]</a>	Not Set	Annual Revenue <a href="#">[+]</a>	Not Set	Assigned to <a href="#">[+]</a>	Not Set	Billing Street <a href="#">[+]</a>	Not Set
Campaign <a href="#">[+]</a>	Not Set	Created By <a href="#">[+]</a>	Not Set	Description <a href="#">[+]</a>	Not Set	Email Address <a href="#">[+]</a>	Not Set
Employees <a href="#">[+]</a>	Not Set	Industry <a href="#">[+]</a>	Not Set	Modified By Name <a href="#">[+]</a>	Not Set	Name* <a href="#">[+]</a>	Not Set

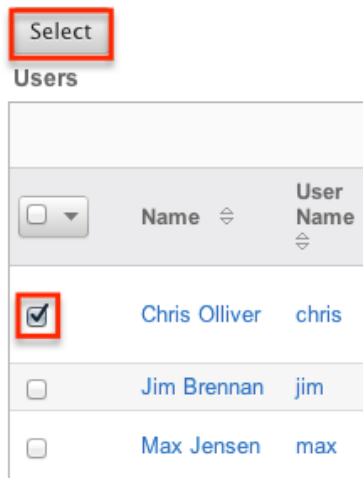
## Users Subpanel

A user has to be associated to a role to be able to take on the role's permission settings. Assigning a role is much like any other many to many relationship in Sugar, where many users can be associated to one particular role, and one user can also be assigned to multiple roles. From Role Management, a user can be associated to a role via the Users subpanel at the bottom of the page. To associate uses to a role, follow the following steps:

- 
1. Navigate to the detail view of the role that you would like to edit.
  2. At the bottom of the page, click "Select User" from the Users subpanel.



3. Use the popup search menu to search for and select the user(s) you would like to add to this role. You can either click on the user's name or, if selecting multiple users, click their corresponding checkbox and then click "Select".



After selecting the user(s) the popup search box will close and the user(s) will now be displayed in the Users subpanel for the role to complete the relationship.

## Editing Roles

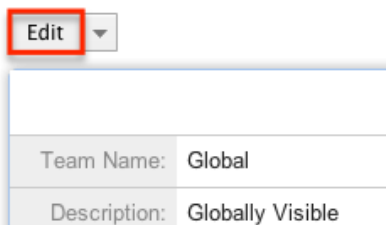
Roles may be edited at any time to update or add information to the record or to edit the role restrictions. You can make changes to existing role records via the Roles detail view and edit view, depending on the change being made. Changes via the detail view are made directly on the role permission chart. Edit view is available within the Roles module and includes the Name and Detail fields.

### Editing Via Detail View

You can edit roles via the detail view by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update either the Name or Description fields, then click "Save" to preserve the changes made.

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Teams: Global

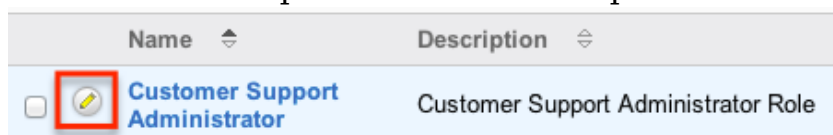



The image shows a dropdown menu with the word "Edit" highlighted in a red box. Below the menu is a form with two fields: "Team Name: Global" and "Description: Globally Visible".

Edits to the settings on the role are also performed via the detail view. Below the Name and Description fields, is where you will find the role permission chart. This chart is made up of rows representing the different modules in Sugar, and columns representing each of the action types Sugar users can perform. Edits to this table are made by clicking the box at the intersection of a row and column, which produces a dropdown list of available options. For more information on module permission changes, please review the information in the [Setting Module-Level Permissions](#) section of this documentation.

## Editing Via List View

You can edit roles via the list view by clicking the Pencil icon to the left of each role's name. After clicking the pencil, the window will move to the edit view. Update the necessary fields, then click "Save" to preserve the changes. After saving from the edit view, you will be returned to the detail view for the record that you just updated. Because this method brings you to the edit view, only the Name and Description fields can be updated.



Name	Description
 Customer Support Administrator	Customer Support Administrator Role

## Editing Via Users Module

The users module allows you to see all of the roles associated to a specific user in one place under the "Access" tab. The page will show a subpanel with a list of all of the roles associated to the user. For more information about viewing the roles from the Users module, please review [Viewing Via Users Module](#).

On the "Roles" subpanel, there is an option to edit the role. After clicking the "Edit" button, the window will move to the edit view. Update the necessary fields, then click "Save" to preserve the changes. After saving from the edit view, you will be returned to the detail view for the record that you just updated. Because this method brings you to the edit view, only the Name and Description fields can be updated.

## Roles

Name	Description	
Customer Support Administrator	Customer Support Administrator Role	edit
Sales Administrator	Sales Administrator Role	edit

## Deleting Roles

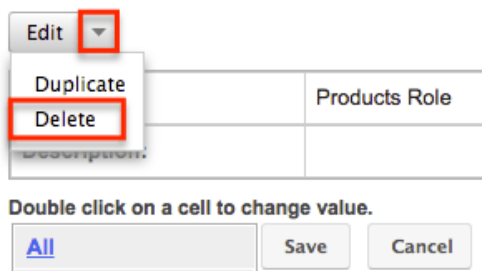
If a role record is invalid or is no longer being used in your organization's Sugar instance, it may be deleted from either the Roles detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once. Deleting role records will not delete the related user records and will only remove the relationship.

### Deleting Via Detail View

Use the following steps to delete a role via the detail view:

1. Navigate to the role record's detail view.
2. Select "Delete" from the Actions menu.

#### Products Role



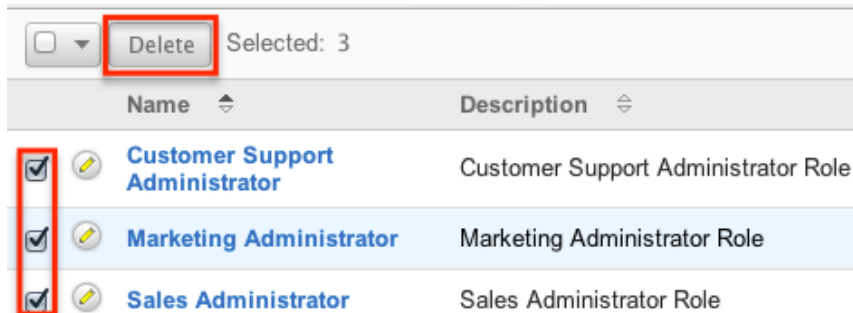
3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

### Mass Deleting Via List View

Use the following steps to delete one or more roles via the list view:

1. Navigate to Admin > Role Management.
2. Use the [search functionality](#) to find the Role records you wish to delete.

- 
3. Select the desired role records individually or using the [checkbox](#) [dropdown](#)'s options.
  4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of role records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Last Modified: 08/22/2017 06:57pm

## Password Management

### Overview

Password Management is used to administer requirements and other policies about user passwords in Sugar. Sugar allows administrators to set up system-generated passwords versus manually created passwords for new users, failed login lockout attempts, and configure the email templates used to send password information to users. Password management is not used to change user's passwords, which can be done via their [User Profile](#).

### Password Requirements

The Password Requirements panel lets you configure minimum and maximum lengths of passwords, as well as what characters are required in passwords. Filling in either of the first two fields, Minimum Length and Maximum Length, will force a requirement for your users to have passwords be more than or less than a given amount of characters. Additionally, use any of the four checkboxes to force character requirements on users' passwords. This can force users to include upper case letters, lower case letters, numbers, or special characters in their passwords.



Password Requirements			
Minimum Length:	<input type="text" value="5"/>	Maximum Length:	<input type="text" value="10"/>
Must contain one upper case letter (A-Z):	<input checked="" type="checkbox"/>	Must contain one lower case letter (a-z):	<input checked="" type="checkbox"/>
Must contain one number (0-9):	<input checked="" type="checkbox"/>	Must contain one of the following special characters (-,!,@,#,\$,%^,&*,(,),_,+,-,=,{,}, ):	<input type="checkbox"/>

## Advanced Options

You can also specify words or other strings that are not allowed in a password, called Regex Requirements. The configurations for Regex Requirements are found in the Advanced Options section of the Password Requirements panel.

Must contain one number (0-9):	<input checked="" type="checkbox"/>	Must contain one of the following special characters (-,!,@,#,\$,%^,&*,(,),_,+,-,=,{,}, ):	<input type="checkbox"/>
<div style="border: 1px solid red; padding: 2px; display: inline-block;">             Hide Advanced Options           </div>			
Regex Requirement:	<input type="text"/>	Regex Description:	<input type="text"/>

To set a Regex Requirement, type in code of characters that are not allowed. In the Regex Description field, write a message to users that will show when they try to edit their passwords, explaining what strings are not allowed. For more information on Regex usage, please review the Regular Expressions website at <http://www.regular-expressions.info/>.

Some examples of regular expressions in password rules are listed below:

Sample Expression	Password Rule
Sugar	Password cannot contain the word Sugar.
([A-Za-z0-9])\1	Password cannot repeat a letter or number consecutively; for example, AA or 88.
([a-zA-Z]){4,}	Password cannot repeat any two consecutive letters; repeat characters or letters must be separated by a special character such as %.
[ \t]	Password cannot contain spaces and tabs.
[@#\$]	Password cannot contain @, #, or \$.

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## System-Generated Passwords

When enabled, the System-Generated Passwords feature will allow users to receive a randomly generated password via email. This functionality is utilized either when a new user is created or when an administrator activates the Reset Password button in the [user's profile](#).

The two requirements to utilize system-generated passwords are:

- A user has a valid primary email address configured in their [User Profile](#).
- A system outbound email server (SMTP) is configured in [Email Settings](#).

For security reasons, when the System-Generated Passwords feature is enabled, you also have the option to set an expiration for the system-generated password. You can specify when the temporary password expires, either after a certain amount of days, months, or weeks, or after a specified number of logins. Simply click the radio button next to the expiration you would like to use and enter the login or length of time variable as necessary, or click "None" for the password to never expire. Once the temporary password expires, users will see a message upon login, informing them that the password has expired and to create a new password. The user will need to enter the temporary password along with the new password and confirm the password as well.

The screenshot shows a configuration panel for "System-Generated Passwords". At the top, the title "System-Generated Passwords" is displayed. Below it, there is a checkbox labeled "Enable System-Generated Passwords Feature" which is checked. An information icon (i) is next to the checkbox. A warning message is displayed in a light gray box: "Warning: An SMTP server for outbound emails is not configured in Email Settings. It must be configured in order to send passwords to users. A primary email address is required for each user in order to use this feature." Below the warning, the section "System-Generated Password Expiration" is shown. It contains three radio buttons: "None", "Password Expires in 7 day(s)", and "Password Expires upon [ ] logins". The "Password Expires in 7 day(s)" option is selected, indicated by a blue dot. The "day(s)" label is in a gray box with a dropdown arrow. The "Password Expires upon [ ] logins" option is unselected, indicated by a gray dot.

## User Reset Password

The forgot password feature allows administrators to enable the Forgot Password link to display in the Sugar login window. If a user does not remember their password, they can click this option, enter their user name and their primary email address in Sugar, and a Reset Password link will be emailed, guiding them through the process to reset their forgotten password. For more information on how a user resets his or her password, please view the [Getting Started](#) documentation.

The two requirements to utilize Forgot Password feature are:

- A user has a valid primary email address configured in their [User Profile](#).
- A system outbound email server (SMTP) is configured in [Email Settings](#).

## CAPTCHA Validation

As an additional precaution, you can enable CAPTCHA validation to prevent automated programs from gaining unauthorized access to user accounts. When enabled, when a user attempts to use the Forgot Password feature, they will have to confirm a CAPTCHA, in addition to providing their user name and primary email address.



The screenshot shows a web form titled "Forgot Password?". It contains three input fields: "User Name:", "Email Address:", and "Enter the Two Words Below:". Below the third field is a CAPTCHA image showing the words "which" and "I've got" in a stylized font. Below the CAPTCHA image are two links: "Get another CAPTCHA" and "Switch to Sound". A "Submit" button is located at the bottom of the form.

Use the following steps to enable CAPTCHA for the Forgot Password menu:

1. Create an account with reCAPTCHA from the reCAPTCHA website at <https://www.google.com/recaptcha>.
2. After creating an account, save your Public Key and Private Key which will be entered into Sugar
3. In Sugar, navigate to Password Management and the "User Reset Password" panel
4. Click the checkbox to Enable reCAPTCHA Validations
5. Enter the Public Key and Private Key in the fields provided



The screenshot shows the "Enable reCAPTCHA Validations:" section of the Sugar configuration panel. The checkbox is checked. Below this are two input fields: "Public Key\*" with the value "6LFYwt4SAAAAAL9n5HszJa2R1XdSPkUh97TJPC" and "Private Key\*" with the value "6LFYwt4SAAAAABOaGTJJ0a8TT".

## Honeypot Validations

Honeypots are a nonintrusive method of human form submission confirmation that

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is more effective than traditional CAPTCHA. Enabling the honeypot validation option will add an invisible input field to the Forgot Password form which only bots reading the HTML will be able to see. When the bots fill in the honeypot field, Sugar knows to disregard the submission since it was not created by a human, thus preventing unauthorized access to your Sugar instance.

Enable reCAPTCHA Validations : <i>i</i>	<input type="checkbox"/>
Enable Honeypot Validations: <i>i</i>	<input checked="" type="checkbox"/>

## Email Templates

Sugar comes standard with two password templates. One is for the [System-Generated Password](#) emails that are sent out, and the other is for the [Reset Password](#) email. The templates are editable through Password Management and new ones can also be created. To create a new version of either template, click the Create button on the specific line. To edit the existing template, click the Edit button on the specific line.

Email Templates	
Email template containing system-generated password:	System-generated password email <input type="button" value="Create"/> <input type="button" value="Edit"/>
Email template containing system-generated link to reset password:	Forgot Password email <input type="button" value="Create"/> <input type="button" value="Edit"/>

Templates can also be viewed via the Emails module by navigating to the Email Templates list view. The templates are easily found as the Type is blank, whereas any other template will be either a Campaign, Email, or Workflow template. For more information on [Email Templates](#), please review the appropriate section of the application guide.

Note: If you choose to create your own templates to send passwords, copy the variables provided in the default template. The variables "\$contact\_user\_link\_guid" from the "Forgot Password Email" and the "\$contact\_user\_user\_hash" and "\$config\_site\_url" are not available from the variable dropdowns when creating the templates.

Name	Type	Description
<input type="checkbox"/> <b>System-generated password email</b>	Campaign Email Workflow	This template is used when the System Administrator sends a new password to a user.
<input type="checkbox"/> <b>Forgot Password email</b>		This template is used to send a user a link to click to reset the user's account password.

## User-Generated Password Expiration

Sugar can force users to create new passwords after a given period. Admins can configure this for either specific amounts of time in days, weeks, or months, or after a specific amount of logins. To configure a password expiration, select the radio button next to the expiration period you would like to use and enter the timeframe or amount of logins that the user will be allotted. Once the password expiration is reached, users will see a message upon login, informing them that their password has expired and to create a new password. The user will need to enter their current password along with their new password and confirm the password as well.

**User-Generated Password Expiration**

None
  Password Expires in  day(s)
  Password Expires upon  logins

## Login Lockout

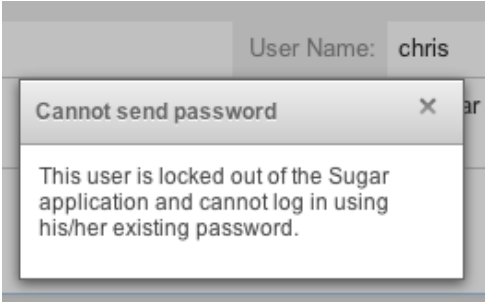
To prevent against unauthorized logins, Sugar includes a configurable lockout function. This means that you will define a specific amount of unsuccessful attempts that a user name can be used to log in before the user name will not be able to log in. You also configure a given amount of time before the restriction is listed in either minutes, hours, or days. To configure Login Lockout, click the radio button next to "Lockout users after {blank} unsuccessful login attempts", fill in the maximum number of attempts allowed and define the timeframe.

**Login Lockout**

None  Lockout users after 5 un-successful login attempts

Enable login again after: 30 Minutes

Note: When a user has been locked out, the user must wait until the given timeframe has passed. The only way to manually allow a user to log back in is by clicking the [Reset User Preferences](#) button in the user's profile.



## External Authentication

Sugar can respect external authentication protocols (i.e. LDAP and SAML) to give users a seamless login process. LDAP and SAML configuration options are located in the last two panels of the Password Management page. Click the checkbox next to the external authentication type that you would like to enable. Upon selection, the page's contents will refresh and the chosen protocol will supersede any other Password Management settings.

**LDAP Support**

Enable LDAP Authentication

**SAML Authentication**

Enable SAML Authentication

The following sections explain [LDAP](#) and [SAML](#) options in more detail.

Note: [Team Management](#) and [Role Management](#) are still taken into account when External Authentication is active.

### LDAP

Sugar can be configured to accept Lightweight Directory Access Protocol (LDAP) authentication if your organization has implemented LDAP or Active Directory

authentication. When users in your system attempt to log into Sugar, the application will authenticate their credentials against your LDAP directory or Active Directory. If authentication is successful, the user is granted access to Sugar. If the authentication is unsuccessful, Sugar will then attempt to verify the provided credentials against its own database of valid user names and passwords.

To configure LDAP, navigate to Admin > Password Management, and click the "Enable LDAP Authentication" checkbox near the bottom of the screen. All other screen options will be removed and you will be presented with a page of only options for LDAP.

Fill in the appropriate options in the following fields, and then click "Save" to commit the changes. We have suggested values for each field, but these may vary depending on your LDAP configuration.

Field	Suggested Values	Description
Authentication	Enter "username@MYSERVER.MYDOMAIN.com" or "domain\\\\"userfirstname.userlastname" for the User Name, and the corresponding Password.  Note: The latter username format requires double backslashes after the domain. Sugar will automatically remove one backslash upon Save.	Check this box to enable the User Name and Password fields.  Note: You must add a service account user (read-only access) to your Active Directory to authenticate via Sugar.
Auto Create Users	Typically, this box remains disabled.	Select this checkbox to create the username in the

		<p>Sugar database if it does not already exist.</p> <p>Note: When enabled, a Sugar user is created for every LDAP user logging into the application. This will occupy an active Sugar license for each created user.</p>
Bind Attribute	For Active Directory, enter userPrincipalName	A case-sensitive value
Enable LDAP Authentication		Uncheck this box if you would like to disable LDAP in your instance.
Encryption Key		<p>If you are using LDAP with SOAP, enter the encryption key to encrypt user passwords in the <a href="#">Sugar Plug-in for Microsoft Outlook</a>.</p> <p>Note: The "php_mcrypt" extension must be enabled in the php.ini file.</p>
Group Membership	<p>Group DN : Enter the group DN name</p> <ul style="list-style-type: none"> <li>• ou=groups</li> <li>• dc=example</li> <li>• dc=com</li> </ul> <p>Group Name : Enter the group name</p> <ul style="list-style-type: none"> <li>• cn=sugarcrm</li> </ul> <p>User Attribute : A unique identifier used to check if the user is a member of the group</p>	Select this checkbox if you wish to specify that the user is a member of a specific group.



	<ul style="list-style-type: none"> <li>• uid</li> </ul> <p>Group Attribute : The attribute of the group that will be used to filter against the User Attribute</p> <ul style="list-style-type: none"> <li>• MemberUid</li> </ul>	
Login Attribute	For Active Directory, enter sAMAccountName	A case-sensitive value
Port Number	389	Enter the port number. 389 is the default port.
Server	MYSERVER.MYDOMAIN.com	Enter the FQDN of your Active Directory Server which should be your Domain Controller.
User DN	ou=people, dc=example, dc=com	Enter the user DN name.
User Filter	is_user_id=1	Enter any additional parameters to apply when authenticating users.

## SAML

Sugar can be configured to accept Security Assertion Markup Language (SAML) for single sign-on if it is implemented at your organization. When users in your system attempt to log into Sugar, the application will authenticate them against SAML. If authentication is successful, the user is granted access to Sugar. If the authentication is unsuccessful, Sugar will then attempt to verify the provided credentials against its own database of valid user names and passwords. Sugar supports the use of SAML versions 1.1 and 2.0.

To configure SAML, navigate to Admin > Password Management, and click the "Enable SAML Authentication" checkbox near the bottom of the screen. All other screen options will be removed and you will be presented with a page of only options for SAML.

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### SAML Authentication

Enable SAML Authentication  *i*

Login URL *i* \*

SLO URL *i*

X509 Certificate *i* \*

Load login screen in same window to avoid pop-up blocking  *i*

Fill in the appropriate options in the following fields, and then click "Save" to commit the changes.

- Enable SAML Authentication : Uncheck this box if you would like to disable SAML Authentication in your instance.
- Login URL : Enter the SAML URL for authentication. This is the path to the SAML server to which you are authenticating.
- SLO URL : Enter the Single Logout URL.
- X509 Certificate : Enter the SAML X509 certificate public key.
- Load login screen in same window to avoid pop-up blocking : Enable this option to load the SAML login screen in the current window to prevent pop-up blockers from preventing single sign-on.

If you are using OneLogin, please ensure that only the email address user field is mapped to Sugar's email address field in OneLogin's parameters configuration. Mapping to other fields such as user name is not supported and may prevent authentication.

Note: You must disable the [Forgot Password](#) option if you are using SAML authentication.

## Setting User Passwords

Administrators have the option to manually set or reset user's passwords as need be. Setting a regular user's password is done simply through the Users module via Admin > User Management. This method will vary depending on the [System-Generated Passwords](#) option. For more information on changing a user's

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password from the Users module, please review the [Resetting User Passwords](#) section of the Users documentation.

Last Modified: 09/14/2017 10:47am

## User Management

### Overview

The User Management module provides administrators access to create, edit, activate, and deactivate the profiles of all the users in their Sugar instance. This module and underlying settings control each individual's login credentials as well as some personalized settings. During the installation process, Sugar creates one system administrator by default. The system administrator can log in and create additional users, in a variety of capacities, to be able to access Sugar and utilize all of the other CRM functionality. In combination with the role and team security, administrators can fully establish a profile for each user in Sugar.

### User Types

There are four different types of users in Sugar: Regular User, System Administrator, Group User, and Portal API User. Each user type has different functions and uses in Sugar which will vary for each instance. Depending on an organization's use of Sugar, not all of these user types will necessarily be used.

Note: Users with an inactive status do not count towards the number of Sugar licenses purchased for the organization. Group Users and Portal API Users never count against the number of Sugar licenses regardless of status.

### Regular User

A regular user is the most common of the user types. A majority of employees of an organization will be regular users. This user can access most Sugar modules and perform most every day-to-day function. Regular users are subject to be restricted in their abilities and what records they can access by an administrator using the [Teams](#) and [Roles](#) functionalities in Sugar.

Regular Users will appear in the [Employees](#) module. To create a Regular User, please review the [Regular and Admin Users](#) section of this documentation.

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## System Administrator

System Administrator users, or "admins," have all of the abilities and functionality of a regular user, but also have administrative privileges as well. Admins can perform functions such as creating and editing users, editing system wide settings, and have access to diagnostic and troubleshooting tools. In addition, admins can access all modules and records, and are not subject to team or role restrictions. All instances of Sugar require at least one administrator, but it is also recommended to have more than one in case the original admin is unavailable or is no longer with the company.

System Administrators will appear in the [Employees](#) module. To create a System Administrator, please review the [Regular and Admin Users](#) section of this documentation.

Note: All administrators where the user status is active count as a licensed user.

## Group User

A Group User is a bucket that is used for assigning records to a non-specific user (e.g. Sales, Support) in the organization. Unlike a Regular or System Administrator user, a Group user does not have access to log in to Sugar. Due to this, they do not have the same profile settings available, including the option to set a password. Since Group users cannot log in to Sugar, they do not count against an organization's license count.

Examples of uses for a Group user would be to assign all new leads to a group user named "Sales" or assign all new support cases to "Support" before they are delegated to specific users (e.g., John Smith) in the organization.

Please note that Group users will not appear in the [Employees](#) module. For more information on how to create a Group user, please review the [Group Users](#) section of this documentation.

## Portal API User

A Portal API User is similar to a Group User except that it is created specifically to communicate with the Sugar server using the Sugar Portal SOAP API functionality. It is intended only for use with Sugar Portal and is enabled when the Sugar Portal is enabled via Admin > Sugar Portal. It must remain enabled in order for portal users to authenticate. Using legacy Sugar Portal (an external application) also requires the enablement of this user. This user can only be used to authenticate contact credentials against SOAP V1 portal API methods in Enterprise and

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Ultimate editions. To create a Portal API user, please review the [Portal API Users](#) section of this documentation.

Portal API Users will not appear in the [Employees](#) module and are not counted in the user license agreement. More information about the Sugar Portal can be found in the Sugar Portal documentation. Sugar's API documentation can be found in the Web Services section of the Developer guide.

Note: The Portal API user is not intended to be a free API user for external integrations and has very limited functionality through the SOAP API.

## User Fields

The Users module contains a number of stock fields, which are included out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but many of the fields can be leveraged differently to best meet your organization's needs. System Administrators have the ability to alter, remove, or add fields in the User Profile tab via Admin > Studio, minus a few noted exceptions. For more information on adding or modifying fields, please refer to the [Studio](#) documentation in the Administration guide.

The User Profile tab contains the contact information for the user and other important user-specific settings. The User fields are as follows:

Field	Description
Address City	The city of the user's address
Address Country	The country of the user's address
Address Postal Code	The postal code of the user's address
Address State	The state of the user's address
Address Street	The street name and number of the user's address
Avatar	Upload an image to this field to represent the user that will be shown on the <a href="#">Activity Stream</a> and next to the user's name on the navigation bar
Department	The department where this user works
Description	A description or other information about this user
Display Employee Record	Check this box if the user should have an employee record show in the <a href="#">Employees</a> module

Email Address	<p>The user's email addresses, where a primary address is selected to receive email notifications and if this should be a reply to address when using Sugar's outbound email (SMTP) functionality</p> <p>Note: This field is not editable in studio</p>
Email Client	<p>When clicking on an email address in Sugar, this will determine if Sugar's email editor will open, or if the user's primary email program on this computer (e.g. Microsoft Outlook, Apple Mail, etc.) will open</p> <p>Note: This field is not editable in studio</p>
Employee Status	<p>The user's employment status in the organization (Active, Terminated, or Leave of Absence)</p> <p>Note: The Employee Status and Status fields are managed separately, so consider choosing a new employee status when the Status field changes.</p>
Fax	The user's fax number
First Name	The user's first name
Home Phone	The user's home phone number
IM Name	The user's instant message screen name
IM Type	The user's instant message service type
Last Name	The user's last name
Mobile	The user's mobile phone number
Other Phone	An additional phone number for the user
Reports to	<p>Use this field to select this users manager. The user that this user reports to will become an implicit member of this user's <a href="#">Teams</a> and will also affect <a href="#">forecasting</a></p> <p>Note: This field is not editable in studio</p>
SMTP Password	If an outgoing email server is defined in Admin > <a href="#">Email Settings</a> , the user's SMTP password can be input here to

	<p>send mail through Sugar</p> <p>Note: This field is not editable in studio</p>
SMTP Username	<p>If an outgoing email server is defined in Admin &gt; <a href="#">Email Settings</a>, the user's SMTP user name can be input here to send mail through Sugar</p> <p>Note: This field is not editable in studio</p>
Status	<p>Making a user inactive will make it so this user cannot log in to Sugar. This will also remove the user from taking a license seat, without having to <a href="#">delete</a> the user. When making a user inactive, the admin is prompted to use the <a href="#">Reassign Records</a> function.</p> <p>Note: The Employee Status and Status fields are managed separately, so consider choosing a new employee status when the Status field changes.</p>
Title	The user's job title
User Name	<p>The user name will be what the user logs in to Sugar with on the login page. It will also show for other users when they view fields such as "Assigned to" and "Created By". This is the name that will define the specific user in Sugar and should be unique for every user.</p> <p>Note: Spaces may not be included in user names.</p>
User Type	<p>This is where the admin can decide to grant a regular user <a href="#">System Administrator</a> access to Sugar</p> <p>Note: This field is not editable in studio</p>
Work Phone	The user's work phone number

The Advanced tab in the user's profile includes settings to configure how Sugar will function for that specific user. The fields in the Advanced tab cannot be edited in Studio.

Field	Description
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1000s Separator	Select a character to use as a 1000's separator, with an example showing in the "Example" box
System Significant Digits	Define how many digits will appear after the decimal point when the user views a currency field, with an example showing in the "Example" box
Data Font Size	The default font size of the PDF body when generated by this user
Date Format	How date fields will appear for the user, with the ability to control month, day, and year formatting
Decimal Symbol	Select a character to use as a decimal symbol, with an example showing in the "Example" box
Default Teams	<p>A default team defines the team set when this user creates a record. Whenever this user creates a record, the team is set as the user's default team, similar to how the "Assigned To" field is set to be the created user.</p> <p>Note: Users can be assigned any number of default teams</p>
Export Delimiter	Character or characters used to delimit exported data by this user
First Day of Week	Which day of the week will show as the first day when the user views the Sugar calendar
Font for Footer	Select a font for the footer in PDF documents when generated by this user
Font for Header and Body	Select a font for the header and body of PDF documents when generated by this user
iCal integration URL	URL in which someone can subscribe to the user's Sugar calendar within iCal or other programs that support iCal integrations
Import/Export Character Set	The default character set used for imports, exports, and vCard generation for this user

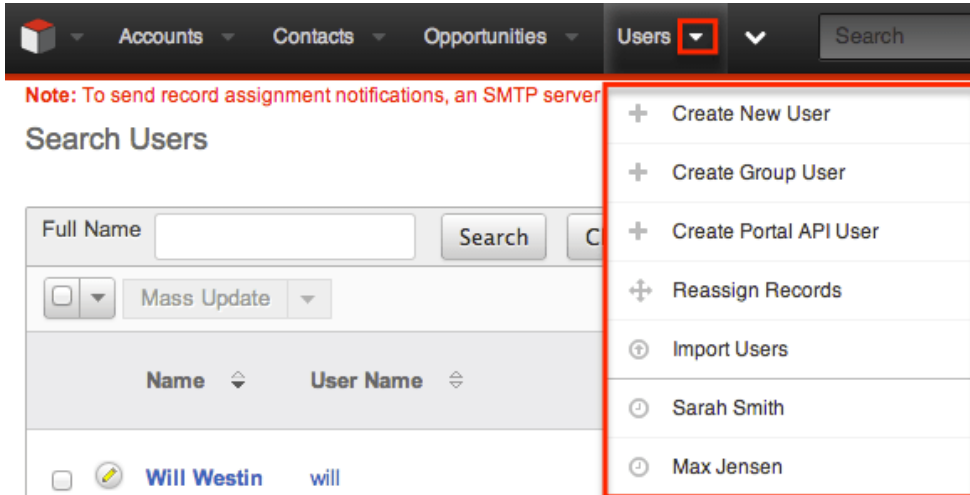


Main Font Size	The default font size in the PDF header when generated by this user
Name Display Format	How concatenated name fields will appear for the user, with the ability to control first name, last name, and salutation formatting
Notify on Assignment	<p>When this box is checked, the user will receive an email notification when a record is assigned to them by another user</p> <p>Note: A system outbound mail account must be enabled in Admin &gt; <a href="#">Email Settings</a></p>
Preferred Currency	Select the user's default currency, with additional currencies able to be defined in Admin > <a href="#">Currencies</a>
Publish at my Location	Used to share free/busy information between Sugar and Microsoft Outlook <a href="#">calendars</a>
Publish Key	Alphanumeric code entered by the user to uniquely identify his or her calendar and populate the iCal integration URL, Publish at my location site, and Search Location
Reminders	<p>This field sets the default reminder settings for <a href="#">calls</a> and <a href="#">meetings</a> created by this user so that when the user creates a call or meeting, the reminder settings will be pre-populated to the configuration defined in this field.</p> <p>Popup: Users that are invited to a call or meeting created by this user to receive a browser popup notification for the call or meeting at a given time interval before the activity.</p> <p>Email all invitees: Invitees invited to a call or meeting created by this user to receive an email notification for the call or meeting at a given time interval before the activity.</p>

Search Location	Used to share free/busy information between Sugar and Microsoft Outlook <a href="#">calendars</a>
Select Modules for Navigation Bar	The order of the module navigation bar is defined by the order in the Display Modules column and modules listed in the Hide Modules column will not appear in the bar
Show Full Names	When this box is checked, the user will see user's full names ("John Smith") instead of user names ("jsmith") when using Sugar
Show Preferred Currency	Mark the checkbox to convert the base currency to user preferred currency in list views and record views
Time Format	How time fields will appear for the user, with the ability to control hour, minute, and 12 versus 24 hour clock formatting
Time Zone	Select the local time zone for this user based on geographical location  Note: This Time Zone setting only applies to modules using the Legacy user interface. Modules using the Sidecar user interface will utilize the browser's time zone.
User Wizard Prompt	Mark the checkbox to have users go through the New User Wizard upon their first login

## Users Module Tab

Administrators can access the Users module tab via Admin > User Management. Click the triangle in the Users module tab to open the Actions menu and Recently Viewed menu. You can also click the Users tab to access the Users list view. The Actions menu allows you to perform important actions within the module. The Recently Viewed menu displays the list of users you last viewed in the module. For more information on records last viewed, please refer to the [Viewing Via Recently Viewed](#) section of this page.



The options in the Actions menu allow you to perform the following types of action:

Option	Description
<a href="#">Create New User</a>	Opens the edit view layout to create a new user
<a href="#">Create Group User</a>	Opens the edit view layout to create a new Group User
<a href="#">Create Portal API User</a>	Opens the edit view layout to create a new Portal API User
<a href="#">Reassign Records</a>	Opens the Reassign Records tool
<a href="#">Import Users</a>	Opens the import wizard to create or update users using external data

## Creating Users

There are various methods for creating new users in Sugar. These are via the users module, duplication, or import. Creating users is an imperative function in Sugar as it allows for other members of your organization to log in to Sugar and access all of your customer data.

### Creating Via Module Tab

The most common method for creating users in Sugar is via the Users module. The edit view layout opens when creating the user directly from the Users menu and includes all of the relevant fields to create a new user. The fields and options on the Create page will vary depending on the [type of user](#) you are creating.

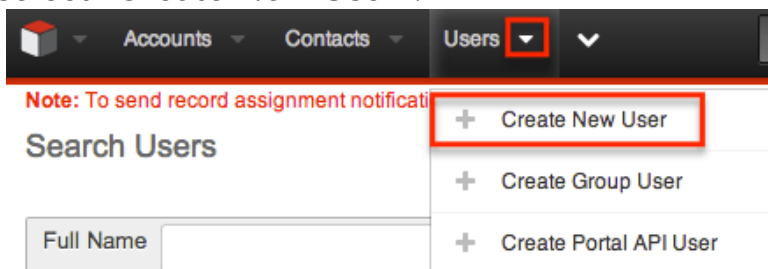
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## Regular and Admin Users

Regular and Admin users are the most common users that will be created in a Sugar instance and contain the most detail and fields compared to the other [user types](#). For more information about the use of Regular and Admin users, please review the [Regular User](#) and [System Administrator](#) sections of this documentation.

Use the following steps to create a new user:

1. Navigate to Admin > User Management.
2. Click the triangle in the Users module tab to open the Actions menu and select "Create New User".



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving..
  - Enter the following information under the User Profile tab:
    - In "User Profile" enter a user name for this user which will define the specific user in Sugar and should be unique for every user. Sugar will default the user to being Active and a Regular User, which can be updated if the user is going to be an administrator.
    - In "Employee Information", contact information and other specific information about the user can be added. This will include phone numbers, contact address, the user's department and job title, and any description information.
    - In "Email Settings" the user's email address or addresses can be added. The email addresses can also be marked as "Primary", meaning that this will be the first email address that shows for the user, and "Reply-to", where automatic notifications from Sugar will be sent. In this section, the user's outbound email client will be selected to default to Sugar or an external program, such as Microsoft Outlook. If a mail server is configured in Admin > [Email Settings](#), additional options will display here for SMTP Username and SMTP Password.

**Email Settings**

Email Address: \*

	Primary	Reply-to
test@example.com	<input checked="" type="radio"/>	<input type="radio"/>
example@test.com	<input type="radio"/>	<input checked="" type="radio"/>

Email Client: *i* Sugar Email Client

- The Advanced tab includes preference-type settings (User Settings, Layout Options, Locale Settings, PDF Settings, Calendar Options) for the user. These are all specific to the user's account and will not affect system-wide settings or other users. Options such as notify on assignment, date and time formats, time zone, preferred currency, etc. are available to configure under this tab.

4. If the system-generated password feature is not enabled in [Password Management](#), a Password tab will appear to the right of the User Profile tab. The administrator can manually enter a password for the user under this tab and provide it to the user. Please note that the password requirements listed on the right will be checked off as the new password meets the required conditions.

User Profile **Password** Advanced External Accounts

**Password**

New Password

Confirm Password

- ✗ Must contain one upper case letter (A-Z)
- ✗ Must contain one lower case letter (a-z)
- ✗ Must contain one number (0-9)
- ✗ Minimum Length =6

Note: If the system-generated password feature is enabled, this tab will not be available. Instead, a system-generated password will be sent to the user upon completion of the creation process.

5. After entering the necessary information click the Save button.

Create

**Save** Cancel Reset User Preferences

User Profile **Password** Advanced

⌵ **User Profile**

User Name: \* jsmith

Status: \* Active

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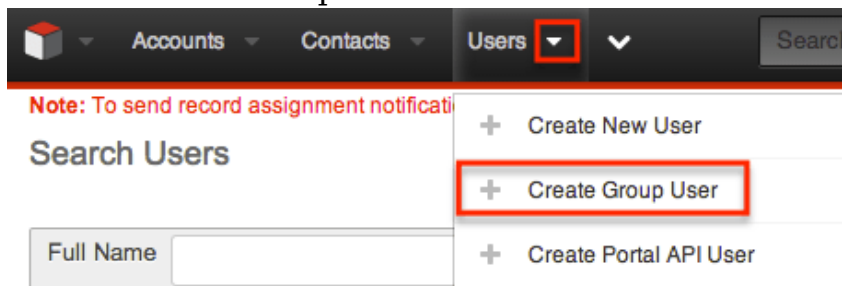
Upon saving, an email will be sent to the user with the user's system generated password (if applicable) and a corresponding Employee record will be created for the user. Once the user is created, the administrator can assign [Teams](#) and [Roles](#) to the user via the [Access](#) tab.

## Group Users

A Group user cannot log in to Sugar, but new and existing records can be assigned to the Group user. The Create page for the Group user consists of the User Name, Status, Name, User Type, and Email Address fields. For more information on how to use Group users in Sugar, please review the [Group User](#) section of this documentation.

Use the following steps to create a Group user:

1. Click the triangle in the Users module tab to open the Actions menu and select "Create Group User".



2. Enter a name and user name (e.g. Support) for this user.
3. In the Email Settings section, enter an email address or addresses for the Group user. The group user's primary email address will be marked as "Primary" and you can also mark "Reply-to" if any automatic notifications from Sugar will be sent to this address.
  - Note: If your organization has a group inbox or alias for a team represented by the group inbox, the email address can be added here for all notifications to be sent to the entire team.
4. Click "Save" to create the user.

## Create

**Save** Cancel Reset User Preferences \* Indicates required fields

**User Profile**

**^ User Profile**

User Name: *	<input type="text" value="Support"/>	Name: *	<input type="text" value="Support"/>
Status: *	<input type="button" value="Active"/>	User Type:	<input type="button" value="Group User"/>

Use for assigning items to a group (example: for Inbound Email). This type cannot login through the Sugar web interface.

**Email Settings**

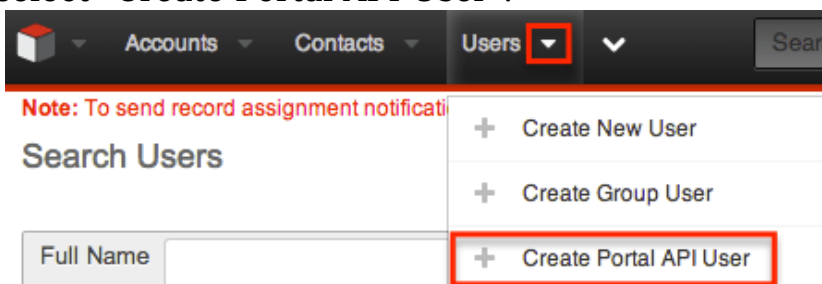
Email Address:

## Portal API Users

A Portal API user cannot log into Sugar via the web interface, but the name and user name will appear for other users as they view records assigned to the group user, or assign records to this user. The Portal API user creation screen only contains five fields. For more information on the use of the Portal API user, please review the [Portal API User](#) section of this documentation.

Use the following steps to create a Portal API user:

1. Click the triangle in the Users module tab to open the Actions menu and select "Create Portal API User".



2. Enter a name and user name for the user.
3. In the Email Settings section, enter an email address or addresses for the API user. The group user's primary email address will be marked as "Primary" and you can also mark "Reply-to" if any automatic notifications from Sugar will be sent to this address.
4. On the Password tab, enter and confirm a password for the user following the password requirements set in Admin > [Password Management](#). This password

will be used to log in through the API for this user.

5. Click "Save" to create the user.

Create

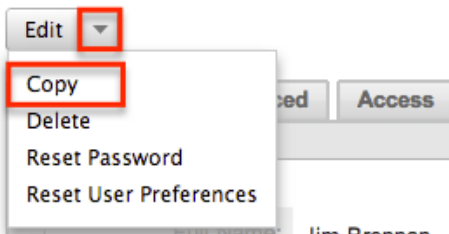
The screenshot shows a 'Create' user form. At the top, there are buttons for 'Save' (highlighted with a red box), 'Cancel', and 'Reset User Preferences'. A note on the right says '\* Indicates required fi'. Below the buttons are two tabs: 'User Profile' (highlighted with a red box) and 'Password'. The 'User Profile' section contains fields for 'User Name' (API), 'Status' (Active), 'Name' (API User), and 'User Type' (Portal API User). A note below 'User Type' says 'Use for the Portal API. This type cannot login through the Sugar web interface.' The 'Email Settings' section has an 'Email Address' field with 'api@example.com' and a '+' icon highlighted with a red box. There are also 'Primary' and 'Reply-to' radio buttons.

## Creating Via Duplication

Often, administrators will find themselves in situations where multiple users must be created at once, whether it be when they are first setting up Sugar, a new group of employees are going to be using Sugar, etc. For situations such as these, one user can be configured and additional users can be quickly set up using the Copy option available on the record's detail view. When duplicating a user, all fields are populated from the original record to the duplicated one, except for the User Name field and password fields.

Use the following steps to create a user by duplicating an existing user:

1. Navigate to the detail view of the user you would like to duplicate.
2. Click the Actions menu and select "Copy".

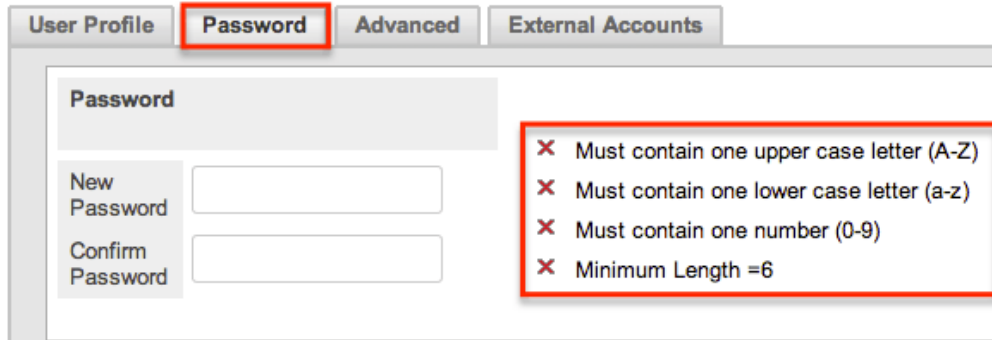


3. The displayed edit view is pre-populated with the original user's values, except for the user name and password.
4. Populate the "User Name" for the new user and edit any other fields or preferences to be specific to the new user. Fill in any information for the new



user that did not exist on the original user.

5. If the system-generated password feature is not enabled in [Password Management](#), a Password tab will appear to the right of the User Profile tab where administrators can manually create a password for the user. Please note that the password requirements listed on the right will be checked off as the new password meets the required conditions.



Note: If the system-generated password feature is enabled, this tab will not be available. Instead, a system-generated password will be sent to the user upon completion of the creation process.

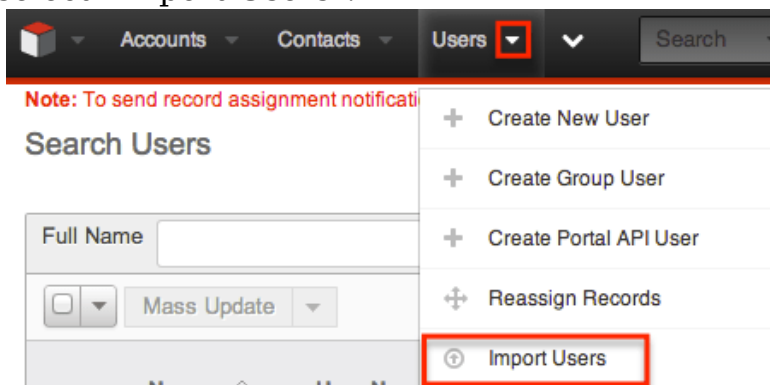
6. Click "Save".

The new user is now created and available for use. This process is applicable for all [user types](#).

## Creating Via Import

The import function in Sugar allows you to push multiple user records into Sugar using a comma (or other character) delimited file instead of creating them one-by-one. Use the following steps to import users via the Import Users option. For more information on importing records to Sugar, please refer to the [Import documentation](#).

1. Click the triangle in the Users module tab to open the Actions menu and select "Import Users".



2. In Step 1, select the source of the data you are importing. Click "Next".

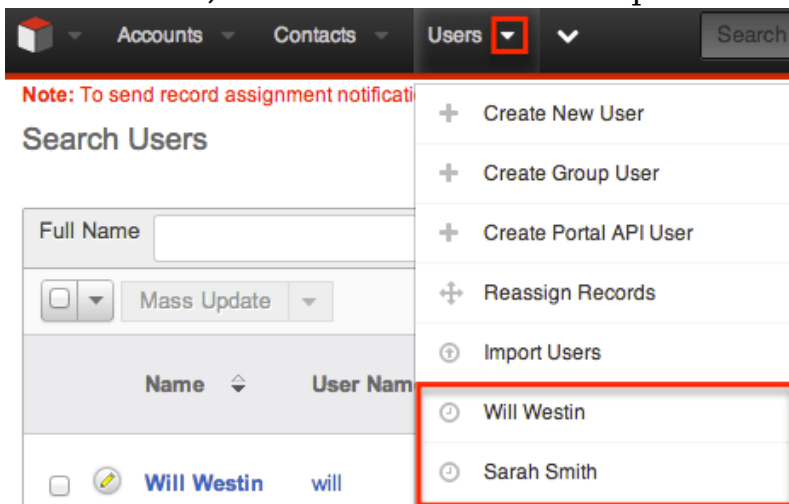
3. In Step 2, select the import file and choose "Create new records only". Click "Next".
4. In Step 3, confirm the import file properties. Click "Next".
5. In Step 4, confirm the field mappings for the import. Click "Next".
6. In Step 5, configure any fields you would like to use for duplicate checking.
7. In Step 6, view the import results.
  - The Created Records tab will show all of the new user records.
  - The Duplicates tab will show any records in the file that were detected as a duplicate and thus not imported from the duplicate check in Step 5 of the Import Wizard.
  - The Errors tab will show records that were not imported due to errors detected during import.

## Viewing Users

There are various options available for viewing user records in Sugar including via Users recently viewed, Users list view, Users detail view, dashlets, and reports.

### Viewing Via Recently Viewed

As you work, Sugar will keep track of which users you have recently viewed. Click the Actions menu in the Users module tab to see a list of your most recently viewed users, and click each name to open the user in detail view.



### Viewing Via List View

The Users list view displays all user records meeting the current search criteria. To access the list view, navigate to Admin > User Management. While the list view shows key user fields, you can click the user's name to open the record in detail view. For more information on viewing users via list view, please refer to the

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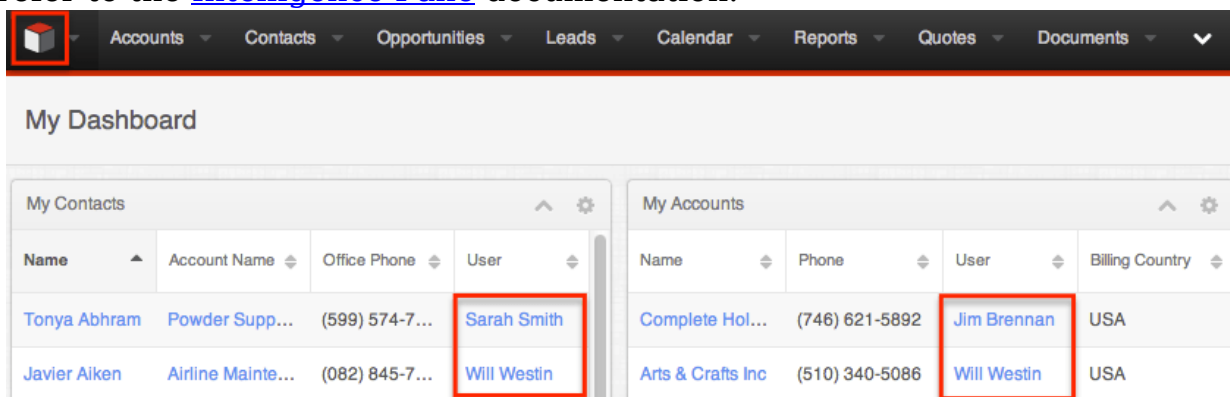
[Users List View](#) section of this documentation.

## Viewing Via Detail View

The Users detail view displays thorough user information including all user fields followed by subpanels of the user's related records belonging to various modules. The detail view also provides the Access tab, which allows [Teams](#) and [Roles](#) to be added for the user. Any admin user can click a user record's link from anywhere in the application, including from the Users list view to access the user's detail view. For more information on viewing the user's detail view, please refer to the [Users Detail View](#) section of this documentation.

## Viewing Via Dashlets

The Home page displays a collection of Sugar Dashlets which allow users to get a quick view of various records, activities, reports, etc. Clicking a user's name from any dashlet will open the user in detail view and administrators can make changes to the user's profile as necessary. For more information on using dashlets, please refer to the [Intelligence Pane](#) documentation.



The screenshot shows the SugarCRM dashboard interface. At the top, there is a navigation bar with a home icon and several menu items: Accounts, Contacts, Opportunities, Leads, Calendar, Reports, Quotes, and Documents. Below this is the 'My Dashboard' section. It contains two dashlets: 'My Contacts' and 'My Accounts'. Both dashlets have a table view. In the 'My Contacts' table, the 'User' column contains links to 'Sarah Smith' and 'Will Westin', which are highlighted with red boxes. In the 'My Accounts' table, the 'User' column contains links to 'Jim Brennan' and 'Will Westin', also highlighted with red boxes.

Name	Account Name	Office Phone	User
<a href="#">Tonya Abhram</a>	Powder Supp...	(599) 574-7...	<a href="#">Sarah Smith</a>
<a href="#">Javier Alken</a>	Airline Mainte...	(082) 845-7...	<a href="#">Will Westin</a>

Name	Phone	User	Billing Country
<a href="#">Complete Hol...</a>	(746) 621-5892	<a href="#">Jim Brennan</a>	USA
<a href="#">Arts &amp; Crafts Inc</a>	(510) 340-5086	<a href="#">Will Westin</a>	USA

## Viewing Via Reports

Administrators have the option to build, run, and manage reports to gather key data from records within Sugar. When building a report, you may either create a report based on the Users module or add links to the Users module in a report based on a module related to Users. Once the report is run, you can view the user record's detail view simply by clicking the user's name in the report results. Please note that you can only access user detail views via the Rows and Columns and Summation with Details-type reports as Summation and Matrix-type reports do not include hyperlinks in their display columns. For more information on using reports, please refer to the [Reports](#) documentation.

<b>Name:</b> Users Report	<b>Type:</b> Rows and Columns Report
<b>Modules:</b> Users	<b>Teams:</b> Global
<b>Display Columns:</b> User Name, Is Administrator, Status	<b>Assigned to:</b> Administrator
<b>Schedule:</b> None	
<b>Filters:</b> None	

User Name	Is Administrator	Status
admin	<input checked="" type="checkbox"/>	Active
chris	<input type="checkbox"/>	Active
jim	<input type="checkbox"/>	Active

## Searching Users

The Users module's list view includes Basic and Advanced Search functionality to help you locate users easily and effectively. Once the search is performed, the relevant search results will be displayed in the Users list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to pull up all records that include the keyword entered in the search. If you would like to broaden the search, you can use the "Wildcard" (%) at the beginning of your text as well (e.g. %manager). This will pull up any record that has the word "manager" in the name, regardless of how it starts or ends (e.g. "Department Manager", "Product Manager" or "Project Manager").

For more information on using the various search methods as well as how wildcards are used, please refer to the [Search](#) documentation.

### Basic Search

Basic search offers only Full Name as a searchable field. From the Basic search panel, you can click "Advanced Search" to access additional search functionality.

#### Search Users

Full Name

The buttons available in the Basic Search panel are also available in Advanced Search.

- 
- Search : Click the Search button or press your Return/Enter key to perform the search.
  - Clear : Click the Clear button to clear all criteria from the searchable fields.

When you run a search, Sugar will return records matching the criteria you typed in the Full Name search box. Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To see all user records, simply click "Clear" and then "Search" to perform a blank search with no filters.

Administrators can also configure what fields appear on the Users Basic Search via Admin > Studio. For more information on editing the Basic Search layout, please refer to the [Studio](#) documentation.

## Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching.

The buttons, checkboxes, and dropdowns available in Advanced Search have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.
- Layout Options : Use the expandable Layout Options section to configure your list view. For more information, please refer to the Layout Options section of the [Search](#) documentation.
- Saved Searches : Save, recall, update, and delete searches which you use often. For more information, please refer to the Saved Search section of the documentation.

When you run a search, Sugar will return records matching all (as opposed to any) of the fields and checkboxes for which you have given a value. For example, if you select "Is Administrator" as "Yes" and enter in a "First Name" to search, Sugar will only return the user records with a matching first name that are admins. Once the search completes, the relevant results will populate in the [list view](#) below the search panel. To see all user records, simply click "Clear" and then "Search" to perform a blank search with no filters.

Administrators can configure what fields appear on the Users Advanced Search via Admin > Studio. For more information on editing the Advanced Search layout, please refer to the [Studio](#) documentation.

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## Users List View

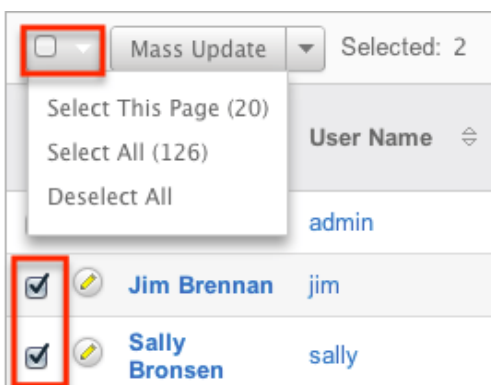
The Users list view displays all user records meeting the current search criteria. You can view the basic details of each user within the columns of fields.

You have the option to change what fields are displayed in list view by configuring your layout options available in Users Advanced Search. For more information on configuring your list view, please refer to the [Layout Options](#) section of the [Search](#) documentation. You can also change what fields are visible in the list view via Studio. For more information on editing list view layouts, please refer to the [Studio](#) documentation.

## Checkbox Selection

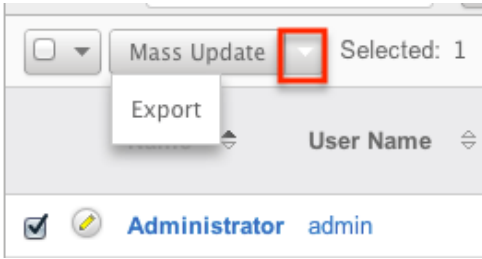
You can perform actions on user records directly from the list view by first selecting the desired records. To select individual user records on the Users list view, mark the checkbox on the left of each row. To select or de-select multiple user records on the list view, use the options in the checkbox dropdown menu.

- **Select This Page** : Selects all records shown on the current page of user results.
- **Select All** : Selects all records in the current search results including all pages of user results.
- **Deselect All** : De-selects all records that are currently selected.



## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.



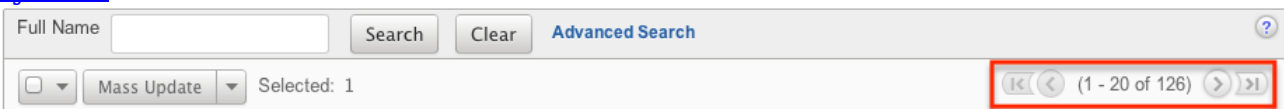
The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more users at a time
<a href="#">Export</a>	Export one or more users to a CSV file

## Pagination

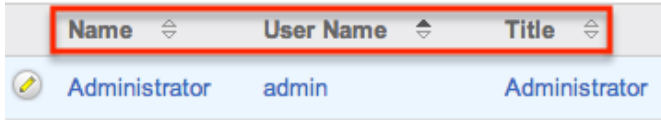
List view displays the current search results broken into pages that you can scroll through rather than potentially displaying thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow next and previous buttons can be used to scroll through the records page-by-page. The two double-arrow first and last page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation.



## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows in the column header. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search to specify which field to automatically sort results by in the list view. For more information on setting a default column sort, please refer to the Layout Options section of the [Search](#) documentation.



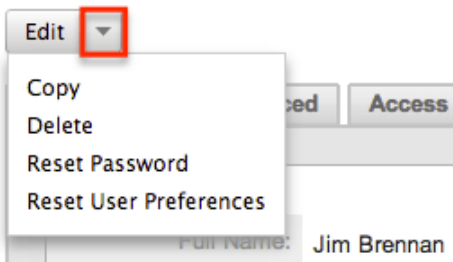
## Users Detail View

The Users detail view displays thorough user information including all user fields which are grouped by default into the User Profile, Advanced, and Access panels. You can also view information from records related to the Users module as subpanels below the detail view. For more detailed information about adding relationships, please refer to the [Studio](#) documentation. The detail view can be reached by clicking a user record's link from anywhere in the application including from the Users list view.

Administrators have ability to change what fields are visible in the detail view by configuring the field groupings via Admin > Studio. For more information on editing detail view layouts, please refer to the [Studio](#) documentation.

## Actions Menu

The Actions menu on the top left of each user's detail view allows you to perform various actions on the current record. Please note that administrators in Sugar can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on how to configure the actions menu, please refer to the [System](#) documentation.



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this user
<a href="#">Copy</a>	Duplicate this user
<a href="#">Delete</a>	Delete this user
<a href="#">Reset Password</a>	Remove the user's current password and email a new one



---

<a href="#">Reset User Preferences</a>	Revert all user preferences back to system-wide settings
--	--

## Tabs

The detail view for a user is broken up into multiple tabs to better organize the different fields available in the Users module. Some of the available tabs in the user's profile are "User Profile", "Advanced", and "Access". A Downloads tab is also available when viewing your own profile. For more information on viewing your personal user profile, please review the [User Preferences](#) documentation.

### User Profile

The User Profile tab displays information specific to the user such as the user's name, user type, employment status, contact information, etc. Administrators have the ability to configure the User Profile layout via Admin > [Studio](#). For more information on editing the user's profile in the Users module, please refer to the [Editing Via Detail View](#) section of this documentation.

### Advanced

The Advanced tab shows information specific to the user's preferences in Sugar. Information such as the user settings, locale settings, PDF settings, etc. can be easily viewed under this tab. Please note that the layout of this tab cannot be edited in Studio. However, you can edit the information under the tab by clicking the Edit button on the user's detail view. For more information on editing the user's profile, please refer to the [Editing Via Detail View](#) section of this documentation.

### Access

The Access tab summarizes the user's Team and Role settings so that it can easily be viewed in one place. The Access table, Roles subpanel, and My Teams subpanel will appear under the tab.

- **Access Table** : The Access table summarizes the set of permissions assigned to the user and allows you to view the type of access they have along with the actions (e.g. View, Edit, Delete, etc.) they can perform in Sugar. This table is very similar to what appears in Admin > Role Management, but this table is not editable in the Users module.

Note: Users with more than one role assigned will have the more restrictive role setting prevail on the access table. For example, if one role allows the user to delete records in the Contacts module, but the other role does not allow record deletion, the user will not be able to delete records in the Contacts module.

The table will list the modules in rows on the far left with column headers representing the type of action (e.g. Delete, Edit, Export, etc.) users can perform in each module. For more information on role settings, please refer to the [Roles](#) documentation.

Advanced		Access							
	Access	Access Type	Delete	Edit	Export	Import	List	Mass Update	View
Accounts	Enabled	Normal	None	Owner	None	None	All	None	All

- Roles Subpanel : The Roles subpanel will list all of the roles assigned to the user along with the description of each role. Roles work in conjunction with teams to form a robust security model for non-admin users in Sugar. Roles control three different layers of access for users within Sugar: module, field, and action-level access. System administrators can easily assign roles to the user as well as remove roles via the Roles subpanel.
- Teams Subpanel : The Teams subpanel will list all of the teams assigned to the user along with the description of each team. The defined permissions determine what records a user is and is not able to access. Teams are used in conjunction with roles to form a robust security model for non-admin users in Sugar. System administrators can easily assign teams to the user as well as remove teams via the My Teams subpanel. For more information on team settings, please refer to the [Teams](#) documentation.

## Subpanels

Subpanels can be added to the Users module by creating relationships via Admin > Studio. All available subpanels will appear at the bottom of the user's detail view. For more information on adding relationships, please refer to the [Relationships](#) section of the Studio documentation.

The User Holidays subpanel is the only subpanel available for the Users module out of the box. This subpanel allows administrators to select specific days that the user will not be working. This is used when calculating timing on the projects module. Holidays can be added using the Create button and inputting a date and description of the holiday.

### ⤴ User Holidays

<b>Create</b>	
Holiday Date: ⤴	Description:
01/01/2014	New Years Day

---

## Editing Users

The user's profile can be easily edited by the user or the administrator by clicking the Edit button on the user's detail view. In addition, changes to the user's profile can be made via the Users list view as well by clicking the Pencil icon to the left of the user's name. Editing the user's profile from the detail view and list view, opens the full edit view layout which includes all of the relevant fields that can be updated as necessary.

[Will Westin](#) » Edit

The screenshot shows a user profile edit form. At the top, there are three buttons: "Save" (highlighted in blue), "Cancel", and "Reset User Preferences". Below these are four tabs: "User Profile" (highlighted with a red box), "Password", "Advanced", and "External Accounts". The form is divided into two main sections: "User Profile" and "Employee Information".

**User Profile Section:**

- User Name: \* will
- Status: \* Active
- User Type: Regular User
- Avatar: [Image of Will Westin]
- First Name: Will
- Last Name: \* Westin
- Text below User Type: User can access modules and records based on team security and r

**Employee Information Section:**

- Employee Status: Active
- Title: Sales Manager East
- Display Employee Record: [Empty field]
- Work Phone: [Empty field]

## Editing Via Detail View

You can edit users by clicking the Edit button on the upper left of the user's detail view. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve the changes made. For more information on the detail view, please refer to the [Users Detail View](#) section of this documentation.

The screenshot shows the user detail view for Jim Brennan. At the top left, there is an "Edit" button with a dropdown arrow, highlighted with a red box. Below the button are three tabs: "User Profile" (highlighted), "Advanced", and "Access". The "User Profile" section is expanded, showing the following information:

- Full Name: Jim Brennan
- Status: Active

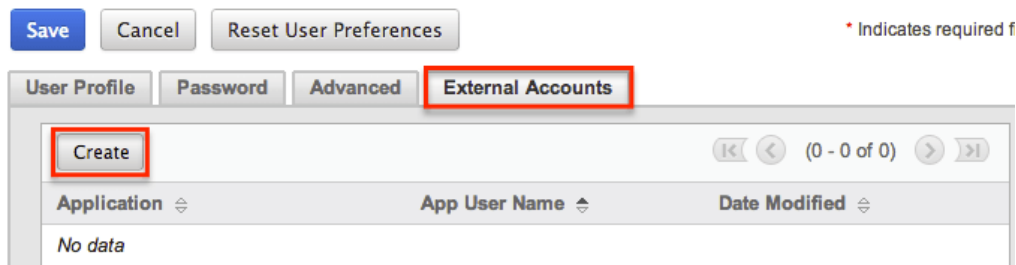
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## External Accounts

When viewing the edit view of a user, the External Accounts tab appears to the right of the Advanced tab. The External Accounts functionality allows you to connect external applications to Sugar, such as GoToMeeting, Google Drive (Google Docs), and WebEx. To create an external account record, follow the following steps:

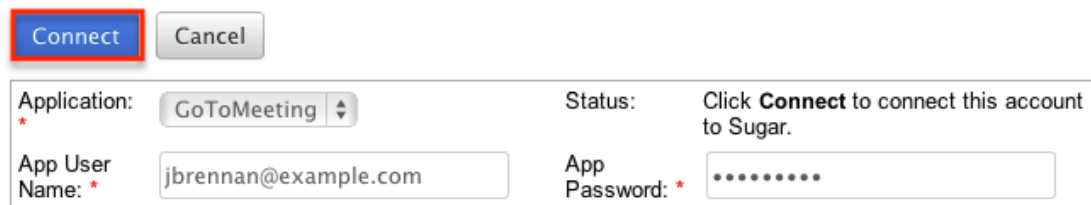
1. Navigate to the [detail view](#) of the user to whom you would like to add the account.
2. Click on the External Accounts tab then click "Create".

Jim Brennan » Edit



The screenshot shows the user edit interface for Jim Brennan. At the top, there are buttons for 'Save', 'Cancel', and 'Reset User Preferences'. Below these are tabs for 'User Profile', 'Password', 'Advanced', and 'External Accounts', with 'External Accounts' being the active tab. A 'Create' button is highlighted with a red box. Below the tabs is a table with columns for 'Application', 'App User Name', and 'Date Modified'. The table currently shows 'No data'. A legend indicates that an asterisk (\*) denotes required fields.

3. Select the application you will be connecting to from the Application dropdown field. The fields available to complete will vary depending on the application (GoToMeeting, Google, WebEx) selected. Please note that additional external applications will appear on the list if they are enabled via Admin > Connectors.
4. Enter the necessary information for the external application and click "Connect".



The screenshot shows the external account creation form. At the top, there are buttons for 'Connect' and 'Cancel', with 'Connect' being highlighted with a red box. Below these are fields for 'Application' (a dropdown menu with 'GoToMeeting' selected), 'App User Name' (a text input field with 'jbreannan@example.com'), and 'App Password' (a password input field with masked characters). A 'Status' field contains the text 'Click **Connect** to connect this account to Sugar.'

Should you wish to prevent users from creating external accounts, you can remove

The out of the box connectors perform the following functions:

- **GoToMeeting** : The GoToMeeting connector allows you to create meetings in Sugar that are tied to your GoToMeeting account and will show as such on your GoToMeeting account. This allows the user to, after creating the Sugar meeting record, start the GoToMeeting directly from within Sugar's [Meetings](#) module.
- **Google** : The Google connector allows you to create [documents](#) within Sugar that, instead of uploading a file to the server hosting Sugar, allows the user to

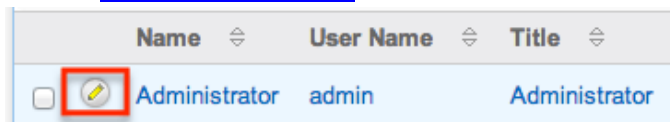
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link to an existing Google document from Google Drive or to upload a file to that account. When clicking on a document name in the Documents module or any Documents subpanels, the user will be brought to Google Drive instead of the download being initiated.

- WebEx : The WebEx connector allows you to create meetings in Sugar that are tied to your WebEx account and will show as such on your WebEx account. This allows the user to, after creating the Sugar meeting record, start the WebEx meeting directly from within Sugar's [Meetings](#) module.

## Editing Via List View

You can edit users via the list view by clicking the Pencil icon to the left of each user's name. The full edit view layout will open allowing you to make any changes to the user's profile as necessary. Once the user's profile has been updated, click "Save" to preserve the changes. For more information on the list view, please refer to the [Users List View](#) section of this documentation.

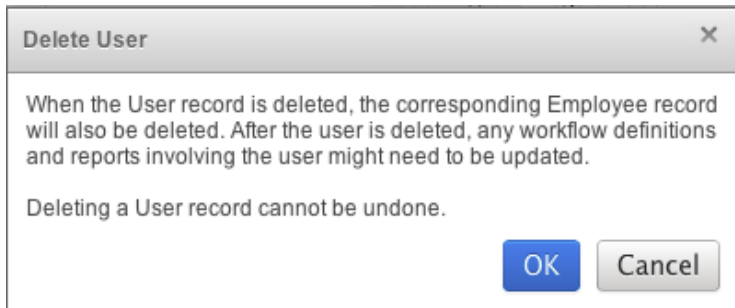


## Deleting Users

If a user record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Users detail view. Please note that deleting user records will not delete any related records and will only remove the user from appearing in any lists (e.g. Assigned to) or other records. When a user is no longer a member of the organization, it is best to deactivate users by changing the Status field to "Inactive" instead of deleting them. This way, any historical information tied to the user will still be available, but the user will no longer be able to log in to Sugar.

Use the following steps to delete a user via the detail view:

1. Navigate to the user's detail view via Admin > User Management.
2. Select "Delete" from the [Actions Menu](#).
3. A pop-up message will display asking for confirmation. Click "OK" to proceed.

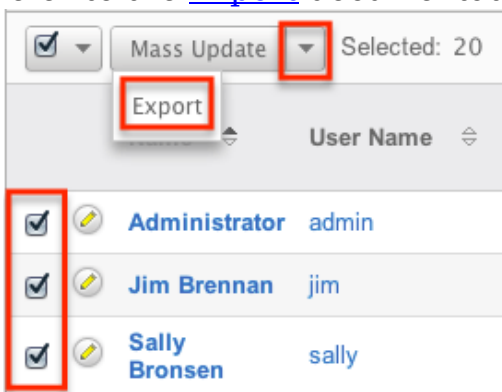


4. You will then be presented with the Reassign Records tool. Follow the steps on this page to complete the deletion. For more information on the Reassign Records functionality, please review the [Reassigning Records](#) section of this documentation.
5. Once your reassignment is complete, the user will be deleted and you can freely navigate around Sugar.

## Exporting Users

Sugar's Export option allows users to download all fields for the selected users to their computers as a .CSV (comma-separated values) file. This may be useful when needing to use User data with other software such as Microsoft Excel or to update existing records by exporting, making changes, and then importing the altered users back into Sugar. For more information on updating existing records via import, please refer to the [Import](#) documentation.

Users may be exported from the Users list view by selecting "Export" from the Actions menu. User data can also be exported via the Reports module by creating or accessing reports containing specifically chosen fields for users and their related record(s). Please note that only Rows and Columns-type reports have the ability to be exported. For more information on exporting records in Sugar, please refer to the [Export](#) documentation.



Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of user records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

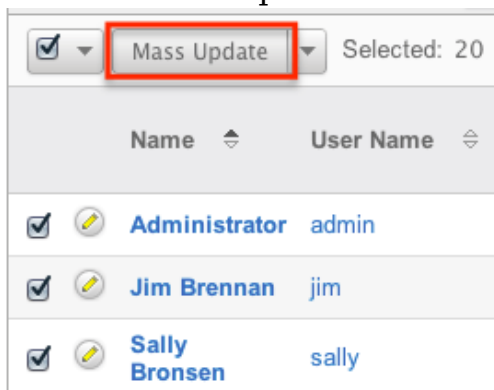
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## Mass Updating Users

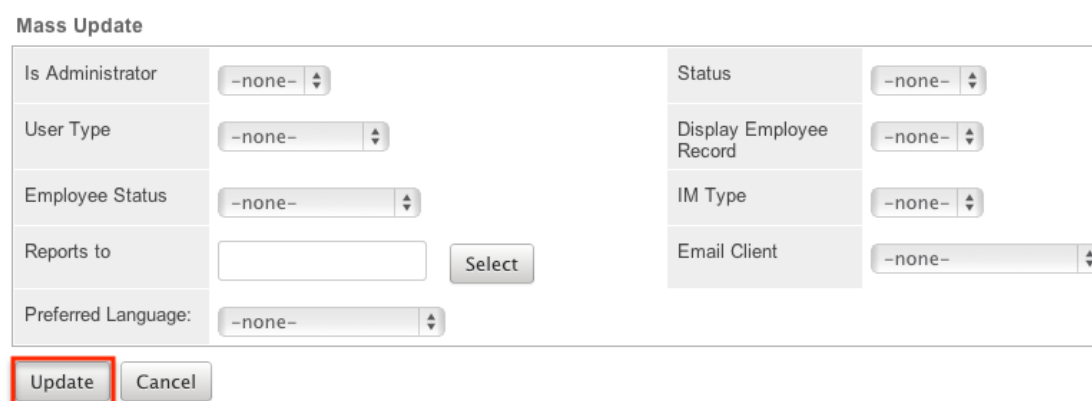
Mass Updating allows users to make the same change to multiple user records at once from the Users list view. Users with administrator or developer level access can control which fields are available to change during mass update via Admin > Studio. Currently, only fields with the data type of date, datetime, dropdown, multiselect, and radio may be altered during a mass update. Due to PHP memory limitations on the server, there may be occasions when the application times out while updating a large number of user records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches. For more information on configuring mass update, please refer to the [Studio](#) documentation in the Administration guide.

Use the following steps to mass update user records from the list view:

1. Navigate to the Users list view via Admin > User Management.
2. Use the list view's [Basic](#) or [Advanced Search](#) to identify users you wish to modify.
3. Select the desired users individually or using the [checkbox dropdown's](#) options.
4. Choose "Mass Update" from the Actions menu.



5. Scroll to the Mass Update panel and set values for the fields you wish to alter.
6. Click "Update" to save the changes to all of the currently selected user records.

A screenshot of the 'Mass Update' panel. The panel has a title 'Mass Update' and contains several fields for user modification. The fields are arranged in two columns. The left column includes: 'Is Administrator' (dropdown menu with '-none-' selected), 'User Type' (dropdown menu with '-none-' selected), 'Employee Status' (dropdown menu with '-none-' selected), 'Reports to' (text input field with a 'Select' button next to it), and 'Preferred Language' (dropdown menu with '-none-' selected). The right column includes: 'Status' (dropdown menu with '-none-' selected), 'Display Employee Record' (dropdown menu with '-none-' selected), 'IM Type' (dropdown menu with '-none-' selected), and 'Email Client' (dropdown menu with '-none-' selected). At the bottom of the panel, there are two buttons: 'Update' and 'Cancel'. The 'Update' button is highlighted with a red rectangular box.

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## Resetting User Preferences

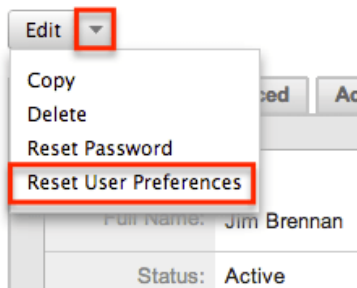
As users make changes while navigating around Sugar, their preferences are stored in the Sugar database. This includes preferences such as sort orders on list view, previous searches on both basic and advanced searches, and settings in the Advanced tab of the user profile. Users can reset their preferences back to the default out-of-the-box settings, which will revert the user's changes made in Sugar. Please note that this action cannot be undone. If the user is currently logged in, the changes will not take effect until the user is logged out and then back in.

Note: Resetting a user's preferences is the only way to allow a user access to Sugar if they have been locked out using the [Login Lockout](#) feature in Password Management.

Use the following steps to reset a user's preferences:

1. Navigate to the user's detail view via Admin > User Management and select the user (e.g. Jim Brennan) from the list view.
2. Select "Reset User Preferences" from the [Actions menu](#).

Jim Brennan



3. A pop-up box will appear confirming the reset. Click "OK" to proceed.

## Resetting User Passwords

Administrators have the option to manually set or reset user's passwords as necessary. Setting a regular user's password is done simply through the Users module via Admin > User Management. The method used to reset the password will vary depending on the system-generated password feature in Admin > [Password Management](#).

If the option is enabled, there will be a Reset Password option in the Actions menu of the user's detail view. Selecting this option will delete the user's current password and automatically email the user a new system-generated one. Please note that this action cannot be undone.



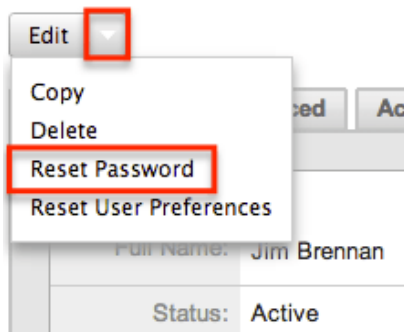
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Note: If the user is currently logged in, the changes will not take effect until the user is logged out and then back in.

Use the following steps to reset a user's password:

1. Navigate to the user's detail view via Admin > User Management.
2. Select "Reset Password" from the [Actions menu](#).

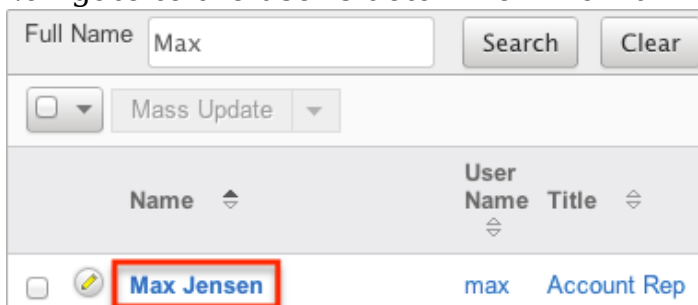
Jim Brennan



3. A pop-up box will appear confirming the reset. Click "OK" to proceed.

If the system-generated password feature is disabled in Admin > Password Management, administrators will be able to define a user's password through User Management using the following steps:

1. Navigate to the user's detail view via Admin > User Management.



2. Click the Edit button on the upper left of the detail view.

Max Jensen



3. Click the Password tab and enter the new password for the user.

4. Click "Save" to confirm your change and complete the process.

## Reassigning Records

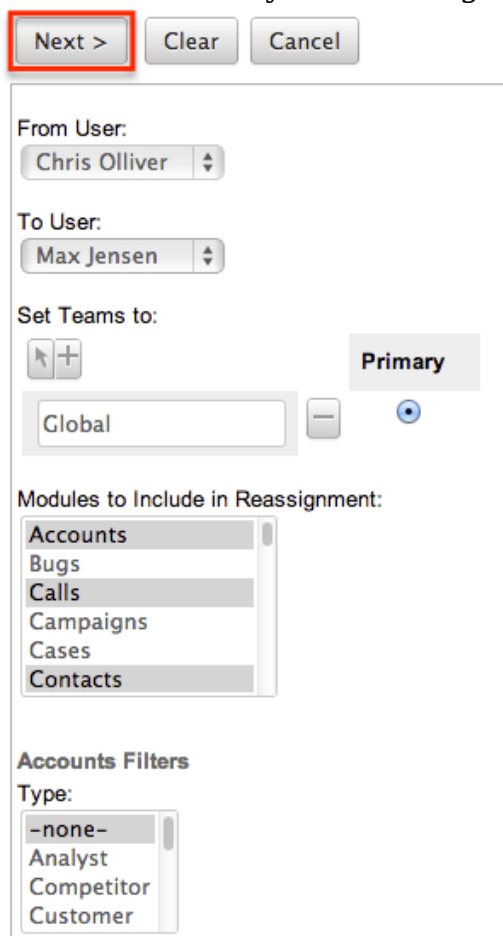
Reassign Records is a tool available in the Users module for administrators to change the Assigned To and Team fields for a specific user's records. This is best used when a user is changing departments, teams, or roles within the organization, or if the user is no longer an employee or using Sugar. The Reassign Records tool is automatically presented when deleting or deactivating a user. Please note that reassigning records cannot be undone in Sugar.

Use the following steps to reassign records:

1. Navigate to the Users module via Admin > User Management.
2. Click the triangle in the Users module tab to open the Actions menu and select "Reassign Records".

3. Select the user to whom the records are already assigned in the From User field.
4. Select the user to whom the records will be assigned to in the To User field.  
Note: You can select the same user in both fields if you are just changing the team for all of the user's records.
5. Select which team(s) the records will be assigned to in the Set Teams to field.
6. Select the module(s) you wish to include in the record reassignment. Multiple modules can be selected by holding down the Control key when using a PC or

the Command key when using a Mac.



7. Selecting certain modules will display specific filters (e.g. Type) which can be applied to the module. Use these filters if you do not want to include all records assigned to the user.

The list of modules and their filter fields are as follows:

Module	Filter Field
Accounts	Type
Bugs	Status
Calls	Status
Cases	Priority
	Status
Opportunities	Sales Stage
	Type
Tasks	Status

After selecting any filters, click "Next" to access the reassignment summary. If you would like to see a detailed list of the changes that were made, click

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"Verbose Output". This list will include a link to the changed records and a summary of changes that were made.

If you would like the changes to show in the Change Log for the changed record, have any relevant [workflows](#) fire, or have assignment notifications sent out, please click the Include Workflow/Notifications/Audit checkbox.

Note: This process performs a large set of actions at once and may take a long amount of time to complete.

Assessing Accounts
8 records from Accounts will be updated.
<input checked="" type="checkbox"/> Include Workflow/Notifications/Audit (significantly slower)

Assessing Calls
6 records from Calls will be updated.
<input type="checkbox"/> Include Workflow/Notifications/Audit (significantly slower)

Assessing Contacts
23 records from Contacts will be updated.
<input type="checkbox"/> Include Workflow/Notifications/Audit (significantly slower)

Click "Next" to complete the reassignment.

The final summary page will show how many records were affected and if any errors occurred during the reassignment. Click "Return" to return to the main screen of the Reassigning Records tool.

Processing Contacts
Update complete: 23 affected

Due to PHP memory limitations on the server, there may be occasions when the application times out while reassigning a large number of user records. If you encounter an error when performing this action, we recommend reassigning records in smaller batches via each module's mass update option.

Last Modified: 08/02/2017 12:27pm

## Sugar Connect

### Overview

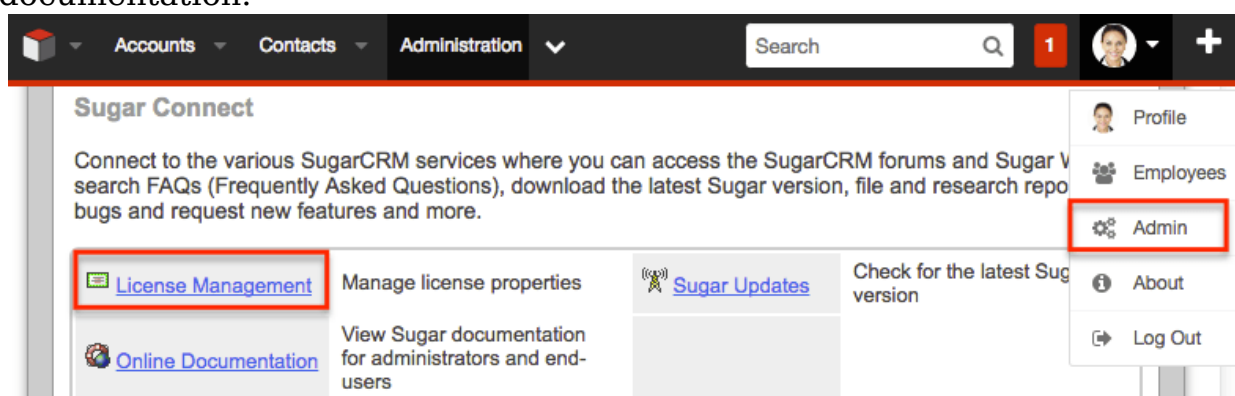
The Sugar Connect section of the Administration page allows you to connect to various SugarCRM online resources such as License Management, SugarCRM

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Support, Sugar Updates, and Online Documentation. Other than License Management and Sugar Updates, which are only accessible to users with administrator access, Sugar's Support page and online documentation can be accessed by all user's via their Sugar account or directly from the SugarCRM website. This documentation will cover how to manage your Sugar license, check for Sugar updates, as well as access Sugar's support and online documentation page.

## License Management

The License Management page allows administrators to manage their Sugar license properties. You can use this option to manage the Sugar license for your organization and view information such as the download key, expiration date, number of users, etc. System administrators can also edit and re-validate the license via the License Management page. Please note that your commercial edition of Sugar is purchased with a set number of licenses that allow users to access the application. All active system administrator's as well as regular non-admin user's count towards the number of purchased Sugar licenses. For more information on the various user types (i.e. regular user, system administrator, group user, etc.) available in Sugar, please refer to the [User Management](#) documentation.



## Download Key

The download key is a 32 digit alphanumeric key that is unique to your Sugar account. The number of user licenses your organization purchased, as well as the subscription expiration date is tied to your download key. Upon purchasing Sugar, you will receive a Welcome email containing your download key information which will need to be entered during installation of the Sugar application. Once the download key is entered in the system, the corresponding information such as the expiration date, number of users, number of offline client licenses, and number of concurrent self-service portal users will automatically populate and be displayed in Admin > License Management.

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## Editing the License Key

Although rare, there may be times when system administrators will need to edit their license key via Admin > License Management. For example, if you change your Sugar edition (e.g. Corporate to Professional), a new license key may be generated and provided by SugarCRM. You will need to update the License Management page with the new license key to associate your account to the new Sugar edition.

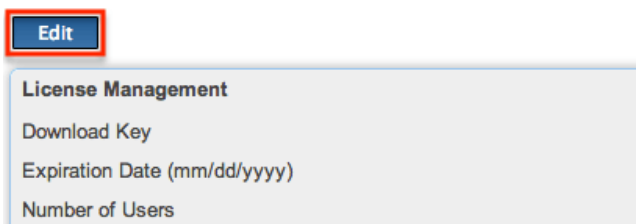
The fields in the License Management panel are as follows:

- Download Key : The download key associated to your Sugar subscription.
- Expiration Date : The date your Sugar license expires.
- Number of Users : The number of users allowed to access Sugar based on the number of purchased licenses.
- Number of Offline Client Licenses : The number of offline clients associated with your license key.
- Number of Concurrent Self-Service Portal Users : The number of self-service portal users associated with your license key.

The following steps cover editing the license key for your account when changing Sugar editions as an example:

1. Navigate to Admin > License Management.
2. Click the Edit button and enter the download key associated to your new Sugar edition.

License Management



The screenshot shows a user interface for 'License Management'. At the top left, there is a blue button labeled 'Edit' with a red border. Below it is a light gray panel titled 'License Management' containing three input fields: 'Download Key', 'Expiration Date (mm/dd/yyyy)', and 'Number of Users'.

3. Once the download key is entered, click "Save".
  - The expiration date, number of users, etc. will automatically be updated based on the new download key.

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## License Management

License Management	
Download Key	d167ef950b8234cfac178cl
Expiration Date	02/26/2014
Number of Users	9999
Number of Offline Client Licenses	0
Number of Concurrent Self-Service Portal Users	100

Please note that when you save the new license key information, the system automatically checks it against the information in the SugarCRM database to make sure it is valid.

## License Validation

The License Validation panel of the License Management page allows administrators to re-validate their license as necessary. Sugar automatically re-validates your license once every 90 days as long as a system administrator logs into Sugar within the 90 day period. However, if your system fails to communicate with the License Validation server through the internet or you are behind a firewall; you will have to re-validate the license via Admin > License Management. If the re-validation is successful, the Status field in the License Validation panel will display the timestamp of the successful validation. The validation key expiration date will be 90 days from the date of the last successful validation date.

## License Expiration

Typically, Sugar licenses are purchased for a one year period (e.g. 01/03/2013 to 01/03/2014). Please note that you will be notified of your upcoming subscription renewal via email or call and a notification will appear in the Sugar cube on the upper left of your Sugar account regarding your license expiration. If the subscription is renewed past the expiration date, then administrators must re-validate their license via Admin > License Management in order to update the account with the new subscription. If the administrator does not re-validate the license, regular users will be prohibited from logging into Sugar until the license is successfully validated by the administrator.

## Re-validating the License

Although Sugar automatically re-validates your license once every 90 days, there may be special circumstances where administrators must re-validate the license

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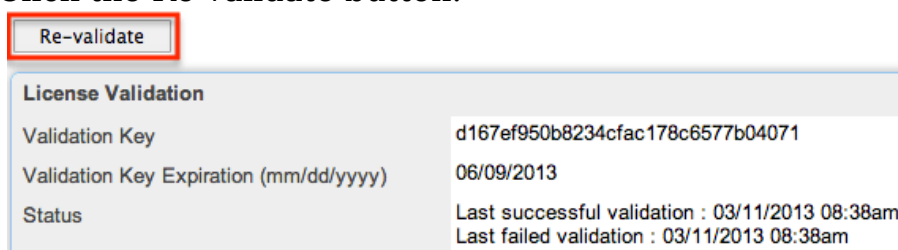
via License Management. For example, if you renew your subscription after the expiration date or if you purchase additional users mid-term, you will have to re-validate the license via Admin > License Management in order to update your Sugar account with the new subscription.

The fields in the License Validation panel are as follows:

- Validation Key : System generated validation key associated to your Sugar subscription.
- Validation Key Expiration : The date the validation key expires. The expiration date is typically 90 days from the last successful validation date.
- Status : The status displaying the timestamp of the last failed or successful validation.

Use the following steps to re-validate the license in Sugar:

1. Navigate to Admin > License Management.
2. Click the Re-validate button.



The system will communicate with the License Validation server to validate your license based on your Sugar subscription. If the re-validation is successful, then the status will reflect the date and time of the successful validation. If the system fails to connect successfully with the License Validation server and you cannot re-validate your license, use the [Manual Validation](#) option at the bottom of the License Validation panel.

## Manual Validation

If your system fails to communicate successfully with the License Validation server through the internet, you have the option to perform a manual validation via Admin > License Management.

Use the following steps to perform a manual validation in Sugar:

1. Navigate to Admin > License Management.



2. Click the Manual Validation link located at the bottom of the License Validation panel.

License Validation	
Validation Key	d167ef950b8234cfac178c6577b04071
Validation Key Expiration (mm/dd/yyyy)	06/09/2013
Status	Last successful validation : 03/11/2013 08:38am Last failed validation : 03/11/2013 08:38am

If you experience persistent problems with automatic validation, please check your Proxy configuration in the [System Settings](#) admin panel. If your system environment prohibits your system from communicating to the license validation server through the internet, you should proceed with the [Manual Validation](#) steps.


3. Click the Export Download Key button to export the sugarkey.lic file. Select "Save to Disk" in the pop-up window to save the file to your local machine then click "OK".

**Manual Validation**

Step 1: Generate a license key information file by clicking the following button.

Then save the file (sugarkey.lic) on your local file system.

4. Go to <http://updates.sugarcrm.com/license> and submit the sugarkey.lic file for validation.
  - o If the validation is successful, the validation key file (sugarvalidationkey.lic) will be generated, and the system will prompt you to save the file.



Please attach your download key:

No file chosen

5. Log back in to your instance and navigate to the Manual Validation page (Admin > License Management > Manual Validation).
6. Choose the sugarvalidationkey.lic file on your local machine and click "Import".

Step 3: Transfer the validation key file (sugarvalidationkey.lic) back to the SugarCRM system. Import the validation key using this form below:

Validation Key File(sugarvalidationkey.lic)  No file chosen

Once the validation key is imported successfully, you have completed the manual validation process. Sugar will update the validation status along with the Validation Key Expiration date for the license key.

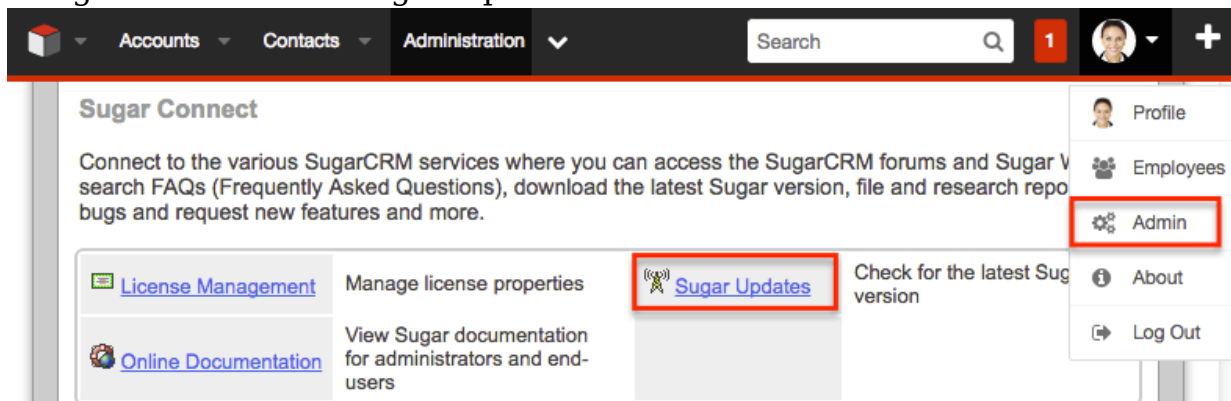
## Sugar Updates

The Sugar Updates page allows administrators to check for the latest available Sugar versions. By default, Sugar automatically checks for updates on a periodic

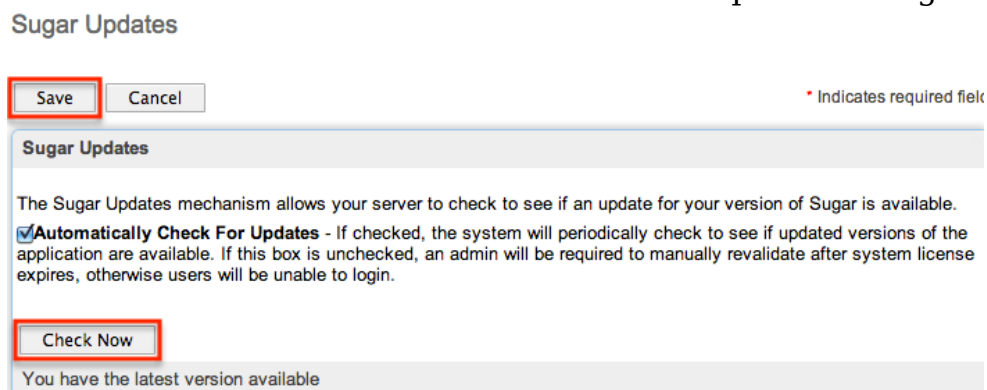
basis to see if any version updates are available for your instance. If a new version update is available, the Sugar Updates link in the Admin page will appear red and display the latest Sugar version next to it. Administrators can uncheck the automatic updates option in the Sugar Updates page if they do not wish to have the system automatically check for updated version releases.

Use the following steps to perform a manual check for Sugar updates:

1. Navigate to Admin > Sugar Updates.



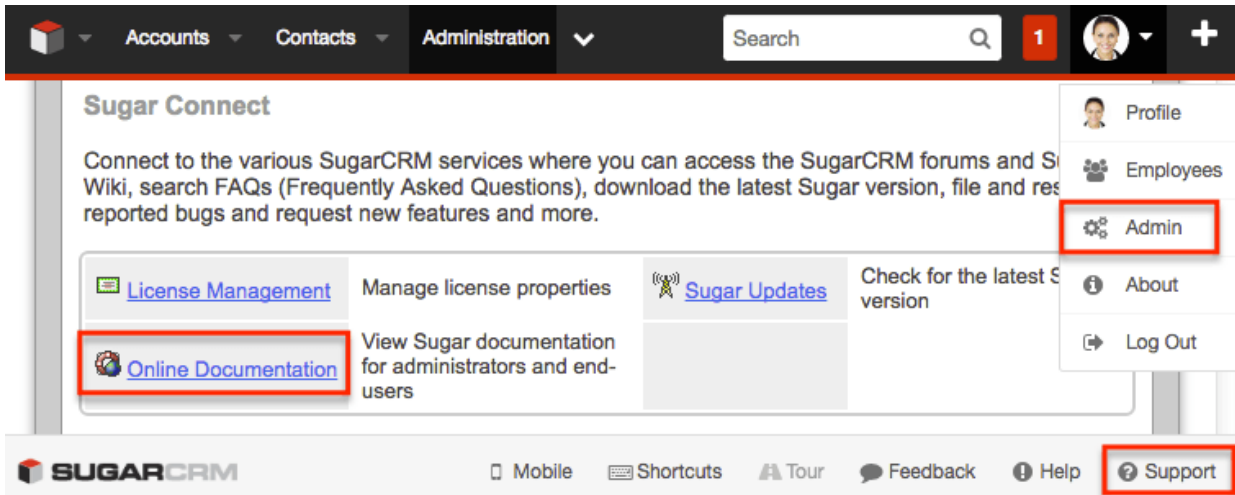
2. Click the Check Now button to see if a new update of Sugar is available.



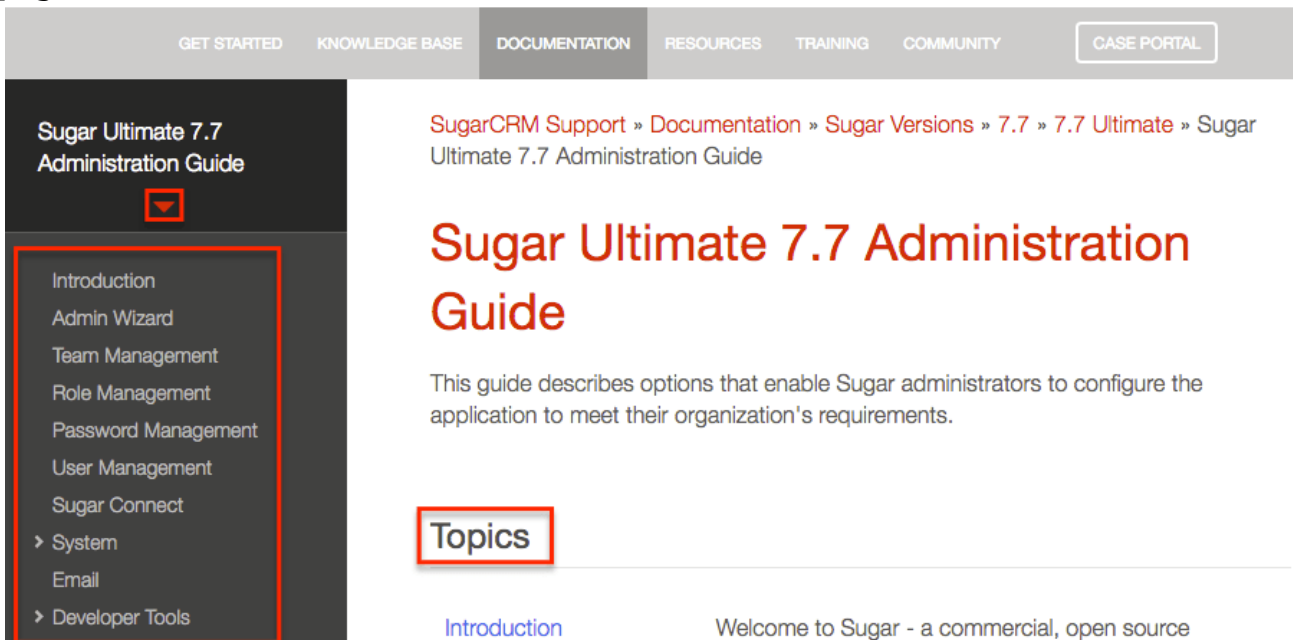
If there is an available version update, a message will appear below the Check Now button with the latest version along with a message to visit support.sugarcrm.com to retrieve and download the latest version. Please note that On-Demand clients are normally upgraded by the SugarCRM team on a predetermined schedule as releases are made available. On-Site clients will need to perform the upgrade themselves as Sugar is hosted on their servers. If the system detects that you have the latest version of Sugar, then the message will inform you that you have the latest version available.

## Online Documentation

Administrators can easily access the documentation for their current Sugar version and edition via Admin > Online Documentation.



A new window will open directing you to the appropriate Administration Guide, which provides information about configuring and administering your Sugar instance. You can view specific sections of the Administration guide by selecting the various topic links (e.g. Users, System, Email, etc.) on the main page or from the Administration Guide tree menu to the left. You can also access the relevant Application Guide which provides information about functionality available to end users. Simply click the down arrow at the top of the menu to the left of the Administration Guide and select the Application Guide link (e.g. Sugar Ultimate 7.7 Application Guide). To learn more about a specific module in Sugar, select the appropriate topic link (e.g. Accounts, Contacts, etc.) on the main Application Guide page or from the menu on the left.



Please note that all users can view the online documentation as well by clicking the Support link in Sugar's footer. Doing so will open the SugarCRM Support page in a separate tab, and users can click the DOCUMENTATION tab on the navigation bar to view the appropriate guides. Once the main documentation page opens, simply

select the version and edition specific to your Sugar instance. The guides (e.g. User Guides, Administrator Guides, etc.) specific to the selected version and edition of Sugar will now display on the page. Additional guides (e.g. SugarCRM Mobile for iOS User Guide, MS Outlook Plug-in User Guide 2.x, etc.) are available to view as well to the right of the page. Please note that you can also access documentation outside of your Sugar instance simply by navigating to the SugarCRM Support page (<http://support.sugarcrm.com>) and clicking the DOCUMENTATION tab.



SugarCRM Support » Documentation



## 7.7 Ultimate Documentation

### User Guides

[Application Guide](#)

[Portal Deployment User Guide](#)  
[Portal User Guide](#)

### Developer Guides

[Developer Guide 7.7](#)  
[Schema 7.7.0.0](#)

### Administrator Guides

[Administration Guide](#)  
[Installation and Upgrade Guide](#)  
[Supported Platforms](#)

### Release Notes

[Release Notes 7.7.0.0](#)

### Additional Guides

[SugarCRM Mobile for Android User Guide](#)  
[SugarCRM Mobile for iOS User Guide](#)  
[MS Outlook Plug-in User Guide 2.x](#)  
[MS Outlook Plug-in Installation Guide 2.x](#)  
[MS Excel Plug-in User Guide](#)  
[MS Excel Plug-in Installation Guide](#)  
[MS Word Plug-in User Guide](#)  
[MS Word Plug-in Installation Guide](#)  
[IBM Notes Plug-in User Guide 2.x](#)

The Application and Administration Guides provide end-users and administrators with an in-depth look at configuring, customizing, and utilizing Sugar, as well as the various options available in the application. The Installation and Upgrade Guide provide users with the necessary instructions to properly install or upgrade their On-Site Sugar instance. The Supported Platforms page covers the supported components that are necessary to run the Sugar application. The Developer Guides provide developers with advanced information on configuring and customizing Sugar to best meet their organization's needs. The release notes cover feature enhancements, fixed issues, etc. that are included in the specific version release. Additional guides include instructions for using mobile applications as well as plug-ins for Microsoft Office and IBM Notes.

Last Modified: 05/27/2016 06:43pm

## System

## Overview

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Sugar comes with the ability to configure many different system settings to personalize the way Sugar works. The System section is only available to administrative users and can be accessed via the Admin screen. The following sections are available options from the System section.

System contains the following menus:

<a href="#">System Settings</a>	Configure system-wide settings
<a href="#">Locale</a>	Set default localization settings for your system
<a href="#">Currencies</a>	Set up currencies and conversion rates
<a href="#">Languages</a>	Manage which languages are available for users
<a href="#">Search</a>	Select modules for the Global Search and configure full-text searching
<a href="#">Connectors</a>	Manage connector settings
<a href="#">OAuth Keys</a>	OAuth key management
<a href="#">Import Wizard</a>	Import records easily into the system
<a href="#">Upgrade Wizard</a>	Upload and install Sugar upgrades
<a href="#">Backups</a>	Back up web files for your Sugar instance
<a href="#">Repair</a>	Check and repair Sugar
<a href="#">Diagnostic Tool</a>	Capture system configuration for diagnostics and analysis
<a href="#">Tracker</a>	Enable/Disable tracking
<a href="#">Scheduler</a>	Set up scheduled events
<a href="#">PDF Manager</a>	Manage templates for generated PDF files
<a href="#">Mobile</a>	Select modules to appear in the Mobile applications
<a href="#">Web Logic Hooks</a>	Configure actions to call out to code hosted outside of your Sugar instance to process specified actions.

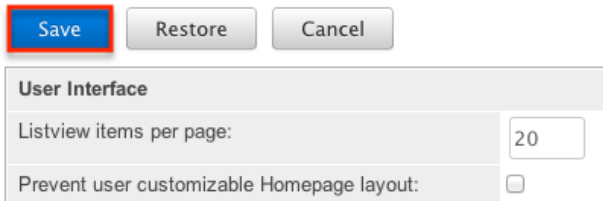
## System Settings

System Settings allows administrators to configure system-wide settings to your organization's specifications. The system settings are split across a few different

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panes of related information. Change the values in any of the panels and click "Save" to preserve your changes.

System Settings



Save Restore Cancel

User Interface

Listview items per page:

Prevent user customizable Homepage layout:

Alternatively you can click "Restore" to restore the system settings back to default.

## User Interface

The User Interface pane consists of a group of settings that affect the interface of Sugar. Use the following settings to configure the different aspects of the interface:

- Listview items per page : The maximum number of records to display per list view results set, as well as the search results set on the View All Results page for Global Search. By default, this is set to 20 records per results set. The system paginates lists that contain more than the specified number of list view items per page.
  - Note: The recommended setting is below 50 for acceptable performance levels. As additional fields are added to the list view, this number should be at the lower end of the recommended setting.
- Subpanel items per page : The maximum number of records to display on a page in subpanels. The system paginates lists that contain more than the specified number of records. Defaults to 5.
  - Note: Recommended setting is no more than 25 with lower values recommended when subpanels include many fields.
- Display server response times : When hovering over the logo located in the footer on every page, a statistic displays the time taken to respond when users attempt to perform an action, such as logging in or opening an item, in Sugar. Deselect this option if you do not want to display the response time. Defaults to Enabled.

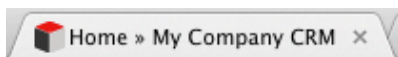


© 2004-2013 SugarCRM Inc. All Rights Reserved. Server response time: 1.32 seconds.



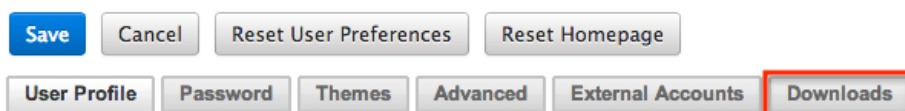
**SUGARCRM**

- System Name : The name of this instance of Sugar. Displays in the browser's title bar.



Home » My Company CRM

- Show Full Names : Select this option to set the default value for new users to display the full name of users instead of login names throughout Sugar.
- Current Logo : The current logo being used in the bottom left hand corner of the footer bar.
- Select Logo : Click "Choose File" to navigate to and select a new logo for your system. The dimension should be 212 X 40 pixels, with the standard transparent background color, in PNG or JPG format.
- Display Downloads Tab : Select this option to display the Download tab in the User settings and provide users with access to Sugar plug-ins and other available files



- Lead Conversion Options : Select an option from the dropdown menu to determine the handling of related activity records (e.g. calls, tasks, etc.) during lead conversion. For more information, please refer to the [Leads](#) documentation in the Application Guide.
  - Move : This option moves all of the lead's activities to the contact record created during conversion.
  - Do Nothing : This option does not alter the lead's activities during conversion. The activities remain related only to the lead. This is the default setting.
- Display actions within menus : Select to display detail view and subpanel actions within a dropdown menu. If disabled, the actions will display as separate buttons.
  - Note: Only applies to Legacy modules.
- Collapse all subpanels and disable sticky feature : Select this option to collapse all subpanels in the record view by default and disable automatically expanding previously-expanded subpanels in order to improve performance. Once enabled, users wishing to view subpanel data will need to expand the subpanel each time they return to a module.
  - Note: Only applies to Sidecar modules.
- Prevent user customizable subpanel layout : Select this option to prevent users from dragging and dropping subpanels to a different location in the detail view layout.
  - Note: Only applies to Legacy modules.

## Proxy Settings

Proxy servers redirect Internet traffic coming from and to the server running Sugar. If you are using a proxy server, you will need to enter proxy information into the system settings to allow the Sugar instance to communicate with the internet. This is necessary to allow the system licensing to validate and update. For more information on system licenses, please refer to the [License Management](#)



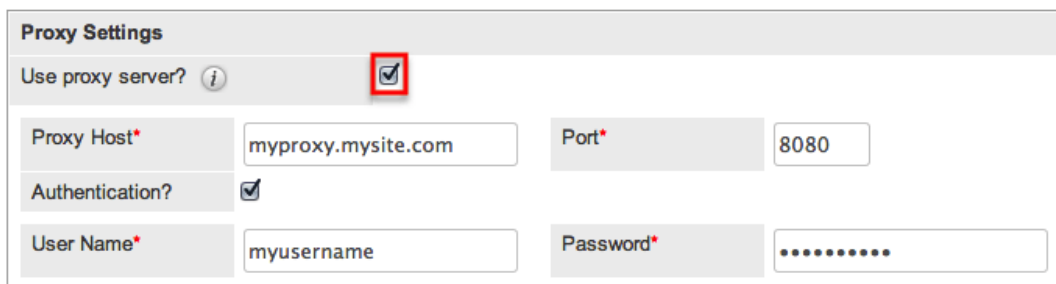
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section of the Sugar Connect documentation in the administration guide.

Note: Proxy settings should not be used for instances of Sugar hosted On-Demand.

Use the following settings to configure proxy settings:

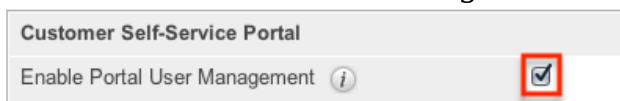
- Use Proxy Server? : Select this option to use a proxy server and to reveal the following fields.
- Proxy Host : The host name or ip address of the proxy server to use.
- Port : The communication port of the proxy server.
- Authentication? : Select this option if the proxy server requires authentication and to reveal the following fields.
- User Name : The user name to authenticate to the proxy server.
- Password : The password to authenticate to the proxy server.



The screenshot shows a 'Proxy Settings' configuration form. The 'Use proxy server?' checkbox is checked and highlighted with a red box. Below it, the 'Proxy Host' field contains 'myproxy.mysite.com' and the 'Port' field contains '8080'. The 'Authentication?' checkbox is also checked. The 'User Name' field contains 'myusername' and the 'Password' field is masked with dots.

## Customer Self-Service Portal

The Customer Self-Service Portal comes with Enterprise and Ultimate versions of Sugar and provides an external-facing website for your customers to view Cases, Bugs, Knowledge Base articles and other data in Sugar. Select the checkbox next to "Enable Portal User Management" to enable the portal.



The screenshot shows a 'Customer Self-Service Portal' configuration form. The 'Enable Portal User Management' checkbox is checked and highlighted with a red box.

This setting can also be enabled or disabled via Admin > Sugar Portal. For more information on the Customer Self-Service Portal, please refer to the [Portal User Guide](#).

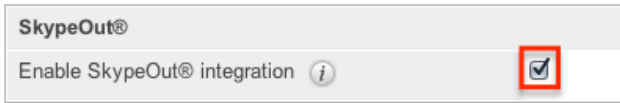
## SkypeOut

SkypeOut takes any stock or custom field that has a type of Phone and makes it a link that launches Skype to call the phone number. The phone number must be formatted properly to use this feature. It must be "+" "The Country Code" "The



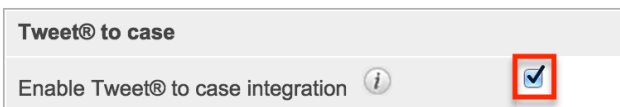
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Number" (e.g., +1 (555) 555-1234). Select "Enable SkypeOut integration" to enable this feature.



## Tweet to Case

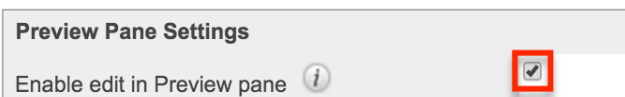
The Tweet-to-Case feature allows users to create cases directly from incoming tweets within the Twitter dashlet. Select the Enable Tweet to case integration checkbox to enable this feature. For more information on using the feature, please refer to the [Twitter Dashlet and Cases](#) section of the Cases documentation.



Note: The Twitter connector must already be set up prior to enabling this feature. For more information on how to configure the Twitter connector, please refer to the [Connectors](#) section of this documentation.

## Preview Pane Settings

The preview edit feature allows users to edit records directly from the intelligence pane on list views. Select the checkbox labeled "Enable edit in Preview pane" to enable this feature. For more information on using the feature, please refer to the



## Advanced

The Advanced panel consists of the following group of settings for advanced configuration of Sugar:

- **Validate user IP address** : Select this option to validate user's IP address while accessing Sugar. If the IP address of a user changes in mid-session, Sugar will log them out and force them to log back in for security reasons. Note: Some high availability systems, VPNs, and switching Wi-Fi and wired connections may change IP addresses and thus cause your users to be logged out when they have not changed their configuration.
- **Log slow queries** : Select this option to log queries that take longer than the slow query time threshold. This is useful for performance debugging.

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Note: There is an inherent overhead to logging slow queries. If the threshold is set too low, it may cause performance issues.

- **Maximum upload size** : Specifies the maximum file size in bytes that is allowed to be uploaded to Sugar. This setting affects images, import files, and module uploads.

Note: The file upload size is also dependent on the php.ini `upload_max_filesize` and `post_max_size` directives.

- **Portal Session Timeout** : The maximum time in seconds of inactivity for a Sugar Portal session. The session will timeout and the customer will be logged out when the time limit is reached with no activity.

Note: This value is only used for legacy versions of Sugar Portal available in 6.5 and older.

- **vCal Updates Time Period** : Determines the number of months the Free/Busy data is published to vCal. Specify the number of months in advance of the current date that Free/Busy information for calls and meetings to be published. To turn Free/Busy publishing off, enter "0". The maximum is 12 months.

- **Log memory usage** : Select this option to log memory usage per action performed in Sugar. The data will be stored in the `./memory_usage.log` file.

- **Slow query time threshold (msec)** : Specify a threshold in milliseconds to begin logging slow queries at. If "Log slow queries" is selected, queries that take longer than the threshold to process will be logged. If you have enabled the Tracker Queries option on the [Tracker](#) page, you can run the pre-defined Slow Queries report to view slow queries.

- **Display stack trace of errors** : Select this option to display where errors occur in the application's stack trace. This option is for debugging purposes and should not be left on in a production instance.

- **Developer Mode** : Select this option to disable caching to immediately view changes made to language, vardefs, and template files. This option is for debugging purposes and should not be left on in a production instance.

- **Import - Maximum Number of Rows** : Specify how many rows are allowed within import files. If the number of rows in an import file exceeds this number, the user will be alerted. If no number or zero is entered, an unlimited number of rows are allowed.

Note: Header rows count towards the total number of rows in the import file.

- **Prevent private team names from inheriting the user's name fields** : Select this option if private team names may be different from the user's first and last name. By default, Sugar will update a private team name to [Firstname Lastname] any time the corresponding user's profile is edited and re-saved, even if the change was not made to the user's first or last name. Enable this option to ensure that edited private team names do not revert to the system default.

## Logger Settings

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Sugar comes with a built-in logging system to log information or errors that occur in the application. By default, the logs are written to `sugarcrm.log` in the Sugar root directory. If a problem arises, you can refer to the log file for information that may help in troubleshooting the issue. The Logger Settings panel consists of a group of settings that affect the Sugar logs.

Note: The Logger Settings panel is hidden for on-demand instances of Sugar. Should you require a log level to be temporarily changed on an on-demand production environment, you must open a [support case](#). For more information about default configuration settings for on-demand environments, please refer to the [On-Demand Policy Guide](#).

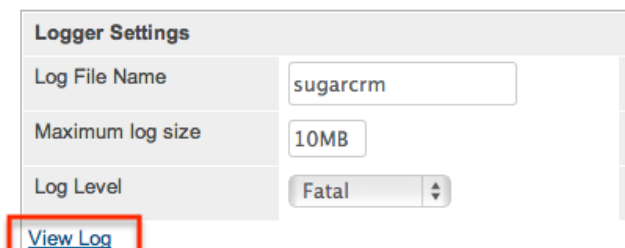
Use the following settings to configure the different aspects of Sugar logging:

- Log File Name : Specify a name for the log file. Defaults to `sugarcrm`.
- Maximum log size : Specify the maximum size of the log file in megabytes (MB). The default is 10MB. Once a log file reaches the specified size it is renamed to have an incrementing number and a new file will be created to contain new logs.
- Log Level : Select the event level that you want to capture in the log file. The levels are listed below in order of the most log records to the least. The default level is fatal. When specifying a logging level, the system will create log files for the specified level as well as higher levels. For example, if you select "error", the system creates log files for "error", "fatal", and "security". Please note that there is an inherent overhead to logging. If the log level is set too high, it may cause performance issues. The "info" and "debug" settings are not recommended for continuous use in a production environment.
  - debug : Logs events that help debug the application
  - info : Logs informational messages
  - warn : Logs potentially harmful events
  - error : Logs error events in the application
  - fatal : Logs severe error events that cause the application to abort
  - security : Logs events that may compromise the security of the application
  - off : The logger will not log any events
- Extension : Specify the file extension for the log file. Defaults to `.log`.
- Default date format : The date format for the log file. This format must be supported by [strftime](#). Defaults to `%c`.
- Maximum number of logs (before rolling) : The maximum number of log files to save. When the number of log files exceed this limit, Sugar deletes the log file that was created first. Defaults to 10.
- Append after filename : Select a time period from the dropdown list to append to the file name (None, Month\_Year, Day\_Month, Month\_Day\_Year). This makes it easier to identify the log that you want to view.

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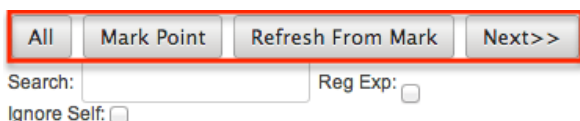
## View Log

The Sugar log is stored in the root directory of Sugar and is accessible from the operating system. Administrators who do not have access to the operating system running Sugar do have the ability to view the log through Sugar. Select "View Log" from the System Settings screen.



This opens the log viewer for the current log file. You have the following options for navigating the log file:

- All : Select this option to view the entire log.
- Mark Point : Select this option to mark a starting point in the current log file.
- Refresh From Mark : Select this option to view any entries made in the log after the most recent mark.
- Next : Select this option to view new entries in the current log file.



A common method for utilizing these options to debug a problem would be to click "Mark Point", perform the action causing problems, and then select "Refresh From Mark" to see any log entries caused by the action being debugged.

You also have the ability to search within the log file for keywords. To perform a search, simply enter a keyword into the search box and press Enter on your keyboard to execute the search.

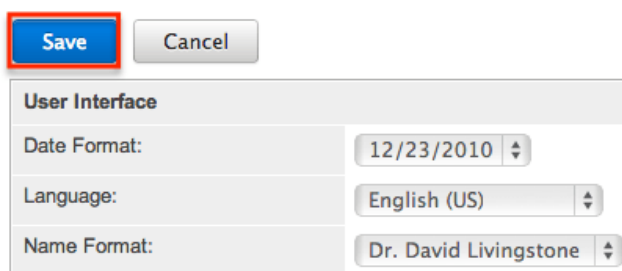
## Locale

Locale allows administrators to configure localization settings to your organization's specifications. Some of the settings specified here can be overridden by user level personalizations such as datetime format on the User Preferences page. The locale settings are split across a few different panels of related information. Change the values in any of the panels and click "Save" to preserve

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your changes.

Locale



The screenshot shows a user interface settings panel. At the top, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'. Below these is a section titled 'User Interface' with three settings, each in a dropdown menu:

User Interface	
Date Format:	12/23/2010
Language:	English (US)
Name Format:	Dr. David Livingstone

## User Interface

The User Interface panel consists of a group of locale settings that affect the interface of Sugar. Use the following settings to configure the different aspects of the interface:

- **Date Format** : Select a format from the dropdown for displaying the date throughout the application.
- **Language** : Select a default language from the dropdown for use throughout the application. Users can select a different language from the login page. For more information regarding enabling or disabling languages, please refer to the [Languages](#) section.
- **Name Format** : Select a format from the dropdown for displaying people names throughout the application. You can specify any combination of salutation, first name, and last name.
- **Time Format** : Select a format from the dropdown for displaying the time throughout the application.

Users have the ability to override the default date, time, and name formats through their user profiles. For more information on how to set locale settings per user, please refer to the [Locale Settings](#) section of the Getting Started documentation in the Application guide.

## System Currency

The System Currency panel consists of a group of currency settings that affect the interface of Sugar. Use the following settings to configure the different currency options:

- **Currency** : The name of the default currency your organization uses to

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conduct business.

- ISO 4217 Currency Code : The ISO code for the currency.
  - Note: This setting must be populated in order for the currency (e.g. EUR) to display in the Quotes detail view.
- Decimal Symbol : The default decimal symbol.
- Currency Symbol : The default symbol for the currency.
- 1000s Separator : The default delimiter to separate thousands.

Users have the ability to override the currency defaults through their user profiles. For more information on how to set currency settings per user, please refer to the

## Export Settings

The Export Settings panel consists of a group of export settings that affect different aspects of exporting in Sugar. Use the following settings to configure the different export options:

- Export Delimiter : The delimiter used to separate fields while exporting data. Defaults to a comma.
- Disable export : Select this option to disable the export option for all users, including administrators.
- Default Character Set for Import and Export : Select a default character set from the dropdown that handles the expected characters in an import and export. Defaults to UTF-8.
- Admin export only : Select this option to disable the export option for standard users, administrators will be allowed to export.

Users have the ability to override the default export delimiter and character set through their user profiles. For more information on how to set export settings per user, please refer to the [User Preferences](#) section of the Getting Started documentation in the Application guide.

Note: Locales that use character encoding other than UTF-8 must specify the appropriate character set.

## Database Collation

The Database Collation panel only shows if running on a MySQL database and contains an option to change the collation of the connection Sugar makes to the database. Select the desired collation from the dropdown. Defaults to utf8\_general\_ci.

Note: Changing this setting will not change existing tables, but only new tables

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going forward. If this setting does not match the collation of the current tables in the database then the database will return errors when accessing those tables.

## Currencies

Currencies allows administrators to configure all currencies and exchange rates in Sugar. The defined currencies are displayed in a table at the top of the page and a form is displayed at the bottom for creating a new currency. From the table you can select the currency's name to modify the details of the currency, or you can select "delete" to remove the currency.

### Currencies

Currency Name	ISO 4217 Code	Currency Symbol	Conversion Rate	Status	
US Dollars	USD	\$	1.0000000000	Active	
CA Dollars	CAD	\$	1.0089000000	Active	delete
Euro	EUR	€	0.7571200000	Active	delete

The system currency is displayed here but is not editable. For more information on how to edit the system currency, please refer to the [System Currency](#) section. When selecting a currency, the form underneath the table is populated with the selected currency's data. Modify the following fields and click "Save" to preserve your changes:

- Currency Name : The name or designation of the currency.
- Conversion Rate : The conversion rate to get to this currency from the system currency. In our example above, to get Canadian Dollars, you would have to multiply US Dollars by 1.0089. This value is the conversion rate.
- Status : The current status of the currency (e.g., Active, Inactive). Selecting "Inactive" will remove this currency from the dropdowns throughout the application.
- ISO 4217 Code : The ISO code for the currency.
  - Note: This setting must be populated in order for the currency (e.g. EUR) to display in the Quotes detail view.
- Currency Symbol : The default symbol for the currency.

### Edit » CA Dollars

Currency Name: *	<input type="text" value="CA Dollars"/>	ISO 4217 Code:	<input type="text" value="CAD"/>
Conversion Rate: *	<input type="text" value="1.0089000000"/>	Currency Symbol: *	<input type="text" value="\$"/>
Status:	<input type="button" value="Active"/>		

---

To create a new currency in the system, simply populate the Create form with the details of the new currency and click "Save".

Create

Currency Name: *	<input type="text"/>	ISO 4217 Code: <i>i</i>	<input type="text"/>	
Conversion Rate: *	<input type="text" value="0"/>	<i>i</i>	Currency Symbol: *	<input type="text"/>
Status:	<input type="button" value="Active"/> <input type="button" value="↓"/>			

Note: When creating a new currency, you can populate the ISO 4217 Code and the Currency Name and Currency Symbol will automatically populate based on the code entered.

## Updating Conversion Rates

Users may use the currencies defined in Admin > Currencies when populating any currency amount field in stock or custom modules. When doing so, the exchange rate for the selected currency is stored on the record itself. The conversion rate stored on each record will update to match the current rate specified in Admin > Currencies under the following scenarios:

- The record undergoes a save event (e.g., mass update, manual save, etc.) and the record's currency has a different conversion rate defined in Admin > Currencies than is currently saved in the opportunity.
- An administrator updates the currency exchange rate under Admin > Currencies. This will trigger a scheduled job which updates all records saved with that currency to the new rate.

To keep amounts relevant to closed business historically accurate, opportunity and quote records will not update if they are in a closed status. For more information about updating opportunity currency rates, please refer to the [Opportunities](#) documentation in the application guide. For more information about updating quote currency rates, please refer to the [Quotes](#) documentation in the application guide.

## Languages

Languages allows administrators to configure which languages are available for users to login with. To disable a language, simply drag the language from the Enabled Languages panel to the Disabled Languages panel and click "Save".



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## Languages

Drag and Drop the names of the languages below to enable and disable them.

Enabled Languages	Disabled Languages
English (US)	
Български	
Česky	
Dansk	
Deutsch	
Ελληνικά	
<input type="text" value="Español"/>	
Français	
עברית	
Magyar	
Italiano	
Lietuvių	

Any languages in the Disabled Languages section will not be in the Languages dropdown while logging in.

## Search

Global search in the desktop application allows users to search for information across their entire Sugar database as opposed to restricting search within a specific module. For more information on how to use global search, please refer to the [Global Search](#) section of the Search documentation in the Application guide. The Search administration settings allow administrators to configure, enable, and index full text search as well as configure legacy global search. Global searches in the desktop application will be returned by [full text search](#). SugarCRM Mobile global searches will be returned for modules enabled in the [Legacy Global Search Configuration](#) page.

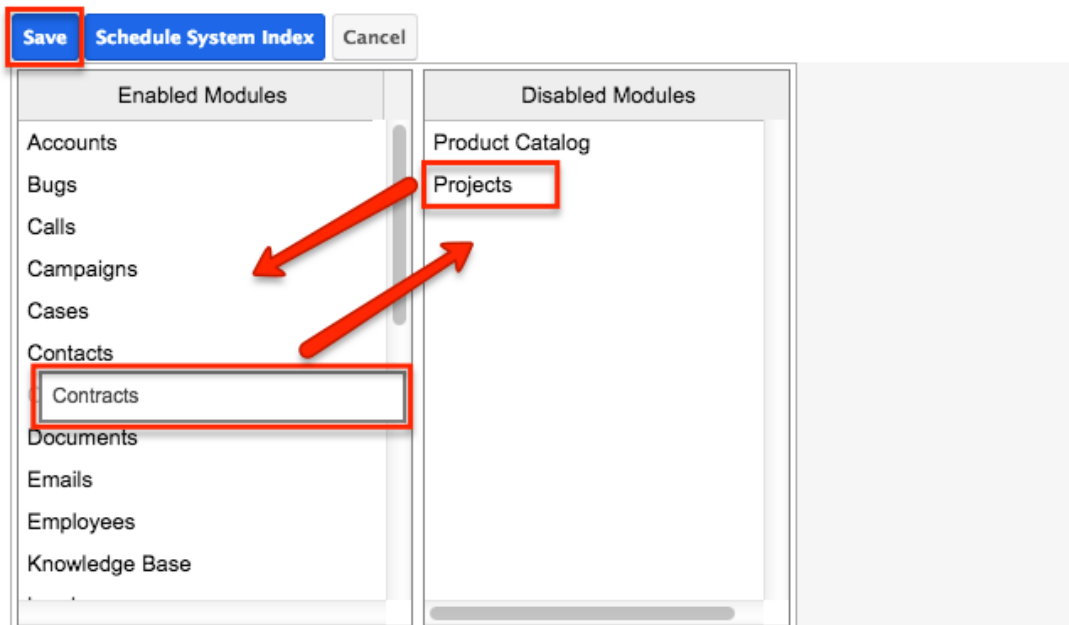
## Configuring Full Text Search

Sugar's global search is enabled with full text searching abilities which uses the elasticsearch engine. Full text search allows users to search throughout various fields and modules for an enhanced search experience. In order for results to return for a particular module, the module must be enabled on the Full Text Search Configuration page. To enable or disable a stock or custom module for global search, simply drag and drop the module between the Enabled Modules or Disabled Modules column and click "Save".

---

## Full Text Search

Select the module(s) that users will be able to search against using the Global Search. Perform a full system index after enabling modules for the Global Search. To enable module fields for full text searching, use [Studio](#).



For the desktop application, disabled modules will not be included in the global search results nor available to select in the Modules list on the Global Search bar. For more information on filtering global search by modules, please refer to the [Filtering by Module](#) section of the Search documentation in the Application guide.

Modules must be enabled for SugarCRM Mobile and Sugar Portal global searches in the [Legacy Global Search Configuration](#) page.

After enabling modules for Global Search, a full system index must be performed in order for the module to appear in the search results. For more information on performing a system index, please refer to the [Indexing Full Text Search](#) section of this documentation.

Individual module fields must be enabled for full text search in the field attributes via Studio > {Module Name} > Fields > {Field Name}. For more information, please refer to the [Studio](#) documentation.

Note: Only modules enabled for Full Text Search can be referenced in user posts on the activity stream. For more information on referencing record's in posts, please refer to the [Activity Stream](#) documentation in the Application guide.

## Activating Full Text Search

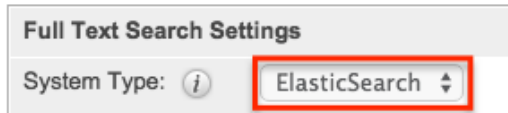
Sugar's global search is enabled with full text searching abilities utilizing the elasticsearch engine. Full text search (FTS) allows users to search throughout various fields and modules for an enhanced search experience. Please note that

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elasticsearch is required to be set up when installing Sugar for On-Site instances and it is automatically enabled by default for On-Demand instances.

Use the following steps to configure full text search:

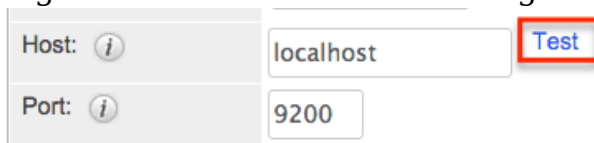
1. The ElasticSearch server is selected by default for the System Type field.
  - Note: For more information on elasticsearch, please refer to [www.elasticsearch.org](http://www.elasticsearch.org).



Full Text Search Settings

System Type: *i* ElasticSearch ▾

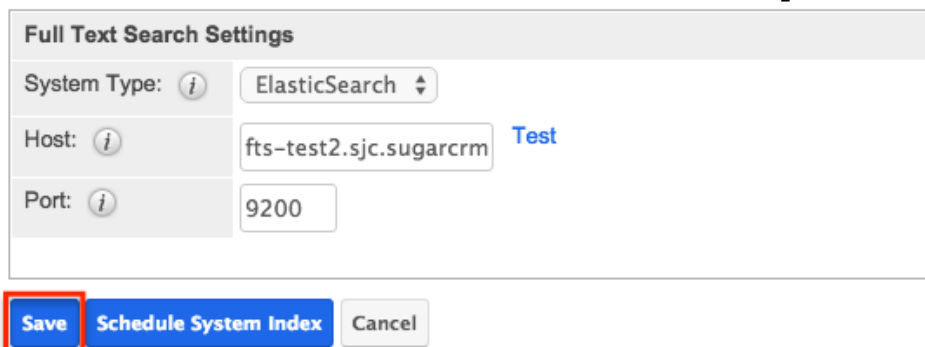
2. Enter the host name or IP address of the full-text search engine.
  - Note: Defaults to "localhost" assuming you are running the search engine on the same server as Sugar.
3. Enter the port number for Sugar to connect to the search engine.
  - Note: Defaults to "9200", which is elasticsearch's default port number.
4. Click "Test" to verify that the settings are entered correctly and confirm that Sugar connects to the search engine successfully.



Host: *i* localhost Test

Port: *i* 9200

5. A popup message will confirm if the connection was successful or not.
6. If the connection was successful, click "Save" to preserve your changes.



Full Text Search Settings

System Type: *i* ElasticSearch ▾

Host: *i* fts-test2.sjc.sugarcrm Test

Port: *i* 9200

Save Schedule System Index Cancel

Each enabled module has a set of fields that are enabled for full text searching by default. Administrators can enable or disable specific fields for full text search via Admin > Studio. For more information on how to enable or disable fields for full text search, please refer to the [Studio](#) documentation.

Note: Once a new module or field is added to full text search, you must perform a system index in order for that field or module to be included in the full text search results.

## Indexing Full Text Search

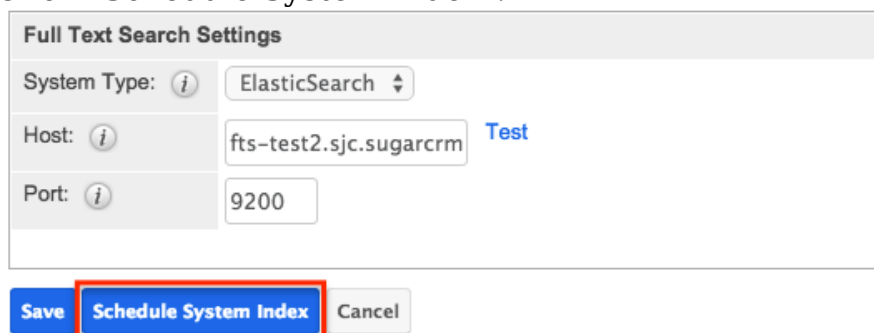
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Full text search relies on an index of the records and data to be able to quickly locate results. After enabling full text search, or enabling a module or field, you should perform a full index of your system.

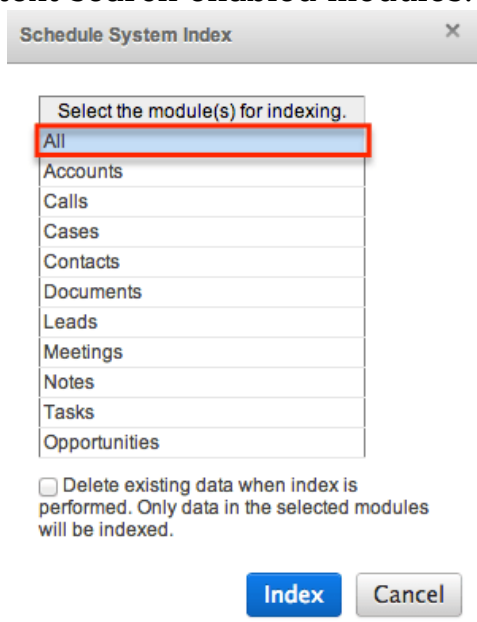
Note: System performance can be affected while the index is being performed. It is recommended to run a system index during low usage or off hours.

Use the following steps to perform a full system index:

1. Click "Schedule System Index".



2. A pop-up message will display warning of potential performance issues during the index. Click "OK" to proceed.
3. The list of available full text search modules will display. Simply select one or more module(s) to perform the index. You may also select "All" to index all full text search enabled modules.



4. Select the checkbox to delete the current index data before the index operation runs. If this is the first index being performed on the system, you do not need to select this option. If you have added fields to a module's index, then this checkbox should be selected or the new field may not show in the results.

5. Click the Index button to schedule the index.
6. The next time the scheduler runs, it will rebuild the index based on the selected options. For more information on schedulers, please refer to the [Schedulers](#) documentation.

Note: The time and resource it takes to perform an index is directly proportional to the number of modules selected for the indexing. It is recommended that you choose only the modules that require indexing and perform the index during low usage or off hours.

## Configuring Legacy Global Search

Legacy global search will only be used to return results in SugarCRM Mobile or Sugar Portal global searches. In order for legacy global search to return results for a particular module, it must be enabled on the Legacy Global Search Configuration page. To enable modules for global search in the desktop application, use the [Full Text Search Configuration](#) instead.

Modules may be enabled or disabled for legacy global search by moving the module to the appropriate column and clicking "Save". To move modules between the columns, simply drag and drop the module names.

### Search

Select the module(s) that users will be able to search against.

The screenshot shows a configuration window with two columns: "Enabled Modules" and "Disabled Modules". The "Enabled Modules" column contains: Accounts, Bugs, Calls, Cases, Contacts, Documents, Knowledge Base, Leads, Manufacturers, Meetings, and Notes. The "Disabled Modules" column contains: Campaigns, Contracts, Projects, Project Tasks, Target Lists, Targets, Quotes, and Tasks. A red box highlights the "Save" button at the top left. Another red box highlights the "Contracts" module in the "Disabled Modules" column. Two red arrows point from "Contracts" to the "Enabled Modules" column, indicating the action of moving it. A third red box highlights the "Documents" module in the "Enabled Modules" column.

Click [here](#) to configure settings for Global Search.

Note: Legacy global search for Sugar installations running on Oracle is case-sensitive by default. To change this, add the following line to theconfig\_override.php file:

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```
$sugar_config['oracle_enable_ci'] = true;
```

## Connectors

The connector settings page allows administrators to configure and manage the various types of connectors to external data sources which integrate with Sugar. A number of different connectors (e.g., Twitter, Citrix GoToMeetings, etc.) come out-of-the-box with Sugar and are enabled by default to allow users to easily view external data via their instance.


Please note that connectors can be disabled and configured accordingly via Admin > Connectors. Developers in your organization can also create connectors to other data sources, which can be uploaded via Module Loader. For more information on how to upload and install packages in Sugar, please refer to the [Module Loader](#) documentation. You can also search for other available connectors via Sugar Forge (<http://www.sugarforge.org>) and Sugar Exchange (<http://www.sugarexchange.com>)

### Connector Settings

	<b>Set Connector Properties</b> Configure the properties for each connector, including URLs and API keys.		<b>Map Connector Fields</b> Map connector fields to module fields in order to determine what connector data can be viewed and merged into the module records.
	<b>Enable Connectors</b> Select which modules are enabled for each connector.		<b>Manage Connector Search</b> Select the connector fields to use to search for data for each module.

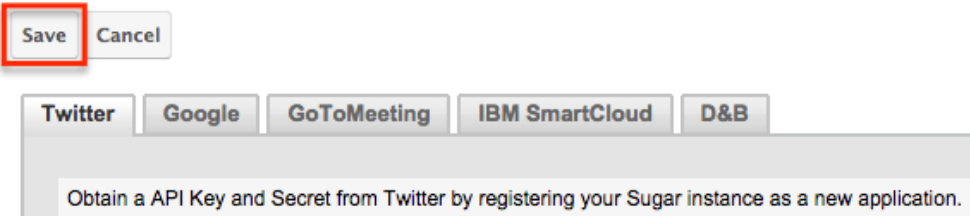
## Setting Connector Properties

Many connectors use web services and require certain connector properties (e.g. API Key, API Secret) to be configured prior to use. To configure the connector properties, simply click the Set Connector Properties button on the Connector Settings page.

	<b>Set Connector Properties</b> Configure the properties for each connector, including URLs and API keys.
---	--

The Set Connector Properties page displays a tab for each connector that must be configured in order to use in Sugar. The tabs will include the necessary steps or link for you to obtain the information (e.g. API Key, API Secret, etc.) needed to set up the connector. Once the necessary information has been entered, click "Save" to preserve your settings.

Connector Settings » Set Connector Properties



The following connectors and their properties are available to configure:

Connector	Property	Description
D&B	D&B Username	The username associated to your D&B account provided by D&B
	D&B Application Key	The Application Key provided by D&B
	D&B Environment	The D&B environment name
Google	Client ID	The Client ID provided by Google
	Client secret	The Client secret provided by Google
GoToMeeting	API Key	The API key provided by GoToMeeting
IBM SmartCloud	OAuth Consumer Key	The OAuth Consumer Key provided by IBM
	OAuth Consumer Secret	The OAuth Consumer Secret provided by IBM
Twitter	API Key	The API Key provided by Twitter
	API Secret	The API Secret provided by Twitter

For the Twitter and D&B tabs, click the Test Connector button on the bottom left of the screen to confirm that the data source is configured correctly. Please note that Sugar's WebEx integration is configured via the External Accounts tab of the user's profile. Since WebEx does not have global properties to configure, it will not appear on the Set Connector Properties page. For more information on configuring the WebEx application, please refer to the [Getting Started](#) documentation in the Application guide.

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## Enabling Connectors

In order to utilize the connectors in Sugar, administrators should ensure that they are enabled properly. Please note that certain connectors are enabled for the entire application while some allow you to enable specific modules for the connector. To specify which modules are enabled for each connector, click the Enable Connectors button on the Connector Settings page.

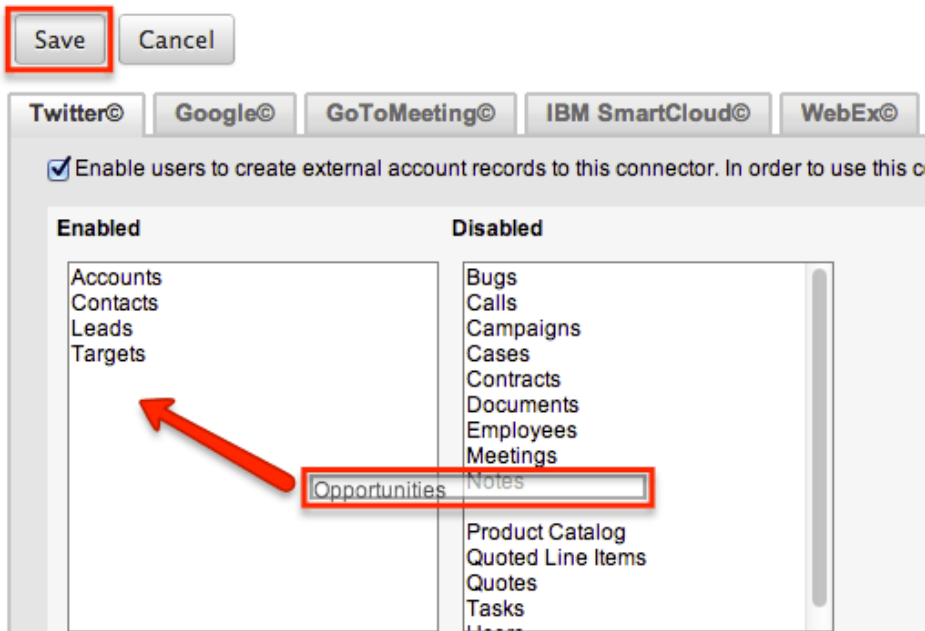


**Enable Connectors**  
Select which modules are enabled for each connector.

The Enable Connectors page will display a tab for each connector that is available in your Sugar instance. To enable a specific module for the connector, simply drag and drop the desired module from the Disabled column to the Enabled column. Click "Save" to preserve your changes.

Please note that you can enable the connector for any modules (e.g., Accounts, Contacts, etc.) that have a standard record view (for Sidecar modules) or detail view (for Legacy modules) layout in Sugar. For example, the Knowledge Base module does not have a record view layout, so it will not appear as an available module when configuring the Twitter connector.

[Connector Settings](#) » [Enable Connectors](#)



## Mapping Connector Fields

Some connectors query external services based on fields in Sugar. These mappings can be customized to use different fields based on your organization's needs. To configure the field mappings, simply click the Map Connector Fields button on the



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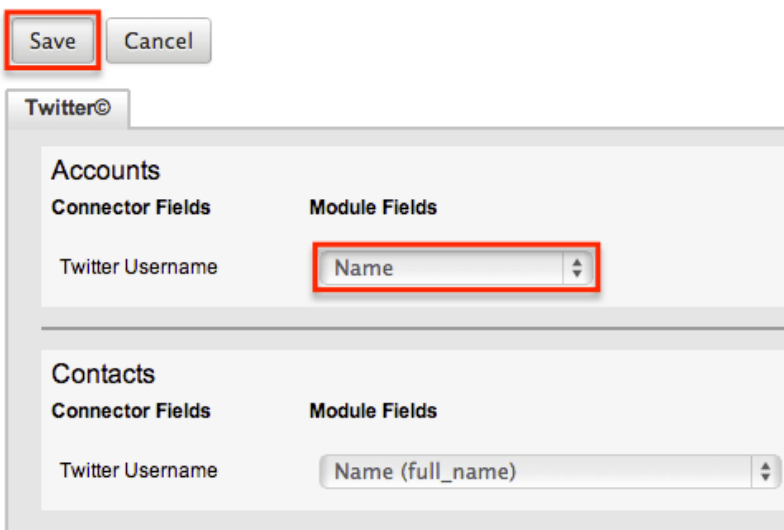
## Connector Settings page.



**Map Connector Fields**  
Map connector fields to module fields in order to determine what connector data can be viewed and merged into the module records.

The Map Connector Fields page has a tab for each connector that has field mappings available. Each of the enabled module(s) will display the connector fields and will need to have the corresponding Sugar field selected from the dropdown list. If the connector is enabled for multiple modules, be sure to select the proper fields for each module. Once the field mapping is set up properly, click "Save" to preserve your changes.

[Connector Settings](#) » [Map Connector Fields](#)



Please note that the connector fields may not always match up with a stock field in Sugar. If you wish to capture and map certain fields from the connector to Sugar, you will need to create new fields via Admin > Studio. For more information on how to create fields in Studio, please refer to the [Studio](#) documentation.

The following fields are available from the default connector mappings:

Connector	Fields
Twitter	Twitter Username

The field mapping for Twitter is used to look up and pull the information based on the value in the specific Sugar field. For example, if the Twitter connector is mapped to a custom field (New Twitter field) with a valid Twitter ID, then it will pull the feeds associated to that ID to the Twitter dashlet. Please note that mapping the Twitter username to the Name field will not always result in a match, so it is recommended that you map to a field containing the Twitter ID in the record view. For more information on how to use features related to the Twitter connector, please refer to the [Twitter Dashlet and Cases](#) section of the Cases documentation.

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## Managing Connector Search

Connectors that have multiple fields for mapping need to specify which fields are to be used when searching for data in the module. To designate the connector fields for search, click the Manage Connector Search button on the Connector Settings page. Please note that there are no connectors which come out-of-the-box with Sugar that have search fields defined, so no connectors will be available to configure on this page.



**Manage Connector Search**  
Select the connector fields to use to search for data for each module.

The Manage Connector Search page will normally display a tab for every connector that needs connector fields defined for search. The available search fields are limited to the input parameters of the connector being used. To enable a field for search, simply drag and drop the desired field from the Available column to the Default column. Once the necessary field(s) have been selected, click "Save" to preserve your changes.

## OAuth Keys

OAuth is an open standard for authorization that enables users to share private resources stored on one site with another site without divulging personal credentials such as user name and password. OAuth works with a public consumer key and a private consumer key. Together, these keys identify which application connects to the service. It is the choice of the Sugar administrator to decide how many different keys to have and whom to give them to.

## OAuth Keys Fields

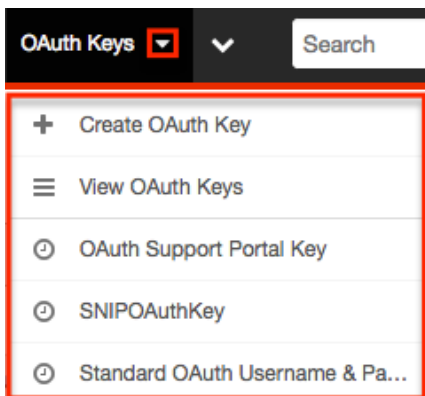
The OAuth Keys module contains a number of stock fields which come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs.

Field	Description
Consumer Key Name	The name or designation of the OAuth Key.
Consumer Key	Public key. A user name is a suitable consumer key value.
Consumer Secret	Private key. A password is a suitable

	consumer secret value. Note: The private key is not sent when making a connection.
OAuth Version	The version of the OAuth protocol/framework to use. (OAuth 1.0, OAuth 2.0)
Description	A description or other information about the OAuth key.

## OAuth Keys Module Tab

The OAuth Keys module tab appears on the navigation bar once you select "OAuth Keys" from the Administration page. Once in the OAuth Keys list view, you can click the triangle in the OAuth Keys module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of OAuth keys you last viewed in the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create OAuth Key</a>	Opens the edit view layout to create a new OAuth Key
<a href="#">View OAuth Keys</a>	Opens the list view layout to search and display OAuth Keys

## Creating OAuth Keys

There are various methods for creating OAuth keys in Sugar including via the OAuth Keys module and via duplication. The full edit view layout opens when creating the OAuth keys directly from the OAuth menu and includes all of the relevant fields for your organization's OAuth keys. The quick create form is a

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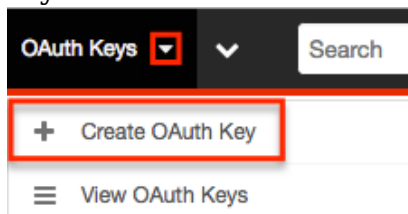
shortened version of the OAuth Keys edit view and typically contains fewer fields.

## Creating Via OAuth Keys Module

One of the most common methods of OAuth key creation is via the Create OAuth Key option in the OAuth Keys module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the OAuth key.

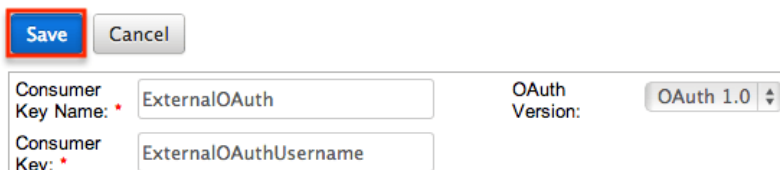
Use the following steps to create an OAuth key via the OAuth Keys module:

1. Navigate to Admin > OAuth Keys.
2. Click the triangle in the OAuth Keys module tab and select "Create OAuth Key".



3. Enter appropriate values for the [Fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save".

Create

A screenshot of the OAuth key creation form. At the top, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'. Below the buttons, there are two input fields. The first is labeled 'Consumer Key Name:' with a red asterisk, and its value is 'ExternalOAuth'. The second is labeled 'Consumer Key:' with a red asterisk, and its value is 'ExternalOAuthUsername'. To the right of these fields, there is a label 'OAuth Version:' and a dropdown menu showing 'OAuth 1.0'.

## Creating Via Duplication

You can also create a new OAuth key by duplicating an existing record. The duplicate option is useful if the key you are creating has similar information to an existing OAuth key.

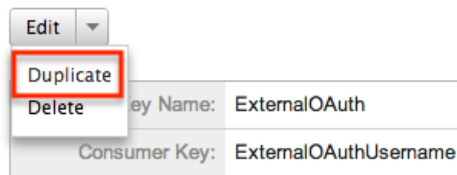
Note: The system generated OAuth Support Portal Key can not be duplicated.

Use the following steps to create a OAuth key by duplicating an existing record:

1. Navigate to an OAuth key record's detail view.
2. Select "Duplicate" from the Actions menu.

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## ExternalOAuth



The screenshot shows the 'ExternalOAuth' edit view. At the top left, there is an 'Edit' dropdown menu. A red box highlights the 'Duplicate' option in the dropdown. Below the dropdown, the form fields are pre-populated with the original key's values: 'Key Name: ExternalOAuth' and 'Consumer Key: ExternalOAuthUsername'.

3. The displayed edit view is pre-populated with the original key's values. Update the necessary fields, then click "Save".

### Create



The screenshot shows the 'Create' form for ExternalOAuth. At the top left, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'. Below the buttons, the form fields are pre-populated with the original key's values: 'Consumer Key Name: ExternalOAuth\_New', 'OAuth Version: OAuth 1.0', and 'Consumer Key: ExternalOAuthUsername'.

Note: When duplicating, the Consumer Key and OAuth Version are not modifiable.

## Viewing OAuth Keys

There are various options available for viewing OAuth key records in Sugar including via OAuth Keys list view, OAuth Keys detail view, and OAuth Recently Viewed menu.

### Viewing Via List View

The OAuth Keys list view displays all OAuth key records meeting the current search criteria. To access the list view, simply click the OAuth Keys module tab. While list view shows key OAuth key fields, you can click the key's name to open the record in detail view. For more information on viewing OAuth keys via list view, please refer to the [OAuth Keys List View](#) section.

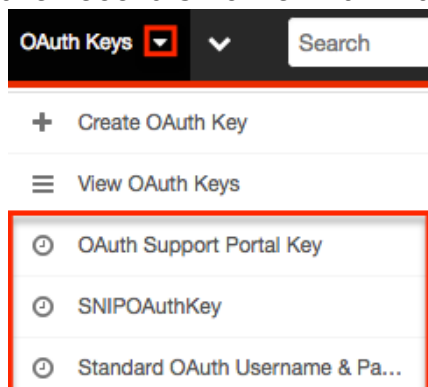
### Viewing Via Detail View

The OAuth Keys detail view displays thorough OAuth key information including all key fields followed by subpanels of the key's related records belonging to various modules. The detail view can be reached by clicking a key record's link from anywhere in the application including from the OAuth Keys list view. For more information on viewing OAuth keys via detail view, please refer to the [OAuth Keys Detail View](#) section.

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## Viewing Via Recently Viewed

As you work in the OAuth Keys module, Sugar will keep track of which OAuth key records you have recently viewed. Click the triangle in the [OAuth Keys module tab](#) to see a list of the 3 records you most recently viewed in the module. Clicking the record's name within the list will open it in detail view.



## Searching OAuth Keys

The OAuth Keys list view includes a Basic and Advanced Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the OAuth Keys list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g., %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

### Basic Search

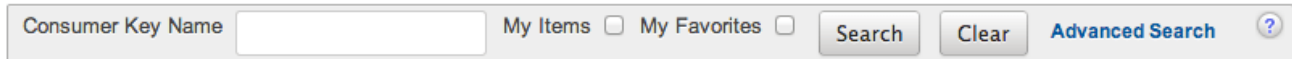
Basic search offers a few, commonly used fields for a simplified search experience. From the Basic Search panel, you can click "Advanced Search" to access additional search functionality as needed.

The buttons and checkboxes available in Basic Search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.

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## OAuth Consumer Keys



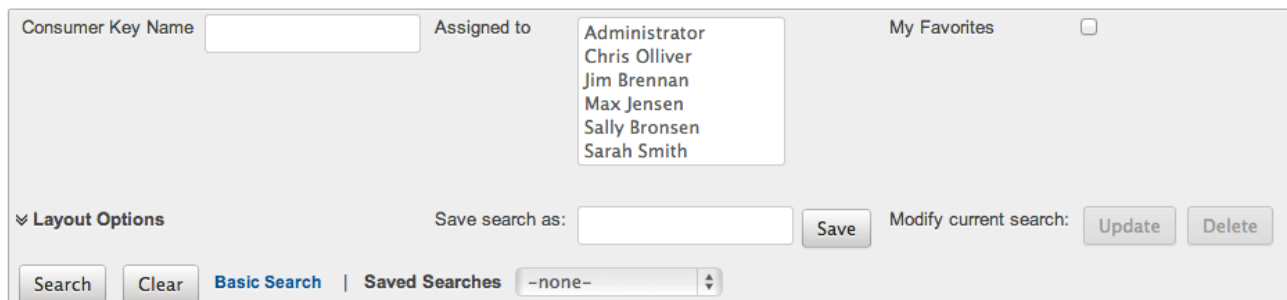
When you run a search, Sugar will return records matching all (as opposed to any) of the fields and checkboxes for which you have given a value. Once the search is complete, the relevant results will populate in the list view below the search panel. To see all OAuth key records to which you have access, simply click "Clear" and then "Search" to perform a blank search with no filters.

### Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching.

The buttons, checkboxes, and dropdowns available in Advanced Search have the following functions:

- **Search** : Click the Search button or press your Return/Enter key to perform the search.
- **Clear** : Click the Clear button to clear all criteria from the searchable fields.
- **Layout Options** : Use the expandable Layout Options section to configure your list view. For more information, please refer to the [Layout Options](#) section of the Search documentation.
- **Saved Searches** : Save, recall, update, and delete searches which you use often. For more information, please refer to the [Saved Search](#) section of the Search documentation.



When you run a search, Sugar will return records matching all (as opposed to any) of the fields for which you have given a value. When searching by a multiselect or dropdown field (e.g., "Assigned to"), however, Sugar will return records matching any of these selections. Once the search completes, the relevant results will populate in the list view below the search panel. To see all OAuth key records to which you have access, simply click "Clear" and then "Search" to perform a blank search with no filters.

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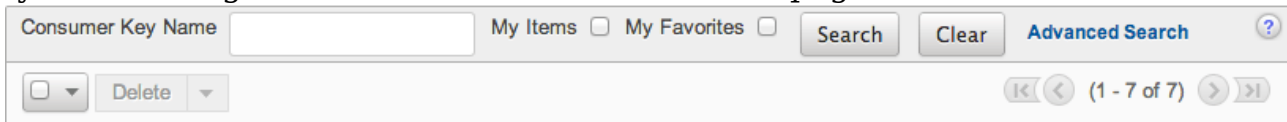
## OAuth Keys List View

The OAuth Keys list view displays all OAuth key records meeting the current search criteria. You can view the basic details of each key within the field columns. You have the option to change what fields are displayed in list view by configuring your layout options in the OAuth Advanced Search. For more information on configuring your list view, please refer to the [Layout Options](#) section of the Search documentation.

### Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the System Settings > User Interface section of this page.

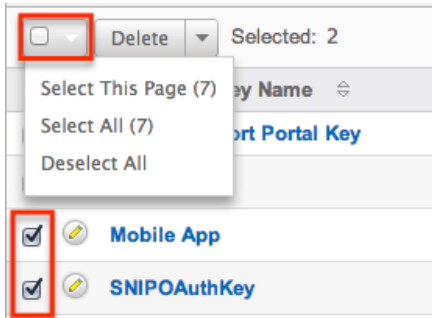


### Checkbox Selection

You can perform several actions on OAuth key records directly from the list view by first selecting the desired records. To select individual key records on the OAuth Keys list view, mark the checkbox on the left of each row. To select or deselect multiple key records on the list view, use the options in the checkbox dropdown menu:

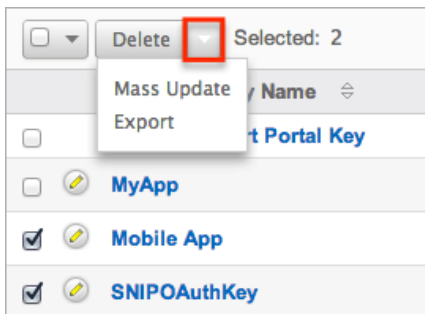
- **Select This Page** : Selects all records shown on the current page of key results.
- **Select All** : Selects all records in the current search results across all pages of key results.
- **Deselect All** : Deselects all records that are currently selected.





## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.

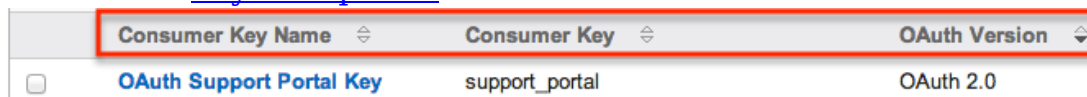


The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more OAuth keys at a time
<a href="#">Mass Update</a>	Mass update one or more OAuth keys at a time
<a href="#">Export</a>	Export one or more OAuth keys to a CSV file

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search. For more information on setting a default column sort, please refer to the [Layout Options](#) section of the Search documentation.



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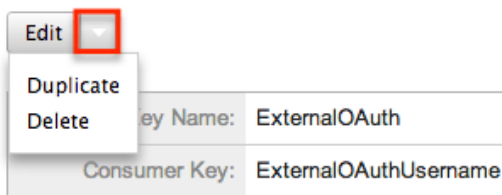
## OAuth Keys Detail View

The OAuth Keys detail view displays thorough OAuth key information including all fields. You can also view a key's related tokens which appear in a subpanel beneath the key fields. The detail view can be reached by clicking a OAuth key record's link from anywhere in the application including from the OAuth Keys list view.

### Actions Menu

The Actions menu on the top left of each OAuth key's detail view allows you to perform various actions on the current record. Administrator users can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the System Settings > User Interface section of this page.

#### ExternalOAuth



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this OAuth key
<a href="#">Duplicate</a>	Duplicate this OAuth key
<a href="#">Delete</a>	Delete this OAuth key

### Next or Previous Record

On the upper right of the OAuth Keys detail view, there are two buttons that allow you to page through each OAuth key in the OAuth Keys list view's current search results. Clicking the Previous button displays the previous key of the current search results while clicking the Next button displays the next key of the current search results. The text in between shows which key result you are currently viewing within the total number of current results.

## ExternalOAuth

Edit ▾

◀ (6 of 7) ▶

Consumer Key Name: ExternalOAuth OAuth Version: OAuth 1.0

## Tokens

Beneath an OAuth key record's fields is a subpanel containing related token records. Tokens are created when the user establishes an OAuth connection with the OAuth key pair. These are connections between the Sugar user, the OAuth keys, and the permissions to enable the external application to access data. Tokens created for each OAuth connection are listed in the Tokens subpanel of the corresponding OAuth Keys detail view page. The Tokens subpanel can be collapsed or expanded by clicking the double arrow to the left of the subpanel's name.

⌵ Tokens

◀◀ ◀ (1 - 2 of 2) ▶ ▶▶

ID	Status	Timestamp	User	
dec6c86efd62	Request	05/07/2013 06:02pm	Will Westin	delete
3eb3f40415fc	Request	05/07/2013 06:03pm		delete

To delete a token from an OAuth key, choose "Delete" from the far right of the record's row.

## Editing OAuth Keys

OAuth keys may be edited at any time to update or add information to the record. You can make changes to existing key records via the OAuth Keys edit view and quick create forms. Edit view is available within the OAuth Keys module and includes all of the key fields you should need.

Note: The system generated OAuth Support Portal Key can not be modified.

[ExternalOAuth](#) » Edit

Save Cancel

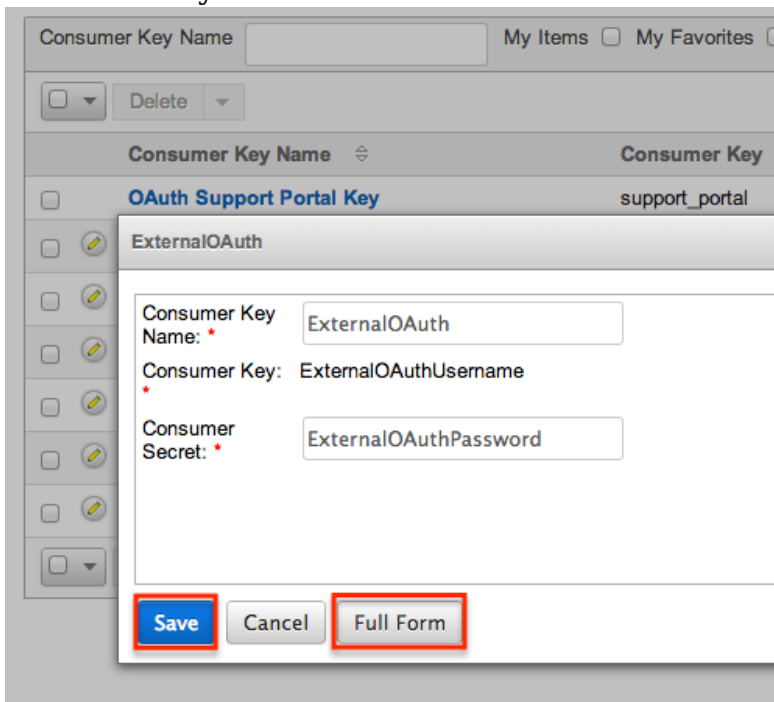
Consumer Key Name: ExternalOAuth OAuth Version: OAuth 1.0

Consumer Key: ExternalOAuthUsername

Quick create is available for editing keys from outside the OAuth Keys module and opens as a pop-up without navigating away from your current page. It generally

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contains fewer fields, but the Full Form button may be used to access the full edit view should you need to edit additional fields.



Note: Consumer Key and OAuth Version fields can not be edited after creation. If either of these fields need changed, you will have to create a new OAuth key.

### Editing Via Detail View

You can edit OAuth keys via the [Detail View](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

ExternalOAuth



Consumer Key Name:	ExternalOAuth
Consumer Key:	ExternalOAuthUsername

### Editing Via List View

You can edit OAuth keys via the [List View](#) by clicking the Pencil icon to the left of each key's name. A pop-up window will open with the quick create form which is a shortened version of the edit view layout. Update the necessary fields, then click "Save" to preserve your changes.

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	Consumer Key Name
<input type="checkbox"/>	OAuth Support Portal Key
<input type="checkbox"/>	MyApp

## Deleting OAuth Keys

If an OAuth key record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from either the OAuth Keys detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once.

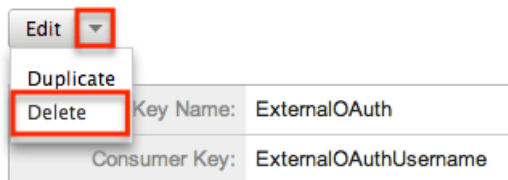
Note: The system generated OAuth Support Portal Key should not be deleted.

### Deleting Via Detail View

Use the following steps to delete an OAuth key record via the detail view:

1. Navigate to a key record's detail view.
2. Select "Delete" from the Actions menu.

ExternalOAuth

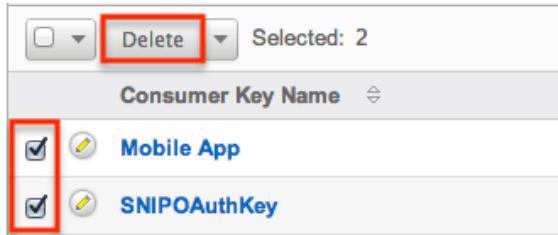


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

### Mass Deleting Via List View

Use the following steps to delete one or more OAuth key records via the list view:

1. Navigate to the OAuth Keys list view by clicking the OAuth Keys module tab.
2. Use the [Basic](#) or [Advanced Search](#) to find the key records you wish to delete.
3. Select the desired key records individually or using the [checkbox dropdown's](#)
4. Choose "Delete" from the Actions menu.



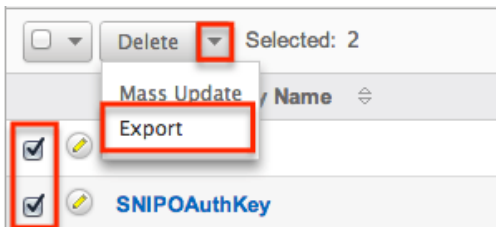
5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of key records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Exporting OAuth Keys

Sugar's Export option allows users to download all fields for the selected OAuth keys to their computers as a .CSV (comma-separated values) file. This may be useful when needing to use OAuth data with other software such as Microsoft Excel. Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of key records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

OAuth keys may be exported from the OAuth Keys list view by selecting "Export" from the Actions menu.

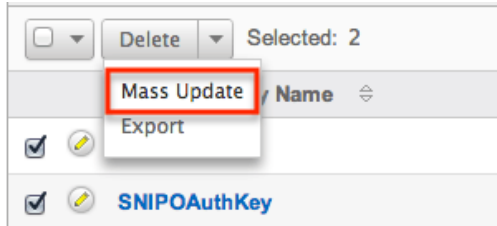


## Mass Updating OAuth Keys

Mass Updating allows users to make the same change to multiple OAuth key records at once from the OAuth Keys list view. Due to the PHP memory limitations on the server, there may be occasions when the application times out while mass updating a large number of key records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches. Use the following steps to mass update OAuth key records from the list view:

1. Navigate to the OAuth Keys list view by clicking the OAuth Keys module tab.
2. Use the list view's Basic or Advanced Search to find key you wish to modify.

3. Select the desired keys individually or using the checkbox dropdown's options.
4. Choose "Mass Update" from the Actions menu.



5. Scroll to the Mass Update panel and set values for the fields you wish to alter.



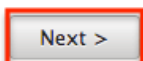
6. Click "Update" to save the changes to all of the currently selected key records.

## Import Wizard

Import Wizard allows administrators to launch an import for any import enabled module without navigating to the module itself. After selecting "Import Wizard" from the Admin menu, you can select a module to perform an import on.

[Import](#) » Step 1: Select Data Source

Which module do you want to import data into?



After selecting the module, click "Next" to continue the import. The steps to complete the import are identical to performing an import from the module. For more information on how to perform an import, please refer to the [Import](#) documentation in the Application guide.

## Upgrade Wizard

The Upgrade Wizard allows on-site customers to upgrade their Sugar instance to the latest software version. The Upgrade Wizard is only available for administrators of on-site installations. For steps to complete an on-site upgrade using the wizard, please refer to the Upgrading section of the [Installation and Upgrade Guide](#).

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## Backups

Backups allow administrators to easily backup the file system in their instance of Sugar. Please note that the Backups option is only available for On-Site instances as SugarCRM manages backups for On-Demand instances. Keep in mind that performing a backup will backup only the web files and you should perform database backups on a regular basis per the instructions from your database vendor.

Use the following steps to back up the web files for your Sugar instance:

1. Navigate to the Administration page and select "Backups" under the System section.
2. Enter a path in the Directory field to create the backup file in for Sugar. This directory must be writable by Sugar and the path needs to be fully qualified.
  - Please do not specify a path that points to any directory contained by the Sugar instance location on your server. Doing this will continue to increase the size of the backups as previous backup archives will accumulate into the most current backup.
3. Enter a filename to use for the backup file.
  - Note: The filename should end with a .zip.
4. Once the settings have been entered, click "Confirm Settings".

### Backups

The purpose of this tool is to assist in creating backups of the Sugar application files. For more information on how to backup your database, see the documentation for information on how to backup your database. To backup your Sugar application files in a .zip file, enter the following information:

Directory:   
*Must be writable by Sugar*

Filename:

The settings are confirmed by verifying that the directory can be written to and the filename does not already exist. Once the settings are confirmed, click "Run Backup". Please note that the backup can take some time depending on the size of your Sugar instance and will display a message once complete.

Note: If the backup fails to complete and your instance is hosted on-site, please evaluate your server error logs to determine the cause. If the failure is due to insufficient PHP settings, you can increase the `max_execution_time` setting by editing `php.ini` and restarting your webserver.

## Repair



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Repair allows administrators to perform common maintenance routines on their instance of Sugar. The repair menu is available to only administrative users and can be accessed through Admin > Repair.

For more information on the different repair options available, please refer to the documentation in the Administration guide.

## Diagnostic Tool

Diagnostic Tool allows administrators to create a file with many diagnostic and configuration details. This tool will collect basic system information regarding Sugar and server configuration and place it all into a zip file to help debug or diagnose issues. The Diagnostic Tool has options that you can turn on and off to include only specific configuration data. Select one or more of the following available options:

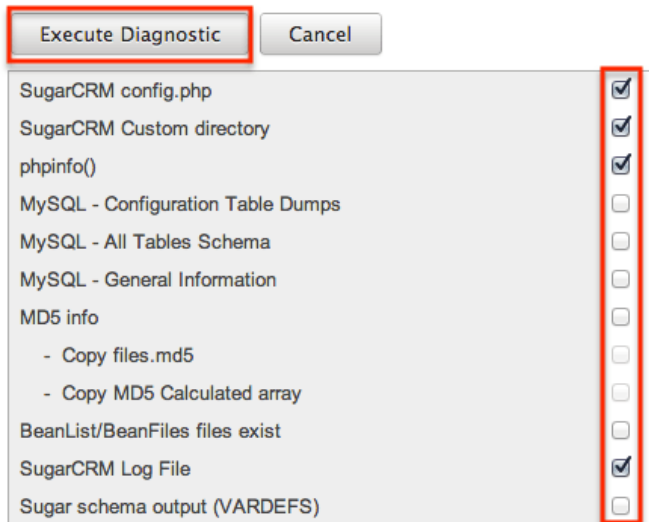
Option	Description
SugarCRM config.php	Includes a copy of the config.php file from the root directory of Sugar. This file contains many useful system settings options in Sugar. Note: The db password contained in this file is replaced with asterixs before sending for security purposes.
SugarCRM Custom directory	Includes a copy of the entire custom directory in Sugar.
Phpinfo()	Includes the output of the PHP function phpinfo() saved to an html file. The phpinfo() function returns information about how PHP is configured on the server running Sugar including the version of PHP, the loaded Extensions, and more.
MySQL - Configuration Table Dumps	Includes an HTML file for each configuration table in Sugar. The file has three sections: field definitions, indexes, and data.
MySQL - All Tables Schema	Includes an HTML file titled MySQLTablesSchema.html which has two sections for each table in Sugar: field definitions and indexes.
MySQL - General Information	Includes an HTML file titled MySQL-General-info.html. This file

	contains some basic information about the MySQL database Sugar is running on such as version number and character sets.
MD5 info	Includes a php file that shows any file in your instance of Sugar that has a different hash than the stock file. This can indicate which files are customized and where they are located in your file system.
Copy files.md5	Includes the list of all files and their original md5 hash in a file titled files.md5. Note: Only available when the MD5 info option above is selected.
Copy MD5 Calculated array	Includes the list of all files and their current hash in a php file titled md5_array_calculated.php. Note: Only available when the MD5 info option above is selected.
BeanList/BeanFiles files exist	Includes an HTML file titled beanFiles.html. This file contains a list of the modules in Sugar and checks all the references for that module to make sure they are correct.
SugarCRM Log File	Includes a copy of the current log file for Sugar.
Sugar schema output (VARDEFS)	Includes an HTML file titled vardefschema.html which contains detailed metadata on each table in Sugar.

The more options selected, the bigger the resulting zip file will be. Select the desired options and click "Execute Diagnostic".

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## Diagnostic Tool



Once the diagnostic tool is finished, select "Download the diagnostic file" to download the zip file containing the results to your computer.

### Diagnostic Tool

Executing Diagnostic Operations...

100%

Getting config.php...  
Done

Getting custom dir...  
Done

Getting phpinfo()  
Done

Getting sugarcrm.log  
Done

[Download the Diagnostic file](#)  
[Delete the Diagnostic file](#)

Optionally, you can then select "Delete the Diagnostic file" to remove it from the server. Large diagnostic files should be deleted from the server as they can pile up and take necessary disk space.

## Tracker

Tracker allows administrators to configure the system to track certain user actions and information for Sugar modules. This information is used in tracker reports and dashlets. By default the tracker options are disabled.

Use the following options to record tracker data:

- Tracker Actions : Tracks user actions such as modules accessed and records

saved.

- **Tracker Sessions** : Tracks active users' session data such as session length.
- **Tracker Performance** : Tracks system performance such as database round trips, number of files accessed, server response time, and memory usage.  
Note: This option can cause performance issues and should not be enabled in a production environment.
- **Tracker Queries** : Tracks any query that takes longer than the specified slow query time threshold and saves the data to the database. Tracker queries logs the query, how many times it has been run, the last time ran, and the average seconds the query took. "Log slow queries" also needs to be selected before this option tracks data.  
Note: This option can cause performance issues and should not be enabled in a production environment.
- **Log slow queries** : Select this option to log queries that take longer than the slow query time threshold to the sugar log. This is useful for performance debugging.  
Note: This option can cause performance issues and should not be enabled in a production environment.
- **Number of days of Tracker data to store when Scheduler prunes the tables** : Specify the number of days of data to be retained. The Prune Tracker Tables scheduler will remove any tracker records older than the specified number of days. For more information on the Prune Tracker Tables scheduler, please refer to the [Prune Tracker Tables](#) section of the Scheduler documentation in the Administration guide.
- **Slow query time threshold (msec)** : Specify a threshold in milliseconds to begin logging slow queries at. If "Log slow queries" is selected, queries that take longer than the threshold to process will be logged to the sugar log. If "Tracker Queries" is selected, queries will be logged to the database.

Select the desired settings and click "Save" to preserve your changes.

#### Tracker

	Enabled
Tracker Actions: <i>i</i>	<input type="checkbox"/>
Tracker Sessions: <i>i</i>	<input type="checkbox"/>
Tracker Performance: <i>i</i>	<input type="checkbox"/>
Tracker Queries: <i>i</i>	<input type="checkbox"/>
Log slow queries:	<input type="checkbox"/>
Number of days of Tracker data to store when Scheduler prunes the tables	30
Slow query time threshold (msec):	100

Note: Changing the Log slow queries and Slow query time threshold values will also change them in Admin > System Settings.

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## Scheduler

Scheduler provides administrators with a method to automate the execution of custom and system processes. The Scheduler menu is available to only administrative users and can be accessed through Admin > Scheduler. For more information on the different schedulers available, please refer to the [Schedulers](#) documentation in the Administration guide.

## PDF Manager

PDF Manager allows administrators to create and manage templates for generated PDF files for any deployed module, custom or standard. The PDF Manager is available to only administrative users and can be accessed through Admin > PDF Manager. For more information on the PDF Manager, please refer to the [PDF Manager](#) documentation in the Administration guide.

## Mobile

The Mobile settings on the Administration page allow administrators to configure what modules they want enabled or disabled for SugarCRM Mobile and the browser-based Sugar mobile application. In addition, you can enable the mobile offline capability for your instance for SugarCRM Mobile.

The browser-based Sugar mobile application allows users to access various Sugar modules (stock and custom modules) via a web browser on a smartphone or PDA. SugarCRM Mobile is a native mobile application that enables users to access Sugar from certain smartphones (e.g., iPhone). For a list of supported devices for SugarCRM Mobile, please refer to the [Mobile Supported Platforms](#) page. You can add, edit, and remove fields, including Calculated Value fields, to customize the mobile layouts via Admin > Studio. For more information on configuring fields, please refer to the [Fields](#) section of the Developer Tools documentation. For more information on configuring the mobile layouts, please refer to the [Mobile Layouts](#) section of the Developer Tools documentation.

Note: Calculated Value fields will not be updated in real time for mobile edit view layouts.

## Configuring SugarCRM Mobile

You can configure what modules are available for use in SugarCRM Mobile via

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Admin > Mobile. Please note that the Bug Tracker, Campaigns, Contracts, Knowledge Base, Products, and Targets modules are not available for SugarCRM Mobile. For more information on enabling modules for SugarCRM Mobile, please refer to the [Enabling Modules for Mobile Access](#) section of this documentation.

## Configuring Mobile Browser Access

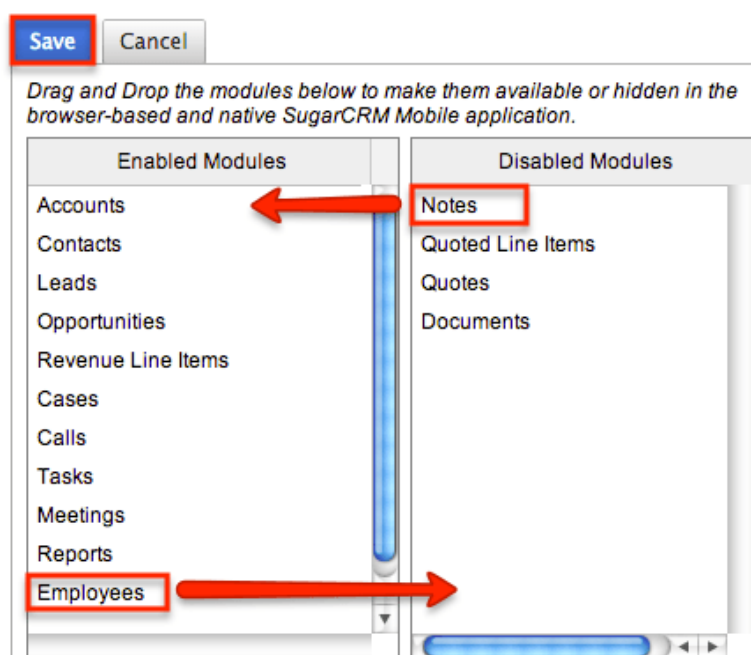
The modules enabled for use via Admin > Mobile will also apply to the browser-based Sugar mobile application. For more information on enabling modules for the browser-based Sugar mobile application, please refer to the [Enabling Modules for Mobile Access](#) section of this documentation. Please note that the Reports module is not available for the browser-based Sugar mobile application.

## Enabling Modules for Mobile Access

Use the following steps to enable modules for mobile access:

1. Navigate to Admin > Mobile.
2. To enable a module for the browser-based and native SugarCRM mobile application, drag and drop the module from the Disabled Modules column to the Enabled Modules column.
3. To disable a module, drag and drop the module from the Enabled Modules column to the Disabled Modules column.

### Mobile



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4. Click "Save" to apply the changes made to SugarCRM Mobile and the browser-based Sugar mobile application.

## Enabling Offline Mobile Access

You can also allow mobile offline capabilities for your instance in SugarCRM Mobile by marking the Offline enabled checkbox in Admin > Mobile. Enabling offline access allows the user's mobile device to cache records for offline viewing as well as buffer changes they make to records while offline. The changes made will be synced once they are reconnected. Please note that the offline option must be enabled in Sugar first before users can enable the offline mode on their devices. For more information on enabling offline in mobile devices, please refer to the [SugarCRM Mobile User Guide](#) for your specific mobile device type (iPhone, Android).

*Drag and Drop the modules below to make them available or hidden in the browser-based and native SugarCRM Mobile application.*

Enabled Modules	Disabled Modules
Accounts	Notes
Contacts	Quoted Line Items
Leads	Quotes
Opportunities	Documents
Revenue Line Items	
Cases	
Calls	
Tasks	
Meetings	
Reports	
Employees	

**Offline Settings**

Offline enabled

Last Modified: 11/21/2017 04:24pm

## Repair

### Overview

The repair functions in Sugar allow administrators to perform common maintenance routines on their instance of Sugar. The repair menu is available to only administrative users and can be accessed through Admin > Repair. The

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following sections are available options from the repair menu.

## Quick Repair and Rebuild

The quick repair and rebuild is the most commonly used repair option and should be performed after significant changes have been made to your instance of Sugar. If you notice inconsistencies with module layouts or fields as you have customized them via Studio, this option is normally the best first course of action to try and correct the issue. Sugar caches files to help access necessary files quickly. This option clears out many of the cached files in Sugar which allows new versions of the files to be loaded. The quick repair and rebuild option performs the following actions:

- Clear Vardefs From Cache : Deletes any `*vardefs.php` file in the cached modules folder
- Clear Language Files From Cache : Deletes any `{Module Name}.lang.php` file in the cached modules folder
- Clear Template Files From Cache : Deletes any `*.tpl` files in the cached modules folder
- Clear JavaScript Files From Cache : Deletes any `*.js` files in the cached modules folder
- Clear JavaScript Language Files From Cache : Deletes any `*.js` files in the cached `jsLanguage` folder
- Clear Dashlet Files From Cache : Deletes any `*.php` files in the cached dashlets folder
- Clear Sugar Feed Files From Cache : Deletes the Sugar Feed files in cached modules folder
- Clear Smarty Template Files From Cache : Deletes any `*.tpl.php` files in the cached smarty templates folder
- Clear Theme Files From Cache : Deletes theme files in the cached theme folder for all themes in Sugar
- Clear XML Files From Cache : Deletes any `*.xml` files in the cached `xml` folder
- Clear Search Files From Cache : Deletes the `unified_search_modules.php` file in the cached module folder
- Clear External API Cache Files : Deletes the external API cache PHP and JavaScript files in the cached include folder
- Clear Additional Cache Files : Loops through the cached API folders and deletes any `*.php` files as well as the cached clients folder
- Clear PDF Font Cache Files : Deletes the cached PDF font list file
- Rebuild Extension Files : Rebuilds language files, extensions, dashlet containers, relationships, and the table dictionary; this step also clears any cached files by APC or WinCache, resets the Zend accelerator, clears eAccelerator's cache, and clears XCache cached files

Note : These functions will only run if the associated systems are installed and



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running.

- **Rebuild Audit Tables** : Creates audit tables for any module that has audit enabled and where the audit table does not already exist; the results for each table are printed on the page
- **Repair Database Tables** : Checks to make sure the database is in synch with the table dictionary and vardef files; any missing tables, columns, and indexes will be scripted to be recreated as well as any column properties that are incorrectly set in the database. The screen will display any database changes that should be made. Click "Execute" to execute the script to apply the changes to the Sugar database or click "Export" to save the script to a SQL file.

**Differences found between database and vardefs**

The following script will sync the database structure with the structure defined in the vardefs. You have the option of exporting this script and then running it against your database using external database management tools, or to allow the administration module to run the script.

**NOTE: any changes you make to the script in the textbox will be reflected in the exported or executed code.**

```
/* Table : accounts */
/*COLUMNS*/
/* INDEXES */
/*MISSING INDEX IN DATABASE - idx_accnt_assigned_del -index ROW*/
ALTER TABLE accounts ADD INDEX idx_accnt_assigned_del (deleted,assigned_user_id);
/*Checking Custom Fields for module : Accounts */
CREATE TABLE accounts_cstm (id_c char(36) NOT NULL , PRIMARY KEY (id_c)) CHARACTER SET utf8 COLLATE utf8_general_ci;
/*MISSING IN DATABASE - test_c - ROW*/
ALTER TABLE accounts_cstm add COLUMN test_c varchar(100) NULL ;
/*MISSING IN DATABASE - testint_c - ROW*/
ALTER TABLE accounts_cstm add COLUMN testint_c int(150) NULL ;
```

## Upgrade Teams

The Upgrade Teams option performs some cleanup regarding team records in Sugar. This can be useful to restore the private teams for all users in the event they become corrupted or are removed for any reason. The upgrade teams option performs the following actions:

- **Global Team** : Creates or restores the global team if it does not exist or has been deleted. All users are then assigned to the global team if not already.
- **Private Teams** : Creates a private team for every user in the system that does not already have a private team and assigns the user to their private team.

The results are printed on the screen as to what teams already existed and what teams were created.

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## Expand Column Width

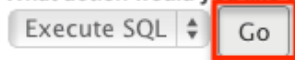
The expand column width option provides a fix for some limitations of MSSQL when requiring multi-byte characters in the database. This limitation only exists for systems running on a MSSQL database while using the MSSQL Drivers for PHP. This function is not available and not necessary to be run on any of the currently supported database platforms.

Note: We recommend running Sugar on at least version 2.0.1 of the SQLSRV Drivers.

Use the following steps to run the Expand Column Width repair option:

1. Select "Expand Column Width" from the Admin > Repair screen.
2. Select from the dropdown which of the following actions you would like to take:
  - Display SQL : Displays the appropriate sql commands on the screen.
  - Export SQL : Creates a .sql file containing the appropriate SQL commands.
  - Execute SQL : Executes the SQL commands on your database.
3. Select "Go" to perform the selected action.

What action would you like to take?



4. The script takes any field in the database that is type varchar, char, or text and increases the length of the field. The new length is set to three times the current length, or if that is higher than 255, the length is set to 255.

## Rebuild .htaccess File

Rebuild .htaccess File option creates or updates the .htaccess file in the root of the Sugar directory. The .htaccess file contains specific commands to prevent unauthorized access to certain files and directories on your webserver. File permissions need to be configured correctly in order for Sugar to write to the .htaccess file. If writing to the file fails, the expected contents for the file will be printed on the page.

Note: If you have additional lines to add to the .htaccess file, place them outside of the "# BEGIN SUGARCRM RESTRICTIONS" and "# END SUGARCRM RESTRICTIONS" lines or they will be removed when running this repair function.

## Rebuild Config File

The Rebuild Config File option takes the config.php file in the root directory of Sugar and rebuilds it to have all default values for any options not specified directly. It first runs a check to make sure Sugar can write to the config.php file and will return to you if it can or not. When ready to rebuild the config file select "Rebuild".

The default values for the config will be merged with any custom values currently set and will be loaded into the config.php file.

## Rebuild Sugar Logic Functions

The Rebuild Sugar Logic Functions rebuilds the cache files for all Sugar logic functions in the system. The Sugar logic functions are primarily used as formulas in field definitions. The results of the repair are shown on the screen.

## Rebuild Relationships

Rebuild Relationships clears out the relationship cache and data and rebuilds it from the vardef files. Custom and stock relationships are all rebuilt. This repair option is good to run after an upgrade or when installing or uninstalling custom modules. The results of the repair are shown on the screen.

## Rebuild Schedulers

The Rebuild Schedulers option removes all schedulers and recreates schedulers that come with Sugar by default. If you have customized the Active/Inactive flag, the frequency the job runs, or even deleted a job this repair option will restore all settings back to their original default value and recreate any deleted default schedulers.

Note: This also deletes any custom schedulers added to Sugar. If you have made changes to the default schedulers or created custom schedulers, please backup the details of each scheduler before running this repair.

The schedulers and their default settings are listed below:

Name	Interval	Range	Status
------	----------	-------	--------

Process Workflow Tasks	As often as possible.	01/01/2005 05:30am - 12/31/2020 06:59pm	Active
Run Report Generation Scheduled Tasks	On the hour; 06:00am	01/01/2005 02:15am - 12/31/2020 06:59pm	Inactive
Prune Tracker Tables	On the hour; 02:00am; 1st	01/01/2005 12:00pm - 12/31/2020 06:59pm	Active
Check Inbound Mailboxes	As often as possible.	01/01/2005 02:00am - 12/31/2020 06:59pm	Active
Run Nightly Process Bounced Campaign Emails	On the hour; From 02:00am to 06:00am	01/01/2005 02:00pm - 12/31/2020 06:59pm	Active
Run Nightly Mass Email Campaigns	On the hour; From 02:00am to 06:00am	01/01/2005 08:15am - 12/31/2020 06:59pm	Active
Prune Database on 1st of Month	On the hour; 04:00am; 1st	01/01/2005 02:15am - 12/31/2020 06:59pm	Inactive
Update tracker_sessions Table	As often as possible.	01/01/2005 01:00am - 12/31/2020 06:59pm	Active
Run Email Reminder Notifications	As often as possible.	01/01/2008 08:30am - 12/31/2020 06:59pm	Active
Clean Jobs Queue	On the hour; 05:00am	01/01/2012 04:15am - 12/31/2030 06:59pm	Active
Create Future TimePeriods	On the hour; 11:00pm	01/01/2012 01:30am -	Active

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		12/31/2030 06:59pm	
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## Rebuild Sugar Dashlets

Rebuild Sugar Dashlets deletes the cached dashlets.php file and recreates it. This file contains the path to the php files, the class to use, and the module for each dashlet in Sugar. This repair option is good to run when making changes to the dashlets that come with Sugar or custom dashlet loaded into Sugar. The results of the repair are shown on the screen.

## Rebuild WorkFlow

Rebuild Workflow deletes files in the custom workflows folder for each module and then rebuilds the files from the workflow data in the database. This repair also verifies the proper logic hooks are in place to properly fire the workflows and rebuilds any plug-ins that are installed.

## Rebuild Javascript Languages

The Rebuild Javascript Languages function deletes all files in the cached jsLanguage folder and deletes any {Module Name}.lang.php file in the cached modules folder. The cached files will be rebuilt when they are needed.

## Rebuild Sidecar Files

Rebuild Sidecar Files will replace compressed JavaScript files for the Sidecar framework with original, full JavaScript source files. The full files will then be compressed (minified) to maximize application performance.

## Rebuild JS Grouping Files

Rebuild JS Grouping Files takes the many different JavaScript files that are required with Sugar and concatenates them together into the cache directory.

Note: The process will continue working if you navigate away from this page, but if you wait you will see a notification on the page when it is complete.

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## Rebuild Sprites

Rebuild Sprites takes images in the following directories:

- ./include/images
- ./themes
- ./custom/themes

Creates the sprites and metadata files in the ./cache/sprites/ folder.

Note: The process will continue working if you navigate away from this page, but if you wait you will see a notification on the page when it is complete.

## Repair Non-Lowercase Fields

The Repair Non-Lowercase Fields option takes any custom field defined in Sugar and, if the field contains an upper case letter, it will change the field to be lowercase. The database, vardef files, and views are all searched through and corrected for and uppercase fields. This option also clears any vardef files from the cache when finished.




## Repair Teams

The Repair Teams option runs a quick check against the database for every user. It performs the following checks:

- Users not in the global team
- Users who do not have a private team
- Users who are not a member of a team that a user who reports to them is a member of

If any of the checks return true, the page will indicate that records were found and the associated action will be selected by default. Select the options you wish to perform and click "Rebuild".

The selected options will perform the following:

 <a href="#">Repair Non-Lowercase Fields</a>	Repair mixed-case custom table(s) and metadata file(s) to fix issues wh lowercase field names
 <a href="#">Repair Teams</a>	Rebuilds private team memberships based on user reporting hierarchy
 <a href="#">Repair Roles</a>	Repairs Roles by adding all new modules that support Access Controls, new Access Controls to existing modules

- 
- Rebuild access to global team : Create a global team if one does not exist and loops through every user and adds them to the global team.
  - Rebuild access to private team : Loops through every user and creates a private team if one does not exist, and then adds the user to their private team.
  - Rebuild team hierarchy : Loops through every user and makes sure every manager is included in their employees' teams. This ensures that if Sally reports to Jim, that Jim can see all of Sally's records.  
Note : Sugar prevents a loop from being created via the Reports To field. For more information on setting the Reports To field, please refer to the [User Management](#) documentation.
  - Clean up unused combinations of teams : Searches the database for unused combinations of teams and deletes the records from the database.

The users looped through are displayed on the screen when complete.

## Repair Roles

Repair Roles goes through every ACL enabled module and ensures that there are appropriate database records to allow roles to be used on the specified module. This repair is important to run after adding new modules via Module Loader or Module Builder to make sure all of the role options are available for the new module. If there is a module that has ACL enabled for it, but the module does not show in the Roles section, then this repair option will add the module. The results of the modules accessed are printed on the screen.

## Repair Inbound Email Accounts

Repair Inbound Email Accounts loops through every active inbound email account in Sugar and verifies the settings configured. Any Inbound email account that fails to successfully repair will be listed on the page and will require someone to manually repair them by reentering a valid user name and password.

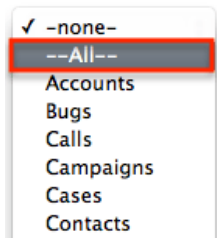
## Remove XSS

The Remove XSS repair loops through the database and removes any malicious scripts from specified field types. Select a module from the dropdown, or select "All" to run for all modules.

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## Removes XSS Vulnerabilities from the database

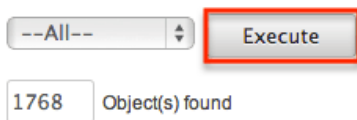
Select a module to remove potential XSS strings. Select "All" to address every module.  
Press execute to start the detection and removal process.



The page will then display the count of records that will be scanned, and repaired if necessary. Click "Execute" to begin the repair.

## Removes XSS Vulnerabilities from the database

Select a module to remove potential XSS strings. Select "All" to address every module.  
Press execute to start the detection and removal process.



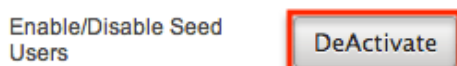
You will see the count of Object(s) Repaired incrementing as it is running. Once the repair is complete you will get a popup message saying "Done." and the count repaired should match the count of objects found.

## Repair Activities

Repair Activities takes Call or Meeting records where the status field does not equal "Held" and updates the end date based on the duration of the activity. If the status equals "Held" or the record is marked as deleted, this repair will skip it. The screen will show "Done" when complete.

## Enable/Disable Seed Users

The Enable/Disable Seed Users option will either enable or disable the default users that are installed with Sugar when selecting a demo installation. If the first seed user retrieved from the database is set to "Active" then this option will give you the option to "Deactivate" the seed users, otherwise, you have the option to "Activate" the seed users.



This option will set the status based on the option presented for all users that have



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an id that starts with "seed".

Note: If you did not populate Sugar with demo data when installing, this repair will return "No seed users" and will not do anything.

## Clear Additional Cache

The Clear Additional Cache option loops through the cached API folders and deletes any \*.php files as well as the cached clients folder. This option is also performed by the Quick Repair and Rebuild option. The screen will show "Done" when complete.

Last Modified: 03/20/2017 07:29pm

## Schedulers

### Overview

Schedulers in Sugar provide users with a method to automate the execution of custom and system processes. Sugar comes with many default schedulers to perform jobs such as monitoring inbound emails, executing workflows, running reports, and dispatching campaign emails. Schedulers are available only to administrative users and can be accessed through Admin > Schedulers. The following sections are available options from the Schedulers menu.

### Schedulers Fields

The Schedulers module contains a number of stock fields which come out of the box with Sugar. The following definitions are suggested meanings for the fields, but the fields may be leveraged differently to best meet your organization's needs.

Field	Description
Active From	Time the scheduler begins to be active per day
Active To	Time the scheduler stops being active per day
Date & Time End	Date and Time the scheduler will stop running on the specified interval
Date & Time Start	Date and Time the scheduler will begin

	running on the specified interval
Execute If Missed	Specifies if a scheduler should be executed during the next cron run in the event that cron did not run at the exact time a job is scheduled for
Interval	How often and when the schedule will run, defaults to every day, every minute
Job	The job to execute on the defined schedule
Job Name	The name or designation of the scheduler
Job URL	The URL of a page to execute Note: Only available if the job selected is URL.
Status	The current status of the scheduler (i.e. Active, Inactive)

Note: Any times configured for schedulers will be based on the admin user's time zone (user id = '1').

## Default Schedulers

The default schedulers that packaged with Sugar are required for different activities throughout the application. The following lists the default schedulers and their default settings:

Name	Interval	Range	Status
<a href="#">Check Inbound Mailboxes</a>	As often as possible.	01/01/2005 02:00am - 12/31/2020 06:59pm	Active
<a href="#">Clean Jobs Queue</a>	On the hour; 05:00am	01/01/2012 04:15am - 12/31/2030 06:59pm	Active
<a href="#">Create Future TimePeriods</a>	On the hour; 11:00pm	01/01/2012 01:30am - 12/31/2030 06:59pm	Active
<a href="#">Process Author Scheduled Job</a>	As often as possible.	01/01/2015 07:15am -	Active

		12/31/2040 18:59pm	
<a href="#">Process Workflow Tasks</a>	As often as possible.	01/01/2005 05:30am - 12/31/2020 06:59pm	Active
<a href="#">Prune Database on 1st of Month</a>	On the hour; 04:00am; 1st	01/01/2005 02:15am - 12/31/2020 06:59pm	Inactive
<a href="#">Prune Old Record Lists</a>	As often as possible	01/01/2005 08:15am - 12/31/2020 03:59pm	Active
<a href="#">Prune Tracker Tables</a>	On the hour; 02:00am; 1st	01/01/2005 12:00pm - 12/31/2020 06:59pm	Active
<a href="#">Remove diagnostic tool files</a>	On the hour; 04:00am; Sunday	01/01/2005 06:00am - 12/31/2030 06:59pm	Active
<a href="#">Remove temporary files</a>	On the hour; 04:00am	01/01/2005 05:30am - 12/31/2030 06:59pm	Active
<a href="#">Remove temporary PDF files</a>	On the hour; 04:00am	01/01/2005 04:00am - 12/31/2030 06:59pm	Active
<a href="#">Run Email Reminder Notifications</a>	As often as possible.	01/01/2008 08:30am - 12/31/2020 06:59pm	Active
<a href="#">Run Nightly Mass Email Campaigns</a>	On the hour; From 02:00am to 06:00am	01/01/2005 08:15am - 12/31/2020 06:59pm	Active
<a href="#">Run Nightly Process Bounced Campaign Emails</a>	On the hour; From 02:00am to 06:00am	01/01/2005 02:00pm - 12/31/2020 06:59pm	Active

<a href="#">Run Report Generation Scheduled Tasks</a>	On the hour; 06:00am	01/01/2005 02:15am - 12/31/2020 06:59pm	Inactive
<a href="#">Sugar Heartbeat</a>	On the hour; 04:00am	01/01/2005 11:45am - 12/31/2030 03:59pm	Active
<a href="#">Update tracker_sessions Table</a>	As often as possible.	01/01/2005 01:00am - 12/31/2020 06:59pm	Active

## Check Inbound Mailboxes

The Check Inbound Mailboxes scheduler is active and runs as often as possible by default. This scheduler will retrieve any unread email from active group inbound email accounts configured in the system. Personal and bounce mail accounts are not checked by this scheduler. If the group email account is configured to create cases or to send auto-reply emails, then this scheduler will handle those tasks as well. For more information on how to set up and configure a group inbound email account, please refer to the [Email](#) documentation in the Administration guide.

## Clean Jobs Queue

The Clean Jobs Queue scheduler is active and runs every day at 5:00 AM by default. The jobs queue is essentially a log of when each scheduler has run. This scheduler will go through the job queues and either soft or hard delete old records in the jobs queue. A soft delete is simply hiding the record from Sugar, but keeping it in the database for recovery if necessary. A hard delete is permanently deleting it from the database. Job queue records will be soft and hard deleted by this scheduler with the following criteria:

- Soft Delete : Completed more than 7 days ago.
- Hard Delete : Completed more than 21 days ago.

Note: The number of days for a soft and hard delete are configurable through the sugar config files by modifying the values of `$sugar_config['jobs']['soft_lifetime']` and `$sugar_config['jobs']['hard_lifetime']`.

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## Create Future TimePeriods

The Create Future TimePeriods scheduler is active and runs every day at 11:00 PM by default. When setting up the Forecasts module for the first time, you are prompted with what type of time period (Yearly or Quarterly) and how many future and past time periods you would like. This scheduler runs based off of those settings and creates new time period records as needed for forecast data entry.

For more information about configuring the time periods for forecasting, please refer to the [Forecast Configuration](#) documentation in the Administration guide.

## Process Author Scheduled Job

The Process Author Scheduled Job scheduler is responsible for processes associated with the Process Author business process management tool. It is active and runs as often as possible by default. The Process Author Scheduled Job will check for any active time-based process events in a pending state. If any processes meet this criterion, the scheduler will ensure the process flow continues. For more information about Process Author, please refer to the [Process Author](#) documentation in the Administration guide.

Note: Process Author events processed by this scheduler will be run by the admin user (user id = '1') in Process History unless the admin user is disabled.

## Process Workflow Tasks

The Process Workflow Tasks scheduler is active and runs as often as possible by default. This scheduler processes and runs any time elapsed workflows are due to run. If you utilize time-elapsed workflows, it is highly recommended to run this scheduler as often as possible to ensure the workflows are executed quickly. For more information on creating workflows, please refer to the [Workflow Management](#) documentation in the Administration guide.

Note: Workflows processed by this scheduler will be run by the admin user (user id = '1') unless the admin user is disabled.

## Prune Database on 1st of Month

The Prune Database on 1st of Month scheduler is inactive and runs at 4:00 AM on the first day of every month. Sugar implements a soft delete feature when deleting records through the application. Instead of deleting the record right away, the system marks a field called deleted in the database for the record. This scheduler

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runs through every table in the Sugar database and deletes any record that has this deleted flag. This is beneficial to keep the database small and efficient, but will remove the ability to recover accidentally deleted records. If you have a large database, we recommend activating this scheduler and running it once a month for performance.

Note: Sugar keeps a backup of each record deleted by this scheduler in the form of a PHP file created in the cached backups folder. The file contains a SQL insert statement for each record in each table that was deleted to allow you to recover the data if necessary.

## Prune Old Record Lists

The Prune Old Record Lists scheduler is active and runs as often as possible by default. This scheduler job will clean up backend database entries Sugar uses when generating export files. Such entries that are older than 1 hour from the current date and time will be removed from the record\_list database table.

Keeping this scheduler active will help prevent exports from failing due to size limitations.

## Prune Tracker Tables

The Prune Tracker Tables scheduler is active and runs at 2:00 AM on the first day of every month by default. This scheduler will delete data in the tracker tables based on the tracker prune interval. This interval can be set from Admin > Trackers and defaults to 30 days if not set. Any record older than the specified amount of days will be deleted from the following tables:

- tracker
- tracker\_sessions
- tracker\_perf
- tracker\_queries
- tracker\_tracker\_queries

Keeping this scheduler active helps ensure overall system performance is kept at optimum levels, as these tables are continually updated via common actions in the application. For more information on trackers and setting this interval, please refer to the [Tracker](#) section in the System documentation of the Administration guide.

## Remove Diagnostic Tool Files

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The Remove Diagnostic Tool Files scheduler is active and runs Sundays at 4:00 AM by default. The `./cache/diagnostic` directory serves as a temporary directory for data generated by Sugar's Diagnostic Tool, which allows administrators and developers to capture basic system and server configuration details in order to diagnose problems in a Sugar instance. The tool places this data into a zip file on the server. The Remove Diagnostic Tool Files scheduler will remove any of these temporary files from the directory once a week during off-peak hours. For more information about the Diagnostic Tool, please refer to the [Diagnostic Tool](#) documentation.

## Remove Temporary Files

The Remove Temporary Files scheduler is active and runs daily at 4:00 AM by default. Sugar uses a cache directory to store files such as images, documents, and installable modules uploaded by users. Some of these documents may be large in size and can cause performance issues. This scheduler will remove any unused files that are found in the `./uploads/tmp` directory or in most user-configured upload directories. For more information about temporary file storage, please refer to the [Advanced Configuration Options](#) documentation.

## Remove Temporary PDF Files

The Remove Temporary PDF Files scheduler is active and runs daily at 4:00 AM by default. The `./cache/pdf/` directory serves as a temporary directory for in-progress PDF files generated from reports, quotes, and other parts of Sugar. Upon successful completion of the PDF operation, the file is typically removed from the directory, but there may be circumstances where orphaned PDF files could remain in the directory. This scheduler will remove any PDF files from the directory during off-peak hours.

## Run Email Reminder Notifications

The Run Email Reminder Notifications scheduler is active and runs as often as possible by default. This scheduler will send out email reminders for meetings and calls that have met or passed the reminder time. Meetings and calls need to have a status that does not equal "Held" in order for the email reminder to be sent to invitees.

## Run Nightly Mass Email Campaigns

The Run Nightly Mass Email Campaigns scheduler is active and runs on the hour,

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every hour from 2:00 AM to 6:00 AM by default. This scheduler will process any campaign emails waiting to be sent in the email queue up to the configured batch amount. If the number of emails to send per batch is set to 500, and this scheduler is set to run once an hour, then you will be sending 500 emails per hour. Please configure this scheduler and the number of emails to send per batch to allow the proper amount of email to be sent.

Note: Many email providers place limitations on email send rates such as emails per hour, emails per day, unique recipients, etc. Please check with your email provider to ensure that they will be able to process the volume of emails you desire to send through campaigns.

For more information on setting the number of emails sent per batch, please refer to the [Campaign Email Settings](#) section in the Email documentation in the Administration guide.

## Run Nightly Process Bounced Campaign Emails

The Run Nightly Process Bounced Campaign Emails scheduler is active and runs on the hour, every hour from 2:00 AM to 6:00 AM by default. This scheduler will retrieve any unread email from active bounce inbound mail accounts configured in the system. Bounce email accounts are important for receiving any bounced emails from a campaign. Emails in the bounce mail account must match all of the following criteria to be classified as a bounced email:

- 'From' email address must contain MAILER-DAEMON or POSTMASTER.
- 'Remove me' link from the original email must be in the email body.
- The originating email does not have a campaign activity log type of invalid email or send error.

We recommend setting this scheduler to run at the same time and interval as the Run Nightly Mass Email Campaigns scheduler. For more information on how to set up and configure a bounce inbound email account, please refer to the [Email](#) documentation of the Administration guide.

## Run Report Generation Scheduled Tasks

The Run Report Generation Scheduled Tasks scheduler is inactive by default with an interval set to run daily at 6:00 AM when activated. This scheduler executes any scheduled reports and emails the results to the designated user. If you want to utilize scheduled reports, please enable this scheduler, otherwise the reports will not be emailed. We recommend running this scheduler as often as possible, this way if someone schedules a report for 6:15 AM, they will not have to wait until



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7:00 to receive the report. For more information on scheduling reports, please refer to the [Scheduling Reports](#) section in the Reports documentation of the Application guide.

## Sugar Heartbeat

The Sugar Heartbeat scheduler is active with an interval set to run daily at 4:00 AM by default. This scheduler ensures that Sugar continues to receive heartbeat information even if no users have logged into your instance in the last three days. When this occurs, the Sugar heartbeat information will be sent automatically when cron runs.

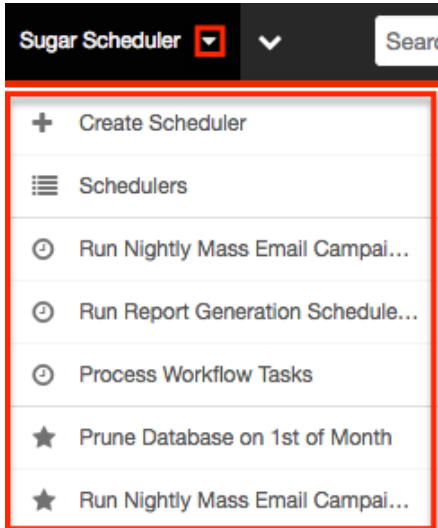
## Update tracker\_sessions Table

The Update tracker\_sessions Table scheduler is active and runs as often as possible by default. This scheduler updates the tracker\_sessions table, setting all records that have a date older than six hours to not active. This ensures any user that is inactive for six hours or more will be logged out and their sessions will no longer be active. Please keep in mind that PHP settings on the server may be more restrictive than the six hour limitation on inactivity this scheduler imposes.

## Schedulers Module Tab

The Schedulers module tab can be accessed by navigating to the Administration page and clicking "Scheduler" in the System section. Once in the Schedulers list view, you can click the triangle in the Sugar Scheduler module tab to display the Actions, Recently Viewed, and Favorites menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of schedulers you last viewed in the module. The [Favorites menu](#) displays the list of schedulers you most recently marked as favorites in the module.





The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Schedulers</a>	Opens the list view layout to search and display schedulers
<a href="#">Create Scheduler</a>	Opens the edit view layout to create a new scheduler

## Creating Schedulers

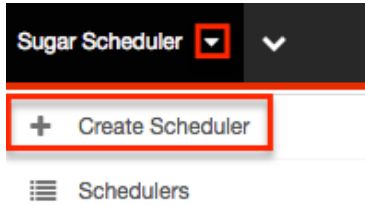
There are various methods for creating schedulers in Sugar including via the Schedulers module and via duplication. The full edit view layout opens when creating the scheduler directly from the Schedulers menu and includes all of the relevant fields for your organization's schedulers. Schedulers can be created for built in jobs within the application or they can be created to call a URL outside of Sugar.

### Creating via Schedulers Module

One of the most common methods of scheduler creation is via the Create Scheduler option in the Sugar Scheduler module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the scheduler. Use the following steps to create a scheduler via the Schedulers module:

1. Navigate to Admin > Scheduler.
2. Click the triangle in the Sugar Scheduler module tab and select "Create Scheduler".





3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving. For more information on setting the advanced options for the interval, please refer to the [Advanced Options](#) section.
4. Once the necessary information is entered, click "Save".

Create

Save Cancel

Job Name: \* Run Full-text Index

Job: Full-text Search Index System

Advanced Options:

## Creating via Duplication

You can also create a new scheduler by duplicating an existing scheduler record. The Copy option is useful if the scheduler you are creating has similar information to an existing scheduler. Use the following steps to create a scheduler by duplicating an existing record:

Use the following steps to create a scheduler by duplicating an existing record:

1. Navigate to a scheduler record's detail view.
2. Select "Copy" from the Actions menu.

Run Nightly Mass Email Campaigns

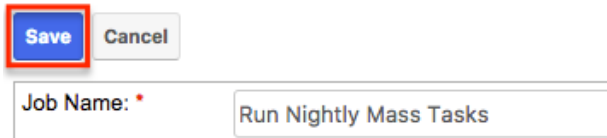


3. The displayed edit view is pre-populated with the original scheduler's values. Update the necessary fields, then click "Save". For more information on setting the advanced options for the interval, please refer to the [Advanced Options](#) section.



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Create



Save Cancel

Job Name: \* Run Nightly Mass Tasks

## Viewing Schedulers

There are various options available for viewing scheduler records in Sugar including via Schedulers list view, Schedulers detail view, and Schedulers Recently Viewed menu.

### Viewing via List View

The Schedulers list view displays all scheduler records meeting the current search criteria. To access the list view, simply click the Schedulers module tab. While list view shows key scheduler fields, you can click the scheduler's name to open the record in detail view. For more information on viewing scheduler via list view, please refer to the [Schedulers List View](#) section.

### Viewing via Detail View

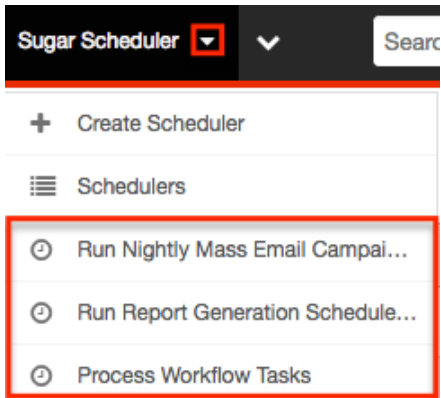
The Schedulers detail view displays thorough scheduler information including all scheduler fields followed by the log records of when this scheduler has ran. The detail view can be reached by clicking a scheduler record's link from anywhere in the application including from the Schedulers list view. For more information on viewing scheduler via detail view, please refer to the [Schedulers Detail View](#) section.

### Viewing via Recently Viewed

As you work, Sugar will keep track of which scheduler you have recently viewed. Click the triangle in the [Sugar Scheduler module tab](#) to see a list of the 3 schedulers you most recently viewed. Clicking the scheduler name will open the scheduler in detail view.







## Searching Schedulers

The Schedulers list view includes a Basic Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the Schedulers list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

Basic Search offers a few, commonly used fields for a simplified search experience. The buttons in Basic Search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.

### Schedulers

Job Name

Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To see all scheduler records, simply click "Clear" and then "Search" to perform a blank search with no filters.

## Schedulers List View

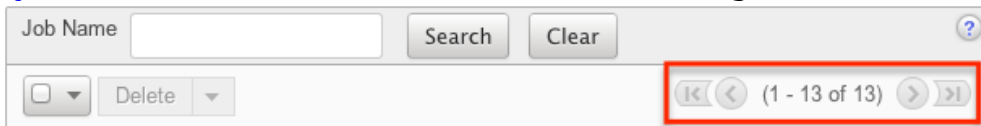
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The Schedulers list view displays all scheduler records meeting the current search criteria. You can view the basic details of each scheduler within the field columns.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

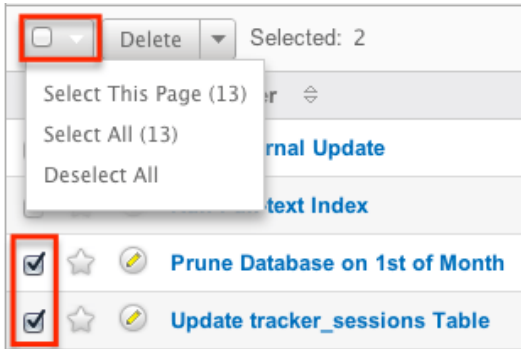
By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

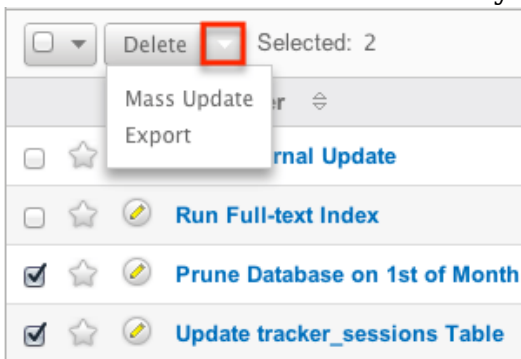
You can perform several actions on scheduler records directly from the list view by first selecting the desired records. To select individual scheduler records on the Schedulers list view, mark the checkbox on the left of each row. To select or deselect multiple scheduler records on the list view, use the options in the checkbox dropdown menu:

- **Select This Page** : Selects all records shown on the current page of scheduler results.
- **Select All** : Selects all records in the current search results across all pages of scheduler results.
- **Deselect All** : Deselects all records that are currently selected.



## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.

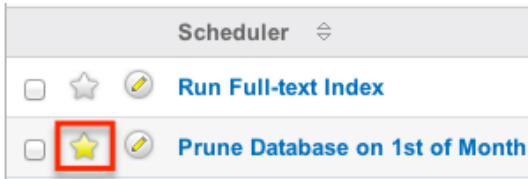


The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more schedulers at a time
<a href="#">Mass Update</a>	Mass update one or more schedulers at a time
<a href="#">Export</a>	Export one or more schedulers to a CSV file

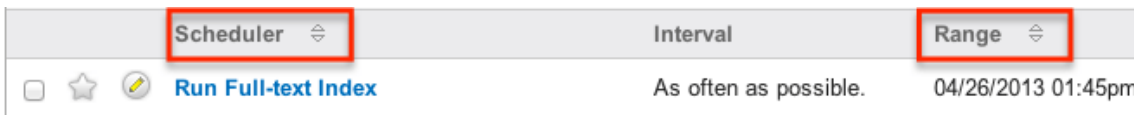
## Favorite Designation

Users have the option to mark scheduler records as favorites via the list view as well as the detail view. This allows users to designate records that are important or will be viewed often so that they can easily be accessed via search or from the Sugar Scheduler module tab. In the Schedulers list view, the star on the left of each schedule's row is yellow once marked to indicate a favorite schedule. For more information on marking records as favorites, please refer to the [Favoriting Schedulers](#) section of this documentation.



## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time.



## Schedulers Detail View

The Schedulers detail view displays thorough scheduler information including all scheduler fields which are grouped by default into the Overview, More Information, and Other panels. You can also view a scheduler's log which appears in beneath the scheduler fields. The detail view can be reached by clicking a scheduler record's link from anywhere in the application including from the Schedulers list view.

## Actions Menu

The Actions menu on the top left of each scheduler's detail view allows you to perform various actions on the current record. Administrator users can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the [System](#) documentation in the Administration guide.

Run Nightly Mass Email Campaigns ★




The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this scheduler
<a href="#">Copy</a>	Duplicate this scheduler
<a href="#">Delete</a>	Delete this scheduler

## Favorite Designation

Users have the option to mark scheduler records as a favorite via the detail view as well as the list view. This allows users to designate records that are important or will be viewed often so that they can easily be accessed via search or from the Schedulers module tab. In the Schedulers detail view, the star on the right of the scheduler's name is yellow once marked to indicate a favorite scheduler. For more information on how to mark records as favorites, please refer to the [Favoriting Schedulers](#) section of this documentation.

Prune Database on 1st of Month 

Edit ▼

Job Name:	Prune Database on 1st of Month
Date & Time Start:	01/01/2005 02:30pm
Date & Time End:	12/31/2020 06:59pm

## Next or Previous Record

On the upper right of the Schedulers detail view, there are two buttons that allow you to page through each scheduler in the Schedulers list view's current search results. Clicking the Previous button displays the previous scheduler of the current search results while clicking the Next button displays the next scheduler of the current search results. The text in between shows which scheduler result you are currently viewing within the total number of current results.

Prune Database on 1st of Month 

Edit ▼


(2 of 12)


## Job Log

Beneath a schedule record's fields is a subpanel containing the logs of when the scheduler has run. Each record will contain a Job Status field indicating the

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outcome of the job and an Execute Time field to show when the job started.

^ Job Log

Job Name	Job Status	Execute Time	Date Modified
Process Workflow Tasks	done	04/26/2013 05:30pm	04/26/2013 05:30pm
Process Workflow Tasks	done	04/26/2013 05:29pm	04/26/2013 05:29pm
Process Workflow Tasks	done	04/26/2013 05:28pm	04/26/2013 05:28pm

## Editing Schedulers

Schedulers may be edited at any time to update or add information to the record. You can make changes to existing scheduler records via the Schedulers edit view and quick create forms. Edit view is available within the Schedulers module and includes all of the Scheduler fields you should need.

[Process Workflow Tasks](#) » Edit

Job Name: \*

Job:

Advanced Options:

Interval: \* Every

Every Day  Thursday  
 Monday  Friday  
 Tuesday  Saturday  
 Wednesday  Sunday

Quick Create is available for editing schedulers from outside the Schedulers module and opens as a pop-up without navigating away from your current page. It generally contains fewer fields, but the Full Form button may be used to access the full edit view should you need to edit additional fields.

Schedulers

Job Name  Search Clear

Prune Database on 1st of Month

Job Name: \* Prune Database on 1st of Montf

Job: Prune Database on 1st of Month

Advanced Options:

Interval: \* Every 12 Hours

Every Day     Thursday  
 Monday         Friday  
 Tuesday         Saturday  
 Wednesday      Sunday

Save Cancel Full Form

For more information on setting the advanced options for the interval, please refer to the [Advanced Options](#) section.

### Editing via Detail View

You can edit schedulers via the detail view by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

Prune Database on 1st of Month

**Edit**

Job Name:	Prune Database on 1st of Month
Date & Time Start:	01/01/2005 02:30pm
Date & Time End:	12/31/2020 06:59pm

### Editing via List View

You can edit schedulers via the list view by clicking the Pencil icon to the left of each scheduler's name. A pop-up window will open with the quick create form which is a shortened version of the edit view layout. Update the necessary fields, then click "Save" to preserve your changes.

Scheduler	Interval
Run Full-text Index	As often as possible.

---

## Deleting Schedulers

If a scheduler record is invalid and should no longer appear in your organization's Sugar instance, it may be deleted from either the Schedulers detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once.

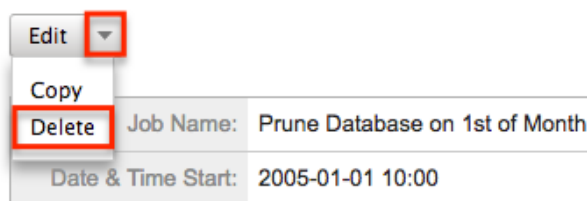
Note: If you wish to disable a scheduler, but do not want to delete it, you can set the status to Inactive and it will not be ran.

### Deleting via Detail View

Use the following steps to delete a scheduler record via the detail view:

1. Navigate to a scheduler record's detail view.
2. Select "Delete" from the Actions menu.

Prune Database on 1st of Month ☆

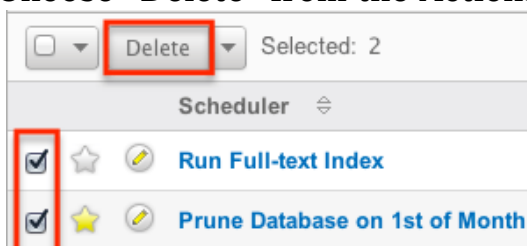


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

### Mass Deleting via List View

Use the following steps to delete one or more scheduler records via the list view:

1. Navigate to the Schedulers list view by clicking the Schedulers module tab.
2. Use the [Search](#) to find the scheduler records you wish to delete.
3. Select the desired scheduler records individually or using the [checkbox dropdown's](#) options.
4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.



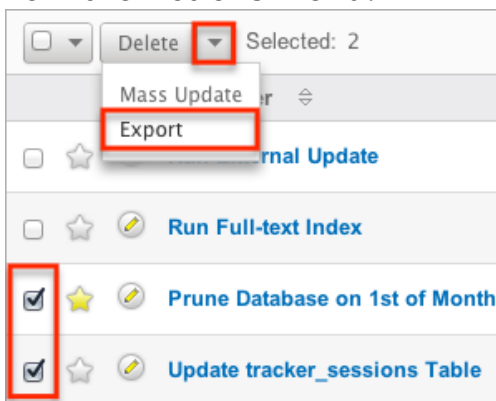
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Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of scheduler records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Exporting Schedulers

Sugar's Export option allows users to download all fields for the selected schedulers to their computers as a .CSV (comma-separated values) file. This may be useful when needing to use Scheduler data with other software such as Microsoft Excel. Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of scheduler records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Schedulers may be exported from the Schedulers list view by selecting "Export" from the Actions menu.



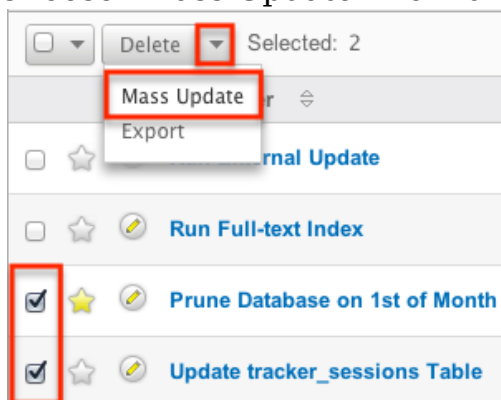
## Mass Updating Schedulers

Mass updating allows users to make the same change to multiple scheduler records at once from the Schedulers list view. Currently, only fields with the data type of date, datetime, dropdown, multiselect, and radio may be altered during a mass update. Due to the PHP memory limitations on the server, there may be occasions when the application times out while mass updating a large number of scheduler records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Use the following steps to mass update scheduler records from the list view:

1. Navigate to the Schedulers list view by clicking the Schedulers module tab.
2. Use the list view's [Search](#) to find schedulers you wish to modify.
3. Select the desired schedulers individually or using the [checkbox dropdown's](#) options.

4. Choose "Mass Update" from the Actions menu.



5. Scroll to the Mass Update panel and set values for the fields you wish to alter.

Mass Update

Job	-none-	Date & Time Start	
Date & Time End		Advanced Options	-none-
Last Successful Run		Status	-none-
Execute If Missed	-none-		

6. Click "Update" to save the changes to all of the currently selected scheduler records.


## Favoriting Schedulers

Each Sugar administrator has the option to designate their own favorite schedulers that are important or will be viewed often. Once records are marked as favorites, you can select your most recent favorites directly from the [Schedulers Module Tab](#).

### Favoriting via List View

Use the following steps to mark records as favorites via the Schedulers list view:


1. Navigate to the Schedulers list view by clicking the Schedulers module tab.
2. Use [Search](#) to find the scheduler records you wish to mark as favorites.
3. Click the star icon on the left of each desired scheduler's row.
4. To remove the scheduler as a favorite, click the star again to revert it to white.

Scheduler		Interval
<input type="checkbox"/>	  Prune Database on 1st of Month	On the hour; 04:00am; 1st
<input type="checkbox"/>	  Run External Update	As often as possible.

## Favoriting via Detail View

Use the following steps to mark records as favorites via the Schedulers detail view:

1. Navigate to a scheduler record's detail view.
2. Click the star icon to the right of the scheduler's name in the upper left of the detail view to designate it as a favorite.
3. To remove the scheduler as a favorite, click the star again to revert it to white.

Prune Database on 1st of Month 

Edit ▾

Job Name:	Prune Database on 1st of Month
Date & Time Start:	01/01/2005 02:30pm
Date & Time End:	12/31/2020 06:59pm

## Advanced Options

From the edit view of a scheduler, you can select the Advanced Options checkbox to refine the interval of the scheduler as well as configure the Advanced Options panel.

Job Name: \*

Job:

Advanced Options:

Interval: \*      min    hrs    date    mo    day

*The above uses standard crontab notation.*

**Advanced Options**

Execute If Missed:

Date & Time Start: \*         :    

Date & Time End:         :    

This opens up the cron tab notation for the interval field. Cron tab notation gives administrators more flexibility to define when and how often the scheduler runs. Cron tab notation allows you to enter a value for each time part for the job to run on. You can specify complex values by using the following notations:

Character	Description
*	Asterisk is used to represent every value for the specified time part. For example, * in the mins field will run every minute.
/	Forward slash is used to represent increments. For example, */15 in the mins field will run every 15 minutes. 30/5 in the mins field will run starting at the 30th minute of the hour and every 5 minutes after.
,	Comma is used to specify multiple values. For example, 18,20 in the hrs field will run at 6:00 PM and 8:00 PM.
-	Hyphen is used to specify a range of values. For example, 1-6 in the mo field will run from January through June.

Specify the values to run in the following interval fields using cron tab notation:

- min : Specify the minute of the hour to run on (0-59).
- hrs : Specify the hour of the day to run on (0-23).
- date : Specify the day of the month to run on (1-31).
- mo : Specify the month of the year to run on (1-12).
- day : Specify the day of the week to run on (0-6).

---

You may specify any combination of the fields to create the schedule needed to run the job.

## Setting up Cron Scheduler

In order for the schedulers to run at the designated times, there needs to be a process running on the server to initiate the schedulers. This backend process will call the cron.php file in Sugar with some specific parameters, and the cron.php file will execute the schedulers as necessary.

Sugar instances hosted on-demand by SugarCRM have the cron scheduler set up automatically, but it must be configured for on-site instances. In UNIX systems (MAC and Linux) you can configure crontab to run the schedulers. Navigate to Admin > Scheduler to get the system information necessary to set up the crontab.

### To Setup Crontab

Note: In order to run Sugar Schedulers, add the following line to the crontab file:

```
* * * * * cd /var/www/sugar123; php -f cron.php > /dev/null 2>&1
```

Note: The scheduler is throttled by default to prevent it from being ran more often than every 30 seconds. This value is configurable by setting the `$sugar_config['cron']['min_cron_interval']` value in the `config_override.php` file.

## Setting Up in Unix/Linux

Use the following steps to set up crontab to run the Sugar schedulers:

1. From a command prompt, execute the following command: `crontab -u apache -e`
2. The text editor will launch as the user "apache". If your webserver is running under a different user, please adjust the line accordingly.
3. Add in the commands from Admin > Schedulers into the crontab file:  
`* * * * * cd /var/www/sugar123; php -f cron.php > /dev/null 2>&1`  
Note: Make sure that the path to the root directory of Sugar and to PHP is correct.
4. Save the changes to the file. This will run the cron job every minute.

You can check crontab to see what commands are being run by executing the following command: `crontab -u apache -l`.

Last Modified: 02/01/2017 03:39pm

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# PDF Manager

## Overview

The PDF Manager is used to create and manage templates for generated PDF files for any deployed module, custom or standard. Sugar comes with two PDF templates out of the box (Quote and Invoice).

Note: Legacy Quote PDF Templates (custom Quote templates created through code customizations) are not displayed in the PDF Manager but are still available in the Quotes module provided the templates were built off the TCPDF engine.

## PDF Manager Fields

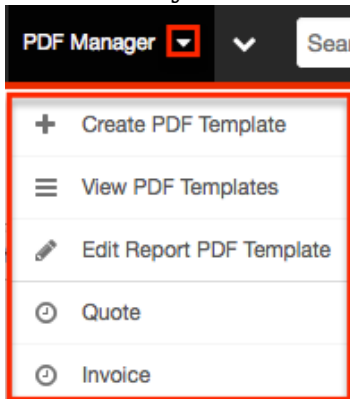
The PDF Manager module contains a number of stock fields which come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs.

Field	Description
Author	The author name to be placed in the PDF properties
Description	A description or other information about the template
Footer Text	The text to be placed in the template's footer
Header Logo File	Click "Choose File" to upload a header image to the template
Header Text	The text to be placed in the template's header
Header Title	The title of the template header
Keyword(s)	The keywords to be placed in the PDF properties
Module	The module this template will work in  Note: Once a template is created, the module cannot be changed.
Name	The name or designation of the template
Published	Determines if a template is available to

	users or not
Subject	The subject to be placed in the PDF properties
Teams	The Sugar team(s) assigned to the template record
Template	The content of the template
Title	The title to be placed in the PDF properties

## PDF Manager Module Tab

The PDF Manager module tab can be accessed by navigating to the Admin page and clicking "PDF Manager" in the System section. Once in the PDF Manager list view, you can click the triangle in the PDF Manager module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of templates you last viewed in the module. Please note that clicking the module tab allows you to access the PDF Manager list view.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create PDF Template</a>	Opens the edit view layout to create a new template
<a href="#">View PDF Templates</a>	Opens the list view layout to search and display templates
<a href="#">Edit Report PDF Template</a>	Opens the edit view layout to modify the report template

## Creating PDF Templates

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There are various methods for creating PDF templates in Sugar including via the PDF Manager module and duplication. The full edit view layout opens when creating the template directly from the PDF Manager menu and includes all of the relevant fields for your organization's templates.

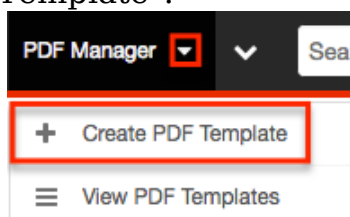
Note: It is generally recommended to create a new template via duplication and then modify to suit your needs.

## Creating Via PDF Manager Module

You can create a new template via the Create PDF Templates option in the PDF Manager module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the template.

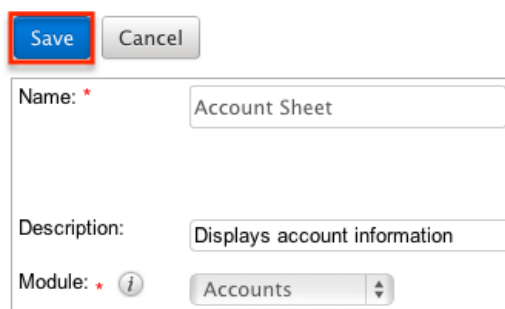
Use the following steps to create a template via the PDF Manager module:

1. Navigate to Admin > PDF Manager.
2. Click the triangle in the PDF Manager module tab and select "Create PDF Template".



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save".

Create

A screenshot of the 'Create' form in the PDF Manager module. At the top, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'. Below the buttons, there are three input fields: 'Name: \*' with the value 'Account Sheet', 'Description:' with the value 'Displays account information', and 'Module: \*' with a dropdown menu showing 'Accounts' and an information icon.

## Creating Via Duplication

You can also create a new template by duplicating an existing template record. The Copy option is useful if the template you are creating has a similar layout to an



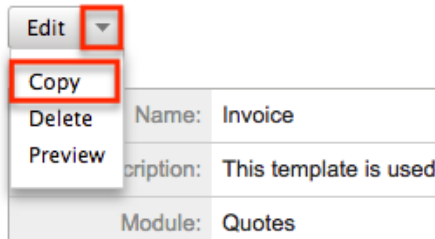
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existing template.

Use the following steps to create a template by duplicating an existing record:

1. Navigate to a template record's detail view.
2. Select "Copy" from the Actions menu.

Invoice



3. The displayed edit view is pre-populated with the original template's values. Update the necessary [fields](#), then click "Save".

Create

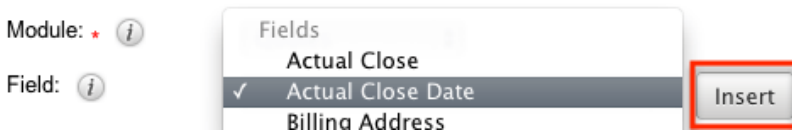
The image shows a 'Create' form for a new template. At the top, there are two buttons: 'Save' and 'Cancel'. The 'Save' button is highlighted with a red rectangular box. Below the buttons, there are three form fields: 'Name: \*' with the value 'Pro Forma Invoice', 'Description:' with the value 'This template is used to print', and 'Module: \*' with a dropdown menu set to 'Quotes'.

Note: If you change the module field during duplication, you will have to remove all variable references to the old module in the layout before saving.

## Creating Content

The PDF template can contain images and HTML formatting as well as variable fields from the assigned module. TinyMCE is the rich text editor for formatting your template using HTML. For more information on using TinyMCE, please refer to the [TinyMCE](#) section in the User Interface in the Application guide.

To add variable fields from the assigned module, simply select the desired field from the Field dropdown and then click "Insert".



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The variable will be placed wherever your computer's cursor is located in the template and can be moved around as necessary.

Note: The Link section provides all one-to-one and one-to-many relationships to provide linked data in the template.

For modules that have a subset of data in the template (e.g. Product line items in Quotes), there are special containers in the template that indicate where the repeating areas start and stop. These containers are designated by the following commands :

- Start : {foreach from=\$product\_bundles item="bundle"}
- End : {/foreach}

Note: These lines are important and if removed can cause errors when generating a PDF. If you encounter an error when generating a PDF, we recommend checking the template for these start and end placeholders.

To add images to a PDF template, simply select the image icon in the toolbar. Fill out the image details (Image URL, Alignment, Dimensions, Border, etc.) in the Insert/Edit Image dialog then click "Insert".

The screenshot shows the SugarCRM PDF Template editor. The form has the following fields and values:

- Name: SugarCRM Template
- Teams: Global
- Description: (empty)
- Module: Contacts
- Field: Alternate Address City
- Published: Yes

The toolbar at the bottom contains various icons for text formatting and insertion. The image icon, which shows a small landscape picture, is highlighted with a red square.

Note: Images can not be copy and pasted or drag and dropped into a PDF template. The image icon must be used to insert an image.

## Viewing PDF Templates

There are various options available for viewing template records in Sugar including via PDF Manager list view, PDF Manager detail view, and PDF Manager Recently Viewed menu.

### Viewing Via List View

The PDF Manager list view displays all template records meeting the current

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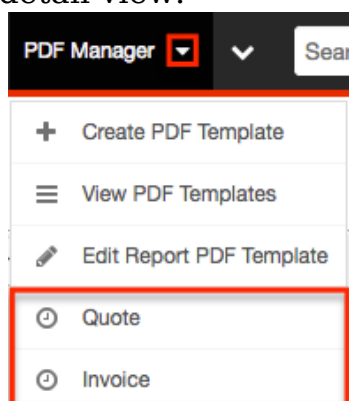
search criteria. To access the list view, simply click the PDF Manager module tab. While list view shows key template fields, you can click the template's name to open the record in detail view. For more information on viewing templates via list view, please refer to the [PDF Manager List View](#) section.

## Viewing Via Detail View

The PDF Manager detail view displays thorough template information including all template fields. The detail view can be reached by clicking a template record's link from anywhere in the application including from the PDF Manager list view. For more information on viewing templates via detail view, please refer to the [PDF Manager Detail View](#) section.

## Viewing Via Recently Viewed

As you work, Sugar will keep track of which templates you have recently viewed. Click the triangle in the [PDF Manager module tab](#) to see a list of the 3 templates you most recently viewed. Click the template's name from the list to open it in detail view.



## Searching PDF Templates

The PDF Manager list view includes a Basic Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the PDF Manager list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

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For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

Basic search offers a few, commonly used fields for a simplified search experience. The buttons and checkboxes available in Basic Search panel have the following functions:

- **Search** : Click the Search button or press your Return/Enter key to perform the search.
- **Clear** : Click the Clear button to clear all criteria from the searchable fields.

Search PDF Manager



The screenshot shows a search interface for PDF Manager. It includes a 'Name' text input, a 'Module' dropdown menu with a scrollable list of options (Accounts, Bug Tracker, Calls, Campaigns, Cases, Contacts), a 'Published' field with 'Yes' and 'No' checkboxes, and a 'Teams' field with a search icon and a clear icon. At the bottom right of the panel are 'Search' and 'Clear' buttons, along with a help icon.

When you run a search, Sugar will return records matching all (as opposed to any) of the fields and checkboxes for which you have given a value. For example, if you select a module and enter a template name, Sugar will only return template records with a matching name that are assigned to that module. Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To see all template records, simply click "Clear" and then "Search" to perform a blank search with no filters.

## PDF Manager List View

The PDF Manager list view displays all template records meeting the current search criteria. You can view the basic details of each template within the field columns.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but administrators can

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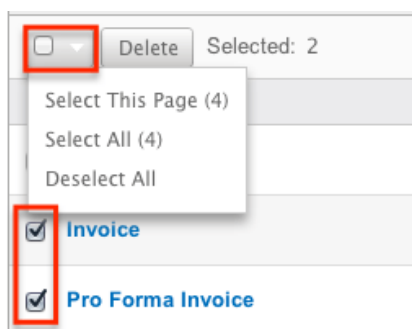
change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

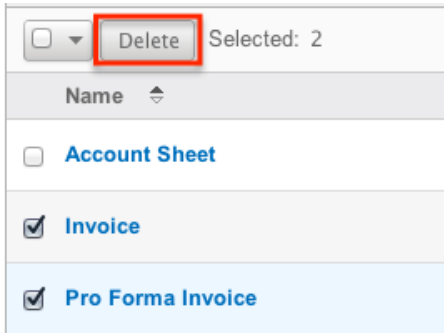
You can perform several actions on template records directly from the list view by first selecting the desired records. To select individual template records on the PDF Manager list view, mark the checkbox on the left of each row. To select or deselect multiple template records on the list view, use the options in the checkbox dropdown menu:

- **Select This Page** : Selects all records shown on the current page of PDF template results.
- **Select All** : Selects all records in the current search results across all pages of PDF template results.
- **Deselect All** : Deselects all records that are currently selected.



## Actions Menu

The Actions menu to the right of the checkbox dropdown typically allows you to perform various actions on the currently selected records.



The only action available from the PDF Manager list view is the following operation:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more templates at a time

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time.

Name	Module	Published	Date Created
<input type="checkbox"/> <a href="#">Account Sheet</a>	Accounts	Yes	04/22/2013 11:19am

## PDF Manager Detail View

The PDF Manager detail view displays thorough template information including all template fields which are grouped by default into the Overview and PDF Document Properties panels. The detail view can be reached by clicking a template record's link from anywhere in the application including from the PDF Manager list view.

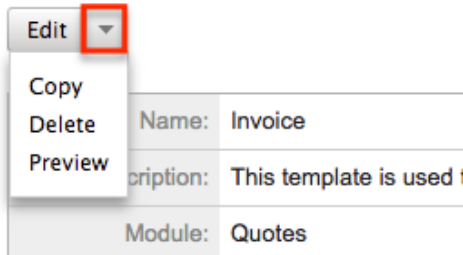
## Actions Menu

The Actions menu on the top left of each template's detail view allows you to perform various actions on the current record. Administrator users can change the action items to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the [System](#) documentation in the Administration guide.



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## Invoice



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this template
<a href="#">Copy</a>	Duplicate this template
<a href="#">Delete</a>	Delete this template
<a href="#">Preview</a>	Preview this template

## Next or Previous Record

On the upper right of the PDF Manager detail view, there are two buttons that allow you to page through each template in the PDF Manager list view's current search results. Clicking the Previous button displays the previous template of the current search results while clicking the Next button displays the next template of the current search results. The text in between shows which template result you are currently viewing within the total number of current results.

Pro Forma Invoice



## Editing PDF Templates

Templates may be edited at any time to update or add information to the record. You can make changes to existing template records via the PDF Manager edit view. Edit view is available within the PDF Manager module and includes all of the template fields you should need.



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Pro Forma Invoice » Edit

Name: \*

Description:

Module: \*

## Editing Via Detail View

You can edit templates via the [detail view](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

Pro Forma Invoice

Name:	Pro Forma Invoice
Description:	This template is used to print apro forma
Module:	Quotes

## Editing Report PDF Template

The Report PDF Template is used when generating a report as a PDF. The report template may be edited at any time to include your company's logo. This logo displays as a header in all Report PDF files.

You can edit the report template via the [detail view](#) by clicking the Edit Report PDF Template action in the PDF Manager module tab. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

Report PDF Template

**Document Properties**

Title:

Author: \*

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## Deleting PDF Templates

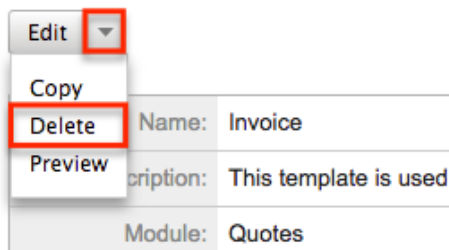
If a template record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from either the PDF Manager detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once.

### Deleting Via Detail View

Use the following steps to delete a template record via the detail view:

1. Navigate to a template record's detail view.
2. Select "Delete" from the Actions menu.

Invoice

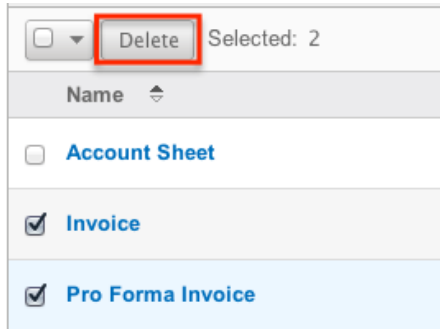


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

### Mass Deleting Via List View

Use the following steps to delete one or more template records via the list view:

1. Navigate to the PDF Manager list view by clicking the PDF Manager module tab.
2. Use the [Basic Search](#) to find the template records you wish to delete.
3. Select the desired template records individually or using the [checkbox dropdown's](#) options.
4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

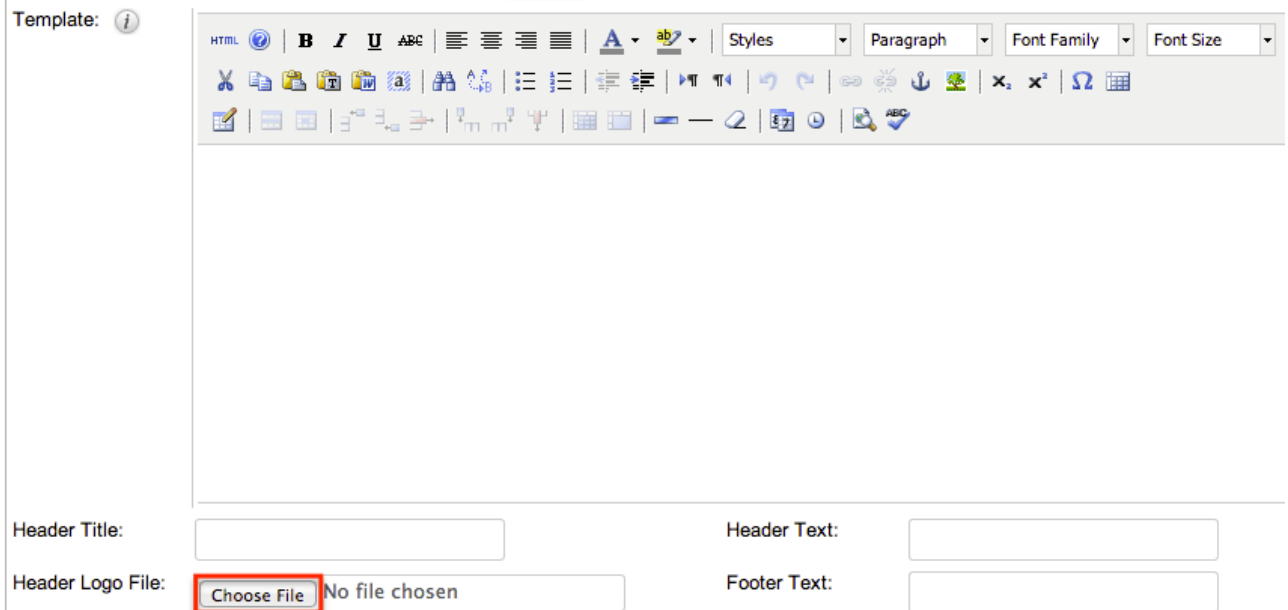
Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of template records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Adding a Header Image to PDF Template

Image files can easily be uploaded from your local machine to be inserted as a header image on your PDF template. Once the image is added accordingly to the template, it will display in the header when the PDF file is generated in Sugar.

Use the following steps to add a header image to the PDF template:

1. Create a [new PDF template](#) or open up an existing template via Admin > PDF Manager.
2. Click the "Choose File" button in the Header Logo File field to open a file selection window from your browser.



- 
3. Select the image file from your local machine then click "Open" to add the image.

Please note that you must save then [preview the PDF template](#) in order to view the inserted header image.

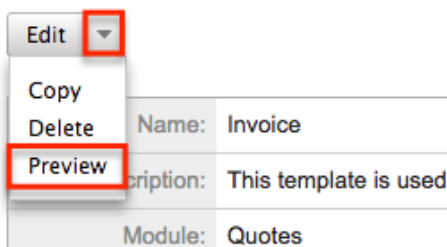
## Previewing PDF Templates

Previewing PDF templates allows you to see what the template will look like before publishing it in Sugar. The preview option displays the PDF template with the database field names and not actual data values and is accessible from the detail view.

Use the following steps to preview a template via the detail view:

1. Navigate to a template record's detail view.
2. Select "Preview" from the Actions menu.

Invoice



3. The PDF will download to your computer for viewing.

Last Modified: 02/02/2017 01:41pm

## Web Logic Hooks

### Overview

Web logic hooks allow you to establish events on a per module basis for Sugar to send data from the record in focus to an external URL so that additional processing can be completed outside the Sugar application. When a Web Logic Hook is triggered, the data is not sent instantaneously. Rather, the data is queued and processed under the Dispatch Web Logic Hook scheduled job. Once the job is processed through a regular scheduler run, the data for the record that triggered the hook is transmitted to the designated URL in a JSON format for further processing. This can allow you to send this data to other applications within your

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organization or to manipulate the data and transmit it back to Sugar via the REST API.

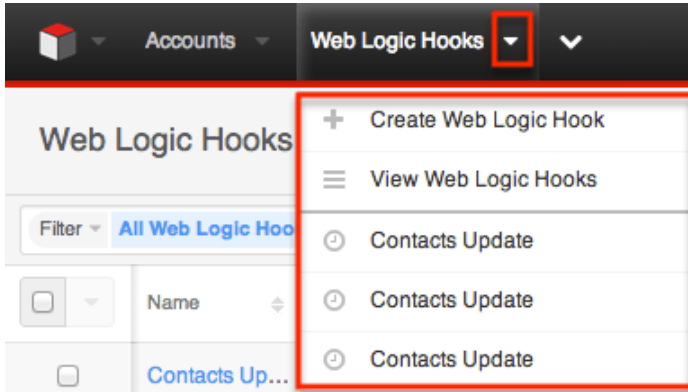
## Web Logic Hook Fields

The Web Logic Hooks module contains a number of stock fields which come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs.

Field	Description
Module Name	The module that the web logic hook will trigger off when the trigger event occurs in that module
Name	The name of the web logic hook
Request Method	The HTTP request method that the web logic will utilize to call out to the specified URL
Trigger Event	The event that must occur in order for the web logic hook to process
URL	The URL that will receive the data transmitted by the web logic hook Note : This URL should be a URL outside of your SugarCRM instance. If you have a Sugar On-Demand instance, it is your responsibility to host the URL that will process the web logic hook.

## Web Logic Hooks Module Tab

The Web Logic Hooks module tab is typically located on the navigation bar at the top of any Sugar screen after selecting "Web Logic Hooks" from the admin screen. Click the tab to access the Web Logic Hooks list view. You may also click the triangle in the Web Logic Hooks tab to display the Actions and Recently Viewed menu items. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of web logic hooks you last viewed in the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Web Logic Hook</a>	Opens the record view layout to create a new web logic hook
<a href="#">View Web Logic Hooks</a>	Opens the list view layout to search and display web logic hooks

## Creating Web Logic Hooks

There are two methods for creating web logic hooks in Sugar including via the Web Logic Hooks module and duplication.

### Creating Via Web Logic Hooks Module

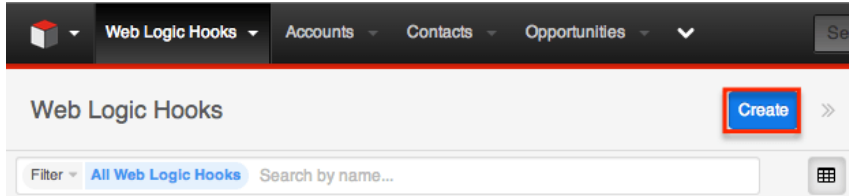
The most common methods of web logic hook creation is via the Web Logic Hooks module using the Create Web Logic Hook option in the module tab or the Create button on the list view. This opens the record view layout which allows you to enter all of the relevant information for the account.

Use the following steps to create a web logic hook via the Web Logic Hooks module:

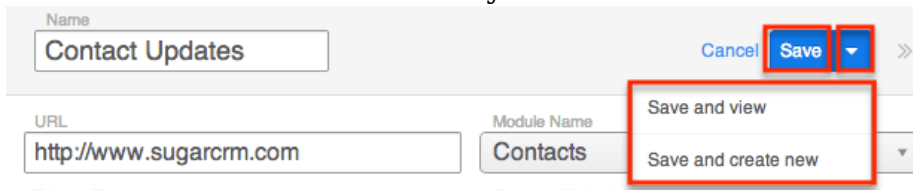
1. Click the triangle in the Web Logic Hooks module tab to open the actions menu and select "Create Web Logic Hook". You can also click the Create button on the upper right of the Web Logic Hooks list view.  
From Web Logic Hooks module tab:



From Web Logic Hooks list view:



2. Enter appropriate values for the [fields](#) in the record view layout. All required fields will indicate "Required" in the field and must be completed prior to saving.
3. Once the necessary information is entered, click "Save".
  - Alternatively, you can use the Actions Menu to the right of the Save button to select "Save and view" or "Save and create new". "Save and view" will display the record's details after the save is complete. "Save and create new" saves the current record and opens a new, blank record view in edit mode where you can create another record.

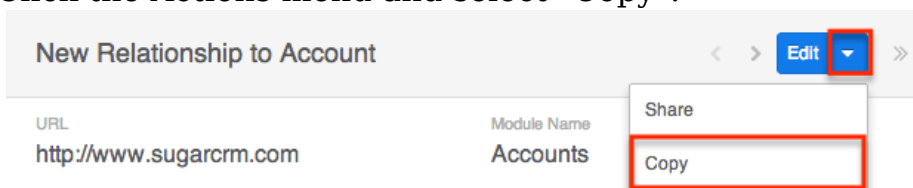


## Creating Via Duplication

You can also create a new web logic hook by duplicating an existing web logic hook record. The Copy option is useful if the web logic hook you are creating has similar information to an existing web logic hook.

Use the following steps to create a web logic hook by duplicating an existing record:

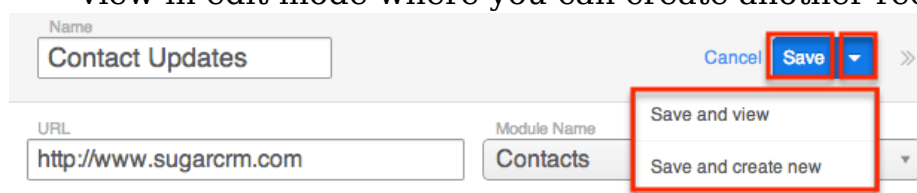
1. Navigate to an web logic hook's record view.
2. Click the Actions menu and select "Copy".



3. The displayed record view is pre-populated with the original account's values. Update the necessary fields, then click "Save".
  - Alternatively, you can use the Actions Menu to the right of the Save

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button to select "Save and view" or "Save and create new". "Save and view" will display the record's details after the save is complete. "Save and create new" saves the current record and opens a new, blank record view in edit mode where you can create another record.



## Viewing Web Logic Hooks

There are various options available for viewing web logic hook records in Sugar including via Web Logic Hooks list view, Web Logic Hooks record view, and Web Logic Hooks Recently Viewed menu.

### Viewing Via List View

The Web Logic Hooks list view displays all account records meeting the current search criteria. To access the list view, simply click the Web Logic Hooks module tab. While list view shows key account fields, you can click the web logic hook's name to open the record view. For more information on viewing web logic hooks via list view, please refer to the [Web Logic Hooks List View](#) section of this documentation.

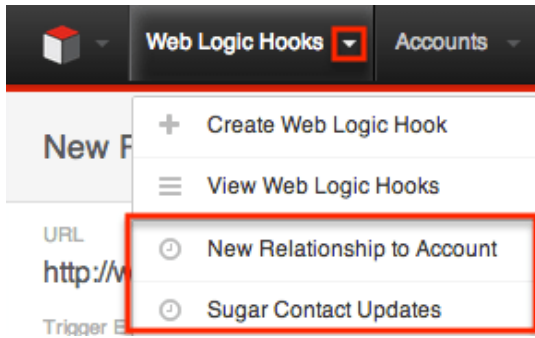
### Viewing Via Record View

The Web Logic Hooks record view displays all the applicable fields for the record in question. The record view can be reached by clicking a web logic hook record's link from anywhere in the application including from the Web Logic Hooks list view. For more information on viewing web logic hooks via the record view, please refer to the [Web Logic Hooks Record View](#) section of this documentation.

### Viewing Via Recently Viewed

As you work, Sugar will keep track of which web logic hooks you have recently viewed. Click the Actions menu in the [Web Logic Hooks module tab](#) to see a list of your most recently viewed web logic hooks, and click each name to open the Web Logic Hooks record view.





## Searching Web Logic Hooks

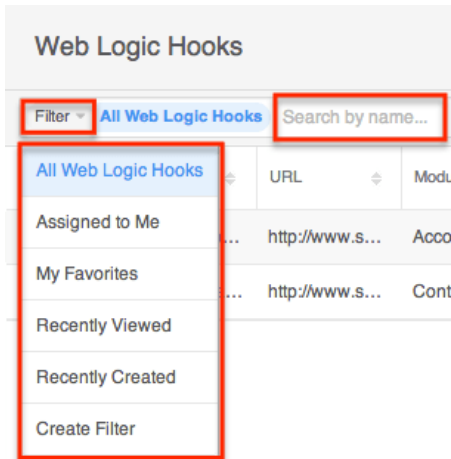
The Web Logic Hooks list view includes a module search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the Web Logic Hooks list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

## Module Search

Module search enables users to easily search by account name within the Accounts module and pull up matching records in the list view. The search also provides a Filter option allowing you to narrow your search further using the available options as follows:

- All Web Logic Hooks : Returns all records in the module
- My Favorites : Returns only records you have marked as favorites
- Recently Viewed : Returns only records you have viewed in the module within the last 7 days
- Recently Created : Returns only records you created in the module within the last 7 days
- Create Filter : Create a new custom filter which you can use to filter your search



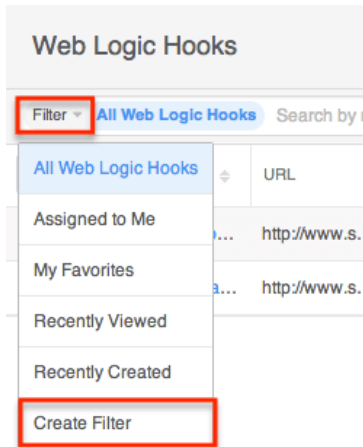
When you choose a filter and run a search, Sugar will return accounts with a matching name from within the filtered list view results. For example, if you select "My Favorites" in the Filter options and enter an account name, Sugar will only return account records with a matching name that are favorited by you. Once the search is complete, the relevant results will populate in the [list view](#) below the search bar. To see all account records to which you have access, simply select the All Web Logic Hooks option in the filter and remove any text from the search bar.

## Creating a Filter

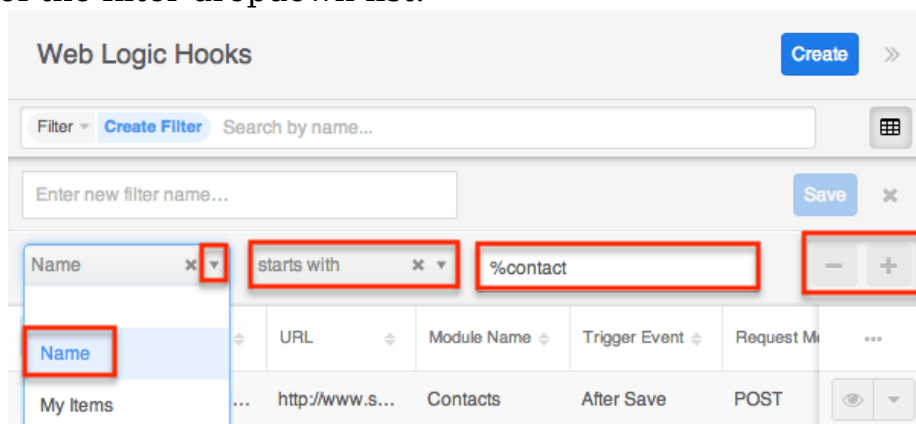
Users can also create new filters via the Create Filter option in the Filter list of the search bar. This allows users to add custom, complex filter options when searching in the Web Logic Hooks list view. You have the option to add multiple fields to your new filter by clicking the Plus button to the right of the filter selection dropdown lists. Please note that each one of the filter's criteria need to be true for a record in order for it to appear in the list view search result.

The following steps cover creating a new search by Name filter as an example:

1. Click the Filter option on the Web Logic Hooks search bar then select "Create Filter".



2. Select the field you wish to add to your filter as well as the condition and matching criteria.
3. To add multiple fields to the new filter, click the Plus button to the right of the filter dropdown list.
  - To remove fields from the new filter, click the Minus button to the right of the filter dropdown list.



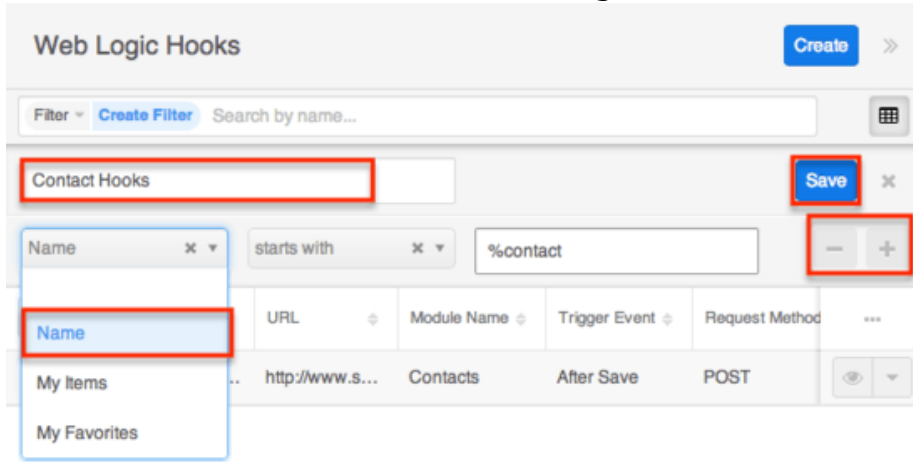
The list view will automatically display results matching your filters as you create and modify the criteria.

## Saving a Filter

Once a user has created a new filter, they have the option of saving it. Doing so will preserve the chosen fields as well as the conditions and values. The saved filter will then be available from the Filter dropdown menu in the module search bar to allow for easy retrieval of important sets of filters and values.

Use the following steps to save a new filter:

1. Create a [new filter](#) to perform a search on your desired fields.
2. Enter in a name for the new filter (e.g. "Contact Hooks").



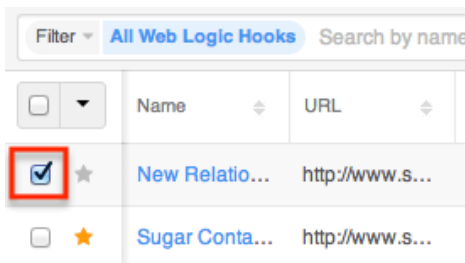
3. Click "Save" to add this filter and specified values to the module's Filter dropdown list.

## Web Logic Hooks List View

The Web Logic Hooks list view displays all account records meeting the current search criteria to which your user has access. You can view the basic details of each web logic hook within the field columns.

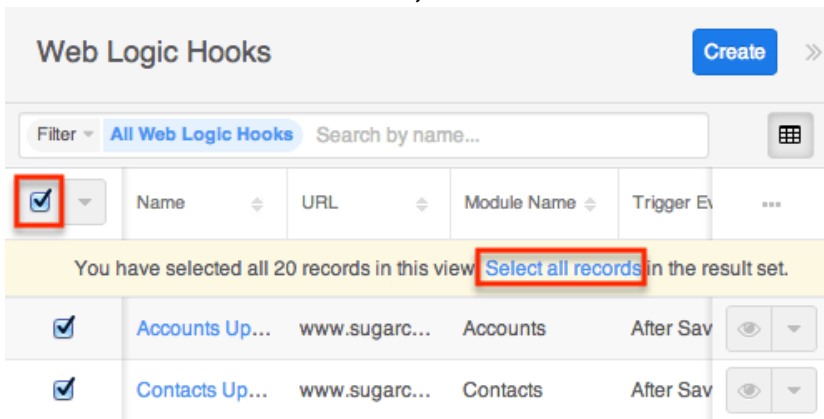
### Checkbox Selection

You can perform several actions on web logic hook records directly from the list view by first selecting the desired records. To select individual web logic hook records on the Web Logic Hooks list view, mark the checkbox on the left of each row.

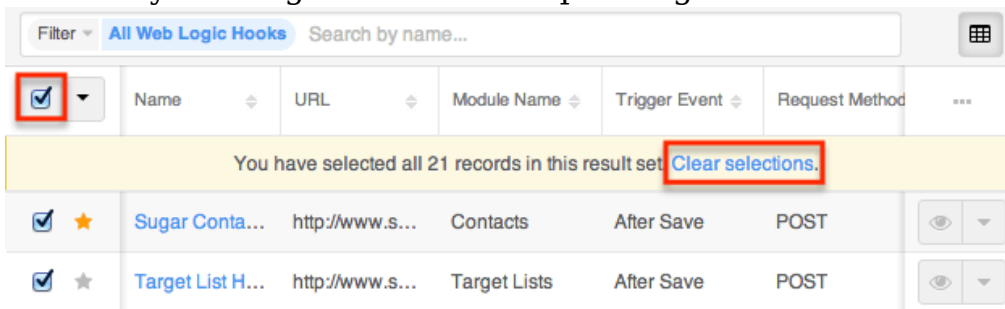


To select all web logic hook records displayed on the current set of list view results, click the checkbox to the left of the Actions menu. A dialog will appear below the list view column headers indicating that you have selected all records on the list view's current results set (e.g. 20). To select all records matching the

current search results set, click "Select all records" in the dialog.

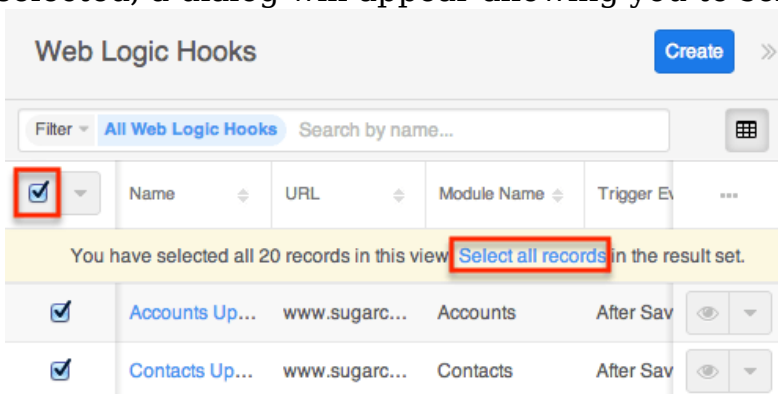


If you wish to clear the selection for all records on the list view result set, simply click "Clear selections" in the dialog. You can also clear the selections for all records by clicking the checkbox option again to remove the check marks.

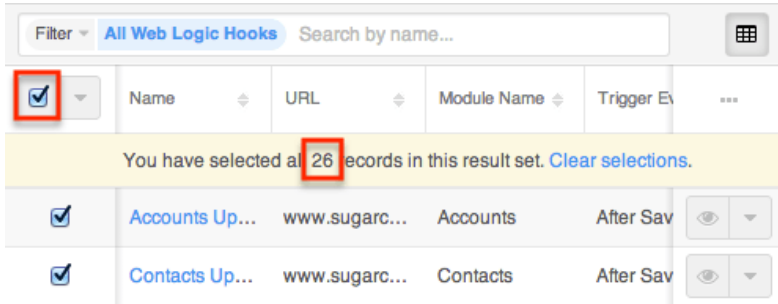


## Total Record Count

You can view the total record count on the Web Logic Hooks list view by selecting all records displayed on the current set of list view results. Once the records are selected, a dialog will appear allowing you to select all records in the results set.

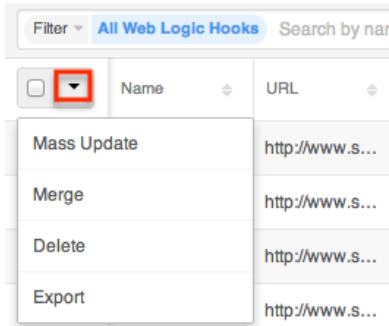


The total count of all records on the list view result set will appear in the dialog.



## Mass Actions Menu

The Mass Actions menu to the right of the checkbox option allows you to perform various actions on the currently selected records.



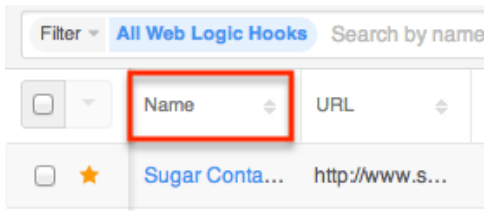
The options in the Mass Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more web logic hooks at a time
<a href="#">Merge</a>	Merge two or more duplicate web logic hooks
<a href="#">Delete</a>	Delete one or more web logic hooks at a time
<a href="#">Export</a>	Export one or more web logic hooks to a CSV file

## Column Sorting

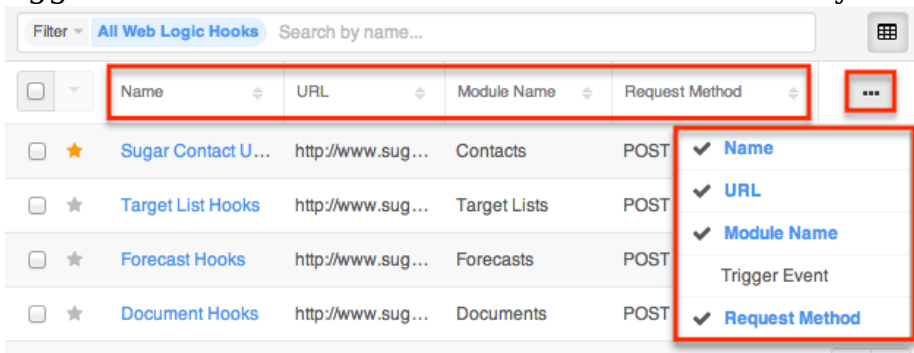
List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. Please note that the list view may be sorted by only one

column at a time.



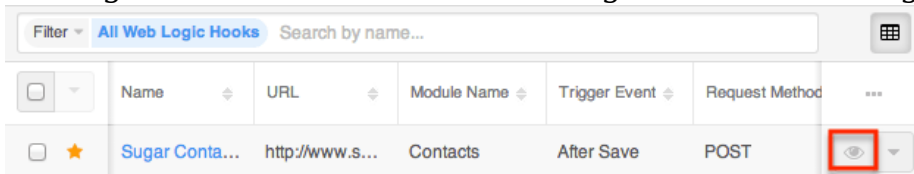
## Column Selection

Sugar gives users the ability to personalize the list view by specifying which fields they want displayed. You can click the Column Selection icon to the far right of the list view column headers to see the list of available fields. Click a field name to toggle whether or not it is included as a column on your list view.

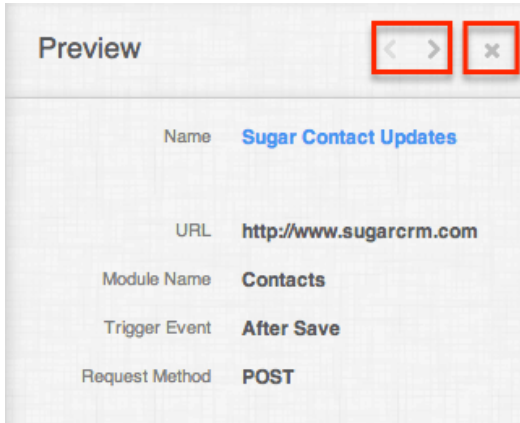


## Preview

Users can view a record's details directly from the Web Logic Hooks list view by clicking the Preview icon to the far right of each web logic hook's row.

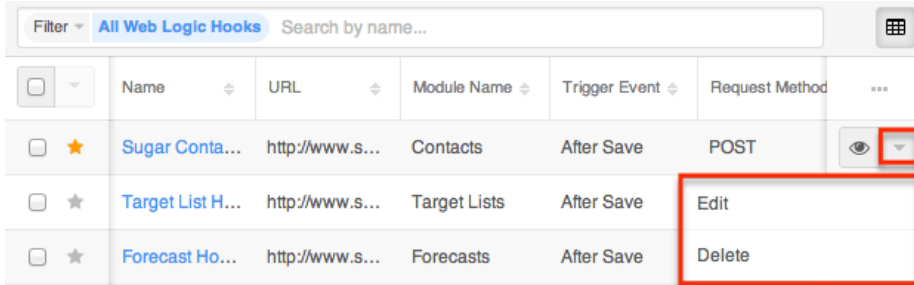


The record's data will display to the right of the list view providing key information. On the upper right of the intelligence pane, there is a Left and Right arrow button that allows you to scroll through the list view's current search results by previewing the next or previous record. To close the preview, simply click the "X" on the upper right of the intelligence pane.



## Record Actions Menu

The Record Actions menu to the right of each record's Preview button allows users to edit or delete specific records directly from the list view.



The options in the Record Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this web logic hook
<a href="#">Delete</a>	Delete this web logic hook

## More Web Logic Hooks

The list view loads an initial number of records meeting the current search criteria with the option to show additional results at the user's request. By default, Sugar displays 20 records per list view results set, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide. To load the next set of list view results, simply click the More Web Logic Hooks link at the bottom of the list view.



<input type="checkbox"/>	★	Contact Rel...	http://www.s...	Contacts
<input type="checkbox"/>	★	New Relatio...	http://www.s...	Accounts
<a href="#">More web logic hooks...</a>				

## Right Hand Side Drawer

On the upper right of the Web Logic Hooks list view there is a double arrow icon which allows users to expand the list view to the full screen width. The intelligence pane to the right of the list view will be hidden when the list view is expanded. To reduce the list view's width and reveal the intelligence pane, simply click the double arrow icon again.

Web Logic Hooks						Create	>>
<input type="checkbox"/>	★	Report Hooks	http://www.s...	Reports	After Save	POST	
<input type="checkbox"/>	★	Quote Hooks	http://www.s...	Quotes	After Save	POST	

## Web Logic Hooks Record View

The Web Logic Hooks record view displays all information pertaining to the record in question. The record view can be reached by clicking an web logic hook record's link from anywhere in the application including from the Web Logic Hooks list view.

## Actions Menu

The Actions menu on the top right of each web logic hook's record view allows you to perform various actions on the current record.

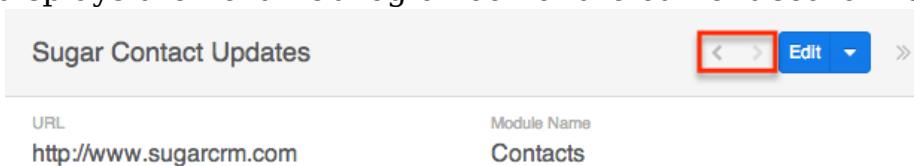
Sugar Contact Updates		Edit	>>
URL	Module Name	<div style="border: 1px solid red; padding: 5px;">           Share            Copy            View Change Log            Delete         </div>	
http://www.sugarcrm.com	Contacts		
Trigger Event	Request Method		
After Save	POST		

The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this web logic hook
<a href="#">Share</a>	Share a link to this web logic hook via email
<a href="#">Copy</a>	Duplicate this web logic hook
<a href="#">View Change Log</a>	View a record of changes to this web logic hook
<a href="#">Delete</a>	Delete this web logic hook

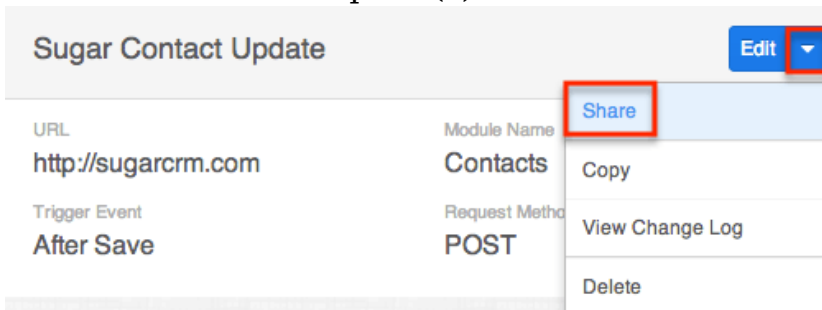
## Next or Previous Record

On the upper right of the Web Logic Hooks record view, there are two buttons that allow you to page through each web logic hook in the Web Logic Hooks list view's current search results. Clicking the Left arrow button displays the previous web logic hook of the current search results while clicking the Right arrow button displays the next web logic hook of the current search results.



## Sharing Web Logic Hooks

Individual Web Logic Hook records can be shared with other users in your organization by sending an email with the record's link directly from the record view. In the web logic hook's record view, select "Share" from the Actions menu which will open a Compose Email window including the URL of the web logic hook record. Enter the recipient(s) email address in the To field then click "Send".



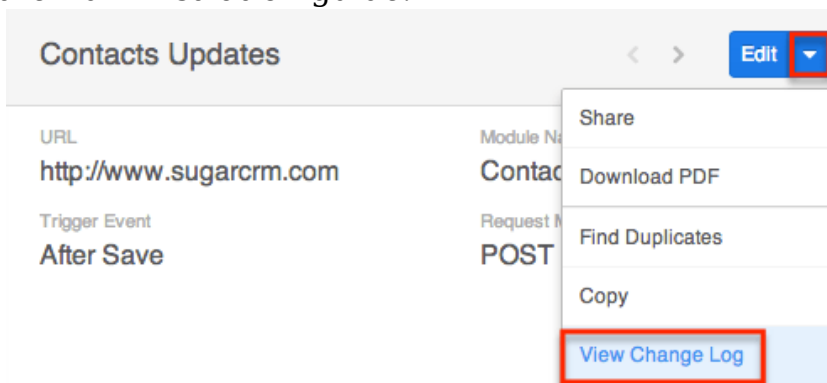
Users can simply click the link in the email to access the web logic hook record in Sugar. Please note that the user must be logged into Sugar in order to access the record. Users will only be able to view the shared record as allowed by their team membership, user access type, and assigned roles. For more information on teams

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and roles, please refer to the [Team Management](#) and [Role Management](#) documentation in the Administration guide.

## Viewing Web Logic Hook Change Logs

Changes made to each web logic hook record are tracked over time, and users are able to view the history of changes via the change log in each web logic hook's record view. To view the change log, navigate to a web logic hook in record view and select "View Change Log" from the Actions menu. Please note that only fields marked as "Audit" in Admin > Studio will be displayed in the change log. For more information on designating for audit, please refer to the [Studio](#) documentation in the Administration guide.



Once the change log opens, you can view the details of historical changes and can search by field name, old value, etc. by entering the keyword into the search box.

## Editing Web Logic Hooks

Web Logic Hooks may be edited at any time to update or add information to the record. You can make changes to existing web logic hook records via the Web Logic Hooks record view and quick create forms. Record view is available within the Web Logic Hooks module and includes all of the Web Logic Hook fields you should need.

Please note that your ability to edit web logic hooks in Sugar may be restricted by a role. For more information on roles, please refer to the [Role Management](#) documentation in the Administration guide. Check with your system administrator if you do not see the Edit options.

Administrators in Sugar may configure both the Web Logic Hooks record view and quick create via Admin > Studio. For more information on configuring layouts, please refer to the [Studio](#) documentation in the Administration guide.

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## Editing Inline Via Record View

Users can edit individual fields on a web logic hook's record view without entering the full edit mode by clicking the field name. Fields which are available for inline editing will display a pencil icon when hovering on the field name or value. This will allow users to type or select a new value. Click "Save" to preserve the changes made to the field.

The screenshot shows a form titled "After New Contact is Saved". At the top right, there are "Cancel" and "Save" buttons. Below the title, the "URL" field contains "https://sugarcrm.com". To the right, the "Module Name" dropdown menu is open, showing "Accounts" selected. A red box highlights the "Save" button, and another red box highlights the "Module Name" dropdown.

## Editing Via Record View

You can edit web logic hooks via the [record view](#) by clicking the Edit button on the upper left of the page.

The screenshot shows the header of a record view for a web logic hook named "Sugar Contact Updates". On the right side of the header, there is a blue "Edit" button with a dropdown arrow. A red box highlights the "Edit" button.

Once the record view layout is open, update the necessary fields, then click "Save" to preserve the changes made.

The screenshot shows the full record view edit form. At the top, there is a "Name" field containing "Sugar Contact Updates" and "Cancel" and "Save" buttons. Below this, there are four fields: "URL" (http://www.sugarcrm.com), "Module Name" (Contacts), "Trigger Event" (After Save), and "Request Method" (POST). A red box highlights the "Save" button.

## Editing Via List View

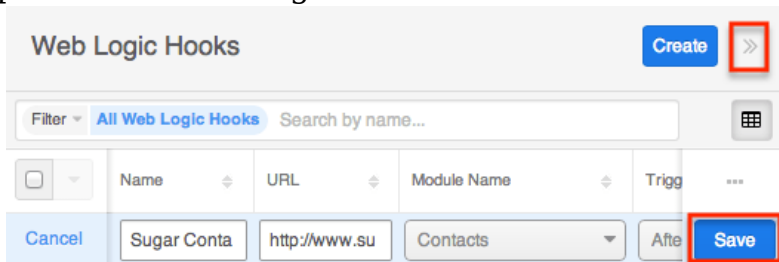
You can edit web logic hooks via the [list view](#) by clicking the triangle icon to the right of each web logic hook's preview and choose "Edit".

The screenshot shows a list view titled "Web Logic Hooks". At the top right, there is a "Create" button. Below the title, there is a filter dropdown set to "All Web Logic Hooks" and a search box "Search by name...". The table below has columns for Name, URL, Module Name, Trigger Event, and an action menu. The first row is "Sugar Conta..." with URL "http://www.s...", Module Name "Contacts", and Trigger Event "After Save". The second row is "Sugar Acco..." with URL "http://www.s...", Module Name "Accounts", and Trigger Event "After Save". The third row is "Sugar Oppo..." with URL "http://www.s...", Module Name "Opportunities", and Trigger Event "After Save". A red box highlights the triangle icon in the action menu of the first row, and another red box highlights the "Edit" option in the dropdown menu of the second row.

<input type="checkbox"/>	Name	URL	Module Name	Trigger Event	...
<input type="checkbox"/>	Sugar Conta...	http://www.s...	Contacts	After Save	
<input type="checkbox"/>	Sugar Acco...	http://www.s...	Accounts	After Save	Edit
<input type="checkbox"/>	Sugar Oppo...	http://www.s...	Opportunities	After Save	Delete

---

The web logic hook will become editable, inline as a shortened version of the record view layout. Click the double arrows to the right of the "Create" button to expand the editing window. Update the necessary fields, then click "Save" to preserve the changes.



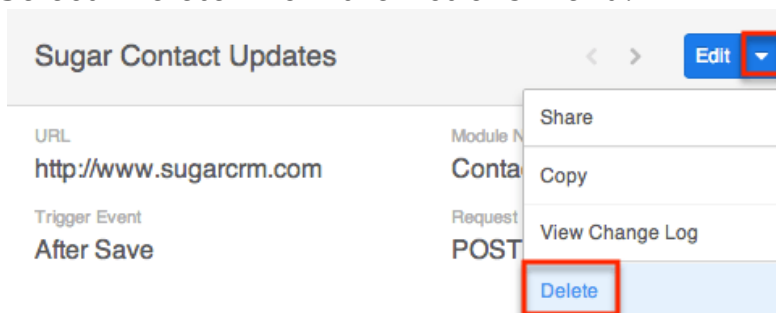
## Deleting Web Logic Hooks

If a web logic hook record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from either the Web Logic Hooks record view or list view. Deleting via the record view allows you to delete a single record while the list view allows for mass deleting multiple records at once. Please note that your ability to delete web logic hooks in Sugar may be restricted by a role. For more information on roles, please refer to the [Role Management](#) documentation in the Administration guide. Check with your system administrator if you do not see the Delete options.

### Deleting Via Record View

Use the following steps to delete a web logic hook record via the record view:

1. Navigate to a web logic hook record's record view.
2. Select "Delete" from the Actions menu.



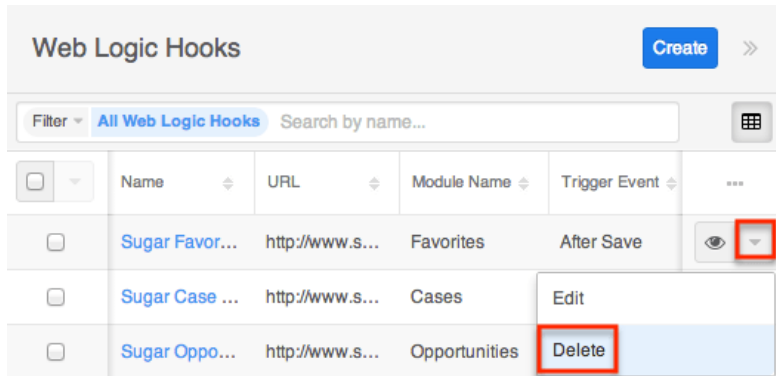
3. A pop-up message will display asking for confirmation. Click "Confirm" to proceed.

### Deleting Via List View

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Use the following steps to delete a specific web logic hooks via the list view:

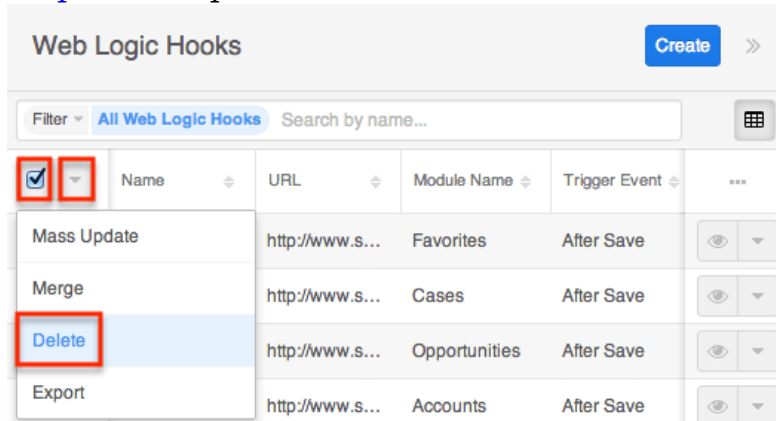
1. Navigate to the Web Logic Hooks list view by clicking the Web Logic Hooks module tab.
2. Use the [Module Search](#) to find the Web Logic Hook records you wish to delete.
3. Click the triangle to the right of the preview button of the web logic hook you want to delete.



## Mass Deleting Via List View

Use the following steps to delete one or more web logic hook records via the list view:

1. Navigate to the Web Logic Hooks list view by clicking the Web Logic Hooks module tab.
2. Use the [Module Search](#) to find the Web Logic Hook records you wish to delete.
3. Select the desired web logic hook records individually or using the [Checkbox Dropdown's](#) options then choose "Delete" from the Actions menu.



4. A pop-up message will display asking for confirmation. Click "Confirm" to proceed.

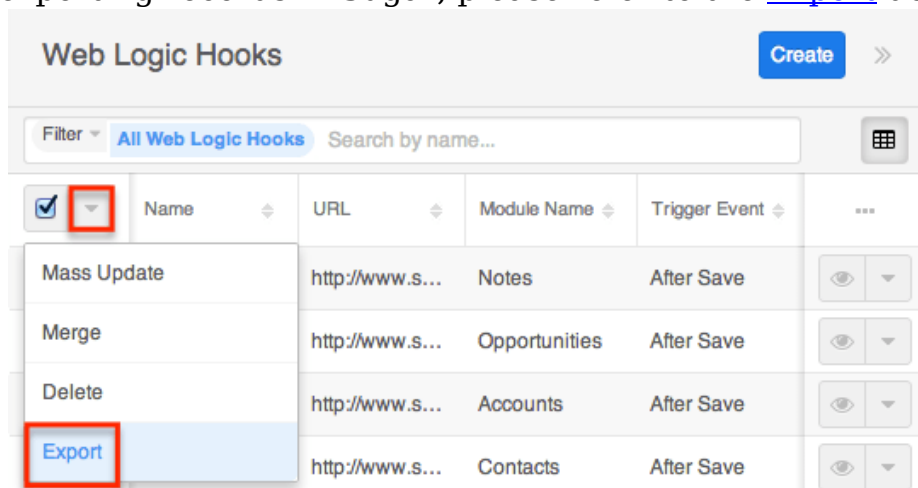
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You can also use the [Select All](#) feature in the list view, which will allow you to easily select the first 1000 records in the result set. If you wish to delete more than 1000 records or delete a specific group of records on the list view, please use the [filter option](#) in module search to perform the deletions in smaller batches.

## Exporting Web Logic Hooks

Sugar's Export option allows users to download all fields for the selected web logic hooks to their computers as a .CSV (comma-separated values) file. This may be useful when needing to use Web Logic Hook data with other software such as Microsoft Excel or to update existing records by exporting, making changes, then importing the altered web logic hooks back into Sugar. For more information on updating existing records via import, please refer to the [Import](#) documentation. Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of web logic hook records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Web Logic Hooks may be exported from the Web Logic Hooks list view by selecting "Export" from the Actions menu. Users with access to the Reports module also have the option of creating or accessing reports containing specifically chosen fields for web logic hooks and their related record(s). Please note that only Rows and Columns-type reports have the ability to be exported. For more information on exporting records in Sugar, please refer to the [Export](#) documentation.



The screenshot shows the 'Web Logic Hooks' list view. At the top, there is a 'Create' button and a search bar. Below the search bar, there is a table with columns: Name, URL, Module Name, Trigger Event, and an ellipsis menu. The 'Name' column has a dropdown menu open, showing options: Mass Update, Merge, Delete, and Export. The 'Export' option is highlighted with a red box. The table contains four rows of data, each with a corresponding 'Export' option in the dropdown menu.

<input checked="" type="checkbox"/>	Name	URL	Module Name	Trigger Event	...
<input type="checkbox"/>	Mass Update	http://www.s...	Notes	After Save	<input type="checkbox"/>
<input type="checkbox"/>	Merge	http://www.s...	Opportunities	After Save	<input type="checkbox"/>
<input type="checkbox"/>	Delete	http://www.s...	Accounts	After Save	<input type="checkbox"/>
<input type="checkbox"/>	Export	http://www.s...	Contacts	After Save	<input type="checkbox"/>

## Mass Updating Web Logic Hooks

Mass Updating allows users to make the same change to multiple web logic hook records at once from the Web Logic Hooks list view. Users with administrator or developer level access can control which fields are available to change during

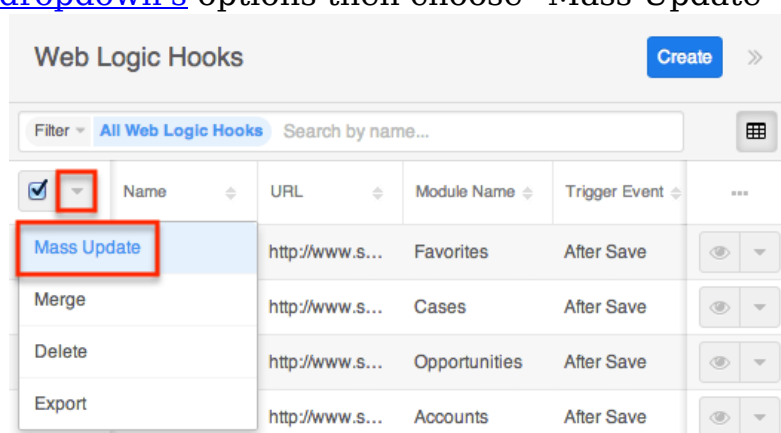
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mass update via Admin > Studio. Currently, only fields with the data type of date, datetime, dropdown, multiselect, and radio may be altered during a mass update. For more information on configuring mass update, please refer to the [Studio](#) documentation in the Administration guide. You can use the [Select All](#) feature in the list view, which will allow you to easily select the first 1000 records in the result set. If you wish to update more than 1000 records or update a specific group of records on the list view, please use the [filter option](#) in module search to perform the updates in smaller batches.

Please note that your ability to mass update web logic hooks may be restricted by a role. For more information on roles, please refer to the [Role Management](#) documentation in the Administration guide. Check with your system administrator if you do not see the Mass Update option.

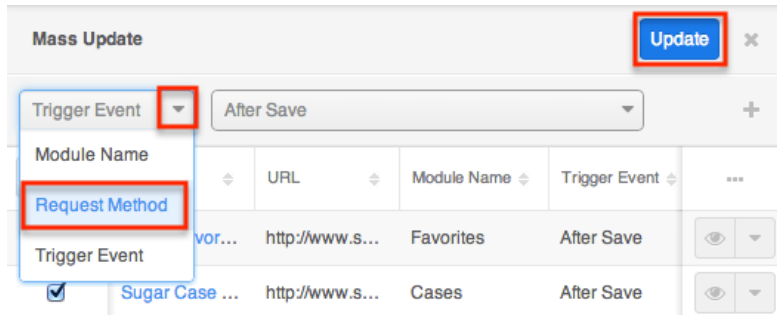
Use the following steps to mass update web logic hook records from the list view:

1. Navigate to the Web Logic Hooks list view by clicking the Web Logic Hooks module tab.
2. Use the [Module Search](#) to identify Web Logic Hook records you wish to modify.
3. Select the desired web logic hooks individually or using the [checkbox dropdown's](#) options then choose "Mass Update" from the Actions menu.



4. The Mass Update panel will appear below the search bar. Set values for the field(s) you wish to alter.
  - o To add additional fields for mass update, click the Plus icon to the right of the dropdown list.
  - o Note: For the Teams field, mark "Append Team(s)" to add the teams specified here to any existing team assignments. Not marking the checkbox will replace the existing team assignment with the new one.





5. Click "Update" to save the changes to all of the currently selected web logic hook records.

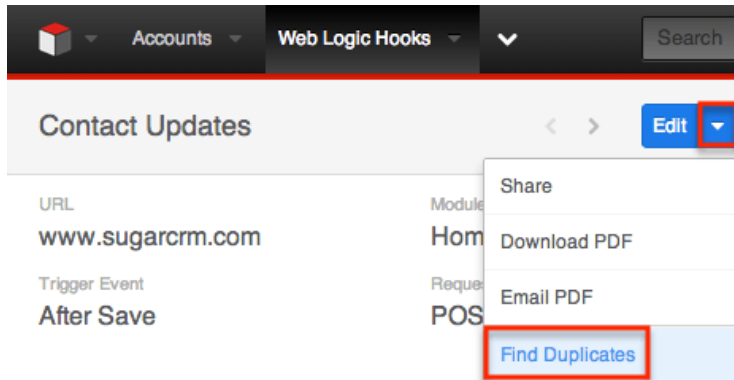
## Finding Duplicate Web Logic Hooks

Between multiple users working in Sugar, importing new records, and converting leads, it is possible for duplicate web logic hook records to be accidentally input to the system. Before creating a new web logic hook record, a good practice is to first check that the web logic hook does not already exist in Sugar. You can locate duplicate records for cleanup using [module search](#) from the Web Logic Hooks list view. Searching for web logic hooks with similar names or other information can turn search into a powerful, duplicates-finding tool. Sugar also provides a wizard for finding potential duplicates that is available from the Web Logic Hooks record view and may be used as shown below. If duplicate web logic hook records are detected, you can perform a merge per the [Merging Web Logic Hooks](#) section of this documentation.

Please note that your ability to use the Find Duplicates action may be restricted by any role which prevents web logic hook deletion. For more information on roles, please refer to the [Role Management](#) documentation in the Administration guide. Check with your system administrator if you do not see the Find Duplicates option.

Use the following steps to locate duplicate web logic hooks using the Find Duplicates option from the Web Logic Hooks record view:

1. Navigate to an web logic hook's record view.
2. Choose "Find Duplicates" from the Actions menu.



3. Potential duplicate web logic hook records will be listed on the Find Duplicates page. Select the duplicate record(s) you wish to merge then click "Merge Duplicates".
  - You can preview the duplicate record's details by clicking the Preview button to the far right of the records row.
  - You can search for specific records from the Web Logic Hooks list view if you wish to check for more possible duplicates. For more information on performing a search, please refer to the [Module Search](#) section of this documentation.
  - You can also click the Column Selection icon above the Preview button to change the list of fields that display on the list view column headers.

Once you click "Merge Duplicates", the merging process with the current record will begin. For instructions on performing the merge that follows, please refer to Steps 3-9 of the [Merging Via List View](#) section of this documentation.

## Merging Web Logic Hooks

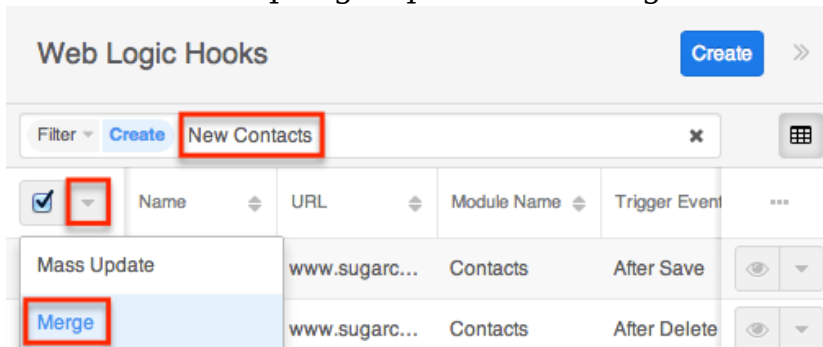
When duplicate records are identified in Sugar, you have the option to merge two or more web logic hooks into a single record. Once the merge is complete, the duplicate web logic hook record(s) will be deleted, and the primary record will remain. Please note that all relationships belonging to the duplicate web logic hooks will be merged to the primary record meaning that any calls, meetings, cases, etc. related to the duplicate web logic hook record(s) will automatically be related to the resulting, merged web logic hook record.

### Merging Via List View

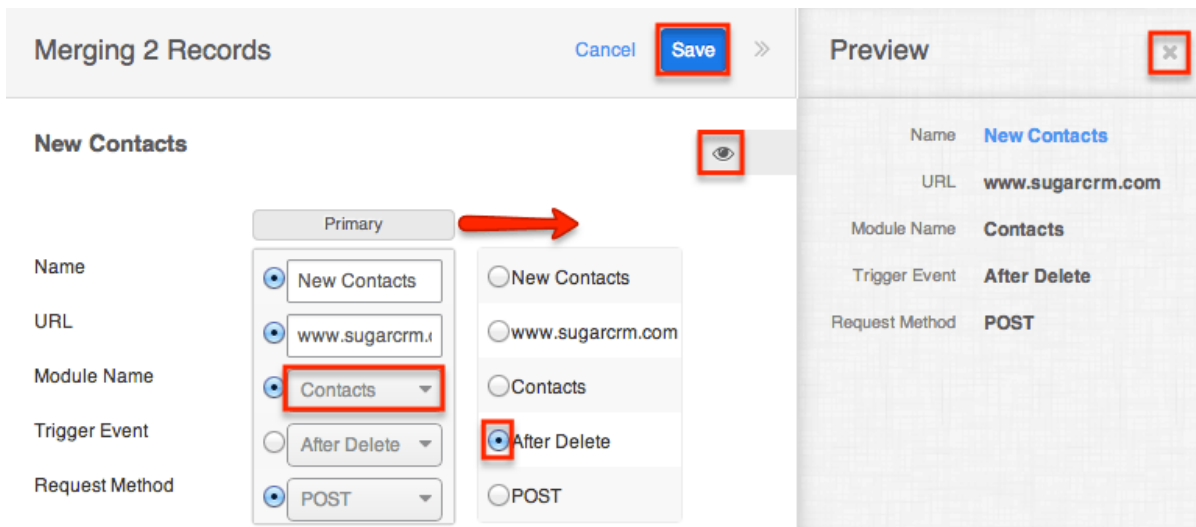
[Module Search](#) may be used to identify duplicate web logic hooks by, for example, searching for records with similar names. Once your search has identified duplicate [account]s, you can merge them directly from the Web Logic Hooks list view.

Use the following steps to merge web logic hooks via the list view:

1. Use the list view's [Module Search](#) to identify duplicate web logic hooks.
2. Possible duplicates will be displayed in the list view. Select the duplicate record(s) that you wish to merge.
  - o Please note that up to five records may be merged at once in Sugar. An error message ("Invalid number of records passed. The valid range is from 2 to 5 records.") will appear if more than five records are selected when attempting to perform a merge.



3. Select "Merge" from the Actions menu to display the Merging Records page. The primary record's field values are displayed on the left while other record's values are in columns to the right. For convenience, fields with differing values will appear on the top of the list. Saving the merge will preserve only the field values marked with the radio button into a single record.



4. To change which record is considered the primary, drag and drop the Primary label on the top of a different column.
5. Review the field values in each column and click the radio button to the left of the value that should appear on the final record. You can also manually type or select a new value for any field as necessary.
6. Preview what the final, merged record will contain as you work by clicking the eye icon to display the preview in the Intelligence Pane.
7. Click "Save" once all fields you wish to appear on the single, merged record have their radio buttons selected.
8. A pop-up message will display confirming that the duplicate record(s) should

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be deleted. Click "Confirm" to proceed.

Last Modified: 04/13/2016 02:07pm

## Email

### Overview

Sugar comes with many different abilities in regards to email and many of these abilities require an administrator to setup or configure them. Email administration includes email settings, campaign email settings, email archiving, inbound email, and the email queue.

### Email Settings

The Email Settings section allows Sugar administrators to configure the system's outbound email settings as well as additional email and security options. Make any necessary changes in the sections below and click "Save" to commit the changes.

Email Settings



### Outgoing Mail Configuration

The Outgoing Mail Configuration section contains details for sending email notifications, scheduled reports, workflow alerts, etc. Enter appropriate values for the following fields keeping in mind all required fields are marked with a red asterisk and must be completed prior to saving:

- From Name : The name outgoing email will come from; for example, the name of your organization. Defaults to "SugarCRM".
- From Address : The email address outgoing email will come from. Defaults to "do\_not\_reply@example.com".  
Note: If specifying a different address than the email address associated with the account you are authenticating, the email server being utilized may need to be configured to allow the email account to send email as the entered From Address.
- Choose Your Email Provider : Choose your mail provider to populate provider specific values.

- 
- SMTP Server : The web address of the external email server Sugar will connect to.
  - SMTP Port : The communication port number used for connecting to the mail server.
  - Use SMTP Authentication? : Check this box to connect to the SMTP server using a user name and password. If left unchecked, the SMTP server must accept anonymous connections, which is not recommended.
  - Enable SMTP over SSL or TLS? : Select the appropriate option from the dropdown to use Secure Socket Layer, Transport Layer Security, or no encryption when connecting to the mail server.
  - Email Address / Username : Enter the email address or user name to connect to the SMTP server with.
  - Password : Enter the password associated with the entered email address or user name.
  - Allow users to use this account for outgoing email : Check this box if you would like users to be able to send emails using the same outbound mail account. If the option is not selected, users will still be able to use the outbound mail server to send emails by entering their personal mail account information in their user preferences. For more information on setting up the email settings in user preferences, please refer to the [Email Settings](#) section of the Getting Started documentation.

Once the appropriate mail server information is entered, you can send a test email to make sure it is configured properly. Click "Send Test Email", enter your email address, and send the test. If you do not receive the test email, re-enter the account information including the password to ensure it is all correct.

### Outgoing Mail Configuration

Configure the default outgoing mail server for sending email notifications, including workflow alerts.

"From" Name: \*

"From" Address: \*

Choose your Email provider

Gmail
Yahoo! Mail
Microsoft Exchange
Other

SMTP Mail Server: \*

Use SMTP Authentication:

Gmail Email Address \*

Gmail Password \*

Allow users to use this account for outgoing email:  (i)

SMTP Port: \*

Enable SMTP over SSL or TLS? TLS

Send Test Email

## Email Options

The Email Options section provides some global options for email configuration. Check the box next to the desired options:

- **Assignment Notifications** : Sends email notifications to users automatically when records are assigned to them. When assigning a record to yourself, you will not receive a notification of the assignment. Default is checked.  
Note: To receive notifications, users must also have "Notify on Assignment" checked in their user profile.
- **Delete related notes & attachments with deleted Emails** : Related notes and attachments are deleted when an email is deleted. This ensures that data is not orphaned in the system when an email is deleted. Default is checked.
- **Send notification from assigning user's e-mail address** : Sends notifications from the email address and name of the user who is assigning a record to another user. Default is not checked.  
Note: The SMTP server being used must allow sending from a different email address than the authenticated account and the email account may need to be configured to allow the Send As permission.

## Email Security Settings

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The Email Security Settings section allows Sugar administrators to decide which HTML tags are allowed to be displayed in Sugar. The selected tags will not be allowed for viewing within Sugar. There are two options to mass set the tag selection:

- **Select Outlook default minimum security settings** : Select this option to automatically select every tag that Outlook also restricts. This will not strip the style tag which is used by default in Outlook. This option is selected by default.
- **Toggle All Options** : Select this option to either select all tags, or deselect all tags.

After selecting one of those options you can individually select or deselect additional tags to restrict or allow the tags respectively.

## Related Contacts Emails

The Related Contacts Emails section allows administrators to enable or disable related contact's emails from appearing in the Emails subpanel and History dashlet for certain modules (Cases, Accounts, Opportunities). In order to have emails from related contacts appear in the Emails subpanel, simply mark the checkbox to the right of the module name (e.g. Opportunities). To disable related contact's emails from appearing in the Emails subpanel, uncheck the box for the specific module as necessary. Click "Save" to preserve the change.

---

## Campaign Email Settings

The Campaign Email Settings section allows Sugar administrators to configure some backend settings for sending campaign emails. Select the appropriate values for the following fields keeping in mind all required fields are marked with a red asterisk and must be completed prior to saving:

- **Number of emails sent per batch** : When the "Run Nightly Mass Email Campaigns" scheduler runs, it will send out the specified number of emails for a single run. The default is set to 500. Some mail servers have one or more of the following restrictions for a specific timeframe (e.g. hour, day, etc.): the number of unique recipients, how many times the same email can be sent to individual recipients, and the most common, how many emails can be delivered. This setting helps control the outgoing email to conform to these restrictions. For example, if your scheduler is set to run every hour, the number of emails to send per batch is set to 500, and you have 1600 emails to send out, starting at 2:00 AM the last batch of emails will be sent at 5:00 AM. Please check with your email provider to determine the proper level.
- **Location of campaign tracking files** : Campaign tracking files log responses from campaign targets. If you are running Sugar on an external network, select "Default" to accept the default location. However, if your Sugar instance is behind a firewall, then choose "User Defined" and specify the path to your external web server in the field below. The external web server must have the ability to connect to your Sugar instance behind the firewall. Ensure that you create a file named `index.php` to handle requests for three different types of entry points: `campaign_trackerv2`, `removeme`, and `image`, and place the `index.php` file in the path to your external web server. This `index.php` file must make the appropriate calls to the `index.php` file located in the root of your Sugar instance in order to properly record the activities in Sugar. For more information on how to setup a custom campaign tracker page, please refer to the [Using a Custom Page For Campaign Trackers](#) section of the Advanced Config Options documentation in the Administration guide.
- **Keep copies of campaign messages** : Set this option to "Yes" to keep a copy of every email sent during a campaign. If "No" is selected, the template is stored, but not the individual emails sent. Default is set to "No".  
Note: Storing every email sent does take up space in the database and can reduce performance. We recommend setting this value to "No".



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## Campaign Email Settings

**Outbound Email Options**

Number of emails sent per batch: \*

Location of campaign tracking files (like campaign\_tracker.php) \*  Default  User Defined

Value of Config.php s

Keep copies of campaign messages: \*  Yes  No

Make any necessary changes and click "Save" to commit the changes.

## Email Archiving

Sugar Email Archiving allows users to easily archive email to Sugar records simply by sending the email to a special email address. The email archiving service monitors the email address and imports the email into your instance of sugar and links related records without the use of a plug-in or other synching process. This service is only available for Sugar Professional subscriptions and above.

### Enabling Email Archiving

Before you can use Sugar Email Archiving, you need to enable the service for your instance. Email Archiving can only be activated for one instance per license key. If you have a test instance with Email Archiving activated, that service will need to be deactivated before your production instance can be activated.

Use the following steps to enable email archiving via the administration page:

1. In the Email section of the administration page, Select "Email Archiving".

Email

Manage outbound and inbound emails. The email settings must be configured in or

<a href="#">Email Settings</a>	Configure email settings
<a href="#">Campaign Email Settings</a>	Configure email settings for campaigns
<a href="#">Email Archiving</a>	Enable/disable the Sugar Email Archiving Service

2. Read the Email Archiving feature description, Master Subscription Agreement, and privacy policy.
3. Select the checkbox to agree to the teams and click "Enable Email Archiving".

I agree to the above terms and the [privacy agreement](#).

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Note: Your instance needs to be reachable over the internet from SugarCRM's Email Archiving server. Specifically, the URL `http(s)://{site_url}/service/v4/rest.php` needs to be accessible from our On-Demand IP range, 70.42.242.0/24 (this is the same as 70.42.242.0 with a 255.255.255.0 subnet mask). This `site_url` value is specified in your `config.php` and must match the publicly accessible URL.

4. The next screen displays a status of Enabled and your instance's unique email address for Email Archiving.
5. Click "Disable Email Archiving" to turn off this feature.  
Note: If you disable and re-enable Email Archiving you will receive a different unique email address.

## Using Email Archiving

To automatically archive an email into Sugar using the Email Archiving service, simply include your system's unique email address in the To, Cc, or Bcc fields when composing, replying, or forwarding an email. The email will then be archived into your Sugar database including any attachments on the email.

Sugar will automatically create relationships to the imported email for any stock module records that match an email address in the From, To, and Cc fields in the email. In addition, the Sugar Email Archiving service will also scan the body of the email to archive the email to records with a matching email address. Please note that in order for the email address to be recognized properly for email archiving, it must be displayed as "To: (End Client Name (optional)) <(End Client Email Address)>" (e.g. To: John Smith <john@example.com>) in the body of the email. The archived email will appear in the History dashlet for any matching records in Sugar.

Note: The Bcc field can not be seen by the Sugar email archive service just like they are not visible to any other recipient of the email.. Any email addresses included in the Bcc will not get relationships made to them from the email.

The following are some features and limitations for the email archiving service:

- Meetings : If the email archived contains a calendar event, Sugar will archive the email as well as create a Meeting record. The meeting created will also be related to the matching records in Sugar via the email addresses in the From, To, and Cc fields.
- Cases : Email containing the case macro in the email's Subject field will also be archived to a Case record. By default, the case macro is `[CASE:{number}]`, meaning that an email with subject "[Case:1024] Help needed!" will be automatically archived to case number 1024. For more information on how to change the case macro, please refer to the [Modifying the Case Macro](#) section.
- Custom Modules : Currently, Sugar Email Archiving is only able to match email addresses on stock modules. Any relationships between the archived email and custom modules will have to be made manually.

- **Size Limit** : Sugar Email Archiving can process emails up to 10 MB in size including attachments.
- **Implicit Relationships** : Sugar Email Archiving creates an implicit relationship between the email and matching records via the email addresses on the email. This implicit relationship behaves and sometimes displays differently than an explicit relationship. For example, an email implicitly related to Beth Roberts' Contact record would appear in her History subpanel just like one that is explicitly related. However, if Beth's email address is updated in Sugar, the emails created via Sugar Email Archiving will no longer appear in her History since the email addresses no longer match. You can explicitly relate a contact to an email by selecting the contact in the email's Contacts subpanel.

## Inbound Email

Inbound Email allows external email to be pulled into Sugar and can be accessed from the admin page under the Email section. Inbound accounts can be configured as personal, group, or bounce mail accounts. There are various ways you can create inbound accounts in Sugar such as via the Inbound Email module tab and the Emails module. Once the inbound account record is created, you can view and edit information via the Inbound Email detail view. Some inbound accounts can be configured to create Case records in Sugar or send automatic replies to imported email. This section will cover how to use the Inbound Email module as well as the various actions and options available from within the module.

### Inbound Email Fields

The Inbound Email module contains a number of stock fields which come out-of-the-box with Sugar in order to configure inbound email accounts. The below definitions are the meanings for the available fields.

Field	Description
Allow users to send emails using the "From" Name and Address as the reply to address	Select this option if you want to enable users to use this account's From name and address as their Reply To address. Only available for Group Accounts and defaults to not checked.
Assign To Teams	The Sugar team(s) assigned to the email record. Note: Users will only be able to see emails in group accounts as allowed by their team membership.

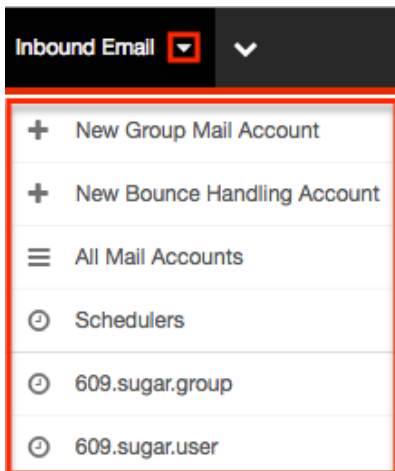
Auto-Reply Template	Select an existing template, or click Create to create a new one to send an automated response notifying email senders that you received their email. Note: If both Auto-Reply and Case Reply templates are selected, Sugar will respond to the sender with the Case Reply template only.
Create Case from Email	Select this option to create cases automatically from inbound emails. Only available for Group Accounts and defaults to not checked. For more information on creating cases via email, the distribution method, and case auto-reply, please refer to the <a href="#">Creating Cases From Email</a> section.
Distribution Method	Only available if Create Case from Email is checked for a Group Account and allows you to select Round-Robin or Least-Busy for assigning the new cases.
From Address	The email address any outgoing email will come from. Defaults to the email address from your user profile.
From Name	The name outgoing email will come from; for example, the name of your organization. Defaults to your first and last name from your user profile.
Import Emails Automatically	Select this option to create email records automatically in Sugar for all incoming emails. Only available for Group Accounts and defaults to checked.
Leave Messages On Server	Select this option to not removed emails from the server. Only available for Group Accounts and defaults to Yes.
Mail Server Address	The web address of the external email server from which emails will be imported in Sugar.
Mail Server Port	The communication port number used for connecting to the mail server.
Mail Server Protocol	The mail protocol used to communicate with the mail server. IMAP is the default

	selection and provides the best functionality with Sugar.
Monitored Folders	The folders in your external account that Sugar will monitor. Inbox is selected by default. To select one or more folders to monitor click "Select" and then pick the folders in your external account for Sugar to monitor.
Name	The name or designation of the account.
New Case Auto-Reply Template	Only available if Create Case from Email is checked for a Group Account and allows you to select or create an automated response template notifying email senders that a case has been created to resolve their issue. For more information on creating cases via email, the distribution method, and case auto-reply, please refer to the <a href="#">Creating Cases From Email</a> section.
No Auto-Reply to this Domain	Enter the domain name to exclude a domain from receiving the automatic email response. It is common to specify your organization's domain to prevent auto-replies from being sent to your organization's members.
Number of Auto-responses	Set the maximum number of auto-responses to be sent to a unique email address during a period of 24 hours.
Password	Enter the password associated with the entered email address or user name.
Reply-to Address	The email address that will receive any replies from your email. If left blank, replies will be sent to the From Address.
Reply-to Name	The name that will receive any replies from your email. If left blank, replies will be sent to the From Name.
Sent Folder	Select a folder from your external account to store any email being sent from that account through Sugar.
Status	The current status of the account (i.e. Active, Inactive).

Trash Folder	Select a folder from your external account to be designated as the trash folder. Sugar will place deleted emails into this folder on your external account.
Use SSL	Check this box to force the connection and communication between Sugar and the mail server to use a secure socket layer of encryption.
Username	Enter the email address or user name to connect to the SMTP server with.

## Inbound Email Module Tab

The Inbound Email module tab is typically located on the navigation bar at the top of any Sugar screen after selecting "Inbound Email" from the Admin page. Once in the Inbound Email list view, click the triangle in the Inbound Email module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of inbound email accounts you last viewed in the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">New Group Mail Account</a>	Opens the edit view layout to create a new Group Mail Account
<a href="#">New Bounce Handling Account</a>	Opens the edit view layout to create a new Bounce Handling Account
<a href="#">All Mail Accounts</a>	Opens the list view layout to display all inbound mail accounts
<a href="#">Schedulers</a>	Opens the list view layout to search and display schedulers

---

## Creating Inbound Email Records

There are various methods for creating inbound email accounts in Sugar including via Inbound Email module, Emails module, Campaigns module and duplication. The full edit view layout opens when creating the inbound account directly from the Inbound Email menu and includes all of the relevant fields for your organization's accounts.

For more information on how to create a personal inbound email account, please refer to the [Emails](#) documentation in the application guide.

For more information on how to create a bounce handling inbound email account via the Campaigns module, please refer to the [Campaigns](#) documentation in the application guide.

From the Inbound Email module tab you can create two kinds of Inbound Email Accounts:

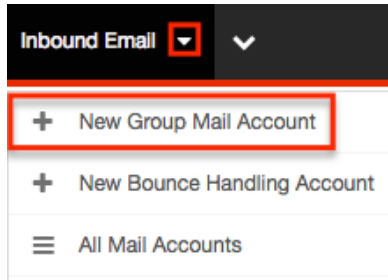
- **Group Mail Accounts** : Allows multiple users, such as team members, to view emails from an external mail account. When you receive emails that are addressed to your organization but not to any particular user, you can route it to a Group mail account such as support@example.com or sales@example.com. Users can subsequently distribute emails in the Group mail account to other team members.
  - **Note:** Group Mail Accounts will only import unread messages from the mail server.
- **Bounce Handling Mail Accounts** : Stores campaign emails that bounce back to you due to incorrect email addresses. You can create a bounce handling inbox separately for each campaign, or you can create one that is common to all campaigns. The system tags every bounced campaign email with a unique identifier that enables you to identify the campaign.

## Creating Group Mail Accounts

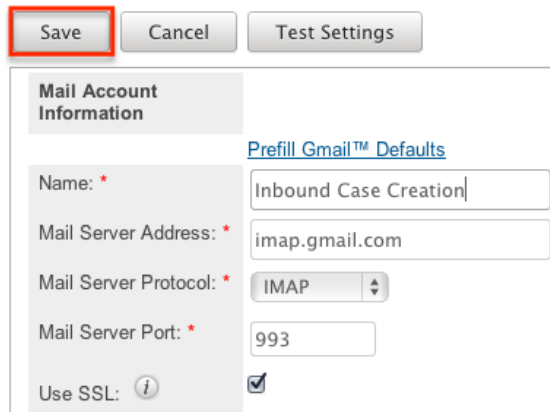
One of the most common methods of Group Mail Account creation is via the New Group Mail Account option in the Inbound Email module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the group mail account. Please note that Group Mail Accounts will only import unread messages from the mail server.

Use the following steps to create a group mail account via the Inbound Email module:

1. Navigate to Admin > Inbound Email.
2. Click the triangle in the Inbound Email module tab and select "New Group Mail Account".



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving. Note: If your mail account is using Gmail, click "Prefill Gmail™ Defaults" to populate many fields with defaults to connect to Gmail.
4. Once the necessary information is entered, click "Save".

A screenshot of a 'Mail Account Information' form. At the top, there are three buttons: 'Save', 'Cancel', and 'Test Settings'. The 'Save' button is highlighted with a red box. Below the buttons, the form contains several fields: 'Name: \*' with the value 'Inbound Case Creation', 'Mail Server Address: \*' with 'imap.gmail.com', 'Mail Server Protocol: \*' with a dropdown set to 'IMAP', 'Mail Server Port: \*' with '993', and 'Use SSL: \*' with a checked checkbox. A link for 'Prefill Gmail™ Defaults' is also visible.

Optionally, click "Test Settings" to verify your entries.

## Creating Bounce Handling Accounts

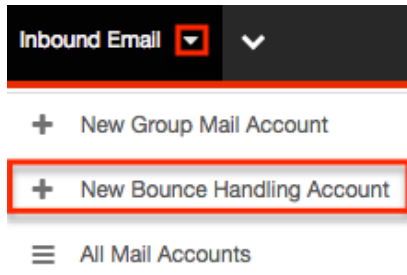
One of the most common methods of Bounce Handling Account creation is via the New Bounce Handling Account option in the Inbound Email module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the bounce handling mail account.

Use the following steps to create a bounce handling account via the Inbound Email module:

1. Navigate to Admin > Inbound Email.
2. Click the triangle in the Inbound Email module tab and select "New Bounce Handling Account".







3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving. Note: If your mail account is using Gmail, click "Prefill Gmail™ Defaults" to populate many fields with defaults to connect to Gmail.
4. Once the necessary information is entered, click "Save".

A screenshot of a 'Mail Account Information' form. At the top, there are three buttons: 'Save', 'Cancel', and 'Test Settings'. The 'Save' button is highlighted with a red rectangular box. Below the buttons, the form is titled 'Mail Account Information' and includes a link for 'Prefill Gmail™ Defaults'. The form fields are: 'Name: \*' with the value 'Campaigns Bounce Account'; 'Mail Server Address: \*' with the value 'imap.gmail.com'; 'Mail Server Protocol: \*' with a dropdown menu set to 'IMAP'; 'Mail Server Port: \*' with the value '993'; and 'Use SSL: (i)' with a checked checkbox.

Optionally, click "Test Settings" to verify your entries.

## Creating Via Duplication

You can also create a new group mail or bounce handling account by duplicating an existing inbound account record. The copy option is useful if the inbound email account you are creating has similar information to an existing inbound email account.

Use the following steps to create an inbound email account by duplicating an existing record:

1. Navigate to an inbound email account record's detail view.
2. Click "Copy".



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Edit **Copy** Delete

Mail Account Information	
Name:	609.sugar.group
Mail Server Address:	imap.gmail.com

- The displayed edit view is pre-populated with the original account's values. Update the necessary fields, then click "Save".

609.sugar.group

**Save** Cancel Test Settings

Mail Account Information	
<a href="#">Prefill Gmail™ Defaults</a>	
Name: *	<input type="text" value="Inbound Case Creation"/>
Mail Server Address: *	<input type="text" value="imap.gmail.com"/>
Mail Server Protocol: *	<input type="text" value="IMAP"/>
Mail Server Port: *	<input type="text" value="993"/>
Use SSL:	<input checked="" type="checkbox"/>

## Viewing Inbound Email Records

There are various options available for viewing inbound account records in Sugar including via Inbound Email list view, detail view, and Last Viewed menu.

### Viewing Via List View

The Inbound Email list view displays all inbound account records. To access the list view, simply click the Inbound Email module tab. While list view shows key inbound account fields, you can click the account's name to open the record in detail view. For more information on viewing inbound accounts via list view, please refer to the [Inbound Email List View](#) section.

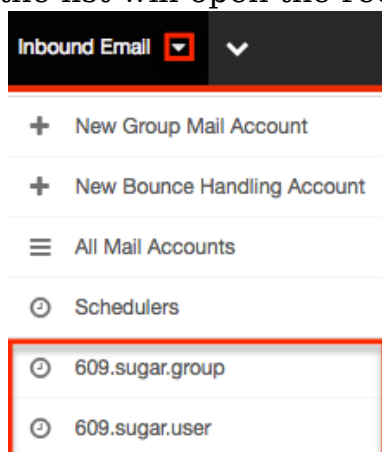
### Viewing Via Detail View

The Inbound Email detail view displays thorough inbound account information including all fields. The detail view can be reached by clicking an account record's link from anywhere in the application including from the Inbound Email list view. For more information on viewing inbound accounts via detail view, please refer to the [Inbound Email Detail View](#) section.

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## Viewing Via Recently Viewed

As you work, Sugar will keep track of which inbound accounts you have recently viewed. Click the triangle in the [Inbound Email module tab](#) to see a list of the 3 records you most recently viewed in the module. Clicking the record's name within the list will open the record in detail view.



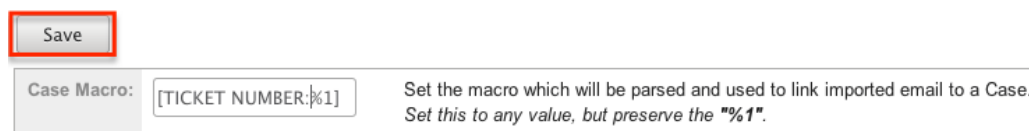
## Inbound Email List View

The Inbound Email list view displays all inbound account records meeting the current search criteria and to which your user has access. You can view the basic details of each account within the field columns.

## Modifying the Case Macro

The Case Macro field determines what distinct string Sugar will use to match emails to the Cases module. The Case Macro is on the Inbound Email list view and displays the current case macro string. By default, this string is set to [CASE:%1]. To customize it, you can change CASE to a different word, but you must preserve the rest of the string; for example, [TICKET NUMBER:%1].

Home

A screenshot of the 'Case Macro' field in the SugarCRM interface. At the top left, there is a 'Save' button with a red border. Below it, the 'Case Macro:' label is followed by a text input field containing '[TICKET NUMBER:%1]'. To the right of the input field, there is a small text box with the following text: 'Set the macro which will be parsed and used to link imported email to a Case. Set this to any value, but preserve the "%1".'

Click "Save" to preserve your changes.

Note: Incoming emails must have no space before the case number in order to be related to the existing case. For example, an email with the subject "[Case:1234]" will automatically be related to case number 1234 while an email with the subject "[Case: 1234]" will not.

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## Pagination

List view displays the current results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the case macro you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.

The screenshot shows a 'Save' button at the top. Below it is a 'Case Macro' field containing '[TICKET NUMBER:%1]' with a tooltip that reads: 'Set the macro which will be parsed and used to link imported email to a Case. Set this to any value, but preserve the "%1".' Below the macro field is the 'Inbound Email' section, which includes a 'Delete' button, a 'Selected: 0' indicator, and a pagination control showing '(1 - 5 of 7)' with navigation arrows. The pagination control is highlighted with a red box.

## Checkbox Selection

You can perform several actions on inbound account records directly from the list view by first selecting the desired records. To select individual inbound account records on the Inbound Email list view, mark the checkbox on the left of each row. To select or deselect multiple inbound account records on the list view, use the options in the checkbox dropdown menu:

- **Select This Page** : Selects all records shown on the current page of inbound account results.
- **Select All** : Selects all records across all pages of inbound account results.
- **Deselect All** : Deselects all records that are currently selected.

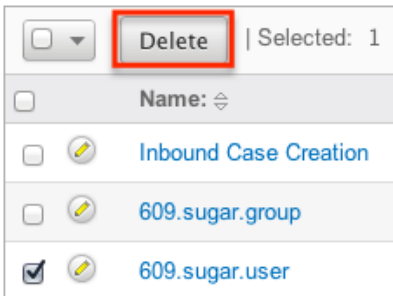
The screenshot shows a list view with a 'Delete' button and 'Selected: 2' indicator. A dropdown menu is open from the checkbox area, showing options: 'Select This Page (4)', 'Select All (4)', and 'Deselect All'. Below the menu, two records are visible: 'Invoice' and 'Pro Forma Invoice', both with checked checkboxes. The dropdown menu and the checkboxes are highlighted with red boxes.

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## Action Buttons

The Actions menu to the right of the checkbox dropdown typically allows you to perform various actions on the currently selected records.

### Inbound Email



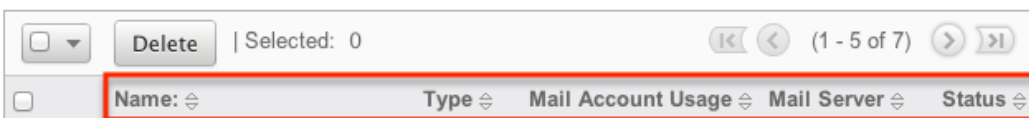
The only action available from the Inbound Email list view is the following operation:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more inbound accounts at a time

## Column Sorting

List view provides the ability to sort all of the current results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time.

### Inbound Email



## Inbound Email Detail View

The Inbound Email detail view displays thorough inbound account information including all inbound account fields which are grouped by default into the Mail Account Information and Advanced Setup panels. The detail view can be reached by clicking an inbound account record's link from anywhere in the application including from the Inbound Email list view.

## Action Buttons

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The Action Buttons on the top left of each inbound account's detail view allows you to perform various actions on the current record.

609.sugar.user

<b>Mail Account Information</b>	
Name:	609.sugar.user
Mail Server Address:	imap.gmail.com
Mail Server Protocol:	IMAP
Mail Server Port:	993
Use SSL:	No

The action buttons allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this inbound account.
<a href="#">Copy</a>	Duplicate this inbound account.
<a href="#">Delete</a>	Delete this inbound account.

## Editing Inbound Email Records

Inbound accounts may be edited at any time to update or add information to the record. You can make changes to existing inbound account records via the Inbound Email edit view. Edit view is available within the Inbound Email module and includes all of the Inbound Email fields you should need.

### Editing Via Detail View

You can edit inbound accounts via the [detail view](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

609.sugar.user

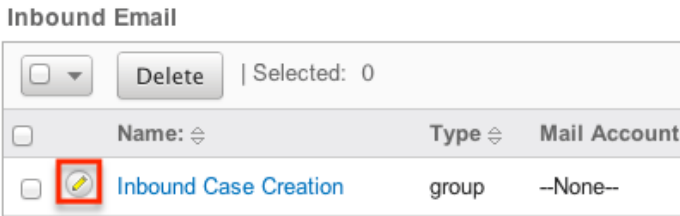
<b>Mail Account Information</b>	
Name:	609.sugar.user
Mail Server Address:	imap.gmail.com



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## Editing Via List View

You can edit inbound accounts via the [list view](#) by clicking the Pencil icon to the left of each inbound account's name. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.



## Deleting Inbound Email Records

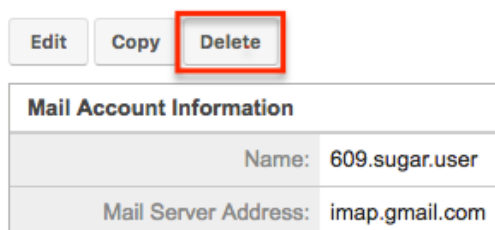
If an inbound account record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from either the Inbound Email detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once. Deleting inbound account records will not delete the email imported from this account.

### Deleting Via Detail View

Use the following steps to delete an inbound account record via the detail view:

1. Navigate to an inbound account record's detail view.
2. Click "Delete".

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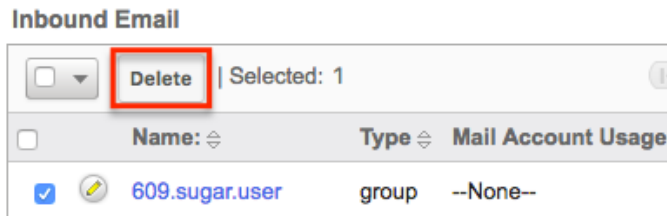


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

### Mass Deleting Via List View

Use the following steps to delete one or more inbound account records via the list view:

- 
1. Navigate to the Inbound Email list view by clicking the Inbound Email module tab.
  2. Select the desired inbound account records individually or using the checkbox dropdown's options.
  3. Click "Delete".



4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of inbound account records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Creating Cases From Email

To create a case via email, simply send an email to a group inbound email account that has the case creation option selected. The subject and description of the case is populated with the subject and body of the email respectively. The new case is assigned to the team defined in the inbound email account record and the case can be assigned to a specific user in that team based on two rules:

- Round-Robin : Sugar distributes cases evenly among all users within the team.
- Least-Busy : Sugar distributes cases to the least busy user within the team. Least busy is defined by the person with the least number of unread emails assigned to them.

Note: Case assignment is distributed to all members of the specified team, but excludes any inherited members of the team due to the "Reports To" structure. For more information on teams and the Reports To structure, please refer to the [Team Management](#) and [User Management](#) documentation in the Administration guide. Cases created from email are automatically related to contact and account records that match the email address in the From field of the email.

If a case auto-reply template is specified the sender of the email will receive an email based on the template selected. The response contains the system generated case number in the subject line of the email based off of the case macro. The body of the email for which the case was created displays below the template text. The case auto-reply ignores the "No Auto-Reply to this Domain" field if populated.

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Note: If both Auto-Reply and Case Auto-Reply templates are selected, Sugar will respond to the sender with the Case Auto-Reply template only.

## Email Queue

The Email Queue option in Admin is where Sugar administrators can monitor and perform actions on queued email. When sending a campaign the emails are not sent immediately, but are queued to be sent. Each queued email has a "Send On" date and time set by the campaign they are sent from. The scheduler "Run Nightly Mass Email Campaigns" takes the queued emails that are ready to be sent based on this date and time and sends them in batches. If an email fails to send from the queue for any reason it will be flagged as a send attempt and, by default, Sugar will not attempt to send that email for another 24 hours. Once Sugar reaches six failed attempts to send an email it will be deleted from the queue. In order to send a failed email sooner than the default 24 hours, you can perform a [mass update](#) to reset the In Process field. This section will cover how to use the email queue as well as the various actions and options available from within the email queue.

### Viewing Via List View

The email queue list view displays all queued email records meeting the current search criteria. To access the list view, simply click the Email Queue link on the Admin page. List view shows key email fields including links to the Campaign, Recipient, and Marketing Message records. For more information on viewing queued email via list view, please refer to the [Email Queue List View](#) section.

### Searching Queued Email

The email queue list view includes a Basic and Advanced Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the Email Queue list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

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## Basic Search

Basic search offers a few, commonly used fields for a simplified search experience. From the Basic Search panel, you can click "Advanced Search" to access additional search functionality as needed.

The buttons and checkboxes available in Basic Search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.

### Email Queue



The image shows a search interface with a text input field labeled 'Campaign', a checkbox labeled 'My Items', and three buttons: 'Search', 'Clear', and 'Advanced Search'. There is also a help icon (question mark) on the right side of the panel.

Once the search is complete, the relevant results will populate in the list view below the search panel. To see all queued email records to which you have access, simply click "Clear" and then "Search" to perform a blank search with no filters.

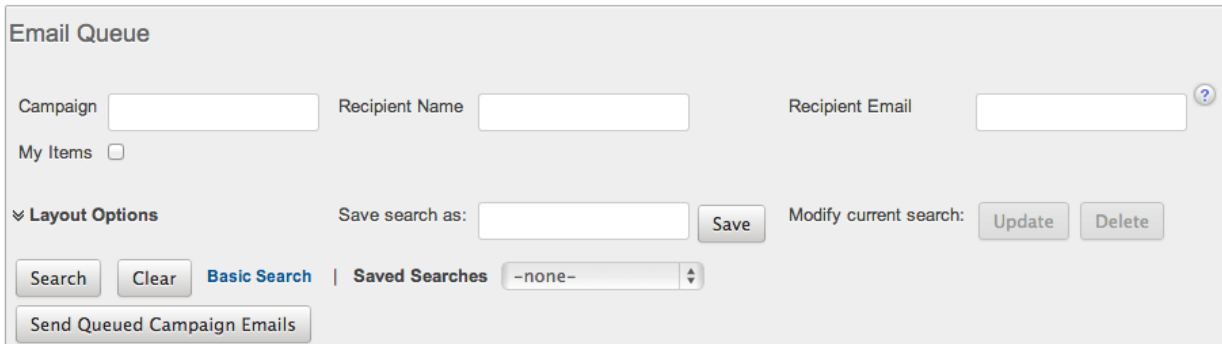
## Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching. The buttons, checkboxes, and dropdowns available in Advanced Search have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.
- Layout Options : Use the expandable Layout Options section to configure your list view. For more information, please refer to the [Layout Options](#) section of the Search documentation.
- Saved Searches : Save, recall, update, and delete searches which you use often. For more information, please refer to the [Saved Search](#) section of the Search documentation.

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## Email Queue



The screenshot shows the 'Email Queue' search interface. It includes three input fields: 'Campaign', 'Recipient Name', and 'Recipient Email'. Below these is a 'My Items' checkbox and a 'Layout Options' dropdown menu. To the right of the dropdown are 'Save search as:' and 'Modify current search:' sections, each with a text input and 'Save', 'Update', and 'Delete' buttons. At the bottom left are 'Search' and 'Clear' buttons, and at the bottom right is a 'Send Queued Campaign Emails' button. A 'Saved Searches' dropdown menu is also visible, currently showing '-none-'.

When you run a search, Sugar will return records matching all (as opposed to any) of the fields for which you have given a value. For example, if you enter in a campaign name to search and a recipient name, Sugar will only return queued email records with matching both fields. Once the search completes, the relevant results will populate in the list view below the search panel. To see all queued email records to which you have access, simply click "Clear" and then "Search" to perform a blank search with no filters.

## Email Queue List View

The Email Queue list view displays all queued email records meeting the current search criteria and to which your user has access. You can view the basic details of each email within the field columns.

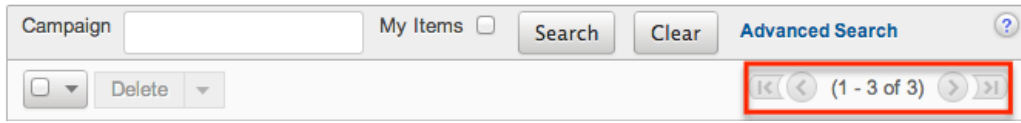
You have the option to change what fields are displayed in list view by configuring your layout options in the Advanced Search. For more information on configuring your list view, please refer to the [Layout Options](#) section of the Search documentation.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.

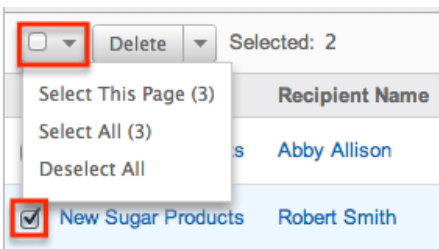
## Email Queue



### Checkbox Selection

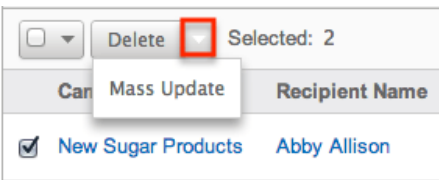
You can perform several actions on queued email records directly from the list view by first selecting the desired records. To select individual queued email records on the Email Queue list view, mark the checkbox on the left of each row. To select or deselect multiple queued email records on the list view, use the options in the checkbox dropdown menu:

- Select This Page : Selects all records shown on the current page of results.
- Select All : Selects all records in the current search results across all pages of results.
- Deselect All : Deselects all records that are currently selected.



### Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.



The options in the Actions menu allow you to perform the following operations:

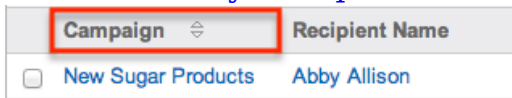
Menu Item	Description
<a href="#">Delete</a>	Delete one or more queued emails at a time
<a href="#">Mass Update</a>	Mass update one or more queued emails

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at a time

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search. For more information on setting a default column sort, please refer to the [Layout Options](#) section of the Search documentation.



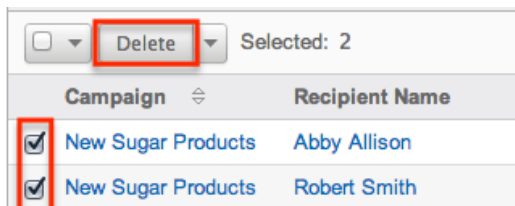
## Deleting Queued Email

If a queued email is invalid or should no longer be sent, it may be deleted from the list view. The list view allows for mass deleting multiple records at once. Deleting queued emails will not delete the campaign or target, but will remove the instance of this email so it will not be sent.

## Mass Deleting Via List View

Use the following steps to delete one or more queued email records via the list view:

1. Navigate to the Email Queue list view by clicking the Email Queue link on the Admin page.
2. Use the [Basic](#) or [Advanced Search](#) to find the queued email records you wish to delete.
3. Select the desired records individually or using the [checkbox dropdown's](#) options.
4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the

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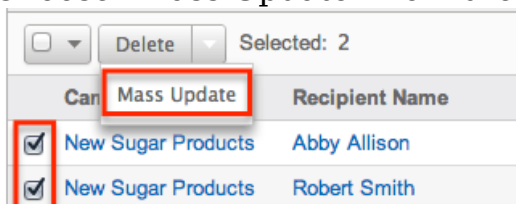
application times out while deleting a large number of queued email records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Mass Updating Queued Email

Mass Updating allows users to make the same change to multiple queued email records at once from the Email Queue list view. Currently, only fields with the data type of date, datetime, dropdown, multiselect, and radio may be altered during a mass update. Due to the PHP memory limitations on the server, there may be occasions when the application times out while mass updating a large number of queued email records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Use the following steps to mass update queued email records from the list view:

1. Navigate to the Email Queue list view by clicking the Email Queue link on the Admin page.
2. Use the list view's [Basic](#) or [Advanced Search](#) to find queued email you wish to modify.
3. Select the desired records individually or using the [checkbox dropdown's](#) options.
4. Choose "Mass Update" from the Actions menu.



5. Scroll to the Mass Update panel and set values for the fields you wish to alter.

The screenshot shows the 'Mass Update' panel with the following fields and controls:

- Send Date:  (mm/dd/yyyy) [Calendar icon]
- Queued Date:  (mm/dd/yyyy) [Calendar icon]
- In Process:  [Dropdown menu: -none-]
- Buttons:
- Send Queued Campaign Emails:

Note: After an email has failed to send, setting In Process to "No" will flag the email to attempt to send again. Otherwise the email will not attempt to be sent again until 24 hours has passed. Optionally set the Send Date to configure when the email should be attempted again.

6. Click "Update" to save the changes to all of the currently selected queued email records.



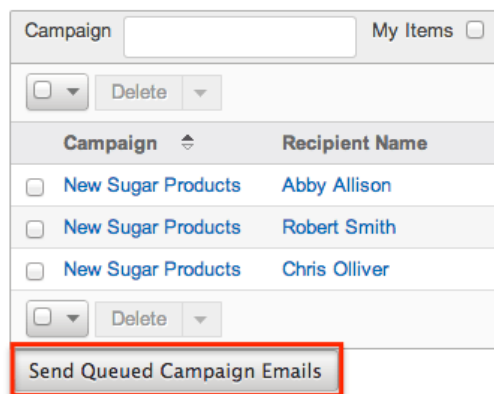
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## Sending Queued Email

Queued email will be automatically be sent out in batches by the "Run Nightly Mass Email Campaigns" scheduler. For more information on setting up and configuring scheduler, please refer to the [Schedulers](#) documentation in the Administration guide. Alternatively, you can manually send a batch of emails in the queue. The amount of queued email that will be sent is equal to the "Number of emails sent per batch" value specified in the [Campaign Email Settings](#). Use the following steps to manually send a batch of queued emails from the list view:

1. Navigate to the Email Queue list view by clicking the Email Queue link on the Admin page.
2. Choose "Send Queued Campaign Emails" from below the list view.

### Email Queue



3. Sugar will then send a batch of queued email whose Send On date and time is equal to now or in the past.

Note: If an email fails to send it will not be tried again for 24 hours.

Selecting specific records and searching for specific records will not determine which queued emails will be sent. This process will send a batch of emails that are queued to be sent in order by the Send On field. For more information on setting the batch amount, please refer to the [Campaign Email Settings](#) section.

Note: If your batch size is set high and you have a lot of queued email, this process can take a while to run through a single batch.

Last Modified: 01/26/2017 04:08pm

## Developer Tools

### Overview

The Developer Tools section of Sugar's Admin page contains various configuration menus that help you customize your instance to best suit your organization's needs. Developer Tools allow you to edit the look, feel, and functionality of your instance, including adding fields, changing layouts, adding automated processes, and creating entirely new modules.

The Developer Tools section contains the following menus:

Menu	Description
<a href="#">Studio</a>	Modify fields, relationships, and layouts for existing modules
<a href="#">Module Builder</a>	Create new modules to be deployed into this instance or exported to other Sugar instances
<a href="#">Module Loader</a>	Upload and manage customization packages to your instance, such as additional modules or third-party integrations
<a href="#">Sugar Portal</a>	Configure your Sugar Portal
<a href="#">Dropdown Editor</a>	Manage dropdown lists to add new lists or edit existing lists
<a href="#">Rename Modules</a>	Update the name of each module within Sugar
<a href="#">Display Modules and Subpanels</a>	Hide or display modules and subpanels across the application
<a href="#">Configure Navigation Bar Quick Create</a>	Configure which modules appear in the Quick Create menu on the navigation bar
<a href="#">Workflow Management</a>	Manage automated processes in Sugar to optimize and streamline your company's business process

## Studio

Studio enables administrators to customize stock or custom modules by modifying fields, page layouts, and more. This allows Sugar to be modified to ideally fit your organization's needs and terminology. Please note that only users with administrator or developer access have the ability to make changes via Admin > Studio. For more information on how to utilize Studio, please refer to the [Studio](#) documentation.

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## Module Builder

Module Builder enables administrators to create, deploy, and maintain custom modules in Sugar. For your convenience, the custom modules are based on templates such as Basic, Person, Company, etc. Modules can then be deployed within your instance of Sugar so that users can utilize the new module in their daily process. In addition, modules can be exported for additional development or published and then imported to other Sugar instances. For more information on using Module Builder, please refer to the [Module Builder](#) documentation.

## Module Loader

Module Loader is used to import deployable packages into Sugar to make changes to core files. Examples of module loadable packages are Sugar custom modules created in Module Builder, language packs, third-party integrations, or any other type of file that would make changes to Sugar's core file system. Module Loader opens this window through Sugar's user interface to facilitate this process where Zip files simply have to be uploaded and then installed. For more information on how to use Module Loader, please refer to the [Module Loader](#) documentation.

## Sugar Portal

Sugar Portal is a powerful tool which allows Sugar users to interact with customers and share information related to multiple modules. Your customers can log into the portal and view information in your Sugar instance as well as submit ,

## Dropdown Editor

The Dropdown Editor allows administrators to view, modify, and create dropdown lists which can be added as fields in Sugar. Since dropdown lists are not module specific, they are stored and managed through the Dropdown Editor. Please note that the dropdown list can only be associated to a Dropdown, Multiselect, and Radio type field via Admin > Studio. For more information on associating dropdown lists to the different field types, please refer to the [Studio](#) documentation.

You can restrict which dropdown values are available to users based on their roles. For more information about role-based visibility, please refer to the [Editing Role-Based Availability](#) section of this page.

Certain dropdown lists cannot be edited via the Dropdown editor as they are

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controlled by a separate area (e.g. Contract Types, Releases, etc.) of the Admin page. These include dropdown lists for the [Forecasting](#), [Bug Tracker](#), [Contracts](#), and [Products and Quotes](#) modules. Please refer to the appropriate sections of the Administration guide for more information regarding the fields and how they can be edited.

## Adding Dropdown Lists

Dropdown lists can be created at any time and added to a Dropdown type field via

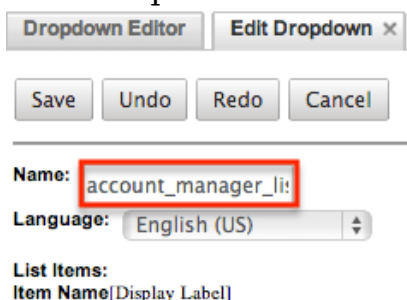
If desired, you can restrict which dropdown values are available to users based on their roles. For more information about role-based visibility, please refer to the [Editing Role-Based Availability](#) section of this page.

Use the following steps to create a dropdown list via Dropdown Editor:

1. Navigate to Admin > Dropdown Editor.
2. Click the Add Dropdown button above the list of existing dropdown lists.



3. Enter a name for your dropdown list on the Name field (e.g. "account\_manager\_list").
  - Note: The name must be alphanumeric and use the underscore character for spaces.



4. To create the items that will appear in your dropdown list, enter an "Item Name" and a "Display Label". Click "Add" once you have populated both fields to add the value to the dropdown list.
  - The item name is the backend system name for the list item and must be alphanumeric. An underscore or a period can be used for the item name.
  - The display label defines what will be displayed within the actual

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dropdown. Please note that there is no character restrictions when entering the display label. Click "Add" once you have populated both fields to add the value to the dropdown list.

**List Items:**  
**Item Name**[Display Label]

- [Joseph Kelly]

**Item Name:**  **Display Label:**

5. Once all values have been added to your dropdown list, you can click one of the sort options to rearrange the values as desired. Lists can be sorted alphabetically in ascending or descending order based on the display label. You can also sort the list manually by dragging and dropping the values up-and-down the list.

**Item Name:**  **Display Label:**

6. Click "Save" at the top of the screen to complete and add your dropdown list. You will be directed back to the main dropdown editor page once the save completes.

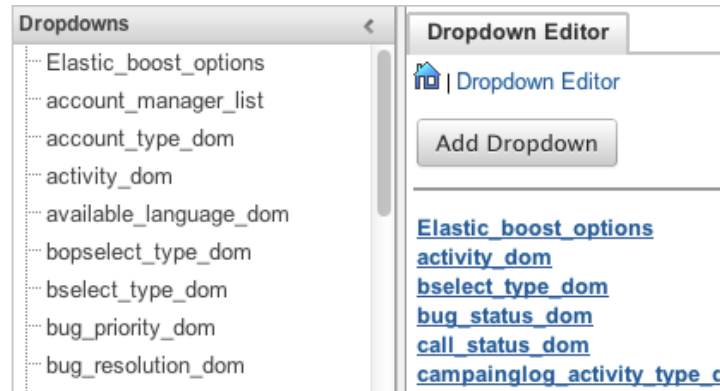
**Dropdown Editor** **Edit Dropdown** ×

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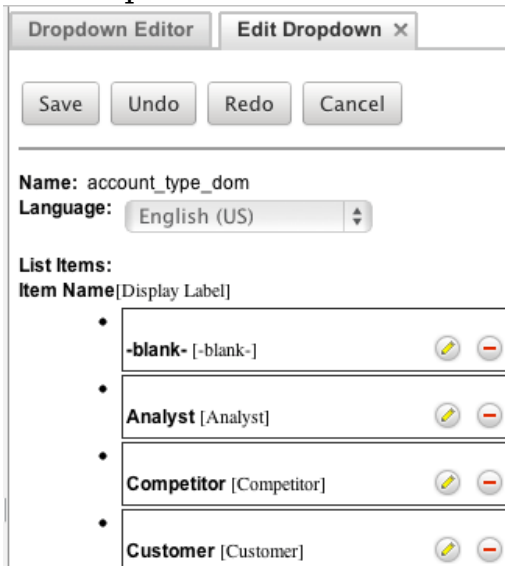
**Name:**

## Viewing Dropdown Lists

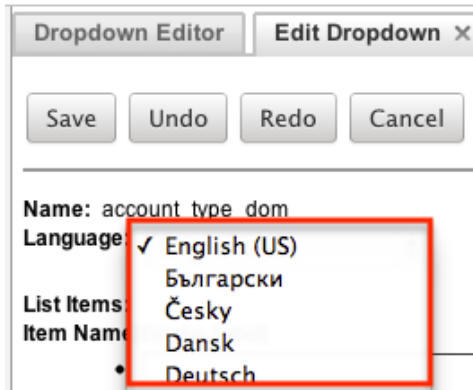
The Dropdown Editor displays all existing dropdown lists in two separate sections (Dropdowns list, Dropdown Editor) on the page. The Dropdowns list to the left of the page displays the dropdown lists in alphabetical order. The Dropdown Editor tab displays the dropdown lists in columns and allows you to view more of the lists at once instead of scrolling down a single list.



Once you locate the dropdown list you are looking for, click the list's name to open the Edit Dropdown tab to view and edit the list. The Edit Dropdown tab displays the name, set language for the list, list values, and the item name. The list will be ordered as they appear in the dropdown list when added as a field to a layout. You can reorder the list if you wish by dragging and dropping the items into the desired positions.



If your organization uses Sugar in languages other than English, Sugar can display translated dropdown lists for each language used. For example, Sugar will display French dropdown items when a user is logged into Sugar in French. You must provide the translations for each language by specifying display labels for each dropdown item. First, finalize your list's items by [adding or removing items](#) since the item names (a.k.a. database values) and order of items will be consistent across all languages. Choose the desired language in the Language dropdown above the list. Then, click the pencil icon for each item and enter a translated display label. When all labels have been translated, click "Save" to preserve your changes. After saving, the list will automatically be displayed in English, but you can change the Language dropdown again to check your labels.



## Editing Dropdown Lists

Dropdown lists can easily be modified via the Dropdown Editor by selecting the specific dropdown list which opens the edit layout. You can reorder the items in the list, add new values, remove unnecessary values, change the display label of a value, or change the display label language.

If desired, you can restrict which dropdown values are available to users based on their roles. For more information about role-based visibility, please refer to the [Editing Role-Based Availability](#) section of this page.

Please note that the name of the dropdown list cannot be changed once created. Also, dropdown lists cannot be deleted since they can span multiple modules in Sugar and cause important data to be lost if removed in error. Once the necessary modifications have been made, click "Save" on the upper right to preserve the changes made.

To sort the list alphabetically, you can simply click the Sort Ascending or Sort Descending button on the bottom left of the tab view. Please note that the sorting is based on the display label. You can also reorder the items in your list, by dragging and dropping the items into the desired position.

**List Items:**

**Item Name**[Display Label]

- **-blank-** [-blank-]
- **Analyst** [Analyst]
- **Customer** [Customer]
- **Competitor** [Competitor]
- **Integrator** [Integrator]
- **Investor** [Investor]
- **Partner** [Partner]
- **Press** [Press]
- **Prospect** [Prospect]
- **Reseller** [Reseller]
- **Other** [Other]

**Item Name:**  **Display Label:**

Drag the item up or down the list then drop it into the desired position.

To add a new value, enter an item name and corresponding display label below the list of existing values then click "Add". Please note that the item name is the back-end system name and must be alphanumeric without any special characters other than an underscore or a period. The text in the display label defines how the value will be displayed in the dropdown list when viewed in the user interface. Please note that this there is no character restriction for the display label.

**List Items:**

**Item Name**[Display Label]

- **j\_kelly** [Joseph Kelly]

**Item Name:**  **Display Label:**

To remove a value from the list, click the Minus icon to the far right of the item row. Once deleted, the item will show a strike through and will be removed from the list once saved.

**List Items:**

**Item Name**[Display Label]

- **j\_kelly** [Joseph Kelly]
- ~~**w\_westin** [Will Westin]~~

The item name of a dropdown value cannot be edited, but you can update the display label via the Dropdown Editor. Simply locate the value in the list then click



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the Pencil icon to the far right of the item row. Enter the new value into the open text box then click anywhere on the page to close the edit.

List Items:

Item Name[Display Label]



## Editing Sales Stages

The Revenue Line Items module contains two fields that function unlike other fields in Sugar. When the Sales Stage dropdown field is updated, the corresponding probability is automatically populated in the Probability (%) field. This is a unique function to the Revenue Line Items module. These two fields use the two dropdown lists, "sales\_stage\_dom" and "sales\_probability\_dom". Both dropdown lists have the same item name for all values but different display labels. The sales\_stage\_dom list is associated to the Sales Stage field and displays the various sales stages (e.g. prospecting, qualification, closed won, etc.). The sales\_probability\_dom list is associated to the Probability (%) field and displays the corresponding probability value (e.g. 10, 20, 100, etc.) for each sales stage.

When any changes are made to the sales\_stage\_dom list, you must consider the sales\_probability\_dom list as well to ensure the relationship between the two fields remain intact. For example, if you add a new sales stage (e.g. Item Name: "review\_stage", Display Label: "Review Stage") to the sales\_stage\_dom list then you must add a corresponding probability (e.g. Item Name: "review\_stage", Display Label: "50") to the sales\_probability\_dom list in order for it to populate properly in the revenue line item. The two lists' item names and order must match.

The Opportunities module's Status field uses the sales\_status\_dom list. Modifying this list is not recommended as the values in this dropdown are tied to the Revenue Line Item module's Sales Stage field. Making changes to this dropdown list's item names via code or Studio can cause unexpected behavior. For more information regarding the Status field, please refer to the [Opportunities](#) documentation.

Note: The dropdown lists "sales\_stage\_dom" and "sales\_probability\_dom" must have "Closed Won" and "Closed Lost" as item names in order for the Forecasts module to function correctly. Please ensure any changes to these lists does not remove or change the item name for these two options.

For sales\_stage\_dom list:

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Name: sales\_stage\_dom

Language: English (US)

List Items:

Item Name[Display Label]

- **Prospecting** [Prospecting]
- **Qualification** [Qualification]
- **Needs Analysis** [Needs Analysis]
- **Value Proposition** [Value Proposition]

For sales\_probability\_dom list:

---

Name: sales\_probability\_dom

Language: English (US)

List Items:

Item Name[Display Label]

- **Prospecting** [10]
- **Qualification** [20]
- **Needs Analysis** [25]
- **Value Proposition** [30]

Users can create similar logic for custom fields using Sugar Logic in [Studio](#).

For sales\_status\_dom list:

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Name: sales\_status\_dom

Language: English (US)

List Items:

Item Name[Display Label]

- **New** [New]
- **In Progress** [In Progress]
- **Closed Won** [Closed Won]
- **Closed Lost** [Closed Lost]

## Editing Time Intervals

The "After Time Elapsed" workflow triggers after a specified period of time has elapsed from when a record save occurs in Sugar. For more information on "After Time Elapsed" workflows, please refer to the [Workflow Management](#) documentation. When creating the conditions for the workflow, you have the

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option to specify the time interval (e.g. 0 hours, 4 hours, 1 day, 1 week, etc.) used by the system to execute the workflow. The available time interval values can easily be modified via the Dropdown Editor.

The Dropdown Editor contains the "tselect\_time\_dom" list, which allows administrators to configure the time intervals used for time elapsed workflows. To add new time intervals to the dropdown list, simply enter the "Item Name" and "Display Label", keeping in mind that the item name must display the number of seconds corresponding to the new time interval. The display label value should have the time as it relates to minutes, hours, days, etc. For example, if you are adding 2 hours to the time interval list, the item name value will be "7200" and the display label will show "2 hours".

Name: tselect\_type\_dom  
Language: English (US) 

List Items:

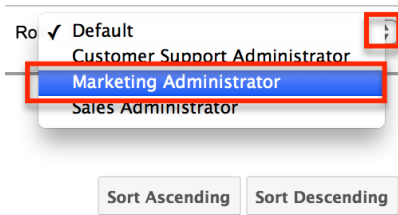
Item Name	Display Label
0	0 hours
7200	2 hours
14440	4 hours

## Editing Role-Based Availability

You can restrict which options are available for a user to select when he or she is editing records based on the user's role. When editing a particular dropdown list, the Roles dropdown appearing on the top right contains all existing roles in the Sugar application. The Default role-list allows admins to add, remove, or reorder options within a dropdown list. By default, none of the other Sugar roles have customized lists, so changes made to the Default role-list will automatically be copied to the other role-lists upon save. This means that as long as no role-list are customized here, all users will continue to see the dropdown options and order matching the Default role-list.

Note: It is recommended to assign each user to a maximum of one role. Users belonging to multiple roles which each have customized role-views may experience unexpected behavior when using record views. For more information about roles, please refer to the [Role Management](#) documentation.

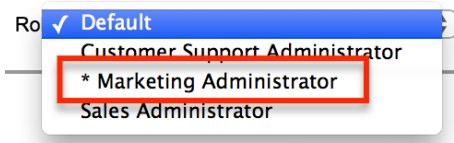
If you wish to restrict certain roles to use a modified list of options when editing records, select the desired role from the Roles dropdown to make changes specific to that role (e.g. Marketing Administrator).



When viewing a Sugar role's role-list (e.g. Marketing Administrator), you have the option to disable, enable, or reorder the existing options. Options cannot be added or deleted via any role-list except "Default". Drag and drop an option in order to change its position in the role-list's options list. To disable an option, uncheck the box on the right of the option's row. Doing so will prevent the option from appearing in the dropdown when a user belonging to this role is editing or creating a record. Once an option is disabled, it will appear greyed out with a strike-through. When the desired changes have been made, click "Save & Deploy". Note: Each role's role-list must have at least one enabled option.

<b>Analyst</b> [Analyst]	<input checked="" type="checkbox"/>
<b>Competitor</b> [Competitor]	<input checked="" type="checkbox"/>
<del><b>Customer</b></del> [Customer]	<input type="checkbox"/>
<b>Custom Type</b> [Custom Type]	<input checked="" type="checkbox"/>

Once you have saved and deployed a modification to a role-list, it is considered customized and will display an asterisk (\*) next to the role's name in the Roles dropdown. Reordering options on the Default role-list will no longer have any effect on customized role-lists. However, adding an option, deleting an option, or changing an option's display label on the Default role-list will add, remove, or alter the option for all role-lists including customized role-lists.



Note: Users will be able to view all dropdown values regardless of role restrictions when viewing records. This means if a record has a dropdown value set to which a user has a role-based restriction, he or she will still be able to view the value.

Note: Role-based customizations to dropdown lists are included when exporting customizations from Studio. For more information, please refer to the [Studio](#) and documentation.

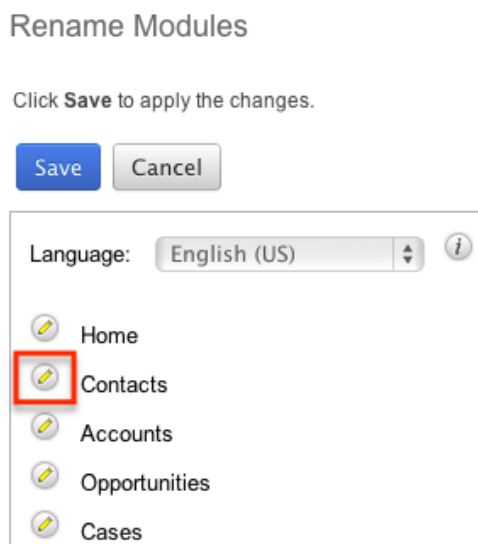
## Rename Modules

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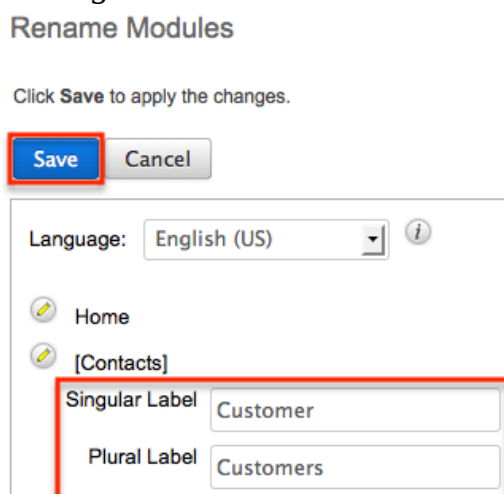
Depending on your business needs, it may be necessary to alter the display label to make the module's name (e.g. Contacts, Accounts, etc.) align to your various business components. Administrators can easily rename modules via Admin > Rename Modules. When editing a name, you are given the option to update both the singular and plural version of the word. This change will be reflected globally across Sugar so that every use of the given module name is updated to your preference, seamlessly to all users. You can also use the language dropdown list at the top of the page to rename the modules to a language other than English.

The following steps cover renaming the Contacts module as an example:

1. Navigate to Admin > Rename Modules.
2. Locate the module you wish to change and click the Pencil icon to the left of the module's name.



3. Enter a new singular and plural name for the module then click the Pencil icon again to close the text boxes.



4. Click "Save" to deploy your changes across your instance.

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## Display Modules and Subpanels

Administrators have the ability to control which modules and subpanels will appear in their instance via Admin > Display Modules and Subpanels. This option is useful as any unnecessary module(s) and subpanel(s) can be hidden to prevent user's from accessing it. Please note that not every module and subpanel in Sugar is enabled by default when initially installed.

Once the Display Modules and Subpanels page is open, you will see the Displayed Modules, Hidden Modules, Displayed Subpanels, and Hidden Subpanels column. To configure which modules are displayed on the navigation bar, drag and drop the module from the Hidden Modules column to the Displayed Modules column. To hide a module, simply drag and drop the module from the Displayed Modules column to the Hidden Modules column. To configure which subpanels appear in modules, drag and drop the module from the Hidden Subpanels column to the Displayed Subpanels column. To hide a subpanel, simply drag and drop the module from the Displayed Subpanels column to the Hidden Subpanels column. After making the necessary changes, click "Save" at the top of the page to deploy your changes or "Cancel" to revert back to your previous settings.

Please note that if a hidden module is related to a module that is visible in Sugar, it will display as a subpanel in the record view (for Sidecar modules) or detail view (for Legacy modules) of the related module. In addition, hidden modules continue to be available to users when viewing, creating, and managing reports via the Reports module. When a subpanel is hidden, users cannot view any related records from the record view (for Sidecar modules) or detail view (for Legacy modules) of the related module.

## Display Modules and Subpanels

Drag and Drop the names of the modules below to set them to be displayed or hidden

Allow users to select modules to appear in the navigation bar i

Displayed Modules	Hidden Modules
Accounts	Contracts
Contacts	
Opportunities	Opportunities
Leads	
Calendar	
Reports	
Quotes	
Quoted Line Items	
Documents	
Web Logic Hooks	
Emails	

Displayed Subpanels	Hidden Subpanels
Contacts	Bug Tracker
Leads	Quoted Line Items
Accounts	Contracts

Users have the option to hide and display modules per their viewing preference via the [User Profile](#). The list of available modules to display and hide in a user's account is based on the modules in the Displayed Modules column of the Display Modules and Subpanels page. To disable the users ability to modify which modules are hidden or displayed on their navigation bar, uncheck the Allow users to select modules to appear in the navigation bar checkbox above the Displayed and Hidden Modules columns.

If you wish to prevent certain users from accessing specific modules in Sugar, you can keep the module enabled globally but assign a role to the user. For more information on creating and assigning roles, please refer to the [Role Management](#) documentation.

## Configure Navigation Bar Quick Create

The Quick Create menu allows users to easily create new records from anywhere in Sugar. Simply click the quick create button on the upper right of any Sugar page to access the menu. Administrators can easily configure the Quick Create menu via Admin > Configure Navigation Bar Quick Create menu to control which

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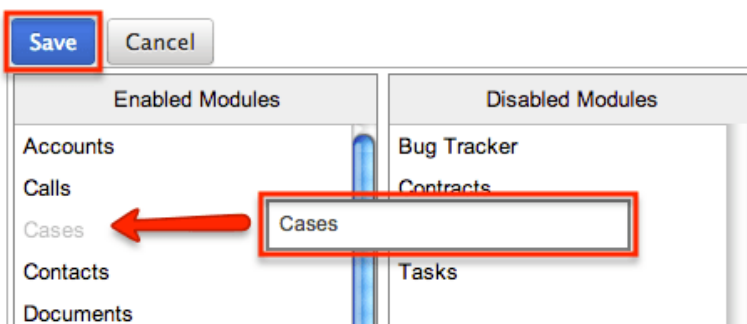
modules are enabled/disabled, as well as the order the modules will appear in the menu.

Once the Configure Navigation Bar Quick Create page is open, you will see the Enabled Modules and Disabled Modules columns. Modules that appear within the Enabled Modules column will display in the Quick Create menu. To enable a module to be displayed in the Quick Create menu, drag and drop the module from the Disabled Modules column to the Enabled Modules column. To disable a module, simply drag and drop the module from the Enabled Modules column to the Disabled Modules column. You can also change the order of the modules as they appear in the Quick Create menu by dragging and dropping the modules up-and-down within the Enabled Modules list. After making the necessary changes, click "Save" at the top of the page to deploy your changes or "Cancel" to revert back to your previous settings.

Note: The Quick Create menu can display a maximum of 10 modules at one time.

#### Configure Navigation Bar Quick Create

Choose which modules for which users can quickly create records using the Plus i



## Workflow Management

Sugar's Workflow functionality allows administrators to configure cause and effect type actions throughout Sugar and across multiple modules. Workflows can be used to update fields, send emails, or create records once certain sets of conditions are met. Workflows are a great way to configure automated processes within Sugar so that users do not need to remember manual steps and instead can focus on their primary tasks and job responsibilities. Administrators can create and manage workflows via Admin > Workflow Management. For more information on workflows, please review the [Workflow Management](#) documentation.

Last Modified: 04/15/2016 01:03pm

## Studio



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## Overview

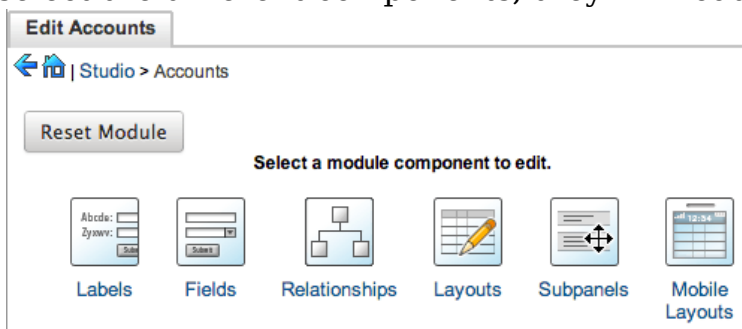
Studio enables administrators to customize stock or custom modules by modifying fields, page layouts, and more so that you can modify Sugar to fit your organization's needs and terminology. Please note that only users with administrator or developer access have the ability to make changes via Admin > Studio. This documentation will cover how to use Studio as well as the various actions and options available from within Studio.

## Navigation

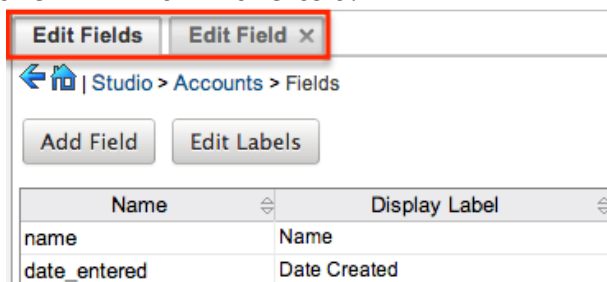
Studio's navigation is different than other modules within Sugar. Studio is divided into three main sections which consist of the main panel, modules panel, and footer.

## Main Panel

The main panel in Studio is where you can access the modules, add fields, configure layouts, etc. It displays to the right of the Modules panel and houses the various components (e.g. fields, layouts, subpanels, etc.) of the module. As you select the different components, they will load in new tabs on the main panel.

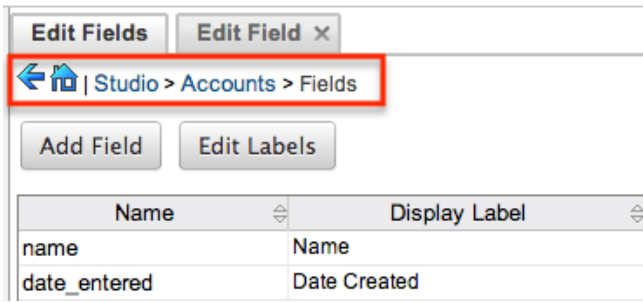


For example, if you select "Fields" on the main panel, the list of available fields along with the options to configure will appear under the Edit Fields tab. Additional tabs that appear as you configure the module can be closed by clicking the "X" within the tab.



The main panel also includes a breadcrumb bar showing where in Studio you

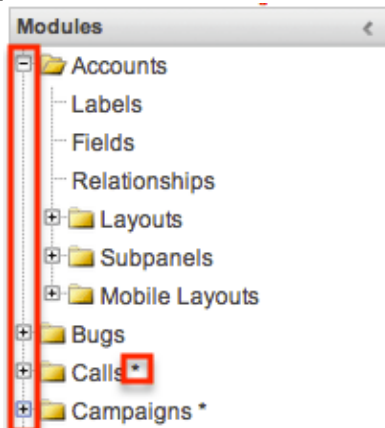
currently are. You can navigate to a specific section by clicking the link within the breadcrumb bar.



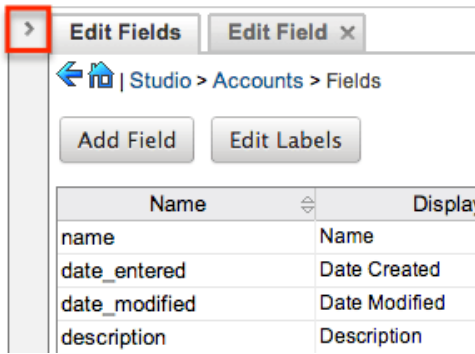
To go back to the previous page that you were viewing, click the Left arrow on the breadcrumb bar. Clicking the Home icon to the right of the arrow will navigate you back to the Developer Tools home page.

## Modules Panel

The Modules panel is located to the left of the screen and displays a list of existing stock and custom modules that are editable through Studio. Please note that all modules (e.g. Campaigns, etc.) using the Legacy user interface will display an asterisk (\*) to the right of the module's name in Studio. The associated fields, labels, layouts, subpanels, etc. are grouped within each module. Click the plus sign (+) preceding the module name to expand the module tree and display the associated items (e.g. fields, layouts, etc.). Simply select an item in the Modules panel to load the view in the main panel to the right.

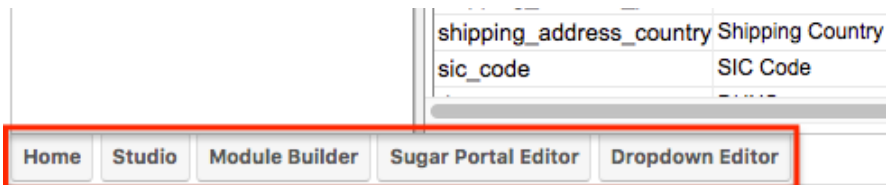


Please note that if you do not see the Modules panel, it may be collapsed. Locate the gray bar to the left of the main panel and click the Right arrow to expand the Modules panel.



## Footer

The footer is located on the bottom left of Studio and displays buttons which enable you to navigate to the different areas (e.g. Dropdown Editor) of Developer Tools.

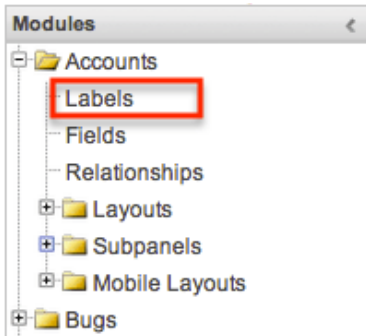


The options in the footer allow you to navigate to the following locations:

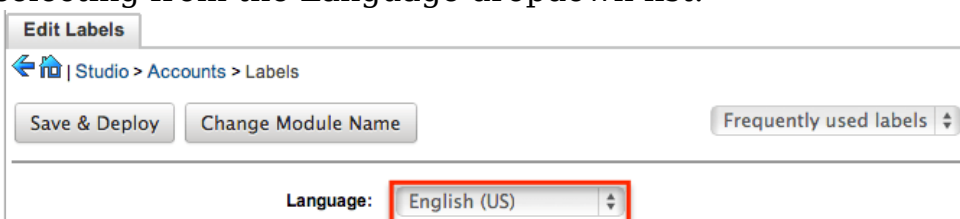
Menu Item	Description
<a href="#">Home</a>	Navigates to the home page of the Developer Tools
Studio	Navigates to the home page of Studio
<a href="#">Module Builder</a>	Opens Module Builder to create or edit modules
<a href="#">Sugar Portal Editor</a>	Opens the Sugar Portal Editor to configure the Portal
<a href="#">Dropdown Editor</a>	Opens the Dropdown Editor to modify dropdown options

## Editing Labels

Labels are used throughout Sugar to designate field headers, subpanel titles, error messages, and more. To modify the labels for a module, select "Labels" from the Modules panel under the desired module (e.g. Accounts). Please note that HTML tags are not supported in labels.



The Edit Labels tab will open in the main panel displaying all the labels associated to the module. Please note that you can change the language for the labels by selecting from the Language dropdown list.



If the label you wish to change cannot be found, change the filter dropdown option from "Frequently used labels" to "All Labels".

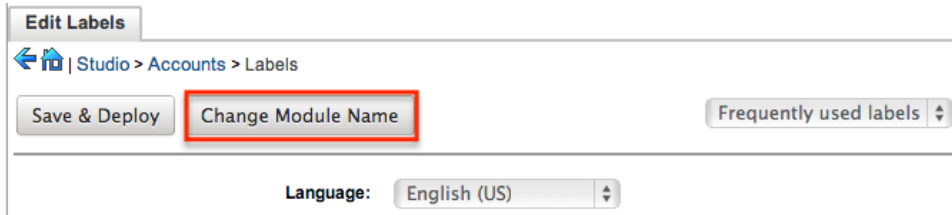


Modify the labels accordingly per the selected language and click "Save and Deploy" when complete. This will save your changes and instantly deploy them to your Sugar instance.



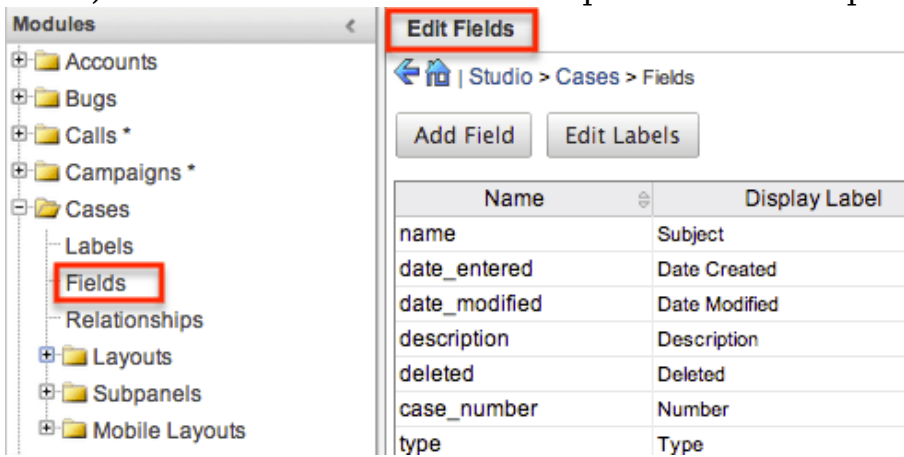
To change the name of the module, click "Change Module Name" to the right of the Save & Deploy button.

This will direct you to the Rename Modules page where you can change the labels for the module accordingly. For more information on how to rename modules, please refer to the [Rename Modules](#) section of the Developer Tools documentation.



## Fields

The Fields section in Studio allows administrators to create new fields for stock and custom modules as well as update existing fields. To access the Fields section in Studio, select "Fields" from the Modules panel under the desired module (e.g. Cases) and the Edit Fields tab will open in the main panel.



## Field Types

Studio comes out-of-the-box with many different types of fields which can be created in Sugar. Please note that the options and properties available when configuring the field varies for each data type.

The following data types are available when creating fields in Studio:

Data Type	Description
Address	Creates fields for street, city, postal code, state, and country.  Note: Custom address fields cannot be grouped together like stock address fields (e.g. billing address).
Checkbox	Creates a checkbox for data fields with a Yes/No action.

Currency	Creates a field to enter a currency value. The system automatically creates a dropdown of the currency type if the field does not already exist in that module.
Date	Creates a field to enter a date. Includes a button for a calendar popup.
DateTime	Creates a field to enter the date and time. Includes a Calendar icon button to choose a date via the popup calendar, as well as a dropdown list to select the time.
Decimal	Creates a field to hold a number rounded to a specified decimal precision. Sugar stores the exact representation of the number in the database (e.g. For a precision of 2: 1.236 is stored as 1.24).
Dropdown	Creates a field where you can associate a dropdown list of values.
Encrypt	Creates a field for sensitive information, such as social security numbers, whose value is to be encrypted in the Sugar database. The value is encrypted in the database but is visible in the user interface to users.
Flex Relate	Creates a dropdown list from which you can relate a single record from a variety of modules.  Note: Only one Flex Relate field is allowed per module. Out of the box, the Flex Relate option is not available for the Accounts, Calls, Contracts, Meetings, Notes, and Tasks modules.
Float	Creates a field to hold a number rounded to a specified decimal precision. Sugar stores the value differently based on the database platform Sugar is running on.
HTML	Creates static HTML-formatted text to display in record views.

IFrame	Creates a field to store or generate a URL to display an iFrame in record views.
Image	Creates an image field to upload an image to display on a record.
Integer	Creates a field to specify positive or negative numbers with no decimal places.
MultiSelect	Creates a dropdown list of values where multiple values can be selected at once.
Phone	Creates a field to enter a phone number.
Radio	Creates a radio button for a user to select one value from a dropdown list.
Relate	<p>Creates a field to associate a record with another module's record as a one-way relationship. You can add multiple Relate fields to a module.</p> <p>Note: Relate fields and custom relationships are independent of each other. Changes made to either one are not reflected in the other. Relate fields can be added to a report, but any data on the related record cannot be accessed in the report. To access related record data in a report you will need to create a custom relationship.</p>
TextArea	Creates an open text area field for multiple lines of text.
TextField	Creates a field for a single line of text.
URL	Creates a field to store or generate a URL and display as a link.

Note: Name-type and ID-type fields cannot be created via Studio. Each stock module and module created via Module Builder will have a Name-type and ID-type field. The Name-type field is automatically displayed in the header of each record view (for Sidecar modules) while the ID field is not available in Studio but is a part of the unique URL for each record.

## Field Options

Fields provide ways to store different data types in Sugar. While many fields come

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with Sugar by default, there can be instances where your organization needs to create custom fields to store additional data.

Each field, depending on the data type, will have different properties and options available when configuring the field via Studio. Please note that some properties can exist across all data types and some are unique to only a few types.

The following properties and options are available for fields in Studio:

- **Audit** : Select this checkbox to audit the field for changes made in Sugar.
  - Users can view the changes made to audited fields via the View Change Log option in the module's record view (for Sidecar modules) or detail view (for Legacy modules).
  - Fields marked as "Audit" will generate update posts in the activity stream for Sidecar modules (e.g. Accounts, Contacts, etc.) whenever the field gets updated. For more information on activity streams, please refer to the [Activity Streams](#) documentation.
  - Note: The Audit option is available for all data type fields.
- **Boost value** : Enter a boost value for the field to enhance the relevancy of the field for full text search.
  - The default boost value is 1.0 which indicates a neutral boost. To apply a positive boost, set the boost value higher than 1. To apply a negative boost, use values lower than 1. For example a value of 1.35 will positively boost a field by 135%. But using a value of 0.60 will apply a negative boost.
  - Note: It is not necessary to perform a full system index when boost values are changed for fields.
- **Border** : Select this checkbox to add a border around the image for this field.
  - Note: The Border option is only available for Image data type fields.
- **Calculated Value** : Select this checkbox to designate this field as a calculated field.
  - This opens up the Formula option and disables the Default Value and Importable options. For more information regarding entering a formula for a calculated value, please refer to the Formula option listed in this section.

Calculated Value:  ⓘ  
Formula:

- The result of the formula will be entered into the field for any new or modified records. When selecting this option, the field value cannot be modified by users.
- Note: The Calculated Value option is only available for the following data type fields:

Checkbox	Currency



Date	Datetime
Decimal	Encrypt
Float	Integer
Phone	TextArea
TextField	

Columns : Enter the number of columns to specify the width of a TextArea data type field.

- Note: The Columns option is only available for TextArea data type fields.

Comment Text : Enter a comment or description about the field. The comment text is only viewable via Studio.

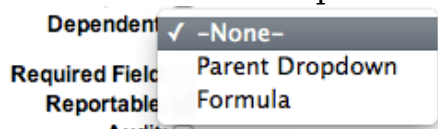
- Note: The Comment Text option is available for all data type fields except Flex Relate.

Default Value : Specify or select a default value for this field when a record is created. Default values for the record are populated by default on the record view (for Sidecar modules) and edit view (for Legacy modules) layout, but can be modified by users.

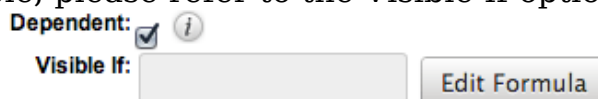
- Note: The Default Value option is available for all data type fields except HTML, Image, Flex Relate, and Relate.

Dependent : Select this option to designate this field as being dependent on a formula or a parent dropdown.

- For dropdown data type fields you can select "Parent Dropdown" or "Formula" for the dependency.



- Selecting "Parent Dropdown" will open the Parent Dropdown option as shown below. Selecting "Formula" will open the Visible If option to create a dependency formula. For other field data types (e.g. Date), select the Dependent checkbox to open the Visible If option. For more information regarding entering a formula to make a dependent field visible, please refer to the Visible If option listed in this section.



- Note: The Dependent option is available for all data type fields except Address.

Disable Format : Select this checkbox to disable number formatting such as the thousands separator.

- 
- Note: The Disable Format option is only available for Integer data type fields.

**Display Label :** Enter a value to display as the field label and header in layouts. Normally defaults to the Field name entered when creating field.

- This value is also modifiable via the [Labels](#) section of Studio.
- Note: The Display Label option is available for all data type fields except Flex Relate. Flex Relate uses the Label Value option.

**Drop Down List :** Select a list of values to associate to the field.

Drop Down List:  

- Only values in the chosen list will be available for selection in the field. Click "Edit" to change the values for the currently selected list, or click "Add" to create a new list.
- Note: The Dropdown List option is only available for the dropdown, multiselect, and radio data type fields. For more information on editing dropdown values via the Dropdown Editor, please refer to the [Editing Dropdown Lists](#) section of the Developer Tools documentation.

**Duplicate Merge :** Select one of the following options to determine the field's functionality when records are being merged:

- Disabled : Selected by default. The field will not appear on the Merge Duplicates screen.
- Enabled : The field will appear on the Merge Duplicates screen.
- In Filter : (Legacy/BWC modules only) The field will appear in the Merge Duplicates feature, and will also be available in the Find Duplicates feature.
- Default Selected Filter : (Legacy/BWC modules only) The field will be used for a filter condition by default in the Find Duplicates page, and will also appear in the Merge Duplicates feature.
- Filter Only: (Legacy/BWC modules only) The field will not appear in the Merge Duplicates feature, but will be available in the Find Duplicates feature.
- Note: The Duplicate Merge option is available for all data type fields except Image.

**Field Name :** Enter the name of the field being created. Once a field has been created the field name cannot be changed.

- Field names can contain only alphanumeric characters as well as the underscore character.
- Custom fields added via Studio are automatically appended with an "\_c" to ensure the field does not conflict with a current or future stock field.

- Note: The Field Name option is required for all data type fields.

Full Text Searchable : Specify whether or not the field should affect Global Search results.

- Disabled : Select "Disabled" if you do not want this field to be captured when the database is indexed for searches. Search indices collect the values of searchable fields for evaluation by the Global Search.
- Searchable : Select "Searchable" to include this field's value in search indexes.
  - Selecting "Searchable" will reveal the Boost value field, which allows you to set a relevance weight for searches. When a user's search query matches the value of a field with a higher boost level, the record will appear higher in the search results. For more information regarding boost values in Full Text Search, please refer to the [Search](#) documentation in the Application guide.
  - Note: The Full Text Searchable option is only available for the following data type fields:

Phone	TextArea
TextField	URL

Formula : Contains the current formula to return a calculated value.

- Click "Edit Formula" to launch the formula builder and change the formula. For more information on how to build a formula using the formula builder, please refer to the [Using Sugar Logic](#) section of this documentation.

Calculated Value:  ⓘ

Formula:

- Note: The Formula option is only available when the Calculated Value option is selected when editing or creating a field.

Generate URL : Select this checkbox to allow variables from the current module to be placed into the Default Value option for creating dynamic URLs.

Generate URL:

Default Value:

- This is useful for providing links or iFrames to internal systems such as an ERP or to external systems such as Google Maps.
- Select the desired field to add from the dropdown and click "Insert Field" to add the field to the Default Value. When selecting this option, the field

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value cannot be modified by users.

- Note: The Generate URL option is only available for the IFrame and URL data type fields.

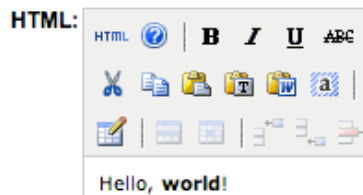
Height : Enter the number of pixels to vertically scale the image for this field. Enter only the Width or Height options to retain the aspect ratio of the image.

- Note: The Height option is only available for Image data type fields.

Help Text : Enter basic instructions for populating this field. The text entered here will display below the field when creating or editing a record for modules using the Sidecar user interface. For modules using the Legacy user interface, the helptext will appear when users hover their mouse within the field in the Edit View layout.

- Note: The Help Text option is available for all data type fields.

HTML : Enter static rich text with formatting or HTML code to display on a record. For more information on how to use the text editor please refer to the



- Note: The HTML option is only available for HTML data type fields.

IFrame Height : Enter the number of pixels for the height of the IFrame field. The width of the IFrame field is always the width of the field container.

- Note: The IFrame Height option is only available for IFrame data type fields.

Importable : Select one of the following options to determine the field's functionality when records are being imported:

- Yes : The field can be included in an import operation.
- No : The field cannot be included in an import.
- Required : A value for the field must be provided in any import.

Label Value : Enter a value to display as the field label and header in layouts. This value is also modifiable in the Modules panel under [Labels](#). Defaults to "Flex Relate".

- Note: The Label Value option is only available for Flex Relate data type fields.

Mass Update : Select this checkbox to add this field as an option to mass update.

- Note: The Mass Update option is only available for the following data type fields:

Date	Datetime
Dropdown	MultiSelect
Radio	

Max Size : Enter the maximum number of characters (or, for DB2 databases, the maximum number of bytes) allowed for this field. Defaults to 255.

- Note: The Max Size option is only available for the following data type fields:

Address	Decimal
Float	IFrame
Integer	Phone
URL	TextField

Max Value : Enter the highest value allowable for this field. If a user enters a higher value in the field than the specified value, a notification will appear upon save informing them of the set maximum value.


- Note: The Max Value option is only available for Integer data type fields.

Min Value : Enter the lowest value allowable for this field. If a user enters a value in the field that is lower than the specified value, a notification will appear upon save informing them of the set minimum value.

- Note: The Min Value option is only available for Integer data type fields.

Module : Select a module from the dropdown to relate to the current module.

- A module can relate back to itself, a good example of this would be a relate field on Contacts to relate back to Contacts for a referred by field. This will allow users to select which contact record referred a different contact. The chosen module cannot be modified once the field is created.

Module:  

- Note: The Module option is only available for Relate data type fields.

Open Link In : Select one of the following options to determine how a URL will open:

- New Window : Opens the URL in a new Tab or Window depending on your browser and settings.
- Same Window : Opens the URL in the same window as the record you are currently browsing.
- Note: The Open Link In option is only available for URL data type fields.

Parent Dropdown : Select an option from the dropdown to specify the parent that controls the visibility of this dropdown field.

- The Parent Dropdown option is populated with the other dropdown data type fields in the current module.

Dependent:

Parent Dropdown:

- Note: The Parent Dropdown option is only available when the Dependent option has "Parent Dropdown" selected.
- Click "Edit Visibility" to specify which options are available from the current dropdown for each value of the parent dropdown. In the Visibility Editor window, drag values from the current dropdown list to the value sections of the parent dropdown.

Drag options from the list on the left of available options in the dependent dropdown to the lists on the right to make those options available when the parent option is selected. If no items are under a parent option, when the parent option is selected, the dependent dropdown will not be displayed.

**Available Options**

- blank-
- 1
- 2
- 3

**-blank-**

- blank-
- 1

**Apparel**

- 1
- 2
- 3

**Banking**

- 2
- 3

**Biotechnology**

- 3

**Chemicals**

**Communications**

**Construction**

**Consulting**

**Transportation**

- blank-

**Utilities**

- 1
- 2
- 3

**Other**

- 1
- 3
- 2

Cancel Save

Precision : Enter a number to specify the number of digits to the right of the decimal point the value should be stored as in Sugar.

- Note: The Precision option is only available for the Decimal and Float data type fields.

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Reportable : Select this checkbox to allow the field to be used in reports.

- Note: The Reportable option is available for all data type fields except Encrypt, Flex Relate, HTML, IFrame, and Image.

Required Field : Select this checkbox to mark the field as required in Sugar. The user will be required to enter a value for the field when saving the record.

- Note: The Required option is available for all data type fields except Checkbox and HTML.


Rows : Enter the number of rows to specify the height of a TextArea data type field.

- Note: The Rows option is only available for TextArea data type fields.

System Label : Enter the system value for storing the label of the field. This is defaulted to the name of the field preceded with "LBL\_". Any lowercase characters entered will be converted to an uppercase upon saving. Once the field has been created, the system label cannot be changed.

- It is recommended that administrators avoid naming fields with the same system label in order to prevent the same label and header values from existing in the system.
- Note: The System Label option is available for all data type fields.

Visible If : Contains the current formula to determine if a field is visible on the layout or not. Click "Edit Formula" to launch the formula builder to change the formula.

Dependent:  

Visible If:

- The formula must result in a Boolean (true/false) response. For more information on how to build a formula using the formula builder, please refer to the [Using Sugar Logic](#) section of this documentation.
- Note: The Visible If option is only available when the Dependent option is checked or "Formula" is selected from the dropdown.

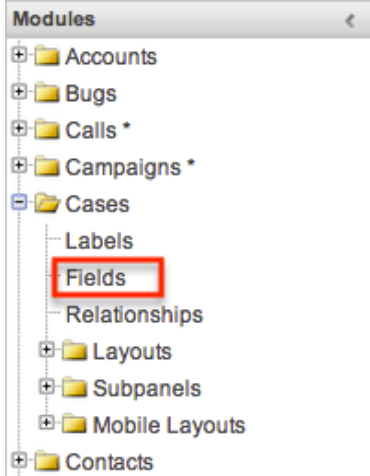
Width : Enter the number of pixels to horizontally scale the image for this field. Enter only the Width or Height options to retain the aspect ratio of the image.

- Note: The Width option is only available for Image data type fields.

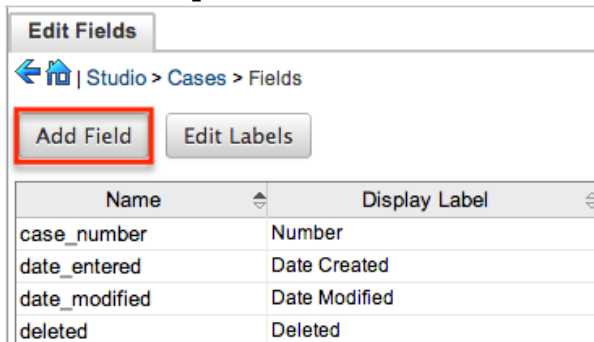
## Creating Fields

Use the following steps to create a new field via Studio:

1. Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Fields".



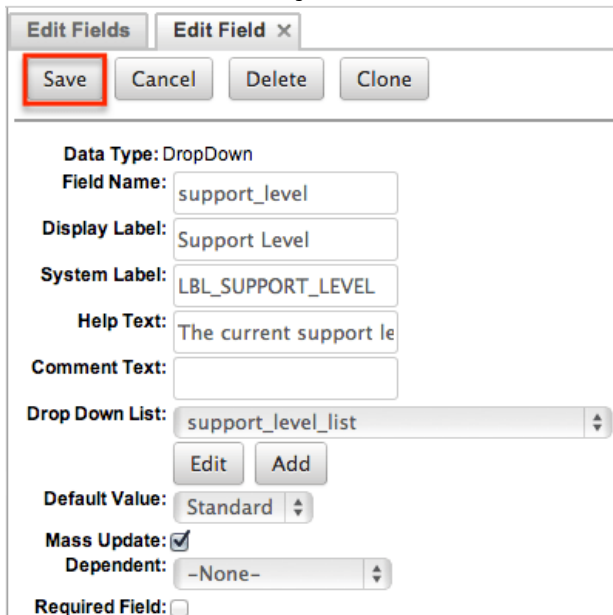
2. In the main panel, click "Add Field".



3. Enter appropriate values for the [Field Options](#).

Note: Field Name is required.

4. Once the necessary information is entered, click "Save".



Please note that once a field is created, it must be placed on the record view (for Sidecar modules) or edit view (for Legacy modules) layout before users can enter



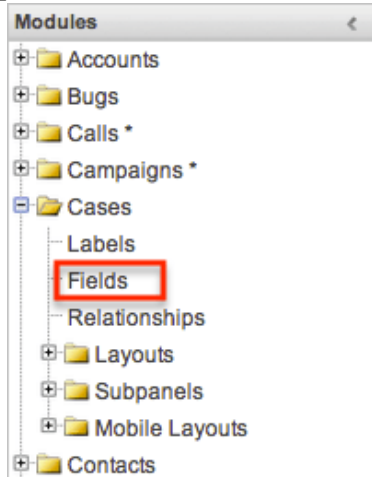
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data into that field. For more information on editing layouts, please refer to the [Editing Layouts](#) section of this documentation.

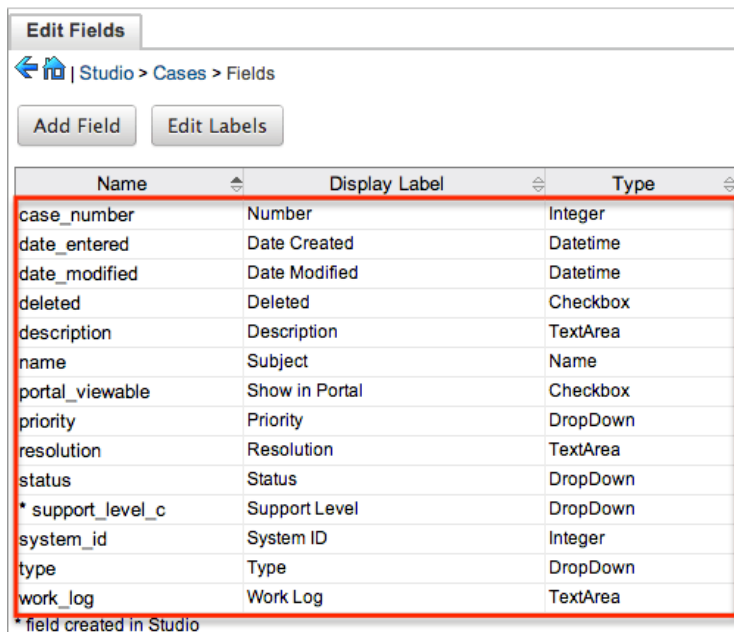
## Editing Fields

Use the following steps to edit an existing field via Studio:

1. Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Fields".



2. In the main panel, select a field to edit. Sorting the fields by the column header will help in locating the field faster.
  - Note: Fields created via Studio will display an asterisk next to their names.



3. Enter appropriate values for the [Field Options](#).
4. Once the necessary information is entered, click "Save".

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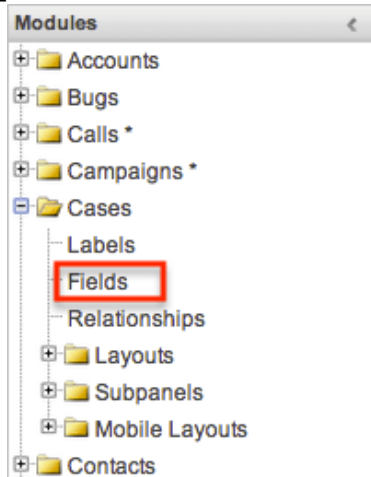
Save Cancel Clone

Data Type: TextArea  
Field Name: description  
Display Label: Description:  
System Label: LBL\_DESCRIPTION  
Help Text: Enter in a detailed Des  
Comment Text: Case details.  
Rows: 6  
Columns: 80

## Deleting Fields

Use the following steps to delete an existing field via Studio:

1. Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Fields".



2. In the main panel, select a field to delete. Sorting the fields by the column header will help in locating the field faster.
  - Fields created via Studio will display an asterisk (\*) next to their names.
  - Note: Stock fields cannot be deleted.

**Edit Fields**

← | Studio > Cases > Fields

Add Field Edit Labels

Name	Display Label	Type
case_number	Number	Integer
date_entered	Date Created	Datetime
date_modified	Date Modified	Datetime
deleted	Deleted	Checkbox
description	Description	TextArea
name	Subject	Name
portal_viewable	Show in Portal	Checkbox
priority	Priority	DropDown
resolution	Resolution	TextArea
status	Status	DropDown
* support_level_c	Support Level	DropDown
system_id	System ID	Integer
type	Type	DropDown
work_log	Work Log	TextArea

\* field created in Studio

3. Click "Delete" to remove the field.

**Edit Fields** | **Edit Field** ×

Save Cancel **Delete** Clone

**Data Type:** DropDown  
**Field Name:** support\_level\_c  
**Display Label:** Support Level  
**System Label:** LBL\_SUPPORT\_LEVEL  
**Help Text:** The current support le  
**Comment Text:**  
**Drop Down List:** support\_level\_list

Edit Add

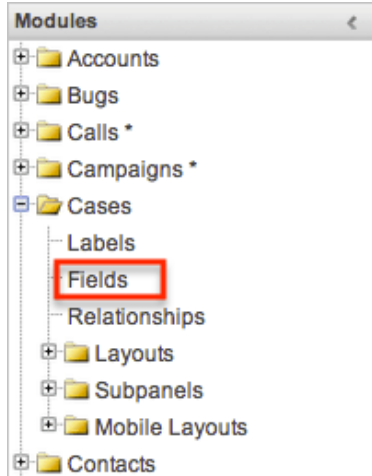
4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.
- When deleting fields, both the field and all the data related to the field in the database will be permanently removed. Before deleting a field please verify and resolve the following issues:
    1. Field must be removed from any report filters or displays.
    2. Field must be removed from any workflows that filters or displays the field.
    3. Field must be removed from any dashlet that filters or displays the field.
    4. Field must be removed from any Sugar Logic formulas.
    5. Field must be removed from any email templates.
    6. Field must be removed from any saved searches.
5. The field will automatically be removed from any module layouts when deleted.

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## Cloning Fields

Use the following steps to clone an existing field via Studio:

1. Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Fields".



2. In the main panel, select a field to delete. Sorting the fields by the column header will help in locating the field faster.
  - Note: Fields created via Studio will display an asterisk (\*) next to their names.

The screenshot shows the 'Edit Fields' interface. At the top, there are navigation buttons for 'Add Field' and 'Edit Labels'. Below that is a table with three columns: 'Name', 'Display Label', and 'Type'. The table contains 15 rows of field data. A red rectangular box highlights the entire table content.

Name	Display Label	Type
case_number	Number	Integer
date_entered	Date Created	Datetime
date_modified	Date Modified	Datetime
deleted	Deleted	Checkbox
description	Description	TextArea
name	Subject	Name
portal_viewable	Show in Portal	Checkbox
priority	Priority	DropDown
resolution	Resolution	TextArea
status	Status	DropDown
* support_level_c	Support Level	DropDown
system_id	System ID	Integer
type	Type	DropDown
work_log	Work Log	TextArea

\* field created in Studio

3. Select "Clone" to duplicate the field.
  - Note: Some non-standard stock fields (e.g. Name) do not have the ability to clone.

Edit Fields    Edit Field ×  
 Save    Cancel    Delete    **Clone**

Data Type: DropDown  
 Field Name: support\_level\_c  
 Display Label: Support Level  
 System Label: LBL\_SUPPORT\_LEVEL  
 Help Text: The current support le  
 Comment Text:  
 Drop Down List: support\_level\_list  
 Edit    Add

4. Enter appropriate values for the [Field Options](#).
5. Once the necessary information is entered, click "Save".

Edit Fields    Edit Field ×  
**Save**    Cancel

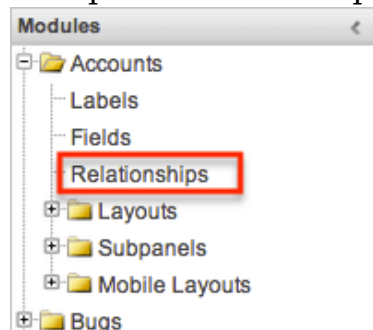
Data Type: DropDown  
 Field Name: secondary\_support  
 Display Label: Secondary Support  
 System Label: LBL\_SECONDARY\_SUPP  
 Help Text: The current support le  
 Comment Text:  
 Drop Down List: support\_level\_list  
 Edit    Add  
 Default Value: Standard  
 Mass Update:   
 Dependent: -None-  
 Required Field:

## Relationships

Relationships define the links between different modules in Sugar and allow records between those modules to be related. Related records display in fields or subpanels on a module's record view (for Sidecar modules) or detail view (for Legacy modules) depending on the relationship type. When you create a new relationship between two modules, the system automatically creates the necessary subpanels, related fields, and metadata relationships. Relationships provide the added benefit in reports to allow access to a related records fields in addition to the base module's fields. The relationships section in Studio allows administrators to create new relationships between custom and stock modules as well as change some properties on existing relationships. To access the Relationships section in Studio, select "Relationships" from the Modules panel and the module's relationship tab will open in the main panel.

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The relationships section in Studio allows administrators to create new relationships between custom and stock modules as well as change some properties on existing relationships. To access the Relationships section in Studio, select "Relationships" from the Modules panel and the module's relationship tab will open in the main panel.



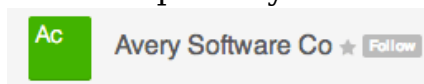
## Relationship Types

Sugar contains a few different types of relationships you can create between modules. The relationship type will determine what fields or tables will be created in the database as well as what interface the user will see when managing the relationship.

The following relationship types are available in Studio:

- **One-to-One** : Records in the primary module and the related module are uniquely related to each other. For a one-to-one relationship between Accounts and Contacts, an account can be associated with only one contact and a contact can be associated with only one account. The relationship will show as a field in each module's record view where changing the relationship from either module will also change the value in the other module.

From the primary Accounts module:




Website  
<http://www.avery.com>

Member of

Assigned to  
[Max Jensen](#)

Contacts  
[Donny Milliron](#)

From the related Contacts module:


Donny Milliron ★ [Follow](#)


Title  
 VP Sales  
 Department

Account Name  
Avery Software Co

Note: You can create a one way relationship between modules using relate fields. For more information regarding relate fields, please refer to the [Field Types](#) section of this documentation.


- **One-to-Many** : Records in the primary module can have relationships with many records in the related module. For a one-to-many relationship between Accounts and Contacts, an account can be associated with many contacts, but each contact can be associated with only one account. The record view of the primary module will display a subpanel for the related module, and the record view of the related module will display a field containing a link to the related record.

From the primary Accounts module:


Contacts

	Name	Account Name
★	<a href="#">Herb Glancy</a>	<a href="#">NW Bridge Con...</a>
★	<a href="#">Donny Milliron</a>	<a href="#">Avery Software...</a>

From the related Contacts module:


Donny Milliron ★ [Follow](#)

Title  
 VP Sales  
 Department

Account Name  
Avery Software Co

Note: A one-to-many relationship is the same as a many-to-one relationship except the Primary and Related modules are reversed. Adding a custom one-to-many relationship to "Activities" will add custom relationships to calls, meetings, notes, tasks, and emails. This will also automatically add these subpanels to the record view.

- **Many-to-Many** : Records in both the primary module and the related module can have multiple records related in each module. For a many-to-many relationship between Accounts and Contacts, an account can be associated with many contacts, and a contact can be associated with many accounts. Both module's record view will display a subpanel for the opposite module.

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From the primary Accounts module:

Co		Contacts	
	Name	Account Name	
★	Herb Glancy	NW Bridge Con...	
★	Donny Milliron	Avery Software...	

From the related Contacts module

Ac		Accounts	
	Name	Phone	
★	Avery Software Co	(320) 013-8679	
★	NW Bridge Construction	(265) 634-6785	

Note: Only modules with subpanels available can be on the "Many" side of a relationship. For example, the Product Catalog module lacks a subpanel; therefore, Product Catalog can only be selected on the "One" side of a relationship.

When you create a relationship for a module, the module you initiate the relationship from is considered the primary module and the module that you relate it with is the related module.

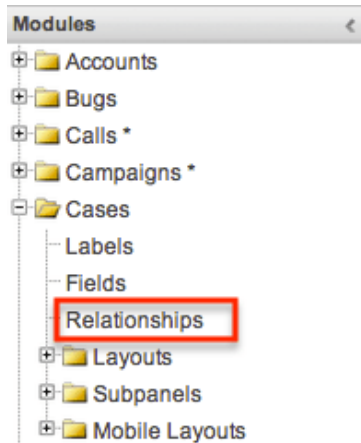
You can also create a relationship between a module and itself. In this case, the relationship becomes a parent-child relationship. For example, you can create a relationship from Accounts to Accounts in order to create sub-accounts within the primary account.

## Creating Relationships

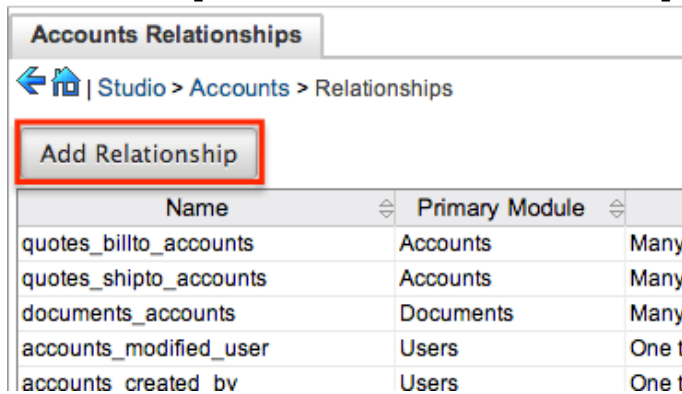
Use the following steps to create a new relationship via Studio:

1. Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Relationships".





2. In the main panel, click "Add Relationship".



3. Enter appropriate values for the following options:

Type : Select the type of relationship to create from the options in the [Relationship Types](#) section.

Module : The Primary module is set as the module to which you are adding the relationship. Select the related module from the dropdown list to the right. The Primary and Related module can be the same in order to create a parent child relationship.

Label : Enter a label to reference the Primary module or Related module's subpanels for this relationship.

- Note: This option is only available for the "Many" side of a relationship.

Subpanel from : Select a subpanel option to display the Primary or Related module's records in. This will determine the fields displayed in the subpanel.

- Note: This option is only available for the "Many" side of a relationship.

4. Once the necessary information is entered, click "Save & Deploy".

Cases Relationships
Edit Relationship ×

Save & Deploy
Cancel

Language: English (US) ▾

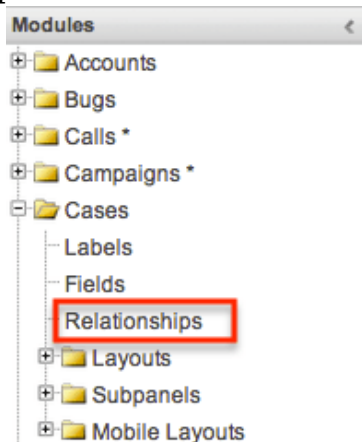
Primary Module	Type	Related Module
Module: <span>Cases</span>	Many to Many ▾	Module: <span>Products</span> ▾
Label: <span>Product Cases</span>		Label: <span>Products Affected</span>
Subpanel from Cases: <span>default</span> ▾		Subpanel from Products: <span>ForProducts</span> ▾

- The required fields and subpanels are instantly created and deployed to the appropriate modules.

## Editing Relationships

Use the following steps to edit a relationship via Studio:

- Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Relationships".



- In the main panel, select a relationship to edit.
  - Sorting the column header will help in locating the relationship faster.
  - Note: Relationships created via Studio will display an asterisk next to their names.

**Cases Relationships**

← | Studio > Cases > Relationships

Add Relationship

Name	Primary Module	Type	Related Module
case_kbdocuments	Cases	One to Many	Knowledge Base
cases_bugs	Cases	Many to Many	Bug Tracker
contacts_cases	Contacts	Many to Many	Cases
projects_cases	Projects	Many to Many	Cases
documents_cases	Documents	Many to Many	Cases
cases_products_1*	Cases	Many to Many	Products
cases_modified_user	Users	One to Many	Cases
cases_created_by	Users	One to Many	Cases
cases_assigned_user	Users	One to Many	Cases
case_calls	Cases	One to Many	Calls
case_tasks	Cases	One to Many	Tasks
case_notes	Cases	One to Many	Notes
case_meetings	Cases	One to Many	Meetings
account_cases	Accounts	One to Many	Cases

\* relationship created in Studio

- The only editable field on a relationship is the Label field for naming the Primary or Related modules subpanels.
  - Note: This option is only available for the "Many" side of a relationship.
- Once the necessary information for the Label field is entered, click "Save".

**Cases Relationships** | Edit Relationship ×

Save | Cancel | Delete

Language: English (US)

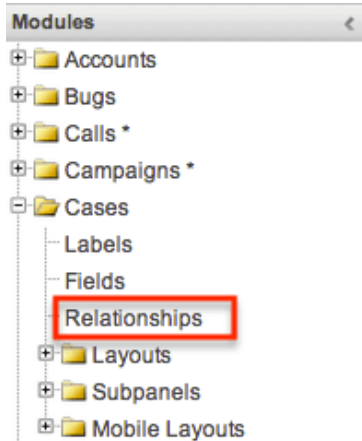
Name: cases\_products\_1

Primary Module		Type	Related Module	
Module:	Cases	Many to Many	Module:	Products
Label:	Product Issues		Label:	Products Affected
Subpanel from Cases:	default		Subpanel from Products:	ForProducts

## Deleting Relationships

Use the following steps to delete a relationship via Studio:

- Expand out the tree under the desired module (e.g. Cases) in the Modules panel and select "Relationships".



2. In the main panel, select a relationship to delete.
  - Sorting the column header will help in locating the relationship faster.
  - Note: Relationships created via Studio will display an asterisk next to their names.

Cases Relationships

← | Studio > Cases > Relationships

Add Relationship

Name	Primary Module	Type	Related Module
case_kbdocuments	Cases	One to Many	Knowledge Base
cases_bugs	Cases	Many to Many	Bug Tracker
contacts_cases	Contacts	Many to Many	Cases
projects_cases	Projects	Many to Many	Cases
documents_cases	Documents	Many to Many	Cases
cases_products_1*	Cases	Many to Many	Products
cases_modified_user	Users	One to Many	Cases
cases_created_by	Users	One to Many	Cases
cases_assigned_user	Users	One to Many	Cases
case_calls	Cases	One to Many	Calls
case_tasks	Cases	One to Many	Tasks
case_notes	Cases	One to Many	Notes
case_meetings	Cases	One to Many	Meetings
account_cases	Accounts	One to Many	Cases

\* relationship created in Studio

3. Select "Delete" to remove the relationship.

Cases Relationships Edit Relationship x

Save Cancel Delete

Language: English (US)

Name: cases\_products\_1

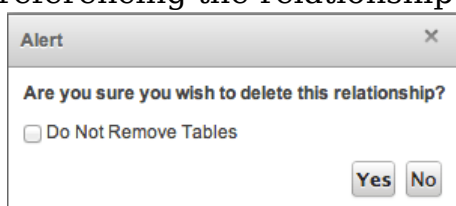
Primary Module		Type	Related Module	
Module:	Cases	Many to Many	Module:	Products
Label:	Product Issues		Label:	Products Affected
Subpanel from Cases:	default		Subpanel from Products:	ForProducts

4. A pop-up message will display asking for confirmation. Click "Yes" to proceed.
  - Note: If you wish to retain the data and table structure that currently

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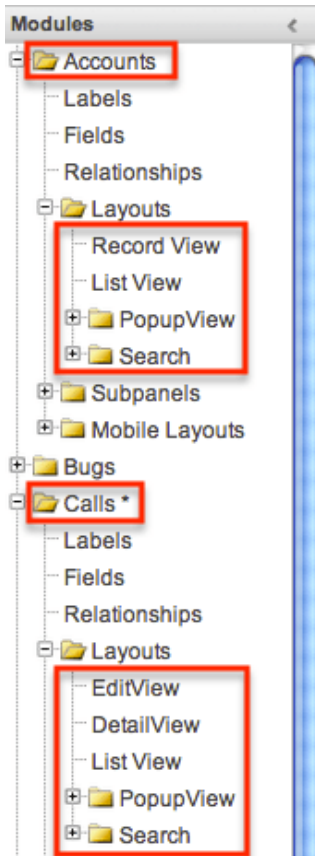
exists for the relationship, select the "Do Not Remove Tables" option. Leaving the "Do Not Remove Tables" unchecked will delete the relationship data and remove the tables for the relationship from the database.

- Before deleting a relationship please verify and resolve the following issues:
  - Relationship must be removed from any report filters or displays
  - Relationship must be removed from any workflows that filters or displays fields from the relationship
  - Relationship must be removed from any Sugar Logic formulas referencing the relationship



## Layouts

The layouts in Studio are used to represent the various views (e.g. record view, list view, edit view, etc.) in Sugar. Users with administrator or developer access have the ability to configure these layouts via Admin > Studio. Please note that the layouts available to configure will vary based on whether the module uses the Sidecar or Legacy user interface. All modules using the Legacy user interface will display an asterisk (\*) to the right of the module's name in Studio. The available layouts for the selected module will appear once you open up the Layouts option.



## Layout Types

Sugar comes with different types of layouts to represent different sections of Sugar. Please note that not all layouts are available in every module.

The following layout options are available in Sugar:

- Convert Lead : The Convert Lead layout can be configured to mark modules as required for lead conversion, add or remove modules from the convert lead layout, etc. Please note that the Convert Lead layout is only available for the Leads module. For more information on modifying the Convert Lead layout, please refer to the [Editing Convert Lead Layout](#) section below.
- Record View(for Sidecar modules) : Record view is used to modify, create, or view the current record's details within a specified module. This layout is specific to modules using the Sidecar user interface and controls the layout for viewing, creating, and editing a record, as well as the quick-create layout and the fields displayed when the record is viewed via the preview pane.
- Edit View (for Legacy modules) : Edit view layout is used to modify or create records in the specified module.
- Detail View(for Legacy modules) : Detail view layout is used to view the current data for a record within the specified module.

- **List View** : List view layout is used to view multiple records within the specified module. The list view is also used for displaying the results from module search (for Sidecar modules), as well as Basic or Advanced search (for Legacy modules).
- **Quick Create (for Legacy modules)** : Quick Create layout is used in Sugar to quickly view and modify records within a specified module without having to navigate away from the current page. For example, logging a call from the Quotes detail view will open up the call's quick create form.
- **Popup List View** : Pop-up list view layout is used to view a list of records in a pop-up window when selecting one or more records to relate to a current record.

#### Account List

Acct. Name	City	State	Country	User
SugarCRM Inc	Cupertino	California	United States	Administrator

- **Popup Search(for Legacy modules)** : Pop-up search layout allows users to search for records in the pop-up window to relate to a current record and appears above the pop-up list view in the same window. Legacy modules (e.g. Quotes) use this layout for pop-up searching while Sidecar modules (e.g. Accounts) use the Search layout's configuration.

#### Account Search

Name	<input type="text" value="Sugar"/>	Billing City	<input type="text"/>
Billing State	<input type="text"/>	Billing Country	<input type="text"/>
Any Email	<input type="text"/>	Assigned to	Administrator Will Westin

- **Search** : Search layout is used to allow users to search for records from a module's list view via module search (for Sidecar modules) or Basic and Advanced search (for Legacy modules). This layout is also used by Sidecar modules on the pop-up search and select. In addition, changes made to the Search layout for Sidecar modules affects the list of available fields to filter for the module's list view dashlet (e.g. My Contacts) since it is controlled by the same layout as well.

Note: Encrypt fields cannot be added to Search layouts.

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## Layout Options

Administrators have the ability to configure the various layouts (e.g. record view, list view, etc.) available via Studio. The following are some of the options available to administrators when configuring layouts in Studio.

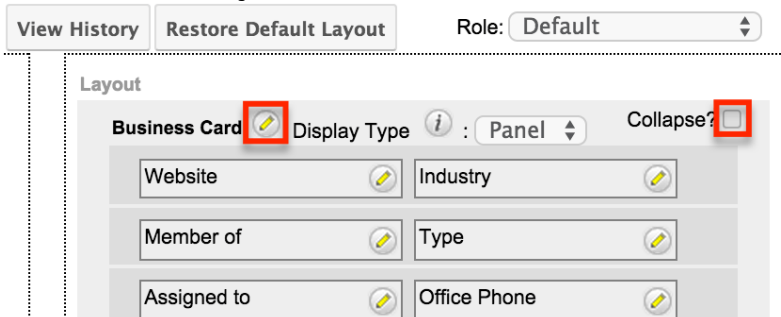
Record views may be configured to display differently [based on the viewing user's role](#).

## Panels

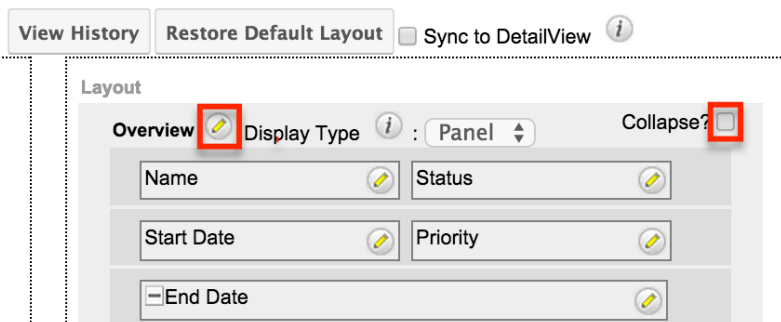
Every field on a layout is contained within a panel, which can be organized to contain groups of similar or related fields to assist in organization. Modules using the Legacy user interface will have fields grouped by default into the Overview and Other panels while modules using the Sidecar user interface will have the Business Card and Show More panels. You can change the panel header titles by clicking the Pencil icon to the right of the panel name.

Note: You can have the panel collapsed by default on the Record View, Edit View, or Detail View by marking the Collapse? checkbox to the far right of the panel header.

Record View layout (for Sidecar modules):



Edit View layout (for Legacy modules):

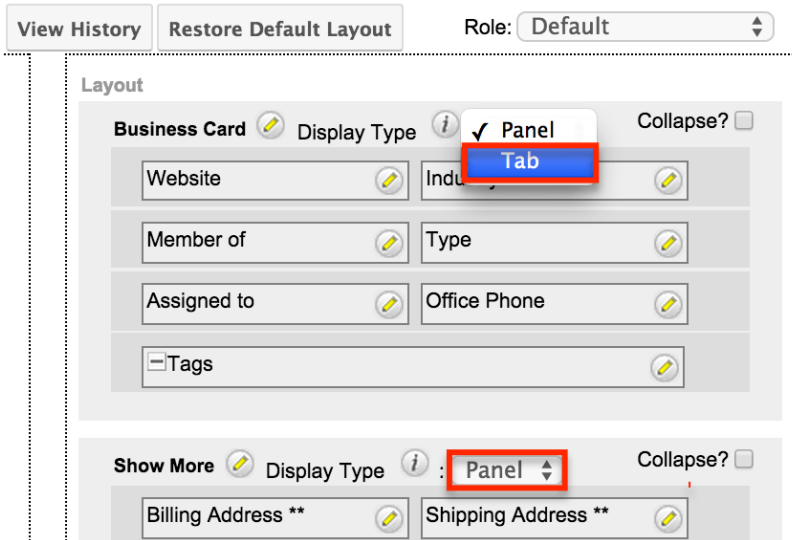


## Tabs



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Each of the panels (Business Card, Overview, etc.) may optionally be displayed as tabs in the layout. You can also nest panels within other panels defined as tabs. For example, if you set the Business Card panel as a "Tab" and leave "Show More" as a panel in the Record View layout, the Show More panel will appear within the Business Card tab.



Every panel listed under a Tab display type will be a panel within the tab until the next Tab display type panel is reached. So if you add a new panel below "Show More" and set both the Business Card and Show More panel as "Tabs", then the newly added panel will appear within the Show More tab.

## Restoring Layouts

Sugar keeps a history of the changes made to each layout. You can preview and restore historical layouts via "View History". For more information on viewing the history of layouts, please refer to the [Viewing Layout History](#) section of this documentation.

It is also possible to restore the Record View, Detail View, etc. layouts back to the default out-of-the-box layout. For more information on how to reset a layout to default, please refer to the [Restoring Default Layouts](#) section in this documentation.

Note: When using role-specific record view layouts, the functionality of the Restore Default Layout button changes depending on which the Role dropdown's selection. Please refer to the [Restoring Customized Role-Views to the Default Role-View Layout](#) section for more information.

## Sync And Copy (Legacy Modules)

Sugar provides administrators with the ability to sync and copy certain layouts to

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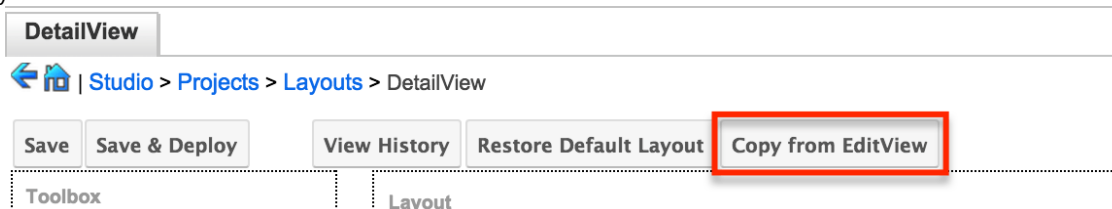
assist in configuring layouts. Often it makes sense for a module's edit view and detail view layouts to be identical. Instead of having to duplicate any changes made to one layout, administrators can configure the detail view layout to be synced to the edit view layout.

To sync the layouts, select the Sync to DetailView checkbox on the upper right of the EditView layout and click "Save & Deploy".



The current detail view layout will be replaced with the current edit view layout. At this point, changes cannot be made to the DetailView layout in Studio, but any changes made to the EditView layout will automatically be synced to the DetailView layout when saved.

Alternative to syncing the layouts, administrators can copy the layout from the EditView to the DetailView or QuickCreate layouts. This is especially useful if you want the layouts to be similar, but different. Make any necessary changes to the EditView layout, then navigate to either the DetailView or QuickCreate layout. Select "Copy from EditView" to replace the current layout with details from the EditView layout. Once copied, you can continue to edit the DetailView layout as you wish.



Note: The copy feature is a one-time copy of the layouts. Any future changes to the EditView layout will not be reflected on the DetailView layout without performing the copy again.

## Editing Layouts

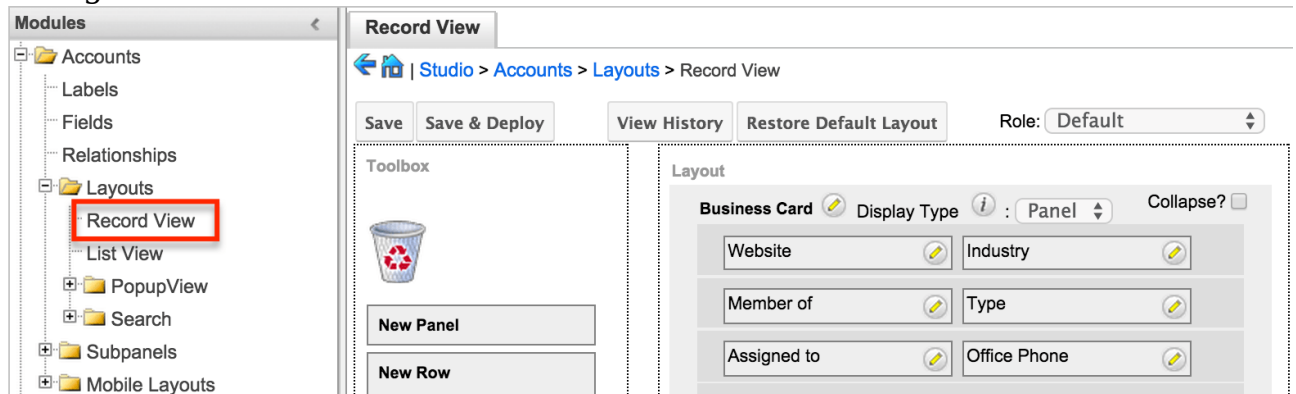
You can add, remove, hide, etc. the fields for the available layouts in the module by selecting the specific layout under the Modules panel to edit. Please note that the List View, PopupView, and Search layouts have columns where you can designate fields users can and cannot see.

Record views may be configured to display differently [based on the viewing user's role](#).

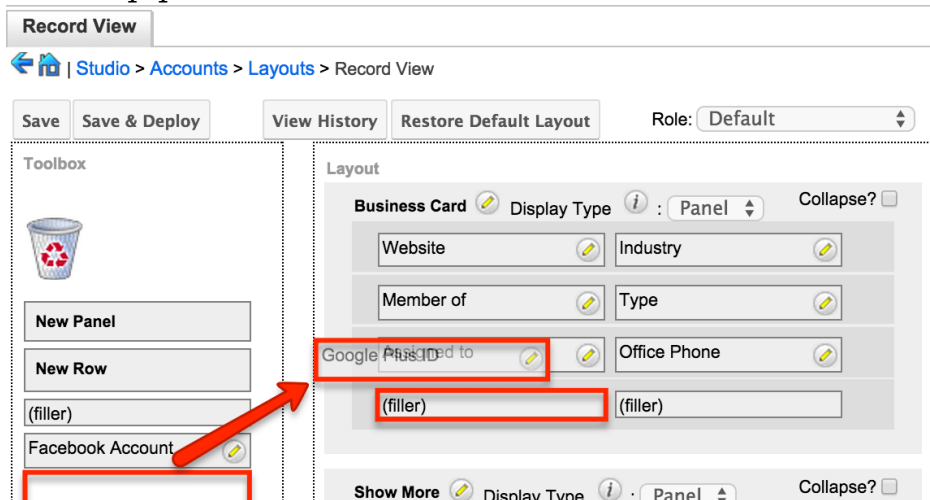
## Editing Record View Layout

The following steps cover editing the Record View layout for the Accounts module as an example:

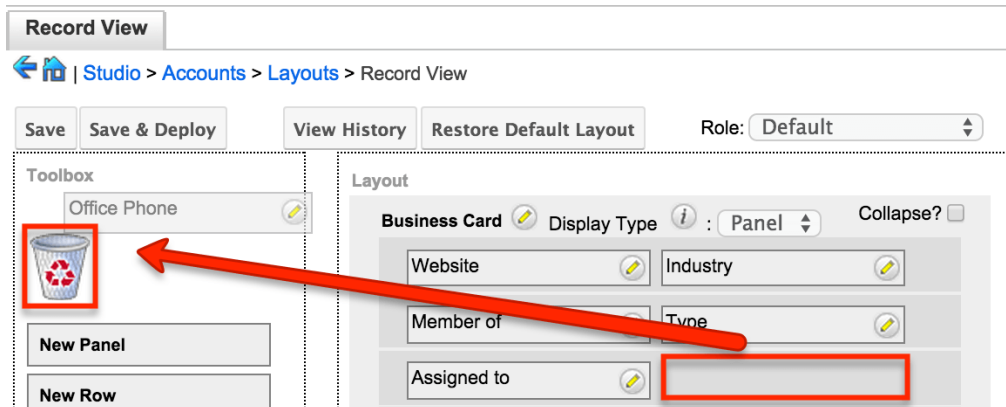
1. Expand "Layouts" from the Modules panel under the Accounts module and select "Record View". The Record View layout will display in the main panel to the right.



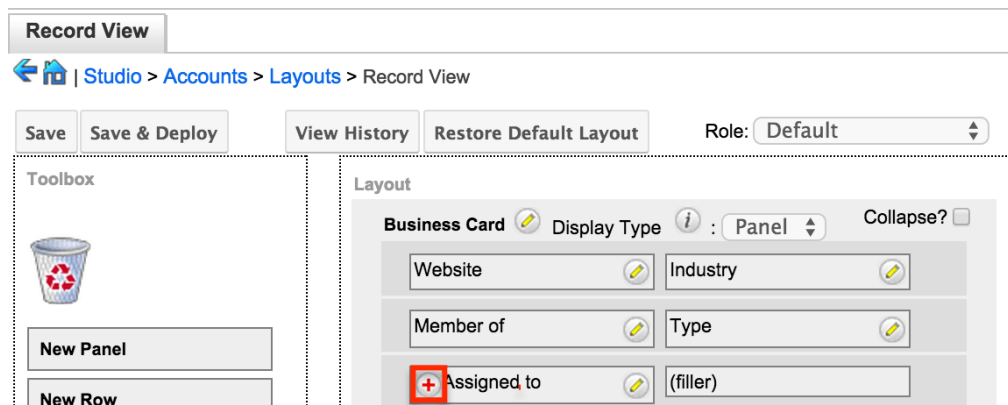
2. To add a field to the Record View layout, drag the field from the list of fields in the Toolbox to a "(filler)" location on the layout per your preference.
  - o You can also drag a field to a location on the layout that already has a field in place. The newly added field and the existing field on the layout will swap places.



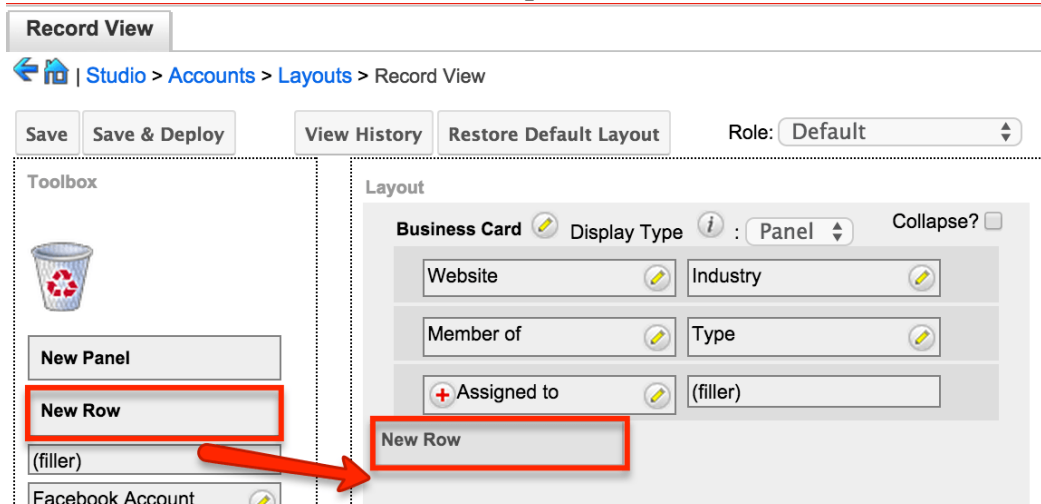
3. To remove a field from the layout, drag and drop the field from the layout to the trash bin in the toolbox to remove the field from the layout. You may remove an entire row in the layout using the same method.



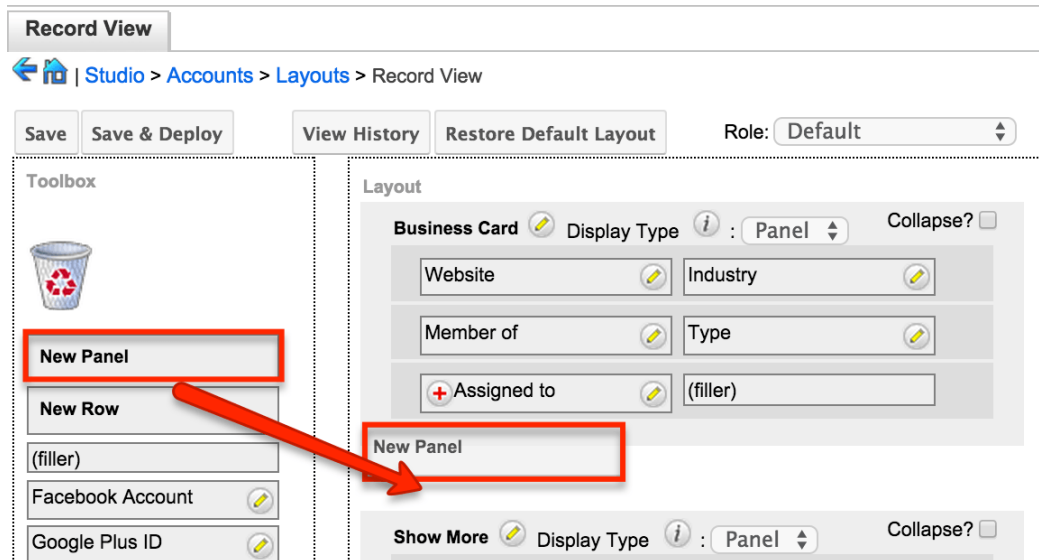
4. To expand or minimize the field column in the layout, click the Plus icon (+) to stretch the field over two columns or click the Minus icon (-) to fit the field into one column.
  - Note: The layout will display a "(filler)" if there is no field in that location.



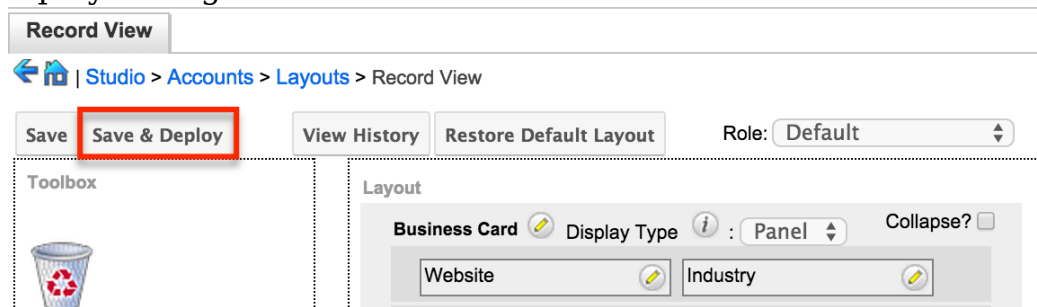
5. To add a new row, drag the "New Row" item in the Toolbox to the layout to allow additional fields or blank spaces to be added.



6. To add a new panel, drag the "New Panel" item in the Toolbox to the layout to group different sets of fields together in the Record View layout.



7. Once the layout is finalized, click "Save & Deploy" to preserve your changes and deploy immediately.
  - You can click "Save" if you wish to preserve the changes made but not deploy to Sugar's user interface.



Note: It is recommended that dependent fields be placed below and/or to the right of the independent field in order to preserve the correct display of fields on the layout.

## Creating Role-Based Record View Layouts

Record Views can be configured to display customized layouts based on the viewing user's role. The availability and organization of fields may be altered to provide only the relevant fields for each user's role according to your business practices. When editing a particular module's record view, the Role dropdown appearing on the top right contains all existing roles in the Sugar application. By default, none of the Sugar roles have customized views, so changes made to the Default role-view will automatically be copied to the other role-views upon save. This means that as long as no role-views are customized here, all users will continue to see the record view layout matching the Default role-view.

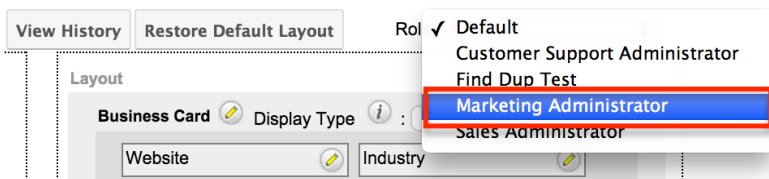
Note: It is recommended to assign each user to a maximum of one role. Users belonging to multiple roles which each have customized role-views may experience

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unexpected behavior when using record views. For more information about roles, please refer to the [Role Management](#) documentation.

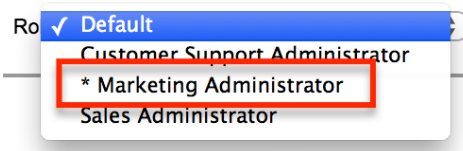
Note: Role-based customizations to record views are included when exporting customizations from Studio. For more information, please refer to the [Exporting Role-Based Customizations](#) section and the [Module Loader](#) documentation.

If you wish to cause certain roles to use a modified record view for a module (e.g. Accounts), navigate to Admin > Studio > Accounts > Layouts > Record View and select the desired role from the Role dropdown to make changes specific to that role (e.g. Marketing Administrator).



When viewing a Sugar role's role-view (e.g. Marketing Administrator), you have the option add, remove, and rearrange fields and panels. You may manipulate the layout as described in the [Editing Record View Layout](#) section above. The inclusion and location of fields will be specific to the role-view you are customizing. However, changes made to a field's display label from any of the role-views will update that field's display label on all role-views.

Once you have saved a modification to a role-view, it is considered customized and will display an asterisk (\*) next to the role's name in the Role dropdown. Adding, removing, and rearranging fields or panels on the Default role-view will no longer have any affect on customized role-lists.



Note: Role-based views are not available for Legacy modules' detail views or any other sidecar layouts besides the record view. The Sidecar module must be available for editing in Studio for you to be able to create role-based record views for it.

#### Copying a Role-View From a Customized Role-View Layout

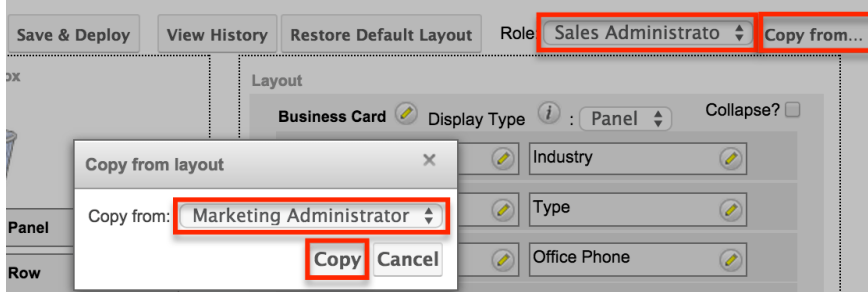
Customized role-view layouts may be copied to any other role-view except for the Default role-view.

1. Select the role-view you wish to alter in the Role dropdown

2. Click "Copy from..." and select the customized role-view you wish to duplicate.

Note: The Copy from... button will only appear when a customized role-view is available to be copied.

3. Click "Copy" and save.

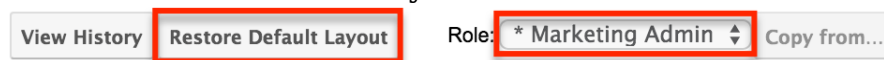


This will update the role-view to match the copied layout, and the role-view will now be considered customized and display an asterisk (\*) next to the role's name in the Role dropdown.

#### Restoring Customized Role-Views to the Default Role-View Layout

The Restore Default Layout button may be used to bring a customized role-view back to the Default role-view's layout.

1. Select the customized role-view in the Role dropdown.
2. Click "Restore Default Layout" and save.



This will re-establish the link between the selected role-view and the Default role-view so that changes to the Default role will once again be automatically applied to the selected role-view. This will also remove the asterisk from the selected role-view's name in the Role dropdown since it is no longer considered customized.

#### Restoring the Default Role-View to the System Default Layout

The Restore Default Layout button can also be used to bring the Default role-view back to the system stock record view layout.

1. Select the Default role-view in the Role dropdown
2. Click "Restore Default Layout" and save.



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This will remove any Studio changes to the layout so that it once again matches the system's stock layout. All other, non-customized role-views will also be updated to match.

## Editing List View Layout

Unlike the Record View layout, the List View layout has columns where you can designate fields users can and cannot see. When configuring the List View layout, you will see three columns (Default, Available, Hidden) where fields can be dragged and dropped accordingly.

Please note that editing the List View layout affects the list of available fields for the module's list view dashlet (e.g. My Contacts) as well since both are controlled by the same layout (List View) in Studio. Once the appropriate configurations are made in Studio, the deployed changes will be reflected in the Columns field of the corresponding module dashlet's [Configuration Options](#) page. Keep in mind that the module dashlet will not automatically reflect the Studio changes and users must edit the dashlet in order to view the changes, add new fields to the layout, etc.

Administrators can easily set the column widths for specific fields when configuring the List View layout. You can choose from a pre-defined list of width sizes (e.g. small, medium, large, etc.) that are available out-of-the-box with Sugar or enter a custom width value in pixels (e.g. 200) for Sidecar modules.

Note: When defining the column width for currency fields (e.g. Likely, Best, etc.), only "large" and above will apply because there is a minimum width requirement in Sugar for this field type. In addition, when defining a custom width for currency fields, the value must be 141px or wider.

The following table lists the available column width sizes in Sugar along with the corresponding width in pixels:



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## Table column widths

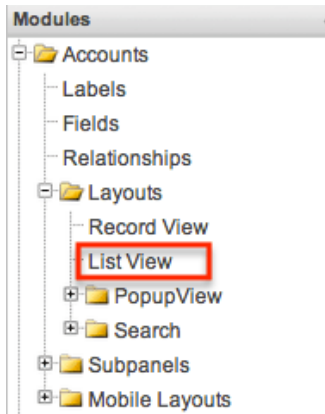
Name	Width	Example
xxsmall	21px	Ex.
xsmall	42px	Exam
small	66px	Example
medium	110px	Example
large	178px	Example
xlarge	288px	Example
xxlarge	466px	Example

Note: The Search layout is also edited in the same fashion as the List View layout as it displays the Default column and Hidden column to designate fields. Only fields (stock and custom fields) listed in the Default column will be available to users when filtering module search in Sugar. In addition, changes made to the Search layout for Sidecar modules affects the list of available fields to filter for the module's list view dashlet (e.g. My Contacts) since it is controlled by the same layout as well.

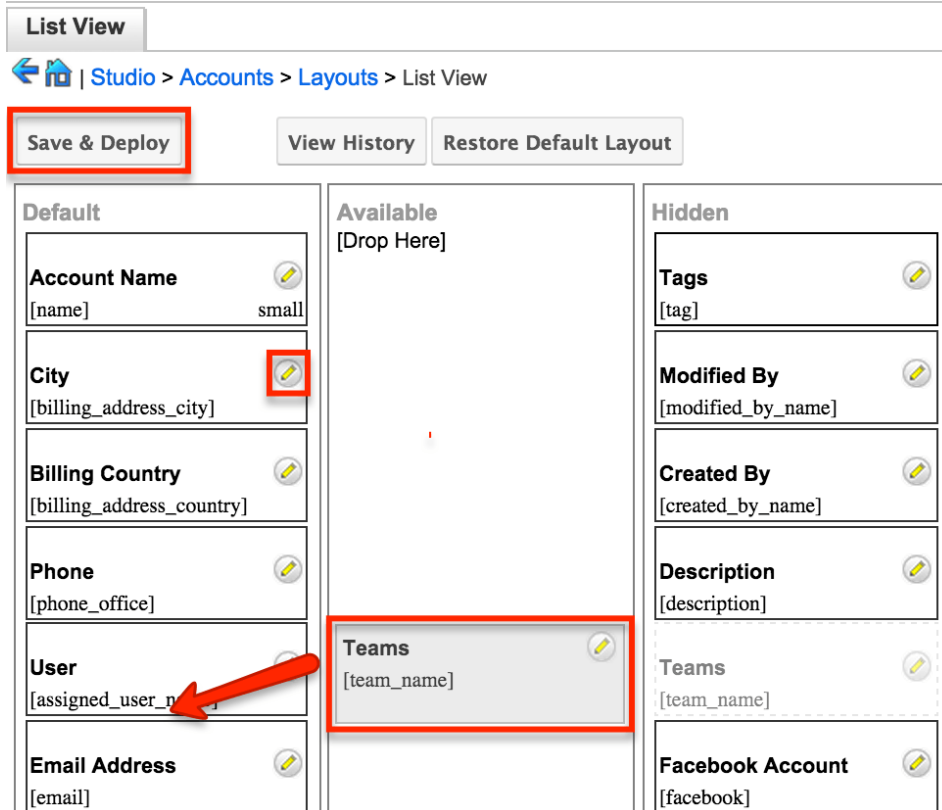
- Default : This column contains fields that are displayed in the layout.
- Available : Available fields are fields that will not show by default in the layout, but if the layout can be personalized, users can add these fields to their view of the layout. Not all list type layouts have an available fields section.
- Hidden : This column contains fields that will not be displayed in the layout.

The following steps cover editing the List View layout as an example:

1. Expand "Layouts" from the Modules panel under the Accounts module and select "List View".



2. To add a field to the List View layout, drag and drop the fields from the Hidden column to the Default column.
  - Note: The fields in the Default column will be available to add as display columns in the corresponding module dashlet (e.g. My Accounts).

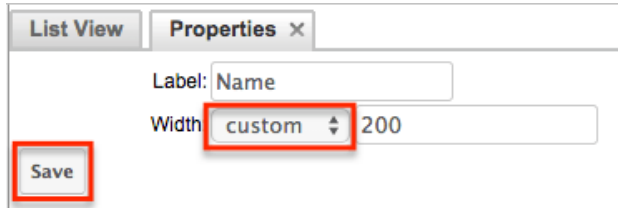


3. To remove a field from the layout, drag and drop the field from the Default column to the Hidden column.
4. To change the left-to-right order of the fields displayed on the list view, drag and drop fields up or down within the Default list.
  - Note: The order of fields designated for the List View layout also affects the order for the list of available fields in the corresponding module dashlet (e.g. My Accounts).
5. To modify the label of the field, as well as the width of the field, click the Pencil icon next to each field.
6. Enter the new label or select the width (e.g. small, medium, large, etc.) then click "Save". Please note the modified label will display in all List View layouts

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for this module.

- Note: Administrators can choose from a pre-defined list of width sizes (e.g. default, small, medium, etc.). Please note that selecting the Default width will set the list view column to equal the Medium width size. Selecting "custom" from the list will allow you to enter a custom width value in the open box. The custom width value should be entered in pixels (e.g. 200) for Sidecar modules. Legacy modules should be entered as a percentage (e.g. 40) of the total width of the list view that should be dedicated to the column.



7. Click "Save & Deploy" to preserve your changes and deploy immediately.

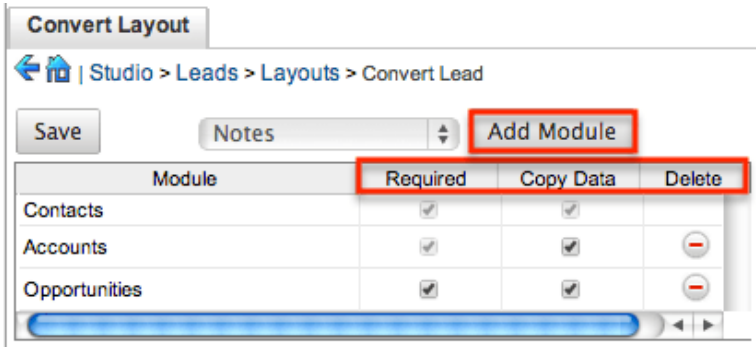
## Editing Search Layout

The Search layout controls which fields are available as filters in a module's list view or list view dashlet. You edit the Search layout in the same fashion as the [List View layout](#), but using only the Default and Hidden columns. Fields placed in the Default column will be available as filters for users in the module's list view and list view dashlet; fields placed in the Hidden column will not. For more information on dragging and dropping fields between the Default and Hidden columns, please refer to the [Editing List View Layout](#) section of this page.

Note: After an administrator edits the Search layout for a module in Studio, users must edit or re-create their list view dashlets to see the deployed changes to their available filters or columns.

## Editing Convert Lead Layout

The Convert Lead layout in Sugar is structured differently from the other layouts as it is specific to the lead conversion page for the Leads module. Administrators can configure which modules are available to convert, mark modules as required, add modules to the Convert Lead page, etc.

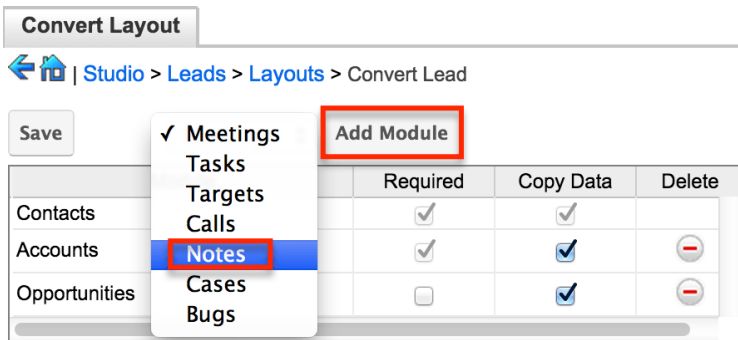


The following settings are available when configuring the Convert Lead layout:

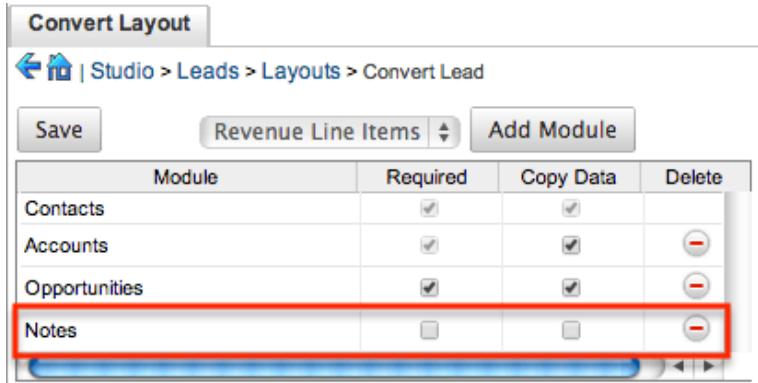
- **Required** : Makes the module required during lead conversion. Required modules must be created or selected on the Convert Lead page in order for the lead to be converted and saved.
- **Copy Data** : Copies data from the Leads fields (stock and custom) to fields with the same name in the newly created record for the module.
  - Note: The field name and type must match between both modules (e.g. Leads and Accounts) in order for the data to copy over.
- **Delete** : Removes the module from the Convert Lead layout.

The following steps cover adding the Notes module to the Convert Lead layout:

1. Select the Notes module from the dropdown list above the convert lead table then click "Add Module".

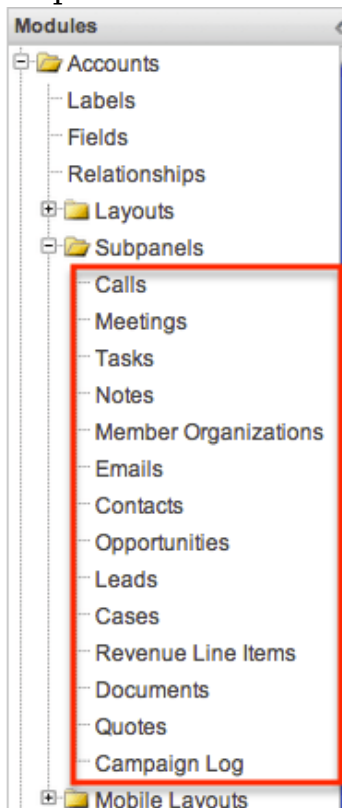


2. The Notes module will appear in the convert lead table and you can configure the settings as necessary. Click "Save" to preserve your changes.
  - Note: Modules added to the Convert Lead layout can be re-arranged by dragging and dropping the row (e.g. Notes) within the table. The Contacts, Accounts, and Opportunities modules cannot be re-arranged on the layout.



## Subpanels

Related records between modules in Sugar are commonly displayed in Subpanels. Similar to list type layouts, administrators can modify the subpanel layouts to change which fields are shown in a module's subpanel. You can add or remove fields for these subpanels depending on the information you want displayed to users. You can also rename a subpanel if needed. To access the subpanels section in Studio, expand "Subpanels" from the Modules panel under the desired module and the available subpanels will appear. Please note that the list of available subpanels for each module will vary.



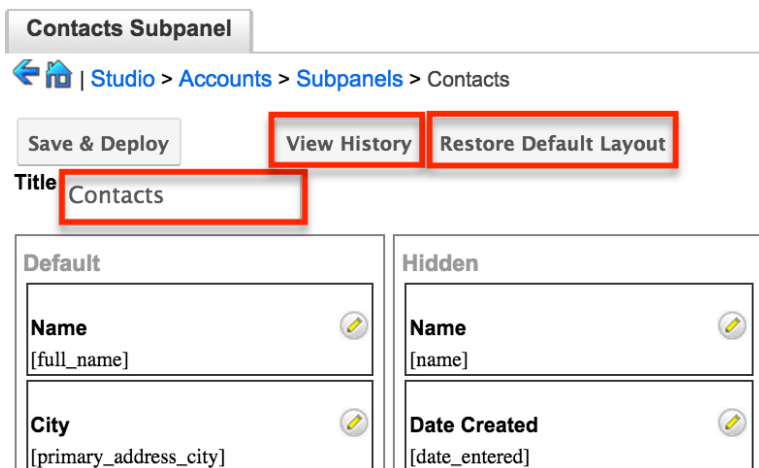
## Subpanel Options

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When configuring the Subpanel layout in Studio, there are options which allow you to change the subpanel title, view historical layout changes, as well as restore the default layout.

The following options are available when configuring subpanels in Studio:

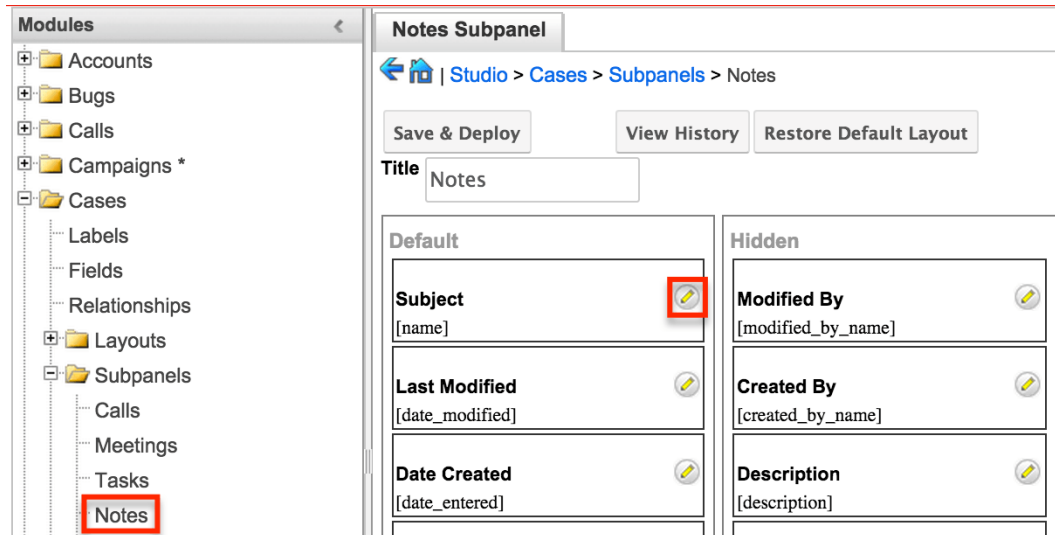
- **Subpanel Title** : Sugar administrators have the option to modify the name of the subpanel. This will change the display value of the subpanel when viewing the record view (for Sidecar modules) or detail view (for Legacy modules) of a record from the specified module.
- **View History** : Sugar keeps a history of the changes made to each subpanel. You can preview and restore historical layouts via "View History". For more information on viewing the history of subpanels, please refer to the [Viewing Layout History](#) section of this documentation.
- **Restore Default Layout** : Restores the subpanel layout back to the default out-of-the-box layout. For more information on how to reset a subpanel to the default layout, please refer to the [Restoring Default Layouts](#) section of this documentation.



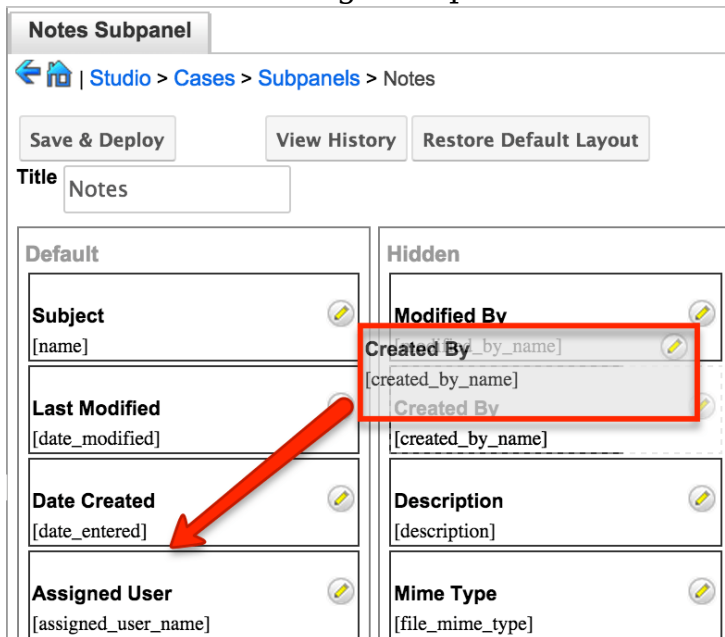
## Editing Subpanels

The following steps cover editing the Notes subpanel for the Cases module as an example:

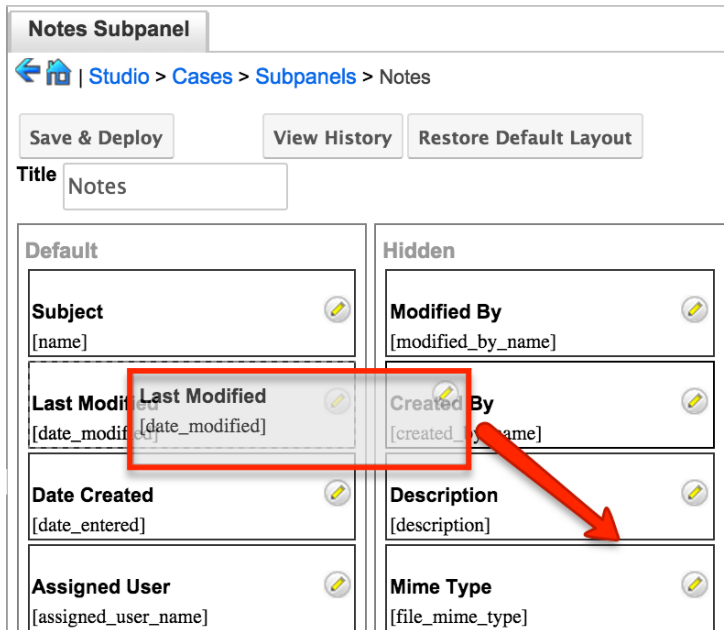
1. Expand "Subpanels" from the Modules panel under the Cases module and select "Notes". The Notes subpanel layout will display in the main panel to the right.



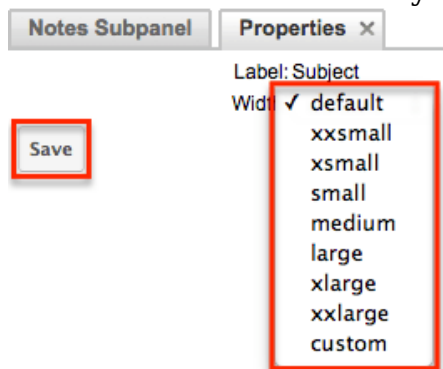
- To add a field to the Subpanel layout, drag and drop the fields from the Hidden column to the Default column. You can then drag the field up and down the list to change the position of the field in the subpanel.



- To remove a field, drag and drop the fields from the Default column to the Hidden column.



4. Click the Pencil icon to change the column width of the field in the subpanel.
  - Note: Administrators can choose from a pre-defined list of width sizes (e.g. default, small, medium, etc.). Please note that selecting the Default width will set the list view column to equal the Medium width size. Selecting "custom" from the list will allow you to enter a custom width value in the open box. The custom width value should be entered in pixels (e.g. 200) for Sidecar modules. Legacy modules should be entered as a percentage (e.g. 40) of the total width of the list view that should be dedicated to the column.
  - When defining the column width for currency fields (e.g. Likely, Best, etc.), only "large" and above applies because there is a minimum width requirement in Sugar for this field type. In addition, when defining a custom width for currency fields, the value must be 141px or wider.



5. Click "Save & Deploy" to preserve your changes and deploy immediately.

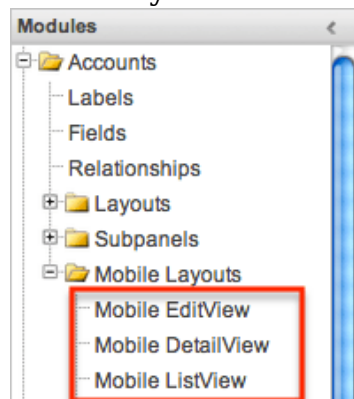
## Mobile Layouts

Mobile layouts are used to represent the views in SugarCRM Mobile. The mobile



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layouts section in Studio allows administrators to add fields and configure the various mobile layouts. To access the mobile layouts section in Studio, expand "Mobile Layouts" from the Modules panel under the desired module. The available mobile layouts for the selected module will appear under "Mobile Layouts".



## Mobile Layout Types

There are various mobile layouts in Sugar to represent the different areas of the SugarCRM mobile application. Please note that not all layouts are available in every module and the different mobile applications will use the information defined here differently.

The following mobile layouts are available in Sugar:

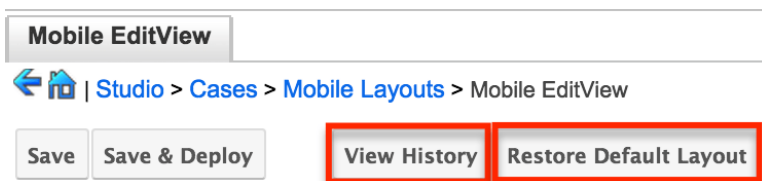
- **Edit View** : Edit view layout is used to modify or create records in the specified module.
- **Detail View** : Detail view layout is used to view the current data for a record within the specified module. Certain fields are translated to SugarCRM Mobile as buttons instead of data. For example, instead of seeing the phone number, there is a phone icon to be able to call the number on the record.
- **List View** : List view layout is used to view multiple records within the specified module. Only the first two fields in the list view section will be displayed in SugarCRM Mobile.

## Mobile Layout Options

Administrators have the ability to configure the various mobile layouts available via Studio.

The following options are available when configuring mobile layouts in Studio:

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- View History : Sugar keeps a history of the changes made to each layout. You can preview and restore historical layouts via "View History". For more information on viewing the history of layouts, please refer to the [Viewing Layout History](#) section of this documentation.
  - Restore Default Layout : Restores the mobile layout back to the default out-of-the-box layout. For more information on how to restore the default layout, please refer to the [Restoring Default Layouts](#) section in this documentation.
  - Role : Record views may be configured to display differently based on the viewing user's role. For more information, please refer to the [Creating Role-Based Record View Layouts](#) section.



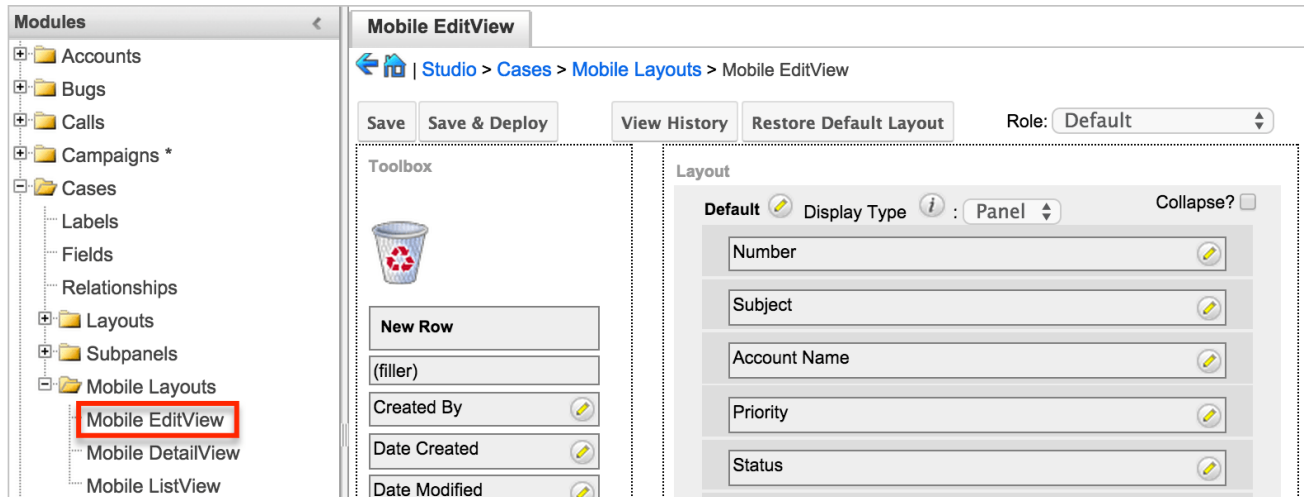
## Editing Mobile Layouts

You can add, remove, hide, etc. the fields for the available layouts in "Mobile Layouts" by selecting the specific layout under the Modules panel to edit. Please note that the Mobile EditView and DetailView layouts are modified in similar fashions. The Mobile ListView layout has columns where you can designate fields users can and cannot see.

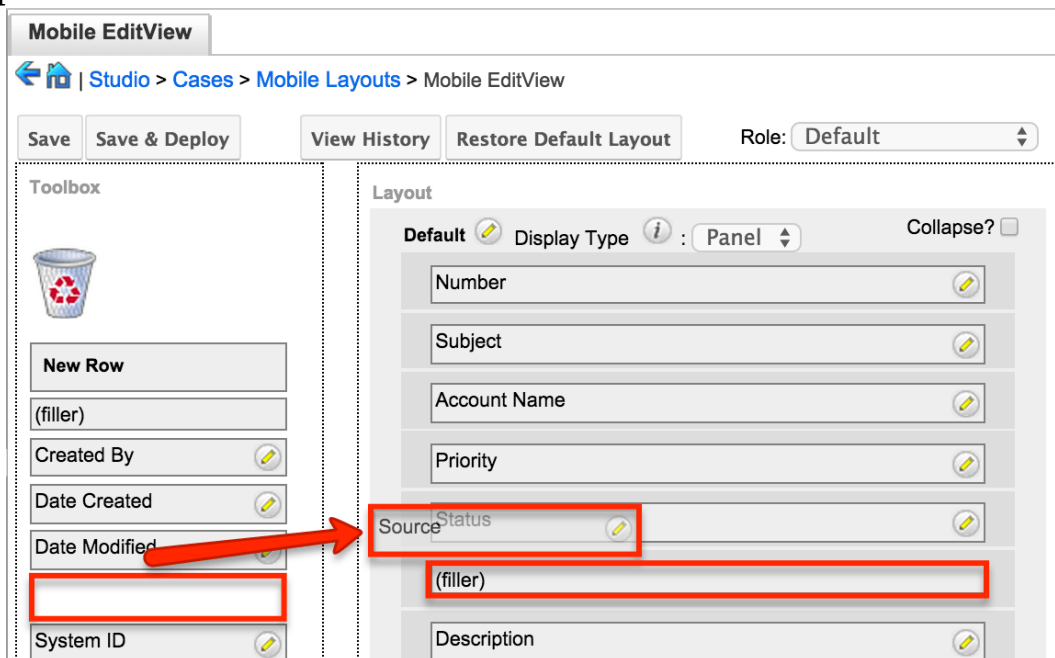
Mobile EditView and DetailView can both be configured to display customized layouts based on the viewing user's role. The availability and organization of fields may be altered to provide only the relevant fields for each user's role according to your business practices. For more information about configuring role-based layouts, please refer to the [Creating Role-Based Record View Layouts](#) section above.

The following steps cover editing the Mobile EditView layout for the Cases module as an example:

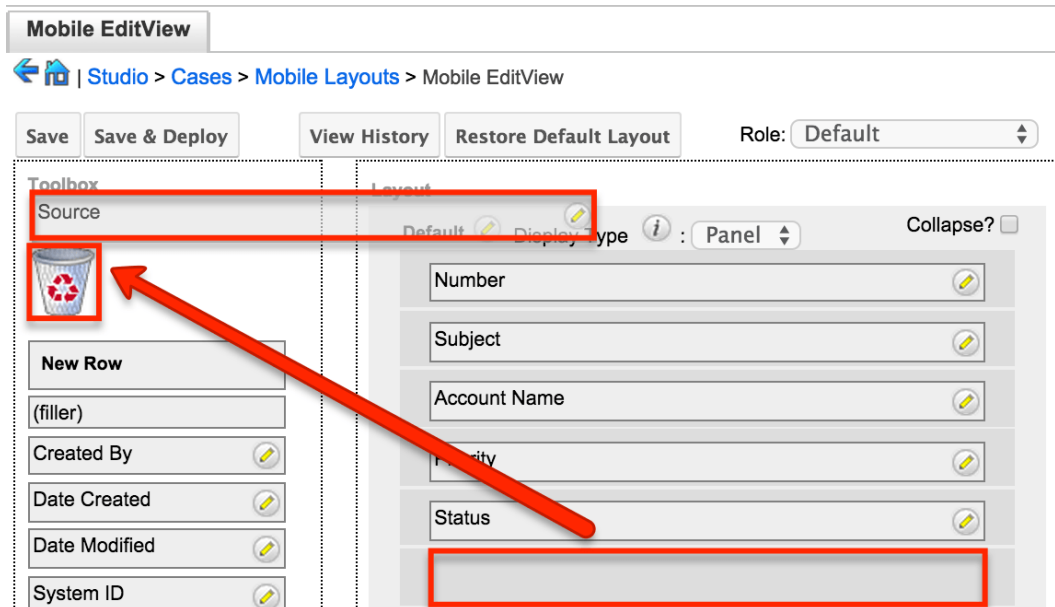
1. Expand "Mobile Layouts" from the Modules panel under the Cases module and select "Mobile EditView". The Mobile EditView layout will display in the main panel to the right.



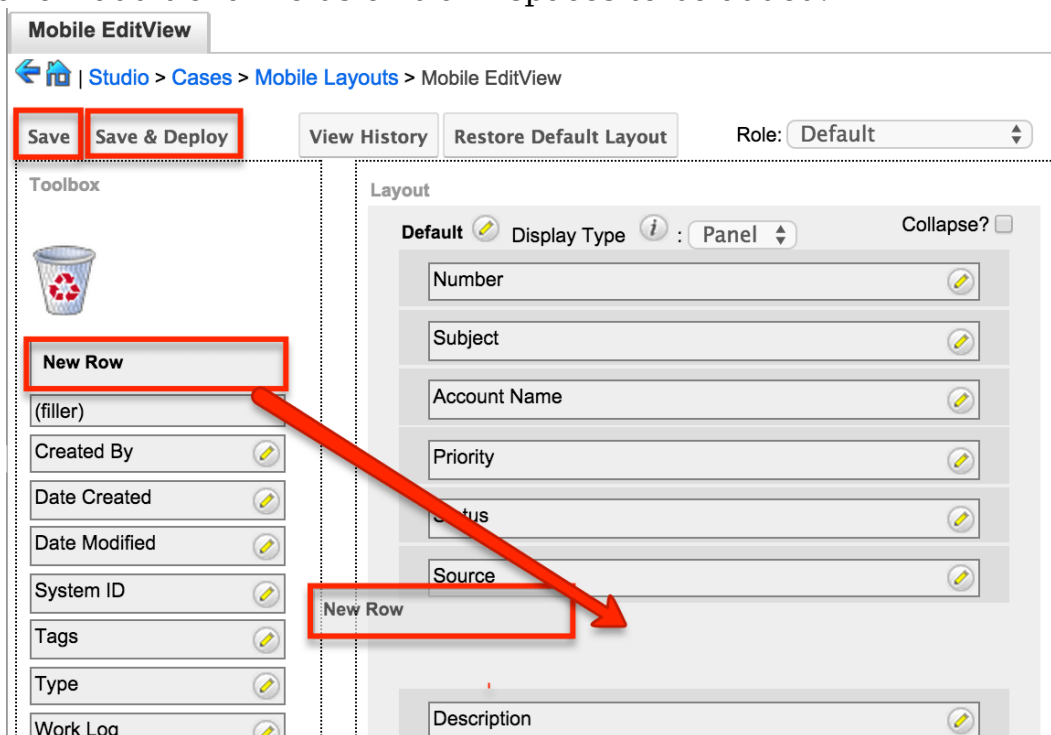
2. To add a field to the Mobile EditView layout, drag the field from the list of fields in the Toolbox to a "(filler)" location on the layout per your preference.
3. You can also drag a field to a location on the layout that already has a field in place. The newly added field and the existing field on the layout will swap places.



4. To remove a field from the layout, drag and drop the field from the layout to the trash bin in the Toolbox to remove the field from the layout. You may remove an entire row in the layout using the same method.



5. To add a new row, drag the "New Row" item in the Toolbox to the layout to allow additional fields or blank spaces to be added.



6. Once the layout is finalized, click "Save" to preserve your changes or "Save & Deploy" to preserve your changes and deploy them instantly.

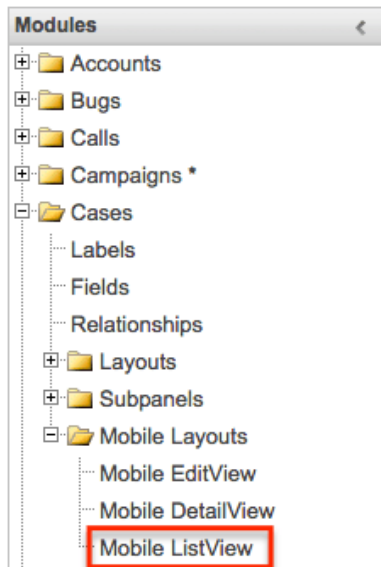
Unlike the Mobile EditView layout, the Mobile List View layout has columns where you can designate fields users can and cannot see. When configuring the Mobile List View layout, you will see three columns (Default, Available, Hidden) where fields can be dragged and dropped accordingly.

- Default : This column contains fields that are displayed in the list view.

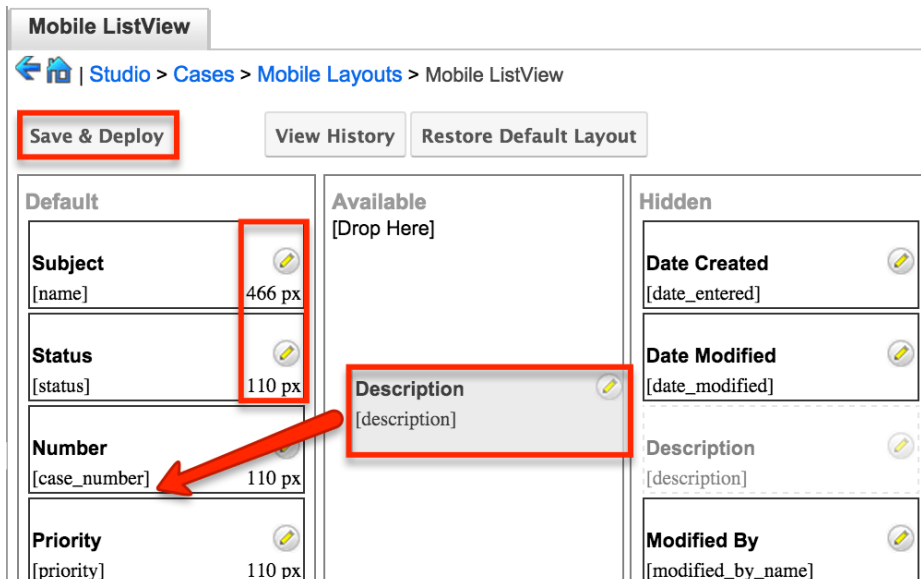
- Available : Available fields are fields that will not show by default in the layout, but if the layout can be personalized, users can add these fields to their view of the layout. Not all list type layouts have an available fields section.
- Hidden : This column contains fields that will not be displayed in the list view.

The following steps cover editing the Mobile List View layout as an example:

1. Expand "Layouts" from the Modules panel under the Cases module and select "Mobile List View".



2. To add a field to the Mobile ListView layout, drag and drop the fields from the Hidden column to the Default column.



3. Click the Pencil icon to modify the label of the field as well as the width size the field will take up in the list view. Please note that the modified label will display in all List View layouts.
4. Click "Save & Deploy" to preserve your changes and deploy immediately.

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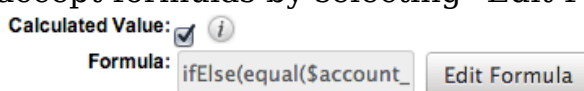
## Using Sugar Logic

Sugar Logic allows administrators to write simple formulas and logic checks to provide a calculation for a field or to set the visibility of a field. For more information regarding the types of fields that you can use with Sugar Logic, please refer to the [Field Options](#) section of this documentation. A calculated field uses a formula to derive its value based on the values of other fields as well as mathematical or logical operators. A dependent field uses a formula to determine whether or not the field should be displayed. These formulas are automatically recalculated when the record is updated. In addition, when a record containing a formula's input field is updated, the formula is automatically recalculated.

Note: When creating a calculated formula for a Currency field, the currency symbol should not be used for a value (e.g. \$100) in the formula. The formula should only define the numeric value (e.g. 100), as including the currency symbol will result in improperly calculated values.

When a calculated or dependent field is created or its formula is modified, all existing records in the module will not use the new formula until they have undergone a save action. To update the existing records to use the new formula, the module's list view includes a Recalculate Value action. Admin users or users with developer-level access can use this feature to cause existing records to recalculate affected fields without having to perform an update on each record individually. For more information, please refer to the [User Interface](#) documentation in the Application Guide.

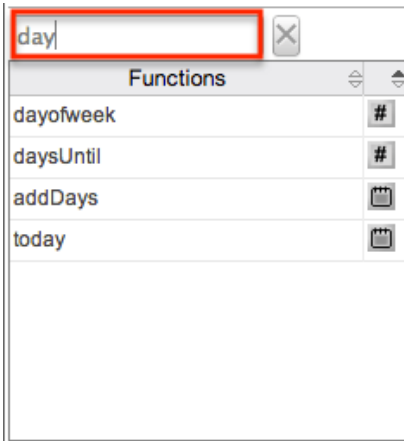
Administrators can access the formula builder for the fields and options that accept formulas by selecting "Edit Formula".



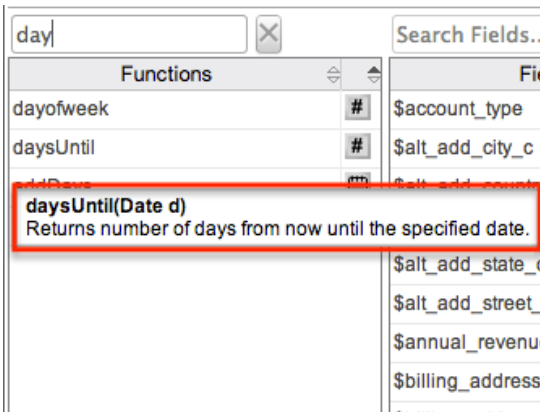
For more information and examples using Sugar Logic, please refer to the [Sugar Logic section of the Knowledge Base](#), which includes articles covering the use of dependent and calculated fields. Topics range from introductory information to example Sugar Logic formulas and detailed walkthroughs of how to construct various fields and formulas in the formula builder.

## Functions

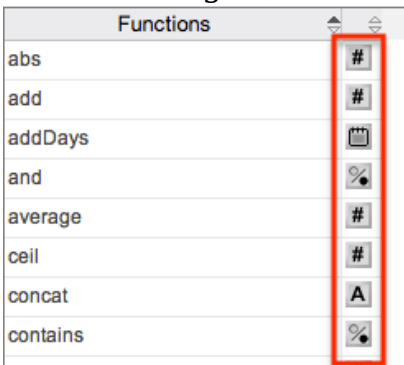
Functions are listed on the bottom left hand corner of the formula builder and provide a variety of calculations, logic checks, and formatting options. To locate the function you need, simply scroll through the list or enter the search criteria to narrow the list.



To see how to use a function and what the function does, simply hover over the function to view the syntax, parameters, and a brief description of what the function does.



The function name is followed by a comma-separated list of parameters to the function. The list specifies the data type expected for each parameter. For example, the function "daysUntil" expects one parameter of Date type. The brief description in the hover text will typically specify what data type is being returned, but if it does not, you can determine the data type being returned via the icon to the right of the function in the grid.



The following is a list of the possible return type symbols and what they stand for:

Symbol	Description
#	Returns a Number
Calendar	Returns a Date object with a date and

	time
%	Returns a Boolean (true or false) value
A	Returns Text
[ ]	Returns a List
?	Returns a variable data type that could be any of the above

Functions are defined to either accept a set number of parameters or have an undetermined amount of parameters. Many function parameters require a specific data type to be passed in for the function to work. Functions can be nested, matching up the return data type of the function to the parameter data type of a different function.

The following functions and their parameters (multiple parameters are indicated with "...") are available in Sugar:

Function	Description	Parameters	Return Type
abs	Returns the absolute value of \$param1.	Number \$param1	Number
add	Returns the sum of the given parameters.	Number \$param1, ...	Number
addDays	Returns \$date moved forward or backwards by \$days.	Date \$date, Number \$days	Date
and	Returns true if and only if all given parameters are true.	Boolean \$param1, ...	Boolean
average	Returns the average of the given parameters.	Number \$param1, ...	Number
ceil	Returns \$param1 rounded up to the next integer.	Number \$param1	Number
concat	Returns all of the given parameters appended together in the order passed.	String \$param1, ...	Text
contains	Returns true if	String \$haystack,	Boolean



	\$needle is within \$haystack.	String \$needle	
count	Returns the number of records related to this record by \$module	Relate \$module	Number
createList	Returns a List of the given parameters.	Generic \$param1, ...	List
date	Returns \$param1 as a Date object.	String \$param1	Date
dayofweek	Returns the number of the day of week that \$param1 falls on.	Date \$param1	Number
daysUntil	Returns the number of days from now until \$param1.	Date \$param1	Number
divide	Returns the \$numerator divided by the \$denominator.	Number \$numerator, Number \$denominator	Number
equal	Returns true if \$param1 is equal to \$param2.	Generic \$param1, Generic \$param2	Boolean
floor	Returns \$param1 rounded down to the next integer.	Number \$param1	Number
getDropdownKeySet	Returns a List of the keys in the dropdown named \$param1. This list must be defined in the Dropdown editor.	String \$param1	List
getDropdownValue	Returns the value for the \$key found in the dropdown named \$list. This list must be defined in the Dropdown editor.	String \$list, String \$key	Text

getDropDownValueSet	Returns a List of the values in the dropdown named \$param1. This list must be defined in the Dropdown editor.	String \$param1	List
greaterThan	Returns true if \$param1 is greater than \$param2.	Number \$param1, Number \$param2	Boolean
hoursUntil	Returns the number of hours from now until \$param1.	Date \$param1	Number
ifElse	Returns \$return1 if \$condition is true or \$return2 if \$condition is false.	Boolean \$condition, Generic \$return1, Generic \$return2	Variable
indexOf	Returns the position of \$needle in \$haystack or -1 if \$haystack does not contain \$needle. The index starts at 0.	Generic \$needle, List \$haystack	Number
isAfter	Returns true if \$param1 is after \$param2.	Date \$param1, Date \$param2	Boolean
isBefore	Returns true if \$param1 is before \$param2.	Date \$param1, Date \$param2	Boolean
isInList	Returns true if \$needle is contained within \$haystack.	Generic \$needle, List \$haystack	Boolean
isValidDate	Returns true if \$param1 is a valid date string.	String \$param1	Boolean
isValidEmail	Returns true if \$param1 is in a valid email address format.	String \$param1	Boolean
isWithinRange	Returns true if	Number \$value,	Boolean

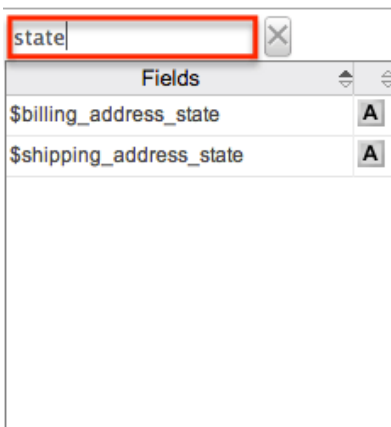
	\$value is greater than or equal to \$min and less than or equal to \$max.	Number \$min, Number \$max	
ln	Returns the natural log of \$param1.	Number \$param1	Number
log	Returns the \$base Log of \$value.	Number \$value, Number \$base	Number
max	Returns highest value of the given parameters.	Number \$param1, ...	Number
maxRelatedDate	Returns the highest value of \$field in records related to \$module.	Relate \$module, String \$field	Date
median	Returns the median of the given parameters.	Number \$param1, ...	Number
min	Returns lowest value of the given parameters.	Number \$param1, ...	Number
monthofyear	Returns the number of the month that \$param1 is in.	Date \$param1	Number
multiply	Returns the value of the given parameters multiplied together.	Number \$param1, ...	Number
negate	Returns the negated value of \$param1.	Number \$param1	Number
not	Returns true if \$param1 is false, and false if \$param1 is true.	Boolean \$param1	Boolean
now	Returns a Date object representing today's date and the current time.		Date
number	Returns the numeric value of	String \$param1	Number

	\$param1.		
or	Returns true if any given parameters are true.	Boolean \$param1, ...	Boolean
pow	Returns the \$value raised to the power of \$exponent.	Number \$value, Number \$exponent	Number
related	Returns the value of \$field in the related \$module.	Relate \$module, String \$field	Variable
rollupAve	Returns the average value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupMax	Returns the highest value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupMin	Returns the lowest value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupSum	Returns the sum of the values of \$field in records related to \$module.	Relate \$module, String \$field	Number
strlen	Returns the number of characters in \$param1.	String \$param1	Number
strToLower	Returns \$param1 converted to lower case.	String \$param1	Text
strToUpper	Returns \$param1 converted to upper case.	String \$param1	Text
subStr	Returns the portion of \$value specified by \$start and \$length. The position starts at 0.	String \$value, Number \$start, Number \$length	Text
subtract	Returns \$param1	Number \$param1,	Number

	minus \$param2.	Number \$param2	
timestamp	Returns the passed in datetime string as a unix timestamp.		Date
today	Returns a Date object representing todays date.		Date
toString	Returns \$param1 converted to a string.	Generic \$param1	Text
translateLabel	Returns the translated value of \$label for \$module.	String \$label, String \$module	Text
valueAt	Returns the value at position \$index in \$haystack.	Number \$index, List \$haystack	Variable

## Fields

Fields are listed on the bottom right hand corner of the formula builder and contain the fields for the current module. Fields can be referenced in formulas and will start with a \$. To locate the field you need, simply scroll through the list or enter a search criteria to narrow the list.



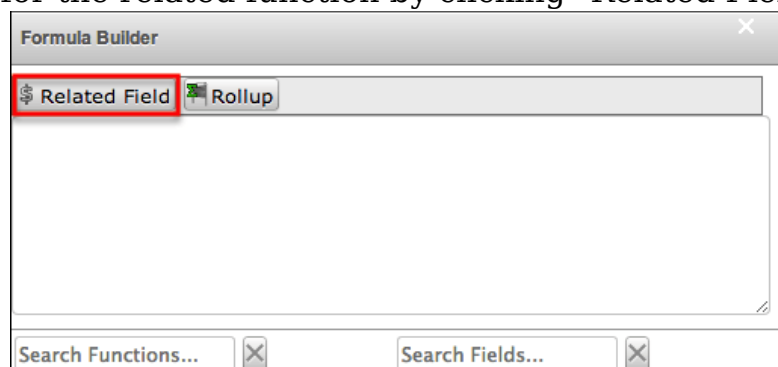
To add a field to the formula, simply click on the field to be added. The variable name for the field will be placed at the end of the formula. You can also type the variable names manually in the formula.

## Related Field

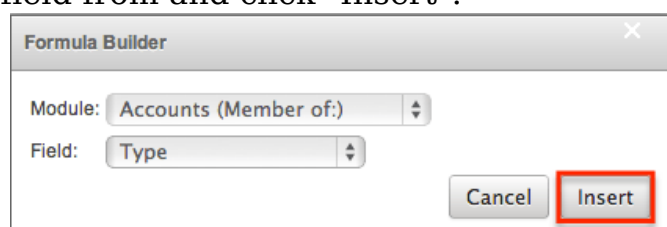
Related fields are available to be added to formulas via the related function. You

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can manually add related function calls to your formula or you can build the syntax for the related function by clicking "Related Field".



This will open a dialog box which will assist in building the syntax to use the related function. Select a module and a field within that module to pull the related field from and click "Insert".

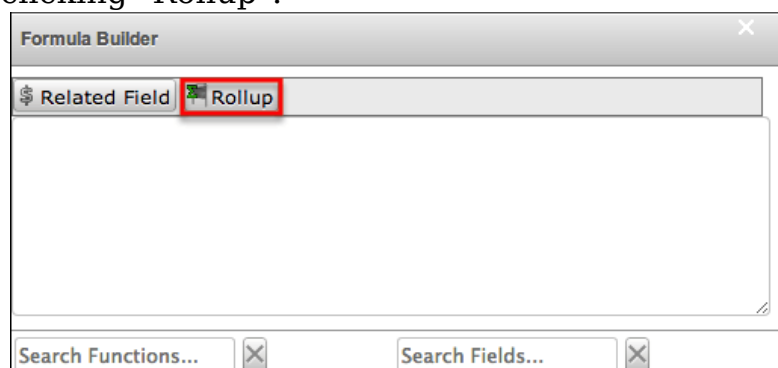


The resulting syntax for the selected options will be added to the formula.

Note: If a record has multiple related records to a module, the related function will pull the field from one of the related records. It is not recommended to rely on the related function to pull the same related records for a many relationship.

## Rollup

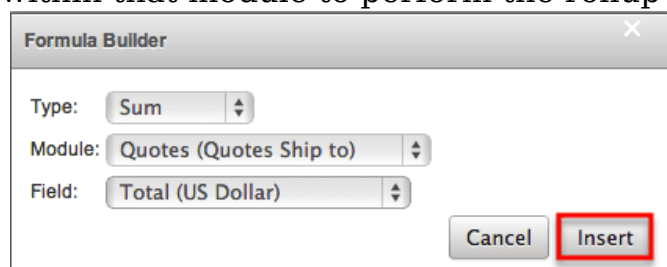
In addition to adding related fields, you can also add aggregate functions on related fields to formulas via the rollup functions. You can manually add rollup function calls to your formula or you can build the syntax for the rollup function by clicking "Rollup".



This will open a dialog box which will assist in building the syntax to use the rollup

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function. Select the type of rollup function (Sum, Average, Minimum, or Maximum) to perform on the module field. To perform a count of related records, please refer to the count function listed in the [Functions](#) section. Select a module and a field within that module to perform the rollup function on and click "Insert".



The resulting syntax for the selected options will be added to the formula.

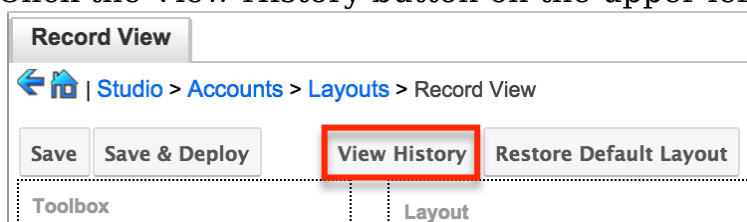
Note: Rollup functions can only aggregate number type fields.

## Viewing Layout History

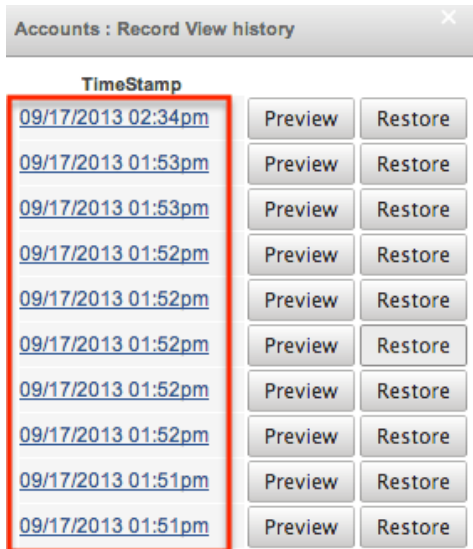
Layouts, subpanels, and mobile layouts in Studio keep a history of the last ten changes made to the specific layout. To view the history for any of these layouts, simply select "View History" from the Record View (for Sidecar modules), List View, Edit View (for Legacy modules), etc. layout in Admin > Studio.

The following steps cover viewing the layout history for the Record View layout as an example:

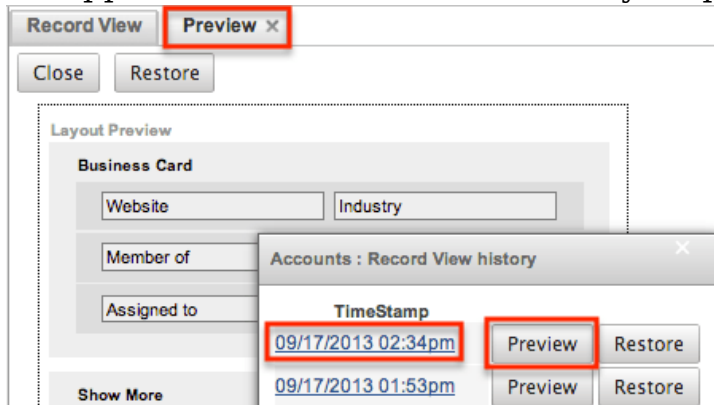
1. Navigate to the [Record View](#) layout in Admin > Studio.
2. Click the View History button on the upper left of the layout editor.



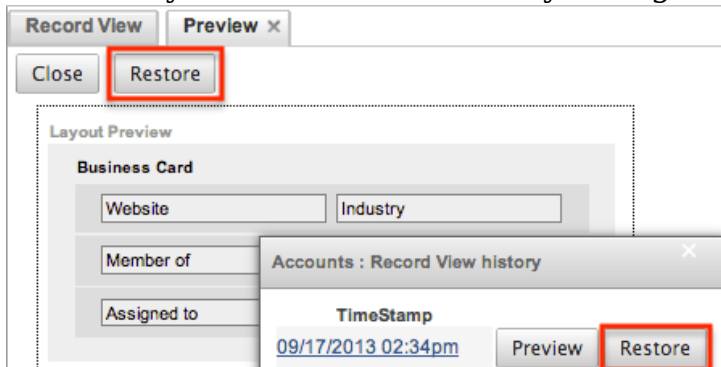
3. The History dialog box will appear showing the timestamps of the last ten saves to the selected layout.



- Click the timestamp or Preview button and a preview of the modified layout will appear in a new tab of the main layout panel.



- To restore a specific layout per the history, click the Restore button within the Preview layout or from the History dialog box.



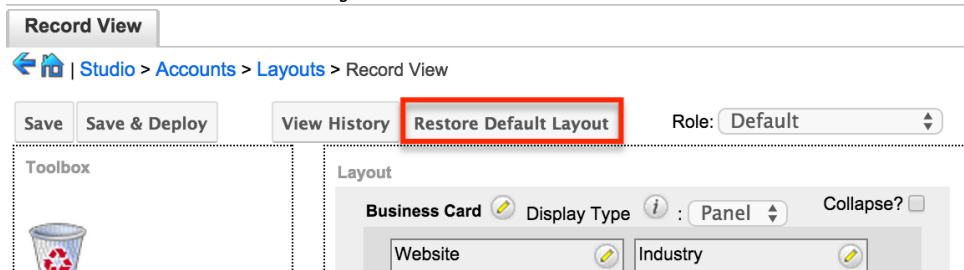
The chosen Record View layout will load into the editor and you may make appropriate changes to the layout as you wish. Click "Save" to preserve your changes or "Save & Deploy" to preserve your changes and deploy immediately.

## Restoring Default Layouts

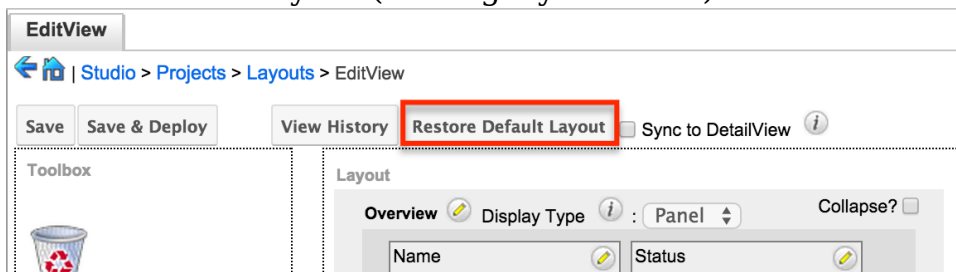


Various layouts in Studio can be restored back to the default out-of-the-box configuration, which will revert all changes made to the specific layout (e.g. list view, record view, etc.). To restore the default layout, simply click the Restore Default Layout button from the Record View (for Sidecar modules), List View, Edit View (for Legacy modules ), etc. layout in Admin > Studio.

From Record View layout (for Sidecar modules) :



From Edit View layout (for Legacy modules) :

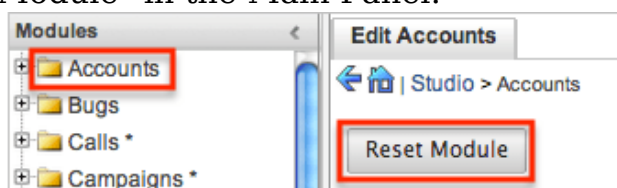


The default layout will load into the editor and you may make appropriate changes to the layout as you wish. Click "Save" to preserve your changes or "Save & Deploy" to preserve your changes and deploy immediately.

Note: When using role-specific record view layouts, the functionality of the Restore Default Layout button changes depending on which the Role dropdown's selection. Please refer to the [Restoring Customized Role-Views to the Default Role-View Layout](#) section for more information.

## Resetting Modules

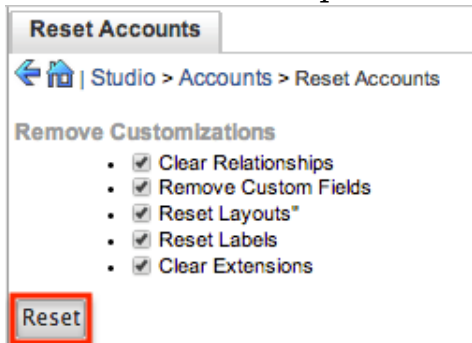
Sugar comes with the ability to reset an entire module back to the default settings. You can also pick and choose which customizations you would like to remove. To reset a module, select the module from the Modules Panel and click "Reset Module" in the Main Panel.



The next screen will give you the following options to remove specific customizations:

- 
- Clear Relationships : Deletes all relationships added via Studio.
  - Remove Custom Fields : Deletes all fields added via Studio.
  - Reset Layouts : Resets the layouts back to the out-of-the-box configuration. You will need to click "Save & Deploy" on edit view and detail view layouts to be able to access the layouts.
  - Reset Labels : Deletes the custom language files located in `./custom/modules/{Module Name}/language/` which sets the labels for the module.
  - Clear Extensions : Deletes any customizations made to stock or custom fields and sets them back to the default. Deletes the module folder located in `./custom/Extension/modules/`.

Select the desired options and click "Reset" to execute the reset.



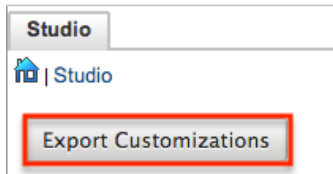
## Exporting Customizations

Sugar allows you to export a module's customized layouts, fields, and field labels from one Sugar instance to import into another Sugar instance. To do this, you will need to package the customizations in Studio, export it to your local machine, and then upload it into another Sugar instance. The system applies the customizations to the appropriate layouts, fields, and field labels.

Note: Safari users will need to change the default browser setting to disable automatic unzipping of files to ensure that exported packages install properly in Sugar. Navigate to Safari > Preferences > General and uncheck "Open 'safe' files after downloading" to disable the setting.

Use the following steps to export you customizations via Studio:

1. From the Studio home page, select "Export Customizations" in the main panel.



2. Enter appropriate values in the following fields. All required fields are marked with a red asterisk and must be completed prior to saving.

- Package Name : Enter the name of the package to be displayed during installation.
- Author : Enter the name of the author creating the package to be displayed during installation.
- Description : Enter a description of the export to be displayed during installation.
- Select at least one module to include in the customization export and click "Export".

A screenshot of the 'Export Customizations' form in the Studio interface. The 'Export' button is highlighted with a red box. The form contains the following fields:

- Package Name:** 2013-05-21-Accounts Customizations
- Author:** Admin
- Description:** Accounts customizations as of 2013-05-21.  
-Admin

Below the form, there are two checkboxes:

- Accounts: customized field(s), customized field(s), customized layout(s), undefined
- Bug Tracker: customized field(s), customized field(s), customized layout(s)

- The customizations are saved to your computer in a zip file that can be loaded into a different instance of Sugar via the module loader. For more information regarding installing packages, please refer to the [Module Loader](#) documentation.

## Exporting Role-Based Customizations

If you have created role-based [custom record views](#) or [custom dropdown lists](#), these role-based customizations will be included in your exported package. When installing the package on another Sugar instance, you will be given the opportunity to map role-based customizations from the package's roles to the destination instance's roles. Please refer to the [Module Loader](#) documentation for more information.

# Module Builder

## Overview

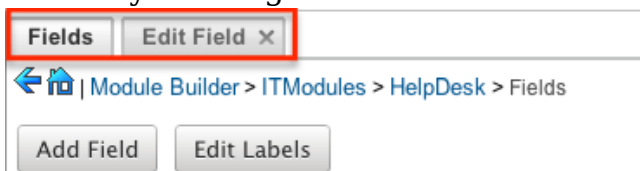
Module Builder enables administrators to create, deploy, and maintain custom modules in Sugar. Modules can be created in Module Builder and then deployed within your instance of Sugar or exported for additional development and deployment to other instances of Sugar. This is convenient for testing new modules and for distributing a module to many different instances. Please note that only users with administrator or developer access can create and manage custom modules via Admin > Module Builder. This documentation will cover how to use Module Builder as well as the various actions and options available from within Module Builder.

## Navigation

Sugar's Module Builder is divided into three main sections which consist of the main panel, packages panel, and footer. You can easily create, access, and manage the custom modules via the main panel and Packages panel. The footer of Module Builder allows you to access different areas (e.g. Studio, Dropdown Editor) of the Developer Tools section by clicking the corresponding buttons at the bottom of the page.

## Main Panel

The main panel in Module Builder is where you can create a new package, access existing packages, deploy a package, etc. As you create and configure the module(s) within the package, the various sections (e.g. layouts, fields, etc.) you access will open inside tabs on the main panel. Additional tabs that open up can be closed by clicking the "X" within the tab.



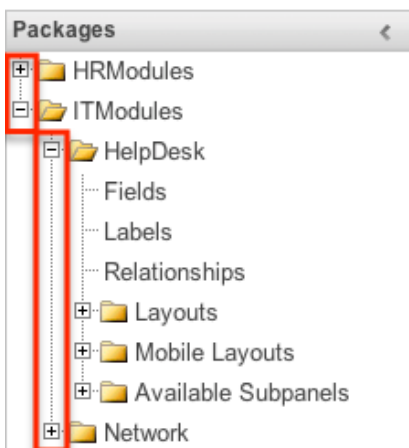
The main panel also displays the breadcrumbs bar showing where in Module Builder you currently are. You can navigate to a specific section by clicking the link within the breadcrumb bar.



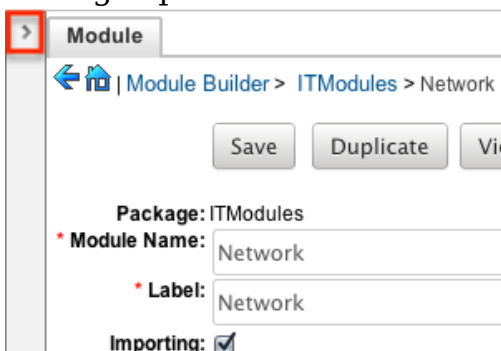
To go back to the previous page you were viewing, click the Left arrow on the breadcrumbs bar. Clicking the Home icon will navigate you back to the Developer Tools home page.

## Packages Panel

The Packages panel is located to the left of the main panel and displays a list of existing packages and associated custom modules that are accessible via Module Builder. The custom modules are grouped under a package and the fields, layouts, subpanels, etc. specific to each module appear when you expand out the tree for the module.



Select an item in the Packages panel to load it into the main panel. Please note that if you do not see the Packages panel, it may be collapsed. Simply locate the gray bar to the left of the main panel and click the Right arrow to expand the Packages panel.

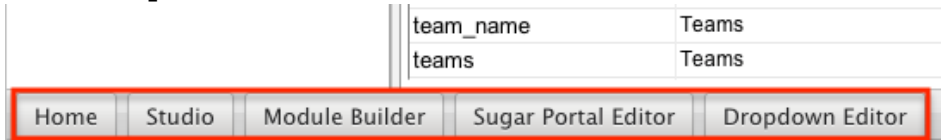


## Footer

The footer is located on the bottom left of Module Builder and displays buttons

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which enable you to navigate to the different areas (Studio, Dropdown Editor, etc.) of Developer Tools.



The options in the footer allow you to navigate to the following locations:

Menu Item	Description
<a href="#">Home</a>	Navigates to the home page of Developer Tools
<a href="#">Studio</a>	Navigates to the home page of Studio
Module Builder	Opens Module Builder to create and manage custom modules
<a href="#">Sugar Portal Editor</a>	Opens the Sugar Portal Editor to configure the Portal
<a href="#">Dropdown Editor</a>	Opens the Dropdown Editor to create and edit dropdown lists

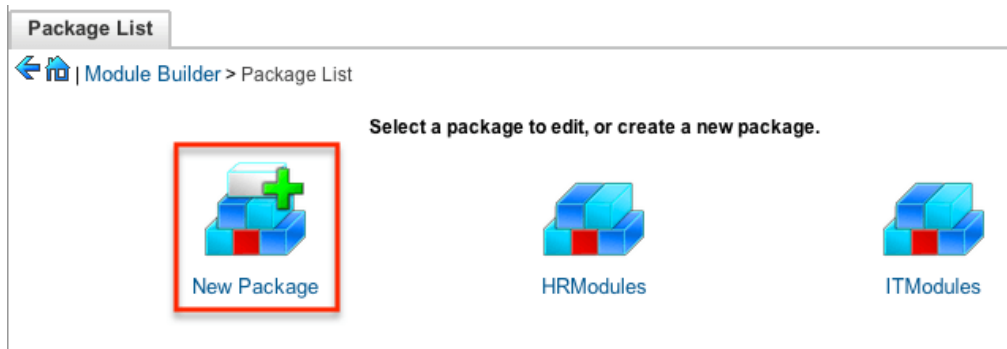
## Packages

Packages in Module Builder allow you to create and house multiple modules of different types. Please note that a package must first be created in order to create a custom module via Module Builder. While packages can be useful to group similar or dependent modules together to ensure they are deployed together, it is generally recommended that a separate package be created for each module. This can help prevent potential issues down the road since if you ever need to uninstall a module and it is part of a larger package, then all modules in that package must be uninstalled. Keeping modules isolated to their own package allows greater flexibility in the future if a module is no longer needed.

### Creating Packages

Use the following steps to create a new package via Module Builder:

1. Navigate to the Module Builder's main panel and click "New Package".



2. Enter appropriate values for the following fields:

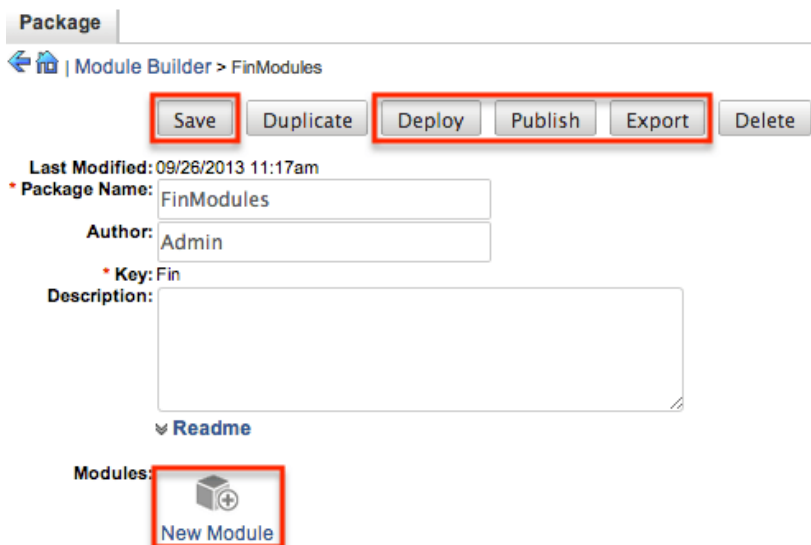
- Package Name : The name or designation of the package. The package name is what displays in the Packages panel and in Module Loader when installing packages.
- Author : The author who is creating the package. The author displays in Module Loader when installing packages.
- Key : The key is an alphanumeric text to distinguish modules with similar names. The system will prefix all class names, directories, and table names with this key.
- Description : A description or other information about the package.
- Readme : Click "Readme" to display an open text box where you can enter additional information about the package or modules contained in the package.
- Note: All required fields are marked with a red asterisk and must be completed prior to saving.

3. Once the necessary information is entered, click "Save".

## Deploying Packages

Once the package is created and saved, you can create custom modules by clicking the New Module icon. Please note that the package must contain at least one module in order to properly publish and deploy the package, as well as export the

customizations. There are various options (e.g. deploy, publish, export, etc.) available when viewing the package which allow you to perform various actions.



The Package options allow you to perform the following operations:

Action	Description
Save	Click "Save" to preserve any changes made to the Package details (Package Name, Author, etc.).
Deploy	<p>Installs the package into the current instance. Any modules in the package will be created or updated in the current instance.</p> <p>Note: Do not re-deploy a package once deployed from Module Builder as any workflows, code-level customizations, or changes made through Studio for the custom modules will be lost. It is recommended that module packages be deleted from Module Builder after a successful deploy to avoid an accidental re-deploy. Please use Studio to perform any additional configurations to your module once deployed.</p>
Publish	<p>Saves the package into an installable zip file containing all customizations. Upload the file via Module Loader to install the package into a different instance.</p> <p>Note: Packages developed on Enterprise editions of Sugar can only be installed</p>



	on instances running Enterprise editions of the same version.
Export	<p>Saves the package into an importable zip file containing all customizations. Upload the file via Module Loader to view the package in Module Builder on a different instance where it can then be further developed and deployed.</p> <p>Note: Packages developed on Enterprise editions of Sugar can only be installed on instances running Enterprise editions of the same version.</p>

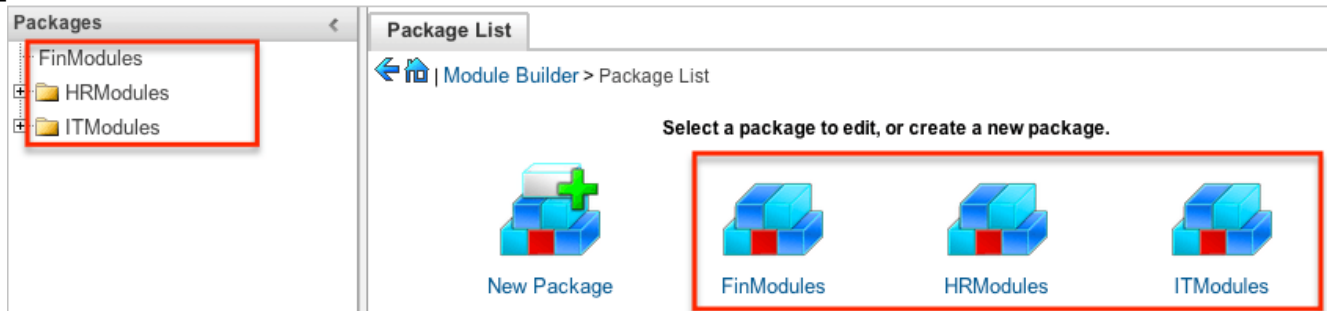
## Deleting Packages

If a package is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from Module Builder. Please note that deleting a package will delete all files contained in the package, but will not remove the package from any instance where the package was deployed. For more information on how to uninstall a deployed package from an instance, please refer to the [Module Loader](#) documentation in the Administration guide.

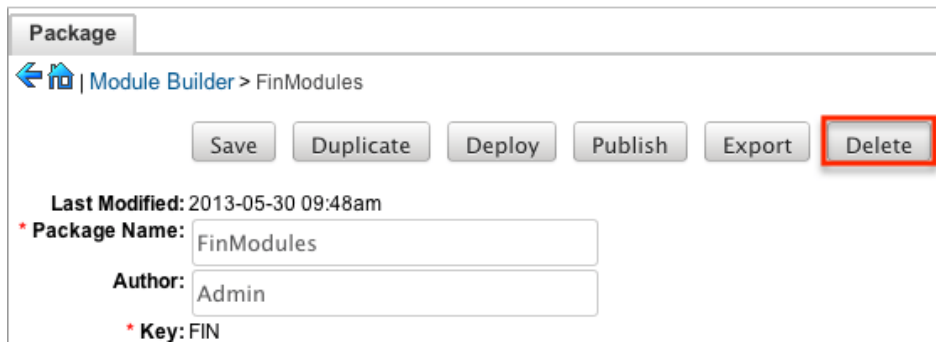
Note: We recommend deleting packages from Module Builder after they have been deployed in a production instance to prevent it from accidentally being re-deployed. The only exception to this rule is in a development environment as you may want to continue working and testing until you are ready to move the module to your production environment.

Use the following steps to delete a package via Module Builder:

1. Select the desired package from either the Packages panel or from the main panel.



2. Click "Delete" to remove the package.



3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Modules

Various types of modules can be created and configured within the package in Module Builder. Although multiple custom modules can be created in a package, it is generally recommended that only one module be created per package. This will help prevent potential issues down the road and allow greater flexibility in the future if a module is no longer needed.

Note: Activity streams are not available for custom modules.

## Module Types

Module Builder comes with a few predefined module templates for creating modules. Select the module type that best fits your organization's use of the new module and then customize the module to further fit your needs.

The following module types are available by default in Module Builder:

Type	Description
Basic	Generic module with only the most basic fields defined by default. All other module types build on top of the basic module type.
Company	Contains fields designed for company, account, or organization type records. Includes billing and shipping addresses, email address, phone numbers, industry, website, and more.
File	Contains fields designed for file upload or document records. Includes category, expiration date, status, filename, and more.

Issue	Contains fields designed for bug, issue, or case record types. Includes issue number, status, priority, work log, and more.
Person	Contains fields designed for people, contacts, or lead records. Includes first and last name, primary and alternate addresses, email addresses, phone numbers, and more.
Sale	Contains fields designed for sales, transactions, or opportunities. Includes, amount, currency, probability, sales stage, and more.

## Module Options

When creating modules in Module Builder, the following options are available to complete when setting it up:

- **Module Name** : The name (e.g. HelpDesk) or designation of the module. The module name is what displays in the Packages Panel as well as in Studio after deploying.
- **Plural Label** : The plural label (e.g. HelpDesks) for the module name. The label is what displays when using the module within Sugar.
- **Singular Label** : The singular label (e.g. HelpDesk) for the module name. The label is what displays when using the module within Sugar.
- **Importing** : Select this option to enable importing for the module.
- **Team Security** : Select this option to enable team security for the module. If this option is unchecked, records in this module will not be assigned to a team and will be restricted by roles only. For more information on teams and roles, please refer to the [Team Management](#) and [Role Management](#) documentation in the Administration guide.
- **Navigation Tab** : Select this option to add the module and module actions to the navigation bar.
- **Type** : Select the module type to use as a template when building the module. Each module type includes a list of stock fields by default which can be added and removed in the layout as necessary. Please note that the module type can only be selected when initially creating the module. For more information regarding the module types, please refer to the [Module Types](#) section of this documentation.

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## Creating Modules

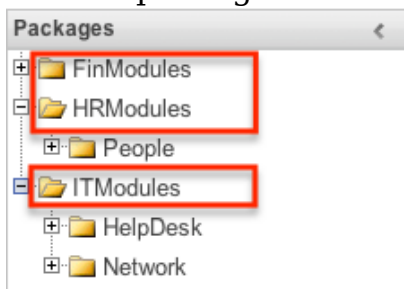
While you have the option to create multiple types of modules within a package, it is generally recommended that only one module be created per package. Doing so will help prevent potential issues down the road and allow greater flexibility in the future if a module is no longer needed.

### Creating Modules Via Package

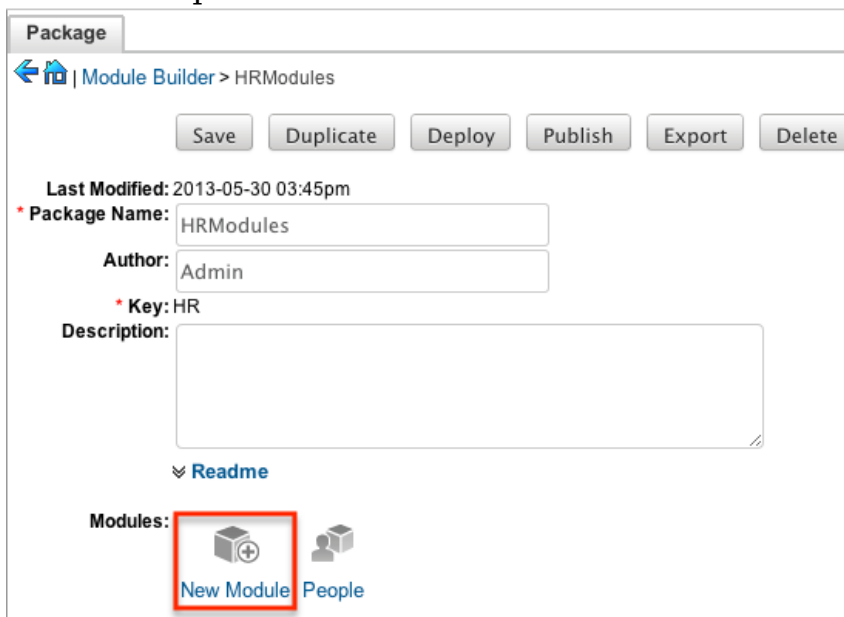
One of the most common methods of module creation is via the New Module option in the package. When the New Module icon is selected, it opens up the New Module screen which allows you to enter in the module's details (e.g. name, label, etc.) as well as select the module type you wish to use as a template.

Use the following steps to create a custom module in the package:

1. Select a package from the Packages Panel to create a new module.

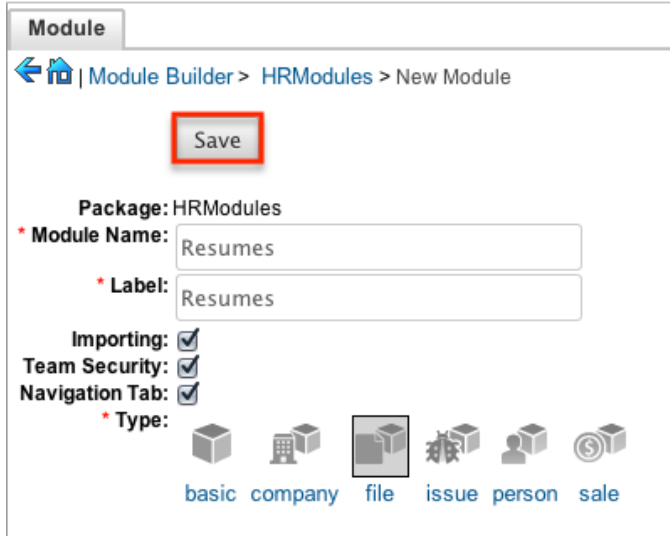


2. In the main panel select "New Module".



3. Enter the appropriate values for the [Module options](#). All required fields are marked with a red asterisk and must be completed prior to saving.
4. Select a module type (e.g. file) to use as a template when configuring your module.

5. Once the necessary information is entered, click "Save".

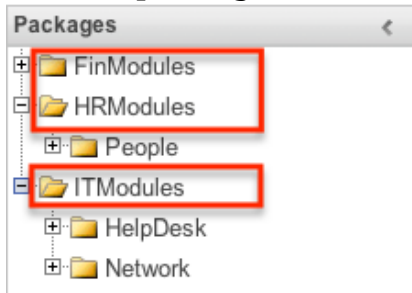


## Creating Modules Via Duplication

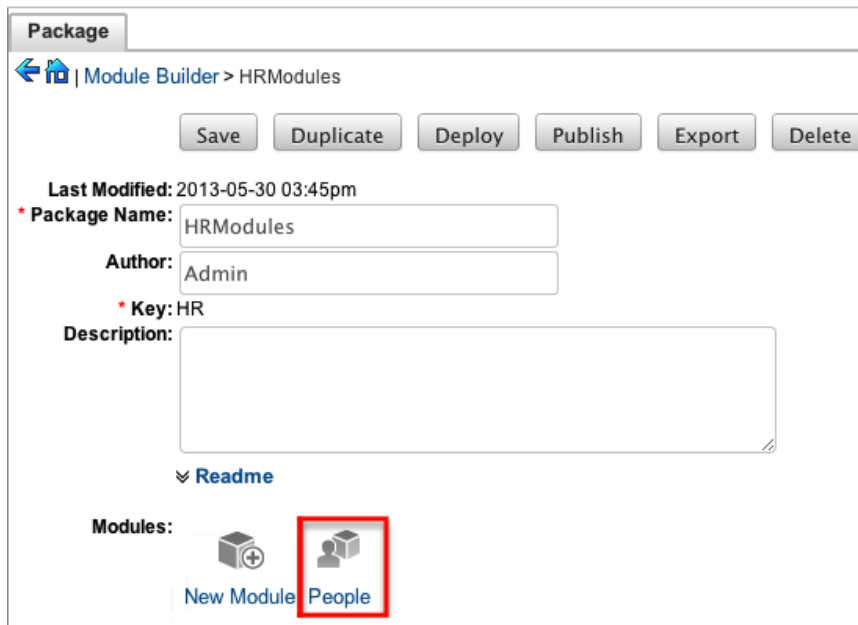
You can also create a new module by duplicating an existing module within a package. The duplicate option is useful if the module you are creating has similar information or structure to an existing module.

Use the following steps to create a module by duplicating an existing module:

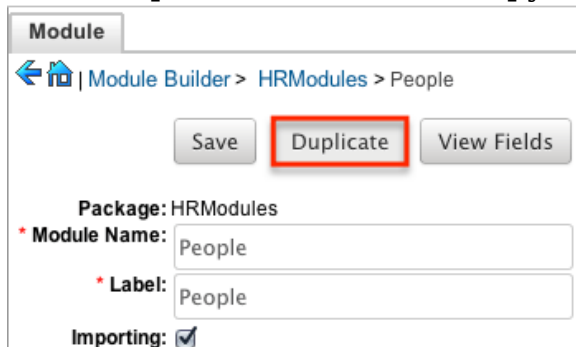
1. Select a package from the Packages panel to create a new module.



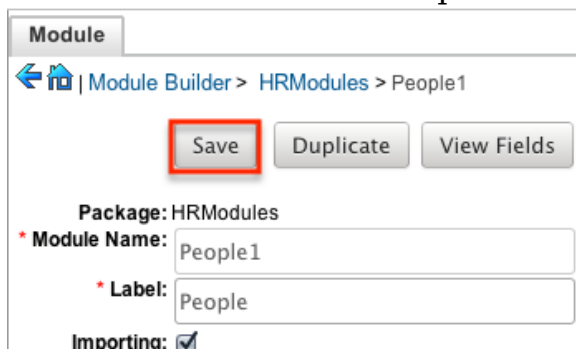
2. In the main panel, select a module to duplicate.



3. Click "Duplicate" to create a copy of the module.

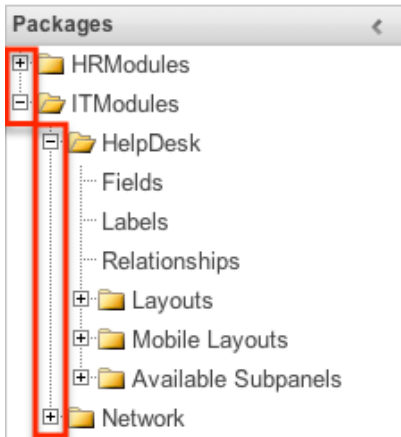


4. The selected module is duplicated to a new module with a "1" appended at the end of the module name. Update the necessary fields, then click "Save".



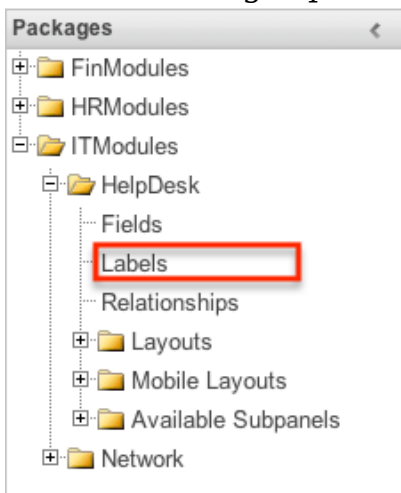
## Modifying Modules

The associated fields, labels, layouts, subpanels, etc. for each module can be modified within each package. Click the plus sign (+) preceding the module name to expand the module and view the associated items (e.g. Layouts, Fields, etc.). Selecting the module from the Packages panel will load the view into the main panel. You can modify the [Module options](#) for the selected module via this page.

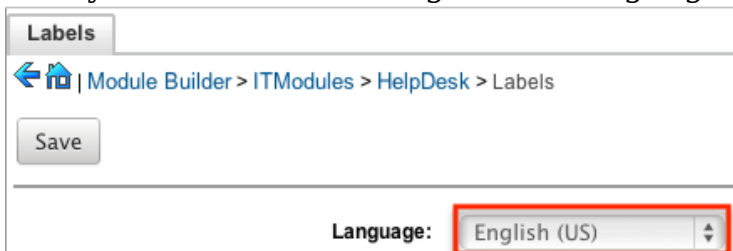


## Modifying Labels

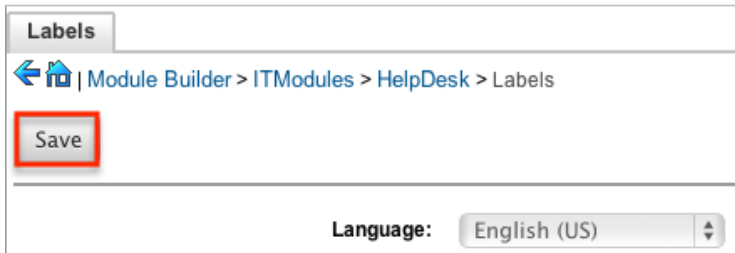
Labels are used throughout Sugar for items like buttons, field headers, subpanel titles, error messages, and more. To modify the labels for a module, select "Labels" from the Packages panel under the desired module.



The Labels tab will open up in the main panel where you can change the names for specific labels associated to the module. Please note that you can also define the primary language to use per the language packs currently installed in Sugar when changing the labels. Select the desired language from the dropdown to view and modify the labels according to that language.

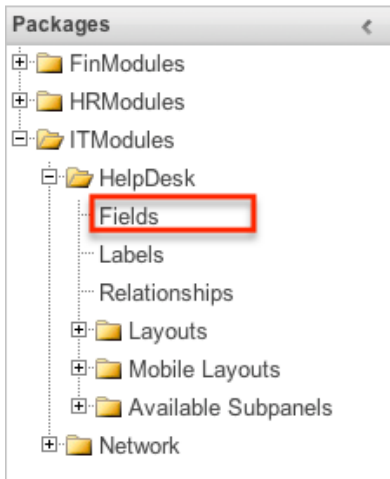


Modify the labels for the selected language and click "Save" to preserve your changes.



## Fields

The Fields section in Module Builder allows administrators to create new fields as well as change properties on existing fields within a module. To access the Fields section in Module Builder, select "Fields" from the Packages panel under the desired module and the view will open up in the main panel to the right.



## Field Types

The Fields section for each module contains a number of stock fields which come out-of-the-box with Sugar. Please note that each data type has various options and properties available to configure.

The following data types are available to be added to modules in Module Builder:

Data Type	Description
Address	Creates fields for street, city, postal code, state, and country. Note: Custom address fields cannot be grouped together like the stock address fields.
Checkbox	Creates a checkbox for data fields with a Yes/No action.



Currency	Creates a field to enter a currency value. The system automatically creates a dropdown of the currency type if the field does not already exist in that module.
Date	Creates a field to enter a date. Includes a button for a calendar popup.
DateTime	Creates a field to enter the date and time. Includes a button for a calendar popup as well as dropdowns for the time.
Decimal	Creates a field to hold a number rounded to a specified decimal precision. Sugar stores the exact representation of the number in the database (e.g. For a precision of 2: 1.236 is stored as 1.24).
DropDown	Creates a field that you can associate with a dropdown list of values.
Encrypt	Creates a field for sensitive information, such as social security numbers, whose value is to be encrypted in the Sugar database. The value is encrypted in the database but is visible in the user interface to users.
Float	Creates a field to hold a number rounded to a specified decimal precision. Sugar stores the value differently based on the database platform Sugar is running on.
HTML	Creates static HTML-formatted text to display in record views.
IFrame	Creates a field to store or generate a URL to display an iFrame in record views.
Image	Creates an image field to upload an image to display on a record.
Integer	Creates a field to specify positive or negative numbers with no decimal places.
MultiSelect	Creates a dropdown list of values where multiple values can be selected at once.

Flex Relate	Creates a dropdown list from which you can relate a single record from a variety of modules. Only one Flex Relate field is allowed per module. If the module already has a Flex Relate field, this option does not display in the Data Type dropdown list.
Phone	Creates a field to enter a phone number.
Radio	Creates a radio button for a user to select one value from a dropdown list.
Relate	Creates a field to associate a record with another module's record as a one-way relationship. You can add multiple Relate fields to a module. Note: Relate fields and custom relationships are independent of each other. Changes made to either one are not reflected in the other. Relate fields can be added to a report, but any data on the related record cannot be accessed in the report. To access related record data in a report you will need to create a custom relationship.
TextArea	Creates an open text area field for multiple lines of text.
TextField	Creates a field for a single line of text.
URL	Creates a field to store or generate a URL and display as a link.


### Field Options

Fields provide ways to store different data types in Sugar. While many fields come out-of-the-box with Sugar by default, there can be instances where your organization needs to store additional data.

When creating or modifying fields via Module Builder, there are some properties that exist across all field types, and there are some that are unique to only a few types.

The following field properties and options are available in Sugar:

- **Audit** : Select this checkbox to audit the field for changes made in Sugar.
  - Users can view the changes made to audited fields via the View Change Log option in the module's record view (for Sidecar modules).
  - Note: The Audit option is available for all data type fields.
- **Boost value** : Enter a boost value for the field to enhance the relevancy of the field for full text search.
  - The default boost value is 1.0 which indicates a neutral boost. To apply a positive boost, set the boost value higher than 1. To apply a negative boost, use values lower than 1. For example, a value of 1.35 will positively boost a field by 135%. But using a value of 0.60 will apply a negative boost.
  - Note: It is not necessary to perform a full system index when boost values are changed for fields.
- **Border** : Select this checkbox to add a border around the image for this field.
  - Note: The Border option is only available for Image data type fields.
- **Calculated Value** : Select this checkbox to designate this field as a calculated field.
  - This opens up the Formula option and disables the Default Value and Importable options. For more information regarding entering a formula for a calculated value, please refer to the Formula option listed in this section.

Calculated Value:  

Formula:

- The result of the formula will be entered into the field for any new or modified records. When selecting this option, the field value cannot be modified by users.
- Note: The Calculated Value option is only available for the following data type fields:

Checkbox	Currency
Date	Datetime
Decimal	Encrypt
Float	Integer
Phone	TextArea
TextField	

**Columns** : Enter the number of columns to specify the width of a TextArea data type field.

- Note: The Columns option is only available for TextArea data type fields.

**Comment Text** : Enter a comment or description about the field. The comment text is only viewable via Module Builder and Studio.

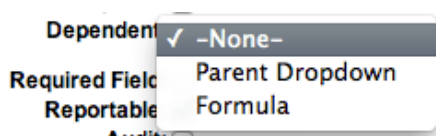
- Note: The Comment Text option is available for all data type fields except Flex Relate.

Default Value : Specify or select a default value for this field when a record is created. Default values for the record are populated by default on the record view layout, but can be modified by users.

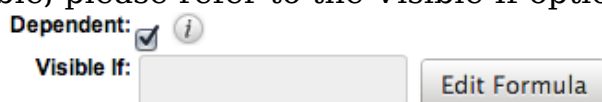
- Note: The Default Value option is available for all data type fields except HTML, Image, Flex Relate, and Relate.

Dependent : Select this option to designate this field as being dependent on a formula or a parent dropdown.

- For DropDown data type fields you can select "Parent Dropdown" or "Formula" for the dependency.



- Selecting "Parent Dropdown" will open the Parent Dropdown option as shown below. Selecting "Formula" will open the Visible If option to create a dependency formula. For other field data types (e.g. Date), select the Dependent checkbox to open the Visible If option. For more information regarding entering a formula to make a dependent field visible, please refer to the Visible If option listed in this section.



- Note: The Dependent option is available for all data type fields except Address.

Disable Format : Select this checkbox to disable number formatting such as the thousands separator.

- Note: The Disable Format option is only available for Integer data type fields.

Display Label : Enter a value to display as the field label and header in layouts. Normally defaults to the Field name entered when creating the field.

- This value is also modifiable in the packages panel under [Labels](#).
- Note: The Display Label option is available for all data type fields except Flex Relate. Flex Relate uses the Label Value option.

Drop Down List : Select a list of values to associate to the field.



- Only values in the chosen list will be available for selection in the field.

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Click "Edit" to change the values for the currently selected list, or click "Add" to create a new list.

- Note: The Drop Down List option is only available for the DropDown, MultiSelect, and Radio data type fields. For more information on editing dropdown values via the Dropdown Editor, please refer to the [Editing Dropdown Lists](#) section of the Developer Tools documentation.

Duplicate Merge : Select one of the following options to determine the field's functionality when records are being merged:

- Disabled : Selected by default. The field will not appear in the Merge Duplicates feature and will not be available to use for the filter conditions in the Find Duplicates feature.
- Enabled : The field will appear in the Merge Duplicates feature, but will not be available to use for the filter conditions in the Find Duplicates feature.
- In Filter : The field will appear in the Merge Duplicates feature, and will also be available in the Find Duplicates feature.
- Default Selected Filter : The field will be used for a filter condition by default in the Find Duplicates page, and will also appear in the Merge Duplicates feature.
- Filter Only : The field will not appear in the Merge Duplicates feature, but will be available in the Find Duplicates feature.
- Note: The Duplicate Merge option is available for all data type fields except Image.

Field Name : Enter the name of the field being created. Once a field has been created, the field name cannot be changed.

- Field names can contain only alphanumeric characters as well as the underscore character.
- Note: The Field Name option is required for all data type fields.

Full Text Searchable : Specify whether or not the field should affect Global Search results.

- Disabled : Select "Disabled" if you do not want this field to be captured when the database is indexed for searches. Search indices collect the values of searchable fields for evaluation by the Global Search.
- Searchable : Select "Searchable" to include this field's value in search indexes.
  - Selecting "Searchable" will reveal the Boost value field, which allows you to set a relevance weight for searches. When a user's search query matches the value of a field with a higher boost level, the record will appear higher in the search results. For more information regarding boost values in Full Text Search, please refer to the [Search](#) documentation in the Application guide.
  - Note: The Full Text Searchable option is only available for the

---

following data type fields:

Phone	TextArea
TextField	URL

Formula : Contains the current formula to return a calculated value.

- Click "Edit Formula" to launch the formula builder and change the formula. For more information on how to build a formula using the formula builder, please refer to the [Using Sugar Logic](#) section of this documentation.

Calculated Value:  ⓘ  
Formula:

- Note: The Formula option is only available when the Calculated Value option is selected.

Generate URL : Select this checkbox to allow variables from the current module to be placed into the Default Value option for creating dynamic URLs.

Generate URL:   
   
Default Value:

- This is useful for providing links or iFrames to internal systems such as an ERP or to external systems such as Google Maps.
- Select the desired field to add from the dropdown and click "Insert Field" to add the field to the Default Value. When selecting this option, the field value cannot be modified by users.
- Note: The Generate URL option is only available for IFrame and URL data type fields.

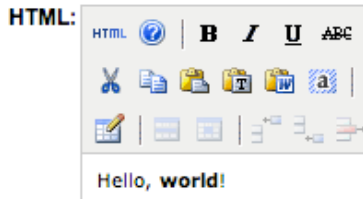
Height : Enter the number of pixels to vertically scale the image for this field. Enter only the Width or Height options to retain the aspect ratio of the image.

- Note: The Height option is only available for Image data type fields.

Help Text : Enter in basic instructions for populating this field. The text entered here will display when users hover their mouse on the field in record view.

- Note: The Help Text option is available for all data type fields.

HTML : Enter in static rich text with formatting or HTML code to display on a record. For more information on how to use the text editor please refer to the



- Note: The HTML option is only available for HTML data type fields.

**Iframe Height :** Enter the number of pixels for the height of the IFrame field. The width of the IFrame field is always the width of the field container.

- Note: The IFrame Height option is only available for IFrame data type fields.

**Importable :** Select one of the following options to determine the field's functionality when records are being imported:

- Yes : The field can be included in an import operation.
- No : The field cannot be included in an import.
- Required : A value for the field must be provided in any import.

**Label Value :** Enter a value to display as the field label and header in layouts. This value is also modifiable in the packages panel under [Labels](#). Defaults to "Flex Relate".

- Note: The Label Value option is only available for Flex Relate data type fields.

**Mass Update :** Select this checkbox to add this field as an option to mass update.

- Note: The Mass Update option is only available for the following data type fields:

Date	Datetime
DropDown	MultiSelect
Radio	

**Max Size :** Enter the maximum amount of characters allowed for this field. Defaults to 255.

- Note: The Max Size option is only available for the following data type fields:

Address	Decimal
Float	IFrame
Integer	Phone
URL	TextField

---

Max Value : Enter the highest value allowable for this field. If a user enters a higher value in the field than the specified value, a notification will appear upon save informing them of the set maximum value.

- Note: The Max Value option is only available for Integer data type fields.

Min Value : Enter the lowest value allowable for this field. If a user enters a value in the field that is lower than the specified value, a notification will appear upon save informing them of the set minimum value.

- Note: The Min Value option is only available for Integer data type fields.

Module : Select a module from the dropdown to relate to the current module.

- A module can relate back to itself, a good example of this would be a relate field on Contacts to relate back to Contacts for a referred by field. This will allow users to select which contact record referred a different contact. The chosen module cannot be modified once the field is created.

Module:

- Note: The Module option is only available for Relate data type fields.

Open Link In : Select one of the following options to determine how a URL will open:

- New Window : Opens the URL in a new Tab or Window depending on your browser and settings.
- Same Window : Opens the URL in the same window as the record you are currently browsing.
- Note: The Open Link In option is only available for URL data type fields.

Parent Dropdown : Select an option from the dropdown to specify the parent that controls the visibility of this dropdown field.

- The Parent Dropdown option is populated with the other dropdown data type fields in the current module.

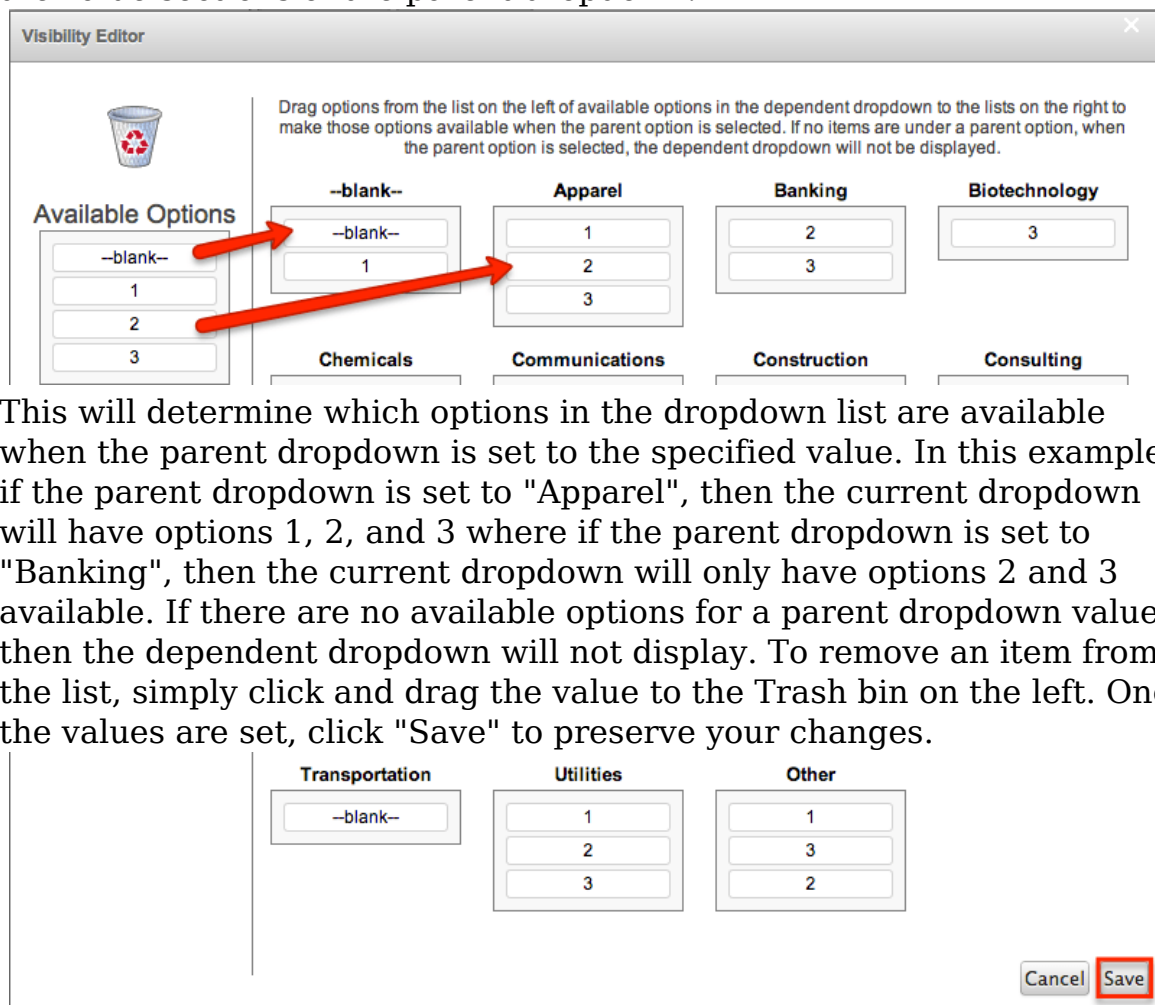
Dependent:

Parent Dropdown:

- Note: The Parent Dropdown option is only available when the Dependent option has "Parent Dropdown" selected.
- Click "Edit Visibility" to specify which options are available from the current dropdown for each value of the parent dropdown. In the



Visibility Editor window, drag values from the current dropdown list to the value sections of the parent dropdown.



- This will determine which options in the dropdown list are available when the parent dropdown is set to the specified value. In this example, if the parent dropdown is set to "Apparel", then the current dropdown will have options 1, 2, and 3 where if the parent dropdown is set to "Banking", then the current dropdown will only have options 2 and 3 available. If there are no available options for a parent dropdown value, then the dependent dropdown will not display. To remove an item from the list, simply click and drag the value to the Trash bin on the left. Once the values are set, click "Save" to preserve your changes.

**Precision :** Enter a number to specify the number of digits to the right of the decimal point the value should be stored as in Sugar.

- Note: The Precision option is only available for Decimal and Float data type fields.

**Reportable :** Select this checkbox to allow the field to be used in reports.

- Note: The Reportable option is available for all data type fields except Encrypt, Flex Relate, HTML, IFrame, and Image.

**Required Field :** Select this checkbox to mark the field as required in Sugar. The user will be required to enter a value for the field before saving the record.

- Note: The Required option is available for all data type fields except Checkbox and HTML.

**Rows :** Enter the number of rows to specify the height of a TextArea data type field.

- Note: The Rows option is only available for TextArea data type fields.

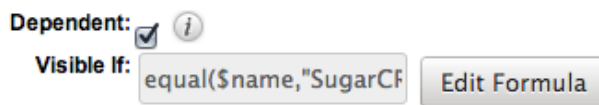
---

System Label : Enter the system value for storing the label of the field. This is defaulted to the name of the field preceded by "LBL". Any lowercase characters entered will be converted to an uppercase upon saving. Once the field has been created, the system label cannot be changed.

- It is recommended that administrators avoid naming fields with the same system label in order to prevent the same label and header values from existing in the system.
- Note: The System Label option is available for all data type fields.

Visible If : Contains the current formula to determine if a field is visible on the layout or not.

- Click "Edit Formula" to launch the formula builder to change the formula.



- The formula must result in a Boolean (true/false) response. For more information on how to build a formula using the formula builder, please refer to the [Using Sugar Logic](#) section of this documentation.
- Note: The Visible If option is only available when the Dependent option is checked or "Formula" is selected from the dropdown.

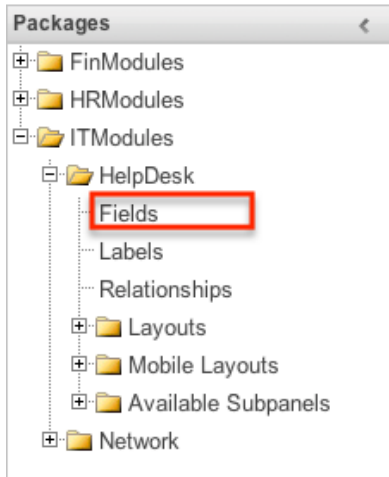
Width : Enter the number of pixels to horizontally scale the image for this field. Enter only the Width or Height options to retain the aspect ratio of the image.

- Note: The Width option is only available for Image data type fields.

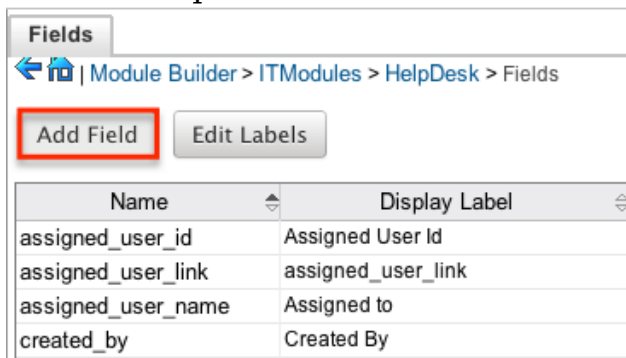
## Creating Fields

Use the following steps to create a new field via Module Builder:

1. Expand out the tree under the desired module in the Packages panel and select "Fields".

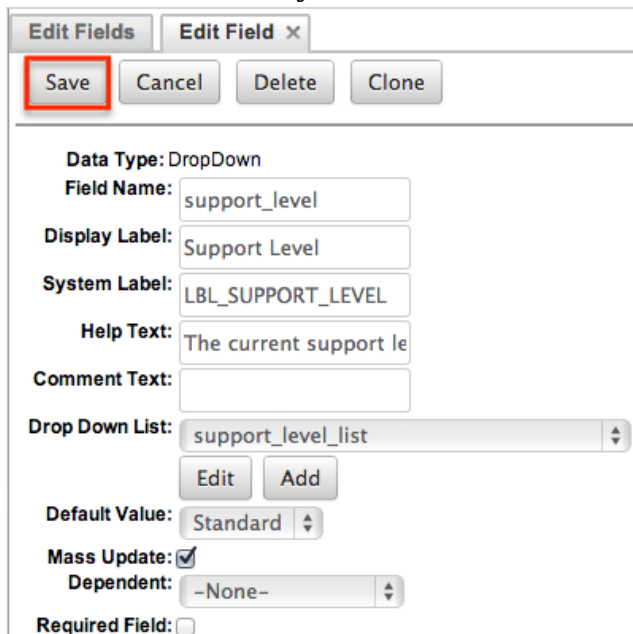


2. In the main panel click "Add Field".



3. Enter appropriate values for the [Field options](#). Please note that Field Name is required.

4. Once the necessary information is entered, click "Save".



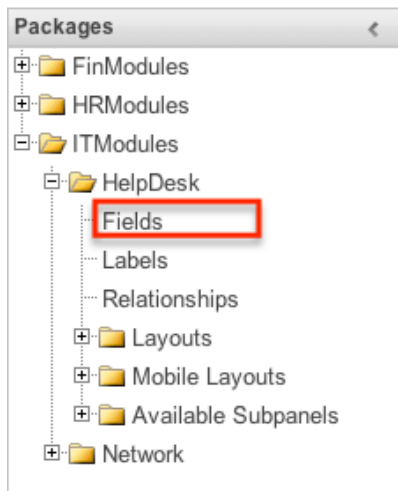
5. Once a field is created it must be placed on the record view layout in order for users to enter data into that field. For more information on editing layouts, please refer to the [Editing Layouts](#) section of this documentation.

---

## Editing Fields

Use the following steps to edit an existing field via Module Builder:

1. Expand out the tree under the desired module in the Packages panel and select "Fields".



2. In the main panel, select a field to edit. Sorting the fields by the column header will help in locating the field faster.
  - o Note: Fields created via Module Builder will display an asterisk (\*) in front of their name.

The screenshot shows the "Fields" panel. At the top, there is a breadcrumb path: "Module Builder > ITModules > HelpDesk > Fields". Below the breadcrumb are two buttons: "Add Field" and "Edit Labels". The main area contains a table with the following columns: "Name", "Display Label", and "Type". The table is highlighted with a red border.

Name	Display Label	Type
assigned_user_id	Assigned User Id	Relate
assigned_user_link	assigned_user_link	Link
assigned_user_name	Assigned to	Relate
created_by	Created By	Assigned_user_name
created_by_link	Created by User	Link
created_by_name	Created By	Relate
date_entered	Date Created	Datetime
date_modified	Date Modified	Datetime
deleted	Deleted	Checkbox
* department	department	TextField
description	Description	TextArea
id	ID	Id
itmp_helpdesk_number	Number	Integer
modified_by_name	Modified By Name	Relate
modified user id	Modified By	Assigned_user_name

3. Update the necessary [Field options](#) and click "Save" once complete.

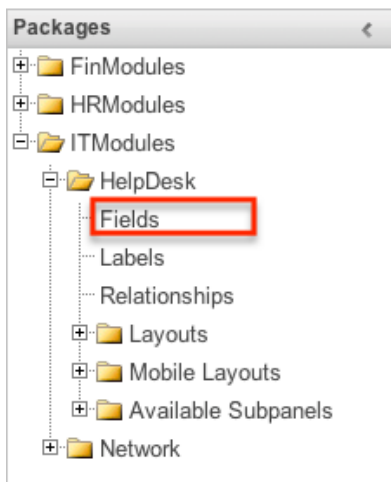
Edit Fields    Edit Field ×  
 Save    Cancel    Clone

Data Type: TextArea  
 Field Name: description  
 Display Label: Description:  
 System Label: LBL\_DESCRIPTION  
 Help Text: Enter in a detailed Des  
 Comment Text: Case details.  
 Rows: 6  
 Columns: 80

## Deleting Fields

Use the following steps to delete an existing field via Module Builder:

1. Expand out the tree under the desired module in the Packages panel and select "Fields".



2. In the main panel, select a field to delete. Sorting the fields by the column header will help in locating the field faster.
  - Fields created via Module Builder will display an asterisk in front of their name.
  - Note: Fields added via the module type template cannot be deleted.

Fields

Module Builder > ITModules > HelpDesk > Fields

Add Field Edit Labels

Name	Display Label	Type
assigned_user_id	Assigned User Id	Relate
assigned_user_link	assigned_user_link	Link
assigned_user_name	Assigned to	Relate
created_by	Created By	Assigned_user_name
created_by_link	Created by User	Link
created_by_name	Created By	Relate
date_entered	Date Created	Datetime
date_modified	Date Modified	Datetime
deleted	Deleted	Checkbox
* department	department	TextField
description	Description	TextArea
id	ID	Id
itmp_helpdesk_number	Number	Integer
modified_by_name	Modified By Name	Relate
modified_user_id	Modified By	Assigned_user_name

3. Select "Delete" to remove the field.

Edit Fields Edit Field x

Save Cancel Delete Clone

Data Type: DropDown  
 Field Name: support\_level\_c  
 Display Label: Support Level  
 System Label: LBL\_SUPPORT\_LEVEL  
 Help Text: The current support le  
 Comment Text:  
 Drop Down List: support\_level\_list

Edit Add

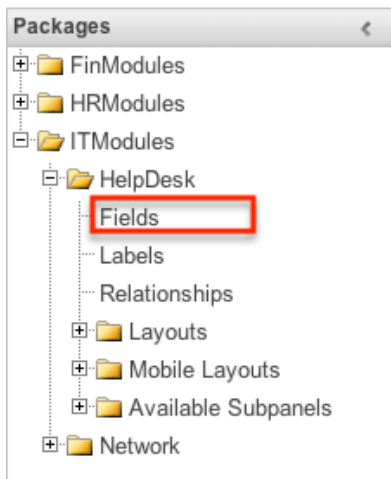
4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.
- o Before deleting a field please verify and resolve the following issues:
    1. Field must be removed from any report filters or displays.
    2. Field must be removed from any workflows that filters or displays the field.
    3. Field must be removed from any dashlet that filters or displays the field.
    4. Field must be removed from any Sugar Logic formulas.
    5. Field must be removed from any email templates.
    6. Field must be removed from any saved searches.
5. The field will automatically be removed from any module layouts when deleted.
- o Note: When deleting fields in a module and re-deploying the package, the data related to the field in the database will not be removed.

---

## Cloning Fields

Use the following steps to clone an existing field via Module Builder:

1. Expand out the tree under the desired module in the Packages panel and select "Fields".



2. In the main panel, select a field to delete. Sorting the fields by the column header will help in locating the field faster.
  - Note: Fields created via Module Builder will display an asterisk (\*) in front of their names.

Name	Display Label	Type
assigned_user_id	Assigned User Id	Relate
assigned_user_link	assigned_user_link	Link
assigned_user_name	Assigned to	Relate
created_by	Created By	Assigned_user_name
created_by_link	Created by User	Link
created_by_name	Created By	Relate
date_entered	Date Created	Datetime
date_modified	Date Modified	Datetime
deleted	Deleted	Checkbox
* department	department	TextField
description	Description	TextArea
id	ID	Id
itmp_helpdesk_number	Number	Integer
modified_by_name	Modified By Name	Relate
modified user id	Modified By	Assigned_user_name

3. Select "Clone" to duplicate the field.
  - Note: Some non-standard stock fields (e.g. Name) do not have the ability to clone.

Edit Fields    Edit Field ×  
 Save    Cancel    Delete    **Clone**

---

Data Type: DropDown  
 Field Name: support\_level\_c  
 Display Label: Support Level  
 System Label: LBL\_SUPPORT\_LEVEL  
 Help Text: The current support le  
 Comment Text:  
 Drop Down List: support\_level\_list  
 Edit    Add

4. Enter appropriate values for the [Field options](#).
5. Once the necessary information is entered, click "Save".

Edit Fields    Edit Field ×  
**Save**    Cancel

---

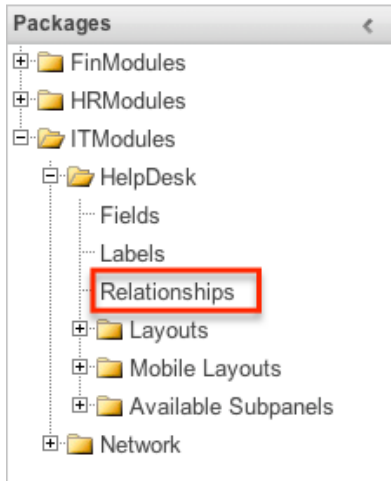
Data Type: DropDown  
 Field Name: secondary\_support  
 Display Label: Secondary Support  
 System Label: LBL\_SECONDARY\_SUPF  
 Help Text: The current support le  
 Comment Text:  
 Drop Down List: support\_level\_list  
 Edit    Add  
 Default Value: Standard  
 Mass Update:   
 Dependent: -None-  
 Required Field:

## Relationships

Relationships define the links between different modules in Sugar and allow records between those modules to be related. Related records display in fields or subpanels on a module's detail page depending on the relationship type. When you create a new relationship between two modules, the system automatically creates the necessary subpanels, related fields, and metadata relationships. Relationships provide the added benefit in reports to allow access to a related records fields in addition to the base module's fields.

The relationships section in Module Builder allows administrators to create new relationships between custom and stock modules as well as change some properties on existing relationships. To access the relationship section in Module Builder, select "Relationships" from the Packages panel under the desired module.





Note: Relationships created through Module Builder cannot be deleted in Studio after being deployed. Due to this, it is recommended that relationships be created in Studio after deploying the module instead of via Module Builder. As best practice, never re-deploy the module from Module Builder as it will remove all customizations made to your module via Studio, code customizations, etc.

#### Relationship Types

Sugar contains a few different types of relationships you can create between modules. The relationship type will determine what fields or tables will be created in the database as well as what interface the user will see to manage the relationship.

The following relationship types are available in Module Builder:

- **One-to-One** : Records in the primary module and the related module are uniquely related to each other. For a one-to-one relationship between Accounts and Contacts, an account can be associated with only one contact and a contact can be associated with only one account. The relationship will show as a field in each module's record view where changing the relationship from either module will also change the value in the other module.  
From the primary Accounts module:

Ac Avery Software Co ★ Follow

Website  
<http://www.avery.com>

Member of

Assigned to  
 Max Jensen

Contacts  
[Donny Milliron](#)

From the related Contacts module:

Co Donny Milliron ★ Follow

Title  
 VP Sales

Department

Account Name  
[Avery Software Co](#)


Note: You can create a one way relationship between modules using relate fields. For more information regarding relate fields, please refer to the [Field Types](#) section of this documentation.

- One-to-Many : Records in the primary module can have relationships with many records in the related module. For a one-to-many relationship between Accounts and Contacts, an account can be associated with many contacts, but each contact can be associated with only one account. The record view of the primary module will display a subpanel for the related module, and the detail view of the related module will display a field containing a link to the related record.

From the primary Accounts module:

Co Contacts	
Name	Account Name
★ <a href="#">Herb Glancy</a>	<a href="#">NW Bridge Con...</a>
★ <a href="#">Donny Milliron</a>	<a href="#">Avery Software...</a>

From the related Contacts module:


Donny Milliron
★ Follow


Title  
**VP Sales**

Department

Account Name  
Avery Software Co


Note: A one-to-many relationship is the same as a many-to-one relationship except the Primary and Related modules are reversed. Adding a custom one-to-many relationship to "Activities" will add custom relationships to calls, meetings, notes, tasks, and emails. This will also automatically add these subpanels to the record view.

- Many-to-Many : Records in both the primary module and the related module can have multiple records related in each module. For a many-to-many relationship between Accounts and Contacts, an account can be associated with many contacts, and a contact can be associated with many accounts. Both module's record view will display a subpanel for the opposite module. From the primary Accounts module:


Contacts

	Name	Account Name
★	<a href="#">Herb Glancy</a>	<a href="#">NW Bridge Con...</a>
★	<a href="#">Donny Milliron</a>	<a href="#">Avery Software...</a>

From the related Contacts module:


Accounts

	Name	Phone
★	<a href="#">Avery Software Co</a>	(320) 013-8679
★	<a href="#">NW Bridge Construction</a>	(265) 634-6785

Note: Only modules with subpanels available can be on the "Many" side of a relationship. For example, the Product Catalog module lacks a subpanel; therefore, Product Catalog can only be selected on the "One" side of a relationship.

When you create a relationship for a module, the selected module is considered to be the primary module and the module that you relate it with is the related module.

You can also create a relationship between a module and itself. In this case, the relationship becomes a parent-child relationship. For example, you can create a relationship from Accounts to Accounts in order to create sub-accounts within the

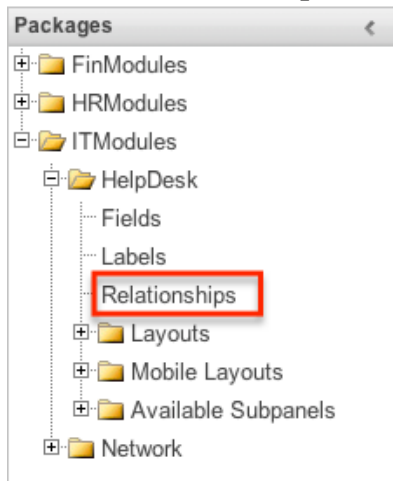
---

primary account.

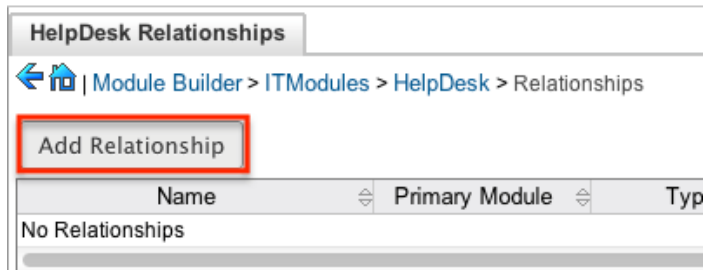
## Creating Relationships

Use the following steps to create a new relationship via Module Builder:

1. Expand out the tree under the desired module in the Packages Panel, and select "Relationships".



2. In the main panel, click "Add Relationship".



3. Enter appropriate values for the following options:  
Type : Select the type of relationship to create from the options in the [Relationship Types](#) section.  
Module : The Primary module is set to the module you are adding the relationship to. Select the Related module from the dropdown. The Primary and Related module can be the same in order to create a parent child relationship.  
Label : Enter a label to reference the Primary module or Related module's subpanels for this relationship. This option is only available for the "Many" side of a relationship.  
Subpanel from : Select a subpanel option to display the Primary or Related module's records in. This will determine the fields displayed in the subpanel. This option is only available for the "Many" side of a relationship.
4. Once the necessary information is entered, click "Save".

HelpDesk Relationships Edit Relationship x

**Save**

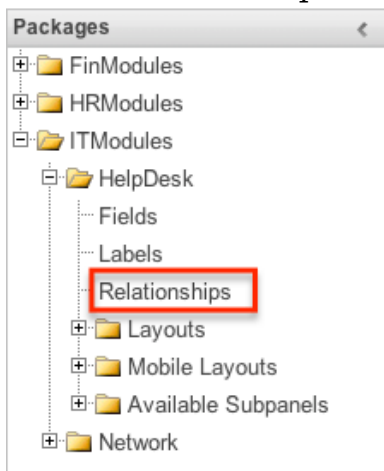
Primary Module		Type	Related Module	
Module:	Help Desk	Many to Many	Module:	Accounts
Label:	Help Desk		Label:	Accounts
Subpanel from Help Desk:	default		Subpanel from Accounts:	default

- The required fields and subpanels are instantly created and saved in the package.

### Editing Relationships

Use the following steps to edit a relationship via Module Builder:

- Expand out the tree under the desired module in the Packages Panel, and select "Relationships".



- In the main panel, select a relationship to edit. Click the column headers to sort the grid by different columns to assist in locating the relationship.

HelpDesk Relationships

[Module Builder](#) > [ITModules](#) > [HelpDesk](#) > Relationships

Name	Primary Module	Type	Related Module
itmp_helpdesk_accounts	Help Desk	Many to Many	Accounts
itmp_helpdesk_hr_people	Help Desk	One to Many	Person

- The only editable field on a relationship is the Label field for naming the Primary or Related module subpanels. Please note that this option is only

available for the "Many" side of a relationship.

- Once the necessary information for the Label field is entered, click "Save".

HelpDesk Relationships Edit Relationship x

Save Cancel Delete

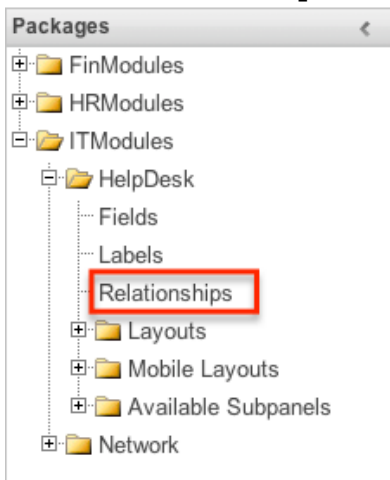
Name: itmp\_helpdesk\_hr\_people

Primary Module	Type	Related Module
Module: Help Desk	One to Many	Module: Person
		Label: Employee
		Subpanel from Person: default

### Deleting Relationships

Use the following steps to delete a relationship via Module Builder:

- Expand out the tree under the desired module in the Packages panel and select "Relationships".



- Select a relationship to delete in the main panel. Click the column headers to sort the grid by different columns to assist in locating the relationship.

HelpDesk Relationships

Module Builder > ITModules > HelpDesk > Relationships

Add Relationship

Name	Primary Module	Type	Related Module
itmp_helpdesk_accounts	Help Desk	Many to Many	Accounts
itmp_helpdesk_hr_people	Help Desk	One to Many	Person

- Click "Delete" to remove the relationship.

HelpDesk Relationships Edit Relationship x

Save Cancel **Delete**

Name: itmp\_helpdesk\_hr\_people

Primary Module	Type	Related Module
Module: Help Desk	One to Many	Module: Person
		Label: Employee
		Subpanel from Person: default

4. A pop-up message will display asking for confirmation. Click "Yes" to proceed.

Alert x

Are you sure you wish to delete this relationship?  
**Note: This operation may not complete for several minutes.**

Do Not Remove Tables

Yes No

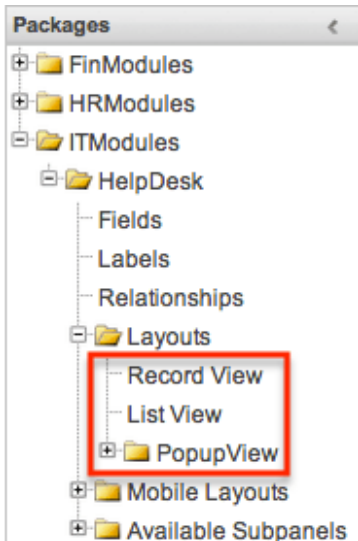
Note: If you wish to retain the data and table structure that currently exists for the relationship, select the "Do Not Remove Tables" option. Leaving the "Do Not Remove Tables" unchecked will delete the relationship data and remove the tables for the relationship from the database when the package is installed.

Before deleting a relationship please verify and resolve the following issues:

- Relationship must be removed from any report filters or displays.
- Relationship must be removed from any workflows that filters or displays fields from the relationship.
- Relationship must be removed from any Sugar Logic formulas referencing the relationship.

## Layouts

Layouts are used to represent many screens in Sugar. The layouts section in Module Builder allows administrators to add fields and configure layouts. To access the layouts section, expand "Layouts" from the packages panel under the desired module. The available layouts for the selected module will appear below.

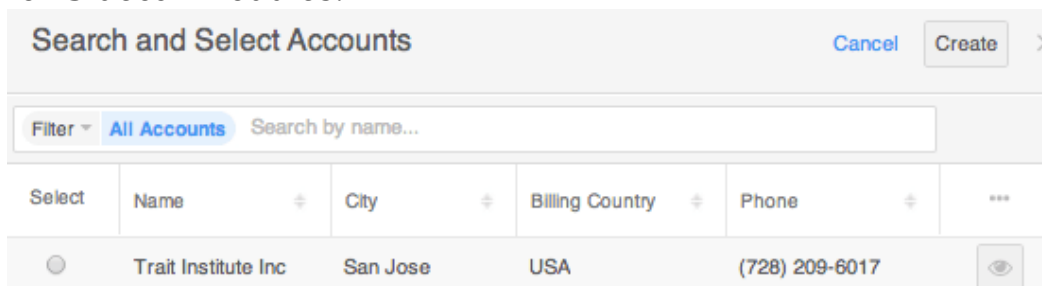


## Layout Types

Sugar comes with different types of layouts to represent different sections of Sugar. Please note that not all layouts are available in every module. The following layouts are available to configure in Module Builder:

- **Record View** : Record view layout is used to modify, create, or view a record within the specified module. Please note that this layout is specific to modules using the Sidecar user interface.
- **List View** : List view layout is used to view multiple records within the specified module and displays all results meeting the current search criteria.
- **Popup List View** : Popup list view layout is used to view multiple records via a popup window used to locate and select records in the specified module.

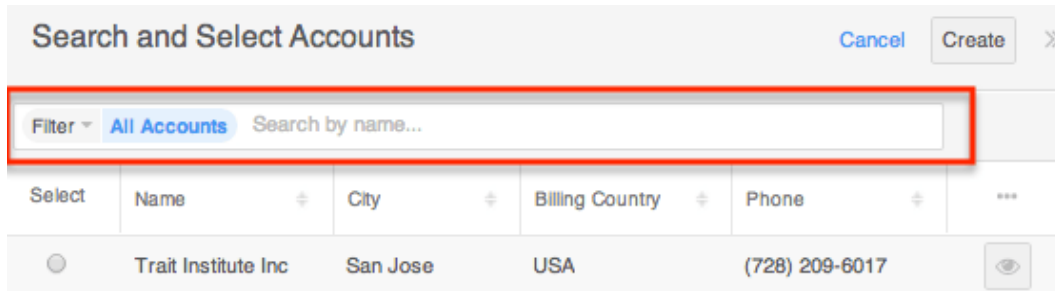
For Sidecar modules:



- **Popup Search** : Popup search layout is used to allow users to perform a search via the the popup window used to select records in the specified module.

For Sidecar modules:





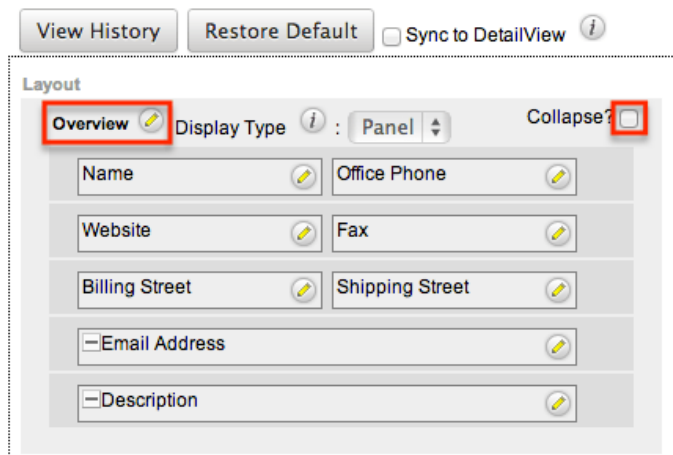
## Layout Options

Administrators have the ability to configure the various layouts (e.g. record view, list view, etc.) available via Module Builder. Please note that the layouts can be configured via Admin > Studio as well once the module has been deployed. For more information on configuring layouts, please refer to the [Studio](#) documentation.

The following are some of the options available to administrators when configuring layouts via Module Builder:

- **Panels** : Every field on a layout is contained within a panel. Panels can be open or collapsed by default and have a title defining the panel. Panels can be organized to contain groups of similar or related fields to assist in organization.

Select the Pencil icon next to the Panel title to modify the title. Select the Collapsed? checkbox to default the panel as collapsed. Users can open and close panels as the wish.



Note: The default panel name cannot be modified in Module Builder.

- **View History** : Sugar preserves a history of the changes made to each layout. Click "View History" and the History dialog box will display the timestamp of when changes occurred and allow you to preview the layout then restore if you wish. For more information on viewing the history of layouts, please refer to the [Viewing Layout History](#) section of this documentation.

- 
- **Restore Defaults** : Sugar provides the option to restore a layout to its original default configuration. For more information on how to restore the default layout, please refer to the [Restoring Layout Defaults](#) section of this documentation.

## Editing Layouts

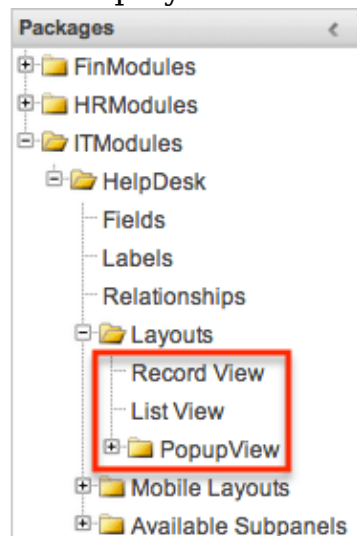
You can add, remove, hide, etc. the fields for the available layouts in the module by selecting the specific layout under the Packages panel to edit. Please note that the List View and Popup View layouts have columns where you can designate fields users can and cannot see.

Once a module is deployed, record views may be configured in Studio to display differently [based on the viewing user's role](#).

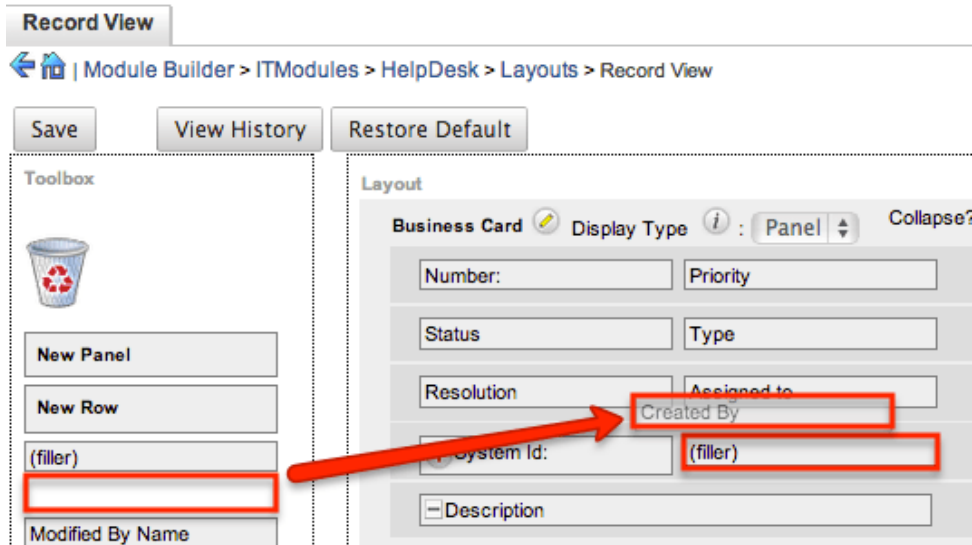
## Editing Record View Layout

The following steps cover editing the Record View layout as an example:

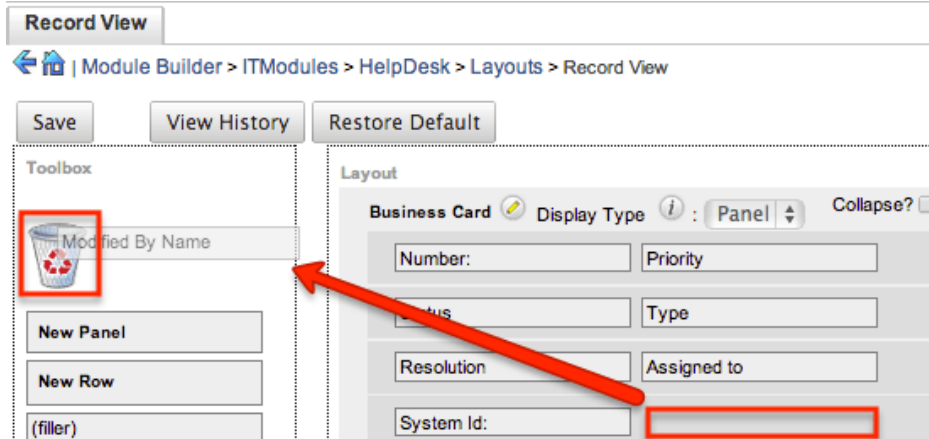
1. Expand "Layouts" from the Packages panel under the desired module and select the layout (e.g. Record View) you wish to edit. The Record View layout will display in the main panel to the right.



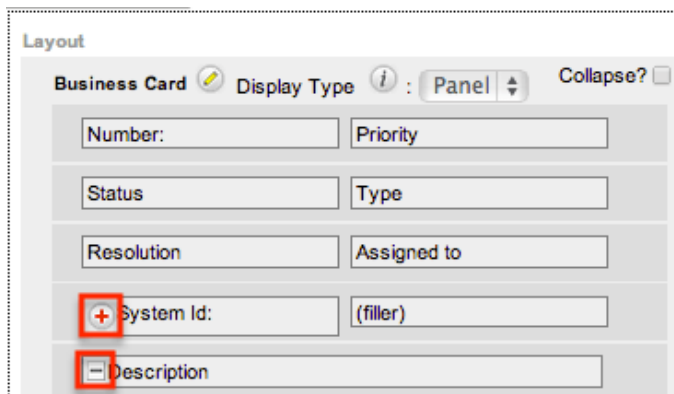
2. To add a field to the Record View layout, drag the field from the list of fields in the Toolbox to a "(filler)" location on the layout per your preference.
  - You can also drag a field to a location on the layout that already has a field in place. The newly added field and the existing field on the layout will swap places.



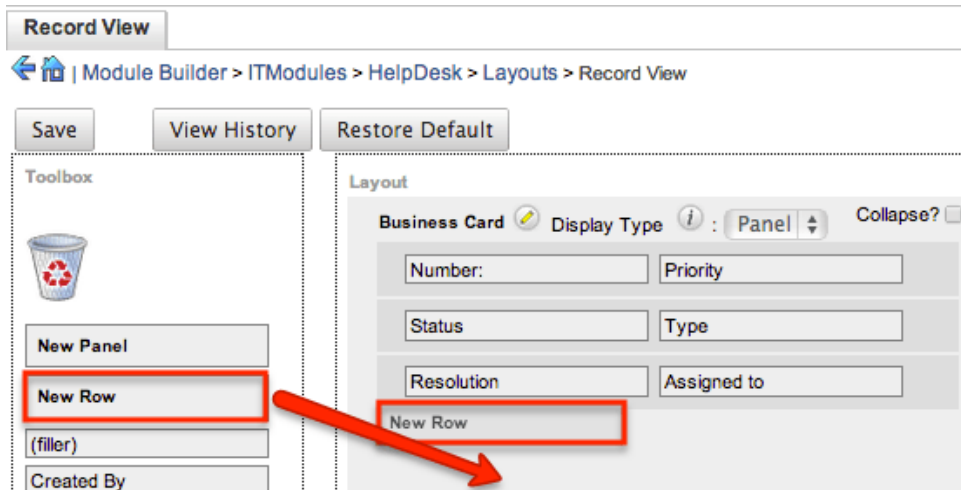
- To remove a field from the layout, drag and drop the field from the layout to the trash bin in the toolbox to remove the field from the layout. You may remove an entire row in the layout using the same method.



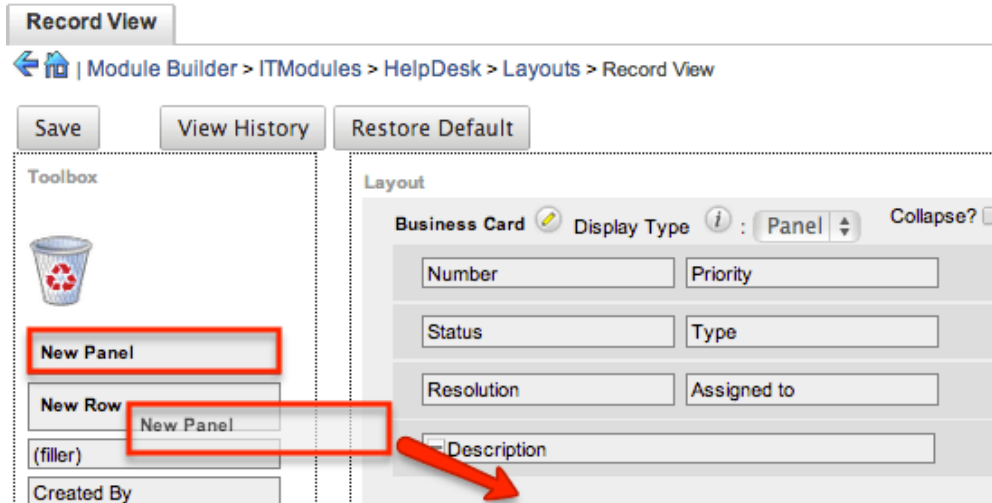
- To expand or minimize the field column in the layout, click the Plus icon (+) to stretch the field over two columns or click the Minus icon (-) to fit the field into one column.
  - Note: The layout will display a "(filler)" if there is no field in that location.



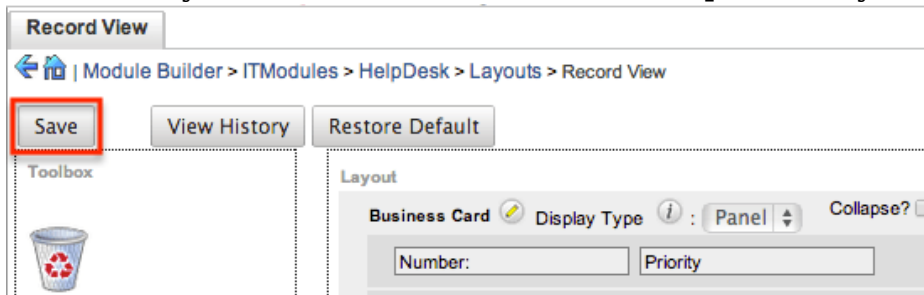
- To add a new row, drag the "New Row" item in the Toolbox to the layout to allow additional fields or blank spaces to be added.



6. To add a new panel, drag the "New Panel" item in the Toolbox to the layout to group different sets of fields together in the Record View layout.



7. Once the layout is finalized, click "Save" to preserve your changes.



Note: It is recommended that dependent fields be placed below and/or to the right of the independent field in order to preserve the correct display of fields on the layout.

#### Editing List View Layout

Unlike the Record View layout, the List View layout has columns where you can designate fields users can and cannot see. When configuring the List View layout,

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you will see three columns (Default, Available, Hidden) where fields can be dragged and dropped accordingly.

Please note that editing the List View layout affects the list of available fields for the module's list view dashlet as well since both are controlled by the same layout (List View). Once the custom module is deployed, the configurations made to the list view layout in Module Builder will be reflected in the Columns fields of the corresponding module dashlet's [Configuration Options page](#). After the custom module is deployed, all succeeding changes to the List View layout can be made via [Studio](#). Please keep in mind that the custom module dashlet will not automatically reflect the Studio changes and users must edit the dashlet in order to view the changes, add new fields to the layout, etc.

Administrators can easily set the column widths for specific fields when configuring the List View layout. You can choose from a pre-defined list of width sizes (e.g. small, medium, large, etc.) that are available out-of-the-box with Sugar or enter a custom width value in pixels (e.g. 200) for Sidecar modules.

Note: When defining the column width for currency fields (e.g. Likely, Best, etc.), only "large" and above will apply because there is a minimum width requirement in Sugar for this field type. In addition, when defining a custom width for currency fields, the value must be 141px or wider.

The following table lists the available column width sizes in Sugar along with the corresponding width in pixels: **Table column widths**

Name	Width	Example
xxsmall	21px	
xsmall	42px	
small	66px	
medium	110px	
large	178px	
xlarge	288px	
xxlarge	466px	

- Default : This column contains fields that are displayed in the layout.
- Available : Available fields are fields that will not show by default in the layout, but if the layout can be personalized, users can add these fields to

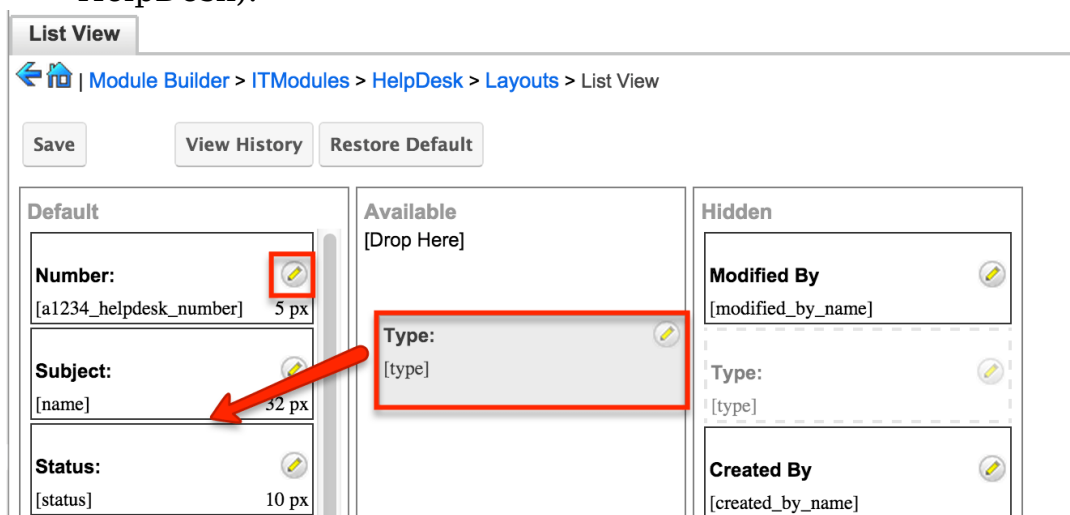
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their view of the layout. Not all list type layouts have an available fields section.

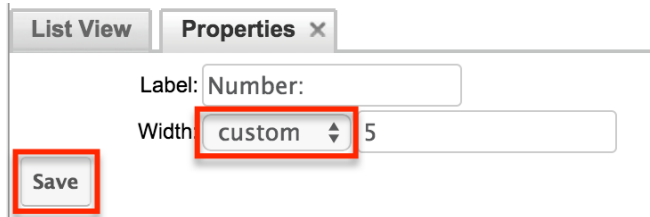
- **Hidden** : This column contains fields that will not be displayed in the layout.

The following steps cover editing the List View layout as an example:

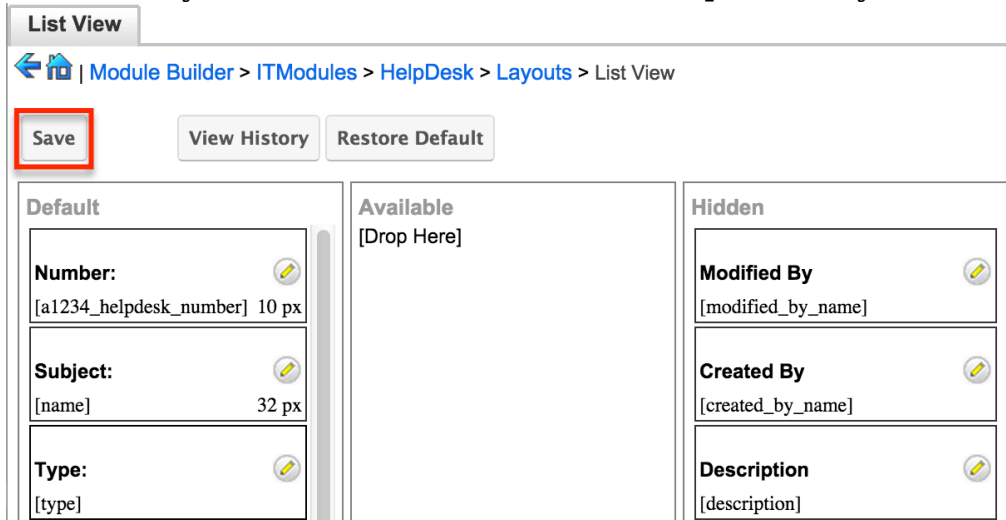
1. Expand "Layouts" from the Packages panel under the desired module and select "List View".
2. To add a field to the List View layout, drag and drop the fields from the Hidden column to the Default column.
  - Note: The fields in the Default column will be available to add as display columns in the corresponding custom module dashlet (e.g. My HelpDesk).



3. To remove a field from the layout, drag and drop the field from the Default column to the Hidden column.
4. To change the left-to-right order of the fields displayed on the list view, drag and drop fields up or down within the Default list.
  - Note: The order of fields designated for the List View layout also affects the order for the list of available fields in the corresponding custom module dashlet (e.g. My HelpDesk).
5. To modify the label of the field, as well as the width of the field, click the Pencil icon next to each field.
6. Enter the new label or select the width (e.g. small, medium, large, etc.) then click "Save". Please note the modified label will display in all List View layouts for this module.
  - Note: Administrators can choose from a pre-defined list of width sizes (e.g. default, small, medium, etc.). Please note that selecting the Default width will set the list view column to equal the Medium width size. Selecting "custom" from the list will allow you to enter a custom width value in the open box. The custom width value should be entered in pixels (e.g. 200) for the fields.

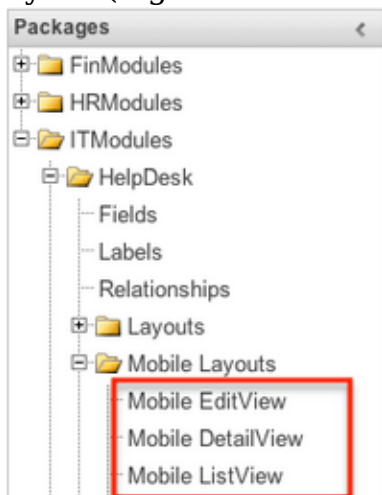


7. Once the layout is finalized, click "Save" to preserve your changes.



## Mobile Layouts

Administrators can also configure the mobile layouts for SugarCRM Mobile by expanding "Mobile Layouts" for the desired module from the Packages panel. The list of available mobile layouts will display below and you can select the specific layout (e.g. Mobile EditView, Mobile ListView, etc.) you wish to configure.



## Mobile Layout Types

There are various mobile layouts in Sugar to represent the different areas of the SugarCRM mobile application. Please note that not all layouts are available in

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every module and the different mobile applications will use the information defined here differently.

The following mobile layouts are available in Sugar:

- **Edit View** : Edit view layout is used in Sugar to modify or create records in the specified module.
- **Detail View** : Detail view is used in Sugar to view the current data for a record within the specified module. Certain fields are translated to SugarCRM Mobile as buttons instead of data. For example, instead of seeing the phone number, there is a phone icon to be able to call the number on the record.
- **List View** : List view layout is used in Sugar to view multiple records within the specified module. Only the first two fields in the list view section will be displayed in SugarCRM Mobile.

#### Mobile Layout Options

Administrators have the ability to configure the various layouts available via Module Builder. Please note that the mobile layouts can be configured via Admin > Studio as well once the module has been deployed. For more information on configuring layouts, please refer to the [Studio](#) documentation.

The following are some of the available options when configuring mobile layouts via Module Builder:

- **View History** : Sugar preserves a history of the changes made to each layout. Click "View History" and the History dialog box will display the timestamp of when changes occurred and allow you to preview the layout then restore if you wish. For more information on viewing the history of layouts, please refer to the [Viewing Layout History](#) section of this documentation.
- **Restore Defaults** : Sugar provides the option to restore a layout to its original default configuration. For more information on how to restore the default layout, please refer to the [Restoring Layout Defaults](#) section of this documentation.

#### Editing Mobile Layouts

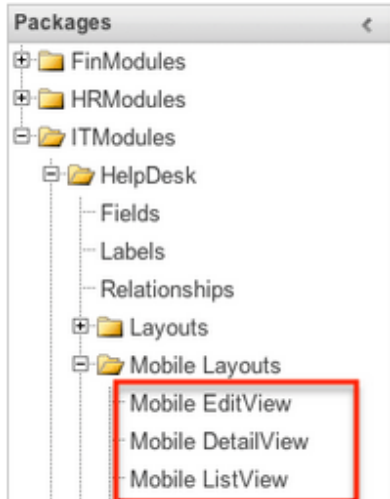
You can add, remove, hide, etc. the fields for the available layouts in "Mobile Layouts" by selecting the specific layout under the Packages panel to edit. Please note that the Mobile EditView and DetailView layouts are modified in similar fashions. The Mobile ListView layout has columns where you can designate fields users can and cannot see.



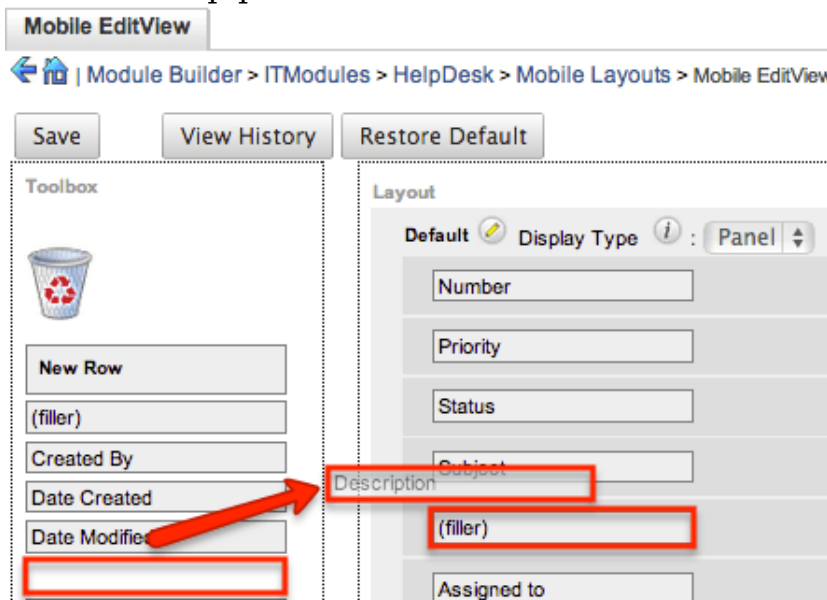
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The following steps cover editing the Mobile EditView layout as an example:

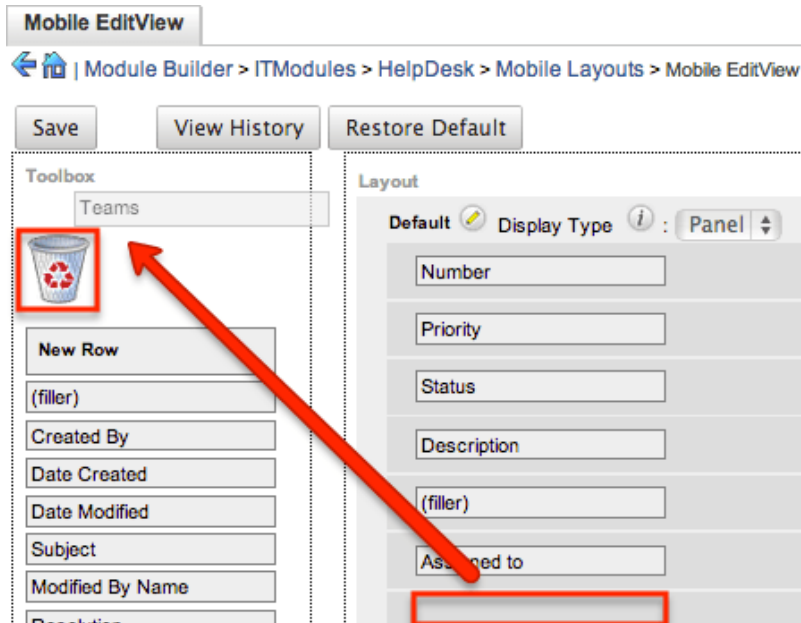
1. Expand "Mobile Layouts" from the Packages panel under the desired module and select "Mobile EditView". The selected layout will display in the main panel to the right.



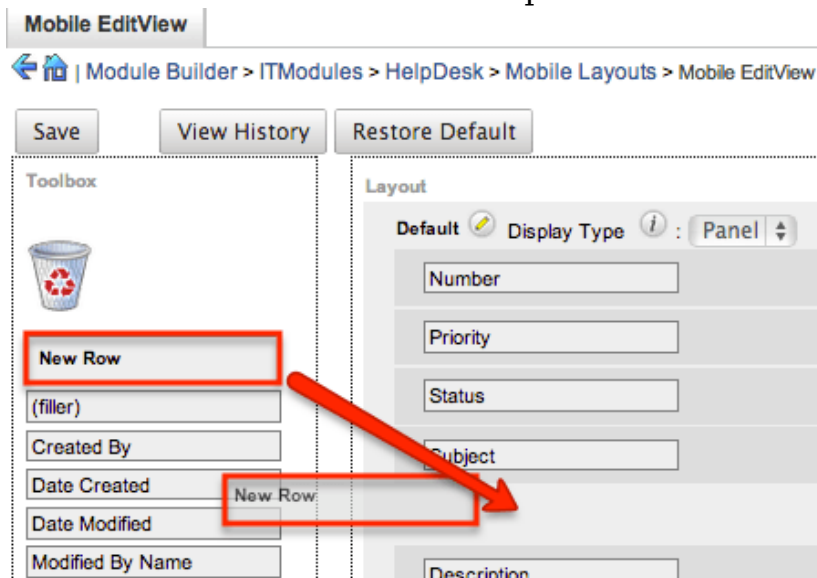
2. To add a field to the Mobile EditView layout, drag the field from the list of fields in the Toolbox to a "(filler)" location on the layout per your preference.
  - You can also drag a field to a location on the layout that already has a field in place. The newly added field and the existing field on the layout will swap places.



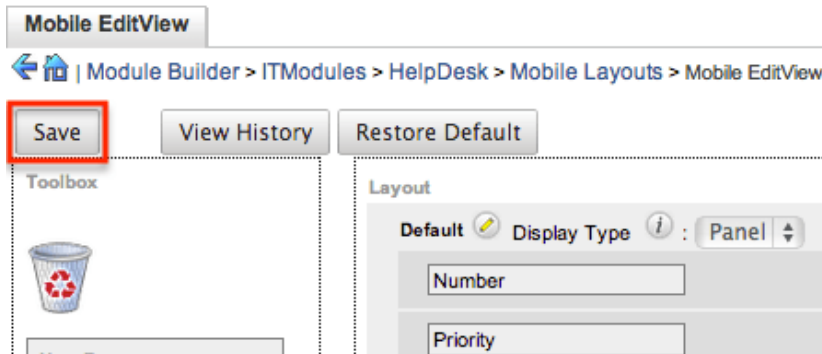
3. To remove a field from the layout, drag and drop the field from the layout to the trash bin in the Toolbox to remove the field from the layout. You may remove an entire row in the layout using the same method.



- To add a new row, drag the "New Row" item in the Toolbox to the layout to allow additional fields or blank spaces to be added.



- Once the layout is finalized, click "Save" to preserve your changes.



Unlike the Mobile EditView layout, the Mobile ListView layout has columns where you can designate fields users can and cannot see. When configuring the Mobile

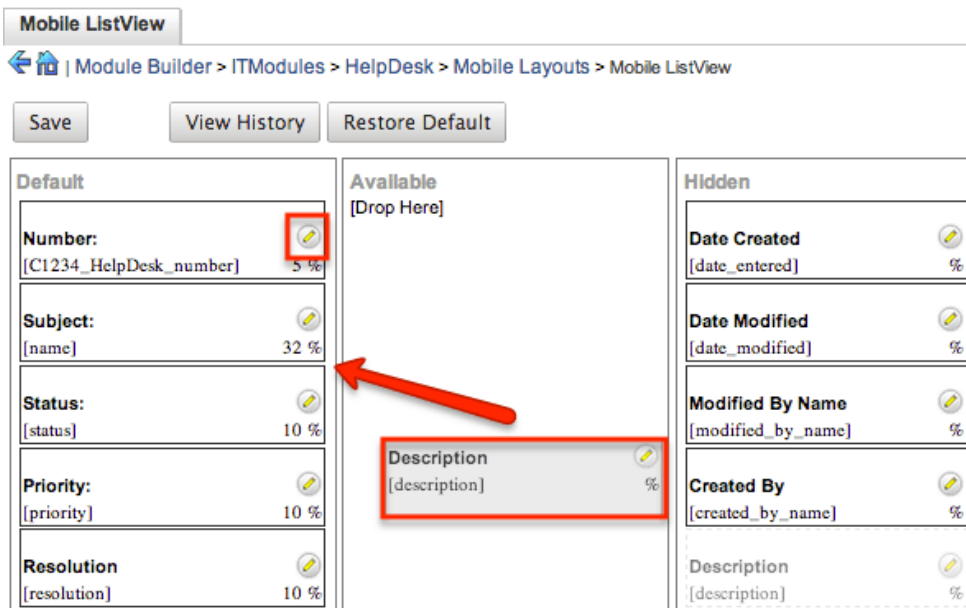
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ListView layout, you will see three columns (Default, Available, Hidden) where fields can be dragged and dropped accordingly.

- Default : This column contains fields that are displayed on the list view.
- Available : Available fields are fields that will not show by default in the layout, but if the layout can be personalized, users can add these fields to their view of the layout. Not all list type layouts have an available fields section.
- Hidden : This column contains fields that will not be displayed on the list view.

The following steps cover editing the Mobile ListView layout as an example:

1. Expand "Layouts" from the Packages panel under the desired module and select "Mobile ListView".
2. To add a field to the Mobile ListView layout, drag and drop the fields from the Hidden column to the Default column.



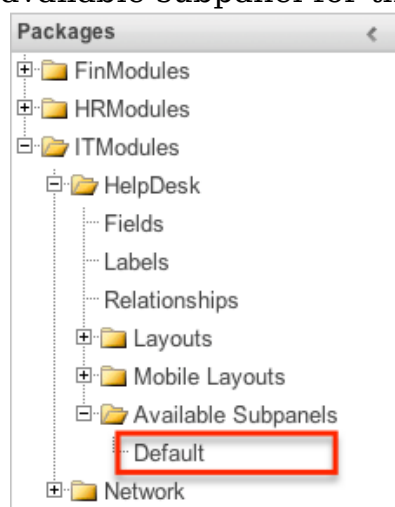
3. Click the Pencil icon to modify the label of the field as well as the width percentage the field will take up in the list view. Please note that the modified label will display in all List View layouts in SugarCRM Mobile.
4. Once the layout is finalized, click "Save" to preserve your changes.

## Available Subpanels

Related records between modules in Sugar are commonly displayed in Subpanels. Similar to list type layouts, administrators can modify the available subpanel layouts to change which fields are shown in a module's subpanel. You can add or

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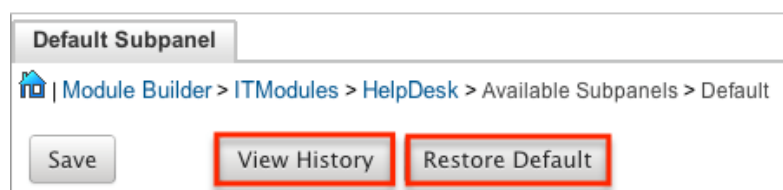
remove fields for these subpanels depending on the information that you want to display to users. To access the subpanels section in Module Builder, expand "Available Subpanels" from the Packages panel under the desired module. The available subpanel for the selected module will appear to the right of the screen.



### Subpanel Options

When configuring the Subpanel layout in Module Builder, there are some available options which allow you to view historical layout changes as well as restore the default layout. Please note that the subpanel layout can be configured via Admin > Studio as well once the module has been deployed. For more information on configuring layouts, please refer to the [Subpanels](#) section of the Studio documentation.

- View History : Sugar keeps a history of the changes made to each subpanel. These changes and when they occurred can be viewed and restored via "View History". For more information on viewing the history of subpanels, please refer to the [Viewing Layout History](#) section of this documentation.
- Restore Defaults : Sugar also contains the ability to restore a subpanel to its original default configuration. For more information on how to reset a subpanel to default, please refer to the [Restoring Layout Defaults](#) section of this documentation.

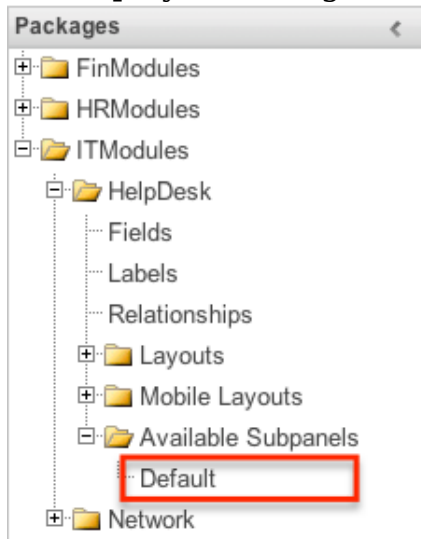


### Editing Subpanel Layout

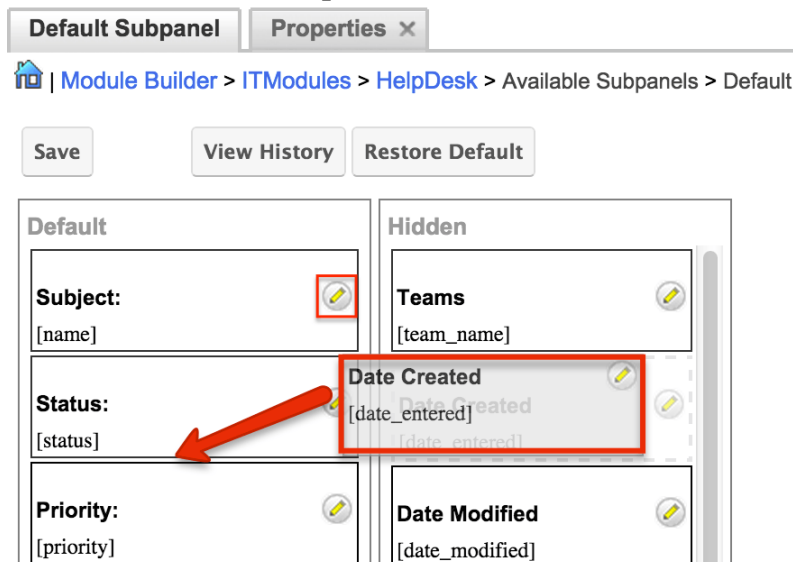
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Use the following steps to modify a subpanel via Module Builder:

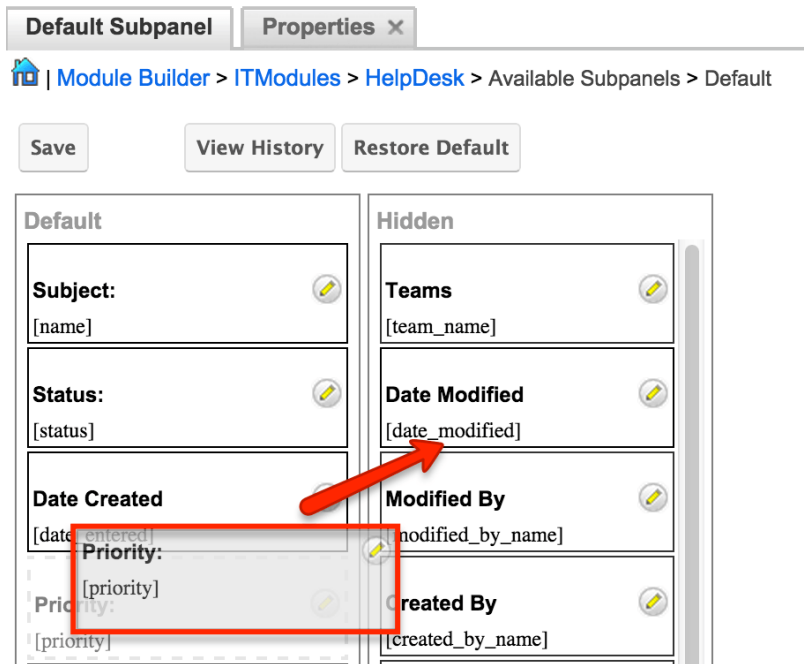
1. Expand "Available Subpanels" from the Packages panel under the desired module and select the subpanel you wish to edit. The selected subpanel layout will display to the right in the main panel.



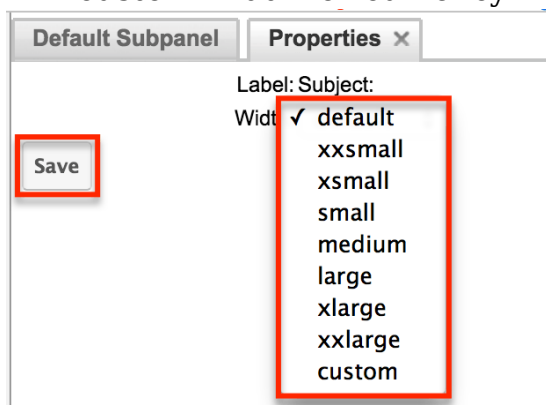
2. To add a field to the Subpanel layout, drag and drop the fields from the Hidden column to the Default column.
  - You can drag the field up and down the list to change the position of the field in the subpanel.



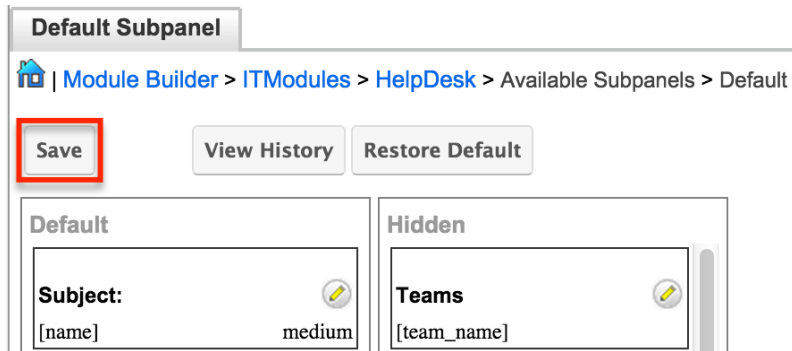
3. To remove a field, drag and drop the fields from the Default column to the Hidden column.



4. Click the Pencil icon to change the column width of the field in the subpanel.
  - Note: Administrators can choose from a pre-defined list of width sizes (e.g. default, small, medium, etc.). Please note that selecting the Default width will set the list view column to equal the Medium width size. Selecting "custom" from the list will allow you to enter a custom width value in the open box. The custom width value should be entered in pixels (e.g. 200) for the fields.
  - When defining the column width for currency fields (e.g. Likely, Best, etc.), only "large" and above applies because there is a minimum width requirement in Sugar for this field type. In addition, when defining a custom width for currency fields, the value must be 141px or wider.



5. Once the subpanel layout is finalized, click "Save" to preserve your changes.

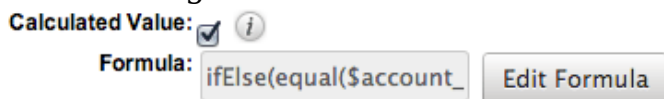


## Using Sugar Logic

Sugar Logic allows administrators to write simple formulas and logic checks to provide a calculation for a field or to set the visibility of a field. A formula specifies one or more field values along with operators and functions that are mathematical or logical. When you execute a formula, Sugar performs the calculation to derive the value. When a field is used in a formula, Sugar recalculates the value whenever a user updates it and saves the record. Similarly, if you update a formula, Sugar recalculates the field value based on the updated formula.

Note: When creating a calculated formula for a Currency field, the currency symbol should not be used for a value (e.g. \$100) in the formula. The formula should only define the numeric value (e.g. 100), as including the currency symbol will result in improper calculated values.

For more information regarding the types of fields you can use Sugar Logic in, please refer to the [Field Options](#) section of this documentation. You can access the formula builder when editing or creating the field by checking "Calculated Value" then clicking "Edit Formula".



## Functions

Functions are listed on the bottom left hand corner of the formula builder and provide a variety of calculations, logic checks, and formatting options. To locate the function you need, simply scroll through the list or enter the search criteria to narrow the list.





#	Returns a Number
Calendar	Returns a Date object with a date and time
%	Returns a Boolean (true or false) value
A	Returns Text
[ ]	Returns a List
?	Returns a variable data type that could be any of the above

Functions are defined to either accept a set number of parameters or have an undetermined amount of parameters. Many function parameters require a specific data type to be passed in for the function to work. Functions can be nested matching up the return data type of the function to the parameter data type of a different function.

The following functions and their parameters (multiple parameters are indicated with "...") are available in Sugar:

Function	Description	Parameters	Return Type
abs	Returns the absolute value of \$param1.	Number \$param1	Number
add	Returns the sum of the given parameters.	Number \$param1, ...	Number
addDays	Returns \$date moved forward or backwards by \$days.	Date \$date, Number \$days	Date
and	Returns true if and only if all given parameters are true.	Boolean \$param1, ...	Boolean
average	Returns the average of the given parameters.	Number \$param1, ...	Number
ceil	Returns \$param1 rounded up to the next integer.	Number \$param1	Number
concat	Returns all of the given parameters appended together	String \$param1, ...	Text

	in the order passed.		
contains	Returns true if \$needle is within \$haystack.	String \$haystack, String \$needle	Boolean
count	Returns the number of records related to this record by \$module	Relate \$module	Number
createList	Returns a List of the given parameters.	Generic \$param1, ...	List
date	Returns \$param1 as a Date object.	String \$param1	Date
dayofweek	Returns the number of the day of week that \$param1 falls on.	Date \$param1	Number
daysUntil	Returns the number of days from now until \$param1.	Date \$param1	Number
divide	Returns the \$numerator divided by the \$denominator.	Number \$numerator, Number \$denominator	Number
equal	Returns true if \$param1 is equal to \$param2.	Generic \$param1, Generic \$param2	Boolean
floor	Returns \$param1 rounded down to the next integer.	Number \$param1	Number
getDropdownKeySet	Returns a List of the keys in the dropdown named \$param1. This list must be defined in the Dropdown editor.	String \$param1	List
getDropdownValue	Returns the value for the \$key found in the dropdown named \$list. This list must be defined	String \$list, String \$key	Text

	in the Dropdown editor.		
getDropdownValueSet	Returns a List of the values in the dropdown named \$param1. This list must be defined in the Dropdown editor.	String \$param1	List
greaterThan	Returns true if \$param1 is greater than \$param2.	Number \$param1, Number \$param2	Boolean
hoursUntil	Returns the number of hours from now until \$param1.	Date \$param1	Number
ifElse	Returns \$return1 if \$condition is true or \$return2 if \$condition is false.	Boolean \$condition, Generic \$return1, Generic \$return2	Variable
indexOf	Returns the position of \$needle in \$haystack or -1 if \$haystack does not contain \$needle. The index starts at 0.	Generic \$needle, List \$haystack	Number
isAfter	Returns true if \$param1 is after \$param2.	Date \$param1, Date \$param2	Boolean
isBefore	Returns true if \$param1 is before \$param2.	Date \$param1, Date \$param2	Boolean
isInList	Returns true if \$needle is contained within \$haystack.	Generic \$needle, List \$haystack	Boolean
isValidDate	Returns true if \$param1 is a valid date string.	String \$param1	Boolean
isValidEmail	Returns true if \$param1 is in a valid email address	String \$param1	Boolean

	format.		
isWithinRange	Returns true if \$value is greater than or equal to \$min and less than or equal to \$max.	Number \$value, Number \$min, Number \$max	Boolean
ln	Returns the natural log of \$param1.	Number \$param1	Number
log	Returns the \$base Log of \$value.	Number \$value, Number \$base	Number
max	Returns highest value of the given parameters.	Number \$param1, ...	Number
maxRelatedDate	Returns the highest value of \$field in records related to \$module.	Relate \$module, String \$field	Date
median	Returns the median of the given parameters.	Number \$param1, ...	Number
min	Returns lowest value of the given parameters.	Number \$param1, ...	Number
monthofyear	Returns the number of the month that \$param1 is in.	Date \$param1	Number
multiply	Returns the value of the given parameters multiplied together.	Number \$param1, ...	Number
negate	Returns the negated value of \$param1.	Number \$param1	Number
not	Returns true if \$param1 is false, and false if \$param1 is true.	Boolean \$param1	Boolean
now	Returns a Date object representing today's date and the current time.		Date

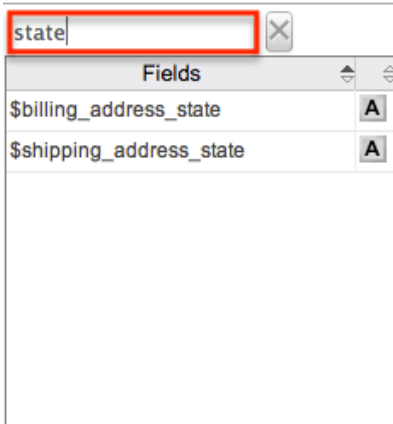
number	Returns the numeric value of \$param1.	String \$param1	Number
or	Returns true if any given parameters are true.	Boolean \$param1, ...	Boolean
pow	Returns the \$value raised to the power of \$exponent.	Number \$value, Number \$exponent	Number
related	Returns the value of \$field in the related \$module.	Relate \$module, String \$field	Variable
rollupAve	Returns the average value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupMax	Returns the highest value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupMin	Returns the lowest value of \$field in records related to \$module.	Relate \$module, String \$field	Number
rollupSum	Returns the sum of the values of \$field in records related to \$module.	Relate \$module, String \$field	Number
strlen	Returns the number of characters in \$param1.	String \$param1	Number
strToLower	Returns \$param1 converted to lower case.	String \$param1	Text
strToUpper	Returns \$param1 converted to upper case.	String \$param1	Text
subStr	Returns the portion of \$value specified by \$start and \$length. The position starts at 0.	String \$value, Number \$start, Number \$length	Text

subtract	Returns \$param1 minus \$param2.	Number \$param1, Number \$param2	Number
timestamp	Returns the passed in datetime string as a unix timestamp.		Date
today	Returns a Date object representing todays date.		Date
toString	Returns \$param1 converted to a string.	Generic \$param1	Text
translateLabel	Returns the translated value of \$label for \$module.	String \$label, String \$module	Text
valueAt	Returns the value at position \$index in \$haystack.	Number \$index, List \$haystack	Variable

## Fields

Fields are listed on the bottom right hand corner of the formula builder and contain the fields for the current module. Fields can be referenced in formulas and will start with a \$. To locate the field you need, simply scroll through the list or enter a search criteria to narrow the list.

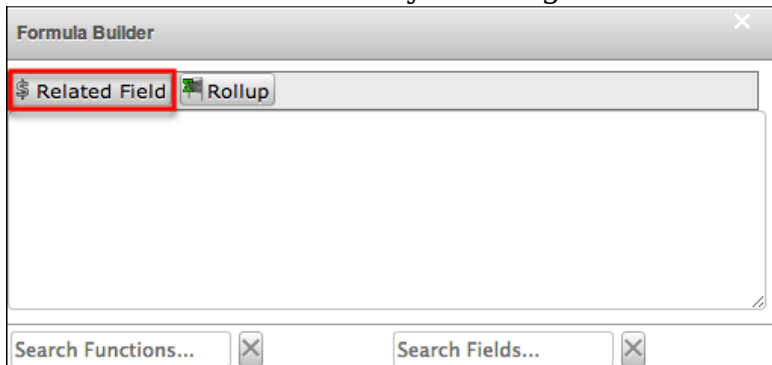
To add a field to the formula, simply click on the field to be added. The variable name for the field will be placed at the end of the formula. You can also type the variable names manually in the formula.



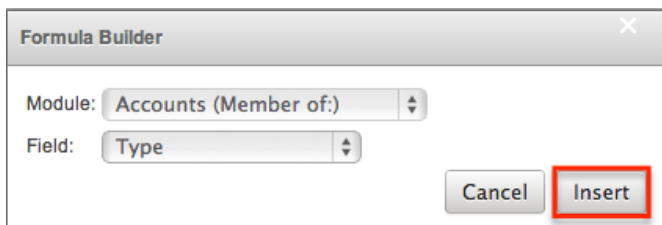
## Related Field

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Related fields are available to be added to formulas via the related function. You can manually add related function calls to your formula or you can build the syntax for the related function by clicking "Related Field".



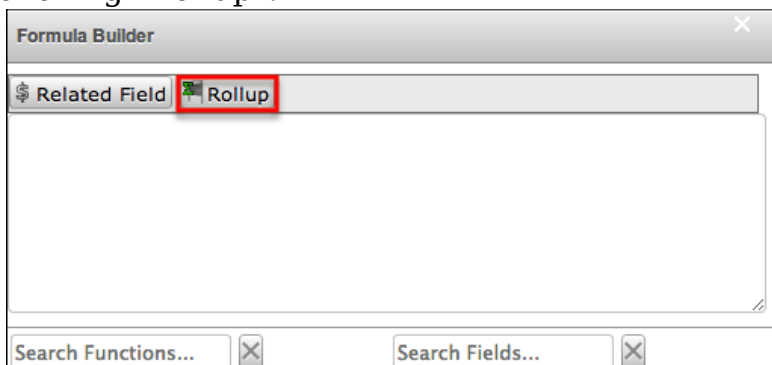
This will open a dialog box which will assist in building the syntax to use the related function. Select a module and a field within that module to pull the related field from and click "Insert".



The resulting syntax for the selected options will be added to the formula. Note: If a record has multiple related records to a module, the related function will pull the field from one of the related records. It is not recommended to rely on the related function to pull the same related records for a many relationship.

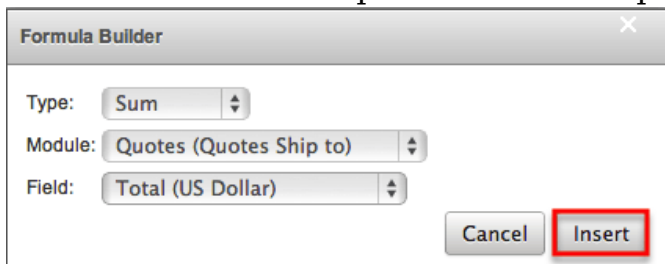
## Rollup

In addition to adding related fields, you can also add aggregate functions on related fields to formulas via the rollup functions. You can manually add rollup function calls to your formula or you can build the syntax for the rollup function by clicking "Rollup".



This will open a dialog box which will assist in building the syntax to use the rollup function. Select the type of rollup function (Sum, Average, Minimum, or Maximum) to perform on the module field. To perform a count of related records, please refer

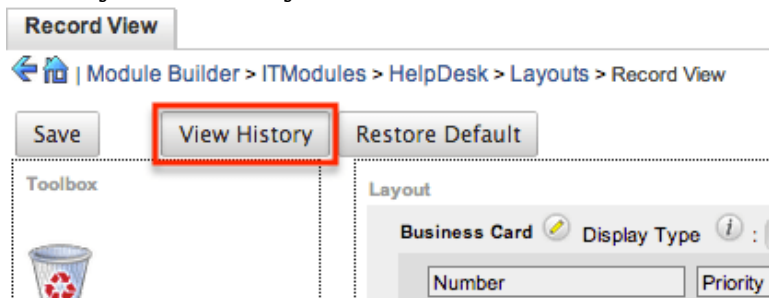
to the count function listed in the [Functions](#) section. Select a module and a field within that module to perform the rollup function on then click "Insert".



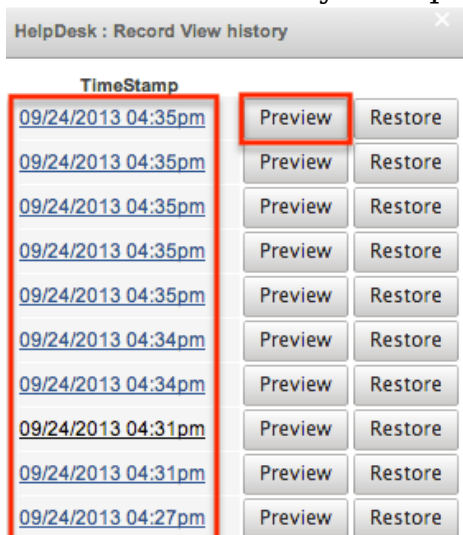
The resulting syntax for the selected options will be added to the formula. Note: Rollup functions can only aggregate number type fields.

## Viewing Layout History

Layouts, subpanels, and mobile layouts keep a history of the last ten changes made to each layout. To view the history for any of these layouts, simply click "View History" on the layout editor view in Module Builder.

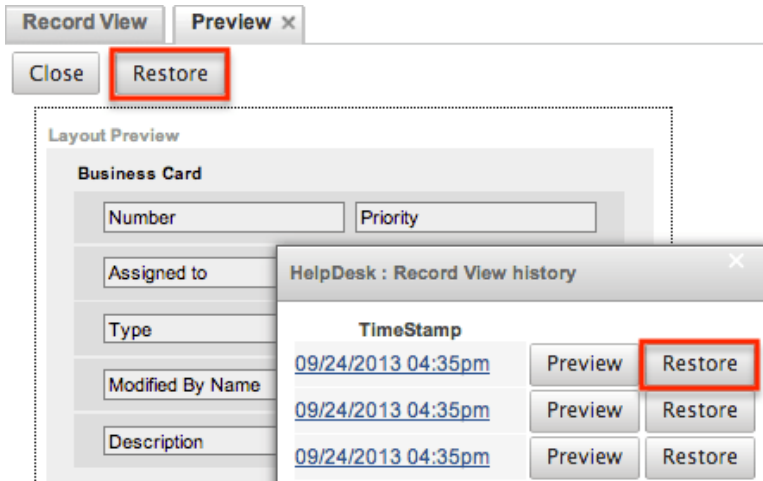


The History dialog box will open up displaying the timestamps of when changes occurred and allow you to preview the layout by clicking the Preview button.



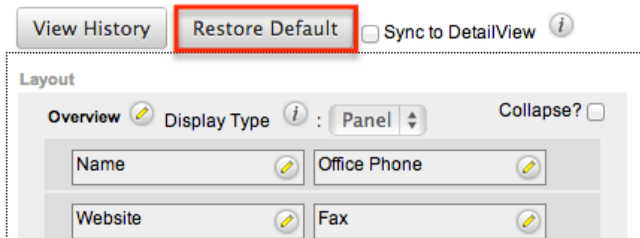
The preview will show the details of the layout as of the specific time it was saved. To restore the layout to the particular version you are viewing, simply click the Restore button from under the Preview tab or in the History dialog box. The restored layout will load into the layout editor allowing you to make any additional changes as necessary. Click "Save" to preserve your changes.





## Restoring Layout Defaults

Many layouts, subpanels, and mobile layouts can be restored to their original default configuration. To restore the default for any of these layouts, simply select "Restore Default" from the edit layout screen in Module Builder.



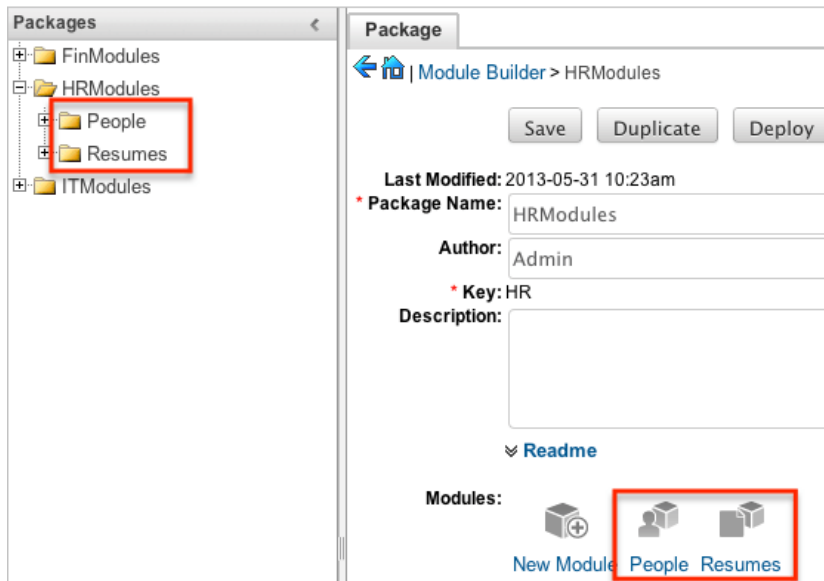
The default layout will load into the editor allowing you to make changes as necessary. Click "Save" to preserve your changes.

## Deleting Modules

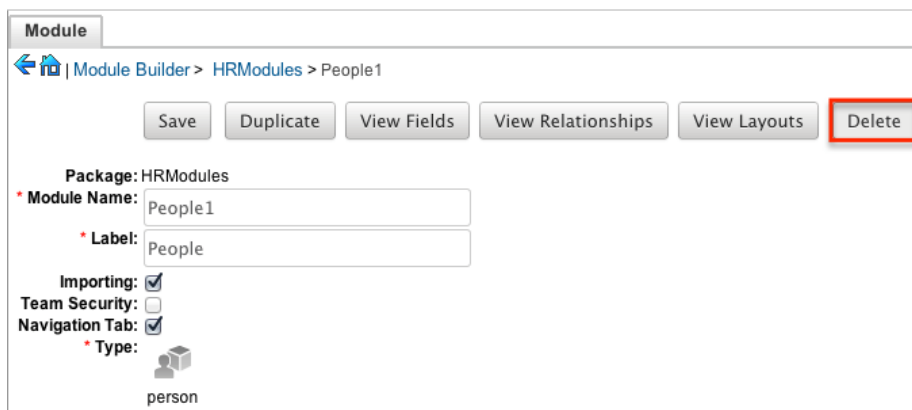
If a module is invalid or should no longer appear in a package, it may be deleted from Module Builder. Please note that deleting a module from a package will not remove the module from any instances where the package was deployed. For more information on how to uninstall a deployed package from an instance, please refer to the [Module Loader](#) documentation.

Use the following steps to delete a module from a package via Module Builder:

1. Select the desired package and module from the Packages panel or the main panel.



2. Click "Delete" to remove the module.



3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Last Modified: 11/23/2016 02:23am

## Module Loader

### Overview

Module Loader is used to install a variety of custom file packages, including custom modules, into a Sugar instance. Using Module Loader, you can also manage and uninstall these packages, all done through Sugar's user interface. Packages are uploaded as a ZIP file from an administrator's local computer and then, when deployed, will force changes upon the instance's filesystem and database.

Custom module packages can be created and modified in [Module Builder](#), and then, after deployment, they will show in Module Loader. They can also be

exported from Module Builder in one instance, and then uploaded to another instance via Module Loader.

## Module Loader Layout

Module Loader consists of three panels. The panels include all necessary information about the packages, and also include different action buttons, explained in [Module Loader Fields](#). The panels are:

- **Installed Packages** : This panel shows all installed packages. On this panel, you have the option to uninstall or disable installed packages. After installation, the packages will move from the Uploaded Packages panel to this panel.

### Module Loader

The following extensions are installed on this system:

Name	Action	Enable/Disable	Type
Dashboard Manager	Uninstall	Disable	module

- **Module Upload** : This panel consists of an upload option where files can be uploaded to Sugar via a browser file selection window. Please review [Uploading Modules](#) for more information on using this panel.

Module

- **Uploaded Packages** : This panel shows all packages that have been uploaded to Sugar, but have not yet been installed, or have been uninstalled. Packages can be installed or deleted from Sugar using this panel.

Name	Install	Delete	Type
SchedulerAlerts	Install	Delete Package	Module

## Module Loader Fields

Module Loader contains different fields on the [Installed Packages and Uploaded Packages panels](#). Each set of fields show relevant and identifying information about the module package.

The Installed Packages panel consists of the following fields:

Field	Description
Name	The name of the package, pulled from

	the manifest.php file of the package
Action	Button allowing you to uninstall the package from your Sugar instance if the package is marked as uninstalleable in the manifest.php file of the package
Enable/Disable	Button allowing you to enable or disable the functionality of the package, without uninstalling
Type	Describes the type of package, pulled from the manifest.php file of the package
Version	The version of the package, pulled from manifest.php file of the package
Date Installed	The date and time that the package was installed
Description	The description of the package, pulled from the manifest.php file of the package

The Uploaded Packages panel consists of the following fields:

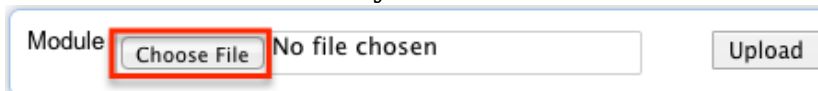
Field	Description
Name	The name of the package, pulled from the manifest.php file of the package
Install	Button allowing you to install the package to your Sugar instance
Delete	Button allowing you to delete the package from your Sugar instance
Type	Describes the type of package, pulled from the manifest.php file of the package
Version	The version of the package, pulled from manifest.php file of the package
Date Published	The date and time that the package was initially created from the publisher
Uninstallable	Tells you if the package is uninstalleable from the manifest.php file of the package
Description	The description of the package, pulled from the manifest.php file of the package

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## Uploading Packages

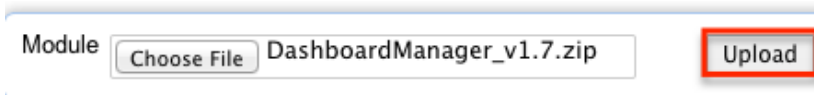
After receiving the file that you would like to install, you must first upload it to your Sugar instance. To upload a file, follow the following steps:

1. Navigate to Admin > Module Loader
2. Click the "Choose File" button in the Module Upload panel to open a file selection window from your browser



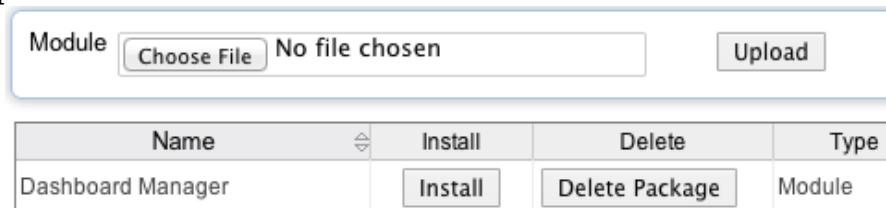
The screenshot shows the 'Module Upload' panel. It has a text input field labeled 'Module' containing 'No file chosen'. To the left of the input is a 'Choose File' button, which is highlighted with a red rectangular box. To the right of the input is an 'Upload' button.

3. Select the file from your local computer
4. After you select your file, click the "Upload" button to complete the process



The screenshot shows the 'Module Upload' panel after a file has been selected. The text input field now contains 'DashboardManager\_v1.7.zip'. The 'Choose File' button is still present. The 'Upload' button is highlighted with a red rectangular box.

5. After it has been uploaded, the package will show in the Uploaded Packages panel



The screenshot shows the 'Uploaded Packages' panel. It features a table with the following structure:

Name	Install	Delete	Type
Dashboard Manager	Install	Delete Package	Module

The 'Install' button in the table row is highlighted with a red rectangular box.

## Installing Packages

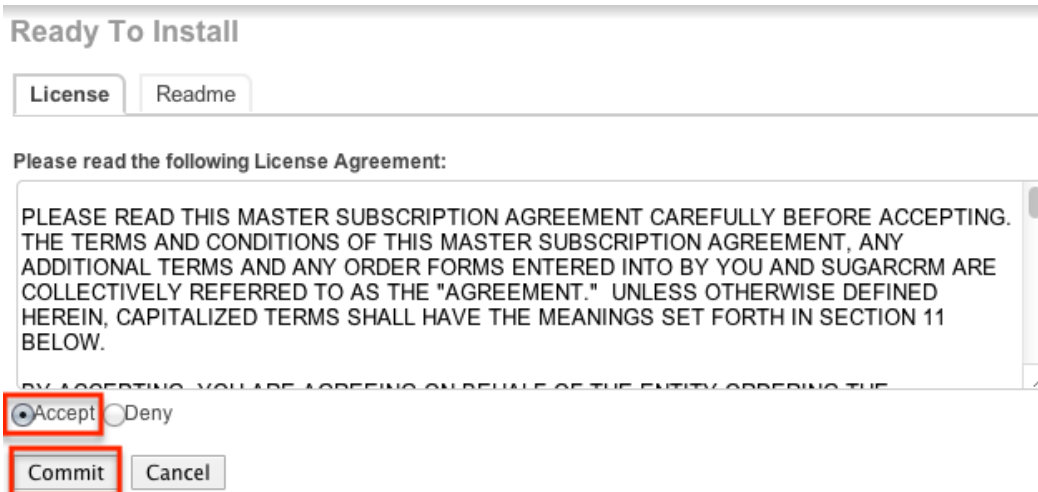
After uploading a package to Module Loader, it must be installed for the package's contents to take effect on your instance. To install a package, follow the following steps:

1. Follow the steps to [upload your package](#) to Module Loader.
2. Click the "Install" button on the Uploaded Packages panel.



This is a smaller version of the screenshot above, showing the 'Uploaded Packages' panel table. The 'Install' button in the row for 'Dashboard Manager' is highlighted with a red rectangular box.

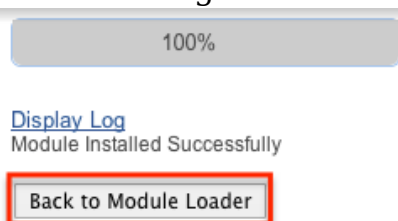
3. You will be brought to the installation screen to confirm that the packages should be installed, and to read and accept any license or readme documentation as needed. Click "Commit" when ready to run the installation.



4. The next page will show a progress bar and a completion notice. If there are any errors, they will be displayed with a verbose explanation of what went wrong. If not, click "Display Log" to show what happened during the installation process.

Note: To sustain the stability, security, and integrity of the Sugar On-Demand environment, all installed packages are scanned to check for code not conforming to environmental agreements. Any package that fails this scanner will not be installed and the installer will produce a reason for the failed installation. If this happens, please contact the developer of your package for more information.

5. Click "Back to Module Loader" when complete to return to Module Loader. If you do not need to install any further packages, you can navigate to any other section of Sugar as need be.



## Uninstalling Packages

After a package has been [installed](#) into your Sugar instance, it can be removed if it is no longer needed. When uninstalled, the package will remove any available customizations to your instance from the filesystem and database.

Note: Packages have to be defined as "Uninstallable" in the manifest.php file of the package to be able to be uninstalled.

To uninstall a package, perform the following steps:

1. Navigate to Admin > Module Loader.

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2. Locate the package you would like to uninstall in the Installed Packages panel.

3. Click the "Uninstall" button.

Note: If you do not see an Uninstall button next to your package, that means that it is either defined to be permanently installed or files for that package that are critical to performing the uninstall are missing from the file system.

The following extensions are installed on this system:

Name	Action	Enable/Disable	Type
Dashboard Manager	Uninstall	Disable	module

4. If the package has added any database tables to your instance, you will see a selection whether to remove or retain the database tables. If the database tables include any information you would like to keep, select the "Do Not Remove Tables" option. An example of this would be if you are uninstalling a custom module, but will be reinstalling a new version of the same module. You would want to keep the data, but remove any files associated with the old module that will be replaced with the new package.

5. Click "Commit" when you are ready to uninstall the package.

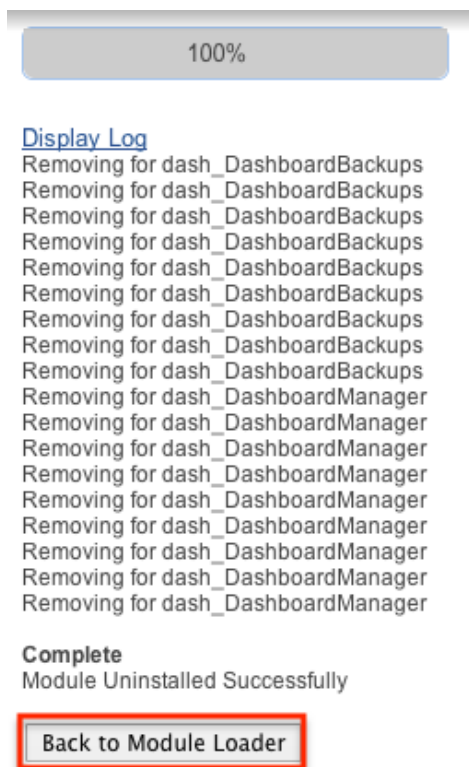
Ready To Uninstall

Commit Cancel

Remove Tables  Do Not Remove Tables

6. The next page will show a progress bar and a completion notice. If there are any errors, they will be displayed with a verbose explanation of what went wrong. If not, click "Display Log" to show what happened during the uninstall process.

7. Click "Back to Module Loader" when complete to return to Module Loader. If you do not need to uninstall any further packages, you can navigate to any other section of Sugar as need be.



8. After the package has been uninstalled, it can be deleted from your instance via the Uploaded Packages panel.

Name	Install	Delete	Type
Dashboard Manager	<a href="#">Install</a>	<a href="#">Delete Package</a>	Module

## Installing Role-Based Customizations

Administrators have the ability to create role-based custom dropdown lists and role-based custom record views via Studio and Dropdown Editor. These role-based customizations are included when exporting customizations via Studio. When the exported package is then installed on a destination instance, administrators will be given the opportunity to map the package's customized roles to the destination instance's roles. Sugar will attempt to select a matching role from amongst the destination instance's roles. The role mapping can be manually altered by selecting a different role from the dropdown menus. If you wish to not install a role's customizations, choose "Do not map this role" in the dropdown. Once the mappings are correctly set, click "Commit" to proceed with installing the package.



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## Map ACL Roles

Package Roles	Instance Roles
Sales Administrator ID: 40df175a-e723-804a-8af7-556cde10469e	Sales Administrator (matches by Name)
Customer Support Administrator ID: 4ef9edf3-9145-73d1-5682-556cde2fd660	Customer Support Administrator (matches by Name)
Marketing Administrator ID: 47fcf6db-c11e-8032-2174-556cdef11e45	-- Do not map this role --

## Importing Role-Based Custom Record Views

If the package contains role-based custom record views, the mapped roles in the destination instance will be updated to match the package's custom record views. Any prior customizations made record view for the destination instance's role will be overwritten. Regardless of any prior customizations made on the destination instance, all mapped roles will be updated to completely match the imported role-based record views. For more information about creating role-based custom record views, please refer to the [Studio](#) documentation.

## Importing Role-Based Custom Dropdown Lists

When a package contains non-stock dropdown values for the default role, the destination instance's default role-list will be completely overwritten by the package.

If the package, the destination instance, or both include role-based custom dropdown lists, Sugar will take the destination instance's original customized role-lists into consideration when deciding on the resulting customized role-lists. The following table demonstrates how default custom dropdown lists and role-based custom dropdown lists will be affected:

- When a cell indicates "Undefined", it means that the role does not have a customized role-list, and it will inherit the custom default list.
- When a cell indicates "Any", it means that the role's role-list is customized, but any of the possible combination of values will produce the same result.
- When a cell indicates "Empty", it means that the role's role-list is customized to have no enabled values.
- In every situation, the resulting default role-list will be overwritten to exactly match the package's default role-list.

Situation and Outcome	Destination Default Role-List	Destination Custom Role-List	Package Default Role-List	Package Custom Role-List	Resulting Default Role-List	Resulting Custom Role-List
<p>The destination and package match.</p> <p>The destination remains unchanged.</p>	A,B,C	B,C	A,B,C	B,C	A,B,C	B,C
<p>This role is not customized in the destination or package.</p> <p>This role will not be customized and will inherit the default role-list.</p>	A,B,C	Undefined	X,Y,Z	Undefined	X,Y,Z	Undefined
<p>This role is customized in both the destination and package.</p> <p>This role's custom role-list is updated to match the package's.</p>	A,B,C	Any	A,B,C	A,C	A,B,C	A,C

<p>This role is customized in both the destination and package.</p> <p>This role's custom role-list is updated to match the package's.</p>	A,B,C	Any	X,Y,Z	X,Y	X,Y,Z	X,Y
<p>This role's custom role-list has no enabled options in the package.</p> <p>This role's custom role-list will have no enabled values.</p>	A,B,C	Any, Empty, or Undefined	X,Y,Z	Empty	X,Y,Z	Empty
<p>This role is customized in the destination but not in the package.</p> <p>This role's custom role-list is reduced to the values present in both the destination's custom</p>	A,B,C	A,C	A,B,E	Undefined	A,B,E	A

role-list and the package's default role-list.						
<p>This role is customized in the destination but not in the package.</p> <p>This role's custom role-list will have no enabled values since there is no overlap between the destination's custom role-list and the package's default role-list.</p>	A,B,C	Any	X,Y,Z	Undefined	X,Y,Z	Empty
<p>This role is customized in the destination but not in the package.</p> <p>This role's custom role-list will have no enabled values</p>	A,B,C	C	A,B,E	Undefined	A,B,E	Empty

---

since there is no overlap between the destination's custom role-list and the package's default role-list.						
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For more information about creating role-based custom dropdown lists, please refer to the [Dropdown Editor](#) documentation.

Last Modified: 04/13/2016 02:20pm

## Sugar Portal

### Overview

The Sugar Portal is used by customers to access and view specific information in your instance or create new records in your instance. The portal allows customers with valid login credentials to access [cases](#), [bugs](#), and [knowledge base](#) records, and the ability to update their [contact](#) information. Administrators can configure portal settings, the look and feel of the theme, and the layout configurations via Admin > Sugar Portal.

For more information on how a Sugar user can interface with the portal, please review the [Portal Deployment User Guide](#).

For more information on how your customers can interface with the portal, please review the [Portal User Guide](#).

### Configure Portal

Multiple settings for the portal can be edited in the Configure Portal menu in the Sugar Portal section of Admin menu. This is the first place to look when initially enabling and setting up your portal. This menu includes the following options:

Field name	Description
------------	-------------

Configure Portal	Select the "Enable" checkbox to have the portal enabled for customers. After enabling the portal and clicking "Save" at the bottom of the page, the portal URL will appear under the Enable checkbox. This is the URL where the portal for your instance can be accessed.
Logo URL	Add a URL to an image or logo to this field so that your company logo will show on the login page of the portal.  Note: The image must have a publicly accessible URL and cannot be uploaded from your local machine. The recommended size of the image is 163 × 18 pixels.
Number of records to display on list	Enter the number of how many records will show when viewing a dashlet or list view in the portal. The default number of records is 20.  Note: This value must be no greater than 100.
Default assigned for new portal registrations	When a user tries to register for the portal and creates a lead in Sugar, this designation defines the user assigned to the lead.

Enabling Sugar Portal automatically creates a Customer Self-Service Portal Role and a portal API user called "Sugar Customer Support Portal" which can be viewed in the [Roles](#) and [Users](#) modules, respectively. You can use Access controls within the role to enable and/or disable the Bugs, Cases, or Knowledge Base modules for the Sugar portal. The Sugar Customer Support Portal user is used to authenticate customer requests to the portal. Please do not modify any other Access controls or the field level permissions for this role to avoid unknown and unpredictable system behavior.

Note: If the Customer Self-Service Portal Role or Sugar Customer Support Portal user are accidentally deleted, please disable and re-enable the Sugar Portal to recreate the role and user.

After the Configure Portal's save button, there may be a section of text showing a list of any modules that are currently disabled in [Display Modules and Subpanels](#).

---

Default assigned for new portal registrations:

The following module(s) are disabled:

- Cases

If you would like to enable them in the portal please enable them [here](#).

If a module is disabled, it will not appear in the Sugar Portal. The modules that will show here are Cases, Bugs, and Knowledge Base.

## Theme Portal

Sugar Portal Editor allows you change the colors of the navigation bar, the line under the navigation bar, and the main button in each Sugar Portal page to match your company's color scheme.

The theme menu allows you to configure the following elements on the portal page:

- **Border Color** : The line separating the Navigation Bar and the rest of the page.
- **Navigation Bar** : The bar at the top of the screen that includes module tabs and the search bar.
- **Primary Button** : The button on the page that contains the primary function, usually Save or Edit.

To change the color of one of the elements, click the text box to the right of the current color to drop down a color palette editor. Use the vertical slider on the right to select the color group, and then the shade from the main window in the center. The selected color is shown on the bottom horizontal bar. Click anywhere on the page to confirm your color for the given element.

**Note:** If you know the HTML hexadecimal code for your company's colors, you can manually enter this in the text box.

After selecting your colors, a preview will show on the right of the screen as to how the elements will appear in the portal. After confirming the proper colors, click "Save and Deploy" to push the changes to your portal.

If you are editing the colors and do not like your changes, click "Reset" to return to your most recently saved color options. You can also click "Restore Default Theme" to return to the Sugar stock colors (border - red, navigation bar - black, primary button - blue).

---

## Layouts

Sugar Portal Editor allows you to manipulate the [record view](#) and [list view](#) of the modules customers see in the portal. These layouts are configured with stock fields when the portal is initially enabled, but as additional fields are created in [Studio](#), you may want to add them to the portal layouts to mimic other Sugar layouts in Studio.

Note: For security reasons, some field types, such as HTML type fields, are prohibited from use in portal layouts.

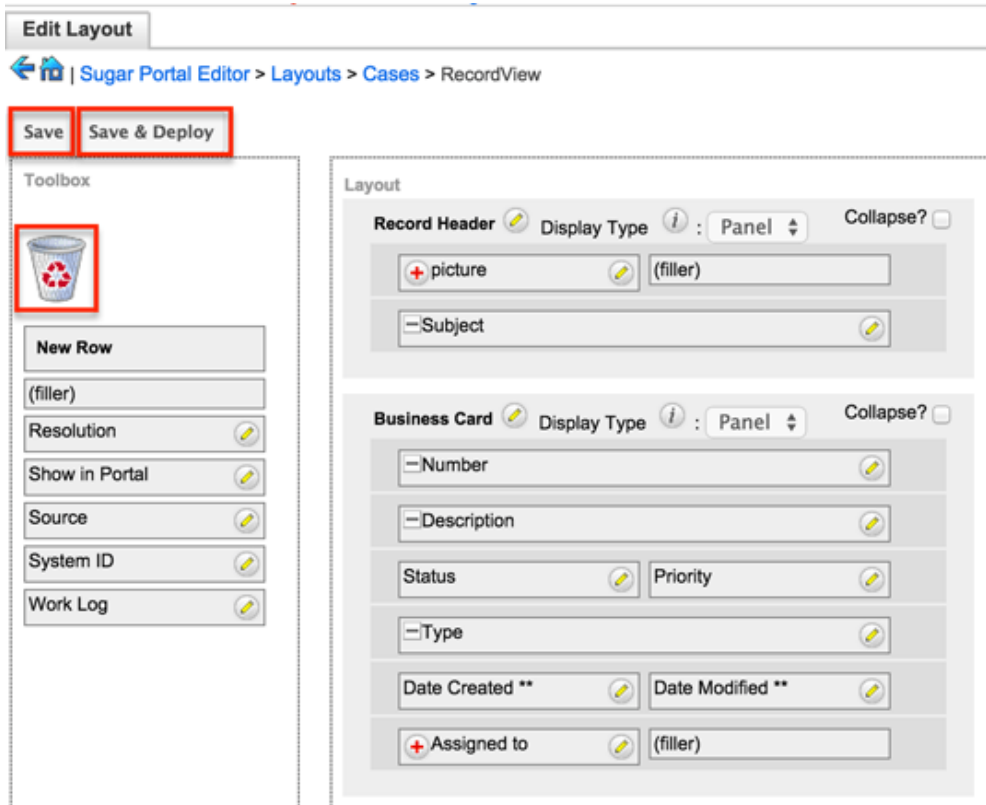
### Record View

The Portal record view will be seen by customers when creating or viewing a case or bug report and when viewing or editing contact information under their user profile.

Note: The Contacts layouts define the portal user's profile layouts.

The editor allows you to drag and drop fields into the layout to add or rearrange the page. Fields can be removed from the layout by dragging and dropping them onto the recycling bin icon. After the layout is configured the way you want customers to see it, click "Save & Deploy" to push the changes to the portal. If you would like to save your work, but not deploy the changes, simply click "Save". For more information on editing the record view layout, please refer to the [Studio](#) documentation.





## List View

The Portal list view will be seen by customers when viewing the list of all bugs, cases, or Knowledge Base articles. The editor allows you to drag and drop fields into the layout's "Default" column and rearrange the order of them. Fields can be removed from the layout by dragging and dropping them to the "Hidden" column. After the layout is set up the way you would like for customers to access it, click "Save & Deploy" which will push the changes to the portal. For more information on editing the list view layout, please refer to the [Studio](#) documentation.

**Edit Layout**

← | Sugar Portal Editor > Layouts > Cases > ListView

**Save & Deploy**

Default	Available [Drop Here]	Hidden
<b>Num.</b> [case_number] 8 %		<b>Date Modified</b> [date_modified] %
<b>Subject</b> [name] 49 %		<b>Modified By Name</b> [modified_by_name] %
<b>Status</b> [status] 17 %		<b>Created By</b> [created_by_name] %
<b>Priority</b> [priority] 13 %		<b>Description</b> [description] %

Note: Clicking the pencil to the right of any field will allow you to edit the name of the field as it shows on the portal and also the percentage of the list view layout that you would like to take the field to take.

Last Modified: 08/25/2017 08:32pm

## Workflow Management

### Overview

**Important Note:** New workflow processes should be created using Sugar Process Author since the legacy Workflow module will be deprecated in a future release. Existing workflow processes should also be re-created in Sugar Process Author. For information on using Process Author, please refer to the [Process Author](#) documentation.

Sugar's Workflow functionality allows administrators to configure cause and effect type actions throughout Sugar and across multiple modules. Workflows can be used to update fields, send emails, or create records when certain conditions are met. Workflows are a great way to configure automated processes within Sugar so that users do not need to remember manual steps and instead can focus on their primary tasks and job responsibilities.

All workflow conditions are reached and checked for once a record is saved. Workflows can be configured to either start their process to perform the job the moment the save occurs, or they can be delayed for a given amount of time.

---

The following save events can trigger a workflow to fire:

- Manually saving a record
- Mass updating records
- [Importing](#) records
- Another workflow updating a record
- Reassigning Records via [User Management](#)
- Updating or creating a record via [plug-ins](#)
- Updating or creating a record via [Sugar mobile applications](#)
- Updating or creating a record via the [portal](#)
- Updating or creating a record via the [Web Services](#)

Workflows can be viewed and configured by any System Administrator User. In addition, regular users with a role that provides Developer access will be able to access workflows for the module they have the rights to. For more information on Roles, please review the [Roles](#) documentation.

## Workflow Fields

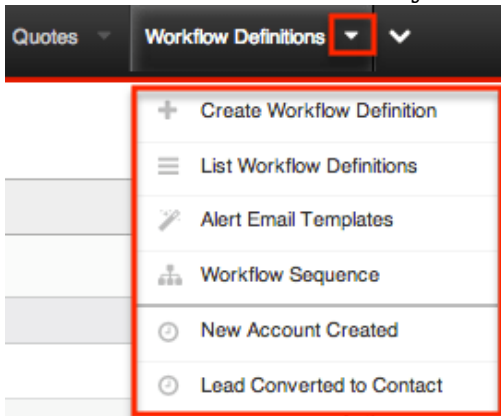
The Workflow module contains seven fields that will retain both functional and organizational purposes in Workflows. These fields cannot be edited or added to because of their functional purposes in the workflow process.

Field	Dropdown Options	Description
Applies To	<ul style="list-style-type: none"><li>• New and Updated Records</li><li>• New Records Only</li><li>• Updated Records Only</li></ul>	Choose if this workflow is going to fire on all saves, when a new record is created, or when an existing record is updated
Description	(Text Area Field, no character limit)	A description of this workflow and its purpose
Execution Occurs	<ul style="list-style-type: none"><li>• When record saved</li><li>• After time elapses</li></ul>	Whether the workflow effects will occur once a record is saved, or if they will be re-checked and occur after a defined amount of time
Name	(Text field, limit of 50 characters)	Identifying name of the workflow
Processing Order	<ul style="list-style-type: none"><li>• Alerts then Actions</li></ul>	If your workflow is going to include both email

	<ul style="list-style-type: none"> <li>• Actions then Alerts</li> </ul>	alerts and workflow actions, select which of the two you would like to happen first
Status	<ul style="list-style-type: none"> <li>• Active</li> <li>• Inactive</li> </ul>	When set to Inactive, the workflow will not process
Target Module	(Module List)	A list of all modules in Sugar that are compatible with workflows. Choose which module the primary conditions will be triggered from

## Workflow Module Tab

The Workflow Definitions module tab is typically located on the navigation bar at the top your Sugar screen after navigating to Admin > Workflow Management. Click the tab to access the Workflows list view. You may also click the triangle in the Workflow Definitions tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Workflow Definition</a>	Opens the edit view layout to create a new workflow
<a href="#">List Workflow Definitions</a>	Opens the list view layout to search and display workflows
<a href="#">Alert Email Templates</a>	Opens the Alert Template menu to allow you to create, view, and edit existing alert email templates

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## [Workflow Sequence](#)

Opens the Workflow Sequence menu to allow you to reorganize the processing order of your workflows for each module

## Creating Workflows

Workflows are created by accessing the Admin menu, navigating to the Developer Tools section and then clicking on the link for Workflow Management.



### Product and Quotes

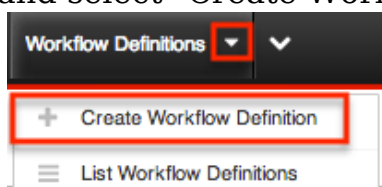
Once on the Workflow Management module, you can create a new workflow or duplicate an existing one. The process of creating workflows contains four main sections. First, the workflow itself must be created. This creation process will include the name of the workflow, as well as the rest of the values for the fields listed in the [Workflow Fields](#) section of this documentation. After the workflow has been saved, the next step will be to configure the [Workflow Conditions](#), which defines what will cause the workflow to happen, or its triggers. Finally, the [Workflow Alerts](#) and [Workflow Actions](#) must be configured. These define what the workflow will do to Sugar records or what emails will be sent out after triggered.

## Creating Via Workflow Module

The most common method of workflow creation is via the Create Workflow Definition option in the Workflow Management module. This opens up the edit view layout which allows you to enter in all the relevant information for the workflow.

Use the following steps to create a workflow via the Workflow Management module:

1. Navigate to Admin > Workflow Management.
2. Click the triangle in the Workflow Definitions tab to open the Actions menu and select "Create Workflow Definition".



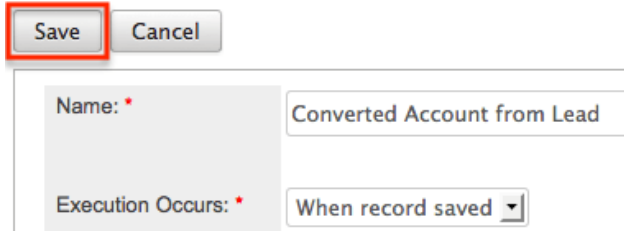
3. Enter appropriate values for the [fields](#) in the edit view layout. All required

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fields are marked with a red asterisk and must be completed prior to saving.

4. Once the necessary information is entered, click "Save".

Create



Save Cancel

Name: \* Converted Account from Lead

Execution Occurs: \* When record saved

5. Define the conditions of the workflow that will trigger the workflow to process as described in [Creating Workflow Conditions](#).
6. Define what will happen when the workflow is processed as described in [Creating Workflow Alerts](#) and [Creating Workflow Actions](#).

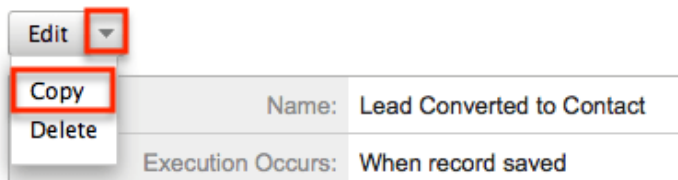
## Creating Via Duplication

You can also create a new workflow definition by duplicating an existing workflow record. The duplicate option is useful if the workflow you are creating has similar information, conditions, and alerts and actions to an existing workflow as all of these are copied over during the duplication process.

Use the following steps to create a workflow definition by duplicating an existing record:

1. Navigate to a workflow definition's detail view.
2. Click the Actions menu and select "Copy".

Lead Converted to Contact



Edit

Copy

Delete

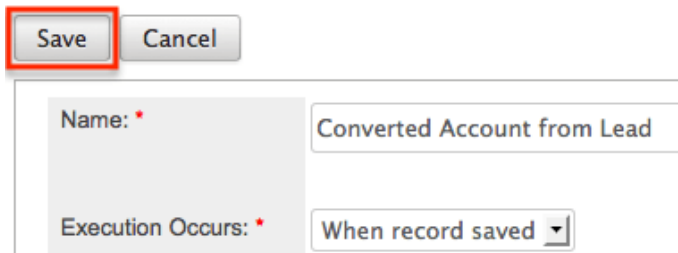
Name: Lead Converted to Contact

Execution Occurs: When record saved

3. The displayed edit view is pre-populated with the original workflow's values. Update the necessary fields then click "Save".

---

## Create



Save Cancel

Name: \* Converted Account from Lead

Execution Occurs: \* When record saved ▾

## Creating Workflow Conditions

Workflow conditions are an essential function when creating workflows. Workflow Conditions define the "cause" side of workflow's cause and effect type functionality. At least one condition must exist for a workflow to trigger. If more than one conditions exist, they all must be fulfilled for the workflow to trigger.

Use the following steps to create a workflow condition:

1. Navigate to the detail view of the workflow.
2. Click "Create" on the Conditions subpanel to open a popup box with the different condition possibilities.

When these conditions are met:

### Conditions

Create

Description:

3. Follow the prompts in the popup to create the different conditions, as described below. Once complete, click "Save" and the condition will be added to your workflow definition.
4. Repeat this process as necessary to add additional conditions.
5. After the condition has been created, it will appear in the [conditions subpanel](#).

Note: The available conditions will vary depending on the execution type ("When record saved" or "After time elapses") you have chosen for the workflow.

## Creating "After Time Elapsed" Workflow Conditions

The "After time elapsed" workflow condition options are different for the first

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condition and subsequent conditions. This is to ensure that your time based condition is recorded. After that, you can set additional conditions to filter the records from which the workflows will fire.

The initial "After time elapsed" workflow condition options are as follows:

- When a field in the target module changes to or from a specified value : You will be asked to specify a specific field within the module, and its value. Then, you will select the amount of time after the change that, after this threshold, the workflow will fire.
- Field does not change for a specified amount of time : You will be asked to specify a specific field within the module and a timeframe. After the field changes, if it does not change again in the given timeframe, the workflow will fire.

Please note that the time intervals (e.g. 0 hours, 4 hours, 8 hours, etc.) you specify when setting up the conditions can be configured via Admin > Dropdown Editor. For more information on configuring the time intervals, please refer to the [Developer Tools](#) documentation.

The secondary conditions for an "After time elapsed" workflow contain the two mentioned above, but also two others, as follows:

- When a field in the target module contains a specified value : This condition is used to filter records that should or should not be included in the workflow. You will be asked to specify a field and the value of the field, and if you want to include records where the field is a specific value, or if it is not a specific value. These conditions will vary by which field is chosen.
- When the target module changes and a field in a related module contains a specified value : This condition is used to filter records based on their related records. You will be asked to specify which relationship you would like to the workflow to look at, and which field and value should or should not be used when triggering the workflow.

### Creating "When Record Saves" Workflow Conditions

The "When record saves" workflow condition options are as follows:

- When a field in the target module changes to or from a specified value : This option can be used to specify both the new value of a specific field to trigger a workflow, and also what the previous value was. You will be asked to specify the specific field and the new value after save to use this condition. The



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previous value is not required.

- When the target module changes : This option will cause the workflow to trigger when any change to the record takes place.
- When a field on the target module changes : This option will cause the workflow to trigger when there is any change to a specific field, regardless of what the change is.
- When a field in the target module contains a specified value : This condition is used to filter records that should or should not be included in the workflow. You will be asked to specify a field and the value of the field, and if you want to include records where the field is a specific value, or if it is not a specific value. These conditions will vary by which field is chosen.
- When the target module changes and a field in a related module contains a specified value : This condition is used to filter records based on their related records. You will be asked to specify which relationship you would like to the workflow to look at, and which field and value should or should not be used when triggering the workflow.

## Creating Workflow Alerts

Workflow alerts are one of the possible effects of workflow's cause and effect type functionality. These can be used with or without [workflow actions](#). Workflow alerts, when triggered by the workflow condition, will cause an email to be sent to a specified recipient. These recipients include Sugar users or individuals related to the target module. To create a workflow alert, follow the following steps:

1. Navigate to the detail view of the workflow.
2. Click "Create" on the Alerts subpanel, which will bring you to the alert setup page.

These operations will be performed:

Alerts

Create ▾

Details	Type:	Event Description:
---------	-------	--------------------

3. You will be presented with the following fields to populate.

Field	Description
Name	Choose a brief, descriptive name for this alert
Alert Type	Defaults to Email, which is the most common usage, but you can choose Invite if the alert is going to send an

	invite for appointment based modules
Source Type	Normal message will produce a plain text message (written in the Alert Text field), or Custom Template will use a <a href="#">Workflow Alert Template</a>
Alert Text	Enter in text that will be sent to the alert recipients for a simple message without formatting or variables  Note: This field will show depending on the selection made in Source Type
Custom Template	Select from your available <a href="#">Workflow Alert Templates</a> in this dropdown for this alert's target module  Note: This field will show depending on the selection made in Source Type

Enter necessary values for all fields and click Save.

The screenshot shows a form with the following elements:

- Buttons: "Save" (highlighted with a red box) and "Cancel".
- Field "Name: \*": Text input containing "New Customer Alert Email".
- Field "Alert Type": Dropdown menu showing "Email".
- Field "Custom Template": Dropdown menu showing "New Account Template".
- Field "Source Type": Dropdown menu showing "Custom Template".
- Text: "\* Indicates" in the top right corner.

On the next screen, click "Create" on the "Alert Recipient List" subpanel to choose your recipients.

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## New Customer Alert Email

Edit Delete

Name:	New C
Alert Type:	Email

### Alert Recipient List

Create

Alert Recipients:

Note: The only options that will send to someone other than a Sugar user are "Recipient associated with the target module" and "Recipient associated with a related module".

Pick the recipients, select any blue hyperlink text to define any variables, such as who a specified user is, or if the recipient should be sent the email as a "To", "CC", or "BCC" recipient, and then click "Save" to continue.

Edit Delete

Please Select

User's Manager

✓ User

Save Cancel

User who creat

User who last n

User who is ass

User who was assigned the record

A user associated with the target module

[User](#) who is assigned the record using address: [type](#)

Save Cancel

Repeat steps 5 and 6 as need be to add additional recipients for this workflow alert.

Click the hyperlink for "Send alert to the following recipient" to make any changes, remove any errant recipients with the "Remove" button on the corresponding row, or the "Edit" button on the top left if you need to change any configurations. Once complete, click "Return to Workflow Definition".

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## New Customer Alert Email

<a href="#">Edit</a>	<a href="#">Delete</a>	<a href="#">Return to Workflow Definition</a>	
Name:	New Customer Alert Email	Source Type:	Custom Template
Alert Type:	Email		

**Alert Recipient List**

[Create](#)

Alert Recipients:

<a href="#">Send alert to the following recipient:</a> A user associated with the target module	<a href="#">remove</a>
---	------------------------

After the alert has been created, it will appear in the [Alert Subpanels](#).

## Creating Workflow Actions

Workflow actions are one of the possible effects of workflow's cause and effect type functionality. These can be used with or without [Workflow Alerts](#). Workflow actions, when triggered by the workflow condition, will cause either updates to existing records or creation of new records. To create a workflow action, follow the following steps:

1. Navigate to the detail view of the workflow that you are working on
2. Click "Create" on the Actions subpanel to open a popup box with the different action possibilities

**Actions**

[Create](#)

Details Type: Event Description:

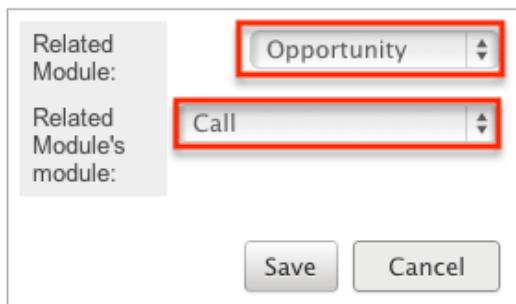
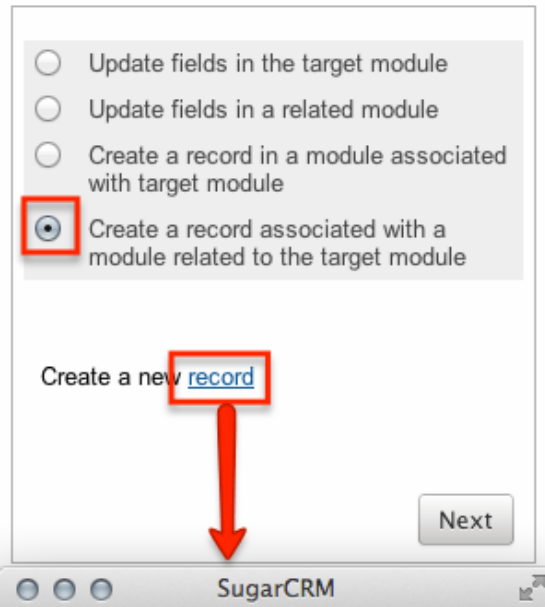
3. Follow the prompts in the popup to create the different actions, as described in [Workflow Actions](#). Once complete, click "Save" and the action will be added to your workflow definition.
4. Repeat this process as necessary to add additional actions.
5. After that action has been created, it will appear in the [Actions Subpanel](#).

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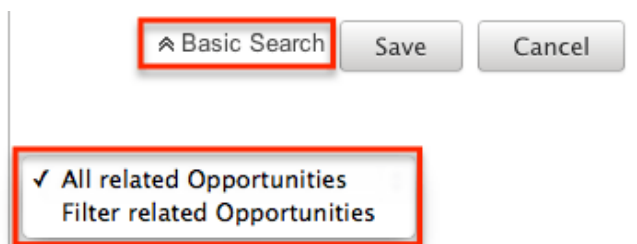
## Workflow Action Types

There are four options for actions that are available. These options can make updates to the module your workflow is tied to, or a module related to this target module. The options can also create records in related modules or modules related to related modules. The options are as follows:

- Update fields in the target module : You will be given the option to select one or more fields within the target module of the workflow, and what the new value or values should be.
- Update fields in a related module : You will first be given the option to choose which related module to the target module you would like to update. After selecting the related module, you will select one or more fields within the related module to update, and what the new value or values should be.
- Create a record in a module associated with target module : You will be given the option to choose a related module to your target module. This action will create a new record in the related module, such as creating a new call related to an account, where Accounts is the target module. After selecting the module, you will be given the option to populate any or all fields with the related module. Any required fields will be marked with a red asterisk.
- Create a record associated with a module related to the target module : This action will take a record, or all records, related to your target module, and create a related record to this middle module. When creating these actions, you are asked to select the related module to your target module, and then select that module's related module where the new record is going to be created. For example, if your workflow's target module is Contacts, the following screenshot shows how a call will be created and related to the contact's related Opportunity.



On the next screen, after selecting your modules, you will select one or more fields within the related module to update, and what the new value or values should be. Clicking on the "Advanced Search" button at the bottom of this window will allow you to select if the workflow is specific for all related records (Opportunities), or if the related record should be filtered at all.



The "Advanced Search" function also contains special functions for specific field types:

- Assigned User : Allows you to configure the action to set the assigned user to be either the actual user or the user's manager who either is currently assigned to the triggered record, the one who most recently updated it, the one who created it, or is the one saving the record.
- Team ID : Allows you to configure the action to set the team to be the

- 
- default team of the user who triggered the workflow or, if it is updating a related record, to match the primary team of the triggered record.
- **Dropdown Fields** : Allows you to configure the action to sequentially move the dropdown option forward or backward in the order in which it appears in the dropdown list.

## Viewing Workflows

There are various options available for viewing workflow records in Sugar including via Workflow Definitions list view, Workflow Definitions detail view, and the Workflow Definitions Last Viewed menu. Each method will provide varying degrees of detail and insight into the workflow.

### Viewing Via List View

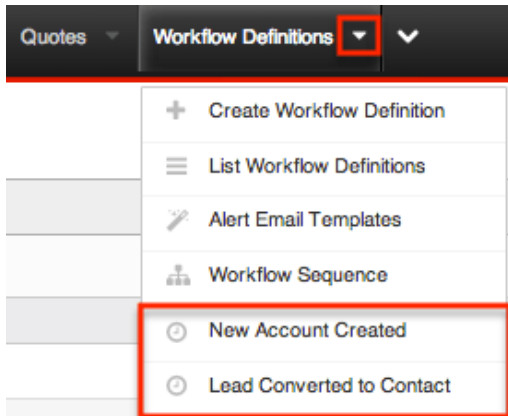
The Workflow Definitions list view displays all records meeting the current search criteria. To access the list view, simply click the Workflow Definitions module tab, which is made available by navigating to Admin > Workflow Management. While list view shows key workflow fields, you can click the workflow definition's name to open the record in detail view. For more information on viewing workflows via list view, please refer to the [Workflows List View](#) section of this documentation.

### Viewing Via Detail View

The Workflow Definitions detail view displays thorough workflow information including all workflow fields followed by subpanels showing the Conditions, Alerts, and Actions that process the workflow. The detail view can be reached by clicking a workflow definition's link from the Workflow Definitions list view. For more information on viewing workflows via detail view, please refer to the [Workflow Detail View](#) section of this documentation.

### Viewing Via Recently Viewed

As you work, Sugar will keep track of which workflows you have recently viewed. Click the Actions menu in the [Workflow Definitions module tab](#) to see a list of your most recently viewed workflows and click each name to open the workflow definition in detail view.



## Searching Workflows

The Workflow Definitions list view includes a Basic and Advanced Search to help you locate records easily and effectively. Once the search is performed, the relevant results will be displayed in the Workflows list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %created). This will pull up any workflow that has the word "created" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

### Basic Search

Basic search offers a simplified search experience allowing you to search for just the name of the workflow. From the Basic Search panel, you can click "Advanced Search" to access additional search functionality as needed.

The buttons and checkboxes available in Basic Search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear criteria from the Name field.



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## Workflow Definitions



A search panel with a text input field labeled "Name", a "Search" button, a "Clear" button, and a link for "Advanced Search".

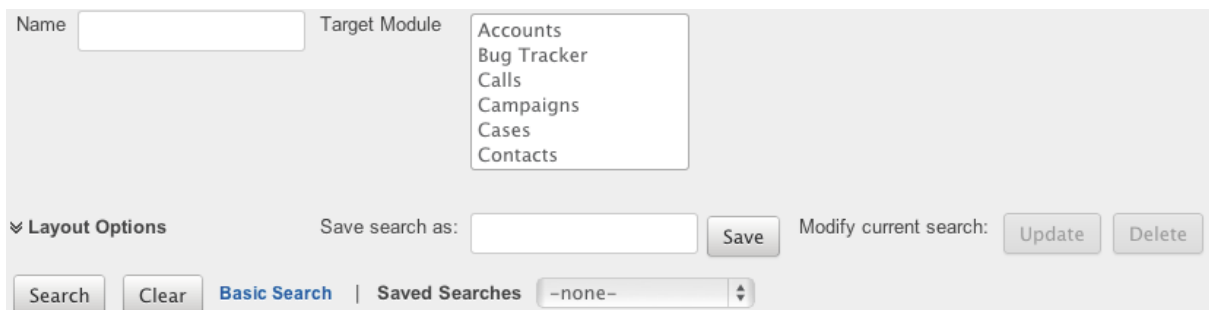
When you run a search, Sugar will return records matching all (as opposed to any) of the fields for which you have given a value. Once the search is complete, the relevant results will populate in the [list view](#) beneath the search panel. To see all workflow definitions, simply click "Clear" and then "Search" to perform a blank search with no filters.

## Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching.

The buttons and dropdowns available in Advanced Search have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.
- Layout Options : Use the expandable Layout Options section to configure your list view. For more information, please refer to the [Layout Options](#) section of the Search documentation.
- Saved Searches : Save, recall, update, and delete searches which you use often. For more information, please refer to the [Saved Search](#) section of the Search documentation.



The Advanced Search panel includes a "Name" input field, a "Target Module" dropdown menu with options: Accounts, Bug Tracker, Calls, Campaigns, Cases, and Contacts. Below this is an expandable "Layout Options" section. To the right, there is a "Save search as:" input field with a "Save" button, and a "Modify current search:" section with "Update" and "Delete" buttons. At the bottom, there are "Search" and "Clear" buttons, a "Basic Search" link, and a "Saved Searches" dropdown menu currently showing "-none-".

When you run a search, Sugar will return records matching all (as opposed to any) of the fields for which you have given a value. For example, if you select the Target Module as "Accounts" or "Contacts" and enter in the word "Created" for the Name search, Sugar will only return workflow definitions with a matching name from the

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Accounts or Contacts modules. Once the search completes, the relevant results will populate in the [list view](#) beneath the search panel. To see all workflow definitions, simply click "Clear" and then "Search" to perform a blank search with no filters.

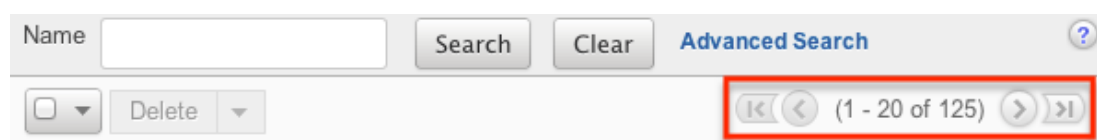
## Workflows List View

The Workflows list view displays all workflow definitions meeting the current search criteria. You can view the basic details of each workflow within the field columns. The list view also allows for records to be edited or deleted as need be.

### Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

By default, Sugar displays 20 records per list view page, but the number of records displayed can be changed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation.

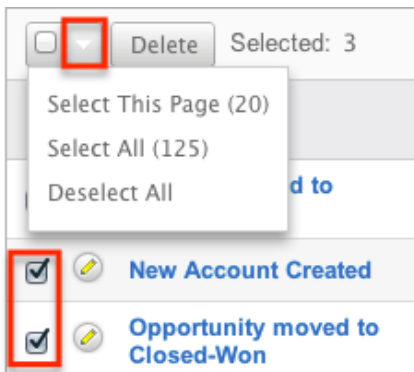


### Checkbox Selection

You can delete workflow definitions directly from the list view by first selecting the desired records. To select individual workflows on the Workflow Definitions list view, mark the checkbox on the left of each row. To select or deselect multiple workflow definitions on the list view, use the options in the checkbox dropdown menu:

- **Select This Page** : Selects all records shown on the current page of workflow results.
- **Select All** : Selects all records in the current search results across all pages of workflow results.

- Deselect All : Deselects all records that are currently selected.



## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search. For more information on setting a default column sort, please refer to the [Layout Options](#) section of the Search documentation.

Name	Execution Occurs	Status	Target Module
New Account Created	When record saved	Active	Accounts

## Workflow Detail View

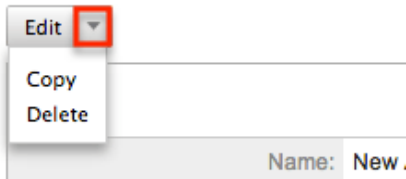
The Workflow Definition detail view displays thorough workflow information including all workflow fields. You will also see the Conditions, Alerts, and Actions subpanels beneath the workflow fields. The detail view can be reached by clicking a workflow record's link from the Workflow Definitions list view or from the recently viewed menu.

## Actions Menu

The Actions menu on the top left of each workflow definition's detail view allows you to perform various actions on the current record. The action items can be configured to be displayed as separate buttons instead of a dropdown menu via Admin > System Settings. For more information on configuring the actions menu, please refer to the [System](#) documentation in the Administration guide.

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## New Account Created



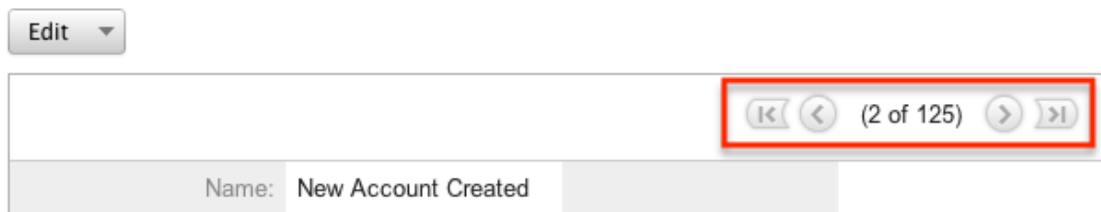
The Options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this workflow definition
<a href="#">Copy</a>	Duplicate this workflow definition
<a href="#">Delete</a>	Delete this workflow definition

## Next or Previous Record

On the upper right of the Workflow Definitions detail view, there are four buttons that allow you to page through each workflow in the Workflow Definition list view's current search results. Clicking the Previous button displays the previous workflow of the current search results while clicking the Next button displays the next workflow of the current search results. The two double-arrow First Page and Last Page buttons allow you to skip to the first or the last workflow of your current results. The text in between shows which workflow result you are currently viewing within the total number of current results.

### New Account Created



## Conditions Subpanel

The Workflow Conditions subpanel allows you to create additional conditions for your workflow and also lets you view and modify the existing ones. The subpanel shows a Description and a Value for each condition. The Description is an automatically generated, brief explanation of the condition. The Value shows what field or fields are covered in the condition, if not expressly stated in the description. The Conditions subpanel allows the following operations to be

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performed.

- To view the details or edit a condition, either click the condition's description in the subpanel or click the edit button to from the far right of the record's row to open the condition popup.
- To create a new workflow condition, choose "Create" from above the subpanel, then follow the steps supplied in the [Creating Workflow Conditions](#)
- To delete a condition on this workflow, choose "Remove" from the far right of the record's row.



## Alert Subpanels

The Workflow Alert subpanel allows you to create additional alerts for your workflow and also lets you view and modify the existing ones. The subpanel displays the "Detail"s, "Type", and "Event Description" for each condition. After an alert has been created, there is also a column for Recipients. The "Event Description" is automatically generated and provides a brief explanation of the alert with the name of the Alert record and what template (if applicable) is being sent to the recipients. The Alerts subpanel allows the following operations to be performed.

- To view or edit an alert, either click the alert's event description or click "Edit" on the far right of the row to open the alert's edit view.
- To view the recipients of the alert, click "Show" from the far left of the record's row. Click "Hide" to collapse the drawer highlighting the recipients
- To edit or add recipients of the workflow alert, click "Recipients". This button will also open the alert's detail view.
- To create a new workflow alert, choose "Create" from above the subpanel, then follow the steps supplied in the [Creating Workflow Alerts](#) section of this documentation.
- To delete an alert on this workflow, choose "Remove" from the far right of the record's row.

## Alerts

Details	Type:	Event Description:		
<a href="#">Hide</a>	Alerts	<a href="#">Recipients</a> Send <i>New Account Created</i> using a Custom Template: <i>New Account Template</i>	<a href="#">edit</a>	<a href="#">remove</a>

• A specified user Administrator

## Actions Subpanel

The Workflow Actions subpanel allows you to create additional actions for your workflow and also lets you view and modify the existing ones. The subpanel shows a Details, Type and an Event Description for each condition. The Event Description is an automatically generated, brief explanation of the action that will be performed by the workflow. The Conditions subpanel allows the following operations to be performed.

- To view the details or edit a condition, either click the condition's description in the subpanel or click the edit button to from the far right of the record's row to open the condition popup.
- To view the actions that will be performed, click "Show" from the far left of the record's row. Click "Hide" to collapse the drawer highlighting the actions.
- To create a new workflow action, choose "Create" from above the subpanel, then follow the steps supplied in the [Creating Workflow Actions](#) section of this documentation.
- To delete an action on this workflow, choose "Remove" from the far right of the record's row.

## Actions

Details	Type:	Event Description:		
<a href="#">Hide</a>	Actions	<a href="#">Update fields in the target module</a>	<a href="#">edit</a>	<a href="#">remove</a>

• Set account\_type as Customer

## Editing Workflows

Workflows may be edited at any time to update or add information to the definition. You can make changes to existing workflow definitions via the

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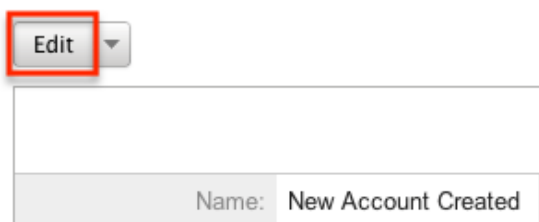
Workflows edit view. Edit view is available within the Workflows module and includes all of the Workflow fields. It can be accessed either via the detail view or list view. Please note that Conditions, Alerts, and Actions are not edited through the Workflow edit view.

Note: After a workflow has been created, the fields "Execution Occurs" and "Target Module" cannot be edited

## Editing Via Detail View


You can edit workflows via the [detail view](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve the changes made.

New Account Created



## Editing Via List View

You can edit workflows via the [list view](#) by clicking the Pencil icon to the left of each workflow's name. The page will navigate to the edit view. Update the necessary fields, then click "Save" to preserve the changes. After saving, you will be brought to the detail view of the workflow.

	Name	Execution Occurs	Status	Target Module
<input type="checkbox"/>	 <a href="#">New Account Created</a>	When record saved	Active	Accounts

## Deleting Workflows

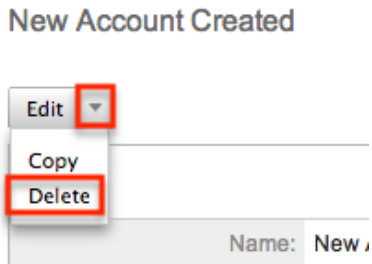
If a workflow definition is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from either the Workflow Definitions detail view or list view. Deleting via the detail view allows you to delete a single record while the list view allows for mass deleting multiple records at once. Deleting the workflow definition will also remove the conditions, actions, and alerts to stop workflows from firing.

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## Deleting Via Detail View

Use the following steps to delete a workflow via the detail view:

1. Navigate to a workflow definition's detail view.
2. Select "Delete" from the Actions menu.

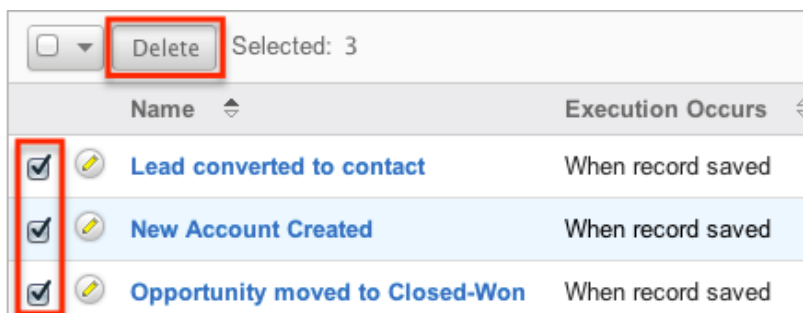


3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Mass Deleting Via List View

Use the following steps to delete one or more workflows via the list view:

1. Navigate to the Workflow Definitions list view via Admin > Workflow Management.
2. Use the [Basic](#) or [Advanced Search](#) to find the Workflow Definitions you wish to delete.
3. Select the desired records individually or using the [checkbox dropdown's](#) options.
4. Choose "Delete" from the Actions menu.



5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of workflow definitions. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.



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## Workflow Alert Templates

When sending a workflow alert, you have the option of sending either a "Normal Message" which will be just a simple, plain text alert, or utilizing a workflow template. Templates have the option to use full HTML editing, to include formatting changes, colors, variables to include data from fields in Sugar, and more.

### Alert Template Fields

The Workflow Templates functionality contains several fields that will retain both functional and organizational purposes in Workflows. These fields cannot be edited or added to because of their functional purposes in the workflow process.

Field	Description
Body	This is where you can design your email template using the WYSIWYG (What you See Is What You Get) editor. Click the "Alt Text" checkbox to edit the plain text version of this email. The entry into this box is what will actually be sent to the recipients of the email.
Description	A short explanation of the template and what it is used for.
Field List	Used to select which field from the given module will be inserting into the Variable Insert field to eventually be inserted into the template, which can be changed by updating the Related Module dropdown field.
From Address	What sender's email address will be shown on the email when received by the recipient.  Note: Mail servers have the functionality to override this setting meaning the email address will show as the one that actually sends this, defined in Admin > Email Settings. Please review the <a href="#">Emails</a> documentation for more information.

From Name	What sender's name will be shown on the email when received by the recipient.
Name	Identifying name of the template.
Related Module	List of modules related to the Target Module, which will change the Field List and, therefore, change the fields that can be used for variables in the email.
Subject	The subject line of the email which will show for the recipients.
Target Module	Selected when creating the template and a non-editable field, this will cause the template show when using the template for workflows made to the corresponding module.
Type	Will only show as workflow, but will vary when making other template types to include Email and Campaign.
Value Type	Select "New Value" or "Old Value" if the variable will be changing on the workflow to determine if the variable should include the value of the field before or after the record is saved.
Variable Insert	This field will build the variable for you based on the Target Module, Related Module, Field List, and Value Type fields.

## Creating Alert Templates

Alert Templates are created only via the Workflow module. Alert templates can be created either directly from the workflows module via the Alert Templates page, or via duplication. The Target Module is defined during the creation process, and then a full edit view layout opens including all fields that will be necessary to create the template.

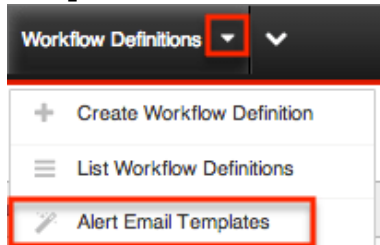
### Creating Alert Templates Via Workflows Module

The most common method of template creation is via the Alert Email Templates option in the Workflow Definitions module tab. This will open the edit view layout allowing you to configure the template to your specifications.

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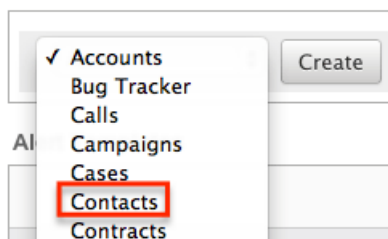
Use the following steps to create the template via Workflow Management:

1. Navigate to Admin > Workflow Management.
2. Click the triangle in the Workflow Definitions tab and select "Alert Email Templates".



3. Select the module you wish to create the alert template for then click "Create".

Alert Templates



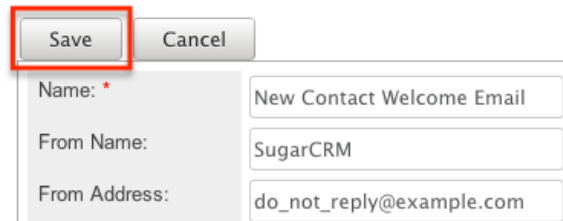
4. Enter appropriate values for the following fields below. Required fields are marked with a red asterisk and must be completed prior to saving.
  - Name : Enter a name for the email template.
  - Type : Leave as "Workflow".
  - From Name : The name that the email recipient will see as the sender.
  - From Address : The email address that the email recipient will see as the sender.  
Note: This may be overwritten by your mail server configured in Admin > [Email Settings](#).
  - Description : Enter a description or other information about the template.
  - Related Module : To insert a field from a record related to the target module, select the related module.
  - Subject : Enter the subject of the email that will be sent.
  - Body : Enter the body of the emails that will be sent.
  - Attachments : Click the "Choose File" button to open a file selection window from your browser and attach a file. Click the Sugar Document button to attach a file from the sugar database.
5. Populate the template body that will be sent to the email recipients. [Insert variables](#) as necessary for your workflows.
6. Using the TinyMCE functions, add simple formatting to your email's content.

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For more advanced customization you can click the HTML button in the top left to access and edit the generated HTML code. For more information on using TinyMCE, please refer to the [User Interface](#) documentation.

Note: If images or advanced CSS are required in your email template, it is highly recommended to host the images or CSS file on a publicly available hosting service and link to it in the email template.

7. Once the necessary information is entered, click "Save" to preserve your changes to the email template.



A screenshot of a web form for editing an email template. At the top, there are two buttons: "Save" and "Cancel". The "Save" button is highlighted with a red rectangular box. Below the buttons, there are three input fields: "Name: \*" with the value "New Contact Welcome Email", "From Name:" with the value "SugarCRM", and "From Address:" with the value "do\_not\_reply@example.com".

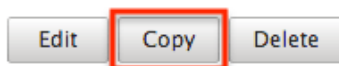
## Creating Alert Templates Via Duplication

You can also create a new template by duplicating an existing template. The duplicate option is useful if the template you are creating has similar information to an existing template.

Use the following steps to create a template by duplicating an existing template:

1. Navigate to an existing template's detail view.
2. Click the action option for "Copy".

New Contact Welcome Message

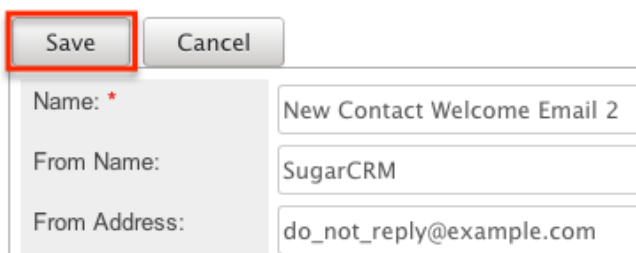


A screenshot showing three buttons: "Edit", "Copy", and "Delete". The "Copy" button is highlighted with a red rectangular box.

Name: New Contact Welcome Message

3. The displayed edit view is pre-populated with the original template's values. Update the necessary fields then click "Save".

New Contact Welcome Email



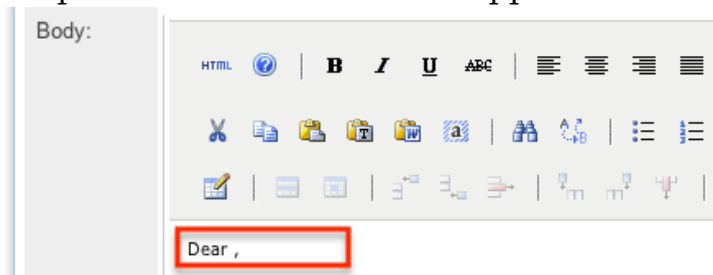
A screenshot of a web form for editing an email template. At the top, there are two buttons: "Save" and "Cancel". The "Save" button is highlighted with a red rectangular box. Below the buttons, there are three input fields: "Name: \*" with the value "New Contact Welcome Email 2", "From Name:" with the value "SugarCRM", and "From Address:" with the value "do\_not\_reply@example.com".

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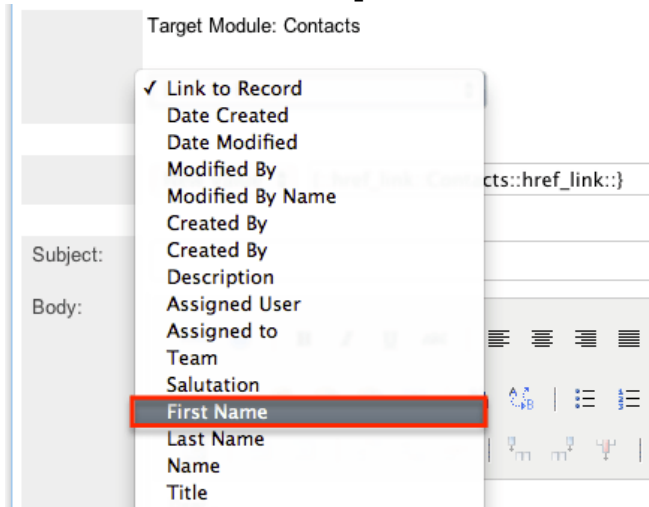
## Inserting Variables

When constructing the subject and body of your email, Sugar allows you to insert variables, or placeholders, into the template that will be populated with the record's information for that variable. The variables allow you to insert data from fields within the record that triggered the workflow and its related records into your template. Use the following steps to insert a variable for the recipient's first name into the template:

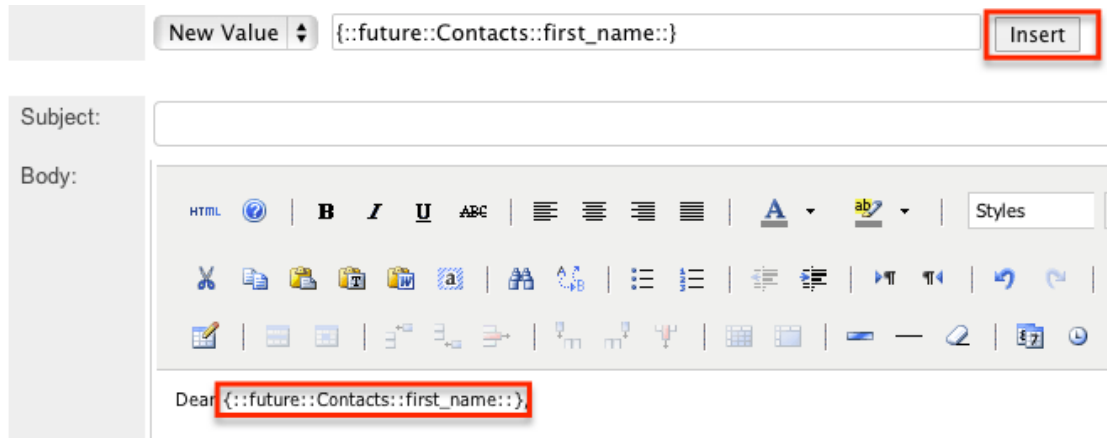
1. Click to place your cursor on the location in the subject or body where the recipient's first name should appear.



2. Set the variable dropdown to the desired field from the workflow's target module. For our example, select "First Name".



3. Choose between "New Value" and "Old Value" in the value dropdown field. This will determine if the value of the given variable shown on the template will be the value of the field in question before or after the workflow fired. This functionality is especially helpful if you are showing a change between two values, such as an opportunity moving from new ("Old Value") to closed-won ("New Value"). "New Value" is the default option for this list.
4. Click "Insert" to insert the generated variable name to your subject or body at your cursor's location.



Note: You can click "Alt Text" at the bottom of the page to have the plain text option send differently than the HTML text.

## Viewing Alert Templates

There are various options available for viewing workflow templates in Sugar including via Workflow Templates list view, Workflow Templates detail view, and from the Emails module.

### Viewing Alert Templates Via List View

The Workflow Templates list view displays all workflow templates and key fields about each template. To access the list view, simply navigate to the Workflow Management section of the Admin menu and select "Alert Email Templates" from the Workflow Definitions module tab. Use the Alert Templates list view for the following functions:

- To open the record in detail view, click the template's name
- To re-sort the list view results one column at a time, click the column header, and the columns will sort alphabetically or chronologically
- Use the arrows in the top right side of the list view navigate through the pages of your templates, or skip to the first or last page using the double arrow buttons
- To delete a template, click "Remove" from the far right of the corresponding template's row

### Viewing Alert Templates Via Detail View

The Alert Templates detail view displays thorough alert template information

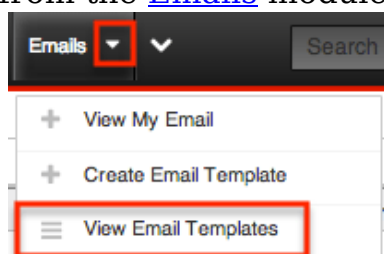
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including all template fields and a preview of the workflow template that recipients will see after it is sent. The detail view can be reached by clicking a template's link from the Alert Templates list view.

While viewing the detail view, the preview of the email template is shown as the last field option. You can also click the "Alt Text" checkbox to see how this email will look when the recipient views it as plain text.

## Viewing Alert Templates Via Emails Module

The Emails module contains all of the email templates in Sugar. Alert Templates can be accessed via Emails, in addition to accessing via Workflow Management. To access alert templates via Emails, simply select the View Email Templates option from the [Emails](#) module tab.

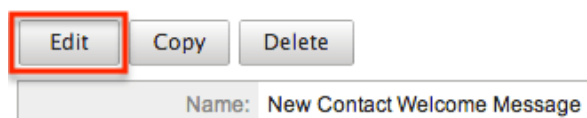


This will bring you to the [Email Templates list view](#) where you can select which template you would like to view. For more information on navigating the Emails module, please review the [Emails](#) module section of the Application Guide.

## Editing Alert Templates

Alert Templates may be edited at any time to update or add information to the template. You can make changes to existing templates via the Alert Templates edit view. Edit view is accessible via the Alert Templates detail view. You can edit alert templates via the [detail view](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve the changes made.

New Contact Welcome Message



## Deleting Alert Templates

If an alert template is invalid or should no longer appear in your organization's

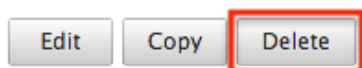
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Sugar instance, it may be deleted from either the Alert Templates detail view or list view. Deleting alert templates will not delete any workflows using them. If a workflow is utilizing a template which you are deleting, it is recommended that the workflow be updated to include a new template on the alert.

To delete a template from the template's detail use the following steps:

1. Navigate to the Alert Templates detail view.
2. Click the Delete button.

New Contact Welcome Message



Name: New Contact Welcome Message

3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

To delete a template from the list view, use the following steps:

1. Navigate to the Alert Templates list view.
2. Select the "Remove" button on the row of the template you would like to delete.

Name ⇅	Base Module: ⇅	Description ⇅	Last Modified ⇅	
New contact welcome email	Contacts	Use this template for the new contact workflow	03/20/2013	

3. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Time Intervals for Time Elapsed Workflows

Time elapsed workflows trigger after a specified amount of time has passed from when the record was saved. Users with administrator or developer access have the ability to add new time intervals to the dropdown list ("tselect\_type\_dom") used for time elapsed workflows. The time interval dropdown list can be viewed and edited via Admin > Dropdown Editor. For more information on Dropdown Editor, please refer to the [Developer Tools](#) documentation.

By default, the time intervals are:

4 days 5 days 1 week 2 weeks 3 weeks

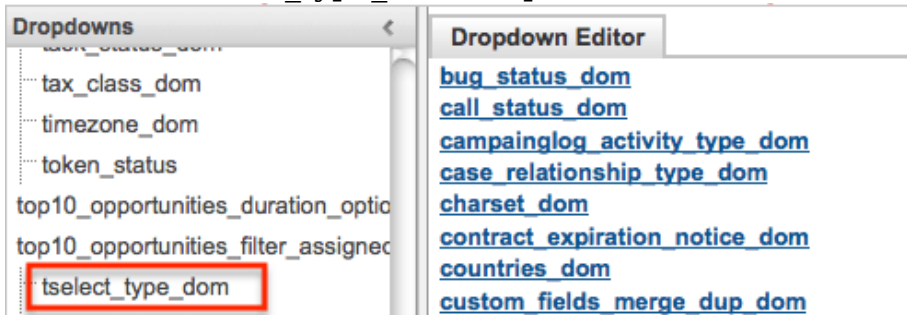
0 hours	3 days	30 days
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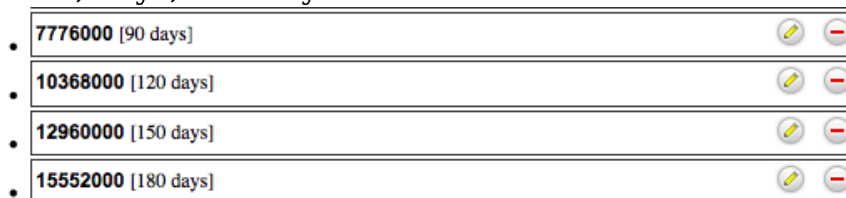
4 hours	60 days
8 hours	90 days
12 hours	120 days
1 day	150 days
2 days	180 days

The following steps cover adding a 1 hour time interval to the dropdown list via Dropdown Editor as an example:

1. Navigate to Admin > Dropdown Editor.
2. Locate the tselect\_type\_dom dropdown list and click to view the details.



3. Enter in an item name (e.g. 3600) and display label (e.g. 1 hours) into the corresponding fields below the existing item list.
  - o Please note that the Item Name field must be in seconds equaling to the hours, days, weeks you wish to add.



Item Name:  Display Label:

4. Click "Add" to add the new value to the dropdown list.
  - o Note: The value will be added to the end of the list, but you can drag and drop the item to the top of the list if you wish. For more information on how to reorder and position values in the dropdown list, please refer to the [Developer Tools](#) documentation.

Dropdown Editor Edit Dropdown x

Save Undo Redo Cancel

Name: tselect\_type\_dom  
Language: English (US)

List Items:

Item Name	Display Label
0	[0 hours]
3600	[1 hours]
14440	[4 hours]

- Once the item has been added and placed in the correct position, click "Save" to preserve the change.

The newly added time interval will now appear in the corresponding dropdown list when creating the condition for a time elapsed workflow.

## Workflow Sequence

When a record is saved within a module, Sugar will check all workflows for that module to see if they need to process and perform any actions or send any alerts. Sugar processes each of the workflows in a sequential order, one after another. By default this order is determined as the order in which the workflow definitions were created; the oldest workflow fires first, moving up to the newest. This order, however, can be reorganized using the Workflow Sequence menu.

Workflow Sequence can be accessed by the following process:

- Navigate to Admin > Workflow Management.
- On the Workflow Definitions module tab, select "Workflow Sequence".
- Select the module you would like to reorganize from the dropdown menu and click "Select".

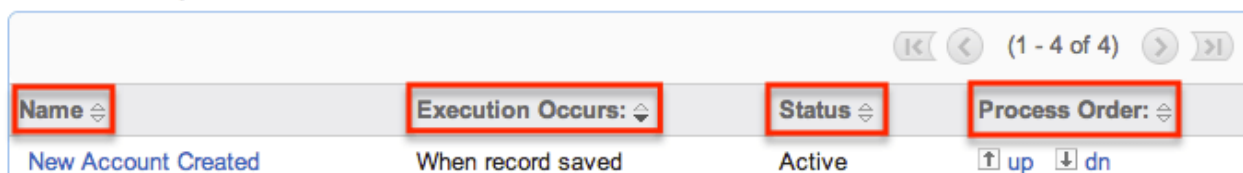
### Workflow Sequence

Please select a module:  Accounts  
 Contacts  
 Opportunities

Select

This process will produce a list view with all of the workflows for the particular selected module. The list view will show three columns containing details from the

## Workflow Sequence: Accounts



The Process Order column is used to reorganize the workflows into their correct processing order. The Up button will move the workflow up one rung in the process, whereas the Dn button will lower it in the sequence. The order of the workflow process for this module is determined on this menu, starting at the top and working its way down.

Last Modified: 08/04/2017 08:05pm

## Products and Quotes

### Overview

The Products and Quotes section of the Admin panel enables you to define products and product details which are used in the [Quoted Line Items](#), [Quotes](#), and [Revenue Line Items](#) modules. The Products and Quotes panel provides access to the following administrative modules:

Module	Description
<a href="#">Product Catalog</a>	List of products sold by your organization; used as a template for the
<a href="#">Product Categories</a>	The categories by which products are organized in the <a href="#">Product Catalog</a>
<a href="#">Product Types</a>	The Type dropdown list in the <a href="#">Product Catalog</a>
<a href="#">Manufacturers</a>	The Manufacturer Name dropdown list in the <a href="#">Product Catalog</a>
<a href="#">Shipping Providers</a>	The Shipping Provider dropdown list in
<a href="#">Tax Rates</a>	The Tax Rate dropdown list in <a href="#">Quotes</a>

This documentation will cover information and actions specific to the above module. For instructions concerning views and actions which are common across most Sugar modules, such as creating, editing, and deleting records, please refer to the [Working With Records](#) section of this page.

Please note that only administrators or users with developer-level role access have

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the ability to control the configurations within this documentation.

## Working With Product Catalog and Categories

The Product Catalog and Product Categories modules use Sugar's Sidecar user interface. The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this table describe behaviors and functionality specific to the Products- and Quotes-related modules.

Content Link	Description
<a href="#">Creating Records</a> <a href="#">Basic Record Creation</a> <a href="#">Creating Via Subpanels</a> <a href="#">Creating Via Duplication</a> <a href="#">Importing Records</a>	The Creating Records section covers the various methods of creating new records, including via the Create button in the module, via the subpanel on related module records, duplication of an existing record, and importing a list of records into Sugar using a .csv spreadsheet.
<a href="#">Viewing Records</a> <a href="#">Viewing Via List View</a> <a href="#">Viewing Via Record View</a> <a href="#">Viewing Via Recently Viewed</a> <a href="#">Viewing Via Preview</a> <a href="#">Viewing Via Reports</a>	The Viewing Records section describes the various methods of viewing records, including via the list view and record view, the Recently Viewed menu in the module tab, previewing records in the right-hand side panel, and reports displaying the record's data.
<a href="#">Searching for Records</a> <a href="#">Global Search</a> <a href="#">List View Search</a> <a href="#">Creating a Filter</a> <a href="#">Saving a Filter</a>	The Searching for Records section provides an introduction to the two searching methods for locating Sugar records: global search, which searches across all Sugar modules, and list view search, which searches and filters within the module.
<a href="#">List View</a> <a href="#">Total Record Count</a> <a href="#">Create Button</a> <a href="#">List View Search</a> <a href="#">Checkbox Selection</a> <a href="#">Mass Actions Menu</a> <a href="#">Column Reordering</a> <a href="#">Column Resizing</a> <a href="#">Column Sorting</a> <a href="#">Column Selection</a>	The List View section walks through the many elements of the List View layout, which contains a filterable list of all records in the current module. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the list view are described in the List View Mass Actions Menu and List View Record Actions Menu sections of the

<a href="#">Preview</a> <a href="#">Record Actions Menu</a> <a href="#">More Records</a> <a href="#">Intelligence Pane</a>	<p>module overviews below.</p>
<a href="#">Record View</a> <a href="#">Next or Previous Record</a> <a href="#">Actions Menu</a> <a href="#">Show More</a> <a href="#">Intelligence Pane</a>	<p>The Record View section walks through the many elements of the Record View layout, which contains detailed information about a single record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the record view are described in the Record View Actions Menu sections of the module overview sections below.</p>
<a href="#">Editing Records</a> <a href="#">Editing Inline Via Record View</a> <a href="#">Editing Via Record View</a> <a href="#">Editing Inline Via Subpanels</a> <a href="#">Editing Inline Via List View</a> <a href="#">Mass Editing Via List View</a> <a href="#">Editing Fields</a>	<p>The Editing Records section describes the various methods of editing existing records, including inline via the record view, in full edit mode on the record view, inline via the subpanel on related module records, inline via the list view, and via the Mass Update option on the list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records.</p>
<a href="#">Deleting Records</a> <a href="#">Deleting Via Record View</a> <a href="#">Deleting Via List View</a> <a href="#">Mass Deleting Via List View</a>	<p>The Deleting Records section describes the various methods of deleting unwanted records, including via the record view, an individual record's Actions menu on the list view, and the Mass Actions menu on the list view.</p>
<a href="#">Exporting Records</a>	<p>The Exporting Records section provides an introduction to the export functionality, which allows you to download a list of records and all their data as a .csv file for use outside of Sugar (e.g. in Microsoft Excel).</p>
<a href="#">Recalculating Calculated Values</a>	<p>The Recalculating Calculated Values section provides instructions on utilizing the Recalculate Values list view option to update calculated field values in the module if the administrator has changed the field's formula via Admin &gt; Studio.</p>

<a href="#">Finding Duplicate Records</a>	The Finding Duplicate Records section provides instructions for locating duplicate records. If searching on matching fields (e.g. Name) identifies one or more duplicates, they can be merged into a single record.
<a href="#">Merging Records</a> <a href="#">Merging Via List View</a>	The Merging Records section provides instructions for merging duplicates, which combines field values and related records into a single record.
<a href="#">Sharing Records</a>	The Sharing Records section provides instructions for the Share record view option, which composes an email with a link to the record. If the recipient is logged into Sugar, clicking the link will bring them directly to the record view.

## Product Catalog

Sugar's Product Catalog module contains a list of all products or services that your organization sells. This module provides the [Quoted Line Items](#) and [Revenue Line Items](#) modules with the template used when creating products to be used for [Opportunities](#) and [Quotes](#), including pricing and cost information and information about the [manufacturer](#).

Products within the Product Catalog can be broadly classified into [product types](#), such as Software and Hardware. Each product type can be further organized into several [product categories](#). For example, the software product type can contain product categories such as Spreadsheets and Word Processors. You can also create sub-categories within a category.

This documentation will cover information and actions specific to the Product Catalog. For instructions concerning views and actions which are common across most Sugar modules, such as creating, editing, and deleting records, please refer to the [Working With Product Catalog and Categories](#) section of this page.

## Product Catalog Fields

The Product Catalog contains a number of stock fields that come out-of-the-box with Sugar. The definitions below are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs. Fields can be altered, added, or removed via Admin > Studio. For more information on

configuring fields, please refer to the [Studio](#) documentation in the Administration guide.

Field	Description
Availability	Select if the item is in stock or not from the dropdown list
Category Type	The <a href="#">product category</a> to which the new item belongs
Cost	The actual cost of the item. This will not appear on printed quotes
Currency	The <a href="#">currency</a> of the given prices (Cost, List, Unit)
Date Available	Select the date of availability if the item is out of stock
Date Created	The date the product catalog record was created
Date Modified	The date the product catalog record was last modified
Date-Cost-Price	The starting date that the cost is valid
Default Pricing Formula	<p>Select a formula from the dropdown list to arrive at the discount price for the Unit Price field. The formulas are as follows:</p> <ul style="list-style-type: none"> <li>• Fixed Price: Allows you to enter a Unit Price without any calculation.</li> <li>• Profit Margin: Enter the points in the adjoining field to vary the percentage against the cost.</li> <li>• Markup over Cost: Choose a percentage to raise the price over the cost.</li> <li>• Discount from List: Enter the discount percentage from the List Price in the adjoining field.</li> <li>• Same as List: The Unit Price will be the same as the List Price.</li> </ul>
Description	A description or other information about the product
List Price	The quotable list price of the product

Manufacturer Name	The <a href="#">manufacturer</a> of the product
Mft. Part Number	The manufacturer's part number for the product
Product Name	The name of the product
Product URL	The web address of product if it is available online
Quantity in Stock	Enter the number of units that are in stock of the product  Note: Negative values are supported in this field.
Support Contact	The support person's contact information, such as the phone number or email address
Support Desc.	Brief description or other information regarding the support provided
Support Name	The name of the Customer Support person
Support Term	The term (e.g. six months, one year, etc.) in which support will be provided for the product
Tags	User-created keywords that can be used to identify records in filters, dashlets, and reports Note: For more information on creating and using tags, please refer to the <a href="#">Tags</a> documentation.
Tax Class	Tax classification (e.g. taxable, non-taxable) for the product
Type	The specified product <a href="#">type</a>
Unit Price	The unit price of the product
Vendor Part Number	The vendor's part number for the product
Weight	The weight of the product  Note: Negative values are supported in this field.

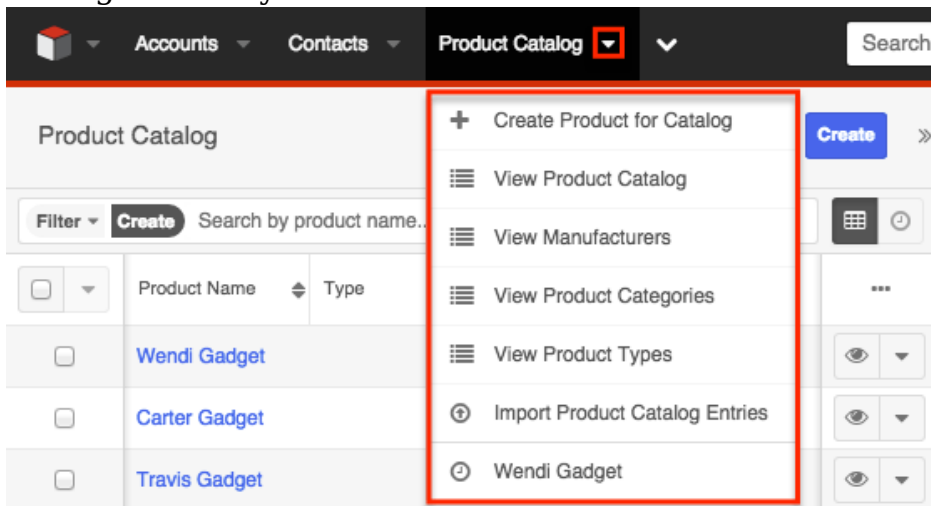
## Product Catalog Menus



The Product Catalog module contains various options that are available via menus in the module tab, list view, and record view. The following sections present each menu and its options with links to more information about each option in the User Interface documentation or, for module-specific functionality, within this page.

## Module Tab Menu

The Product Catalog module tab can be accessed by clicking the Product Catalog option in the Admin menu. Click the tab to access the Product Catalog [list view](#). You may also click the triangle in the Product Catalog tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of product catalog records you last viewed in the module.



The Product Catalog's Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Product for Catalog</a>	Opens the record view layout to create a new product for the catalog
<a href="#">View Product Catalog</a>	Opens the list view layout to search and display the product catalog
<a href="#">View Manufacturers</a>	Opens the Manufacturers list view
<a href="#">View Product Categories</a>	Opens the Product Categories list view
<a href="#">View Product Types</a>	Opens the Product Types list view
<a href="#">Import Product Catalog Entries</a>	Opens the import wizard to create or update product catalog entries using external data

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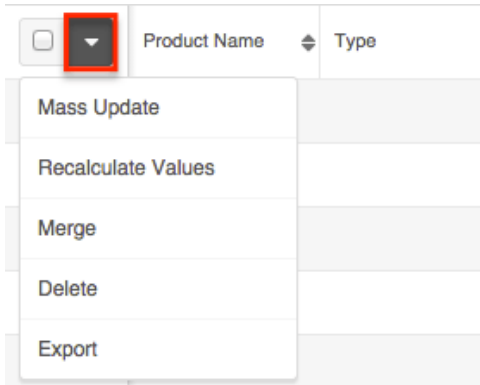
## List View Menus

The Product Catalog list view displays all product catalog records meeting the current search criteria. You can view the basic details of each product within the field columns. Please note that you will only be able to see product catalog records as allowed by your user access type (Developer) and assigned roles. For more information on roles, please refer to the [Role Management](#) documentation.

Users with administrator or developer access have the ability to change what fields are visible in the list view via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation in the Administration guide.

## Mass Actions Menu

The Mass Actions menu to the right of the checkbox option allows you to perform various actions on the currently selected records.

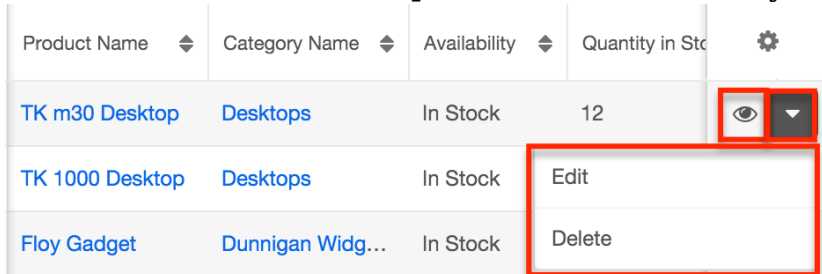


The options in the Mass Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more product catalog records at a time
<a href="#">Merge</a>	Merge two or more duplicate products
<a href="#">Delete</a>	Delete one or more product catalog records at a time
<a href="#">Export</a>	Export one or more product catalog records to a CSV file
<a href="#">Recalculate Values</a>	(Available in certain circumstances) Updates calculated values to reflect changes to calculated fields made in Studio

## Record Actions Menu

The Record Actions menu to the right of each record's Preview button allows users to edit, follow, or delete specific records directly from the list view.



The screenshot shows a table with columns: Product Name, Category Name, Availability, and Quantity in Stock. The first row is highlighted. To the right of the 'Quantity in Stock' column, there is a preview button (eye icon) and a dropdown arrow. A red box highlights the dropdown menu, which contains 'Edit' and 'Delete' options.

Product Name	Category Name	Availability	Quantity in Stock	Actions
TK m30 Desktop	Desktops	In Stock	12	Preview (Eye icon) [Dropdown]
TK 1000 Desktop	Desktops	In Stock		Edit
Floy Gadget	Dunnigan Widg...	In Stock		Delete

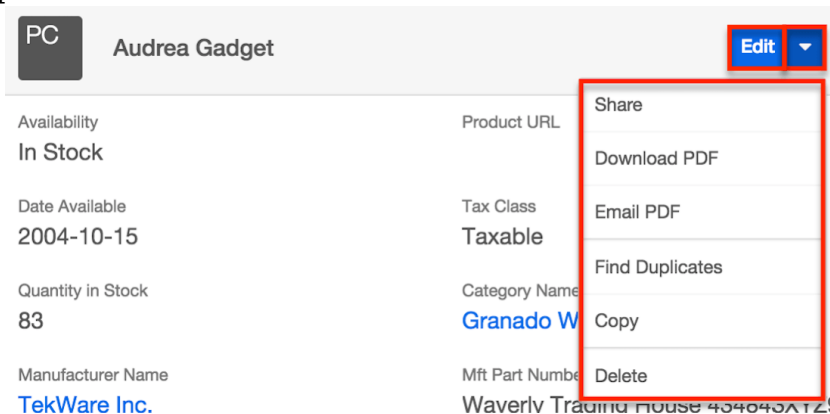
The options in the Record Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a> (Eye icon)	Preview this product in the intelligence pane
<a href="#">Edit</a>	Edit this product
<a href="#">Delete</a>	Delete this product

## Record View Actions Menu

The Product Catalog record view displays thorough product information including all product fields. The record view can be reached by clicking a product record's link in the Product Catalog list view. You have the ability to change the record view by configuring the layout via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation.

The Actions menu on the top right of each product's record view allows you to perform various actions on the current record.



The screenshot shows a product record view for 'Audrea Gadget'. At the top right, there is an 'Edit' button and a dropdown arrow. A red box highlights the dropdown menu, which contains the following options: Share, Download PDF, Email PDF, Find Duplicates, Copy, and Delete.

Field	Value
Availability	In Stock
Date Available	2004-10-15
Quantity in Stock	83
Manufacturer Name	TekWare Inc.
Product URL	
Tax Class	Taxable
Category Name	Granado W
Mft Part Number	Waverly Training House 454645A125

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The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this product
<a href="#">Share</a>	Share a link to this product via email
<a href="#">Download PDF</a>	Download product information as a PDF file
<a href="#">Email PDF</a>	Email product information as a PDF attachment
<a href="#">Find Duplicates</a>	Locate potential duplicates of this product
<a href="#">Copy</a>	Duplicate this product
<a href="#">Delete</a>	Delete this product

## Product Categories

The Product Categories module allows you to create categories to group records under a Product Type. This is one of the levels of organization you can use for the products and services that your organization offers, and will contain multiple entries from the [product catalog](#).

This documentation will cover information and actions specific to the Product Catalog. For instructions concerning views and actions which are common across most Sugar modules, such as creating, editing, and deleting records, please refer to the [Working With Product Catalog and Categories](#) section of this page.

## Product Category Fields

The Product Category module contains four stock fields that come out-of-the-box with Sugar. The definitions below are suggested meanings for the fields.

Field	Description
Product Category	The category's name as it will appear on the Product Category dropdown list
Parent Category	Select a parent product category if this product category is a sub-set of another category
Description	A description or other information about the product category

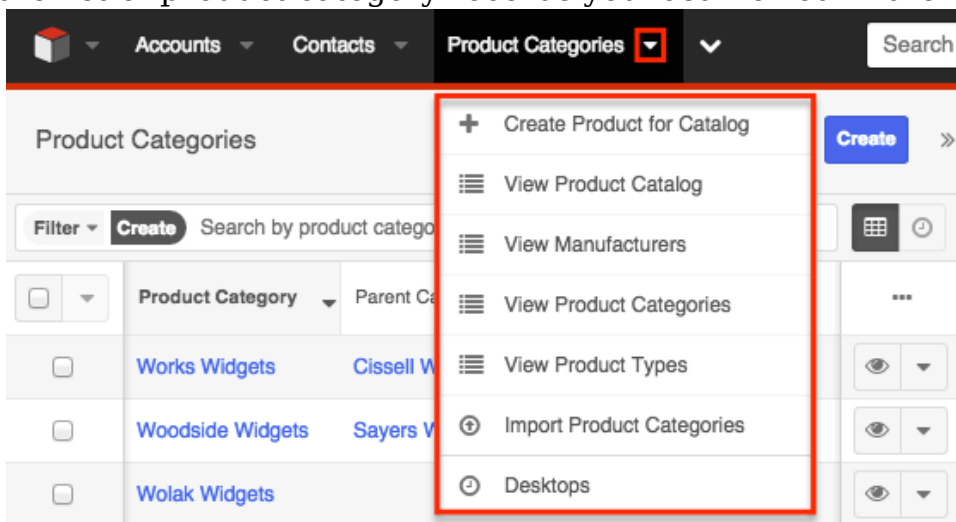
Order	Enter a number to specify the order in which this category will appear in the Product Category dropdown list
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## Product Category Menus

The Product Categories module contains various options and functions that are available via menus in the module tab, list view, and record view. The following sections present each menu and its options with links to more information about each option in the User Interface documentation or, for module-specific functionality, within this page.

### Module Tab Menu

The Product Categories module tab can be accessed by clicking the Product Categories option in the Admin page. Click the tab to access the Product Categories list view. You may also click the triangle in the Product Categories tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of product category records you last viewed in the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Product for Catalog</a>	Opens the product catalog's record view to create a new product for the catalog
<a href="#">View Product Catalog</a>	Opens the Product Catalog list view
<a href="#">View Manufacturers</a>	Opens the Manufacturers list view
<a href="#">View Product Categories</a>	Opens the Product Categories list view

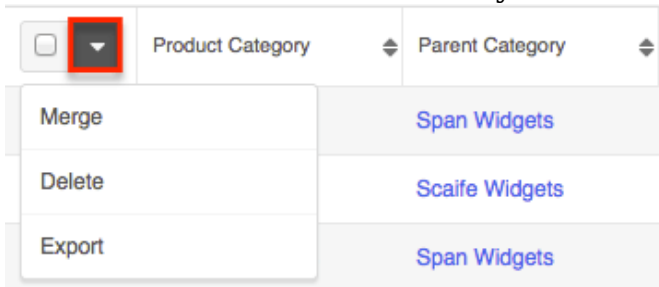
<a href="#">View Product Types</a>	Opens the Product Types list view
<a href="#">Import Product Categories</a>	Opens the import wizard to create or update product categories using external data

### List View Menus

The Product Categories list view displays all product category records. You can view the basic details of each product category within the field columns. You can also click on a category's name to [edit](#) it, or [delete](#) the category by clicking the "Delete" button at the end of the row.

### Mass Actions Menu

The Mass Actions menu to the right of the checkbox option allows you to perform various actions on the currently selected records.

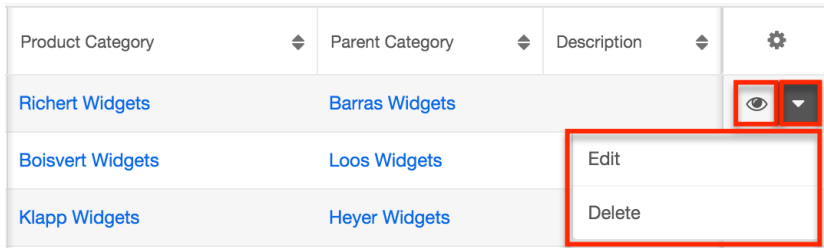


The options in the Mass Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Merge</a>	Merge two or more duplicate product categories
<a href="#">Delete</a>	Delete one or more product categories at a time
<a href="#">Export</a>	Export one or more product categories to a CSV file

### Record Actions Menu

The Record Actions menu to the right of each record's Preview button allows users to edit or delete specific records directly from the list view.



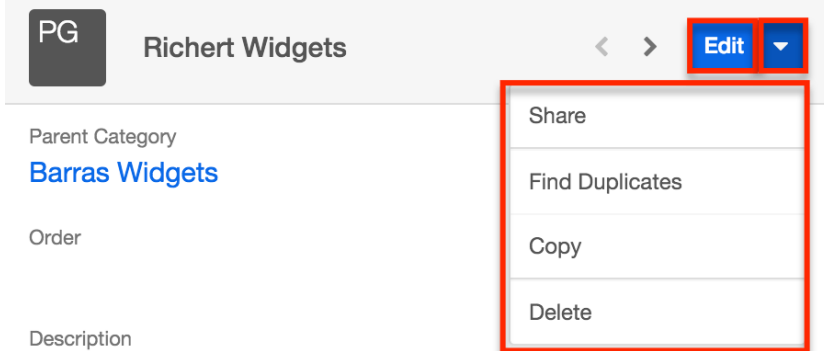
The options in the Record Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a> (Eye icon)	Preview this category in the intelligence pane
<a href="#">Edit</a>	Edit this product category
<a href="#">Delete</a>	Delete this product category

### Record View Actions Menu

The Product Categories record view displays product category information including all relevant fields. The record view can be reached by clicking a product category's link from the Product Categories list view.

The Actions menu on the top right of each product category's record view allows you to perform various actions on the current record.



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this product category
<a href="#">Share</a>	Share a link to this product category
<a href="#">Find Duplicates</a>	Locate potential duplicates of this product category

<a href="#">Copy</a>	Duplicate this product category
<a href="#">Delete</a>	Delete this product category

## Product Types

The Product Types module controls the Type dropdown list in the [Product Catalog fields](#). In addition to [product categories](#), Type allows you to define the classification of a product or service that is being offered on a product catalog record.

### Product Type Fields

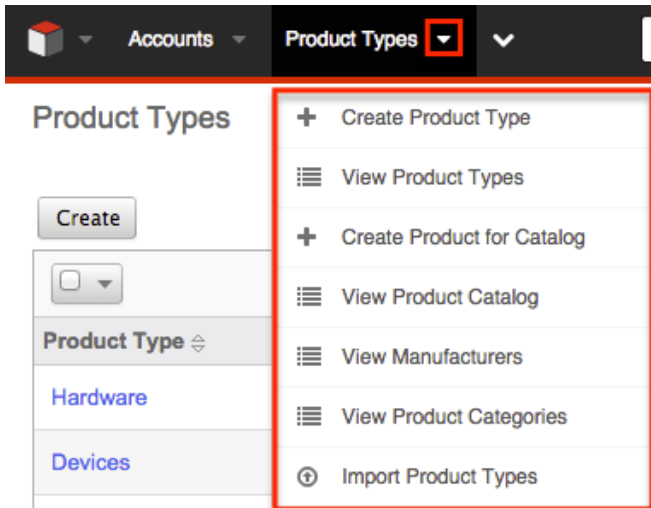
The Product Types module contains three stock fields that come out-of-the-box with Sugar. The definitions below are suggested meanings for the fields.

Field	Description
Product Type	The category's name as it will appear on the Product Category dropdown list
Description	A description or other information about the product
<a href="#">Order</a>	Enter a number to specify the order in which this category will appear in the Product Type dropdown list

### Product Types Module Tab

The Product Category module tab can be accessed by clicking the Product Category option in the Admin menu. Click the tab to access the Product Category list view. You may also Click the triangle in the Product Types tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The Recently Viewed menu displays the list of product category records you last viewed in the module.





The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Product Type</a>	Opens the Product Types list view to create a product
<a href="#">View Product Types</a>	Opens the Product Types list view
<a href="#">Create Product for Catalog</a>	Opens the Product Catalog to create a new product for the catalog
<a href="#">View Product Catalog</a>	Opens the Product Catalog list view
<a href="#">View Manufacturers</a>	Opens the Manufacturers list view
<a href="#">View Product Categories</a>	Opens the Product Categories list view
<a href="#">Import Product Types</a>	Opens the import wizard to create or update product types using external data

## Creating Product Types

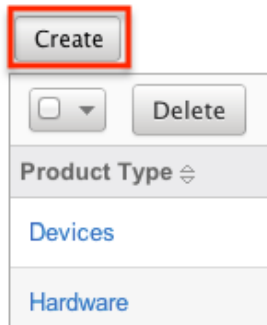
Product types can be created either via the Product Types module or importing product types. When creating via the Product Types module, the full edit view layout opens below the Product Types list view and includes all of the relevant fields for your product type.

Use the following steps to create a product type via the Product Types module:

1. Navigate to Admin > Product Types.
2. Click on "Create" above the list view.

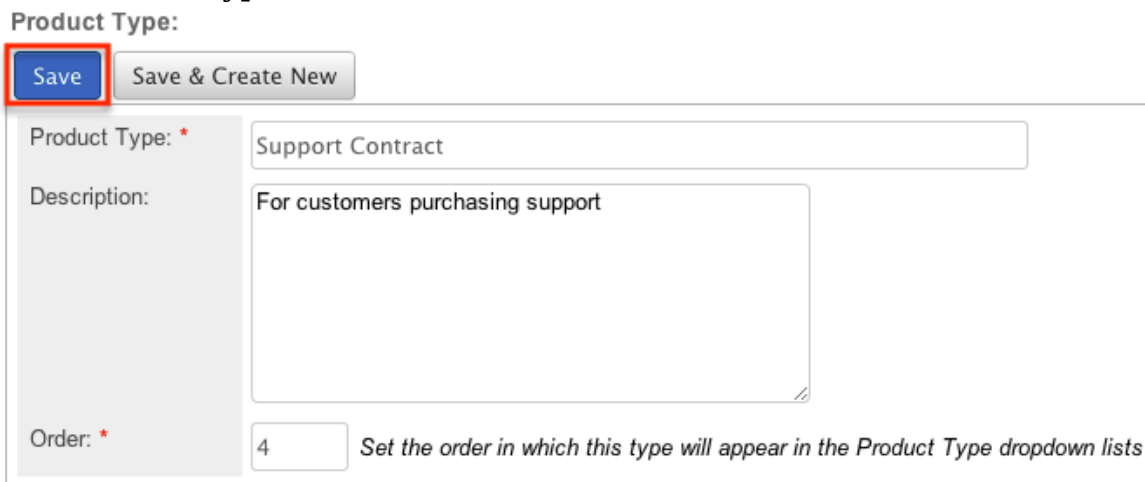
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## Product Types



Product Types management interface showing a 'Create' button (highlighted in red), a dropdown menu, and a 'Delete' button. Below these are two product types listed: 'Devices' and 'Hardware'.

3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save". If you would like to create a new type, click "Save & Create New".



Product Type edit view showing the 'Save' button (highlighted in red) and 'Save & Create New' button. The form contains the following fields:

- Product Type: \* Support Contract
- Description: For customers purchasing support
- Order: \* 4 *Set the order in which this type will appear in the Product Type dropdown lists*

## Importing Product Types

The import function allows you to push multiple product types into Sugar using a comma (or other character) delimited file instead of creating them one-by-one. For more information on importing, please refer to the [Import](#) documentation.

## Product Types List View

The Product Types list view displays all product type records. You can view the basic details of each product type within the field columns. You can also click on a category's name to [edit](#) it, or [delete](#) the category by clicking the "Delete" button at the end of the row.

## Column Sorting

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List view provides the ability to sort all product types by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields that allow sorting will have a pair of arrows. Please note the list view may be sorted by only one column at a time.

Product Type ⇅	Description	Order ⇅
Support Contract	For customers purchasing support	3

## Ordering Product Types

The Order field in Product Types defines the order of the different type options when viewing the Type dropdown list of a [Product Catalog](#) record. The Order field allows you to organize what order the dropdown list will display, with 1 being the highest on the list and moving down as the order number rises. When [creating](#) new product type record options, the Order field will automatically increment to the next number in the list, thereby adding the new option to the bottom of the list. The Order field can be overwritten with another number if you would like to manually re-order the options.

## Editing Product Types

Product Types may be edited at any time to update or add information to the record. You can make changes to existing product type records via the Product Type edit view. Edit view is available within the Product Types module, below the list view, and includes all of the relevant fields you should need.

Support Contract 3

(1 - 3 of 3)

**Product Type: Support Contract**

Product Type: \*

Description:

Order: \*  *Set the order in which this type will appear in the Product Type dropdown lists*

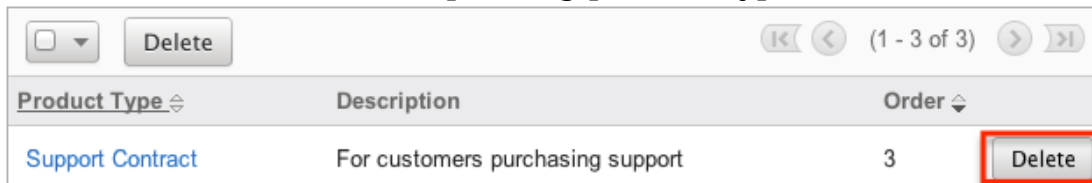
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## Deleting Product Types

If a product type is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Product Types list view.

Use the following steps to delete a product type via the detail list:

1. Navigate to a Product Types list view.
2. Locate the product type you wish to delete.
3. Click "Delete" on the corresponding product type's row.



4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Manufacturers

The Manufacturers module controls and maintains the Manufacturer dropdown list in the [Product Catalog](#) module. This dropdown list allows you to select from a list of the manufacturers you use to classify your products and specify from which manufacturer they are produced.

### Manufacturers Fields

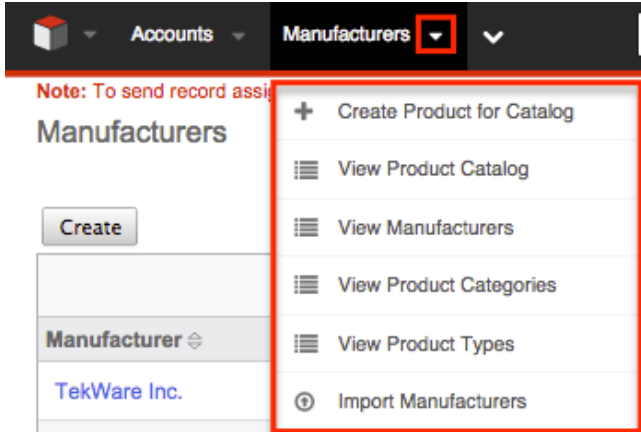
The Manufacturers module contains three stock fields that come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields.

Field	Description
Manufacturer	The manufacturer's name as it will appear on the Manufacturer Name dropdown list
Status	Choose whether this manufacturer's name should show on the Manufacturer Name dropdown list
<a href="#">Order</a>	Enter a number to specify the order in which this category will appear in the Manufacturer Name dropdown list

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## Manufacturers Module Tab

The Manufacturers list view can be accessed by navigating to the Admin page and selecting "Manufacturers" under the Product and Quotes panel. Click the tab to access the Manufacturers list view. You may also click the triangle in the Manufacturers tab to display the Actions menu. The Actions menu allows you to perform important actions within the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Product for Catalog</a>	Opens the Product Catalog to create a new product for the catalog
<a href="#">View Product Catalog</a>	Opens the Product Catalog list view
<a href="#">View Manufacturers</a>	Opens the Manufacturers list view
<a href="#">View Product Categories</a>	Opens the Product Categories list view
<a href="#">View Product Types</a>	Opens the Product Types list view
<a href="#">Import Manufacturers</a>	Opens the import wizard to create or update manufacturers using external data

The Manufacturers list view displays all manufacturers records. You can view the basic details of each manufacturer within the field columns. You can also click on a manufacturer's name to [edit](#) it, or [delete](#) the manufacturer by clicking the "Delete" button at the end of the row.

## Creating Manufacturers

Manufacturers can be created either via the Manufacturers module or by importing Manufacturers. When creating via the Manufacturers module, the full edit view layout opens below the Manufacturers list view and includes all of the fields for your manufacturers.

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Use the following steps to create a manufacturer via the Manufacturers module:

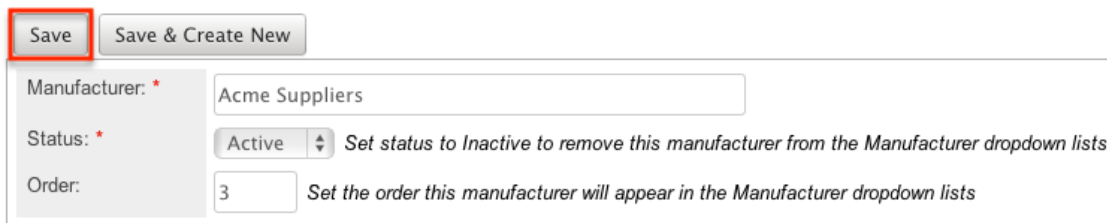
1. Navigate to Admin > Manufacturers.
2. Click on "Create" above the list view.

#### Manufacturers



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save". If you would like to create a new manufacturer, click "Save & Create New".

#### Manufacturer:

A screenshot of the 'Manufacturer' edit form. At the top, there are two buttons: 'Save' and 'Save & Create New'. The 'Save' button is highlighted with a red rectangular box. Below the buttons, there are three fields: 'Manufacturer: \*' with a text input containing 'Acme Suppliers'; 'Status: \*' with a dropdown menu set to 'Active' and a tooltip that reads 'Set status to Inactive to remove this manufacturer from the Manufacturer dropdown lists'; and 'Order:' with a text input containing '3' and a tooltip that reads 'Set the order this manufacturer will appear in the Manufacturer dropdown lists'.

## Importing Manufacturers

The import function allows you to push multiple manufacturers into Sugar using a comma (or other character) delimited file instead of creating them one-by-one. For more information on importing, please refer to the [Import](#) documentation.

## Manufacturers List View

The Manufacturers list view displays all manufacturers records. You can view the basic details of each manufacturer within the field columns. You can also click on a manufacturer's name to [edit](#) it, or [delete](#) the manufacturer by clicking the "Delete" button at the end of the row.

## Column Sorting

List view provides the ability to sort all manufacturers by a field column in either

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ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields that allow sorting will have a pair of arrows. Please note the list view may be sorted by only one column at a time.

Manufacturer ⇅	Status ⇅	Order ⇅
TekWare Inc.	Active	1

## Ordering Manufacturers

The Order field in Manufacturers defines the order of the different type options when viewing the Manufacturer Name dropdown list of a [Product Catalog](#) record. The Order field allows you to organize what order the dropdown list will display, with 1 being the highest on the list and moving down as the order number rises. When [creating](#) new manufacturer record options, the Order field will automatically increment to the next number in the list, thereby adding the new option to the bottom of the list. The Order field can be overwritten with another number if you would like to manually re-order the options.

## Editing Manufacturers

Manufacturers may be edited at any time to update or add information to the record. You can make changes to existing product category records via the Manufacturers edit view. Edit view is available within the Manufacturers module, below the list view, and includes all of the category fields you should need.

Acme Suppliers	Active	1	Delete
<input type="checkbox"/>	Delete	(1 - 2 of 2)	

**Manufacturer: Acme Suppliers**

Save Save & Create New

Manufacturer: \*

Status: \*  Set status to Inactive to remove this manufacturer from the Manufacturer dropdown lists

Order:  Set the order this manufacturer will appear in the Manufacturer dropdown lists

## Deleting Manufacturers

If a manufacturer is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Manufacturers list view.

Use the following steps to delete a manufacturer via the list view:

1. Navigate to a Manufacturers list view.
2. Locate the manufacturer that you would like to delete.
3. Click "Delete" on the corresponding manufacturer's row.

Manufacturer	Status	Order	
TekWare Inc.	Active	1	Delete

4. A pop-up message will display asking for confirmation. Click "Ok" to proceed

## Shipping Providers

The Shipping Providers module controls and maintains the Shipping Provider dropdown list in the [Quotes](#) module. This dropdown list allows you to determine how you are going to transport the purchased products or services to the customer.

### Shipping Provider Fields

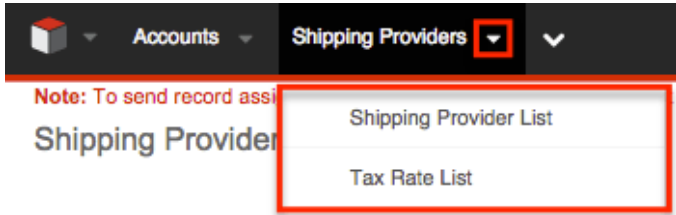
The Shipping Provider module contains three stock fields that come out-of-the-box with Sugar. The definitions below are suggested meanings for the fields.

Field	Description
Shipping Provider	The provider's name as it will appear on the Shipping Provider dropdown list
Status	Choose whether this provider's name should show on the Shipping Provider dropdown list
<a href="#">Order</a>	Enter a number to specify the order in which this category will appear in the Shipping Provider dropdown list

### Shipping Providers Module Tab

The Shipping Providers list view can be accessed by navigating to the Admin page and selecting "Shipping Providers" under the Product and Quotes panel. You may also click the triangle in the Shipping Providers tab to display the Actions menu. The Actions menu allows you to perform important actions within the module.





The Actions menu allows you to perform the following operations:

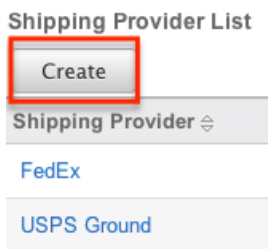
Menu Item	Description
<a href="#">Shipping Provider List</a>	Opens the Shipping Providers list view
<a href="#">Tax Rate List</a>	Opens the Tax Rates list view

## Creating Shipping Providers

Shipping providers can be created via the Shipping Providers menu through the Admin menu. When creating via the Shipping Providers menu, the full edit view layout opens below the Shipping Providers list view and includes all of the fields for your providers.

Use the following steps to create a shipping provider via the Shipping Providers module:

1. Navigate to Admin > Shipping Providers.
2. Click on "Create" above the list view.



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save". If you would like to create a new provider, click "Save & Create New".

Shipping Provider:

Save Save & Create New

Shipping Provider: \*

Status: \*  Set status to Inactive to remove this shipping provider from the Shipping Provider dropdown lists

Order: \*  Set the order in which this shipping provider will appear in the Shipping Provider dropdown lists

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## Shipping Providers List View

The Shipping Providers list view displays all shipping provider records. You can view the basic details of each provider within the field columns. You can also click on a provider's name to [edit](#) it, or [delete](#) the provider by clicking the "Delete" button at the end of the row.

### Column Sorting

List view provides the ability to sort all shipping providers by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields that allow sorting will have a pair of arrows. Please note the list view may be sorted by only one column at a time.




Shipping Provider ↕	Status ↕	Order ↕
FedEx	Active	1

### Ordering Shipping Providers

The Order field in Shipping Providers defines the order of the different shipping providers options when viewing the Shipping Provider dropdown list of a quote. The Order field allows you to organize what order the dropdown list will display, with 1 being the highest on the list and moving down as the order number rises. When creating new shipping provider record options, the Order field will automatically increment to the next number in the list, thereby adding the new option to the bottom of the list. The Order field can be overwritten with another number if you would like to manually re-order the options.

### Editing Shipping Providers

Shipping providers may be edited at any time to update or add information to the record. You can make changes to existing shipping provider records via the Shipping Providers edit view. Edit view is available within the Shipping Providers menu, below the list view, and includes all of the provider fields you should need.

USPS Ground	Active	2	 delete
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Shipping Provider: FedEx

Shipping Provider: *	<input type="text" value="FedEx"/>
Status: *	<input type="button" value="Active"/> <small>Set status to Inactive to remove this shipping provider from the Shipping Provider dropdown lists</small>
Order: *	<input type="text" value="1"/> <small>Set the order in which this shipping provider will appear in the Shipping Provider dropdown lists</small>

## Deleting Shipping Providers

If a shipping provider is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Shipping Providers list view.

Use the following steps to delete a shipping provider via the detail list:

1. Navigate to the Shipping Providers list view.
2. Locate the provider that you would like to delete.
3. Click "Delete" on the corresponding provider's row.

Shipping Provider	Status	Order	
FedEx	Active	1	<input type="button" value="Delete"/>

4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

## Tax Rates

The Tax Rates module controls and maintains the Tax Rates dropdown list in the [Quotes](#) module. This dropdown list allows you to apply applicable taxes to quotes so that the grand total is representative of any added tax to the subtotal. Tax rates can be added to the dropdown list as any necessary percentage, so they will be able to include national and international rates.

### Tax Rate Fields

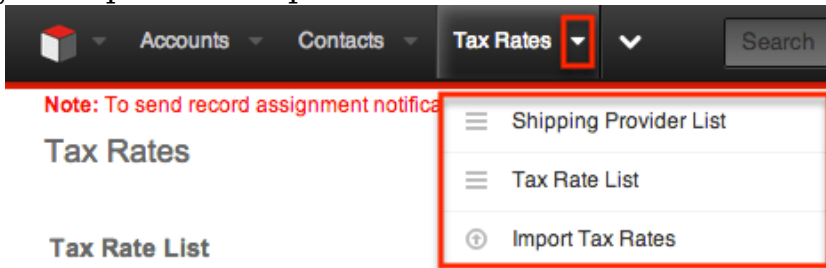
The Tax Rate module contains four stock fields that come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields.

Field	Description
Tax Rate Name	The tax rate's name as it will appear on the Tax Rate dropdown list

Percentage	The percentage of the quote's subtotal that will be taxed
Status	Choose whether this tax rate should show on the Tax Rate dropdown list
<a href="#">Order</a>	Enter a number to specify the order in which this rate will appear in the Tax Rate dropdown list

## Tax Rates Module Tab

The Tax Rates module tab can be accessed by clicking the Tax Rates option in the Admin menu. Click the tab to access the Tax Rates list view. You may also click the triangle in the Tax Rates tab to display the Actions menu. The Actions menu allows you to perform important actions within the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Shipping Provider List</a>	Opens the Shipping Provider list view
<a href="#">Tax Rate List</a>	Opens the Task Rates list view
<a href="#">Import Tax Rates</a>	Opens the import wizard to create or update tax rates using external data

## Creating Tax Rates

Tax Rates can be created either via the Tax Rates module or by importing tax rates. When creating via the Tax Rates module, the full edit view layout opens below the Tax Rates list view and includes all of the fields for your tax rates.

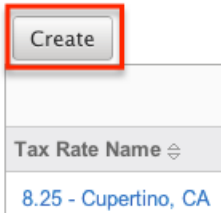
Use the following steps to create a task rate via the Tax Rates module:

1. Navigate to Admin > Tax Rates.
2. Click on "Create" above the list view.

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## Tax Rates

### Tax Rate List



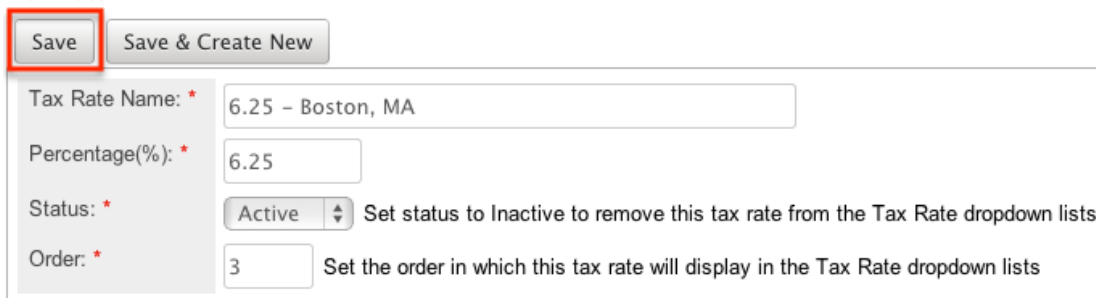
Create

Tax Rate Name ⇅

8.25 - Cupertino, CA

3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save". If you would like to create a new tax rate, click "Save & Create New".

### Tax Rate:



Save Save & Create New

Tax Rate Name: \* 6.25 - Boston, MA

Percentage(%): \* 6.25

Status: \* Active Set status to Inactive to remove this tax rate from the Tax Rate dropdown lists

Order: \* 3 Set the order in which this tax rate will display in the Tax Rate dropdown lists

## Importing Tax Rates

The import function allows you to push multiple tax rates into Sugar using a comma (or other character) delimited file instead of creating them one-by-one. For more information on importing, please refer to the [Import](#) documentation.

## Tax Rates List View

The Tax Rates list view displays all tax rate records. You can view the basic details of each rate within the field columns. You can also click on a tax rate's name to [edit](#) it, or [delete](#) the rate by clicking the "Delete" button at the end of the row.

## Column Sorting

List view provides the ability to sort all tax rates by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields that allow sorting will have a pair of arrows. Please note the list view may be sorted by only one column at a time.



Tax Rate Name ⇅	Status ⇅	Order ↕
8.25 - Cupertino, CA	Active	1

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## Ordering Tax Rates

The Order field in Tax Rates defines the order of the different tax rates options when viewing the Tax Rate dropdown list of a quote. The Order field allows you to organize what order the dropdown list will display, with 1 being the highest on the list and moving down as the order number rises. When creating new Tax Rate record options, the Order field will automatically increment to the next number in the list, thereby adding the new option to the bottom of the list. The Order field can be overwritten with another number if you would like to manually re-order the options.

## Editing Tax Rates

Tax Rates may be edited at any time to update or add information to the record. You can make changes to existing tax rates records via the Tax Rates edit view. Edit view is available within the Tax Rates module, below the list view, and includes all of the provider fields you should need.

The screenshot shows the edit view for a tax rate record. At the top, the record name '8.25 - Cupertino, CA' is displayed, along with its status 'Active' and order number '1'. A 'delete' button is visible. Below this, there are navigation controls: '<<' and '<' buttons on the left, '(1 - 2 of 2)' in the center, and '>' and '>>' buttons on the right. The main form area is titled 'Tax Rate: 8.25 - Cupertino, CA' and contains two buttons: 'Save' and 'Save & Create New'. The form fields are: 'Tax Rate Name: \*' with the value '8.25 - Cupertino, CA'; 'Percentage(%): \*' with the value '8.25000'; 'Status: \*' with a dropdown menu set to 'Active' and a tooltip that says 'Set status to Inactive to remove this tax rate from the Tax Rate dropdown lists'; and 'Order: \*' with the value '1' and a tooltip that says 'Set the order in which this tax rate will display in the Tax Rate dropdown lists'.

## Deleting Tax Rates

If a tax rate is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Tax Rates list view.

Use the following steps to delete a tax rate via the list view:

1. Navigate to a Tax Rates list view.
2. Locate the rate that you would like to delete.
3. Click "Delete" on the corresponding rate's row.

Tax Rate Name	Status	Order	
8.25 - Cupertino, CA	Active	1	Delete

---

4. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Last Modified: 04/13/2016 02:20pm

## Bug Tracker

### Overview

In the [Bugs](#) module, there are two dropdown fields, "Found in Release" and "Fixed in Release", that cannot be edited through normal means. Although these are dropdown fields, they do not show a [dropdown list](#) option in Dropdown Editor to add, remove, and edit the dropdown options.

Display Label: Found in Release:  
System Label: LBL\_FOUND\_IN\_RELEA:  
Help Text:  
Comment Text: The software or servic  
Drop Down List:  
Default Value:

The release dropdown list is instead controlled by the Releases section of the Admin page. The release list is more comprehensive than a standard dropdown list, so each list option needs additional information. This documentation will cover how to use the Releases module to make changes to the list that controls these fields.

### Release Fields

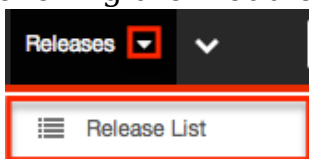
The Releases module contains three fields which come out-of-the-box with Sugar. These fields are not found in Studio, and therefore cannot be edited.

Field	Description
Release Version	The version name or number of this release.
Status	Select Active from this dropdown list to display the name in the Release dropdown list. Inactive records will only show in the list view of this page.
Order	Enter a number to specify the order in which the release is displayed in the dropdown list. Numbers can be

repeated in this field, so they can either be ranked in order (1,2,3...), in order of importance (1,1,1,2,2,2,3,3,3...), or any other ranking that is used internally.

## Release Module Tab

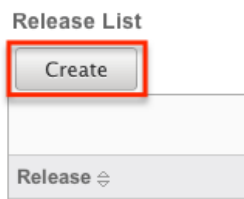
The Releases module tab can be accessed by navigating to the Administration page and clicking "Releases" in the Bugs section. Once in the Releases list view, you can click the triangle in the Releases module tab to display the Actions menu, which allows you to perform important actions within the module. Please note that clicking the module tab allows you to access the Releases list view.



## Creating Releases

Releases can only be created from the Releases module. Use the following steps to create a release option for dropdown lists:

1. Navigate to Admin > Releases.
2. Click the Create button above the Releases list view.



3. An editable subpanel will open below the list view. Enter the required information on the fields provided.

Release: 1.0

Save Save & Create New

Release version: \* 1.0

Status: \* Active Set status to Inactive to remove this release from the Release dropdown lists

Order: \* 2 Set the order this release will appear in the Release dropdown lists

4. Click one of your two save options. Both will store your new record and have it available for use through Sugar. However, the behavior after clicking is dependent on which button used:



- Save : After clicking "Save", the same release option that you created will remain editable for you to make additional changes if need be, after appearing on the list view above.
- Save & Create New : After clicking "Save & Create New", the release appears on the list view, the edit form's "Release Version" field is cleared out, and the "Order" field is increased by one.

Release:

Save Save & Create New

Release version: \*

Status: \* Active Set

Order: \* 5 Set the

## Viewing Releases

All of the release options are shown on a list view in the Releases module. Due to the Releases module only containing three fields, all of the necessary details are shown on this list view. The list view is always available when viewing the Releases module, and specific releases can be selected from the list, but records can also be selected via the Recently Viewed section of the module tab.

## Viewing Via Module

To view all of the releases, navigate to Admin > Releases. The list view displays with all currently available releases within Sugar. The list view can be ordered by any of the three [fields](#) within Releases. To see additional releases, use the arrows in the top right of the list view to scroll through available pages. Here, you can see which records of the total amount of releases are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of the list.

From this list, any of the releases can be clicked and either [edited](#) or [deleted](#).

Release List

Create

Navigation: (1 - 4 of 4)

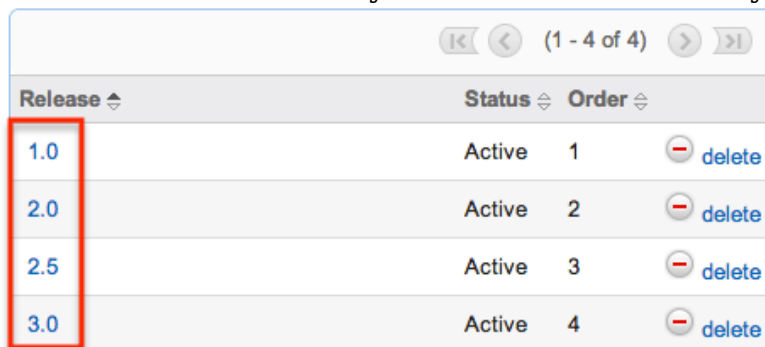
Release	Status	Order	
1.0	Active	2	delete

---

## Editing Releases

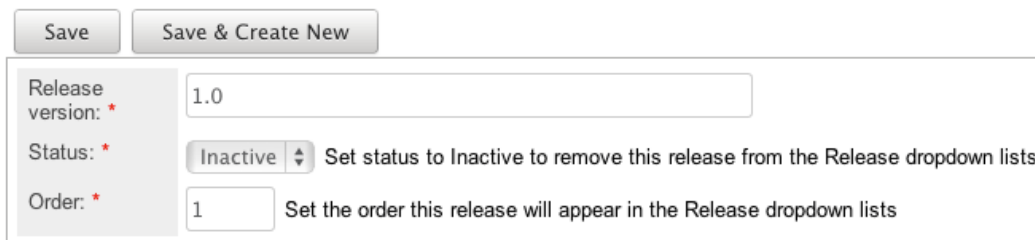
Changes to releases can be made at the discretion of any admin at any time. To make changes, such as changing the name of the release and how it shows in the Bugs module, whether the release value is active or not, or the order in which the releases display, the release record needs to just be accessed via the list view. Follow these steps to edit releases:

1. Navigate to Admin > Releases.
2. Select the release that you would like to edit by clicking the release name.



Release	Status	Order	
1.0	Active	1	delete
2.0	Active	2	delete
2.5	Active	3	delete
3.0	Active	4	delete

3. This will open the editor below the list view for the specific record where you can make the necessary changes.



Save Save & Create New

Release version: \* 1.0

Status: \* Inactive Set status to Inactive to remove this release from the Release dropdown lists

Order: \* 1 Set the order this release will appear in the Release dropdown lists

4. Click one of your two save options. Both will store your updates to the record. However, the behavior after clicking is dependent on which button used:
  - Save : After clicking "Save", the same release option that you edited will remain editable for you to make additional changes if need be, after the changes update on the list view above.
  - Save & Create New : After clicking "Save & Create New", the changes to the release appear on the list view, the edit form defaults back to [creating a new record](#).

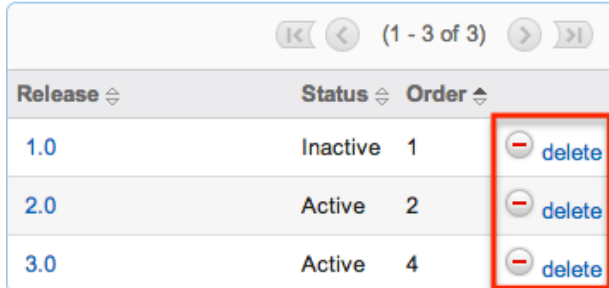
## Deleting Releases

If a release option is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Releases list view. Deleting release options will not delete the bugs that use them. Instead, if a bug's "Found in Release" or "Fixed in Release" field was filled in with the deleted release, the field will now be blank. Use the following steps to delete a release option from the Bugs

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module:

1. Navigate to Admin > Releases.
2. Click the Delete button corresponding to the release that you would like deleted.



The screenshot shows a table with three columns: Release, Status, and Order. There are three rows of data. The 'delete' buttons in the rightmost column are highlighted with a red box.

Release	Status	Order	
1.0	Inactive	1	delete
2.0	Active	2	delete
3.0	Active	4	delete

The page will refresh and the option will now be removed from the list view and no longer appear in the dropdown fields (e.g. Found in Release).

Last Modified: 01/25/2017 04:46pm

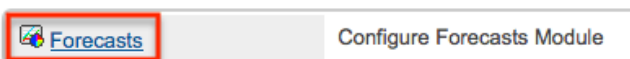
## Forecast Configuration

### Overview

Sugar's Forecasts module incorporates revenue line item records to build forecasting worksheets and predict sales. Users can work towards sales quotas at the individual, team, and sales organization level. Before users may access the Forecasts module to begin building forecasting worksheets, a user with administrator access must configure the Forecasts module with the organization's desired Time Periods, Ranges, Scenarios, and Worksheet Columns.

### Configuring Forecasts

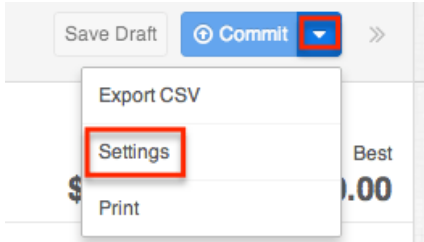
Administrator users can access the Forecast configuration settings by navigating to the Administration page and clicking the Forecasts link.



As an alternative, administrators can also access the Forecast configuration settings by navigating to the Forecasts module. Clicking the Forecasts module tab before the module has been configured will automatically redirect administrators to the configuration wizard. After the module has been configured, they are able to

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choose "Settings" from the Actions menu within the Forecasts module to review their configuration selections and potentially make changes. For more information on making changes to the configuration, please refer to the [Editing Forecast Configurations](#) section of this documentation.



The Forecasts Setup wizard will guide you through the various configuration items.

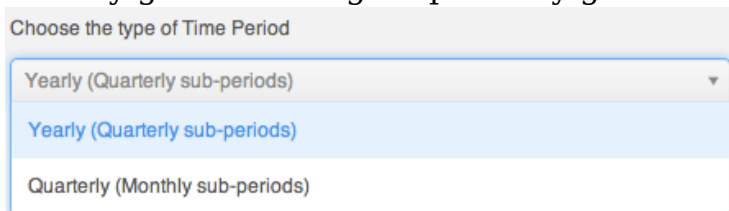
Note: The Forecast Time Periods cannot be changed after initial setup without losing all existing Forecast data. The Forecast Ranges cannot be changed after the first Save Draft or Commit action in the Forecasts module. In order to make changes to these selections, please refer to the [Editing Forecast Configurations](#) section of this documentation.

## Time Periods

The Time Periods panel allows you to match the Forecasts module's fiscal year and frequency of quota cycles to your organization's practices. These settings will control the beginning and duration of your forecasting time periods as well as control the number of past and future time periods users may access.

Use the following steps to configure Forecast Time Periods:

1. Select the Time Period type which matches your sales organization's practices. Choose "Yearly" if your sales organization has quarterly quotas which build up to a yearly goal. Choose "Quarterly" if you operate with monthly goals building to quarterly goals instead.



2. Click the calendar icon to select the start day and month of your organization's fiscal year from the date picker.

2. Choose fiscal year start date

07/01/2014

July 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

the fiscal year may span  
e which year to use as the

3. ne Periods to view in the

Time Period selected. For example, choosing 2 with Yearly Time Period will show 8 future Quarters

If the start date of your organization's fiscal year is a date other than January 1, the fiscal year will span two years. You must specify which of those two years the start date applies to. In these cases, a dropdown will appear prompting you to select the appropriate fiscal year. For example, if the start date of the fiscal year is 07/01/2014, the end date will be 06/30/2015. The forecast wizard will therefore ask you if the time period 07/01/2014 -06/30/2015 should be considered fiscal year 2014 or fiscal year 2015.

2. Choose fiscal year start date

07/01/2014

The chosen start date indicates the fiscal year may span across two years. Please choose which year to use as the Fiscal Year

Fiscal Year:

3. 2014

2015

Note: It is not recommended to choose February 29th for the fiscal year start date, though this is possible to do during a leap year. If this date is chosen, non-leap years will have fiscal year start date of March 1st.

3. Select how many future time periods users will be able to view in their forecast worksheets. This is the number of base Time Periods (years or quarters) as opposed to the sub-periods (quarters or months).
4. Select how many past time periods users will be able to view in their forecast worksheets. This is the number of base Time Periods (years or quarters) as opposed to sub-periods (quarters or months).
5. Click "Next".

Note: The Forecast Time Periods cannot be changed after initial setup without losing all existing Forecast data. In order to make changes after initial setup, please refer to the [Editing Forecast Configurations](#) section of this documentation.

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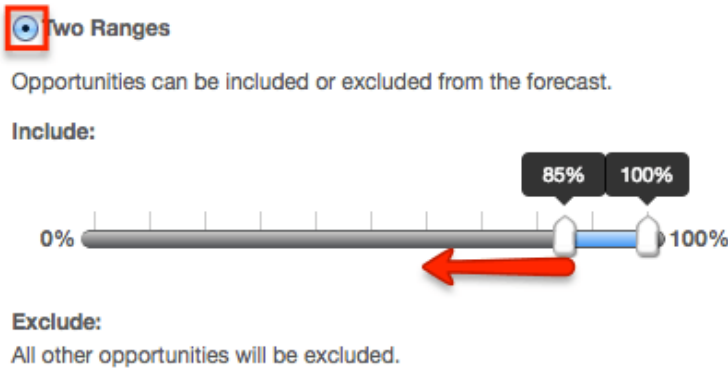
## Ranges

Forecast Ranges are a method of predefining what revenue line item records should likely be included on forecasts and which should not. As the administrator, you will specify the sale probabilities which will cause revenue line items to be initially included on a user's forecast. Each user, however, can then manually choose to include or exclude their revenue line items no matter how the probabilities line up with these ranges.

In addition to initially including revenue line items, these ranges will also be available to users in the Forecasts module as categories for filtering or for grouping in charts. Ranges which are not associated with probabilities and are used strictly for categorical purposes may be added under the Custom Ranges option.

### Two Ranges

Choose the Two Ranges radio button for a simple include or exclude model. You will then drag the left slider to specify the minimum probabilities that qualify { {an opportunity} } to be initially included on forecasts. In this two-range model, all revenue line items with probabilities falling below the defined range will be initially excluded from forecasts. Choosing "Two Ranges" will cause the categories "Include" and "Exclude" to be available for users in the Forecasts module for filtering or grouping revenue line items in charts.



### Three Ranges

Choose the Three Ranges radio button to enable an intermediate range. Drag the left Include slider to specify the minimum probabilities that qualify { {an opportunity} } to be predefined as included on forecasts. Then use the Upside sliders to define the range of probabilities which will be initially excluded from forecasts but which can be viewed independently for consideration for inclusion by the user. All revenue line items with probabilities falling outside these two ranges

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will also be predefined as excluded from forecasts. Choosing "Three Ranges" will cause the categories "Include", "Upside", and "Exclude" to be available for users in the Forecasts module for filtering revenue line items in charts.

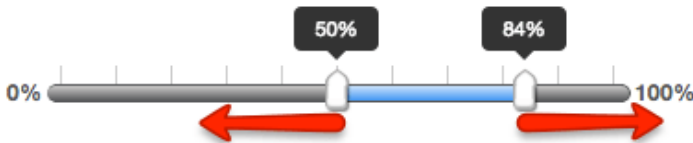
### Three Ranges

Opportunities can be tagged as Include, Upside, or Exclude in the forecast. Upside is not included in forecasts by default, but allows users to further classify the excluded opportunities based on likelihood to close.

**Include:**



**Upside:**



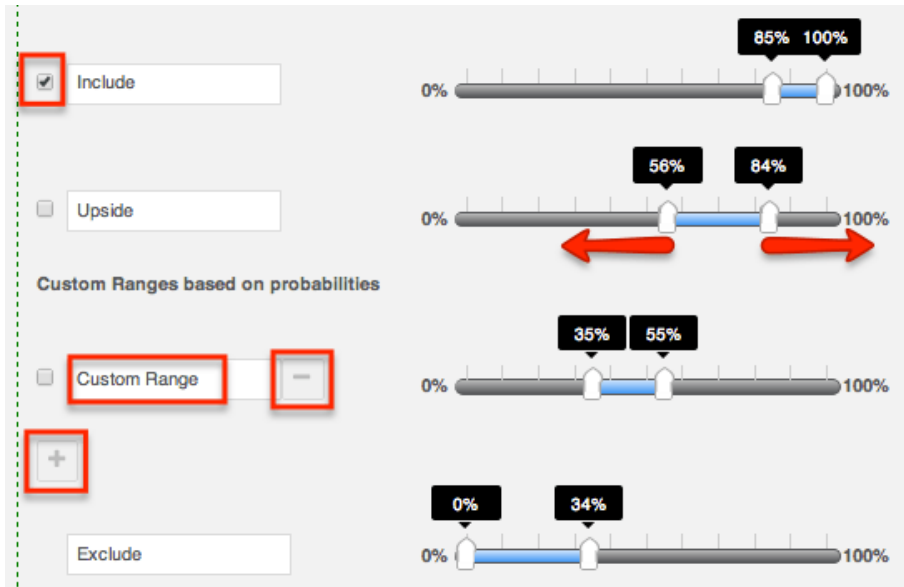
**Exclude:**

All other opportunities will be excluded.

## Custom Ranges

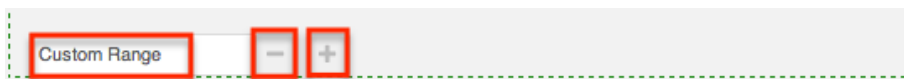
Choose the Custom Ranges radio button if you would like to create additional, more customized ranges. Custom ranges based on probabilities will be used to initially determine whether or not { {an opportunity} } is included or excluded in forecasts.

- The Include and Exclude ranges are required, though you may change their names if desired.
- Use the plus button to add additional ranges.
- Use the minus button to remove unwanted ranges.
- Use the text box to specify the desired name for each range.
- Mark the check box of every range which should be included on forecasting worksheets.
- Use each range's sliders to determine the minimum and maximum probabilities which will correlate with each range.



You may also add custom ranges not based on probability at the bottom of the ranges panel. These values do not correlate with any probabilities, and revenue line items marked with these range options will not be included on forecasting worksheets. Ranges created in this section may be used as tags on the revenue line item record.

- Use the plus button to add additional ranges.
- Use the minus button to remove unwanted ranges.
- Use the text box to specify the desired name for each range.



Once you are satisfied with your range selections, click "Scenarios" to open the next panel.

Note: The Forecast Ranges cannot be changed after the first Commit action in the Forecasts module without losing all existing Forecast data. In order to make changes after initial setup, please refer to the [Editing Forecast Configurations](#) section of this documentation.

## Scenarios

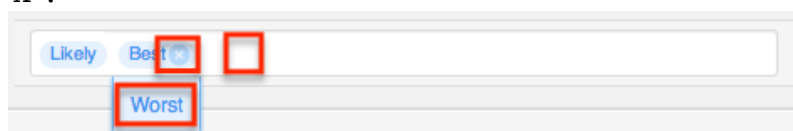
The Scenarios panel allows you to specify if you wish to have revenue line item records' Best Case and/or Worst Case fields available on the forecast worksheets. The "Likely" scenario is included automatically because it matches the revenue line item record's required amount field. When "Best" and "Worst" are also selected,



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users will have the ability to view and modify these additional values based on their opinion of what values may come about in the sale. This provides a broader range possible sales information when working to make forecasts as predictive as possible.

To add the Best or Worst scenario, click in the text box and select from the dropdown list which appears. Unwanted scenarios may be removed by clicking the "x".



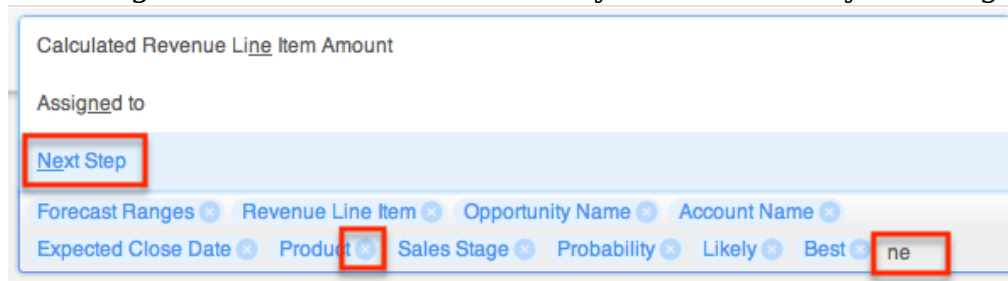
Once you are satisfied with your range selections, click "Worksheet Columns" to open the next panel.

Note: The Forecast Scenarios configurations may be changed at any time following initial setup by returning to the Admin > Forecasts page.

## Worksheet Columns

The Worksheet Columns panel allows you to specify which fields will be available as columns in the Forecasts module. Users will be able to select from this list to configure the final appearance of their worksheet. For more information on selecting desired columns, please refer to the [Forecasts](#) documentation. Please note that "Best" and "Worst" will only be available if they are enabled in the Scenarios panel. Re-enabling one of these scenarios will automatically add it to the list of worksheet columns.

Add additional fields by clicking in the text box and choosing from the dropdown list which appears. Typing in the text box will narrow down the list to show only matching fields. Unwanted fields may be removed by clicking the "x".



Once you are satisfied with your worksheet column selections, click "Save" at the top right.

Note: The Forecast Scenarios configurations may be changed at any time following initial setup by returning to the Admin > Forecasts page.

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## Editing Forecast Configurations

Once the Forecast Configurations have been completed, Sugar will apply the selected options and do an initial load of revenue line items to the Forecasts module. The selected Time Periods are locked at the completion of the Forecast Configuration wizard, and the Ranges are locked once the first Save Draft or Commit action is performed within the Forecasts module. If, at a later time, the selections you made for Time Periods and Ranges need to be changed, the only way this can be accomplished is at the expense of any existing Forecasting data.

Should you choose to lose all forecasting worksheets for the current, past, and future time periods, a user with administrator access can navigate to <https://yourinstancename.com/#bwc/index.php?module=Forecasts&action=ResetSettings> (where "https://yourinstancename.com" represents the URL you use to navigate to your Sugar instance) to instantly reset the Forecasts module. Please note that you cannot undo this action, and you will not be prompted to confirm this decision before it takes effect.

Please take caution: Navigating to the URL above will reset your Forecasts module to a state as if it had never been used before, enabling you to make fresh selections for all elements within the Forecasts Configuration by navigating to Admin > Forecasts. Your instance's revenue line item records will not be affected.

Last Modified: 03/09/2017 01:39pm

## Opportunities Configuration

### Overview

Sugar provides the option to track opportunities and build forecasts at two different levels of granularity. Admins can choose to use opportunities alone or opportunities in combination with revenue line items.

When working with opportunities alone, each opportunity record will track the progress and total value of an entire potential business deal. The same total deal values will be available when building forecasts.

As an alternative, opportunities used in conjunction with revenue line items track the values of the individual line items of a deal in revenue line item records. Each opportunity, then, is a parent record to a set of revenue line item records. The opportunity stores the summed values of all of its related line items.

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Sugar Admins can choose which opportunity model makes the most sense for their organization via Admin > Opportunities.



Note: Changing your instance's opportunity model via Admin > Opportunities will cause all existing forecasting data to be lost. Forecasting must begin anew after the switch has made and the notifications have been received indicating the completion of the back-end tasks.

Note: Switching to use opportunities only will cause all workflows involving the Revenue Line Items module to be deleted from your instance. Making a change to this setting in either direction (i.e. choosing opportunities only or opportunities with revenue line items) will cause all workflows involving the Opportunities module to be disabled. Please review your workflows after making this change to ensure any necessary workflows are set up with the relevant modules.

Note: Changing your instance's opportunity model may cause process definitions (Admin > Process Author) based on the Opportunities or Revenue Line Items to cease functioning as expected. Affected process definitions should be recreated using the correct fields (e.g. Sales Stage for opportunities-only forecasting or Status for opportunities-and-revenue-line-items forecasting).

Note: Changing your instance's opportunity model from "Opportunities and Revenue Line Items" to "Opportunities" will cause Revenue Line Items-based dashlets (e.g. My Revenue Line Items dashlet) to no longer work. Users will need to remove these dashlets from their dashboards to avoid any unexpected behavior.

## Configuring Opportunities

In the Opportunities section of the Admin panel, you have the ability to change how your instance tracks opportunities and forecasting. You can change from using opportunities only to [using opportunities with revenue line items](#) or from using opportunities with revenue line items to [opportunities by themselves](#).

### Moving to Opportunities With Revenue Line Items

In order to change from "Opportunities" to "Opportunities and Revenue Line Items", click the radio button marked "Opportunities With Revenue Line Items" and click "Save". A warning dialog will appear that must be confirmed before the change will be made.

Opportunity Hierarchy: Opportunities and Revenue Line Items

Opportunities  Opportunities and Revenue Line Items

For more information on using opportunities in combination with revenue line items, please refer to the [Opportunities](#), [Revenue Line Items](#), and [Forecasts](#) documentation in the Application Guide.

## Effects of the Change

Moving to the "Opportunities with Revenue Line Items" model will mean all sales are tracked as opportunities with a revenue line item record for each line item of the sale. An opportunity consists of one or more revenue line items. This affords sales to be detailed in separate line items and summarized in an opportunity. Forecasts will be created based on revenue line items.

Changing the setting from "Opportunities" to "Opportunities and RevenueLineItems" will result in existing data being changed, added, and removed as follows:

- Your existing opportunities will each have one revenue line items created and attached to the opportunity.
- The following fields and values will be duplicated from the existing opportunity records to the new revenue line items records:
  - Likely Amount, Best Amount, Worst Amount
  - Expected Close Date
  - Next Step
- The following fields and values will be moved from the existing opportunity records to the new revenue line item records:
  - Sales Stage
  - Probability
- All forecasting data will be removed and forecasting starts anew.

After you initiate this change, revenue line item records will be created for each existing opportunity in the background. When the revenue line items are complete and available, a notification will appear in your [Notifications indicator](#) and an email will be sent to the email address on your user profile. Please note that your instance must be [configured to send email](#) in order for the notification email to be sent.

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## Moving to Opportunities Only

In order to change from "Opportunities and Revenue Line Items" to "Opportunities", click the radio button marked "Opportunities". An additional option will appear for controlling the resulting opportunities' Expected Close Date fields. If existing opportunities have multiple revenue line items with differing Expected Close Date values, you must specify if the resulting opportunities should take the earliest or the latest close dates from the revenue line items. After making this selection, click "Save". A warning dialog will appear that must be confirmed before the change will be made.

Opportunities Settings Cancel **Save** »

Opportunity Hierarchy: Opportunities

Opportunities  Opportunities and Revenue Line Items

Values calculated from Revenue Line Items to Opportunities

Latest Close Date  Earliest Close Date

For more information about using opportunities without revenue line items, please refer to the [Opportunities](#) and [Forecasts](#) documentation in the Professional edition Application Guide.

### Effects of the Change

Moving to the "Opportunities" model means that all sales and forecasting will be tracked as opportunities, and revenue line items will not be available.

Changing the setting from "Opportunities and Revenue Line Items" to "Opportunities" will result in existing data being changed, added, and removed as follows:

- In addition to the information already summarized in each Opportunity, the following information from the Revenue Line Items will be saved in the Opportunity:
  - If all Revenue Line Items are in the "Closed Lost" Sales Stage, the Opportunity will be marked as "Closed Lost"
  - If all Revenue Line Items are closed and at least one was won, the Opportunity will be marked as "Closed Won"
  - If any of the Revenue Line Items are still open, the Opportunity will be marked with the least-advanced sales stage.
- A Note record will be created and attached to the Opportunity to preserve the individual Revenue Line Items values for the following fields:

- 
- Likely Amount, Best Amount, Worst Amount
  - Expected Close Date
  - Next Step
  - Sales Stage
  - Probability
  - Please Note: Custom fields in the Revenue Line Items will not be preserved.
  - All Revenue Line Items will be removed from the system.
  - All Forecast data will be removed and forecasting starts anew.

After you initiate this change, the revenue line item summarization notes will be built in the background. When the notes are complete and available, a notification will appear in your [Notifications indicator](#) and an email will be sent to the email address on your user profile. If your instance is set up for forecasting, Sugar will also notify you when your opportunity records are synced to the Forecasts module and available for new forecasting.

Please note that your instance must be [configured to send email](#) in order for the notification emails to be sent.

Last Modified: 10/11/2016 06:33pm

## Contract Types

### Overview

The Contract Types module in Admin > Contract Types enables you to create and manage contract types for the Contracts module. When a contract type is created, it will display in the Type dropdown list in the Contracts module for users to select. Please note that only users with administrator or developer access have the ability to modify what contract types are available and the order in which they appear in the Type dropdown list. This documentation will cover how to use the Contract Types module to create and manage the contract types available for users to choose when creating contract records in Sugar.

### Contract Type Fields

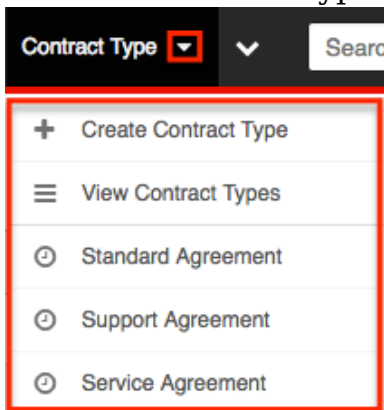
The Contract Types module contains two stock fields which come out-of-the-box with Sugar. Please note that Contract Type fields are not editable via Admin > Studio as the module does not exist in Studio.

Field	Description

Name	The name of the contract type
<a href="#">List Order</a>	A number to specify the order in which the contract type is displayed in the Type dropdown field in the Contracts module

## Contract Types Module Tab

The Contract Type module tab can be accessed by navigating to the Administration page and clicking "Contract Types" in the Contracts section. Once in the Contract Types list view, you can click the triangle in the Contract Type module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of contract type records you last viewed in the module.



The Actions menu allows you to perform the following operations:

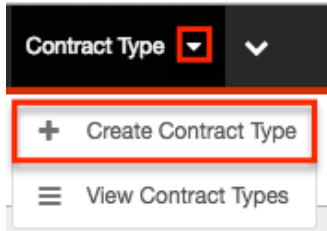
Menu Item	Description
<a href="#">Create Contract Type</a>	Opens the edit view layout to create a new contract type
<a href="#">View Contract Types</a>	Opens the list view layout to search and display contract types

## Creating Contract Types

You can create contract types via the Create Contract Type option in the Contract Types module. This opens up the edit view layout which allows you to enter in all the relevant information for the contract type.

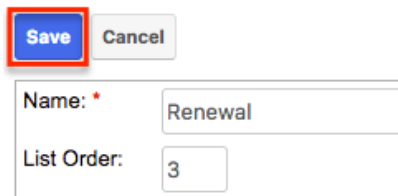
Use the following steps to create a contract type via the Contract Types module:

- 
1. Navigate to Admin > Contract Types.
  2. Click the triangle in the Contract Type module tab and select "Create Contract Type".



3. Enter appropriate values for the [fields](#) in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
4. Once the necessary information is entered, click "Save".

Create

A screenshot of the 'Create' form for Contract Types. At the top, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'. Below the buttons, there are two input fields. The first is labeled 'Name: \*' and contains the text 'Renewal'. The second is labeled 'List Order:' and contains the number '3'.

## Viewing Contract Types

There are various options available for viewing contract type records in Sugar including via Contract Types list view, Contract Types detail view, and Contract Types Recently Viewed menu.

### Viewing Via List View

The Contract Types list view displays all contract type records meeting the current search criteria. To access the list view, simply click the [Contract Types module tab](#). While list view shows key contract type fields, you can click the contract type's name to open the record in detail view to view any related module (e.g. Documents module) records as well. For more information on viewing contract types via list view, please refer to the [Contract Types List View](#) section of this documentation.

### Viewing Via Detail View

The Contract Types detail view displays contract type information including all contract type fields followed by the Documents subpanel displaying the contract type's related documents. The detail view can be reached by clicking a contract type record's link from the Contract Types list view. For more information on viewing contract types via detail view, please refer to the [Contract Types Detail](#)

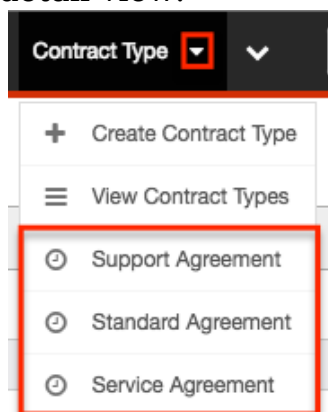


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[View](#) section of this documentation.

## Viewing Via Recently Viewed

As you work in the Contract Types module, Sugar will keep track of which contract type records you have recently viewed. Click the triangle in the [Contract Types module tab](#) to see a list of the 3 records you most recently viewed in the module. Clicking the record's name (e.g. Service Agreement) within the list will open it in detail view.



## Searching Contract Types

The Contract Types list view includes a Basic and Advanced Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the Contract Types list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

### Basic Search

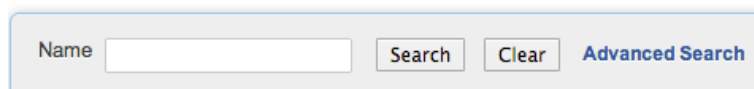
Basic search offers a few, commonly used fields for a simplified search experience. From the Basic Search panel, you can click "Advanced Search" to access additional search functionality as needed.

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The buttons and checkboxes available in Basic Search panel have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.

### Contract Types



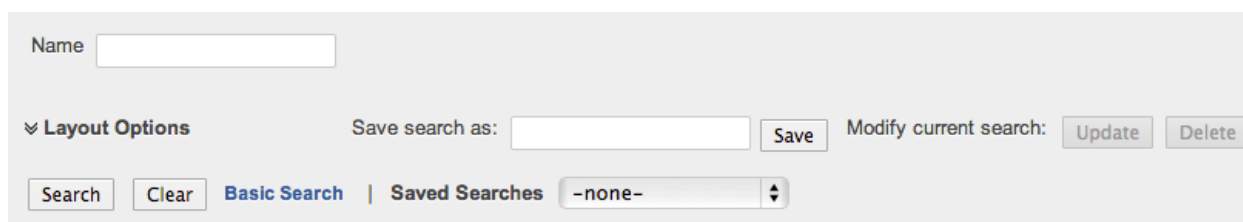
Enter in the appropriate keyword in the basic search Name field then click the Search button. Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To view all contract type records, simply click "Clear" and then "Search" to perform a blank search with no filters.

### Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching.

The buttons and dropdowns available in Advanced Search have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.
- Layout Options : Use the expandable Layout Options section to configure your list view. For more information, please refer to the [Layout Options](#) section of the Search documentation.
- Saved Searches : Save, recall, update, and delete searches which you use often. For more information, please refer to the [Saved Search](#) section of the Search documentation.



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Enter in the appropriate keyword in the advanced search Name field then click the Search button. Once the search completes, the relevant results will populate in the [list view](#) below the search panel. To view all contract type records, simply click "Clear" and then "Search" to perform a blank search with no filters.

## Contract Types List View

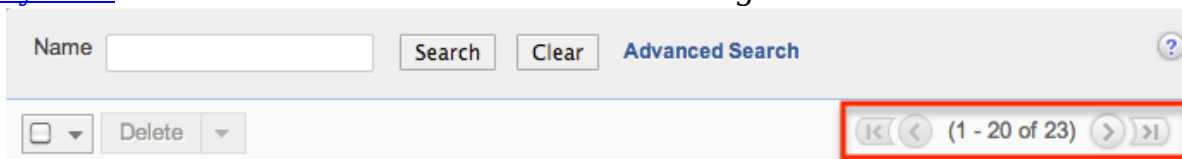
The Contract Types list view displays all contract type records meeting the current search criteria. You can view the basic details of each contract type within the field columns.

You have the option to change what fields are displayed in list view by configuring your layout options in the Contract Types Advanced Search. For more information on configuring your list view, please refer to the [Layout Options](#) section of the Search documentation.

## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially hundreds of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page and Last Page buttons allow you to skip to the beginning or the end of your current results.

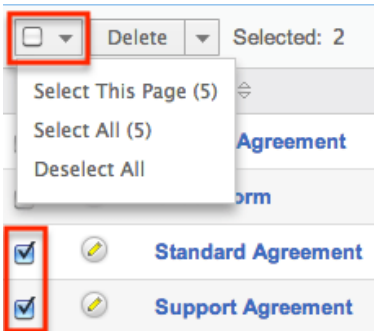
By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

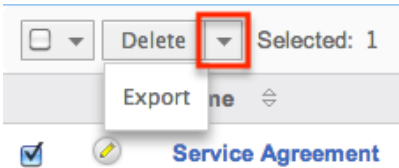
You can perform several actions on contract type records directly from the list view by first selecting the desired records. To select individual contract type records on the Contract Types list view, mark the checkbox on the left of each row. To select or deselect multiple contract type records on the list view, use the options in the checkbox dropdown menu:

- **Select This Page** : Selects all records shown on the current page of contract type results.
- **Select All** : Selects all records in the current search results across all pages of contract type results.
- **Deselect All** : Deselects all records that are currently selected.



## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform various actions on the currently selected records.



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Delete</a>	Delete one or more contract types at a time
<a href="#">Export</a>	Export one or more contract types to a CSV file

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search. For more information on setting a default column sort, please

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refer to the [Layout Options](#) section of the Search documentation.

Name	List Order
Service Agreement	1

## Contract Types Detail View

The Contract Types detail view displays information such as the contract's name and list order. You can also view related documents to the contract type record which appear in a subpanel beneath the contract type fields. The detail view can be reached by clicking the contract type record's link from the Contract Types list view.

### Documents Subpanel

Beneath a contract type record's fields is the Documents subpanel containing related document records from the Documents module. Simply click the Select button and the documents pop-up window will open. You can search and select the desired document(s) in the pop-up window to relate to the current contract type record. The related document(s) will appear in the Documents subpanel of the contract type record. Please note that when a contract record is created with a specific contract type, the related documents to the contract type will appear in the Documents subpanel of the contract record as well.

To view the details of the related document record, click the record's name in the subpanel to open it in detail view. You can also delete the contract type's relationship to the document record by clicking "Unlink" from the dropdown on the far right of the contract type record's row. To collapse or expand the subpanel, just click the double arrow to the left of the subpanel's name.

Name	Template?	Document Type	Latest Revision
License Agreement Document	<input type="checkbox"/>	License Agreement	edit

## Editing Contract Types

Contract types may be edited at any time to update information on the record. You can make changes to existing contract type records via the quick create form in the Contract Types list view. Quick create forms appear as a pop-up window and generally contains fewer fields compared to the full edit view layout. But since the

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Contract Types module only consists of two fields, both layouts look the same. To access the full edit view layout, simply click the Full Form button in the quick create form.



## Editing Via List View

You can edit contract types via the [list view](#) by clicking the Pencil icon to the left of each contract type's name. A pop-up window will open with the quick create form which mirrors the Contract Types full edit view layout. Update the necessary fields, then click "Save" to preserve the changes.



Name	List Order
 Support Agreement	4

## Ordering Contract Types

When creating contract types, you will define the order in which the contract type is displayed in the Type dropdown field in the Contracts module. The numeric value (e.g. 1, 2, 3, etc.) you enter in the List Order field determines the order each contract type will appear on the dropdown list. For example, a contract type with a list order of "1" will be displayed at the top of the dropdown list followed by the next value (e.g. 2), and so forth. Please note that you can change the list order by editing the contract type via the [list view](#).

## Deleting Contract Types

If a contract type record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Contract Types list view. Deleting via the list view allows you to mass delete multiple records at once. Please note that deleting contract type records will not delete the related records (e.g. documents) and will only remove the relationship.

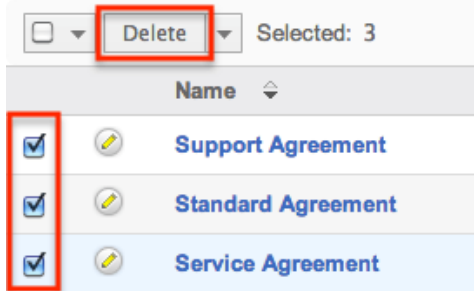
## Mass Deleting Via List View

Use the following steps to delete one or more contract type records via the list

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view:

1. Navigate to the Contract Types list view via Admin > Contract Types.
2. Use the [Basic](#) or [Advanced Search](#) to find the Contract Type records you wish to delete.
3. Select the desired contract type records individually or using the [checkbox dropdown](#)'s options.
4. Choose "Delete" from the Actions menu.



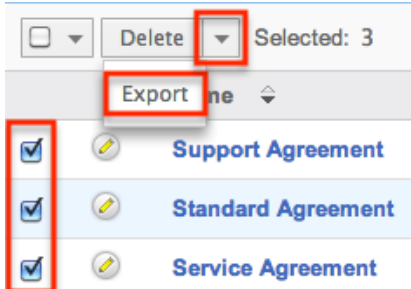
5. A pop-up message will display asking for confirmation. Click "Ok" to proceed.

Due to PHP memory limitations on the server, there may be occasions when the application times out while deleting a large number of contract type records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

## Exporting Contract Types

Sugar's Export option allows users to download all fields for the selected contract types to their computers as a .CSV (comma-separated values) file. This may be useful when needing to use Contract data with other software such as Microsoft Excel. Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of contract type records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Contract Types may be exported from the Contract Types list view by selecting "Export" from the Actions menu. Once the export is complete, a .CSV file will open up with all the Contract Type field values for the selected record(s).



# Knowledge Base Administration

## Overview

Sugar's Knowledge Base module provides the ability to create, maintain, and publish articles. Certain aspects of the Knowledge Base module are only available for administrators or users with developer-level role including the creation and editing of templates and knowledge base's Settings page. For more information on actions available to regular users such as creating and editing articles, please refer to the [Knowledge Base](#) documentation in the Application Guide. This documentation will cover information and actions specific to Knowledge Base administration. For instructions concerning views and actions which are common across most Sugar modules, such as creating, editing, and deleting templates, please refer to the [Working With KB Templates](#) section of this page.

## Working With KB Templates

The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this Working With Knowledge Base section describe Knowledge Base-specific behaviors and functionality.

Content Link	Description
<a href="#">Creating Knowledge Base Templates</a> <a href="#">Basic Knowledge Base Template Creation</a>	The Creating Records section covers how to create new knowledge base templates via the Create button on the list view or the Create option in the module tab.
<a href="#">Viewing Knowledge Base Templates</a> <a href="#">Viewing Via List View</a> <a href="#">Viewing Via Record View</a> <a href="#">Viewing Via Activity Streams</a> <a href="#">Viewing Via Preview</a>	The Viewing Records section describes the various methods of viewing knowledge base templates, including via the Knowledge Base Templates list view and record view, activity stream entries concerning template updates and such, as well as previewing templates in the right hand side panel.
<a href="#">Searching for Knowledge Base Templates</a> <a href="#">List View Search</a>	The Searching for Records section provides an introduction to list view search, which searches and filters



<a href="#">Creating a Filter</a> <a href="#">Saving a Filter</a>	<p>within the Knowledge Base Templates list view.</p>
<a href="#">Knowledge Base Templates List View</a> <a href="#">Total Record Count</a> <a href="#">Create Button</a> <a href="#">List View Search</a> <a href="#">Checkbox Selection</a> <a href="#">Mass Actions Menu</a> <a href="#">Favorite Designation</a> <a href="#">Column Reordering</a> <a href="#">Column Resizing</a> <a href="#">Column Sorting</a> <a href="#">Column Selection</a> <a href="#">Preview</a> <a href="#">Record Actions Menu</a> <a href="#">More Knowledge Base Templates</a> <a href="#">Activity Stream</a> <a href="#">Intelligence Pane</a>	<p>The List View section walks through the many elements of the Knowledge Base Templates List View layout which contains a filterable list of all knowledge base template records in Sugar. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Knowledge Base Templates list view are described in the</p>
<a href="#">Knowledge Base Templates Record View</a> <a href="#">Favorite Designation</a> <a href="#">Following Designation</a> <a href="#">Next or Previous Record</a> <a href="#">Actions Menu</a> <a href="#">Show More</a> <a href="#">Activity Stream</a> <a href="#">Intelligence Pane</a>	<p>The Record View section walks through the many elements of the Knowledge Base Templates Record View layout which contains detailed information about a single knowledge base template record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Knowledge Base Templates record view are described in the <a href="#">Record View Actions Menu</a> section of this page.</p>
<a href="#">Editing Knowledge Base Templates</a> <a href="#">Editing Inline Via Record View</a> <a href="#">Editing Via Record View</a> <a href="#">Editing Inline Via List View</a> <a href="#">Mass Editing Via List View</a> <a href="#">Editing Fields</a>	<p>The Editing Records section describes the various methods of editing existing knowledge base template records, including inline via the knowledge base template record view, in full edit mode on the record view, inline via the Knowledge Base Templates list view, and via the Mass Update option on the list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records.</p>
<a href="#">Deleting Knowledge Base Templates</a> <a href="#">Deleting Via Record View</a>	<p>The Deleting Records section describes the various methods of deleting</p>

<a href="#">Deleting Via List View</a> <a href="#">Mass Deleting Via List View</a>	<p>unwanted knowledge base templates, including via the Knowledge Base Templates record view, an individual record's Actions menu on the Knowledge Base Templates list view, and the Mass Actions menu on the list view.</p>
<a href="#">Exporting Knowledge Base Templates</a>	<p>The Exporting Records section provides an introduction to the export functionality which allows you to download a list of knowledge base template records and all their data as a .csv file for use outside of Sugar (e.g. in Microsoft Excel).</p>
<a href="#">Merging Knowledge Base Templates</a> <a href="#">Merging Via List View</a>	<p>The Merging Records section provides instructions for merging duplicate knowledge base templates which will combine field values and related records into a single template.</p>
<a href="#">Viewing Knowledge Base Template Change Logs</a>	<p>The Viewing Record Change Logs section describes the View Change Log record view option which displays a history of changes to the knowledge base template's audited fields.</p>
<a href="#">Favoriting Knowledge Base Templates</a> <a href="#">Favoriting Via List View</a> <a href="#">Favoriting Via Record View</a>	<p>The Favoriting Records section describes the various methods of marking knowledge base templates as favorites, including via the Knowledge Base Templates list view or Knowledge Base Templates record view. Favoriting a knowledge base template allows you to easily access it from the list view.</p>
<a href="#">Following Knowledge Base Templates</a> <a href="#">Following Via List View</a> <a href="#">Following Via Record View</a>	<p>The Following Records section describes the various methods of marking knowledge base template's as "Following", including via the Knowledge Base Template's list view and record view. Following a knowledge base template record causes its activity stream updates to be included on your Home page and Knowledge Base Template list view activity streams so that you can easily keep up with changes and user posts on the record.</p>

<a href="#">Sharing Knowledge Base Templates</a>	<p>The Sharing Records section provides instructions for the Share record view option which composes an email with a link to the knowledge base template record. If the recipient is logged into Sugar, clicking the link will bring them directly to the knowledge base template's record view.</p>
<a href="#">Using the TinyMCE Text Editor</a>	<p>The Using the TinyMCE Text Editor section describes how to use the built-in WYSIWYG to build and customize the contents of your knowledge base template.</p>

## KB Template Menus

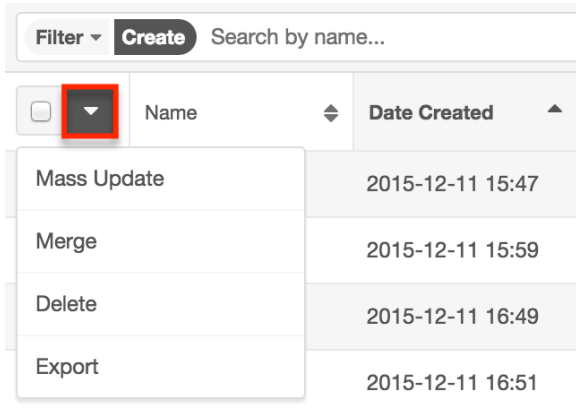
The Knowledge Base Templates section contains various options and functionality which are available via menus in the list view and record view. The following sections present each menu and its options with links to more information about each option in the User Interface documentation or, for Knowledge Base Templates-specific functionality, within this page.

### List View Menus

The Knowledge Base Templates [list view](#) displays all knowledge base template records and allows for searching and filtering to locate specific templates. You can view the basic details of each record within the field columns of the list view or click an template's name to open the record view. To access a module's list view, simply click the Knowledge Base module's tab in the navigation bar at the top of any Sugar page and select "View Templates".

### List View Mass Actions Menu

The Mass Actions menu to the right of the checkbox option in the list header allows you to perform mass actions on all currently selected records. You can use the checkbox on each record's row to select individual template records or click the checkbox in the list header to select all records displayed on the current set of list view results.

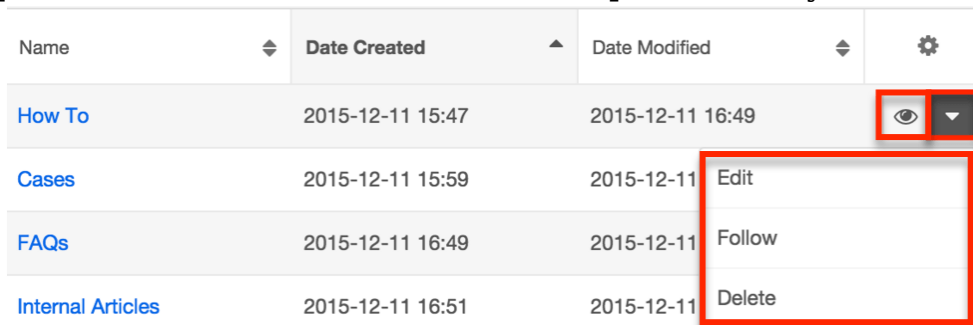


The Mass Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more templates at a time
<a href="#">Merge</a>	Merge two or more duplicate templates
<a href="#">Delete</a>	Delete one or more templates at a time
<a href="#">Export</a>	Export one or more templates to a CSV file

### List View Record Actions Menu

The Record Actions menu to the far right of each record's row allows you to perform actions on the individual template directly from the list view.



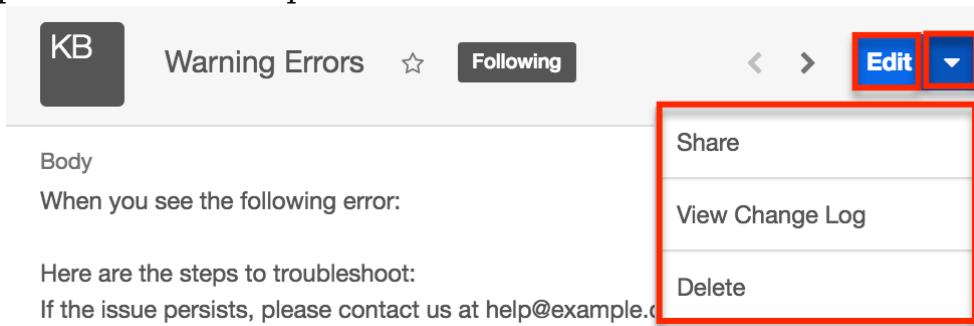
The list view's Record Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a> (Eye icon)	Preview this template in the intelligence pane
<a href="#">Edit</a>	Edit this template

<a href="#">Follow</a>	Follow this template
<a href="#">Delete</a>	Delete this template

## Record View Actions Menu

The knowledge base template [record view](#) displays a single template in full detail including its fields and the activity stream. To access a template's record view, simply click a hyperlinked template name from anywhere within Sugar. The record view's Actions menu appears on the top right of the page and allows you to perform various operations on the current record.



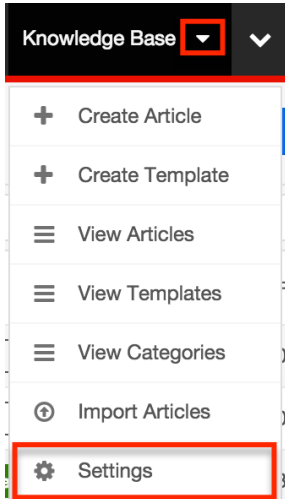
The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this template
<a href="#">Share</a>	Share this template
<a href="#">View Change Log</a>	View a record of changes to this template
<a href="#">Delete</a>	Delete this template

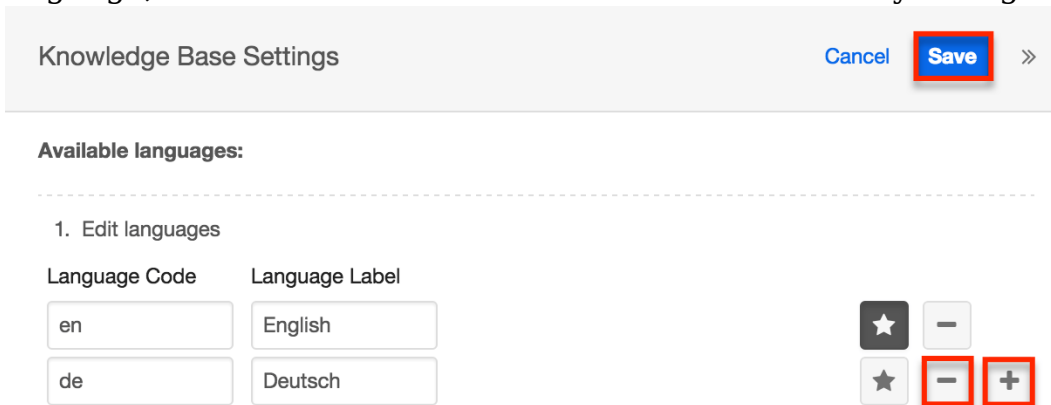
## Settings

You have the option to add, edit, or delete different languages for article records in the Settings section. This is helpful if articles are to be translated into multiple languages. When one or more additional languages have been added, users can [create localization articles](#). It is important to note that when a language is deleted from the available languages, all localization articles created with that language will also be deleted.

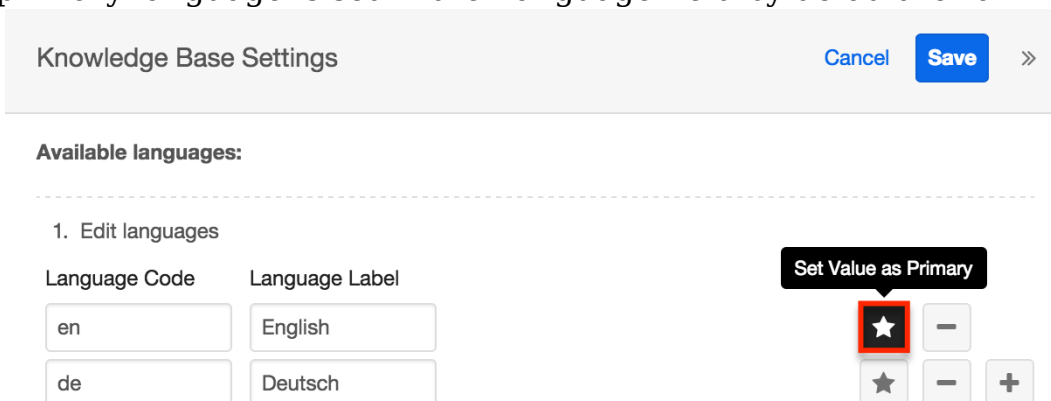
To access the Settings page, click the triangle in the Knowledge Base module tab to open the Actions menu and select "Settings".



The Knowledge Base Settings drawer will appear which allows you to edit, add, or remove languages for the Knowledge Base module. To add a new language, click the "+" icon and enter the Language Code and Language Label. To remove a language, select the "-" icon. Click "Save" to finalize any changes made.



You can also set a language as primary by selecting the star to its far right. The primary language is set in the Language field by default for all new articles.



Last Modified: 04/13/2016 02:20pm

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# Tag Management

## Overview

Tags are user-created keywords or phrases that can help users find, group, and classify large amounts of data by common attributes that may not be defined via basic database fields. Sugar stores tags as individual records in the Tags module. Modules using the Sidecar user interface (e.g. Accounts, Contacts, etc.) contain a Tags field where users can create and share tags that can be used to identify records in filters, dashlets, and reports. For a list of sidecar modules, please refer to the [User Interface](#) documentation in the Application Guide.

While tags can be created and used by regular Sugar users, some actions in the Tags module are only available to administrators and users with developer-level role access. This documentation will cover these administration options which allow you to manage the system-wide tag repository. For information about tag functionality which is available to regular users, please refer to the [Tags](#) documentation in the Application Guide. For instructions concerning views and actions which are common across most Sugar modules, such as creating, editing, and deleting tags, please refer to the [Working With Tags](#) section of this page.

Note: The Tags module is not configurable in Studio.

## Understanding Tag Behavior

The act of relating a tag to a Sugar record is referred to as "tagging". By default, modules using the Sidecar user interface (e.g. Contacts, Leads, Accounts, etc.) are enabled for tagging and include the Tags field in the layout. Tags can be related to multiple records across any sidecar module, so a single tag can appear on multiple records. Likewise, a single record can have multiple tags. Unlike other Sugar modules, users can see all tag records regardless of their team membership. Additionally, users will be able to edit Tag fields to add existing tags or create new tags regardless of any role restrictions their user has for the Tags module.

Please note that only administrators and users with developer-level role access may create, edit, merge, and delete tags in the Tags module. To assign a Tags Administrator role to a Sugar user, please refer to the [Creating a Tags Administrator](#) section of this page.

For more information on tag usage guidelines and interacting with tags in Sugar, please refer to the [Tags](#) documentation in the Application Guide.

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## Tag Fields

The Tags module contains a number of stock fields that come out-of-the-box with Sugar. The definitions below are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs.

Field	Description
Name	The name or designation of the tag
Assigned To	The Sugar user assigned to the tag record
Date Created	The date the tag record was created
Date Modified	The date the tag record was last modified
Description	A description or other information about the tag

## Working With Tags

The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this Working With Tags section describe Tags-specific behaviors and functionality.

Content Link	Description
<a href="#">Creating Tags</a> <a href="#">Basic Tag Creation</a> <a href="#">Importing Tags</a>	The Creating Records section covers the various methods of creating new tag records, including via the Create button in the Tags module and importing a list of tags into Sugar using a .csv spreadsheet.
<a href="#">Viewing Tags</a> <a href="#">Viewing Via List View</a> <a href="#">Viewing Via Record View</a> <a href="#">Viewing Via Recently Viewed</a> <a href="#">Viewing Via Dashlets</a> <a href="#">Viewing Via Preview</a> <a href="#">Viewing Via Reports</a>	The Viewing Records section describes the various methods of viewing tag records, including via the Tags list view and record view, the Recently Viewed menu in the Tags module tab, list view dashlets showing tag information, previewing tags in the right hand side panel, and reports displaying tag data.
<a href="#">Searching for Tags</a> <a href="#">List View Search</a> <a href="#">Creating a Filter</a>	The Searching for Records section provides an introduction to list view search, which searches and filters



<a href="#">Saving a Filter</a>	<p>within the Tags module.  Note: For information on using tags as global search filters, please refer to the</p>
<a href="#">Tags List View</a> <a href="#">Total Record Count</a> <a href="#">Create Button</a> <a href="#">List View Search</a> <a href="#">Checkbox Selection</a> <a href="#">Mass Actions Menu</a> <a href="#">Favorite Designation</a> <a href="#">Column Reordering</a> <a href="#">Column Resizing</a> <a href="#">Column Sorting</a> <a href="#">Column Selection</a> <a href="#">Preview</a> <a href="#">Record Actions Menu</a> <a href="#">More Tags</a> <a href="#">Intelligence Pane</a>	<p>The List View section walks through the many elements of the Tags List View layout which contains a filterable list of all tag records in Sugar. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Tags list view are described in the <a href="#">List View Mass Actions Menu</a> and <a href="#">List View Record Actions Menu</a> sections of this page.</p>
<a href="#">Tags Record View</a> <a href="#">Favorite Designation</a> <a href="#">Next or Previous Record</a> <a href="#">Actions Menu</a> <a href="#">Subpanels</a> <a href="#">Related Record Subpanels</a> <a href="#">Filtering Subpanels</a> <a href="#">Reordering Subpanels</a> <a href="#">Intelligence Pane</a>	<p>The Record View section walks through the many elements of the Tags Record View layout which contains detailed information about a single tag record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Tags record view are described in the <a href="#">Record View Actions Menu</a> section of this page.</p>
<a href="#">Editing Tags</a> <a href="#">Editing Inline Via Record View</a> <a href="#">Editing Via Record View</a> <a href="#">Editing Inline Via List View</a> <a href="#">Mass Editing Via List View</a> <a href="#">Editing Fields</a>	<p>The Editing Records section describes the various methods of editing existing tag records, including inline via the Tags record view, in full edit mode on the record view, inline via the Tags list view, and via the Mass Update option on the list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records.  Note: If the tag's name is edited, all records related to the tag will automatically display the updated tag value.</p>
<a href="#">Deleting Tags</a> <a href="#">Deleting Via Record View</a>	<p>The Deleting Records section describes the various methods of deleting</p>

<a href="#">Deleting Via List View</a> <a href="#">Mass Deleting Via List View</a>	<p>unwanted tags, including via the Tags record view, an individual record's Actions menu on the Tags list view, and the Mass Actions menu on the list view.</p>
<a href="#">Exporting Tags</a>	<p>The Exporting Records section provides an introduction to the export functionality which allows you to download a list of tags and all their data as a .csv file for use outside of Sugar (e.g. in Microsoft Excel).</p>
<a href="#">Merging Tags</a> <a href="#">Merging Via List View</a>	<p>The Merging Records section provides instructions for merging duplicate tags which will combine field values and related records into a single tag.  Note: Date Created and Date Modified field types are not supported when merging duplicate Tag records in Sugar.</p>
<a href="#">Viewing Tag Change Logs</a>	<p>The Viewing Record Change Logs section describes the View Change Log record view option which displays a history of changes to the tag's audited fields.  Note: Only the Assigned User Id field is audited for the Tags module and will be displayed in the change log.</p>
<a href="#">Favoriting Tags</a> <a href="#">Favoriting Via List View</a> <a href="#">Favoriting Via Record View</a>	<p>The Favoriting Records section describes the various methods of marking tags as favorites, including via the Tags list view or Tags record view. Favoriting a tag allows you to easily access it from list views, dashlets, or the Tags module tab.</p>
<a href="#">Sharing Tags</a>	<p>The Sharing Records section provides instructions for the Share record view option which composes an email with a link to the tag record. If the recipient is logged into Sugar, clicking the link will bring them directly to the tag's record view.</p>

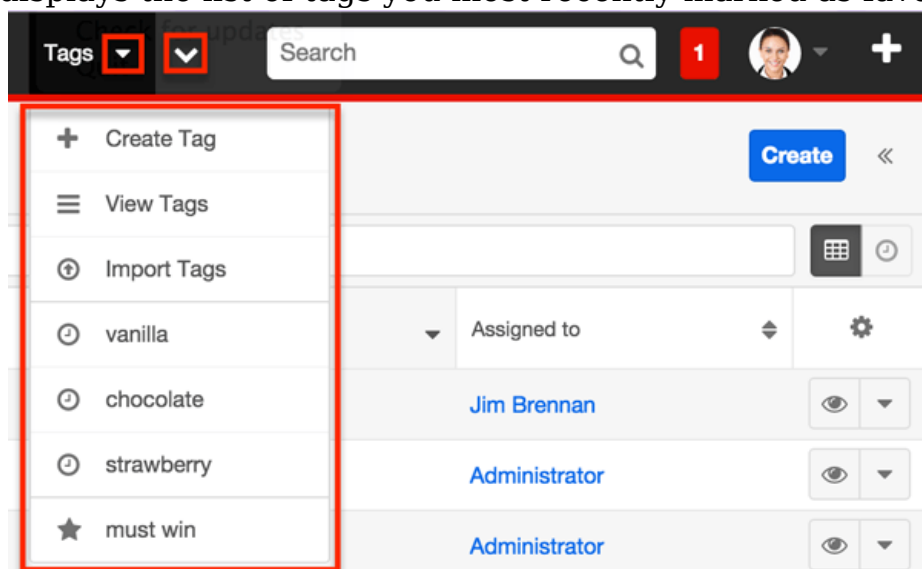
## Tag Menus

The Tags module contains various options and functionality which are available via

menus in the module tab, list view, and record view. The following sections present each menu and its options with links to more information about each option in the User Interface documentation or, for Tags-specific functionality, within this page.

## Module Tab Menus

The Tags module tab is typically found by clicking the arrow to the right of the navigation bar tabs at the top of any Sugar screen. The additional modules will appear on the list and you can click "Tags" to access the list view. Once the Tags module tab displays on the navigation bar, you can click the triangle within the tab to display the Actions, Recently Viewed, and Favorites menu. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of tags you most recently viewed. The [Favorites menu](#) displays the list of tags you most recently marked as favorites.



The module tab's Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Tag</a>	Opens the record view layout to create a new tag
<a href="#">View Tags</a>	Opens the list view layout to search and display tags
<a href="#">Import Tags</a>	Opens the import wizard to create or update tags using external data

If you do not see the Tags module tab in Sugar, please check the following:

- The Tags module may be marked as hidden in your user preferences which will prevent the module tab from being displayed. Navigate to your user

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profile (upper right of Sugar), click the Advanced tab, and check the Layout Options section. If you see the Tags module in the Hide Modules list, simply move it to the Display Modules list and save. For more information on hiding and displaying modules, please refer to the [Layout Options](#) section of the Getting Started documentation in the Application Guide.

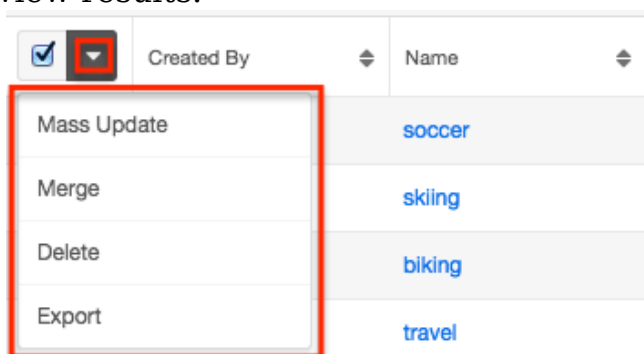
- The Tags module may be disabled for your entire Sugar instance. Enable the Tags module and add the Tags field to related module layouts. For more information on displaying and hiding modules throughout Sugar, please refer to the [Developer Tools](#) documentation.

## List View Menus

The Tags [list view](#) displays all tag records and allows for searching and filtering to locate specific tags. You can view the basic details of each record within the field columns of the list view or click a tag's name to open the record view. To access a module's list view, simply click the module's tab in the navigation bar at the top of any Sugar page.

### List View Mass Actions Menu

The Mass Actions menu to the right of the checkbox option in the list header allows you to perform mass actions on all currently selected records. You can use the checkbox on each record's row to select individual tag records or click the checkbox in the list header to select all records displayed on the current set of list view results.



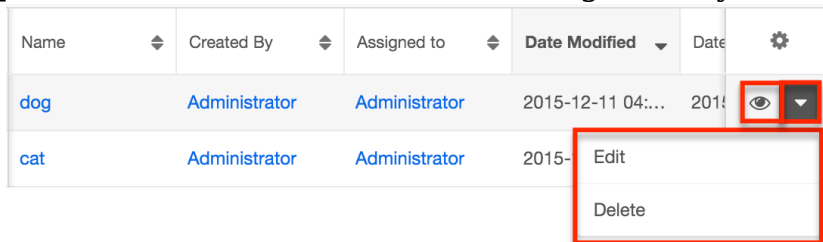
The Mass Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more tags at a time
<a href="#">Merge</a>	Merge two or more duplicate tags
<a href="#">Delete</a>	Delete one or more tags at a time
<a href="#">Export</a>	Export one or more tags to a CSV file

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## List View Record Actions Menu

The Record Actions menu to the far right of each record's row allows you to perform actions on the individual tag directly from the list view.

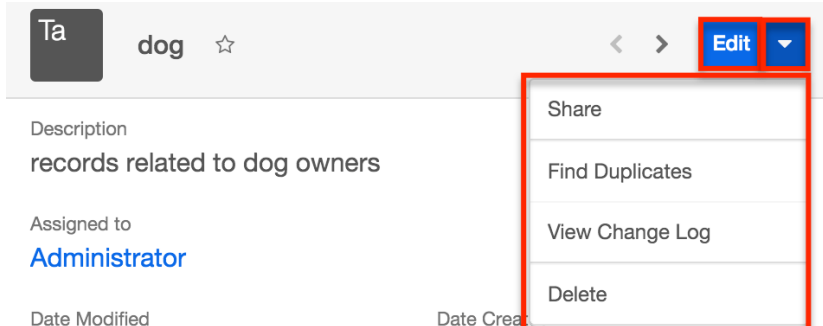


The options in the Record Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a>	Preview this tag in the intelligence pane
<a href="#">Edit</a>	Edit this tag
<a href="#">Delete</a>	Delete this tag

## Record View Actions Menu

The Tags [record view](#) displays a single tag in full detail including its relevant fields and subpanels of related records. To access a tag's record view, simply click a hyperlinked tag name from the Tags list view, Tags list view dashlet, or from report results. The record view's Actions menu appears on the top right of the page and allows you to perform various operations on the current record.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this tag

<a href="#">Share</a>	Share a link to this tag via email
<a href="#">Find Duplicates</a>	Locate potential duplicates of this tag
<a href="#">View Change Log</a>	View a record of changes to this tag
<a href="#">Delete</a>	Delete this tag

## Consolidating Synonymous Tags

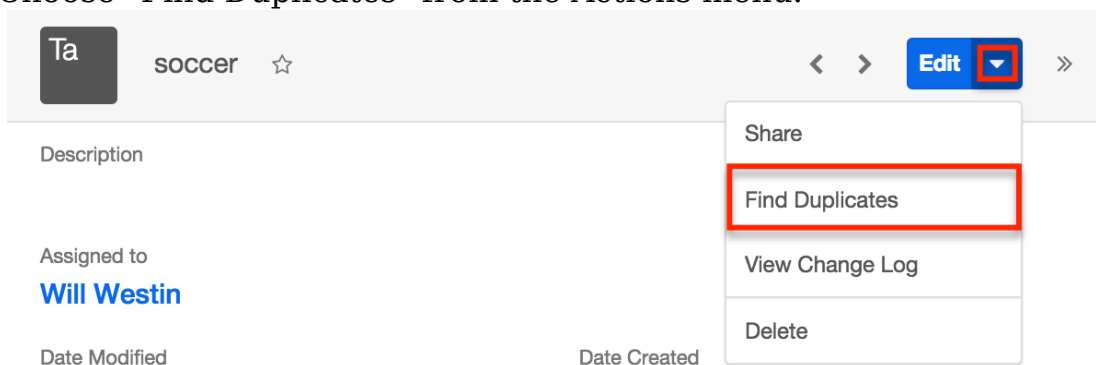
Sugar prohibits users from saving duplicate tag records, but with many users working in and importing new records to Sugar, it is possible for synonymous tag records (e.g. computer and computers) to accidentally occur in the system.

Before creating a new tag record, a good practice is to first check that a similar tag does not already exist in Sugar. You can locate candidates for cleanup using the list view search from the Tags list view. Searching for tags with similar names or other information can turn search into a powerful, duplicate-finding tool.

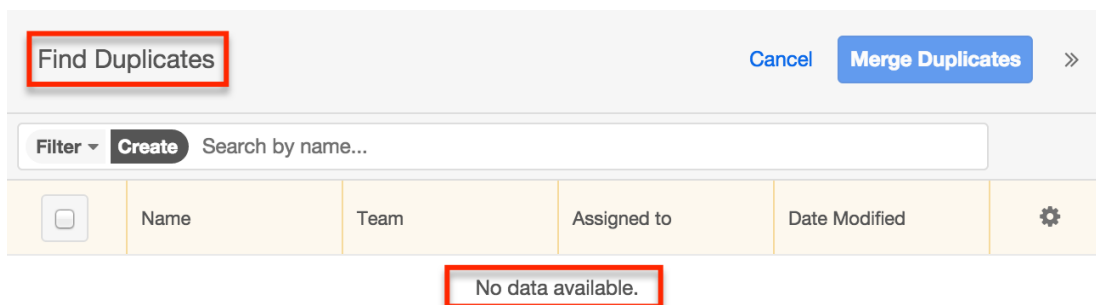
Sugar also provides a wizard for finding potential duplicates. The wizard is available from the Tags record view and may be used as explained below. If synonymous tag records are detected, you can perform a merge per the [User Interface](#) page.

Use the following steps to locate synonymous tags using the Find Duplicates option from the Tags record view:

1. Navigate to a tag's record view.
2. Choose "Find Duplicates" from the Actions menu.

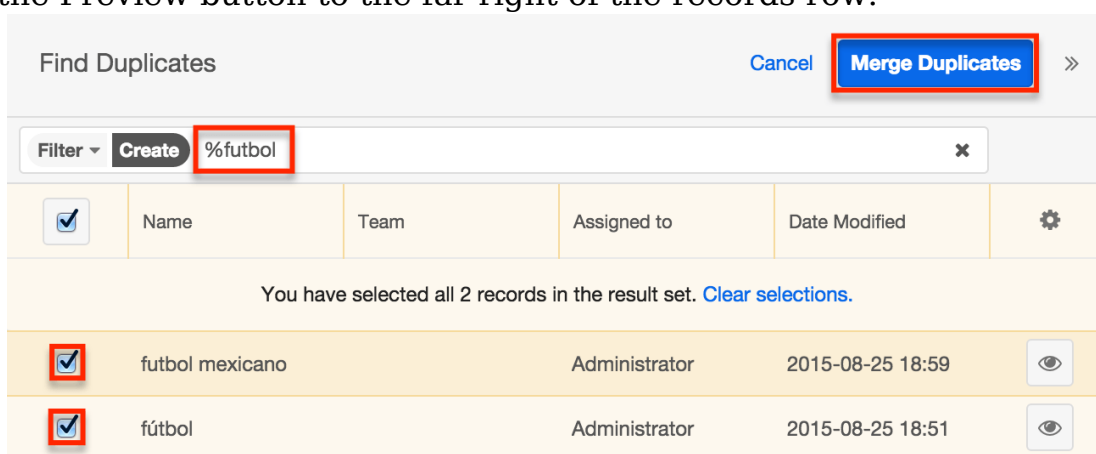


3. Potential duplicate tag records would typically be listed on the Find Duplicates page. Because it is not possible to create exact-match duplicates of tag records in Sugar, this page's search results will return zero potential duplicates, as indicated by the message "No data available."



To search for alternative spellings, simply type the name of the suspected duplicate in the Search bar. We recommend using the wildcard (%) character to find the broadest set of potential matches.

4. Select the record(s) you wish to merge then click "Merge Duplicates". If desired, you can first preview a potential duplicate record's details by clicking the Preview button to the far right of the records row.



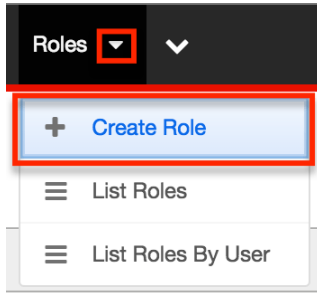
Once you click "Merge Duplicates", the merging process with the current record will begin. For instructions on performing the merge that follows, please refer to Steps 4-6 of the [Merging Via List View](#) section of the User Interface Page.

## Creating a Tags Administrator

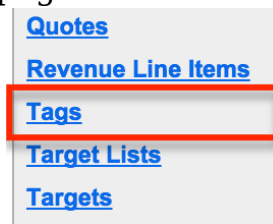
By default, only administrator or developer users have the ability to create, edit, delete, and merge tags in the Tags module. It may be helpful to delegate these administrative tasks to one or more designated user(s) without giving them full administrative permissions in Sugar.

Use the following steps to create a Tags Administrator role:

1. Navigate to Admin > Role Management.
2. Click the triangle in the Roles module tab and select "Create Role".



3. Enter a name (e.g. Tags Administrator) for the role then click "Save".
4. On the Role Chart screen, click "Tags" in the module's list to the far left of the page.



5. The following screen will display the role settings specific to the Tags module. The Access and Access Type columns will default to "Not Set". Click the "Not Set" in both columns and select the following options::

- Access : Enabled
- AccessType : AdminNote: All other role settings can remain as "Not Set" since the Admin access type will ensure full access to the remaining options.

Double click on a cell to change value.

Access	Access Type	Delete	Edit	Export
Enabled	Admin	Not Set	Not Set	Not Set

Field Permissions

Assigned to	Not Set	Created By	Not Set
Modified By	Not Set	Favorite	Not Set
External source ID	Not Set	External source meta	Not Set

6. Click "Save" to preserve the changes.
7. Scroll to the Users subpanel on the bottom of the screen and click "Select



User". Search and select the user(s) you wish to assign this role to.

Users

Select User (0 - 0 of 0)

Name	User Name	Email	Phone
No data			

- After selecting the user(s), navigate to the user's profile to view their access information via the Access tab. Confirm that the Tags Administrator role is displayed in the Roles subpanel and the Tag module's access is set to "Admin".

Revenue Line Items	Enabled	Normal	All	All	All	All	All	All	All
Tags	Enabled	Admin	All	All	All	All	All	All	All
Target Lists	Enabled	Normal	All	All	All	All	All	All	All
Targets	Enabled	Normal	All	All	All	All	All	All	All
Tasks	Enabled	Normal	All	All	All	All	All	All	All
Tracker Performance	None	None	None	None	None	None	None	All	None
Tracker Queries	None	None	None	None	None	None	None	All	None
Tracker Sessions	None	None	None	None	None	None	None	All	None
Trackers	None	None	None	None	None	None	None	All	None
Users/Teams/Roles	Enabled	Normal	All	All	All	All	All	All	All
Web Logic Hooks	Enabled	Normal	All	All	All	All	All	All	All

Roles (1 - 2 of 2)

Name	Description	edit
Sales Administrator	Sales Administrator Role	edit
Tags Administrator		edit

Any user assigned to the Tags Administrator role will have the ability to access increased functionality such as creating, editing, deleting, and merging records in the Tags module. For more information on creating roles, please refer to the [Role Management](#) documentation.

Last Modified: 10/21/2016 09:33am

## Employee Records

### Overview

Sugar's Employees module consists of individual people within your organization.

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The Employees module allows you to see a list of all employees, their contact information, and their employment status in one convenient location. Employee records are typically created when a user record is created, but users with administrative access can also add non-user employees. This means that, typically, all users will be listed as employees, but not all employees are necessarily Sugar users.

As the Employees module contains internal information about your company, not specifically Sugar, it is not subject to [team](#) and [role](#) restrictions.

## Employee Fields

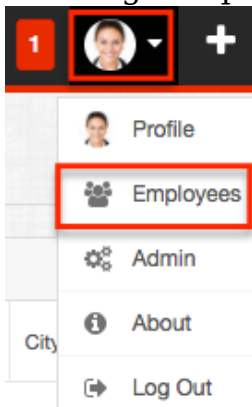
The Employees module contains a number of stock fields which come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but the fields can be leveraged differently to best meet your organization's needs. Fields can be altered, added, or removed via Admin > Studio. For more information on configuring fields, please refer to the [Studio](#) documentation in the Administration guide.

Field	Description
City	The city of the employee's address
Country	The country of the employee's address
Department	The department where this employee works
Email Address	The employee's email address
Employee Status	The employee's employment status in the organization, either: Active, Terminated, or Leave of Absence
Fax	The employee's fax number
First Name	The employee's first name
Home Phone	The employee's home phone number
IM Name	The employee's instant message screen name
IM Type	The employee's instant message client type
Last Name	The employee's last name
Mobile	The employee's mobile phone number
Notes	A description or other information about this employee

Office Phone	The employee's office phone number and extension
Other	An additional phone number for the employee
Picture	A picture, headshot, or identifying image of the employee
Primary Address	The number and street of the employee's address
Postal Code	The postal code of the employee's address
Reports to	This field list's the employee's manager, if the manager is a Sugar user
State	The state of the employee's address
Title	The employee's job title

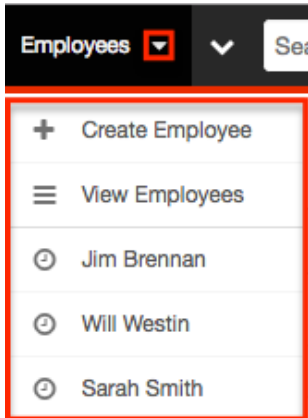
## Employees Module Tab

The Employees module tab can be accessed by clicking your profile icon and selecting "Employees" in the user menu.



Once in the Employees list view, you can click the triangle in the Employees module tab to display the Actions and Recently Viewed menus. The Actions menu allows you to perform important actions within the module. The [Recently Viewed menu](#) displays the list of employees you last viewed in the module. Please note that clicking the module tab allows you to access the Employees list view





The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Employee</a>	Opens the edit view layout to create a new employee
<a href="#">View Employees</a>	Opens the list view layout to search and display employees

## Creating Employees

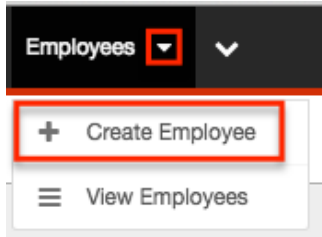
There are various methods for creating employees in Sugar including via the Employees module, the Users module, and duplication. The full edit view layout opens when creating the employee directly from the Employees menu and includes all of the relevant fields for your organization's employees. The edit view layout can be configured via Admin > Studio. For more information on configuring layouts, please refer to the [Studio](#) documentation.

### Creating Via Employees Module

One of the most common methods of employee creation is via the Create Employee option in the Employees module tab. This opens up the edit view layout which allows you to enter in all the relevant information for the employee.

Use the following steps to create an employee via the Employees module:

1. Click the triangle in the Employees module tab and select "Create Employee".



2. Enter appropriate values for the fields in the edit view layout. All required fields are marked with a red asterisk and must be completed prior to saving.
3. Once the necessary information is entered, click "Save".

Create

Save Cancel

Employee Status: Active

First Name: Joseph

## Creating Via Users Module

When a user is created, an employee record is also created by default using the relevant fields from the user record to be populated on the employee record. The field in the Users module that controls this is the "Display Employee Record" field. For more information on creating users, please review the [Users](#) documentation.

Employee Information

Employee Status: Active

Title: President

Work Phone: (408)

Display Employee Record:

## Creating Via Duplication

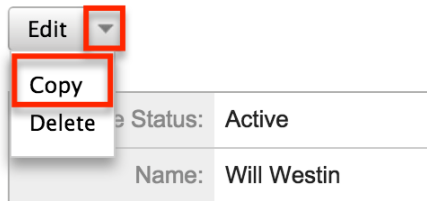
You can also create a new employee by duplicating an existing employee record. The Copy option is useful if the employee you are creating has similar information to an existing employee.

Use the following steps to create an employee by duplicating an existing record:

1. Navigate to an employee record's detail view.
2. Click the Actions menu and select "Copy".

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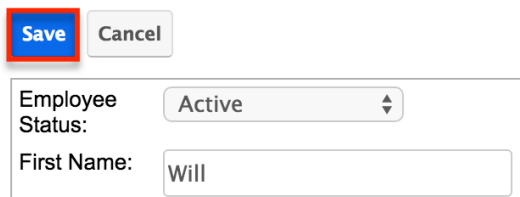
» Will Westin



Employee record detail view for Will Westin. The record shows 'Status: Active' and 'Name: Will Westin'. A dropdown menu is open over the 'Edit' button, with 'Copy' highlighted.

3. The displayed edit view is pre-populated with the original employee's values. Update the necessary fields, then click "Save".

Create



Edit form for an employee record. The form shows 'Employee Status: Active' and 'First Name: Will'. The 'Save' button is highlighted.

## Viewing Employees

There are various options available for viewing employee records in Sugar including via Employees list view, Employees detail view, and the Employees Recently Viewed menu. Please note that you will only be able to access these views by first clicking on the Employees button after clicking on your user name in the top right side of Sugar.

### Viewing Via List View

The Employees list view displays all employee records meeting the current search criteria. To access the list view, simply click the Employees option under your user name on the module tab bar. While list view shows key employee fields, you can click the employee's name to open the record in detail view. For more information on viewing employees via list view, please refer to the [Employees List View](#) section of this documentation.

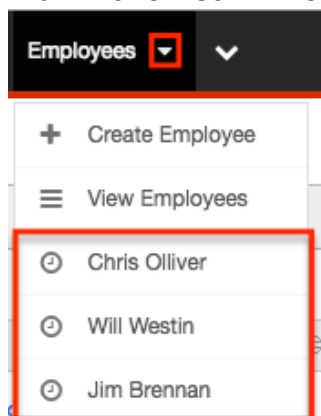
### Viewing Via Detail View

The Employees detail view displays thorough employee information by showing all employee fields. The detail view can be reached by clicking an employee record's link from the Employees list view. For more information on viewing employees via detail view, please refer to the [Employees Detail View](#) section of this documentation.

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## Viewing Via Recently Viewed

As you work, Sugar will keep track of which employees you have recently viewed. Click the triangle in the [Employees module tab](#) to see a list of the 3 records you most recently viewed in the module. Clicking the record's name (e.g. Will Westin) within the list will open it in detail view.



## Searching Employees

The Employees list view includes a Basic and Advanced Search to help you locate records easily and effectively in a module-specific manner. Once the search is performed, the relevant results will be displayed in the Employees list view below. Please note that Sugar automatically appends the wildcard character (%) to the end of your search phrase. This allows the system to retrieve all records that start with the keyword entered in the search. If you would like to broaden the search, you can use the wildcard at the beginning of your text as well (e.g. %services). This will pull up any record that has the word "services" in the name, regardless of how it starts or ends.

For more information on using the various search methods as well as how wildcards are used in the different methods, please refer to the [Search](#) documentation.

### Basic Search

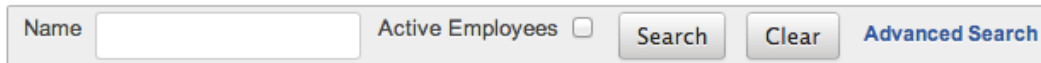
Basic search offers a few, commonly used fields for a simplified search experience. From the Basic Search panel, you can click "Advanced Search" to access additional search functionality as needed.

The buttons and checkboxes available in Basic Search panel have the following functions:



- 
- Search : Click the Search button or press your Return/Enter key to perform the search.
  - Clear : Click the Clear button to clear all criteria from the searchable fields.
  - Active Employees : Select this box to return only records where Employee Status is Active.

### Search Employees



The image shows a search interface for employees. It features a text input field labeled 'Name', a checkbox labeled 'Active Employees', and three buttons: 'Search', 'Clear', and 'Advanced Search'.

When you run a search, Sugar will return records matching all (as opposed to any) of the fields and checkboxes for which you have given a value. For example, if you select "Active Employees" and enter an employee's name, Sugar will only return employee records with a matching name that are active. Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To see all employee records, simply click "Clear" and then "Search" to perform a blank search with no filters.

Administrators can configure what fields appear on the Employees Basic Search via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation in the Administration guide

## Advanced Search

Advanced Search offers a more in-depth search experience than Basic Search including additional fields, layout options, and saved search capability. From the Advanced search panel, you can click "Basic Search" for simplified searching.

The buttons, checkboxes, and dropdowns available in Advanced Search have the following functions:

- Search : Click the Search button or press your Return/Enter key to perform the search.
- Clear : Click the Clear button to clear all criteria from the searchable fields.
- Active Employees : Select this box to return only records where Employee Status is Active.
- Layout Options : Use the expandable Layout Options section to configure your list view. For more information, please refer to the [Layout Options](#) section of the Search documentation.
- Saved Searches : Save, recall, update, and delete searches which you use often. For more information, please refer to the [Saved Search](#) section of the Search documentation.

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When you run a search, Sugar will return records matching all (as opposed to any) of the fields and checkboxes for which you have given a value. For example, if you select "Active Employees" and enter an employee's name, Sugar will only return employee records with a matching name that are active. Once the search is complete, the relevant results will populate in the [list view](#) below the search panel. To see all employee records, simply click "Clear" and then "Search" to perform a blank search with no filters.

Administrators can configure what fields appear on the Employees Basic Search via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation in the Administration guide.

## Employees List View

The Employees list view displays all employee records meeting the current search criteria. You can view the basic details of each employee within the field columns.

You have the option to change what fields are displayed in the list view by configuring your layout options in the [Employees advanced search](#). For more information on configuring your list view, please refer to the [Layout Options](#) section of the Search documentation. Users with administrator or developer access also have the ability to change what fields are visible in the list view via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation in the Administration guide.

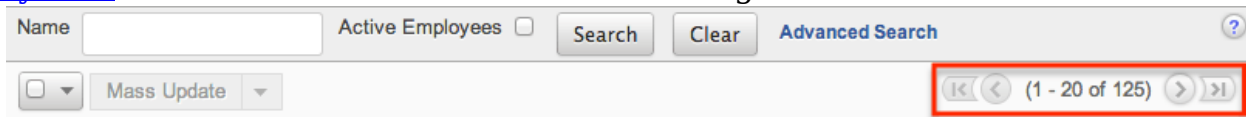
## Pagination

List view displays the current search results broken into pages that you can scroll through rather than displaying potentially thousands of rows at once. To the right just below the search panel you can see which records of the total results set are currently being displayed. The two single-arrow Next and Previous buttons can be used to scroll through the records page-by-page. The two double-arrow First Page

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and Last Page buttons allow you to skip to the beginning or the end of your current results.

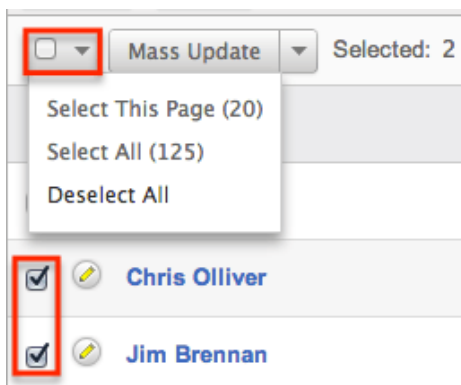
By default, Sugar displays 20 records per list view page, but administrators can change the number of records displayed via Admin > System Settings. For more information on changing the number of displayed records, please refer to the [System](#) documentation in the Administration guide.



## Checkbox Selection

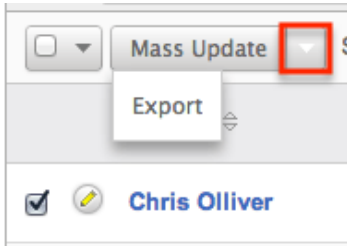
You can perform actions on employee records directly from the list view by first selecting the desired records. To select individual employee records on the Employees list view, mark the checkbox on the left of each row. To select or deselect multiple case records on the list view, use the options in the checkbox dropdown menu:

- Select This Page : Selects all records shown on the current page of case results.
- Select All : Selects all records in the current search results across all pages of case results.
- Deselect All : Deselects all records that are currently selected.



## Actions Menu

The Actions menu to the right of the checkbox dropdown allows you to perform actions on the currently selected records.



The options in the Actions menu allow you to perform the following operations:

Menu Item	Description
<a href="#">Mass Update</a>	Mass update one or more employees at a time
<a href="#">Export</a>	Export one or more employees to a CSV file

## Column Sorting

List view provides the ability to sort all of the current search results by a field column in either ascending or descending order. To sort by a field or switch the sort direction, click the column header noting that the fields which allow sorting will have a pair of arrows. The list view may be sorted by only one column at a time. You can also set a default order-by column using the layout options in Advanced Search. For more information on setting a default column sort, please refer to the [Layout Options](#) section of the Search documentation.

## Employees Detail View

The Employees detail view displays thorough employee information by way of all employee fields grouped into one page.

Users with administrator or developer access have the ability to change the detail view by configuring the layout via Admin > Studio. For more information on editing layouts, please refer to the [Studio](#) documentation in the Administration guide.

## Next or Previous Record

On the upper right of the Employees detail view, there are two buttons that allow you to page through each employee in the Employees list view's current search results. Clicking the Previous button displays the previous employee of the current search results while clicking the Next button displays the next employee of the

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current search results. The text in between shows which employee result you are currently viewing within the total number of current results.

» Chris Olliver

(2 of 125)

Employee Status:	Active	Picture:	
Name:	Chris Olliver		

## Editing Employees

Administrators may edit employees at any time to update or add information to the record. You can make changes to existing employee records via the Employees edit view and quick create forms. Edit view is available within the Employees module and includes all of the Employees fields you should need.

[Joseph Kelly](#) » Edit

Employee Status:	Active	Picture:	<input type="button" value="Choose File"/> No file chosen
First Name:	Joseph	Last Name:	Kelly
Title:	President	Office Phone:	(408)555-9876
Department:	N/A	Mobile:	(408)555-1234

Quick create is available for editing employees from the [Employees list view](#) and opens as a pop-up without navigating away from your current page. It generally contains fewer fields, but the Full Form button may be used to access the full edit view should you need to edit additional fields.

Joseph Kelly

Employee Status:	Active	Title:	President
First Name:	Joseph	Last Name: *	Kelly
Department:	N/A	Work Phone:	(408)555-9876
Reports to:		Email Address:	+
			joseph@sugar.com

Save Cancel Full Form

Sarah Smith Sales Manager West Jim Brennan sarah@example.com Activ

You may configure both the Employees edit view and quick create via Admin > Studio. For more information on configuring layouts, please refer to the [Studio](#) documentation in the Administration guide.

## Editing Via Detail View

You can edit employees via the [detail view](#) by clicking the Edit button on the upper left of the page. Once the edit view layout is open, update the necessary fields, then click "Save" to preserve your changes.

» Joseph Kelly



Employee Status:	Active
Name:	Joseph Kelly

## Editing Via List View

You can edit employees via the [list view](#) by clicking the Pencil icon to the left of each employee's name. A pop-up window will open with the quick create form which is a shortened version of the edit view layout. Update the necessary fields, then click "Save" to preserve your changes.

	Team Name	Description
	Global	Globally Visible

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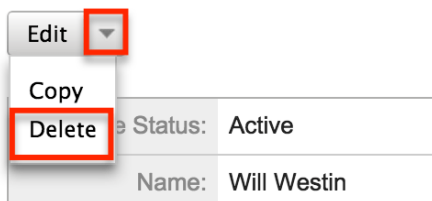
## Deleting Employees

If an employee record is invalid or should no longer appear in your organization's Sugar instance, it may be deleted from the Employee's detail view. Deleting employee records will also delete the User record that this employee was related to.

Use the following steps to delete an employee record via the detail view:

1. Navigate to an employee record's detail view.
2. Click the Actions menu and select "Delete".

» Will Westin

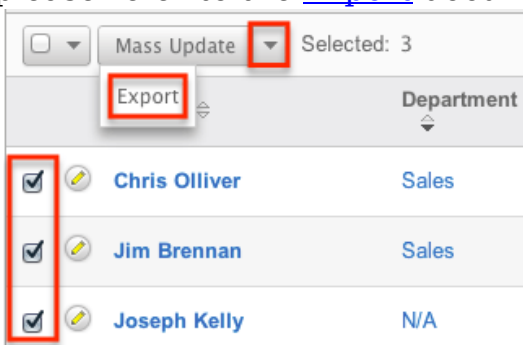


3. A pop-up message will display asking for confirmation and alerting you that the User record will also be deleted. Click "Ok" to proceed.

## Exporting Employees

Sugar's Export option allows administrators to download all fields for the selected employees to their computers as a CSV (comma-separated values) file. This may be useful when needing to use Employee data with other software such as Microsoft Excel. Due to PHP memory limitations on the server, there may be occasions when the application times out while exporting a large number of employee records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Employees may be exported from the Employees list view by selecting "Export" from the Actions menu. For more information on exporting records in Sugar, please refer to the [Export](#) documentation.



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## Mass Updating Employees

Mass Updating allows administrators to make the same change to multiple employee records at once from the Employees list view. Administrators can control which fields are available to change during mass update via Admin > Studio. Currently, only fields with the data type of date, datetime, dropdown, multiselect, and radio may be altered during a mass update. For more information on configuring mass update, please refer to the [Studio](#) documentation in the Administration guide. Due to the PHP memory limitations on the server, there may be occasions when the application times out while mass updating a large number of employee records. If you encounter an error when performing this action, we recommend selecting the records in smaller batches.

Use the following steps to mass update employee records from the list view:

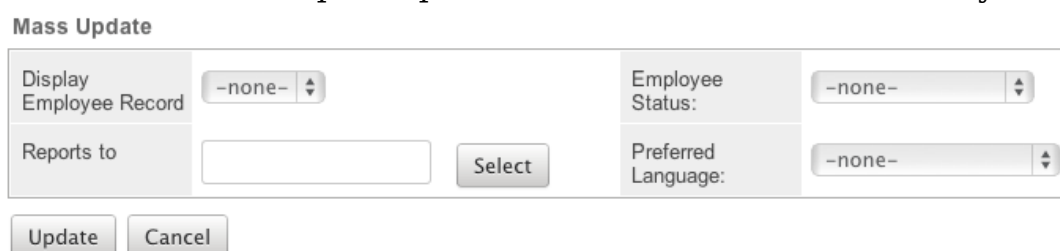
1. Navigate to the Employees list view by clicking the Employees module tab.
2. Use the list view's [Basic](#) or [Advanced Search](#) to find employees you wish to modify.
3. Select the desired employees individually or using the [checkbox dropdown's](#) options.
4. Choose "Mass Update" from the Actions menu.



The screenshot shows a table with columns 'Name' and 'Department'. Three rows are visible, each with a checked checkbox in the first column. A dropdown menu is open above the table, showing 'Mass Update' as the selected option. The text 'Selected: 3' is displayed to the right of the dropdown.

	Name	Department
<input checked="" type="checkbox"/>	Chris Olliver	Sales
<input checked="" type="checkbox"/>	Jim Brennan	Sales
<input checked="" type="checkbox"/>	Joseph Kelly	N/A

5. Scroll to the Mass Update panel and set values for the fields you wish to alter.



The screenshot shows the 'Mass Update' panel with the following fields and buttons:

- Display Employee Record: -none-
- Employee Status: -none-
- Reports to: [Text Input] [Select]
- Preferred Language: -none-
- Update [Button]
- Cancel [Button]

6. Click "Update" to save the changes to all of the currently selected employee records.



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# Process Author

## Overview

Sugar Process Author™ (re-named Sugar Advanced Workflow in later versions) enables administrators to streamline common business processes by managing approvals, sales processes, call triaging, and more. Sugar Process Author is an easy-to-use business process management (BPM) and workflow tool that adds advanced BPM functionality to Sugar.

Note: Process Author, also known as Sugar's Advanced Workflow, is exclusive to Enterprise and Ultimate editions of Sugar 7.6.x and later.

The Process Author suite features an extensive toolbox of modules that provide the ability to easily create digital forms and map out robust workflows. The drag-and-drop interface requires no programming experience.

This documentation contains the following pages:

- Process Author (current page)
- [Process Definitions](#)
- [Process Business Rules](#)
- [Process Email Templates](#)

Additionally, the [Processes](#) page of the Application Guide contains documentation for the user-facing elements of Process Author, and the [Knowledge Base](#) contains several business use-case tutorials on how to design some common workflow processes for your organization.

## Scope

This documentation only defines relevant BPM terminology and the concepts used specifically for Sugar Process Author modules. It is not intended for general BPM educational purposes, and should not be used as a complete BPM modeling resource.

## Prerequisites

- Basic knowledge of process design is required.
- Basic knowledge of process standards such as BPMN is preferred. BPMN is

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flowchart-based notation for defining business processes within an organization.

- You should know which business processes you want to automate in Sugar.

## Core Concepts

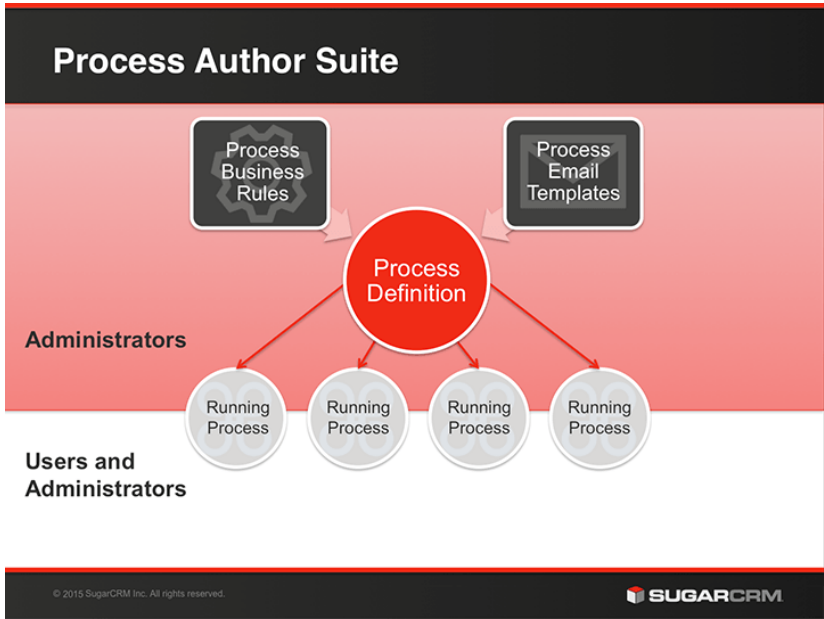
A business process is a set of logically related tasks that are performed in order to achieve a specific organizational goal. It presents all of the tasks that must be completed in a simplified and streamlined format. Process Author empowers Sugar administrators to automate vital business processes for their organization. Some examples of business processes that can be automated using Process Author include invoice approvals, lead routing, customer service case routing, and automated reminders and escalations.

## Process Author Modules

In order to seamlessly automate business processes, Sugar Process Author suite leverages four interconnected process-related modules. The [Process Business Rules](#) module and the [Process Email Templates](#) module are used to create rules and email templates that will be referenced by records created in the [Process Definitions](#) module. Once a process definition has been created, it will generate a record in the [Processes](#) module each time the process definition is triggered.

The Process Business Rules, Process Email Templates, and Process Definitions modules can be viewed and configured by any system administrator user. In addition, regular users with a role that provides developer access to one or more modules will be able to access all Process Author functions for those modules. Regular users without developer role permissions will only have access to the Processes module. For more information about roles, please review the [Role Management](#) documentation.

The following image illustrates the relationship between the Process Author modules:



The following table describes the four Process Author modules and their intended use. To learn more about any of the modules, click on the hyperlinked module name.

Note: We recommend reading this page in its entirety before moving on to other Process Author sections.

Module	Description
<a href="#">Process Definitions</a>	A process definition defines the steps in an overall business process. Process definitions are created by a Sugar administrator. The process definition consists of a network of activities and their relationships, criteria to indicate the start and end of the process, and information about the individual activities (e.g., participants) contained within the business process.
<a href="#">Processes</a>	A process is a running instance of a process definition. A single process begins every time a process definition is executed. For example, a single process definition could be created to automate quote approvals, but because users may engage in several quote approvals per day, each approval will be represented by a separate process instance, all governed by the single process

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definition. In other words, the Processes module is the many-to-one (M:1) child module of Process Definitions.

The Processes module is the only Process Author module that is visible to regular users. From the Processes dashlet and module list view, they will be able to see running processes if there is anything for them to approve, reject, or review.

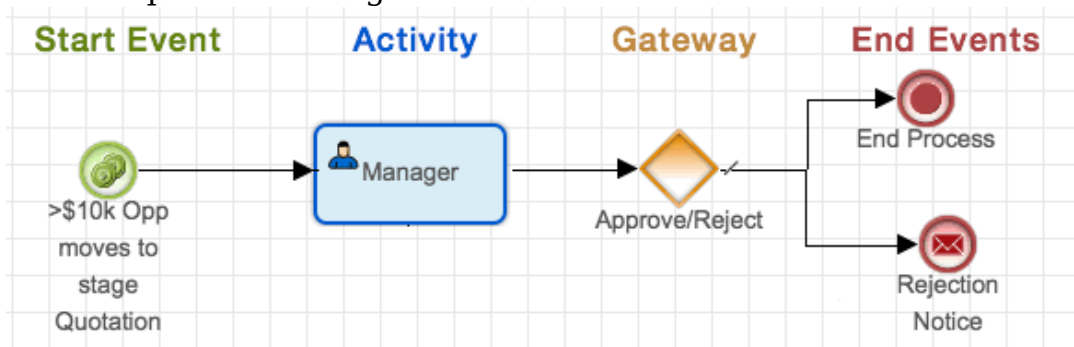
There are three ways an administrator can view a list of processes:

- **Processes module list view** : List views for the Processes module display processes that require the logged-in user to take approve, reject, or review action. Admin users, like regular users, will only see the processes that are waiting for them. List views can be accessed by navigating to Processes > View Processes.
- **[Processes dashlet](#)** : This dashlet displays processes that require the logged-in user to take approve, reject, or review action. Admin users, like regular users, will only see the processes that they need to act upon.
- **[Process Management page](#)** : This is the one place in Sugar where an administrator can see all running, cancelled, and completed processes. From the Process Management page, the admin can also monitor process status, reassign or cancel an in-progress process, or repair processes in an error state. The Process Management page is accessible via the Admin > Process Author panel or via the Processes module tab by




	clicking on "Process Management".
<a href="#">Process Business Rules</a>	A process business rule is a reusable set of conditions and outcomes that can be embedded in a process definition. The set of rules may enforce business policy, make a decision, or infer new data from existing data. For example, if Sally manages all business opportunities of \$10,000 or more, and Chris manages all business opportunities under \$10,000, a process business rule can be created and used by all relevant process definitions to ensure that the assignment policy is respected. In the case of an eventual personnel change, only the process business rule will need to be edited to affect all related processes.
<a href="#">Process Email Templates</a>	A process email template is required in order to include a Send Message event in a process definition. Sugar's core product includes several places where email templates can be created for different purposes, but Process Author requires all sent messages to be created via the Process Email Templates module.



## Basic Visual Notation Elements



Sugar Process Author depends on process definitions created by the administrator using a Visual Designer tool. When complete, the design will graphically display a collection of flow elements that connect with each other to define and regulate a business process in Sugar.



The following table defines the different types of flow elements that are available when creating a process definition in the Visual Designer.

Element	Symbol	Definition
Events		<p>An Event is something that happens during the course of a business process. Events affect the flow of the Process and usually have a trigger and/or a result. They can start, interrupt, or end the flow of a process.</p> <p>An Event is represented by a circle in the Visual Designer.</p>
<a href="#">Start Events</a>		<p>The Start event indicates where a process will begin. It defines the action that will trigger the Process. The Start event will always be characterized Sugar module selected as the record's Target Module, but will vary by conditions such as whether it applies to newly created records or updated records.</p> <p>Note: A process definition's target module will be the same module that is used for the Start event.</p> <p>A Start event is represented by a green circle on the Visual Designer canvas.</p>
<a href="#">Intermediate Events</a>		<p>As the name suggests, Intermediate events occur after a process starts but before the process is</p>

		<p>complete. Intermediate events that are placed within the overall process flow represent things that happen during the normal operation of the process such as sending messages, receiving messages, or mandatory waiting periods.</p> <p>Intermediate events are represented by blue circles in the Visual Designer.</p>
<p><a href="#">Activities</a></p>		<p>The only unit of work that may require a user response (opposed to automation) is an Activity. It is a moment within a flow where a user must decide if a circumstance is approved or rejected, or review a record that has been routed to them.</p> <p>Activities are represented by rounded-corner rectangles in the Visual Designer.</p>
<p><a href="#">Actions</a></p>		<p>Actions are automated elements used to execute a business rule, create or update a Sugar record, or identify a process user. Actions are completed by the Process Author engine and do not require any human interaction to execute.</p> <p>Actions are represented by rounded-corner squares in the Visual Designer.</p>
<p><a href="#">Gateways</a></p>		<p>Gateway elements are</p>

		<p>used to control the flow of a process via merging and splitting. When several activities may result in a common outcome, a gateway serves as a merging mechanism, or a "converging" element. When a single activity may result in several different outcomes, a gateway serves as a splitting mechanism, or a "diverging" element.</p> <p>A Gateway is represented by a diamond in the Visual Designer.</p>
<a href="#">End Events</a>		<p>End events signal completion of a process. There are three end-event options: Do Nothing, Terminate Process, or Send Message. An End event is represented by a red circle in the Visual Designer.</p>

## Basic Steps to Automate a Business Process

It is important to understand how all of the modules and elements of the Process Author suite will work together. Here is the best-practice chronology of the overall procedure for automating business processes in Sugar using Process Author:

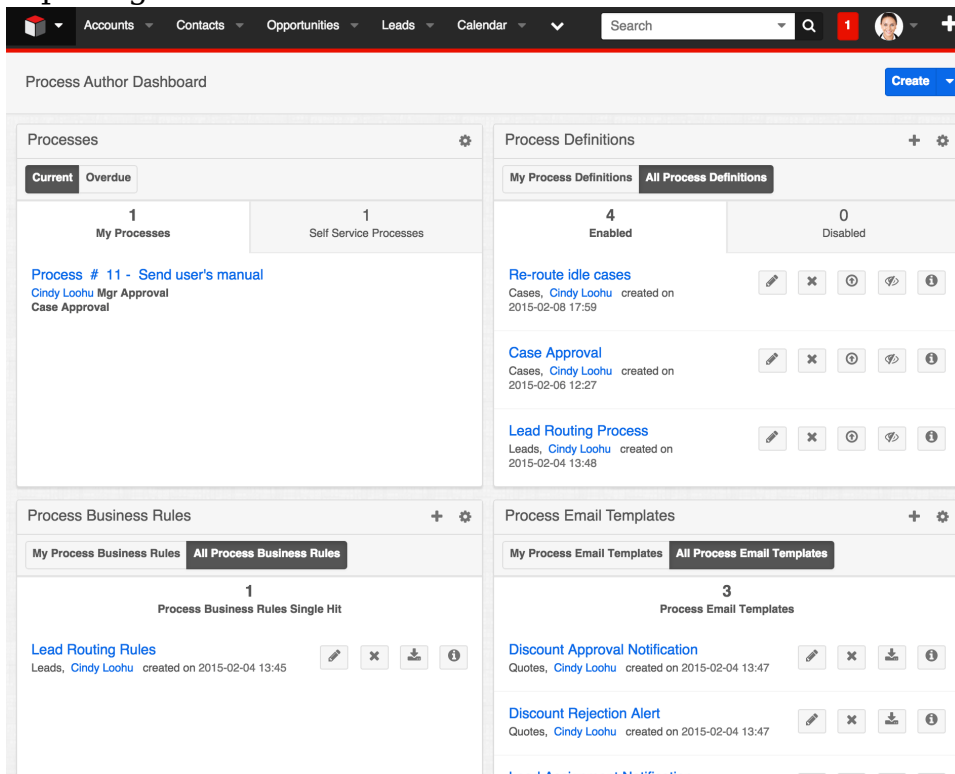
Step #	Description	Explanation
1	<a href="#">Create a Process Author Dashboard</a>	<p>Before using Process Author for the first time, create a new dashboard specific to Process Author for easy, one-stop access to all automated business processes and their components.</p>



2	<a href="#">Create and Configure a Process Business Rule</a>	(optional) Create at least one Process Business Rule that will be used in a process definition. For example, automated lead assignments might require a process business rule to define which lead source values will be assigned to which user.
3	<a href="#">Create and Configure a Process Email Template</a>	(optional) Prepare at least one Process Email Template for processes that require alerts or notifications.
4	<a href="#">Create and Configure a Process Definition</a>	Using the Process Designer canvas, create the visual design of the overall business process that you want to automate. The process definition may make use of Process Business Rules and Process Email Templates created in previous steps.
5	<a href="#">Process Management</a>	With all of the Process Author modules now working in harmony, administrators can navigate to the Process Management page to monitor process status, reassign or cancel an in-progress process, or repair processes in an error state. Users can monitor the <a href="#">Processes dashlet</a> for activities that are queued or awaiting feedback.

## Creating a Process Author Dashboard

Before getting started, we recommend that the administrator user creates a Process Author-specific dashboard on their home page. This will allow the administrator to easily manage Process Definitions and their supporting modules all in one place. Regular users who may be engaged in running processes should place the [Processes dashlet](#) on their home pages to stay abreast of activities requiring their attention.

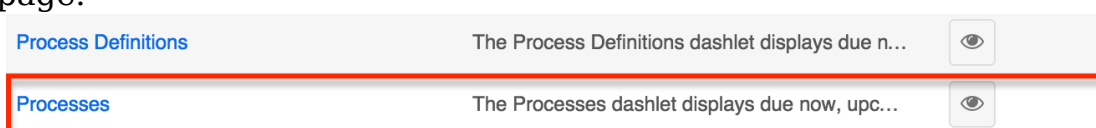


## Processes Dashlet

This is the only Process Author dashlet available to regular users. It is important for all users who may be engaged in a process to place this dashlet on their home screens. Open, running processes and self-service processes waiting to be acted upon by the logged-in user will be listed in this dashlet.

Note: Users (including administrators) will see only the processes that immediately require their attention.

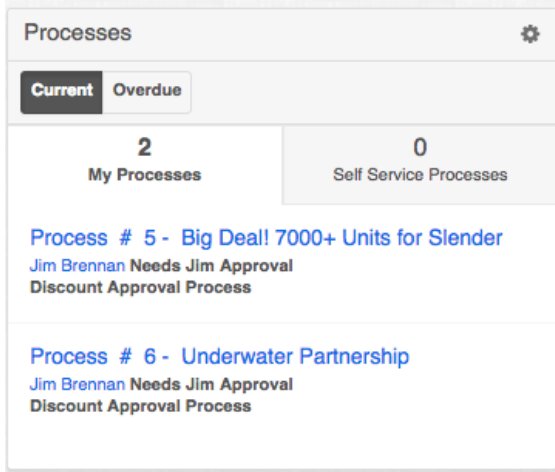
To add a Processes dashlet, please refer to the [Adding Dashlets](#) section of the Intelligence Pane documentation, choosing "Processes" from the Add a Dashlet page.



After saving the dashlet and its containing dashboard, the dashlet will offer several

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process-specific management tools:



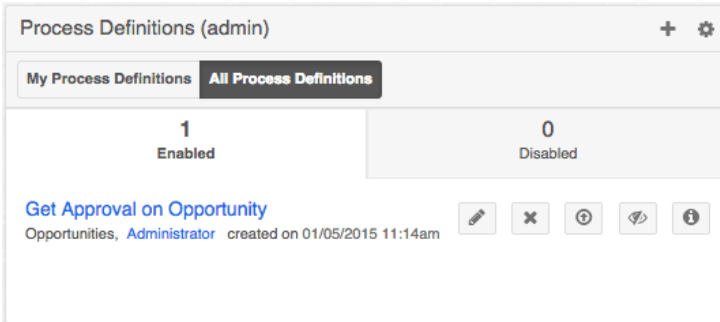
- **Current** : Click on this button to view all processes that are running within the expected timeframe.
- **Overdue** : Click on this button to view all processes that have a due date in the past. The label "Overdue" and the due date will be displayed adjacent to the process description.
- **My Processes** : Enable this tab to view the running processes upon which the logged-in user must act. Self-Service processes are not displayed here.
  - To execute a Process from the dashlet, click on the name of the process. Please note that admin users can not see processes running for other users via the dashlet. To access the system's exhaustive list of running and completed processes, refer to the [Process Management](#) section of this documentation.
- **Self Service Processes** : Enable this tab to view only the running processes in queue to be claimed by a user. Self-Service processes are configured inside the User Activity element settings of the related process definition.
- **Process Description** : Running processes are displayed in list view format with descriptive fields including the unique process number, the name of the affected Sugar record, the process title, the responsible user's name, and the label of the relevant process step.
- **Due Date** : When a due date exists it will appear adjacent to the process description.

## Process Definitions Dashlet

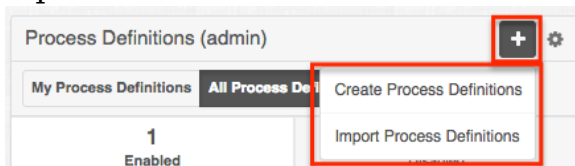
You must be an administrator user to add this dashlet to your home page. To add a Process Definitions dashlet, please refer to the [Adding Dashlets](#) section of the Intelligence Pane documentation, choosing "Process Definitions" from the Add a Dashlet page.

Process Business Rules	The Process Business Rules dashlet displays due ...	
Process Definitions	The Process Definitions dashlet displays due now, ...	
Processes	The Processes dashlet displays due now, upcomin...	

After saving the dashlet and its containing dashboard, the dashlet will offer several Process Author-specific administration tools:



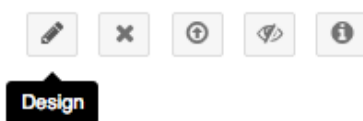
- **Actions Menu** : Click on the plus (+) icon to access the "Create Process Definitions" and "Import Process Definitions" options. Please note that imports for this module must have a .bpm file extension.



- **My Process Definitions** : Click on this button to list all process definitions created by the current admin user.
- **All Process Definitions** : Click on this button to list all process definitions created by any admin user.
- **Enabled** : Enable this tab to view a list of process definitions that are currently enabled in the system.
- **Disabled** : Enable this tab to view a list of process definitions that are currently disabled in the system. Disabling a process definition will prevent it from triggering new processes. Any running processes related to the disabled process definition will pause in an In-Progress state until the process definition is re-enabled.

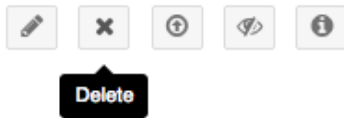
- **Process Definition Shortcut Buttons**

- **Design** : Click on this icon to edit the process definition via the Visual Designer.

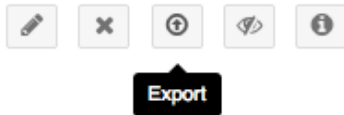


- **Delete** : Click on this icon to delete the adjacent process definition. A confirmation message will appear on the top of the screen; click "Confirm" to delete the process definition or click "Cancel" to close the

message without deleting.

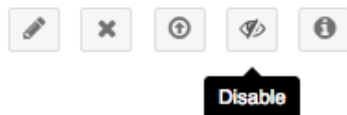


- Export : Click on this icon to export the process definition to a .bpm file.

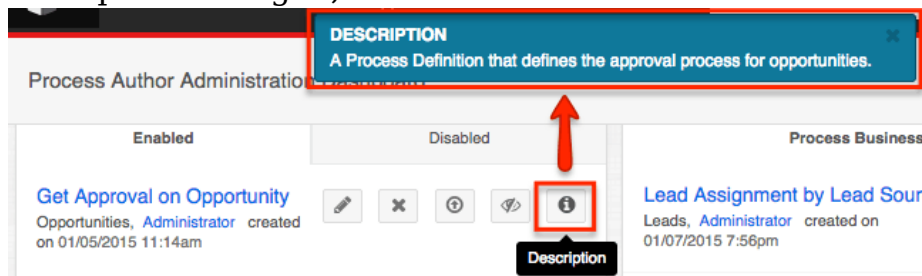


- Disable/Enable : Click on this icon to disable an active process definition or to enable an inactive one. Disabled process definitions will be listed in the "Disabled" tab.

- All process definitions are disabled by default and must be enabled by an administrator. For more information, please refer to [Enabling Process Definitions](#).
- Disabling a process definition will prevent it from triggering new processes. Any running processes related to the disabled process definition will pause in an In-Progress state until the process definition is re-enabled.

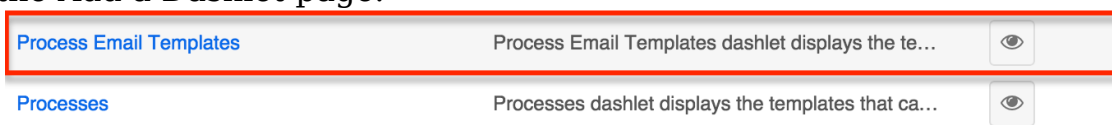


- Description : Click this icon to open a blue alert window that displays the admin-specified description of the process definition. To close the description dialogue, click on the x in the corner of the message.

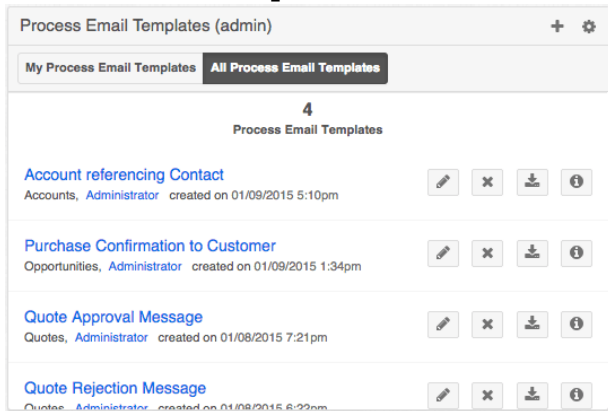


## Process Email Templates Dashlet

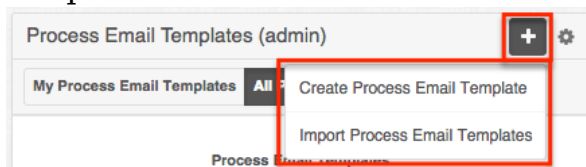
You must be an administrator user to add this dashlet to your home page. To add a Process Email Templates dashlet, please refer to the [Adding Dashlets](#) section of the Intelligence Pane documentation, choosing "Process Email Templates" from the Add a Dashlet page.



After saving the dashlet and its containing dashboard, the dashlet will offer several Process Author-specific administration tools:



- **Actions Menu** : Click on the plus (+) icon to access the "Create Process Email Template" shortcut.



- **My Process Email Templates** : Click on this button to list all email templates created by the current admin user.
- **All Process Email Templates** : Click on this button to list all email templates created by any admin user.
- **Process Email Template Shortcut Buttons**
  - **Edit** : Click on this icon to edit the template record from record view. It is then possible to access the template designer from the record view.



**Edit**

- **Delete** : Click on this icon to delete the adjacent email template. A confirmation message will appear on the top of the screen; click "Confirm" to delete the email template or click "Cancel" to close the message without deleting.



**Delete**

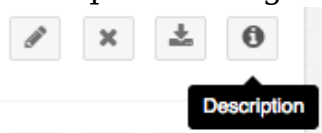
- **Export** : Click on this icon to export the process email template to a .pet file.



**Export**

- **Description** : Click this icon to open a blue alert window that displays the admin-specified description of the process email template. To close the

description dialogue, click on the x in the corner of the message.

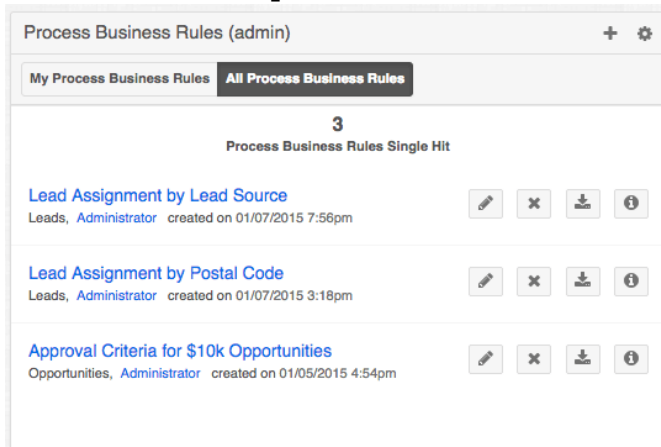


## Process Business Rules Dashlet

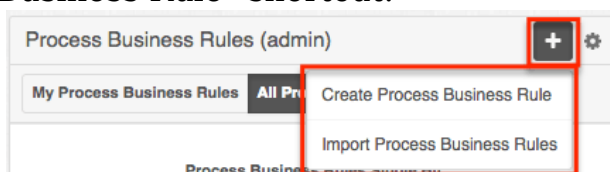
You must be an administrator user to add this dashlet to your home page. To add a Process Business Rules dashlet, please refer to the [Adding Dashlets](#) section of the Intelligence Pane documentation, choosing "Process Business Rules" from the Add a Dashlet page.



After saving the dashlet and its containing dashboard, the dashlet will offer several Process Author-specific administration tools:



- Actions Menu : Click on the plus (+) icon to access the "Create Process Business Rule" shortcut.



- My Process Business Rules : Click on this button to view business rules created by the logged-in admin user.
- All Process Business Rules : Click on this button to view business rules created by any admin user.
- Business Rules Shortcut Buttons
  - Edit : Click on this icon to edit the rule configuration from the Business

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Rules Builder interface.



**Edit**

- Delete : Click on this option to delete the adjacent business rule. A confirmation message will appear on the top of the screen; click "Confirm" to delete the process business rule or click "Cancel" to close the message without deleting.



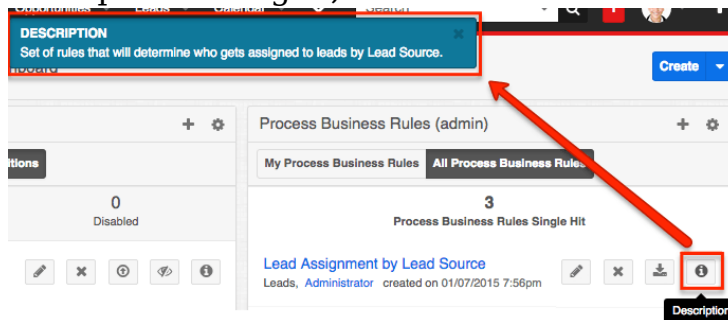
**Delete**

- Export : Click on this icon to export the process business rule to a .pbr file.



**Export**

- Description : Click this icon to open a blue alert window that displays the admin-specified description of the process business rule. To close the description dialogue, click on the X in the corner of the message.



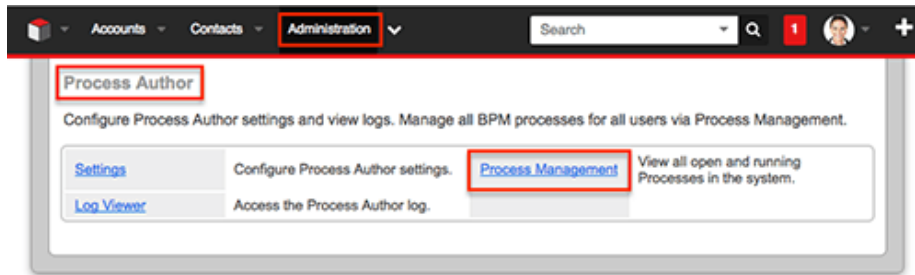
## Process Management List View

For processes, the admin user is restricted to the same access as a regular user in the Processes module. This means that in Processes list view and the Processes dashlet, the admin user will not see processes unless they have participated in that process or they are expected to participate in it.

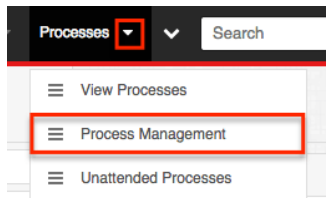
The exhaustive list of open and completed processes is accessible only via the admin's Process Management page. This page can be accessed from two places in Sugar:

- Admin > Process Author > Process Management:





- The Processes module tab's actions menu:



The following columns are available from the Process Management page:

Process Number	Process Definition Name	Record Name	Status	Date Created	Assigned To	Process User	Process Owner
340	Ignored Case Alert	test case	CANCELLED	2015-03-27 19:30	Jen Smith		Jen Smith
339	tasks for use	HotelSeven Mar 27	IN PROGRESS	2015-03-27 17:00	Anwesa Chatterjee		Anwesa Chatterjee
337	Customer Onboarding Tasks	HotelSeven test 001	ERROR	2015-03-27 17:00	Enrique Ponce De Leon		Enrique Ponce De Leon
336	tasks for use	HotelSeven test 001	COMPLETED	2015-03-27 17:00	Enrique Ponce De Leon		Anwesa Chatterjee
338	Customer Success Tasks	HotelSeven test 001	IN PROGRESS	2015-03-27 17:00	Enrique Ponce De Leon	Enrique Ponce De Leon	Enrique Ponce De Leon
335	Customer Stage Decide Tasks	HotelSeven test 001	TERMINATED	2015-03-27 16:56	Enrique Ponce De Leon		Anwesa Chatterjee

- Process Number : Similar to a case number, this is a unique auto-increment number assigned to the process in the order it was triggered by the Process Author. This field is not related to the the Sugar system ID field.
- Process Definition Name : The name of the originating process definition that triggered the process.
- Record Name : The related Sugar module record to which the process applies.
- Date Created : The date and time that the process was triggered.
- Assigned To : The user who is assigned to the Sugar record that triggered the process's Start event.
- Process User : The user who is responsible for executing the current activity in a running process if a Route or Approval activity is running.
- Process Owner : The administrator who created the process definition (not necessarily affiliated with the running process).
- Status
  - **COMPLETED** COMPLETED : The process has successfully reached an end event and is no longer running.
  - **CANCELLED** CANCELLED : An administrator user has chosen to cancel this process.
  - **IN PROGRESS** IN PROGRESS : The process is currently open and running.
  - **TERMINATED** TERMINATED : The record that triggered the process has

been deleted or merged.

- **ERROR** ERROR : The process has encountered a configuration problem and is paused.

## Preview

Administrators can view the progression of a process within the overall flow directly from the Processes list view by clicking the Preview icon to the far right of each process list row. The process' visual design layout will display to the right of the list view providing key information regarding the stages that have already been completed, the current stage of the process, and the stages that have yet to execute.

The executed and in-progress stages of the process will be displayed in color, while skipped or not-yet-executed stages will be presented in a grayed out style.

The screenshot shows the 'Process Management' interface. On the left is a table with columns: Process Number, Process Definition Name, Record Name, Status, and Date Created. The table contains several rows, with the row for Process Number 6 highlighted in blue and its status 'ERROR'. To the right of the table is a 'Preview' pane. The 'Preview' pane has a title bar with navigation arrows and a close button. Below the title bar is a 'Process design Preview' window showing a flowchart. A red arrow points from the 'Preview' icon in the table to the 'Process design Preview' window.

Process Number	Process Definition Name	Record Name	Status	Date Created
13	Re-route idle cases	Warning message ...	IN PROGRESS	2015-02-08 15:27
12	Re-route idle cases	Warning message ...	IN PROGRESS	2015-02-08 15:08
6	Discount Approval Proc...	Underwater Partne...	ERROR	2015-02-04 20:42
15	Re-route idle cases	System not respon...	IN PROGRESS	2015-02-08 15:28
11	Case Approval	Send user's manual	IN PROGRESS	2015-02-06 15:23
3	Discount Approval Proc...	Process Quote	ERROR	2015-02-04 19:56
10	Case Approval	Needs spare parts	IN PROGRESS	2015-02-06 15:22

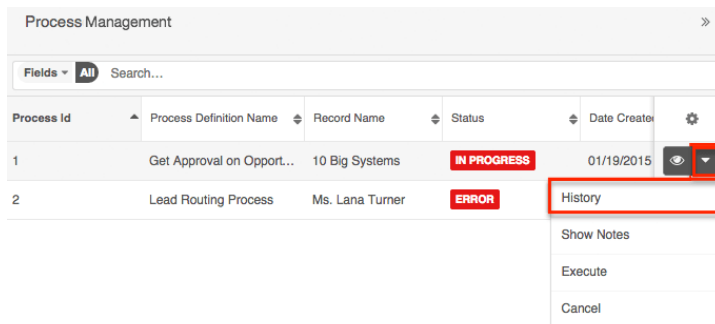
Note: To view the process design layout in more detail, simply click on the Process Design Preview image to open a full-sized version of the flow in a new browser tab.

On the upper right of the intelligence pane, there is a Left and Right arrow button that allows you to scroll through the list view's current search results by previewing the next or previous record. To close the preview, simply click the "X" on the upper right of the intelligence pane.

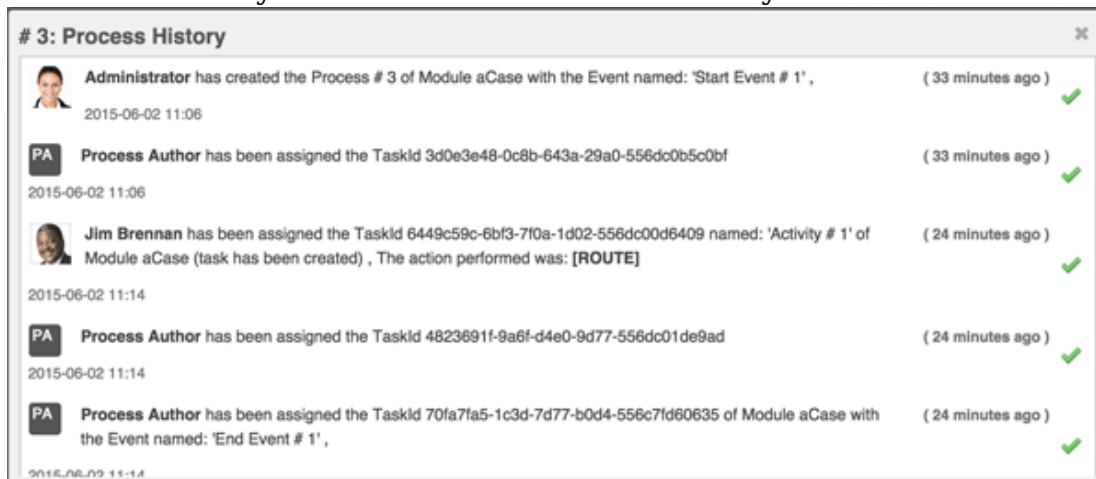
## Record Actions Menu

The Record Actions menu to the right of each record's Preview button allows users to view vital process information, re-redirect processes, and navigate to the process execution screen directly from the list view.

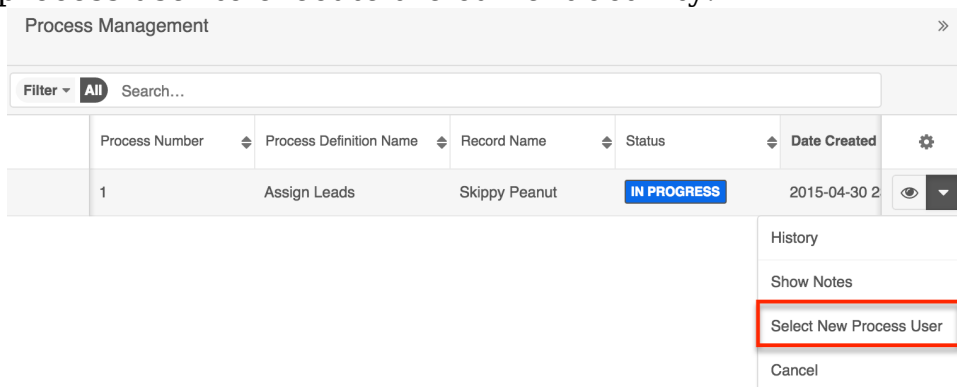
- History : The History option appears in the record's Actions menu and provides a historical summary of the process's lifecycle.



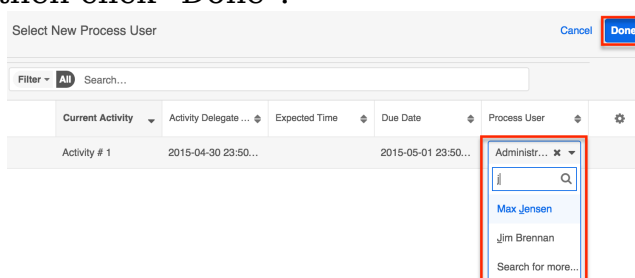
Click on "History" to launch the Process History window:



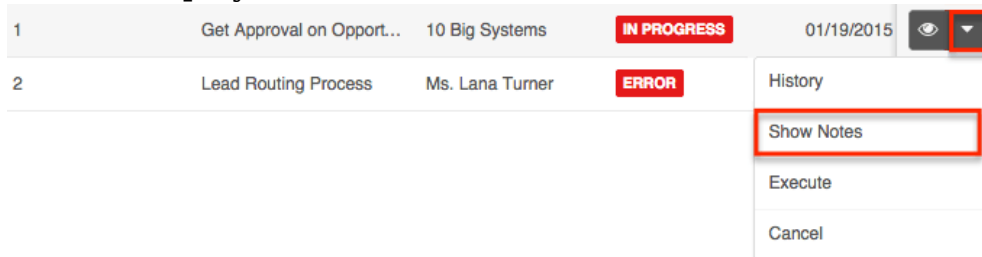
- Select New Process User : The Select New Process User option appears in the record's Actions menu and will display all of the process users who have engaged with the process, and will allow the administrator to select a new process user to execute the current activity.



To reassign the process, choose "Select New Process User" from the Actions menu. A drawer will open. Select a new value for the "Process User" field and then click "Done".



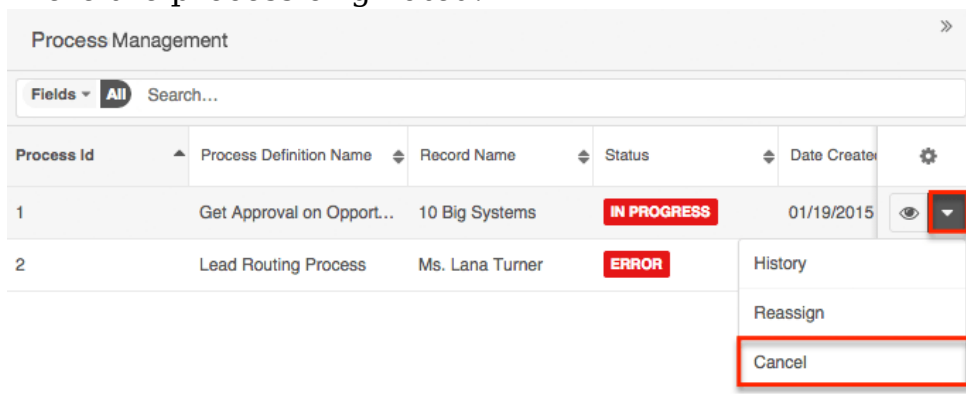
- **Show Notes** : The Show Notes option appears in the record's Actions menu and will display comments.



Click on "Show Notes" and a new dialog window will appear. Type in any notes here and then click "Add Note".



- **Cancel** : The Cancel option appears in the record's Actions menu and will delete the specific process without affecting the process definition from where the process originated.



## Searching Processes

The Process Management list view includes a module search to help you locate running, completed, and incomplete processes easily and effectively. Once the search is performed, the relevant results will be displayed in the list view below.

Unlike the standard Sugar module search bar filter, the Process Management search bar will query all Process fields by default. This means that a search for "error" will return processes named "Approve Error Resolution" and processes that affect a record named "Customer receives error when logging in" and even processes that are in an "Error" status.

Please note that on the Process Management page, Sugar automatically assumes a

wildcard character (%) at both the beginning and the end of your search phrase. Therefore, the search for "error" will pull up any record that has the word "error" in the name, regardless of how it starts or ends.

The screenshot shows a search for 'error' in the Process Management module. The search bar contains 'error' and is highlighted with a red box. The results table shows three records:

Process Number	Process Definition Name	Record Name	Status	Date Created	Assigned User
18	Approve <b>Error</b> Resolution	5000 Unit Sale	<b>IN PROGRESS</b>	2015-02-10 13:07	Loohu
6	Discount Approval Process	Underwater Partnership	<b>ERROR</b>	2015-02-04 20:42	Loohu
4	Discount Approval Process	Customer receives <b>error</b> when I...	<b>IN PROGRESS</b>	2015-02-04 20:15	Loohu

The search also provides a Filter option that can be used in combination with the open Search box to narrow your search further using the available options as follows:

- All : Returns all processes.
- Processes Completed : Returns only processes with a status of "Completed".
- Processes Terminated : Returns only processes with a status of "Terminated".
- Processes In Progress : Returns only processes with a status of "In Progress".
- Processes Cancelled : Returns only processes with a status of "Cancelled".
- Processes Error : Returns only processes with a status of "Error".

The screenshot shows the filter dropdown menu in the Process Management module. The 'Filter' button is highlighted with a red box, and the dropdown menu is open, showing the following options:

- All
- Processes Completed
- Processes Terminated
- Processes In Progress
- Processes Cancelled
- Processes Error

The table below shows the results of a search for 'error' with the 'All' filter selected:

Process Definition Name	Record Name	Status	Date Created	Assigned User
route idle cases	Having trouble addin...	<b>IN PROGRESS</b>	2015-02-08 17:11	Loohu
route idle cases	Having trouble addin...	<b>COMPLETED</b>	2015-02-08 15:35	Loohu
route idle cases	System not responding	<b>IN PROGRESS</b>	2015-02-08 15:28	Loohu
route idle cases	Need assistance wit...	<b>IN PROGRESS</b>	2015-02-08 15:28	Loohu
route idle cases	Warning message w...	<b>IN PROGRESS</b>	2015-02-08 15:27	Loohu
route idle cases	Warning message w...	<b>IN PROGRESS</b>	2015-02-08 15:28	Loohu

When you choose a filter, Sugar will return processes that match both the selected filter and any name provided in the "Search..." bar in the filtered list view results. For example, if you select "Processes Completed" in the Filter options and enter a search query, Sugar will only return processes that contain a match to the search query and have a Completed status. To see all processes, simply select "All" in the filter and remove any text from the search bar. You can also click the X that appears within the search bar. When you run a search using a saved filter, the search will not be preserved when you navigate away from the module. Returning to the Process Management page will automatically display all unfiltered results.

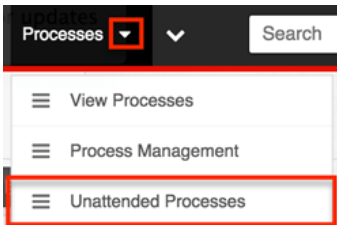
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## Unattended Processes

An unattended process is a running process instance that has been interrupted because an activity is dependent upon the response of an inactive or deleted user. If an activity is encountered within a process, and the activity's process user record's status is "Deleted" or "Inactive" or its employee status is "Not Active", the process will be considered unattended. The activity cannot be completed unless the administrator designates a new process user.

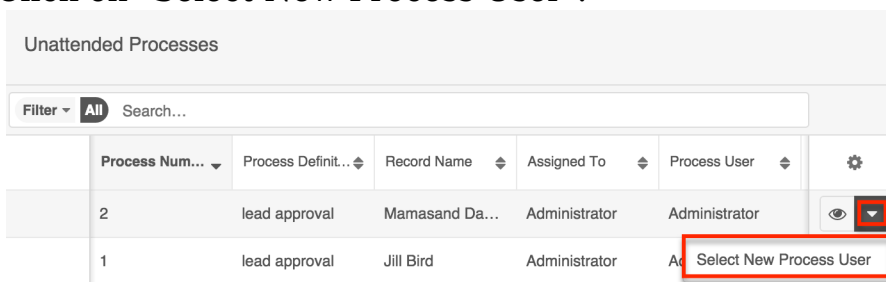
Note: While an unattended process will also appear in the [Process Management](#) list, its status will remain "In Progress" and will not indicate that it is in an unattended state.

The list of unattended processes is accessible via the admin's Unattended Processes page. This page can only be accessed from the Processes module tab's actions menu:

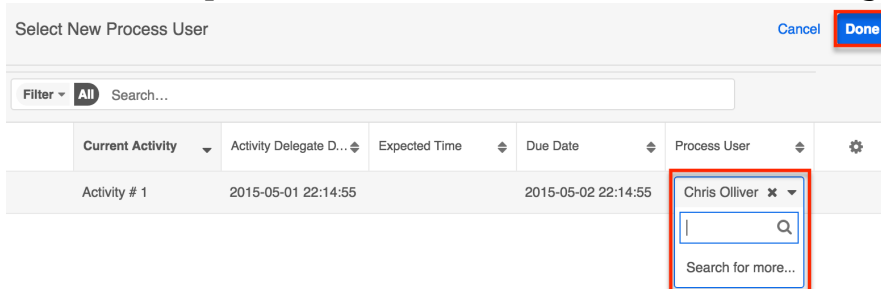


To select a new process user for an unattended process, follow these steps:

1. From the Unattended Processes list view, expand the actions menu for the row that contains the unattended process.
2. Click on "Select New Process User".



3. After a brief pause, the Select New Process User widget will appear.



4. Find and select the name of the new process user and then click Done.

---

The updated process should no longer be visible in the Unattended Processes list, and the new process user will see the activity in their Processes dashlet and list view.

## Terminated vs. Cancelled Processes

Process Author automatically terminates a process when the record related to the process' Start event is deleted. The associated process will be removed from the Processes dashlet and the process record will display "Terminated" in the Status column of the Process Management list view. Processes may also be terminated as a result of meeting conditions specified in the Process Termination settings. For more information, please refer to the [Configuring Process Termination Settings](#) section of the Process Definition documentation.

Cancelled processes, on the other hand, have been intentionally stopped by the administrator. The associated process will be removed from the Processes dashlet and the process record will display "Cancelled" in the Status column of the Process Management list view.

## Importing and Exporting Process Author Module Records

Sugar Process Author supports import/export functionality for records in all modules except the Processes module, which only contains running instances of process definitions. To import records into the Process Definitions, Process Email Templates, or Process Business Rules modules, the import file must be formatted as the appropriate proprietary file type, as shown in the table below. All exported records will download as the corresponding file type.

Process Author Module	Supported File Extension
Process Definitions	.bpm
Process Email Templates	.pet
Process Business Rules	.pbr

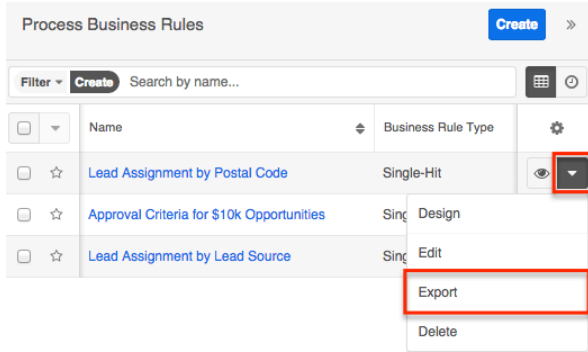
Due to the proprietary nature of these file types, only files that have been exported from a Sugar instance can be imported into a Sugar instance. For example, an administrator may choose to design process definitions in a sandbox or development instance before moving them to a production environment. For this, the files would be exported from the dev instance as .bpm files and then imported into the production instance's Process Definitions module.

**Note:** Process Definitions may contain references to Business Rules and Email Templates. These references are lost when the Process Definition is imported. Even if the Business Rules and Email Templates are imported prior to importing

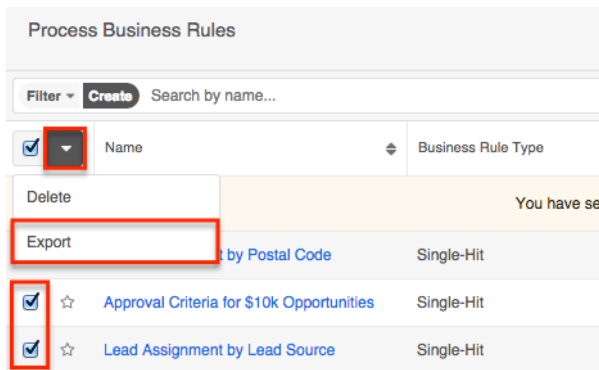
the Process Definition, the references are not automatically reestablished in the imported Process Definition. They must be reestablished manually.

Process Author module records can be exported from any of the following locations:

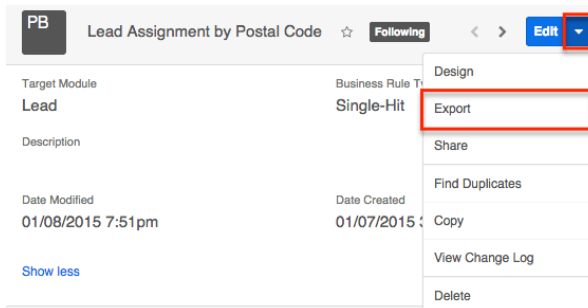
- The individual module record's list view Actions menu:



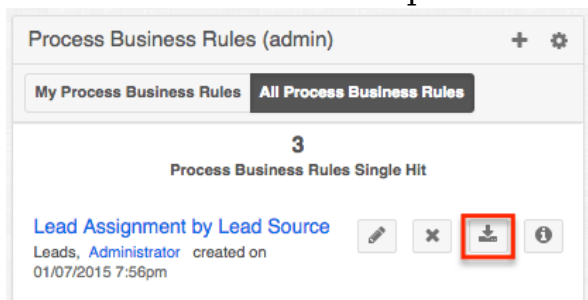
- The relevant module's list view Actions menu:



- The individual module record's record view Actions menu:



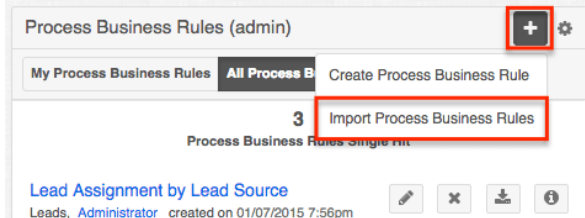
- The relevant dashlet's Export button adjacent to the individual record:



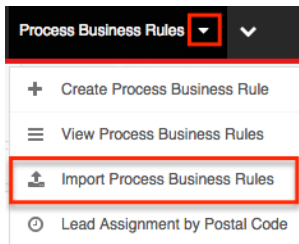


Process Author module records can be imported via either of the following locations:

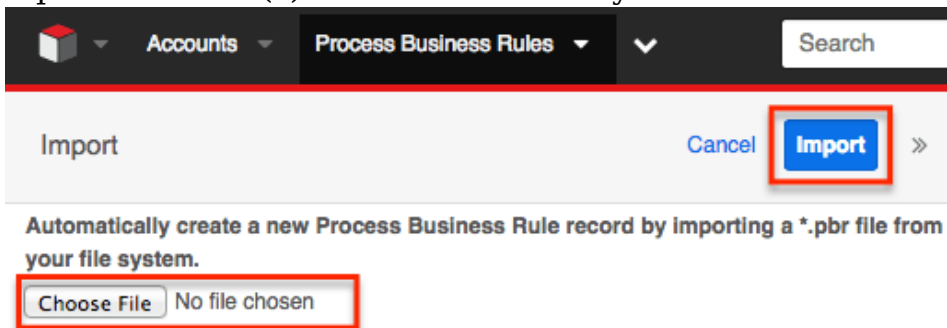
- The Actions menu on the relevant module's dashlet:



- The relevant module tab's Actions menu:



After clicking "Import [Process Module Name]", you will be prompted to find the import file on your local drive. Click "Choose File" and select the file with the appropriate file extension, and then click "Import" to finish. A green banner will momentarily appear on the screen to indicate that the import was successful. The imported record(s) will be immediately available via list view and dashlet.



## Process Author Settings

To configure Process Author settings, navigate to the Admin page, then select "Settings" under the Process Author panel.

### Process Author

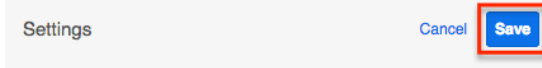
Configure Process Author settings and view logs. Manage all BPM processes for all users via Process Management.



Administrators will be automatically directed to the Process Author setting:

- Error Number of Cycles : Specify how many times a process can loop before the system stops the process definition.

By default, this is set to 10. Please note that increasing the number of cycles could negatively affect performance.



Error Number of Cycles

## Process Author Log Viewer

Administrators and developers can gain insight into the performance of the Process Author engine by viewing the Process Author log. To access the Process Author Log Viewer, navigate to the Admin page and click "Log Viewer" under the Process Author panel.

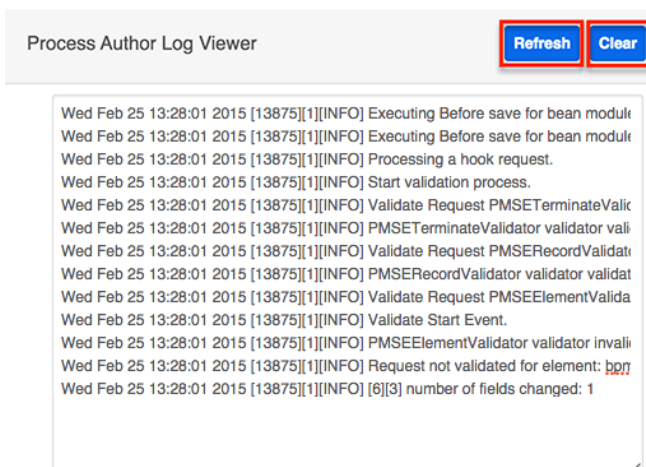
### Process Author

Configure Process Author settings and view logs. Manage all BPM processes for all users via Process Management.



There are two options on the Log Viewer page:

- Refresh : Refreshes the log view, loading the last records.
- Clear : Permanently deletes all log history. This cannot be undone.



---

The log level is set to Critical, which is equivalent to Sugar's Fatal log level, and starts recording events as soon as Process Author has been installed. A developer can update the system config.php to change Process Author settings including "logger\_level", "error\_number\_of\_cycles", and "error\_timeout". Changes that are made to config.php are honored in real time.

## Process Author Scheduler

Schedulers in Sugar automate the execution of system processes. Schedulers are available only to administrative users and can be accessed by navigating to Admin > Schedulers. Process Author Scheduled Job is responsible for processes associated with Process Author. It is active and runs as often as possible by default. The Process Author Scheduled Job will check for any active time-based process events (i.e. Wait events, Send Message events, and Receive Message events) in a pending state. If any processes meet this criterion, the scheduler will ensure the process flow continues.

For more information about Sugar schedulers, please refer to the [Schedulers](#) documentation. For more information on troubleshooting the Process Author Scheduled Job, please refer to the [Troubleshooting Wait Events in Advanced Workflow](#) article.

Note: Process events processed by this scheduler will be run by the admin user (user id = '1') in Process History unless the admin user is disabled.

Last Modified: 01/24/2017 04:51pm

## Process Business Rules

### Overview

The Process Business Rules module is one of four modules that make up [Sugar Process Author™](#), Sugar's advanced workflow tool that enables administrators to streamline common business processes by managing approvals, sales processes, call triaging, and more. The Process Business Rules module is used to create reusable rules that will be referenced by records created in the [Process Definitions](#) module. The rule or set of rules may enforce business policy, make a decision, or infer new data from existing data.

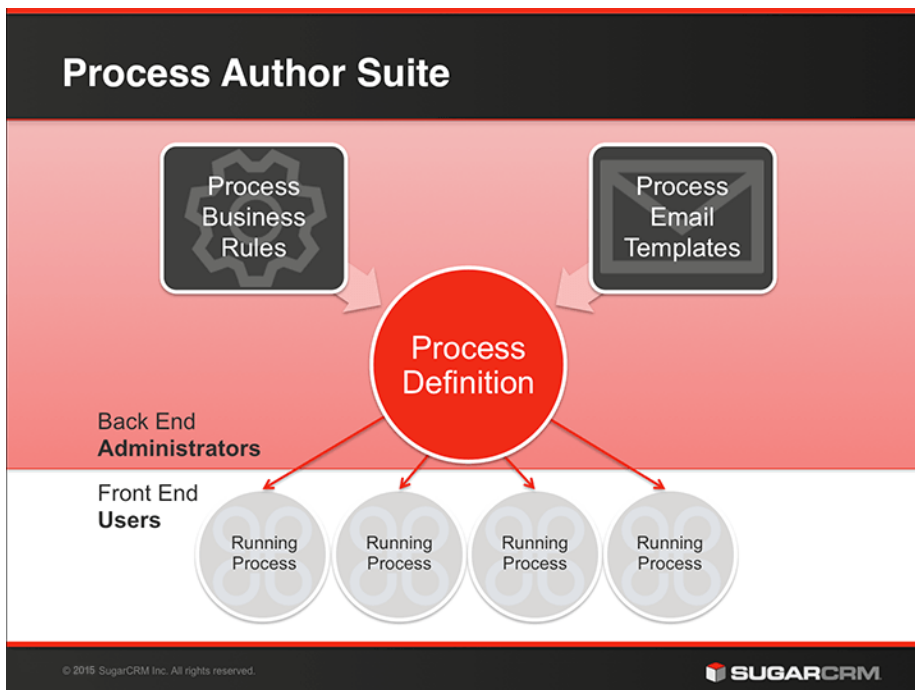
Before continuing, please read the [Process Author](#) overview page, which defines critical vocabulary and other elements that may be referenced in this article.

This documentation contains the following pages:

- [Process Author](#)
- [Process Definitions](#)
- Process Business Rules (current page)
- [Process Email Templates](#)

Additionally, the [Processes](#) page of the Application Guide contains documentation for the user-facing elements of Sugar Process Author. Please note that Process Author is exclusive to Enterprise and Ultimate editions of Sugar 7.6.x and later.

The following image illustrates the relationship between all of the Process Author modules:



## Process Business Rule Fields

The Process Business Rules module contains the following fields:

Field	Description
Assigned To	The Sugar user assigned to the process business rule
Business Rule Type	Specifies how a rule set will be evaluated. This field defaults to "Single Hit", meaning that each row will be evaluated independently in descending

	order. When a rule in the rule set evaluates as true, the evaluation process stops and that rule's conclusions are executed.
Date Created	The date the process definition record was created
Date Modified	The date the process definition record or its design was last modified
Description	A description or other information about the process definition
Name	A unique and descriptive name
Target Module	The module that will be used for the Start event in the process definition design

## Working With Process Business Rules

The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this Working With Process Business Rules section describe business rule-specific behaviors and functionality.

Content Link	Description
<a href="#">Viewing Process Business Rules</a> <a href="#">Viewing Via List View</a> <a href="#">Viewing Via Record View</a> <a href="#">Viewing Via Recently Viewed</a>	The Viewing Records section describes various methods of viewing business rule records, including via the Process Business Rules list view and record view, the Recently Viewed menu in the Process Business Rules module tab. For information on viewing the rule(s) defined within the Rules Builder, please refer to the <a href="#">Designing Process Business Rules</a> section of this page.
<a href="#">Searching for Process Business Rules</a> <a href="#">List View Search</a> <a href="#">Creating a Filter</a> <a href="#">Saving a Filter</a>	The Searching for Records section provides an introduction to list view search, which searches and filters within the Process Business Rules module.
<a href="#">Process Business Rules List View</a> <a href="#">Total Record Count</a> <a href="#">Create Button</a>	The List View section walks through the many elements of the Process Business Rules List View layout which contains a

<a href="#">List View Search</a> <a href="#">Favorite Designation</a> <a href="#">Column Reordering</a> <a href="#">Column Resizing</a> <a href="#">Column Sorting</a> <a href="#">Column Selection</a> <a href="#">Preview</a> <a href="#">Record Actions Menu</a> <a href="#">More Process Business Rules</a> <a href="#">Intelligence Pane</a>	<p>filterable list of all process business rule records in Sugar. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Business Rules list view are described in the <a href="#">List View Record Actions Menu</a> section of this page.</p>
<a href="#">Process Business Rules Record View</a> <a href="#">Favorite Designation</a> <a href="#">Next or Previous Record</a> <a href="#">Actions Menu</a> <a href="#">Show More</a> <a href="#">Intelligence Pane</a>	<p>The Record View section walks through the many elements of the Process Business Rules Record View layout which contains detailed information about a single business rule record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Business Rules record view are described in the <a href="#">Record View Actions Menu</a> section of this page.</p>
<a href="#">Editing Process Business Rules</a> <a href="#">Editing Inline Via Record View</a> <a href="#">Editing Via Record View</a> <a href="#">Editing Inline Via List View</a> <a href="#">Editing Fields</a>	<p>The Editing Records section describes the methods of editing existing business rule record fields: inline via the Process Business Rules record view, in full edit mode on the record view, and inline via the Process Business Rules list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records. For information on editing the rules defined in the Rules Builder, please refer to the <a href="#">Designing Process Business Rules</a> section of this page.</p>
<a href="#">Deleting Process Business Rules</a> <a href="#">Deleting Via Record View</a> <a href="#">Deleting Via List View</a>	<p>The Deleting Records section describes two ways to delete business rules: via the Process Business Rules record view and via an individual record's Actions menu on the list view.</p>
<a href="#">Favoriting Process Business Rules</a> <a href="#">Favoriting Via List View</a> <a href="#">Favoriting Via Record View</a>	<p>The Favoriting Records section describes the various methods of marking business rules as favorites, including via the Process Business Rules</p>

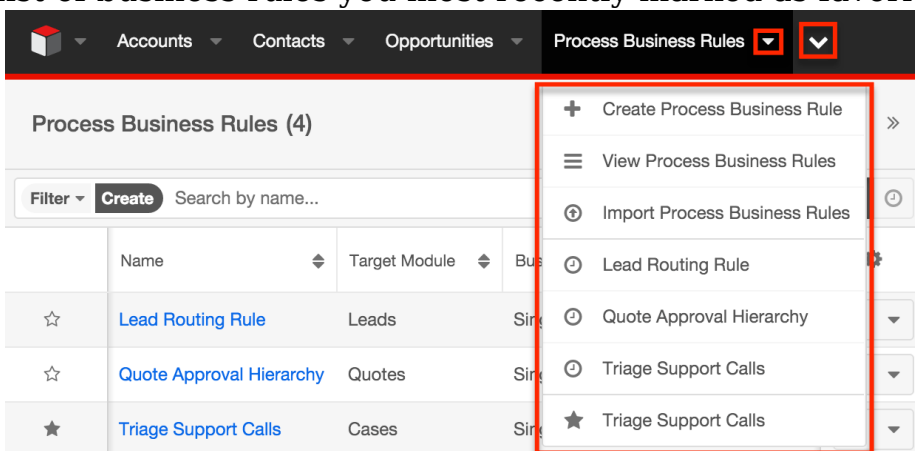
	list view and Process Business Rules record view. Favoriting a business rule record allows you to easily access it from list views and the Process Business Rules module tab.
<a href="#">Sharing Process Business Rules</a>	The Sharing Records section provides instructions for the Share record view option which composes an email with a link to the process email template record. If the recipient is logged into Sugar, clicking the link will bring them directly to the record view.

## Process Business Rules Menus

The following sections describe the various menu options in the Process Business Rules module with links to more information about each option in the User Interface documentation or, for template-specific functionality, within this page.

### Module Tab Menus

The Process Business Rules module tab is located on the navigation bar at the top of the Sugar screen when the administrator is engaging with the Process Business Rules module. Click the tab to access the Process Business Rules list view. You may also click the triangle in the Process Business Rules tab to display the Actions, Recently Viewed, and Favorites menus. The Actions menu allows you to perform important actions within the module. The Recently Viewed menu displays the list of business rules you last viewed in the module. The Favorites menu displays the list of business rules you most recently marked as favorites in the module.



The Actions menu allows you to perform the following operations:

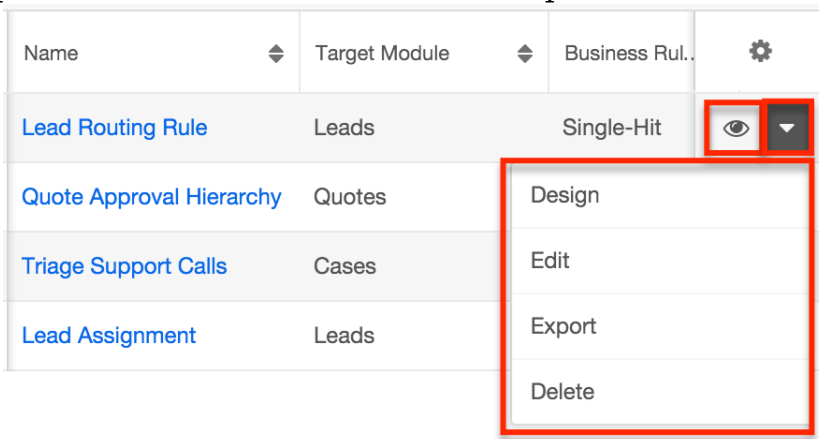
Menu Item	Description
<a href="#">Create Process Business Rule</a>	Opens the record view layout to create a new process rule
<a href="#">View Process Business Rules</a>	Opens the list view layout to search and display process rules
<a href="#">Import Process Business Rules</a>	Opens the import wizard to enable import of .pbr files

If you do not see the Process Business Rules module tab in Sugar, please check the following:

- You must be an administrator user to access the Process Business Rules module or the Process Business Rules module tab.
- The Process Business Rules module may be marked as hidden in your user preferences which will prevent the module tab from being displayed. Navigate to your user profile (upper right of Sugar), click the Advanced tab, and check the Layout Options section. If you see the Process Business Rules module in the Hide Modules list, simply move it to the Display Modules list and save. For more information on hiding and displaying modules, please refer to the Layout Options section of the Getting Started documentation.
- The administrator may have disabled the Process Business Rules module for your entire Sugar instance. Reach out to your Sugar administrator to have the Process Business Rules module displayed. For more information on displaying and hiding modules throughout Sugar, please refer to the Developer Tools documentation in the Administration guide.

## List View Record Actions Menu

The Record Actions menu to the far right of each record's row allows you to perform actions on the individual process rule record directly from the list view.



The list view's Record Actions menu allows you to perform the following

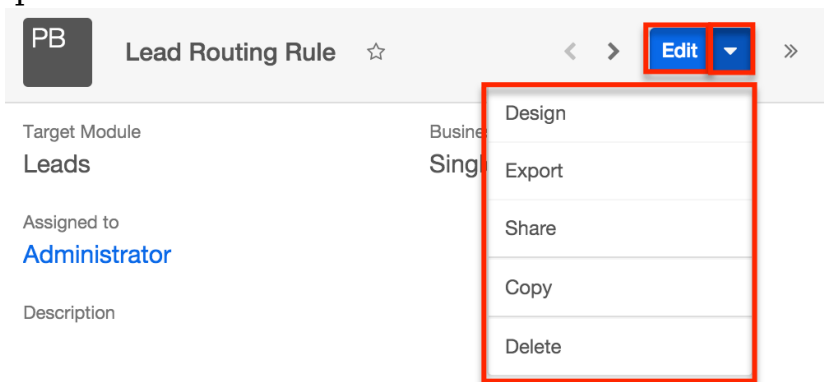


operations:

Menu Item	Description
<a href="#">Preview</a>	Preview this rule in the intelligence pane
<a href="#">Design</a>	Navigate directly to the Rules Builder view, where you can create and/or edit the <a href="#">condition(s)</a> and <a href="#">conclusion(s)</a> defined by this process business rule
<a href="#">Edit</a>	Edit this process business rule record
<a href="#">Export</a>	Download a copy of this rule to your computer as a .pbr file
<a href="#">Delete</a>	Delete this process business rule

### Record View Actions Menu

The business rule's [record view](#) displays the fields relevant to the Process Business Rules module. To access a rule's record view, simply click a hyperlinked business rule name from the Process Business Rules list view. The record view's Actions menu appears on the top right of the page and allows you to perform various operations on the current record.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this process business rule record
<a href="#">Design</a>	Navigate directly to the Rules Builder view, where you can create and/or edit the <a href="#">condition(s)</a> and <a href="#">conclusion(s)</a> defined by this process business rule
<a href="#">Export</a>	Download a copy of this business rule to

	your computer as a .pbr file
<a href="#">Share</a>	Share a link to this business rule in Sugar via email
<a href="#">Copy</a>	Duplicate this record to make a new process business rule
<a href="#">Delete</a>	Delete this process business rule

## Creating Process Business Rules

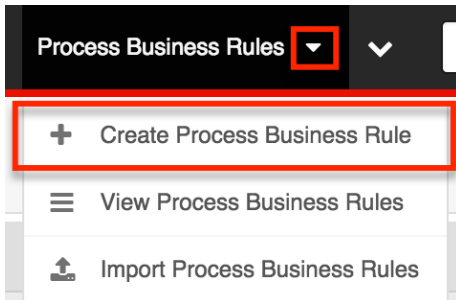
You should typically create business rules before creating any process definitions that will use the rules. However, it is possible to save an incomplete process definition in order to navigate away and build a rule, then return later to complete the process definition.

Process business rules can be created from any of the following places in Sugar:

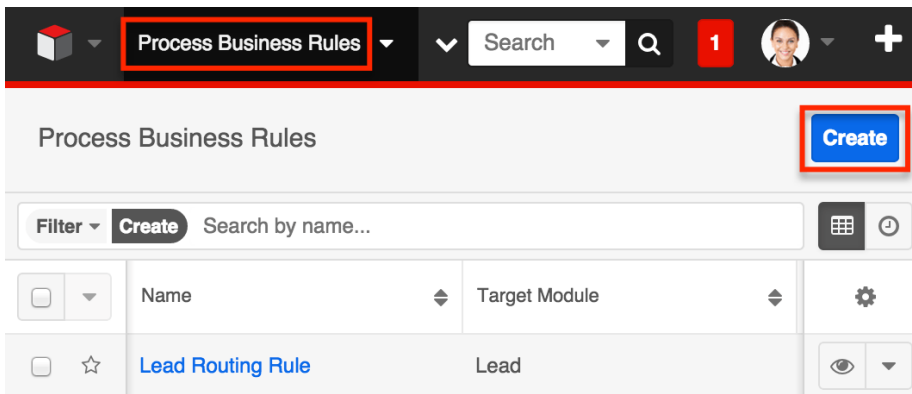
- Process Business Rules dashlet:



- Process Business Rules module tab menu:



- Process Business Rules list view:



Upon clicking "Create Process Business Rule" (or the Create button from list view), you will be directed to the record view. The record view is where you store information that will make it easy to find and understand the rule in the future. After completing this form, click "Save & Design" to navigate to the [Rules Builder](#) interface where the actual rule criteria and outcomes are defined.

The screenshot shows a form for creating a Process Business Rule. At the top left is a 'PB' icon. The 'Name' field is 'Lead Assignment by Lead Source'. To the right are 'Cancel' and 'Save & Design' buttons. Below this, the 'Target Module' is 'Lead' and the 'Business Rule Type' is 'Single-Hit'. The 'Description' field contains the text: 'Set of rules that will determine who gets assigned to leads by Lead Source.'

For more information about the available fields in the Process Business Rules module, please refer to the [Process Business Rule Fields](#) section of this documentation. After configuring and saving the process business rule, it will automatically appear on the administrator's Process Business Rules dashlet and list view, but it will not be ready to use in a process definition until the design step has been completed via the [Rules Builder](#).

## Designing Process Business Rules

After saving the process business rule record, use the Rules Builder table to define the conditions and conclusions for the rule(s).

Note: The Rules Builder interface may not be compatible with some touch-screen mobile devices. Please interact with the Rules Builder from a desktop or laptop computer to prevent any potential complications.

### The Rules Builder Interface

The screenshot shows the Rules Builder interface for a 'Lead Routing Rule'. The table is divided into 'Conditions' and 'Conclusions' sections. The 'Conditions' section has a '+' icon to add a new condition. The 'Conclusions' section has a '+' icon to add a new conclusion. The table has columns for 'Conditions' and 'Conclusions'. The 'Conditions' section has a row with 'Lead Source' and a value of '50'. The 'Conclusions' section has a row with 'Return' and 'Assigned to'. The table also has 'Add Row', 'Remove Row', 'Add Column', and 'Remove Column' buttons.

Conditions		Conclusions	
+	Lead Source	Return	Assigned to
-	>= 50	Office Phone	Chris Olliver
-		Office Phone	Chris Olliver

- Click the plus (+) icon to the right of the Conditions header to add additional condition columns.
- Click the plus (+) icon to the right of the Conclusions header to add additional conclusion columns.
- Click the plus (+) icon to the far left of the column headers to add additional rows and create a rule set.
- Click the minus (-) icon next to a single row to remove that entire row.
- Click the small black square (■) in the corner of a column header to remove that entire column.

Note: All conditions defined within the same row must be met in order to trigger the associated conclusion. In addition, when any one row has satisfied all of its conditions, its conclusion will be triggered and no subsequent rows will be evaluated.

1. For each column header under the Conditions section, select a field variable (e.g. Lead Source) by clicking on the empty cell.
2. Select the operator needed to evaluate each variable. To change the operator, click on the cell to view and select the available operators in the list.

+ ■	Lead Source	◆	Birthdate	■
-	==		Cold Call	<=
-	==		Trade Show	✓
-	==		Conference	

3. To the right of the operators, select the field value for the condition that must be met. Click on the cell to select a field value or access the criteria builder where you can define constants, fields, etc.

Lead Source	◆	Birthdate	◆	Return
==	Cold Call	<=	18y	Do Not Call
==	Trade Show		18y	
==	Conference			

4. For the Return column, define the return value for when the process business rule's condition evaluates as true. A process definition will evaluate the

returned values in Gateways and react accordingly. You can add additional columns (e.g. Assigned to) if you wish to specify other behaviors.

## Creating Rule Sets

A single process business rule record could potentially define a set of several rules, or a rule set. In the following example of a set of rules for routing leads, each row of the Rules Builder table represents a separate rule that will be evaluated by the process. Each row is evaluated independently in descending order. When a rule in the rule set is evaluated as true, the evaluation process stops. Therefore, only the conclusions defined by the first (topmost) true condition will be returned.

The following example represents a rule set that evaluates the fields "Lead Score" and "Lead Source" to determine a return value and assigned user. The first row translates conversationally to: If the lead's score is greater than or equal to 50, and the lead's source is a Cold Call, then capture the office phone number and assign the lead to Chris Olliver.

Lead Routing Rule *					Leads	
Conditions +				Conclusions +		
	Lead Score		Lead Source	Return	Assigned to	
-	>=	50	==	Cold Call	Office Phone	Chris Olliver
-	>=	50	==	Public Relations	Office Phone	Chris Olliver
-	>=	50	==	Email	Email Address	Sally Bronsen
-	<=	49			Do Not Call	Administrator

## Condition and Conclusion Elements

Process business rules are comprised of at least one condition:conclusion element.

- Conditions : One or more "if" statements that will be evaluated as true or false.
- Conclusions : The results that are returned if the condition evaluates to true.

By default, a true condition must result in a Return value. The Return value can be constructed using variables, constants, operators and/or literal values. If there are to be multiple outcomes to the condition, the Return value must be specified as the first conclusion in the business rule. For example, to change the value of a given field when the condition is true, set an arbitrary return value and then click on the + button adjacent to the table header "Conclusions" to add another conclusion column to the row where the field update can be defined.

Conclusions +	
Return	Assigned to
Office Phone	Chris Olliver
Office Phone	Chris Olliver
Email Address	Sally Bronsen
Do Not Call	Administrator

The condition will evaluate a set of given variables and if the condition is evaluated as "true", the conclusion will then return a specified value. In the following example, an Opportunity with a probability of 90% or more will return the character string, "Hot Deal".

Conditions +		Conclusions +	
+ Probability (%)		Return	
- >=	90	"Hot Deal"	

Note: Process business rule Return values will always convert to text for evaluation within a process definition.

## Operator Elements

Conditions utilize comparison operators. Multiple conditions in a single row will be combined using AND logic, requiring all conditions in a row to be satisfied in order for the statement to be evaluated as true. The available operators are:

Operator	Definition	Available for Field Types
==	is equal to	text, currency, integer, date, dropdown, multiselect
>=	is greater than or equal to	integer, currency, date
<=	is less than or equal to	integer, currency, date
>	is greater than	integer, currency, date
<	is less than	integer, currency, date
!=	is not equal to	text, integer, currency, date, dropdown, multiselect

Note: If using a currency field in a business rule, values should have no currency symbol (such as \$) and no thousands separator. Only the period (.) is allowed as a decimal separator.

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For information about utilizing process business rules in process definitions, refer to the [Actions > Business Rule](#) section of the Process Definitions documentation.

Last Modified: 04/13/2016 02:20pm

## Process Email Templates

### Overview

The Process Email Templates module is one of four modules that make up [Sugar Process Author™](#), the advanced workflow tool in Sugar that enables administrators to streamline common business processes by managing approvals, sales processes, call triaging, and more. A process email template is required in order to include a Send Message event in a [process definition](#). Sugar's core product includes several places where email templates can be created for different purposes, but Process Author requires all sent messages to be created via the Process Email Templates module.

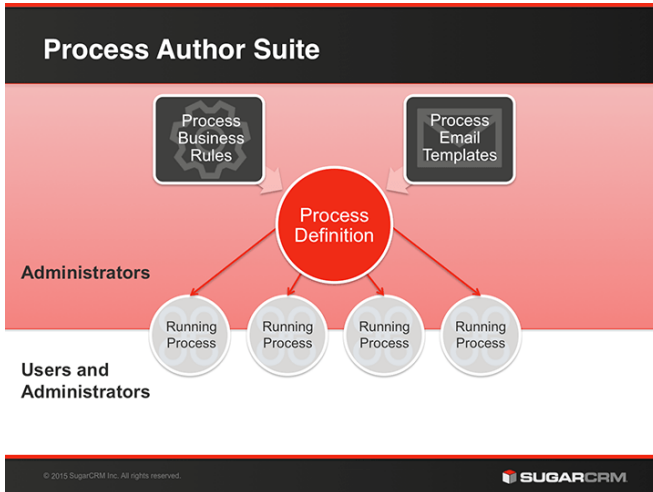
Before continuing, please read the [Process Author](#) overview page, which defines critical vocabulary and other elements that may be referenced in this article.

This documentation contains the following pages:

- [Process Author](#)
- [Process Definitions](#)
- [Process Business Rules](#)
- Process Email Templates (current page)

Additionally, the [Processes](#) page of the Application Guide contains documentation for the user-facing elements of Sugar Process Author. Please note that Process Author is exclusive to Enterprise and Ultimate editions of Sugar 7.6.x and later.

The following image illustrates the relationship between the four Process Author modules:



## Process Email Template Fields

The Process Email Templates module contains the following fields:

Field	Description
Assigned To	The Sugar user assigned to the process email template
Date Created	The date the process email template record was created
Date Modified	The date the process email template record or its content was last modified
Description	A description or other information about the process email template
Name	A unique and descriptive name
Target Module	The module against which the template's processes will be defined

## Working With Process Email Templates

The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this Working With Process Email Templates section describe Process Email Template-specific behaviors and functionality.

Content Link	Description
<a href="#">Viewing Process Email Templates</a>	The Viewing Records section describes



<p><a href="#">Viewing Via List View</a>  <a href="#">Viewing Via Record View</a>  <a href="#">Viewing Via Recently Viewed</a></p>	<p>various methods of viewing process email template records, including via the Process Email Templates list view and record view and the Recently Viewed menu in the Process Email Templates module tab.</p> <p>For information on viewing the content of a template's message, please refer to the <a href="#">Designing Process Email Templates</a> section below.</p>
<p><a href="#">Searching for Process Email Templates</a>  <a href="#">List View Search</a>  <a href="#">Creating a Filter</a>  <a href="#">Saving a Filter</a></p>	<p>The Searching for Records section provides an introduction to list view search, which searches and filters within the Process Email Templates module.</p>
<p><a href="#">Process Email Templates List View</a>  <a href="#">Total Record Count</a>  <a href="#">Create Button</a>  <a href="#">List View Search</a>  <a href="#">Favorite Designation</a>  <a href="#">Column Reordering</a>  <a href="#">Column Resizing</a>  <a href="#">Column Sorting</a>  <a href="#">Column Selection</a>  <a href="#">Preview</a>  <a href="#">Record Actions Menu</a>  <a href="#">More Process Email Templates</a>  <a href="#">Intelligence Pane</a></p>	<p>The List View section walks through the many elements of the Process Email Templates List View layout which contains a filterable list of all process email template records in Sugar. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Email Templates list view are described in the</p>
<p><a href="#">Process Email Templates Record View</a>  <a href="#">Favorite Designation</a>  <a href="#">Next or Previous Record</a>  <a href="#">Actions Menu</a>  <a href="#">Show More</a>  <a href="#">Intelligence Pane</a></p>	<p>The Record View section walks through the many elements of the Process Email Templates Record View layout, which contains detailed information about a single process email template record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Email Templates record view are described in the <a href="#">Record View Actions Menu</a> section of this page.</p>
<p><a href="#">Editing Process Email Templates</a>  <a href="#">Editing Inline Via Record View</a>  <a href="#">Editing Via Record View</a></p>	<p>The Editing Records section describes the methods of editing existing process email template record fields: inline via</p>

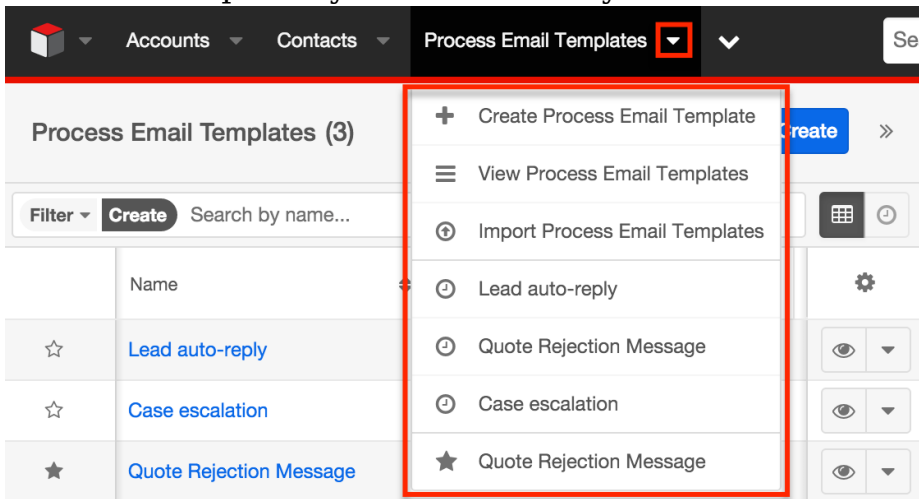
<p><a href="#">Editing Inline Via List View</a>  <a href="#">Editing Fields</a></p>	<p>the Process Email Templates record view, in full edit mode on the record view, and inline via the Process Email Templates list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records.</p> <p>For information on editing the content of a template's message, please refer to the <a href="#">Designing Process Email Templates</a> section below.</p>
<p><a href="#">Deleting Process Email Templates</a>  <a href="#">Deleting Via Record View</a>  <a href="#">Deleting Via List View</a></p>	<p>The Deleting Records section describes two ways to delete process email templates: via the Process Email Templates record view and via an individual record's Actions menu on the list view.</p>
<p><a href="#">Favoriting Process Email Templates</a>  <a href="#">Favoriting Via List View</a>  <a href="#">Favoriting Via Record View</a></p>	<p>The Favoriting Records section describes the various methods of marking process email templates as favorites, including via the Process Email Templates list view and Process Email Templates record view. Favoriting a process email template record allows you to easily access it from list views and the Process Email Templates module tab.</p>
<p><a href="#">Sharing Process Email Templates</a></p>	<p>The Sharing Records section provides instructions for the Share option in record view, which composes an email with a link to the process email template record. If the recipient is logged into Sugar, clicking the link will bring them directly to the record view.</p>

## Process Email Template Menus

The following sections describe the various menu options in the Process Email Templates module with links to more information about each option in the User Interface documentation or, for template-specific functionality, within this page.

## Module Tab Menus

The Process Email Templates module tab is located on the navigation bar at the top of the Sugar screen when the administrator is engaging with the Process Email Templates module. Click the tab to access the Process Email Templates list view. You may also click the triangle in the Process Email Templates tab to display the Actions, Recently Viewed, and Favorites menus. The Actions menu allows you to perform important actions within the module. The Recently Viewed menu displays the list of templates you last viewed in the module. The Favorites menu displays the list of templates you most recently marked as favorites in the module.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Create Process Email Template</a>	Opens the record view layout to create a new email template
<a href="#">View Process Email Templates</a>	Opens the list view layout to search and display email templates
<a href="#">Import Process Email Templates</a>	Opens the import wizard to enable import of .pet files

If you do not see the Process Email Templates module tab in Sugar, please check the following:

- You must be an administrator user to access the Process Email Templates module or the Process Email Templates module tab.
- The Process Email Templates module may be marked as hidden in your user preferences which will prevent the module tab from being displayed. Navigate to your user profile (upper right of Sugar), click the Advanced tab, and check the Layout Options section. If you see the Process Email Templates module in the Hide Modules list, simply move it to the Display Modules list and save. For more information on hiding and displaying modules, please refer to the

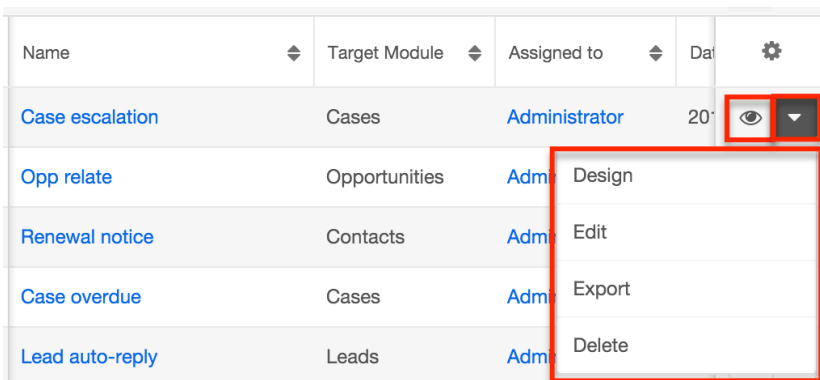
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Layout Options section of the Getting Started documentation.

- The administrator may have disabled the Process Email Templates module for your entire Sugar instance. Reach out to your Sugar administrator to have the Process Email Templates module displayed. For more information on displaying and hiding modules throughout Sugar, please refer to the Developer Tools documentation in the Administration guide.

## List View Record Actions Menu

The Record Actions menu to the far right of each record's row allows you to perform actions on the individual process email template record directly from the list view.



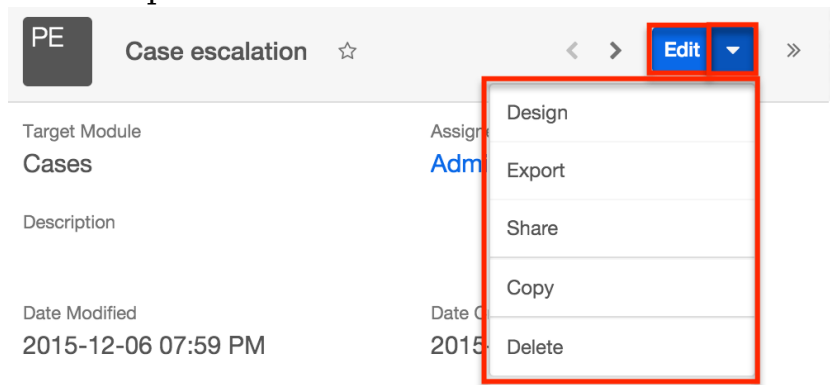
The list view's Record Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a>	Preview this email template in the intelligence pane
<a href="#">Design</a>	Navigate directly to the template's design view, where you can create and edit the message's content
<a href="#">Edit</a>	Edit this process email template
<a href="#">Export</a>	Download a copy of this template to your computer as a .pet file
<a href="#">Delete</a>	Delete this process email template

## Record View Actions Menu

The template's [record view](#) displays the fields relevant to the Process Email Templates module. To access a template's record view, simply click a hyperlinked template name from the Process Email Templates list view. The record view's

Actions menu appears on the top right of the page and allows you to perform various operations on the current record.



The Actions menu allows you to perform the following operations:

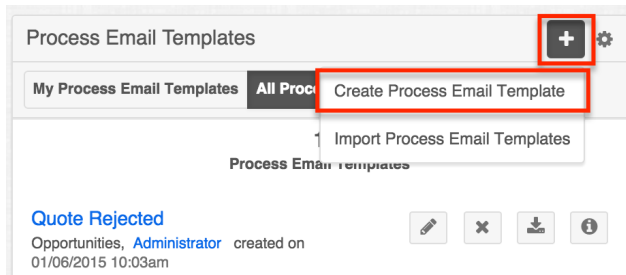
Menu Item	Description
<a href="#">Edit</a>	Edit this process email template
<a href="#">Design</a>	Navigate directly to the template's design view, where you can create and edit the message's content
<a href="#">Export</a>	Download a copy of this template to your computer as a .pet file
<a href="#">Share</a>	Share a link to this template in Sugar via email
<a href="#">Copy</a>	Duplicate this record to make a new process email template
<a href="#">Delete</a>	Delete this process email template

## Creating Process Email Templates

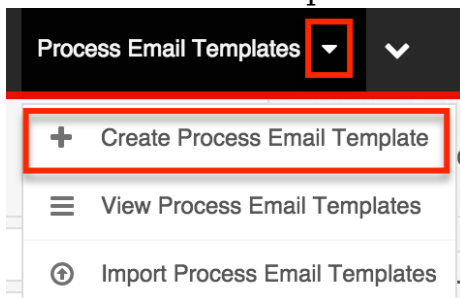
You should typically create email templates before creating any process definitions that will use the templates. However, it is possible to save an incomplete process definition in order to navigate away and build an email template, then return later to complete the process definition.

Process email templates can be created from any of the following places in Sugar:

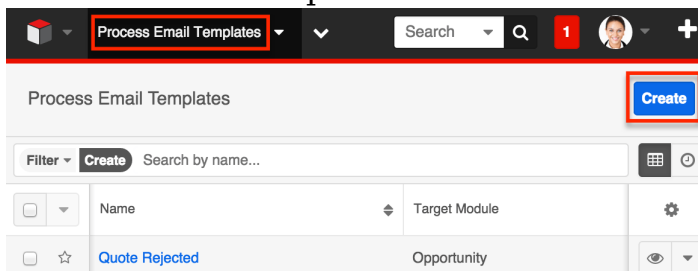
- Process Email Templates dashlet:



- Process Email Templates module tab menu:



- Process Email Templates list view:



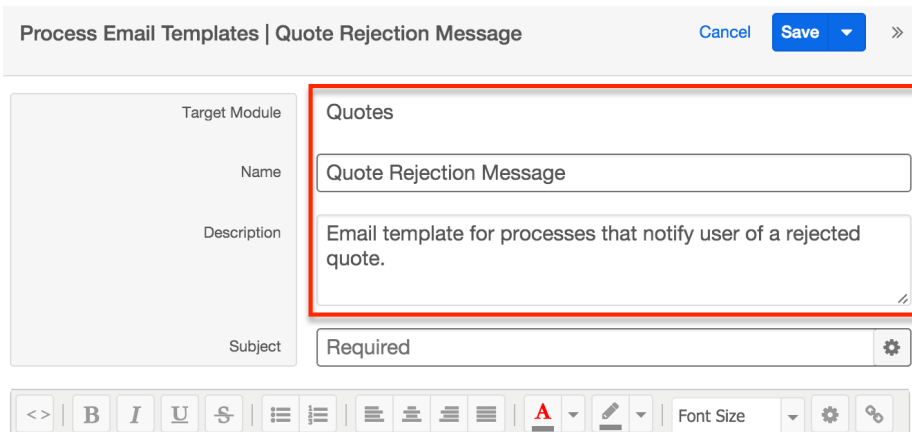
Upon clicking "Create Process Email Template" (or the Create button from list view), you will be directed to the record view. The record view is where Sugar stores information that will make it easy to find and understand the purpose of the email template in the future. After completing this form, you will be directed to the [design view](#) to create the actual content of the message.

After configuring and saving the process email template, it will automatically appear on the administrator's Process Email Templates dashlet and list view, but it will not be ready to use in a process definition until the design step has been completed via the [design view](#).

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## Designing Process Email Templates

After submitting the template's record view, you must create the custom layout and design of the message that will be sent by related process definitions. Click "Save & Design" in record view to automatically enter the Process Email Template's design view. The field values for Target Module, Name, and Description are automatically pre-populated on this screen based on the values entered on the record view.



Process Email Templates | Quote Rejection Message Cancel Save >>

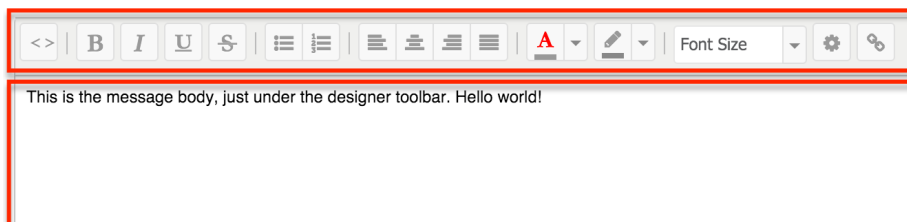
Target Module	Quotes
Name	Quote Rejection Message
Description	Email template for processes that notify user of a rejected quote.
Subject	Required <span>⚙️</span>

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Sugar Process Author's template design interface is an easy to use WYSIWYG editor. The two elements available in the design view that cannot be accessed from record view are the design toolbar and the message body. The following sections cover how to use these elements to craft an email message template.



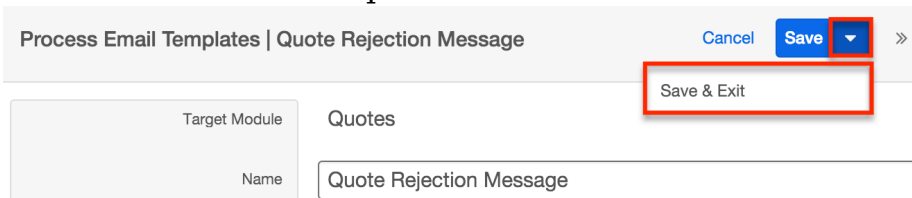
<> | **B** | *I* | U | ~~S~~ | 

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This is the message body, just under the designer toolbar. Hello world!

At any time during the design of a template, you may click the Save button to preserve your work. After completing the content of the message, expand the record's Actions Menu to reveal "Save & Exit". Click on this menu item to return to the Process Email Templates list view and continue working in Sugar.



Process Email Templates | Quote Rejection Message Cancel Save >>





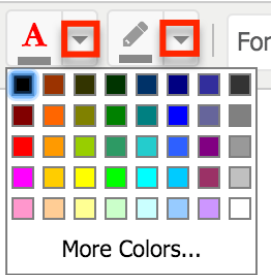



Target Module	Quotes
Name	Quote Rejection Message

**Save & Exit**

### The Design Toolbar

The toolbar is powered by the TinyMCE rich-text editor framework and presents

familiar formatting options:

Element	Button(s)	Function
Edit HTML Source		Bypass the rich-text editor options and insert your own HTML code, or view the HTML code of an existing template to make advanced changes.
Bold; Italic; Underline; Strikethrough		Use these basic font formatting options to easily add common styles to text in the message body.
Insert/Remove Bulleted List; Insert/Remove Numbered List		Transform paragraphs in the message body into a formatted list.
Align Left; Align Center; Align Right; Justified		Set paragraph alignment.
Text Color; Background Color		Choose a custom font color or highlight text with a background font color.
Font Size		Make text larger or smaller.
Fields Selector		Look up and insert Sugar module field variables. For more information, see the
Related Link Selector		Look up and insert a hyperlink to a Sugar record related to the process's target record.



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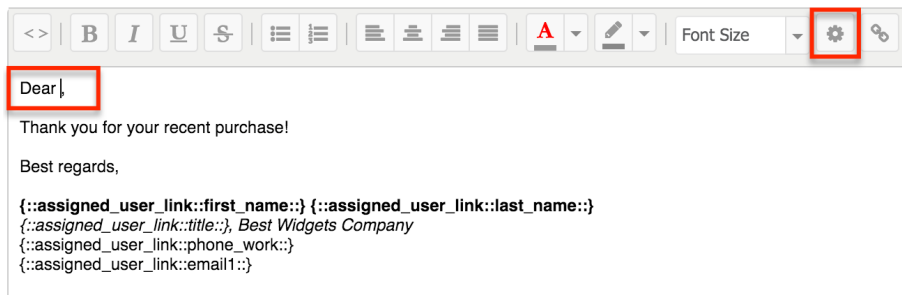
## Using the Fields Selector Tool

Process Email Templates can be customized using data pulled directly from your Sugar database. For example, an email template triggered from the Cases module could contain critical case details such as the support agent's name or the phone number of the contact related to the case.

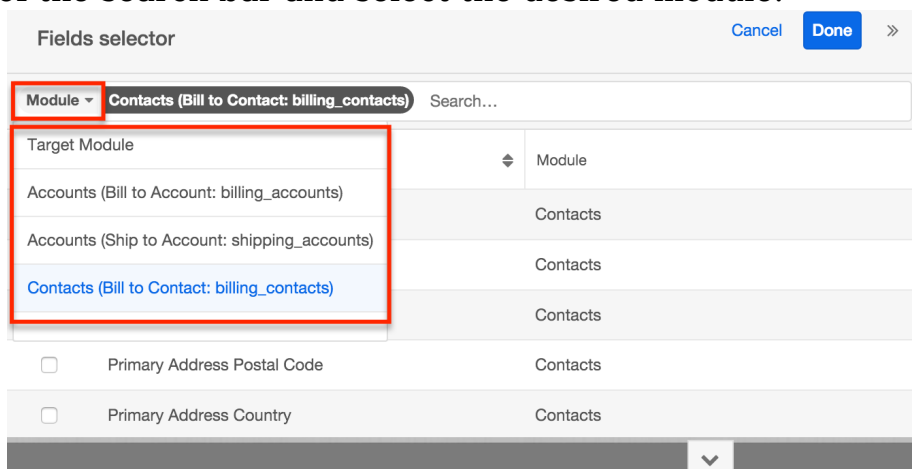
Note: Related-module variables will only be available from modules that have a one-to-one or one-to-many relationship with the target module.

A common use case for the Field Selector tool is using the recipient's name in the message body (e.g., "Dear {first\_name} {last\_name},"). To insert a custom name using the Field Selector tool, follow these steps:

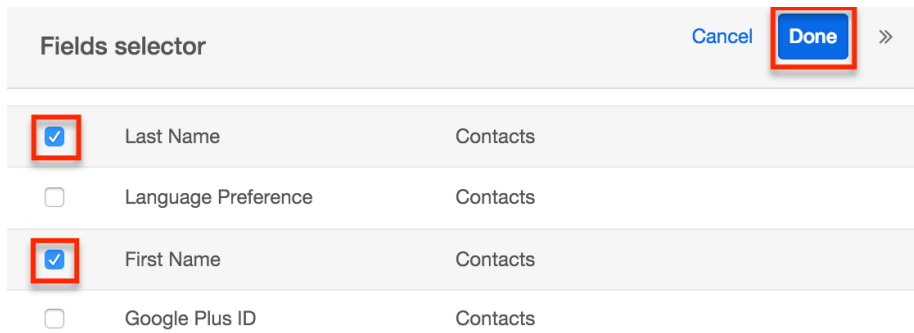
1. From the Process Email Template's design view, place the cursor in the message body where the custom variable should appear. Click on the Field Selector icon in the design toolbar.



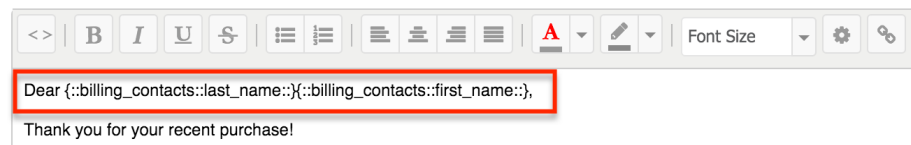
2. The Fields Selector drawer will open over the current screen. By default, the Field Selector will display all fields in the template's target module.
3. To find a variable from a related module, click the word "Module" to the left of the search bar and select the desired module.



The list of field variables will update automatically. Select the checkbox adjacent to the field or fields that you would like to insert into the email template and then click "Done".



- The template's design view will once again be visible and the selected variables will appear where your cursor was positioned before clicking on the Field Selector icon.



- If necessary, use the text editor to move the variables or insert additional characters. In this example, we will move the first name variable `{::lead_direct_reports::first_name::}` into position before the last name variable, and insert a space character in between the two variables:

Dear {::billing\_contacts:first\_name::} {::billing\_contacts:last\_name::};

For information about utilizing process email templates in process definitions, refer to the [Send Message Events](#) section of the Process Definitions documentation.

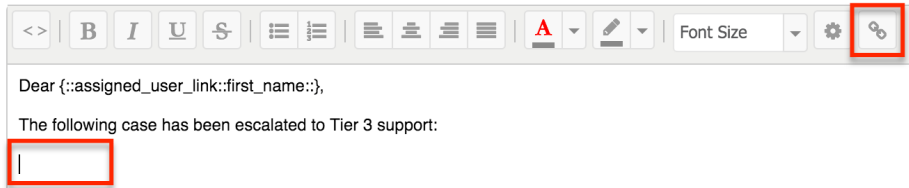
## Using the Related Link Selector Tool

If desired, you may insert a URL in the message content that links to the target record or a record from a related module. For example, an email template triggered from the Cases module could contain a link to the related case record in Sugar.

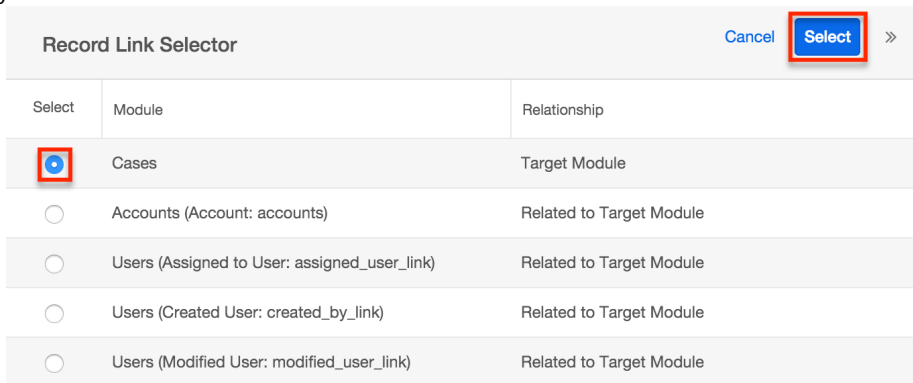
**Note:** Related-module links will only be available for modules that have a one-to-many relationship with the target module.

To insert a link using the Related Link Selector tool, follow these steps:

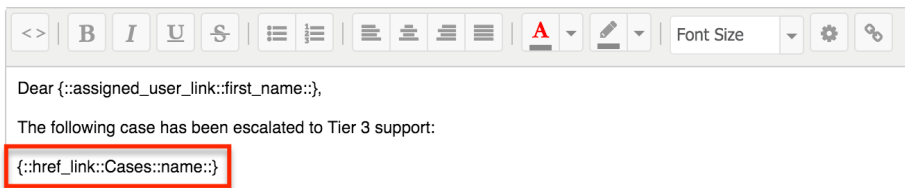
- From the Process Email Template's design view, place the cursor in the message body where you want to insert a record link. Click on the Related Link Selector icon in the design toolbar.



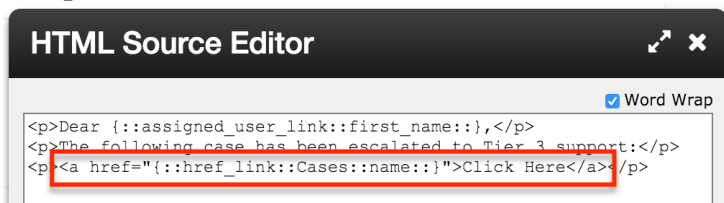
2. The Record Link Selector drawer will open over the current screen, displaying the name of the target module on the first line followed by the names of modules that have a one-to-many relationship with the target module. Click on the radio button next to the module that contains the record you want to link to and then click "Select".



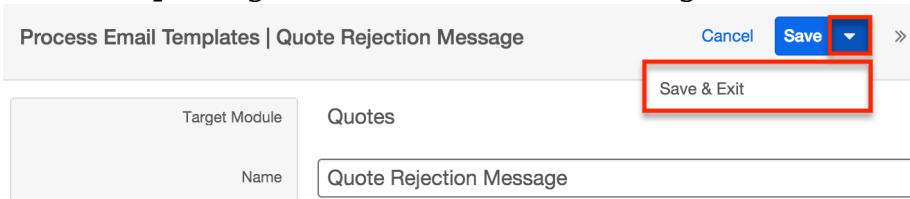
3. The template's design view will once again be visible and a variable representing the selected URL will appear where your cursor was positioned before clicking on the Related Link Selector icon.



Note: In the recipient's inbox, the message will contain an unformatted URL (e.g., <https://instancename.com/#Cases/1234-abcd-5678-efgh>) that links to the related record. To instead display a word or phrase hyperlinked to the record, you can click on the Edit HTML Source button in the [design toolbar](#) and place the link variable in an HTML anchor tag:



4. After completing the content of the message, click "Save & Exit".



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For information about utilizing process email templates in process definitions, refer to the [Send Message Events](#) section of the Process Definitions documentation.

Last Modified: 04/13/2016 02:20pm

## Process Definitions

### Overview

The Process Definitions module is one of four advanced workflow modules that make up [Sugar Process Author™](#), a business process management tool in Sugar that enables administrators to streamline common business processes by managing approvals, sales processes, call triaging, and more. Process definitions are central to the Process Author suite. They define the steps in automated business processes and control the flow of work that is allocated during running processes in Sugar. Process definitions are created by a Sugar administrator and consist of a network of activities and their relationships, criteria to indicate the start and end of the process, and information about the individual activities (e.g., participants) contained within the business process.

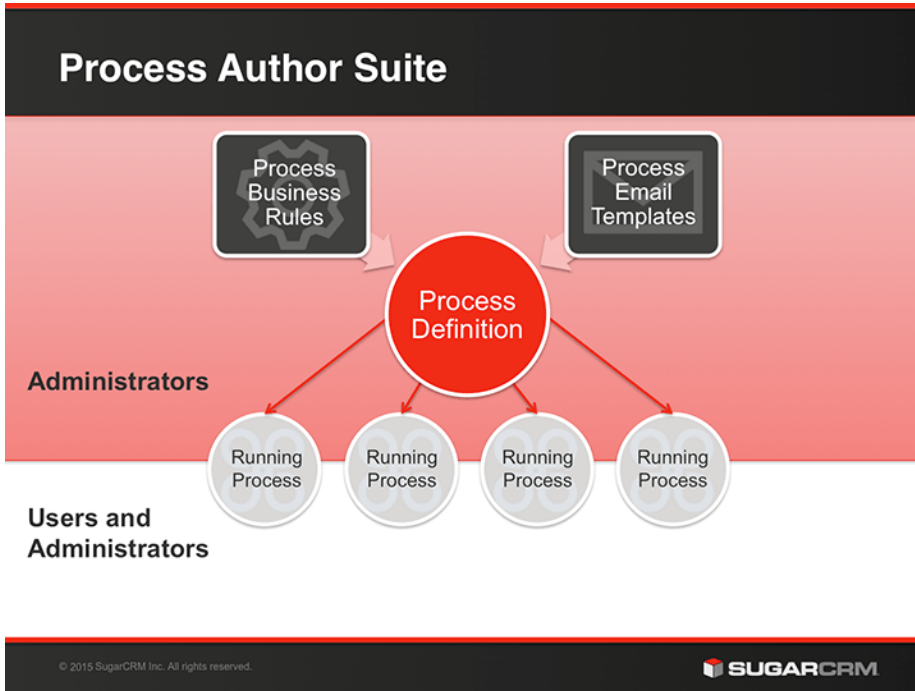
Before continuing, please read the [Process Author](#) overview page, which defines critical vocabulary and other elements that may be referenced on this page.

This documentation contains the following pages:

- [Process Author](#)
- Process Definitions (current page)
- [Process Business Rules](#)
- [Process Email Templates](#)

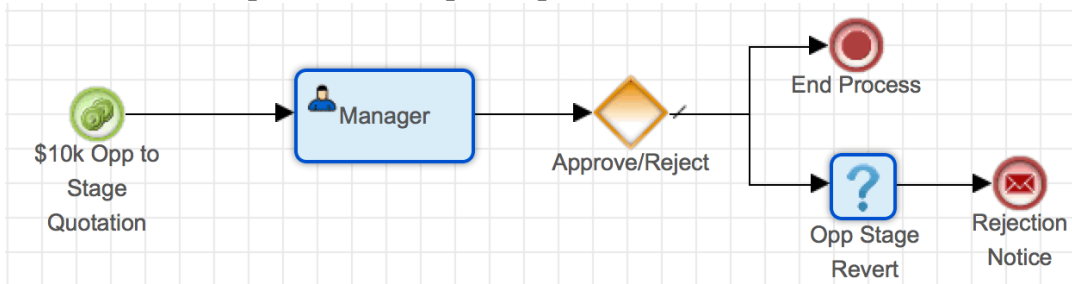
Additionally, the [Processes](#) page of the Application Guide contains documentation for the user-facing elements of Sugar Process Author. Please note that Process Author is exclusive to Enterprise and Ultimate editions of Sugar 7.6.x and later.

The following image illustrates the relationship between all of the Process Author modules:



The process definition will be the parent record for countless running processes in Sugar. Every time a process definition's [Start event](#) is triggered, a single process will begin to run in Sugar. When a running process requires action from a user, that user will see the process in their [Processes dashlet](#) and Processes module list view. Users will never see the parent process definition that controls the process, nor will they see any processes for which they are not required to act.

This is an example of a complete process definition created in the [Visual Designer](#):



In the example above, the Start event is triggered when a \$10,000+ opportunity moves to stage "Quotation" from any other stage. Every time this condition is met, the process definition will generate a new process instance.

Note: If a process definition will utilize [process business rules](#) or [process email templates](#), those records must be created before designing the process definition. For more information about creating records in these supporting Process Author modules, please refer to the corresponding section of the Process Author documentation.

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## Process Definition Fields

The Process Definitions module contains the following fields:

Field	Description
Assigned To	The Sugar user assigned to the process definition
Date Created	The date the process definition record was created
Date Modified	The date the process definition record or its design was last modified
Description	A description or other information about the process definition
Name	A unique and descriptive name
Target Module	The module that will be used for the Start event in the process definition design

## Working With Process Definitions

The following links will open specific sections of the User Interface documentation where you can read about views and actions that are common across most Sidecar modules. The sections following this Working With Process Definitions section describe Process Definition-specific behaviors and functionality.

Content Link	Description
<a href="#">Viewing Process Definitions</a> <a href="#">Viewing Via List View</a> <a href="#">Viewing Via Record View</a> <a href="#">Viewing Via Recently Viewed</a>	The Viewing Records section describes various methods of viewing process definition records, including via the Process Definitions list view and record view, the Recently Viewed menu in the Process Definitions module tab. For information on viewing a process definition's message content, please refer to the <a href="#">Designing Process Definitions</a> section below.
<a href="#">Searching for Process Definitions</a> <a href="#">List View Search</a> <a href="#">Creating a Filter</a> <a href="#">Saving a Filter</a>	The Searching for Records section provides an introduction to list view search, which searches and filters within the Process Definitions module.

<a href="#">Process Definitions List View</a> <a href="#">Total Record Count</a> <a href="#">Create Button</a> <a href="#">List View Search</a> <a href="#">Favorite Designation</a> <a href="#">Column Reordering</a> <a href="#">Column Resizing</a> <a href="#">Column Sorting</a> <a href="#">Column Selection</a> <a href="#">Preview</a> <a href="#">Record Actions Menu</a> <a href="#">More Process Definitions</a> <a href="#">Intelligence Pane</a>	<p>The List View section walks through the many elements of the Process Definitions List View layout which contains a filterable list of all process definition records in Sugar. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Definitions list view are described in the <a href="#">List View Record Actions Menu</a> section of this page.</p>
<a href="#">Process Definitions Record View</a> <a href="#">Favorite Designation</a> <a href="#">Next or Previous Record</a> <a href="#">Actions Menu</a> <a href="#">Show More</a> <a href="#">Intelligence Pane</a>	<p>The Record View section walks through the many elements of the Process Definitions Record View layout which contains detailed information about a single process definition record. While the generic menu options are described in the User Interface sections linked to the left, the options specifically available in the Process Definitions record view are described in the <a href="#">Record View Actions Menu</a> section of this page.</p>
<a href="#">Editing Process Definitions</a> <a href="#">Editing Inline Via Record View</a> <a href="#">Editing Via Record View</a> <a href="#">Editing Inline Via List View</a> <a href="#">Editing Fields</a>	<p>The Editing Records section describes the methods of editing existing process definition record fields: inline via the Process Definitions record view, in full edit mode on the record view, and inline via the Process Definitions list view. The Editing Fields section provides instructions for modifying the different field types available in Sugar records. For information on editing a process definition record's content, please refer to the <a href="#">Designing Process Definitions</a> section below.</p>
<a href="#">Deleting Process Definitions</a> <a href="#">Deleting Via Record View</a> <a href="#">Deleting Via List View</a>	<p>The Deleting Records section describes two ways to delete process definitions: via the Process Definitions record view and via an individual record's Actions menu on the list view.</p>
<a href="#">Favoriting Process Definitions</a>	<p>The Favoriting Records section</p>

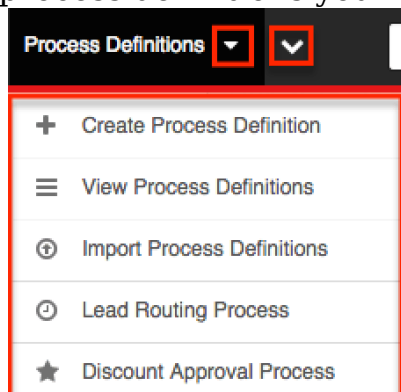
<a href="#">Favoriting Via List View</a> <a href="#">Favoriting Via Record View</a>	describes the various methods of marking process definitions as favorites, including via the Process Definitions list view and Process Definitions record view. Favoriting a process definition record allows you to easily access it from list views and the Process Definitions module tab.
<a href="#">Sharing Process Definitions</a>	The Sharing Records section provides instructions for the Share record view option which composes an email with a link to the process definition record. If the recipient is logged into Sugar, clicking the link will bring them directly to the record view.

## Process Definition Menus

The following sections describe the various menu options in the Process Definitions module with links to more information about each option in the User Interface documentation or, for process definition-specific functionality, within this page.

### Module Tab Menus

The Process Definitions module tab is located on the navigation bar at the top of the Sugar screen when the administrator is engaging with the Process Definitions module. Click the tab to access the Process Definitions list view. You may also click the triangle in the Process Definitions tab to display the Actions, Recently Viewed, and Favorites menus. The Actions menu allows you to perform important actions within the module. The Recently Viewed menu displays the list of process definitions you last viewed in the module. The Favorites menu displays the list of process definitions you most recently marked as favorites in the module.





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The Actions menu allows you to perform the following operations:


Menu Item	Description
<a href="#">Create Process Definition</a>	Opens the record view layout to create a new process definition
<a href="#">View Process Definitions</a>	Opens the list view layout to search and display process definitions
<a href="#">Import Process Definitions</a>	Opens the import wizard to enable import of .bpm files

If you do not see the Process Definitions module tab in Sugar, please check the following:

- Sugar Process Author is only available for Enterprise and Ultimate editions of Sugar. If you are using the Professional edition but would like to leverage Sugar Process Author for advanced workflow functionality, please [contact your Sugar Account Manager](#) for information on upgrading your instance.
- To access the Process Definitions module or the Process Definitions module tab, you must be a [System Administrator user](#) or a regular user with a role that provides [developer access](#) to one or more modules.
- The Process Definitions module may be marked as hidden in your user preferences which will prevent the module tab from being displayed. Navigate to your user profile (upper right of Sugar), click the Advanced tab, and check the Layout Options section. If you see the Process Definitions module in the Hide Modules list, simply move it to the Display Modules list and save. For more information on hiding and displaying modules, please refer to the Layout Options section of the Getting Started documentation.
- The administrator may have disabled the Process Definitions module for your entire Sugar instance. Reach out to your Sugar administrator to have the Process Definitions module displayed. For more information on displaying and hiding modules throughout Sugar, please refer to the Developer Tools documentation in the Administration guide.

## List View Record Actions Menu

The Record Actions menu to the far right of each record's row allows you to perform actions on the individual process definition record directly from the list view.

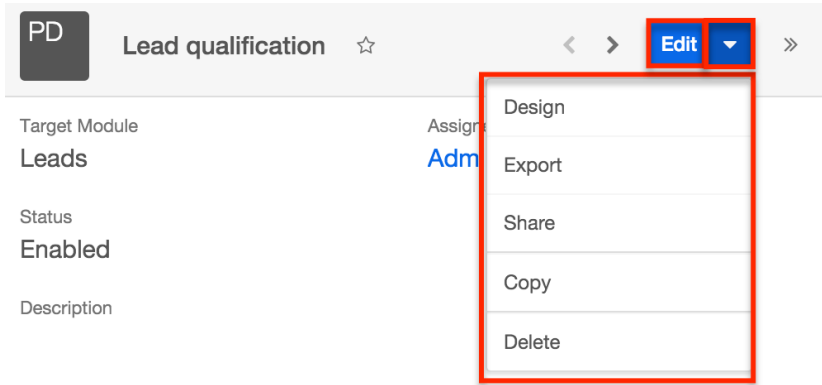
Name	Target Module	Status	Assigned	
<a href="#">Lead qualification</a>	Leads	Enabled	Administ	 ▼
<a href="#">Sales Process</a>	Opportunities	Disable		Design
<a href="#">Approve Case Escalation</a>	Cases	Enable		Edit
<a href="#">Contract Renewal</a>	Contracts	Enable		Export
<a href="#">Case Notification</a>	Cases	Disable		Delete
				Disable

The list view's Record Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Preview</a> (Eye icon)	Preview the design of this process definition in the intelligence pane
<a href="#">Design</a>	Navigate directly to the process definition's Visual Designer, where you can create and edit the process flow
<a href="#">Edit</a>	Edit this process definition
<a href="#">Export</a>	Download a copy of this process definition to your computer as a .bpm file
<a href="#">Delete</a>	Delete this process definition
<a href="#">Enable/Disable</a>	Enable or disable this process definition

## Record View Actions Menu

The process definition's [record view](#) displays the fields relevant to the Process Definitions module. To access a process definition's record view, simply click a hyperlinked process definition name from the Process Definitions list view. The record view's Actions menu appears on the top right of the page and allows you to perform various operations on the current record.



The Actions menu allows you to perform the following operations:

Menu Item	Description
<a href="#">Edit</a>	Edit this process definition
<a href="#">Design</a>	Navigate directly to the process definition's Visual Designer, where you can create and edit the process flow
<a href="#">Export</a>	Download a copy of this process definition to your computer as a .bpm file
<a href="#">Share</a>	Share a link to this process definition in Sugar via email
<a href="#">Copy</a>	Duplicate this record to make a new process definition
<a href="#">Delete</a>	Delete this process definition

## Process Definitions List View Dashlets

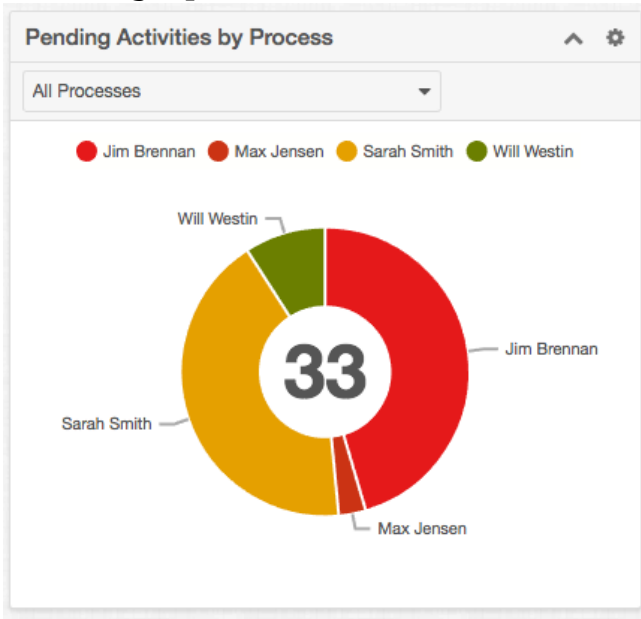
There are two specialized dashlets available exclusively on the intelligence pane for the Process Definitions module's list view. The following sections describe these dashlets, which offer insight into running processes in your instance.

Note: For more information on creating dashboards and adding dashlets to the intelligence pane, please refer to the [Intelligence Pane](#) documentation.

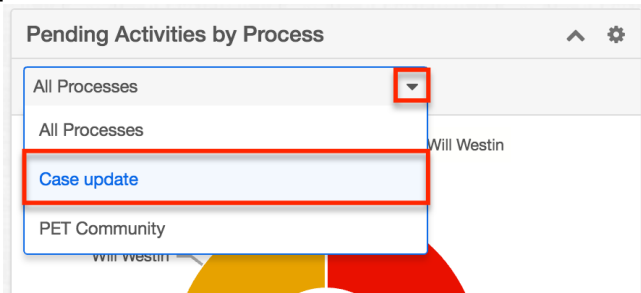
## Pending Activities by Process

The Pending Activities by Process dashlet displays a summary of the total number of activities that are awaiting a response from a process user. All open activities are reflected in the dashlet as a whole number and are also grouped by user in the

circular graph.

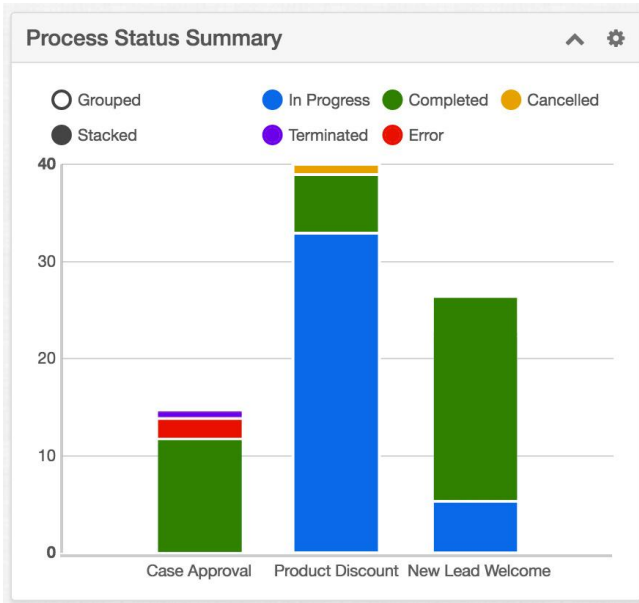


You can refine the dashlet's view by selecting a process definition from the dashlet's filter. This will restrict results to only the processes related to that process definition.

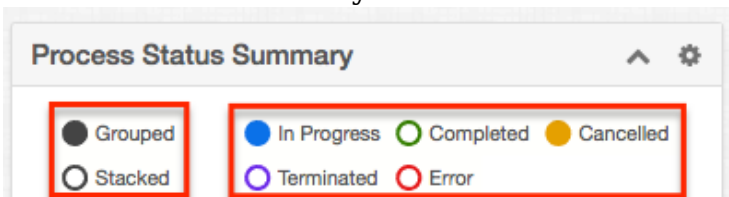


## Process Summary Dashlet

The Process Summary dashlet can also be added to the Process Definition's list view intelligence pane. It displays an overview of all processes that have triggered in your instance.



You can customize the dashlet view using the options in above the chart. Toggle the display between "Stacked" and "Grouped" to view the results in different formats. To exclude a status from the display, click on the solid circle next to that status' name in the key above the chart.

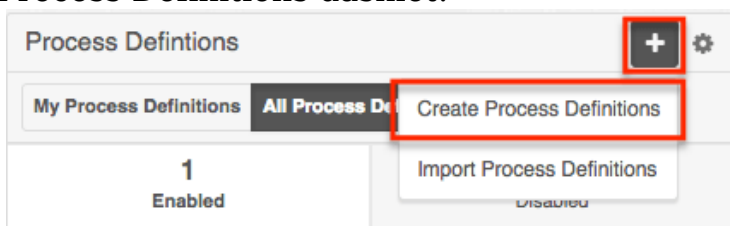


## Creating Process Definitions

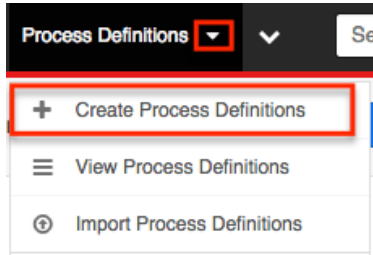
Note: All process definitions are disabled by default so that they will not trigger during the design phase. Please refer to the [Enabling Process Definitions](#) section of this page for steps to enable a completed process definition.

Process Definitions can be created from any of the following places in Sugar:

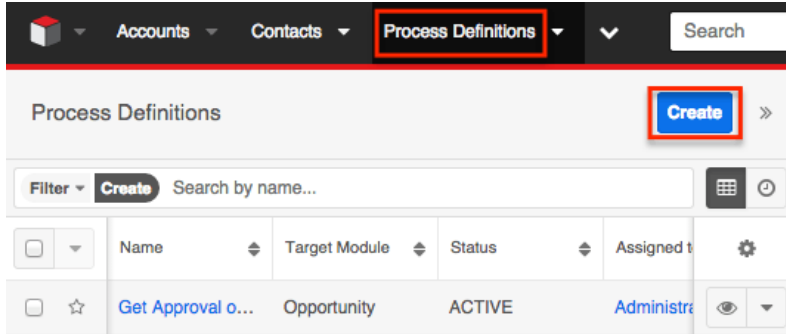
- Process Definitions dashlet:



- Process Definitions module tab menu:



- Process Definitions list view:



Upon clicking "Create Process Definitions" (or the Create button from list view), you will be directed to the process definition's record view. The record view is where you store information that will make it easy to find and understand the process definition in the future.

A screenshot of the 'Process Definition' record view form. The form has a 'Name' field with the value 'Get Approval on Opportunity' and a 'Save & Design' button (highlighted with a red box). Below the name field is the 'Target Module' dropdown, which is set to 'Opportunity' (highlighted with a red box). The 'Assigned to' field is set to 'Administrator' and the 'Teams' field is set to 'Global'. There is a 'Description' text area containing the text: 'A Process Definition that defines the approval process for opportunities.'

After completing this form, you will then be directed to the [Visual Designer](#) canvas where the process definition's elements can be composed.

For more information about the available fields in the Process Definitions module, please refer to the [Process Definitions Fields](#) section of this documentation.

Note: New process definitions are set to "Disabled" by default. After the design has been fully configured in the Visual Designer, you must set the process definition to "Enabled" in order for it to run.

## Designing Process Definitions

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Creating a process definition for your business process is easy using Process Author's visual designer, where you can graphically assemble a series of flow elements using an intuitive drag-and-drop interface. In the visual designer, process definitions are auto-saved every 15 seconds, and the Undo button can revert changes as far as 25 levels back per session.

All process definitions are set to "Disabled" by default in order to prevent triggering of processes before the design is complete. This means that you must change the status to "Enabled" before it will work. Please see [Enabling Process Definitions](#) for more information.

Note: The visual designer interface may not be compatible with some touch-screen mobile devices. Please build process definitions from a desktop or laptop computer to prevent any potential complications.

## Editing and Annotating Process Definitions

Before designing a process definition, take a moment to understand how to interact with process elements on the design canvas.

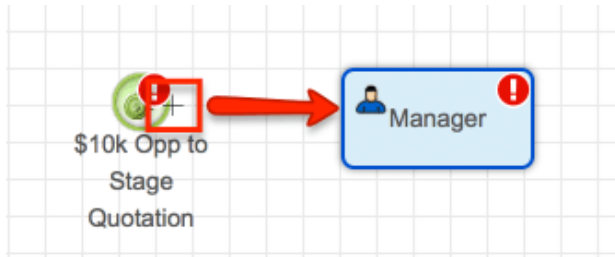
### Sequence Flow

When you assemble a process definition, you are defining the overall sequence flow. The flow dictates the processing order of the events, actions, and activities in a process and is visually represented by lines called sequence connectors. Each sequence connector originates from a single source element (e.g. action, event, etc.) to a single target element.

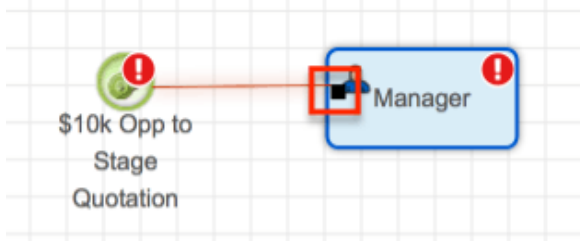
#### Adding Sequence Connectors

All elements of a process flow must be connected by at least one directional line. Failure to connect flow elements correctly will result in an error in the [Element Errors Panel](#).

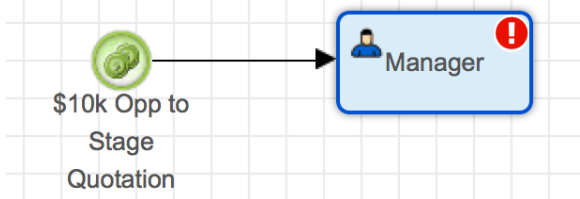
1. To connect two elements on the Designer canvas, hover over the outer edge of the Start event icon until the mousetip changes into a crosshair:



2. Click the mouse button and drag the mouse over to the outer edge of the intermediate element until the line turns red and glows:



3. Release the mouse button and the glowing red line will transition into a solid black line with an arrow on the end, pointing towards the intermediate element and indicating direction of flow from one element to another.



4. Optionally, adjust the position of the process elements to achieve a straight line.

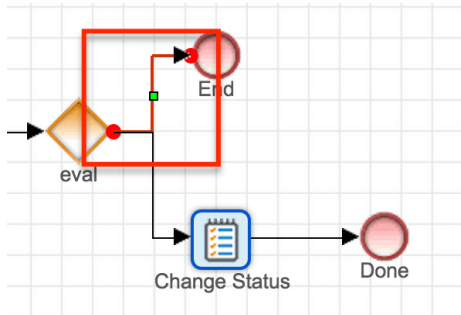
Note: When dragging a connector to a subsequent element, you may choose to release the mouse button at the top, bottom, left, or right edge of the element in order to aesthetically organize the process and avoid running into other connector lines, which may possibly affect the flow of the process. For more information on interacting with objects on the canvas, please refer to the [Moving and Deleting Design Elements](#) section of this documentation.

#### Removing Sequence Connectors

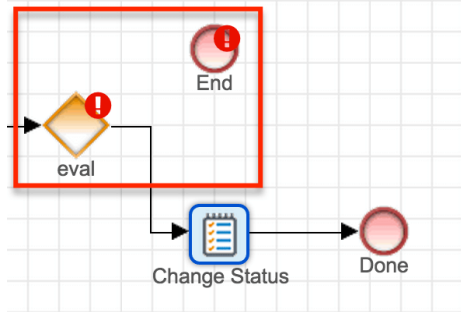
To remove unwanted or misplaced sequence connectors from the design canvas, simply click on the line and press Delete on your keyboard as explained here:

1. Click on the segment of line that you wish to remove. The connector will transition to a selected state, and the beginning and end points of the connector line will be represented by red dots. Please confirm that the line connecting these red dots is the line you intend to delete.





2. Press the Delete key on your keyboard. The selected line will disappear.



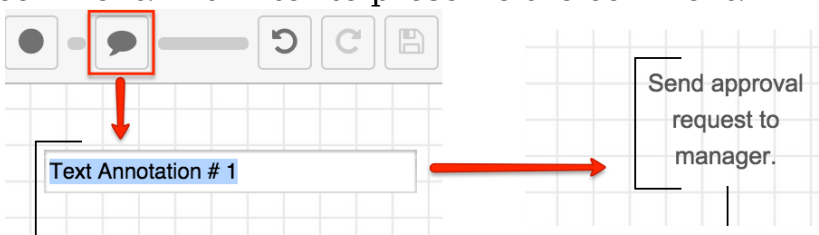
If you accidentally delete a sequence connector, simply press the [Undo button](#) on the toolbar. Always review the settings for any canvas element reinstated by the Undo or Redo buttons to confirm they are configured as expected. For more information on interacting with objects on the canvas, please refer to the [Moving and Deleting Design Elements](#) section of this documentation.

## Comments

The Comment element allows admins to mark up the designer canvas with helpful annotations connected to Action and Activity elements. While all elements can be re-labeled, further explanation may come in handy to explain more complex Process Definitions.



To insert a comment onto the Designer Canvas, simply drag and drop the comment icon onto the canvas and then double click on the text "Text Annotation # 1" to type a comment. Hit Enter to preserve the comment.



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## Editing Tools

Common editing tasks can be accessed on the right-most side of the Designer Toolbar. The three icons represent Undo, Redo, and Save.

Note: Always review the settings for any canvas element re-instated by the Undo or Redo buttons to confirm they are configured as expected.



- Undo : Click to undo the last change made in the Process Definition (up to 25 changes). When an undo action restores a design element on the page, it will not restore the element's configuration.
- Redo : Click to redo the last change made in the Process Definition (up to 25 changes). When a redo action restores a design element on the page, it will not restore the element's configuration.
- Save : This control allows users to save all changes made by them on the Process Definition design. This button is enabled only when there are unsaved changes. Keep in mind that the Visual Designer auto-saves your work every 15 seconds. To save your process, click on this icon in the Designer's elements.

When an enabled process definition's design is edited, any running process will immediately adapt to the new flow pattern. Therefore, it is best practice to disable a process definition before making changes to its design. Disabling the process definition will prevent running processes from adapting to the new flow prematurely. Please note that changing the process definition's status to "Disabled" will not cause any interruptions to already running processes. Upon re-enabling the process definition, any processes still running will adapt to the new flow.

## Moving and Deleting Design Elements

To reposition or remove an entire branch or other group of elements from a process definition design, you can easily mass select them on the canvas. The following table summarizes the mass actions available via the design canvas.

Task	Procedure
Select a single element	Point to the element on the design

	<p>canvas until the mouse tip becomes a four-headed arrow then click the shape.</p>
Select multiple elements within an area	<p>Click on the design canvas above and to the left of the elements that you want to select and then drag to create a selection box around the shapes. Any elements partially within the selection area will be included as part of the selection.</p>
Move an element or group of elements using your mouse	<ol style="list-style-type: none"> <li>1. Select the element(s) that you want to move.</li> <li>2. Position the mouse pointer over one of the elements. A four-headed arrow appears.</li> <li>3. Click and drag the elements to their new positions.</li> <li>4. All of the selected elements will move the same distance and direction from their original positions.</li> </ol>
Nudge an element or group of elements using the arrow keys	<ol style="list-style-type: none"> <li>1. Select the element(s) that you want to move.</li> <li>2. Press an arrow key in the direction you want the group to move. The elements will nudge one pixel for each tap of an arrow key. Press and hold the arrow key to move the elements quickly.</li> </ol> <p>Note: If pressing an arrow key scrolls or zooms the entire canvas instead of moving the selected elements, please make sure that your SCROLL LOCK key is disabled.</p>
Delete an element or group of elements within an area	<ol style="list-style-type: none"> <li>1. Select the element(s) that you want to delete.</li> <li>2. Press the delete key to remove the selected items from the design canvas.</li> </ol> <p>Note: Sequence connectors associated</p>

	with deleted elements will also be deleted.
Delete a sequence connector	Please refer to <a href="#">Removing Sequence Connectors</a> for more information on how to remove unwanted or misplaced sequence connectors from the design canvas.
Deselect all elements	Click a blank area on the design canvas.

## Adding a Start Event

A Start event indicates where a process will begin. It defines the action that will trigger a new process to run. The Start event will always be characterized by a module record in Sugar, but it will vary by whether it applies to new records or to qualified updates to the Sugar records.

Note: The target module chosen in the process definition's record view is the module that is used for the Start event in the process definition design.

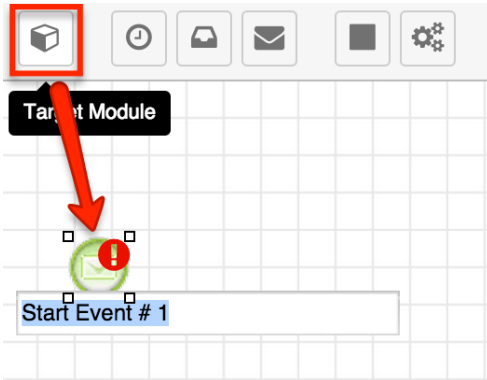
Start events are represented by the Sugar cube icon, the first icon on the design toolbar.

Start Event

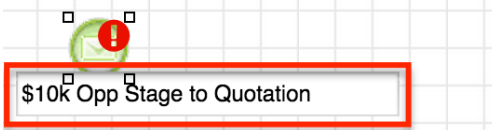


Follow these steps to add a Start event to the process definition:

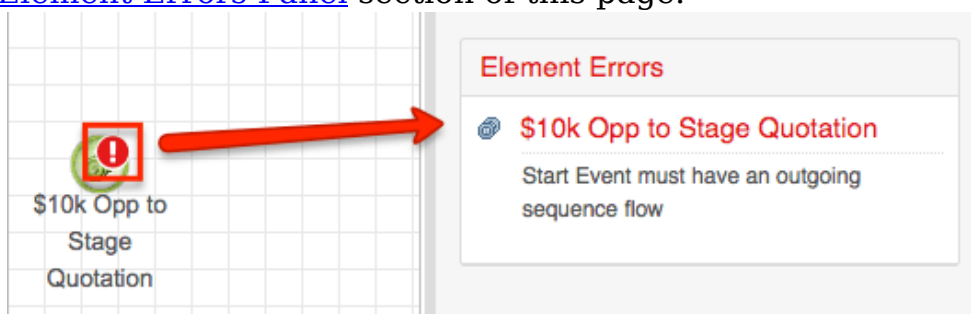
1. Drag the Start event icon onto the Designer canvas.



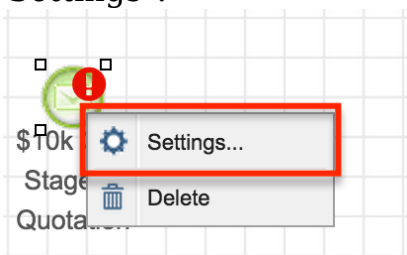
2. Double-click the Start event icon's label to re-name it.



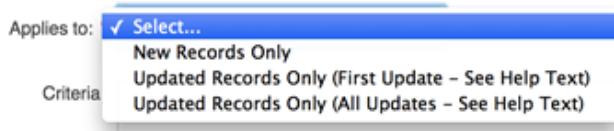
Note: The Start event will have an error alert (!) icon warning you to add an outgoing sequence connector. This is normal and will disappear after you create the next element and connect it to the Start event. For more information about element errors, refer to the [Resolving Errors in the Element Errors Panel](#) section of this page.



3. To configure the Start event, right click on the Start event icon and choose "Settings".



4. Select an "Applies to" preference. Click on the down arrow to select how the process definition will be triggered to start. There are three options:



- New Records Only : A new process will begin if a record is created and the specified conditions are met on the first save.
- Updated Records Only (First Update) : A new process will begin the first

time the specified conditions are met on an existing record, even if the record has been updated several times before it qualifies. Once a record meets the conditions to trigger a First Update process, it cannot trigger that process definition again.

- Updated Records Only (All Updates) : A new process will begin every time an existing record is saved and the specified conditions are met, as long as the process is not already running against the record. A given process definition can only run one process instance against a particular record at a time. However, it is important to note that two or more different process definitions may simultaneously run against the same record.

5. Click inside the Criteria field to expose the criteria builder and set the conditions for the Start event. Please refer to the [Creating Conditions for Events and Actions](#) section of this page to configure the conditions for the Start event.

### Adding Multiple Start Events

A single process definition may have multiple Start events as long as those Start events contain mutually exclusive criteria. In other words, only one Start event can evaluate to "true" for any given record. If it is possible for two or more Start events to evaluate as "true" against one Sugar record, the criteria for these Start events will be met simultaneously. Sugar Process Author does not support this type of configuration.

The following table demonstrates proper and improper use of multiple Start events:

		Applies to	Criteria	Explanation
&#2013266076 ; Good design	Start Event #1	Accounts; New Records Only	Type {is} Customer	A Sugar record cannot be simultaneously "new" and "updated" (i.e., existing). It is therefore impossible for these two Start events to evaluate as "true" at the same time, making them mutually

	Start Event #2	Accounts; Updated Records Only (First Update)	Type {is} Customer	exclusive.
□ Bad design	Start Event #1	Accounts; New Records Only	Type {is} Customer	This combination of Start event criteria is not mutually exclusive. A new account in Sugar may be classified as both "Manufacturing" and "Customer", which would make both events evaluate as "true". Instead, use one Start event with an OR operator between the two sets of criteria.
	Start Event #2	Accounts; New records Only	Industry {contains} Manufacturing	

The "Good design" example above applies a process definition to both new and updated records by using one Start event triggered by "First Update" and a second Start event triggered by "New Records Only". When using multiple Start events, join each of them to the next element in the process definition with separate connectors. Multiple Start events in a process definition should always merge into a single flow.

### Adding Intermediate Events

As the name suggests, intermediate events occur after a process starts but before the process is complete. Intermediate events that are placed within the overall process flow represent things that happen during the normal operation of the process such as sending messages, receiving messages, or mandatory waiting periods.

Note: Intermediate events require the Process Author Scheduled Job scheduler to

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execute. If schedulers are not running, the flow of the process will be interrupted. For more information, please refer to the [Process Author](#) documentation.

Intermediate events are represented by the second group of icons on the design toolbar. There are three icons that each enable a configurable event.



The types of intermediate events are:

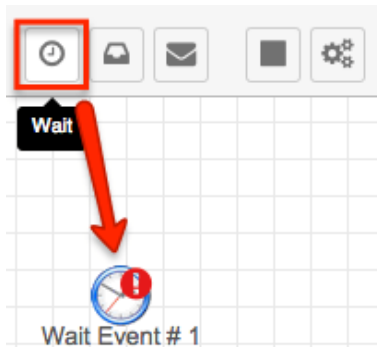
- [Wait Events](#)
- [Receive Message Events](#)
- [Send Message Events](#)

### Wait Events

This element will stop the execution of a process by the time interval set in the configuration. Wait events support specified times as well as a calculated delta between two times or events.

Note: Schedulers, specifically the Process Author Scheduled Job, must be running to execute Wait events. If schedulers are not running or if the event is not properly configured, the flow will be halted indefinitely, thereby stopping the flow of the process. For more information, please refer to the [Process Author](#) documentation.

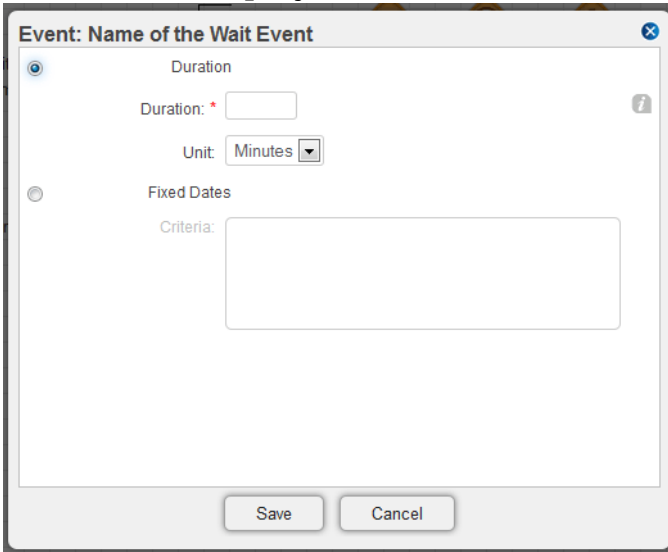
To add a Wait event to the flow, drag and drop the clock icon onto the canvas:



To configure this event, right click on the icon and choose "Settings". A new

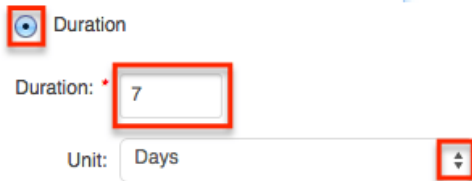


window will display:

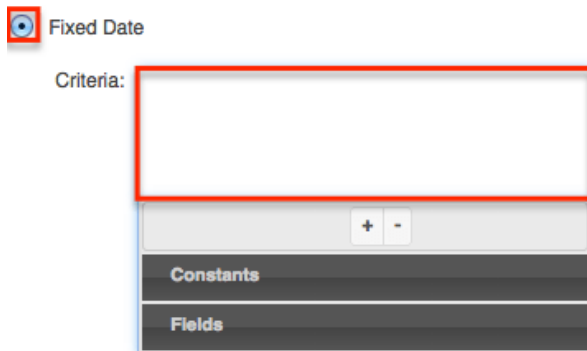


The configuration window has two main options: Duration and Fixed Date. Choose one of these options to enable its configuration fields.

- Duration (radio button) : Choose this option to define the duration of the Wait event.



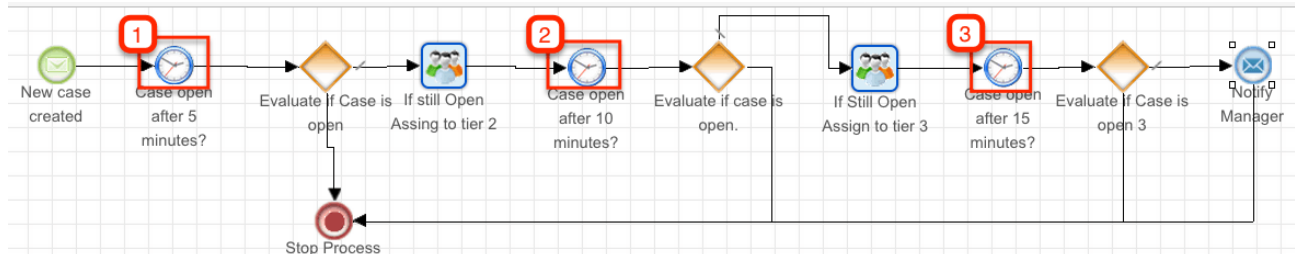
- Duration (text field) : Required field when "Duration" is selected above. Enter an integer to use in conjunction with the Unit field.
- Unit : The duration will be defined in days, hours or minutes.
- Fixed Dates (radio button) : Choose this option if the Wait event will be based on one or more of the record's datetime fields or a calculated formula. Formulas may be constructed using a combination of operators, Sugar variables, and constants.



- Criteria : Click inside this field to reveal the criteria builder. Please refer to the [Creating Conditions for Events and Actions](#) section of this page for

instructions on using the criteria builder.

A Wait event's clock begins when the Wait event is triggered. For example, the following process definition contains three Wait events. Each one will pause and evaluate a running process at 5-minute intervals, for an aggregate 15 minutes of wait time across the process definition.



While the Wait events enforce an evaluation at 5, 10, and 15 minutes into the process, the settings for each element need only account for the 5-minute span between timed events, and not its relative distance from the start of the process. Therefore, the Duration setting for each Wait event in this example should be set to 5 minutes.

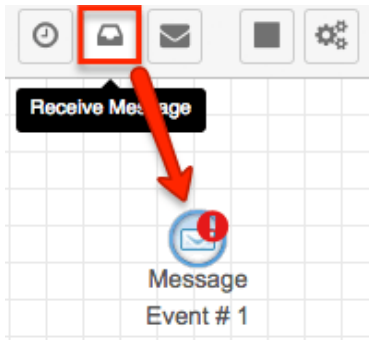


## Receive Message Events

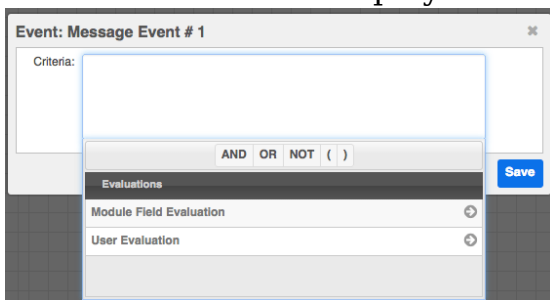
This event will stop the flow of a process definition until the established criteria in the configuration are accomplished. In essence, it is a Wait event that pauses until a condition is met instead of for a specified duration.

Note: Schedulers, specifically the Process Author Scheduled Job, must be running to execute Send Message events. If schedulers are not running or if the event is not properly configured, then the event will stop the flow of the process. For more information, please refer to the [Process Author](#) documentation.

To add a Receive Message event to the flow, drag and drop the Receive Message icon onto the canvas:



To configure this event, right click on the icon and choose "Settings". A criteria builder window will display:



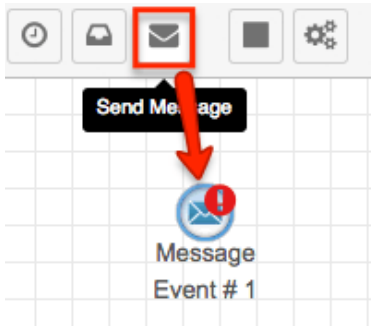
Click inside the Criteria field to reveal the criteria builder. Please refer to the [Creating Conditions for Events and Actions](#) section of this page for further instructions.

## Send Message Events

This event is the only one that can send email messages. These messages must be created in the [Process Email Templates](#) module. Conveniently, email recipients can be configured using variables and wildcards.

Note: Schedulers, specifically the Process Author Scheduled Job, must be running to execute Send Message events. If schedulers are not running or if the event is not properly configured, the flow will ignore the event and continue running without sending any mail. For more information, please refer to the [Process Author](#) documentation.

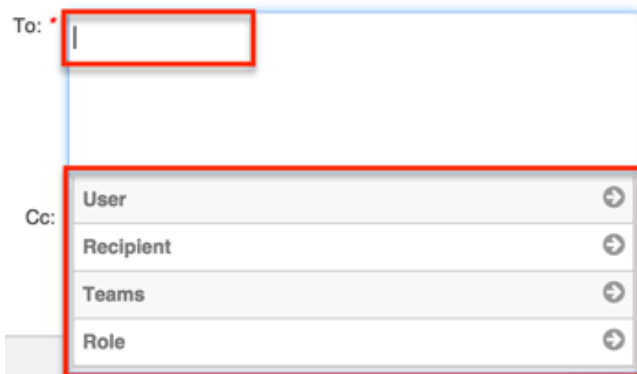
To add a Send Message event to the flow, drag and drop the envelope icon onto the canvas:



Right click on the canvas icon and select the option "Settings" to configure the event:

A configuration window titled 'Event: Message Event # 1'. It contains several fields: 'Module' with a dropdown menu showing 'Opportunities'; 'Email Template' with a dropdown menu showing 'Opportunity Approved!'; 'To:' with a text input field containing 'Record Owner'; 'Cc:' with a text input field containing 'Supervisor' and 'Jim Brennan'; and 'Bcc:' with an empty text input field. At the bottom right, there are 'Cancel' and 'Save' buttons.

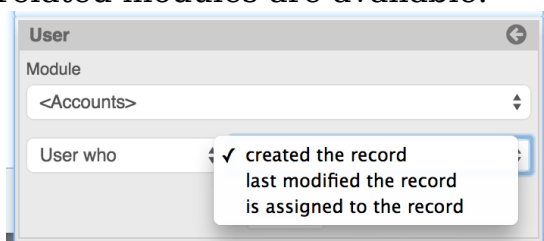
- **Module :** (required) Choose the module that was set as the Target Module for the template record.
- **Email Template :** (required) Choose an email template from the dropdown list. This list will only display templates that use the target module specified in the previous field.
- **To, Cc, Bcc :** (The To: field is required) Specify the message recipients. Click inside the text area to reveal optional recipient types, or simply type an email address into the window.



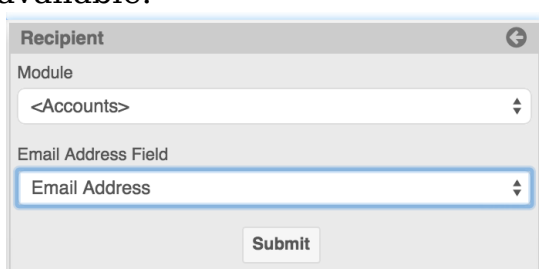
- **User :** Click on the User menu item to send a message to the user or manager of the user who created, modified, or is assigned to the specified module record. To add a user associated with a related module,

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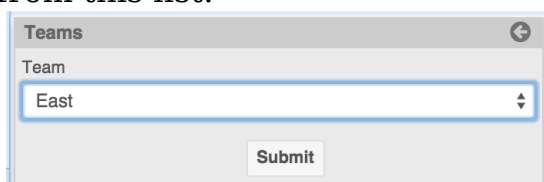
choose a related module from the Module dropdown. All 1:1 and M:1 related modules are available.



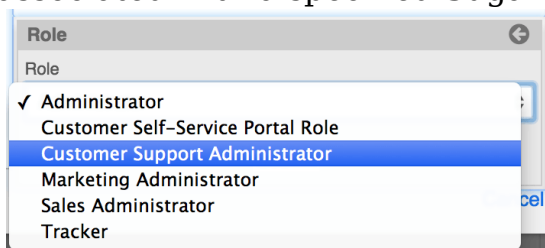
- Recipient : Click on the Recipient menu item to send a message to an email address stored in the Sugar database within the target or a related module. You must specify which module field contains the email address. To add a recipient associated with a related module, choose a related module from the Module dropdown. All 1:1 and M:1 related modules are available.



- Teams : Click on the Teams menu item to send a message to all of the users on a specified Sugar team. Inactive and private teams are hidden from this list.



- Role : Click on the Role menu item to send a message to all of the users associated with a specified Sugar role.



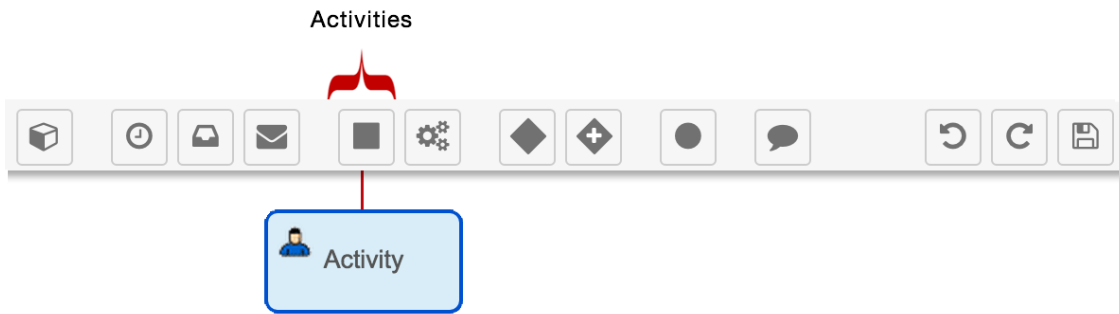
- Specific Email Addresses : To insert one or more specific email addresses (e.g., mail@example.com), type directly into the To, CC, or BCC field, pressing the Enter key after each address.

## Adding Form Activities

The only unit of work that requires user interaction (opposed to automation) is an Activity. It is a moment within a flow where a user must decide if a circumstance is

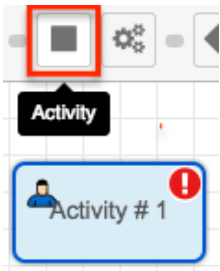
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approved or rejected, or review a record that has been routed to them. Activities are represented by the solid square icon on the design toolbar:



Activities pause a process until a user makes a decision to either approve or reject the record, or indicates that they have reviewed a record that has been routed to them. When a process reaches this point in the flow, the appropriate user will see a line item in their Processes dashlet or Processes module list view. An Activity form element is configured in two steps. First, configure the [Forms](#) setting and then configure the [Users](#) setting.

To add a Form activity to the process definition's flow, drag and drop the Activity icon onto the canvas:



## Forms Setting

The "Forms..." setting controls what type of form the process user will see when they are asked to execute this activity. The process user must be separately configured in the "[Users...](#)" setting. There are two types of Activity form:

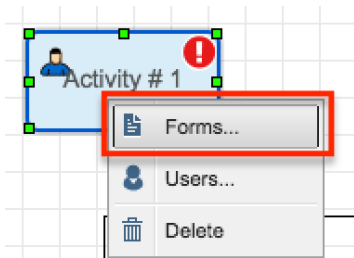
- **Approve/Reject** : This type of form will present itself as an Approve button and a Reject button on the record view of the record that triggered the process. A Gateway element must be placed after the Approve/Reject activity in order to specify a flow for approval as well as a flow for rejection.
- **Route** : This type of form should be used to ensure that a record within a process has been viewed or edited by the user configured in the Activity's "[Users...](#)" setting. The form will present itself as a Route button on the record view of the record that triggered the process. The process user has the option to edit the record before clicking the Route button. The administrator may

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choose to ensure only relevant fields are edited by leveraging the [Read Only Fields](#) and [Required Fields](#) options for this activity.

Note: If an activity is not properly configured, it will default to an Approve/Reject form.

To configure the Forms setting for an activity, right click on the icon and select "Forms...".



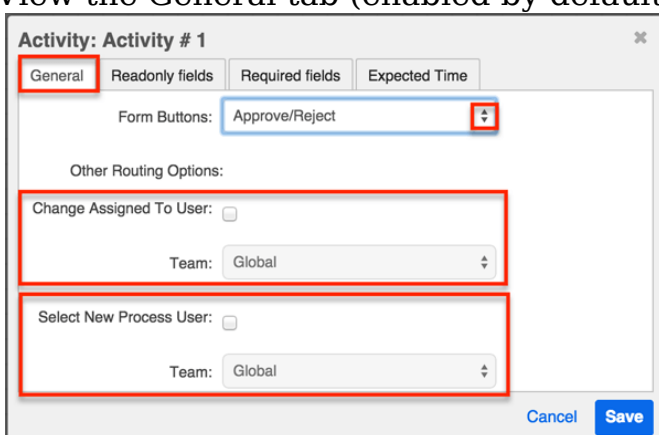
A configuration window will open. The configuration window has four tabbed sections.

- [General Tab](#)
- [Read-Only Fields Tab](#)
- [Required Fields Tab](#)
- [Expected Time Tab](#)

These are explained in detail in the following sections.

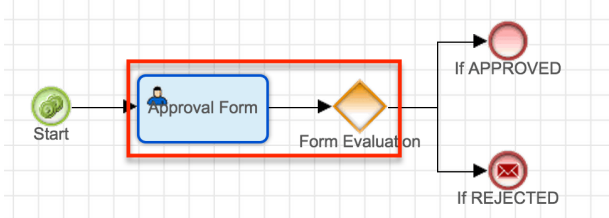
#### General Tab

View the General tab (enabled by default) to choose a form type for the activity.



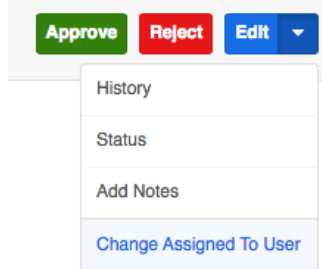
- Form Buttons : Select the type of form to display.

- Route : The user will be prompted to acknowledge that they have reviewed and optionally edited/commented on the record.
- Approve/Reject (default) : The user will be prompted to approve or reject a circumstance. Approve/Reject Form activities should always be followed by a [Gateway element](#) with [Form Response Evaluation](#) criteria to define the next step of the process in the case of approval or rejection.

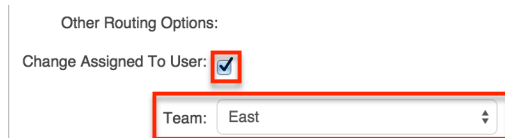


- Other Routing Options: During a Form activity's execution, the process user may be given the option to reassign the record associated with the process. It may be appropriate to create specialized teams for users who will be engaged in particular parts of a process. For more information about managing teams and users, see the [Team Management](#) and [User Management](#) sections of the Administration Guide.

- Change Assigned To User : Enabling this option will add the "Change Assigned To User" option to the actions menu of the process execution screen, as seen here:

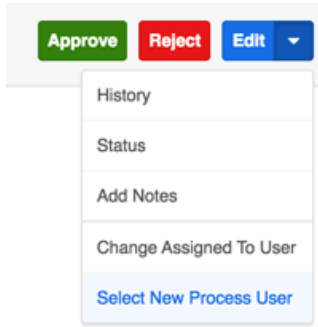


When the process activity is executed, the process user must select this option if they want to change the Sugar record's Assigned To user. The process user can only assign a user from the team configured by admin in the team field under "Other Routing Options".

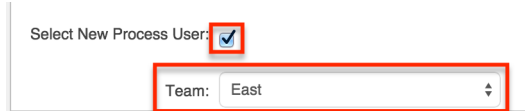


- Select New Process User : Enabling this option will add the "Select New Process User" option to the actions menu of the process execution screen, allowing the designated process user to delegate the Form activity to someone else. The process user can only select a new user from the team configured by admin in the Team field under "Other Routing Options".



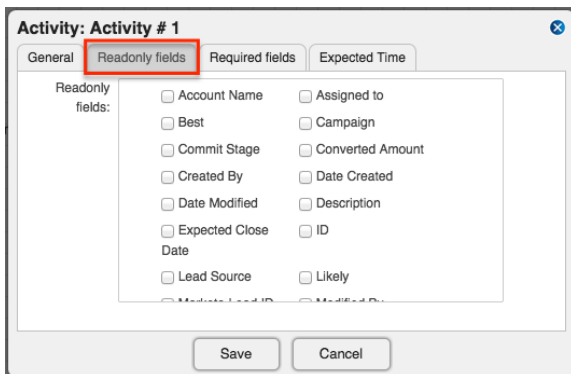


The current process user may select a new process user from the team configured by admin in the "Other Routing Options" Team field.



### Read-Only Fields Tab

Here, the administrator can restrict the process user from editing some or all fields on the Sugar record for which the process applies. Place a checkmark next to the fields that should not be edited during the form processing step.



### Required Fields Tab

In this tab, the administrator can require the process user to complete some or all fields on the Sugar record for which the process applies. Place a checkmark next to the fields that must be populated during the form processing step.

### Expected Time Tab

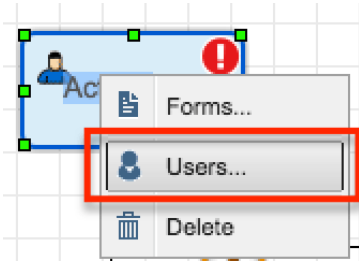
Complete the fields in the Expected Time tab to set a timeout interval for the process user to execute this activity. When the time specified in the Duration field has expired, the activity will be considered overdue. If an Activity is overdue, the Due Date property will be shown in red on the process execution screen and the process will appear in the "Overdue" tab of the My Processes dashlet.

### Users Setting

The "Users..." setting controls which user will be responsible for executing the process activity form. When a process reaches the activity in a flow, the process user will see a line item in their Processes dashlet or Processes module list view. The form type and other options must be separately configured in the "[Forms...](#)" setting.

Note: The Assignment Method chosen here refers only to the user that will execute the process, or "Process User". References to the Sugar record's assigned user are labeled "Assigned To User".

To configure the Users setting for an activity, right click on the icon and select "Users...".

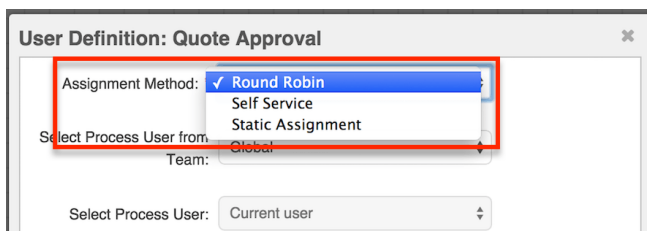


A configuration window will open. Choose one of the following process user assignment methods from the dropdown list:

- [Static Assignment](#)
- [Round Robin](#) (default)
- [Self Service](#)

These three options are explained in detail in the following sections.

Note: If this activity type is not properly configured, it will default to the Round Robin process-assignment method for the Global team.

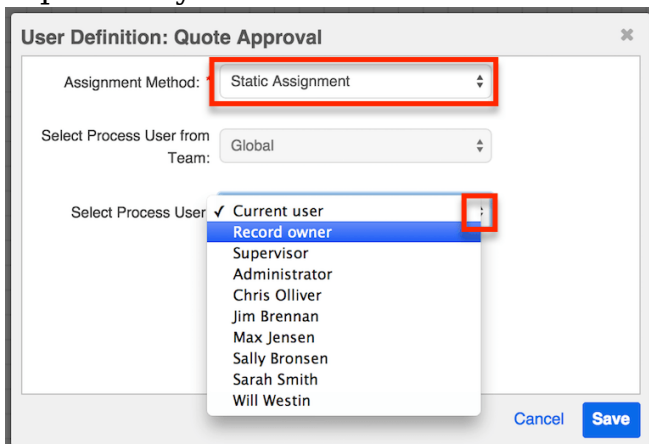


### Static Assignment

Choose "Static Assignment" to assign process Activities to a specific process user. You can also select one of the following variable user types:

- **Current User** : The Current User refers to the last process user who has been defined in the process definition. If no process user has been previously defined, the Current User will be the user who is in the Assigned To field of the targeted Sugar record.
- **Record Owner** : The Record Owner is the user who is in the Assigned To field of the targeted Sugar record.
- **Supervisor** : When selected, the supervisor of the user who is in the Assigned To field of the targeted Sugar record will be prompted to execute this process activity. This relationship must be configured in the "Reports to" field of the Users module. For more information about editing User fields, please refer to the [User Management](#) page of the Administration Guide.

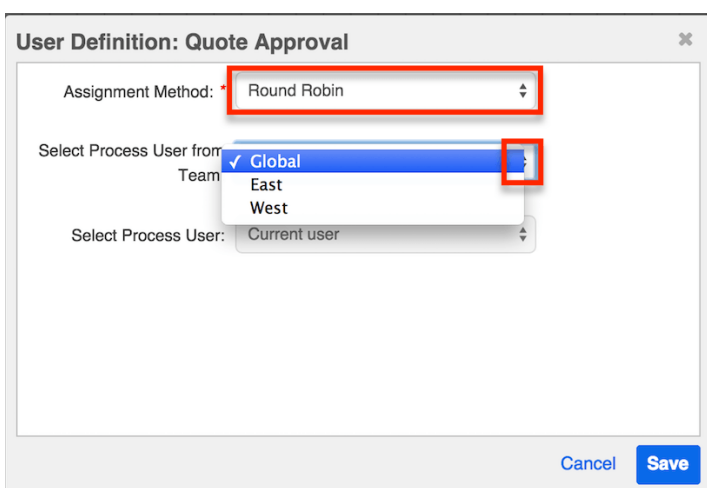
Static Assignment will disable the Team configuration option in this window and require only the Select Process User field to complete the configuration.



### Round-Robin

Choose the Round Robin assignment method to equally distribute process activities to the [explicit members of a team](#) in a take-your-turn fashion. For example, if Jim and Sally belong to team "East," a Round Robin distribution for team East will assign the activity to Jim the first time it runs, to Sally the second time it runs, and then to Jim again on the third execution (and so on). The processing order of Round Robin activities is based on the Created By date of the user record in the Users module.

Round Robin will disable the Select Process User option in this window and require only the "Select Process User From Team" field to complete the configuration.

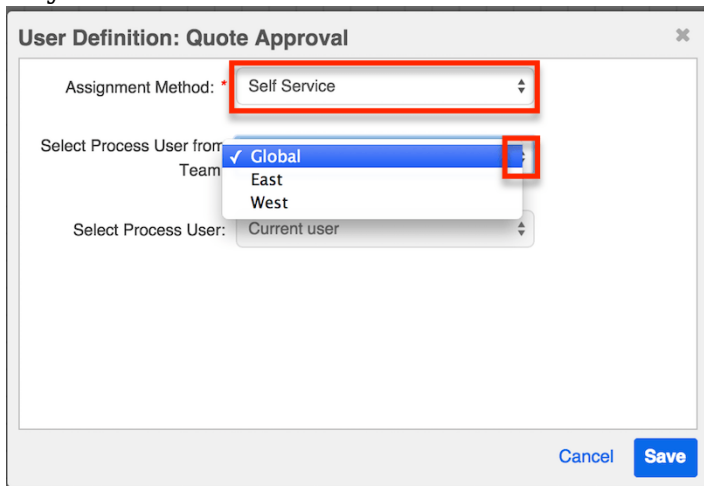


### Self Service

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Choose the Self Service assignment method to allow any user of a specified team to claim the activity in a process. By enabling users to claim process activities as they have time for them, Self Service assignment reduces congestion in the workflow. Self Service activities that are ready to be claimed will appear in the Self Service Processes tab of the Processes dashlet.

Self Service will disable the Select Process User option in this window and require only the "Select Process User From Team" field to complete the configuration.



## Adding Actions

Actions are automated elements used to execute a business rule, create or update a Sugar record, or designate a process user. Actions are completed by the Process Author engine and do not require any human interaction to execute. There are five types of actions available in the Visual Designer and they are all represented by a single icon on the design toolbar:

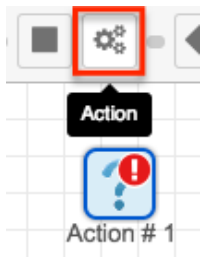


The action must be configured after adding it to the designer canvas. The five available action types are:

- [Business Rule](#)
- [Assign User](#)
- [Round Robin](#)
- [Change Field](#)

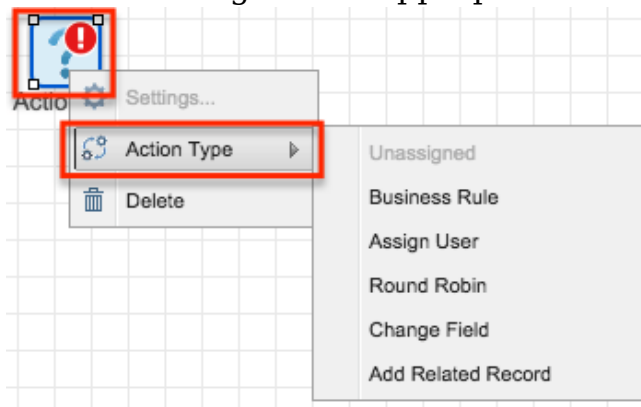
- [Add Related Record](#)

To add any of these actions to a process definition, drag and drop the Action icon from the design toolbar onto the Visual Designer canvas:



Note: The Action will have an error alert (!) icon warning you to add an outgoing sequence connector. This is normal and will disappear after you create the next element and connect it to the action. For more information about element errors, refer to the [Resolving Errors in the Element Errors Panel](#) section of this page.

The Action will display a question mark image until it has been configured. Right click on the Action icon to configure the action type. By default, an Action element is configured as type "Unassigned". This is simply to prevent a non-configured Action from affecting the Process flow. You must choose one of the Action Types and then configure the appropriate settings.



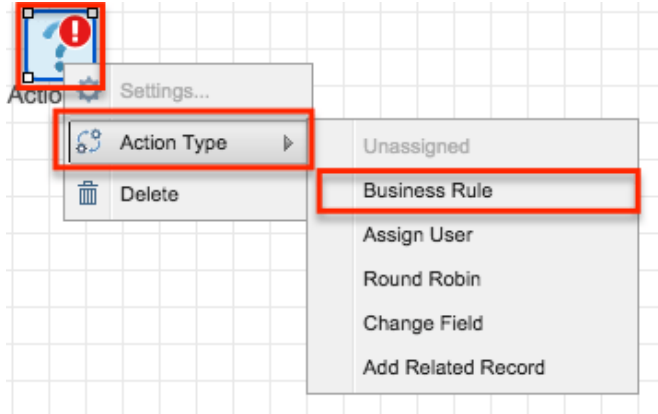
- Settings : This option will be grayed out until an action type is selected.
- Action Type : Choose the type of action this element will execute. These options are explained in detail in the remaining [Adding Actions](#) sections of this page.
- Delete : Remove the element from the canvas.

## Business Rule

This Action type allows the administrator to select a [process business rule](#) in order to return a corresponding value. Business Rule actions must be followed by a Gateway element to analyze the rule's return value. Follow these steps to add a process business rule to the process definition:

Note: The process business rule must already be configured and saved in the [Process Business Rules](#) module in order for it to be available in the Action's settings and must utilize the same target module as the process definition.

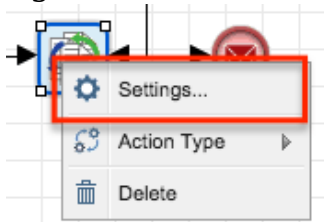
1. Right click on the Action icon and then select Action Type > "Business Rule":



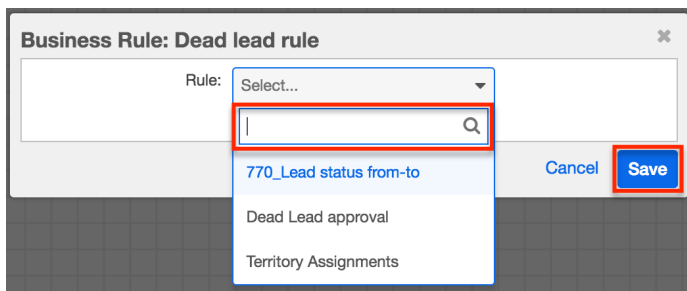
2. The Action's icon will change to:



3. Right click on the icon again and choose "Settings":



4. Select the appropriate process business rule and then click the Save button. Please note that the Rule dropdown list will only display rules that were configured for the same target module as the process definition's target module.



5. Now place a gateway element to the right of the business rule icon. Connect the business rule action to the gateway using a [sequence connector](#). Note: The gateway element is required in conjunction with a business rule action.
6. Determine the number of possible outcomes for the business rule. Drag the corresponding elements for each icon (any combination of events, actions, or activities) to the design canvas, just to the right of the gateway.
7. Connect the gateway to these elements using [sequence connectors](#).

- 
8. Finally, configure the gateway criteria before moving on. The gateway will evaluate all possible outcomes of the business rule and direct the flow of the process to the next element as appropriate. Please refer to the [Adding Gateway Elements](#) section of this page for more information.

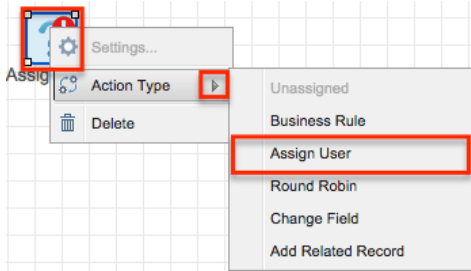
## Assign User

This Action type allows the administrator to specify a new process user, or the user who will be responsible for the remaining part of the process. Assign User actions should be followed by an [Activity](#) for the process user to complete. When a process reaches this point in a flow, the process user will see a line item in their Processes dashlet or Processes module list view.

Follow these steps to add an Assign User action to the process definition:

Note: If an Assign User action is not properly configured, it will stop the flow of the process.

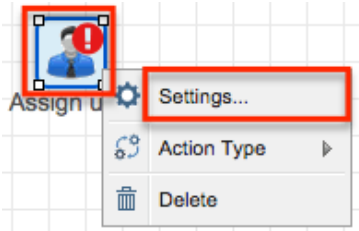
1. Right click on the Action icon and then select Action Type > "Assign User":



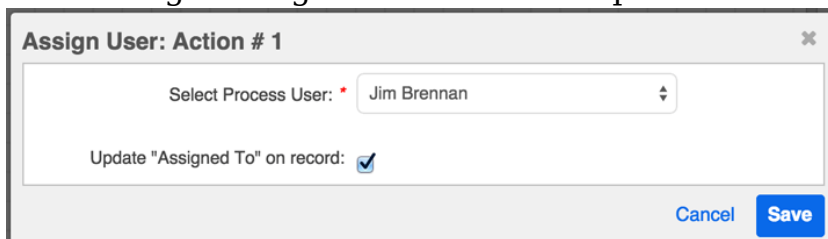
2. The Action's icon will change to:



3. Right click on the icon and choose "Settings":



4. The Settings dialog window has two options:





- 
- Select Process User : Select the name of the user that will be responsible for the remaining process steps, until the process ends or a new process user is designated. The Dropdown list will only display users that have an Active status in the Users module.
  - Update "Assigned To" on record : Enable this option if the Sugar record's Assigned To field should also be updated according to the process user chosen in the previous field. The Process Author engine will make this update automatically.

Click "Save" to preserve these settings and return to the visual designer canvas.

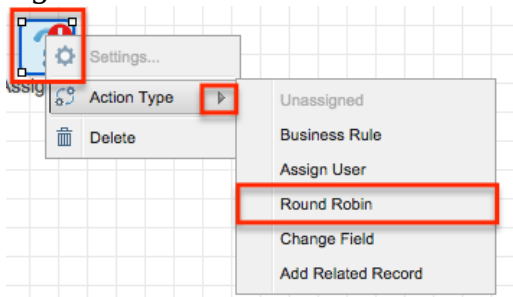
## Round Robin

This Action type will assign the overall process flow to the members of a team in a take-your-turn fashion. Round Robin actions should be followed by an [Activity](#) for the process user to complete. For example, if Jim and Sally belong to team "East", a Round Robin distribution for team East will assign the upcoming activity to Jim the first time it runs, to Sally the second time it runs, and then to Jim again on the third execution (and so on).

Note: The processing order of Round Robin activities is based on the Created By date of the user record in the Users module.

Follow these steps to add a Round Robin action to the process definition:

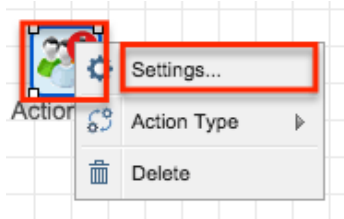
1. Right click on the Action icon and then select Action Type > "Round Robin":



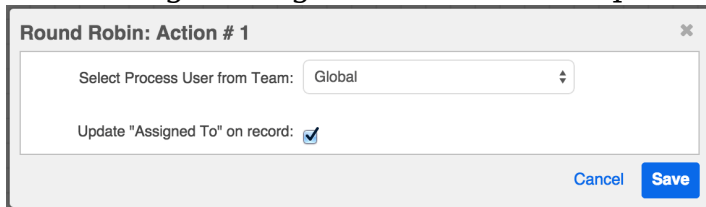
2. The Action's icon will change to:



3. Right click on the icon and choose "Settings":



4. The Settings dialog window has two options:



- Select Process User from Team : Select the name of the team from which a member will be chosen to be responsible for the remaining process steps.
- Update "Assigned To" on Record : Enable this option if the Sugar record's Assigned To field should also be updated according to the team member chosen in the previous field.

5. Click "Save" to preserve these settings and return to the visual designer canvas.

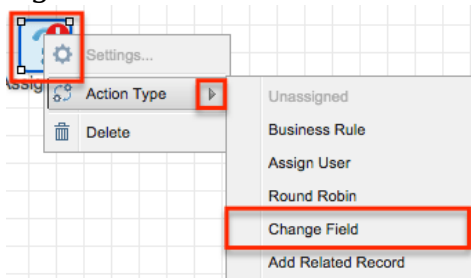
## Change Field

This Action type will change the value of one or more fields on the target Sugar record or on a record related to the target Sugar record with a one-to-one or many-to-one relationship. Please note that calculated fields, including the Forecast field in the Revenue Line Items module (or in the Opportunities module if Revenue Line Items are disabled), cannot be modified by a Change Field action.

Note: If a Change Field action is not properly configured, the flow will ignore the action and continue running without changing any fields.

Follow these steps to add a Change Field action to the process definition:

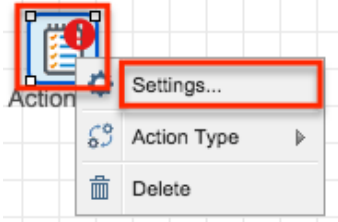
1. Right click on the Action icon and then select Action Type > "Change Field":



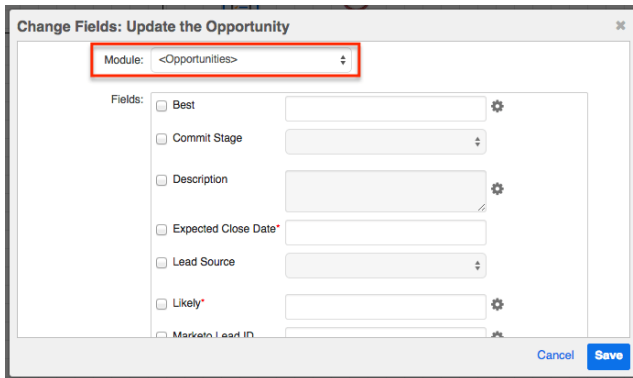
2. The Action's icon will change to:



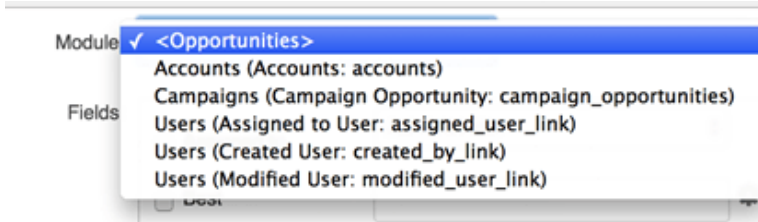
3. Right click on the icon again and choose "Settings":



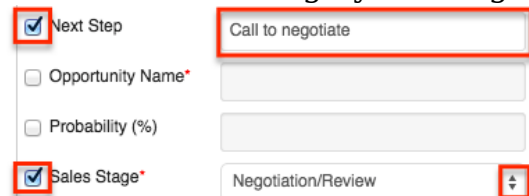
4. The Change Fields window will appear. The Module field will be pre-populated according to the target module specified in the process definition's record view, and that module's available fields will be listed below.




5. Optionally, click on the Module field to edit a record in a module related to the target module. Only modules with a one-to-one or many-to-one relationship to the target module will be available.



6. To have the process definition update a particular field, you must first enable that field for editing by clicking inside the field's adjacent checkbox.



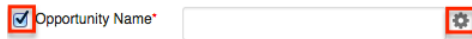
Note: Each field will be locked from editing until its corresponding checkbox is selected.

7. Enter or select the desired field value. Fields that display a settings  icon support advanced configurations:

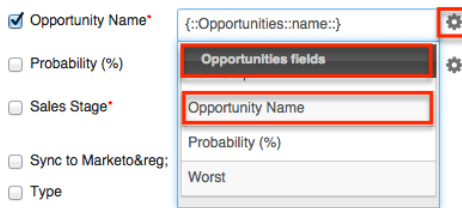
- Text Fields : To specify the value of a text field, use any combination of

Sugar field variables and text strings. For example, to append the Opportunity's Likely Amount to an existing Opportunity name, follow these steps:

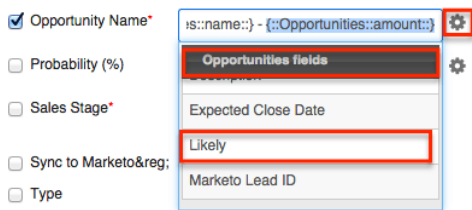
- Enable the checkmark next to the field name that you want to edit, and then click on the settings icon next to the empty field:



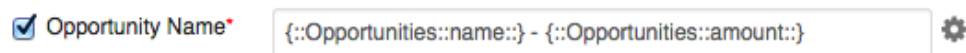
- Click on Opportunities Fields > Opportunity Name. This will insert a variable into the Opportunity Name field that references the current value of the field when the corresponding process reaches this point in the flow.



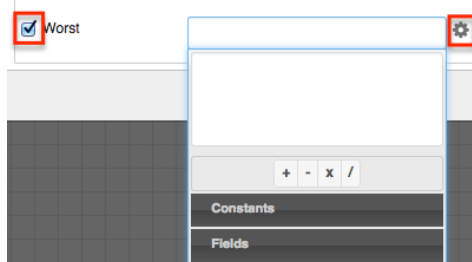
- Place the cursor inside the field immediately after the variable and type a space or hyphen character for formatting.
- Click on the Settings icon again.
- Click on Opportunities Fields > Likely to insert a second field variable.



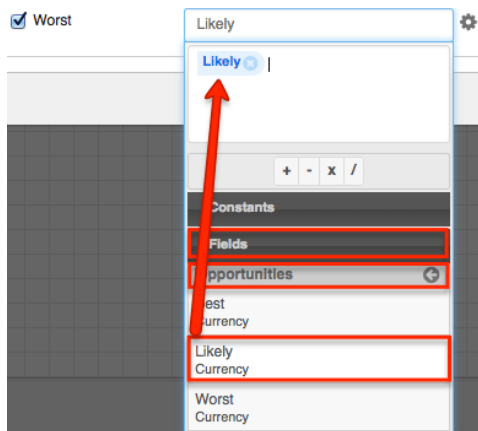
- When the formula is complete, the field value container will look similar to this:



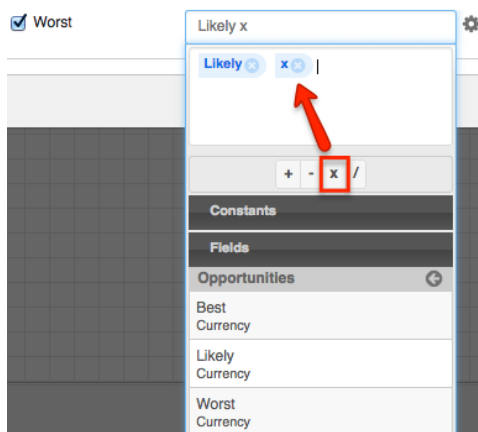
- In this example, a \$100 opportunity named "5 Widgets" will be updated to "5 Widgets - \$100".
- Number Fields : To create a calculated value for number fields, use some combination of operators, Sugar variables, and constants. For example, to calculate the Worst Amount field to contain 50% of the value of the Likely Amount field, follow these steps:
  - Enable the checkmark next to the field name that you want to edit, and then click on the settings icon next to the empty field:



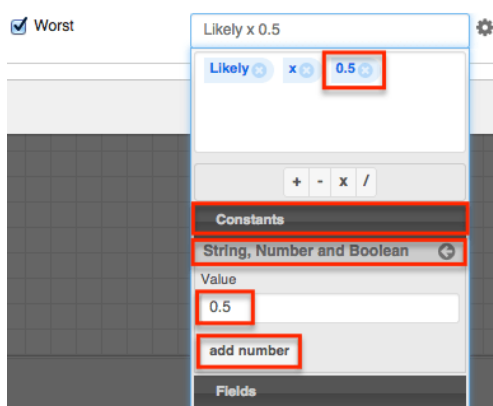
- In the criteria builder, place the variable for "Likely Currency" onto the criteria window by clicking on Fields > Opportunities > Likely Currency. This will automatically add the variable to the window:



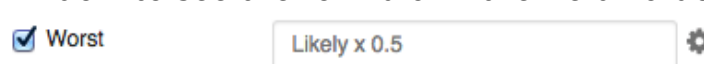
- Click on the multiply (x) operator from the operators list to add it to the formula window:



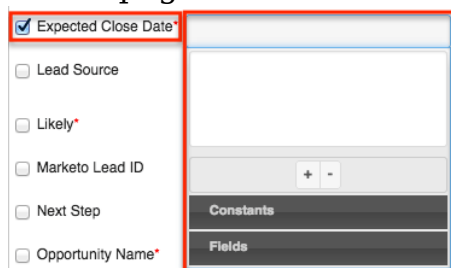
- Now tell the criteria builder to multiply the Likely amount by half, or 0.5. Click on Constants > String, Number and Boolean > type "0.5" in the Value field (with no quotes) and then click "Add Number" to move the value to the criteria builder canvas.



- When the formula is complete, click away from the criteria builder window to see the formula in the field value container:



- o Date Fields : Date and datetime fields will reveal a criteria builder where the admin can calculate a particular value. Please see the Fixed Dates section of the [Creating Conditions for Events and Actions](#) documentation on this page to learn how to configure date fields.



8. Click "Save" to preserve these settings and return to the Visual Designer canvas.

Note: If a Change Field action references a field variable that is also changed by the action, the variable will reflect the value of the field before the change field action executes. For example, if the action changes the Probability field to {probability + 1}, and the same action also inserts the Probability field variable into the Description field, after saving, the description will display {probability} and the Probability field will equal {probability + 1}.

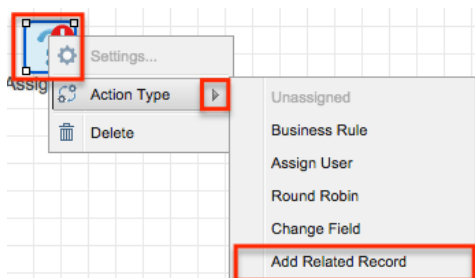
## Add Related Record

This Action type will create a new Sugar record and relate it to the target Sugar record. Please note that the values of calculated fields, including the Forecast field in the Revenue Line Items module (or in the Opportunities module if Revenue Line Items are disabled), cannot be directly modified by an Add Related Record action.

Note: If an Add Related Record action is not properly configured, the flow will ignore the action and continue running without creating a new record.

Follow these steps to add an Add Related Record action to the process definition:

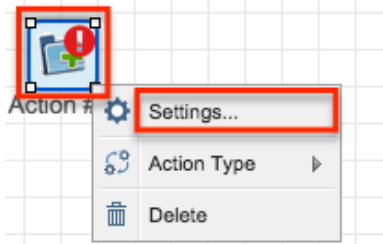
1. Right click on the Action icon and then select Action Type > "Add Related Record":



2. The Action's icon will change to:

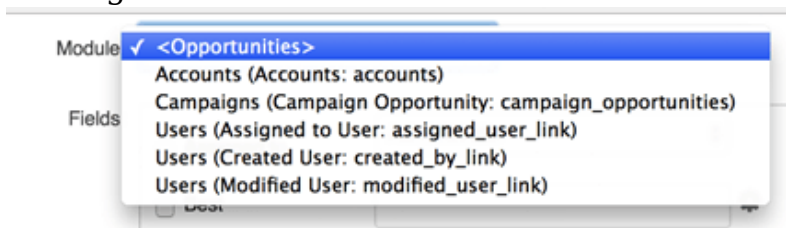


3. Right click on the icon and choose "Settings":




4. The Add Related Record window will appear. The Related Module field will be pre-populated according to the target module specified in the process definition's record view.


5. Click on the Related Module field to select the record type that the process will create. Only modules with a one-to-many or many-to-many relationship to the target module will be available.

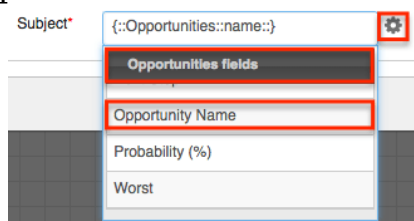


6. Complete the fields that the Process Author engine will populate in the related record. Any fields that are required by the module (indicated by a red asterisk) must be configured in this step.

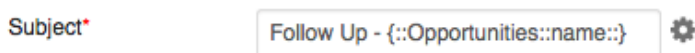
Fields that display a settings  icon support advanced configurations:

- Text Fields : To specify the value of a text field, use any combination of Sugar field variables and text strings. For example, when creating a follow-up task related to a target opportunity, follow these steps to use the opportunity's Name field in the subject of the task:

1. Click on the settings  icon next to the empty field, then choose Opportunities Fields > Opportunity Name. This will insert a variable into the Subject field that references the opportunity when the corresponding process reaches this point in the flow.




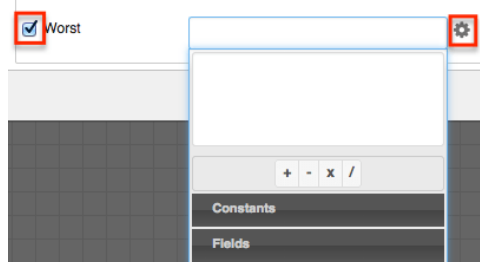
2. Place the cursor inside the field immediately before the variable and type "Follow up: " Include a space or hyphen character for formatting.
3. When the formula is complete, the field value container will look similar to this:



In this example, a task related to an opportunity named "5 Widgets" will have the subject "Follow up - 5 Widgets".

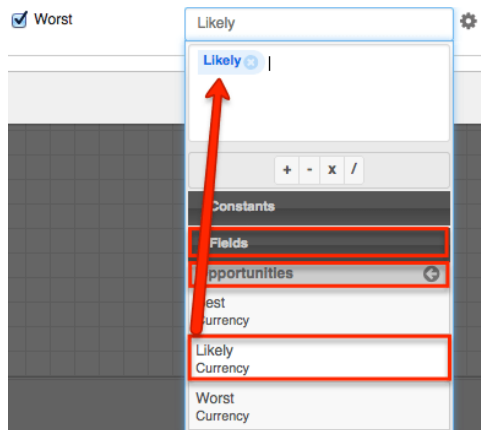
7. Number Fields : To create a calculated value for number fields, use some combination of operators, Sugar variables, and constants. For example, to calculate the Worst Amount field to contain 50% of the value of the Likely Amount field, follow these steps:

1. Click on the settings  icon next to the empty field:

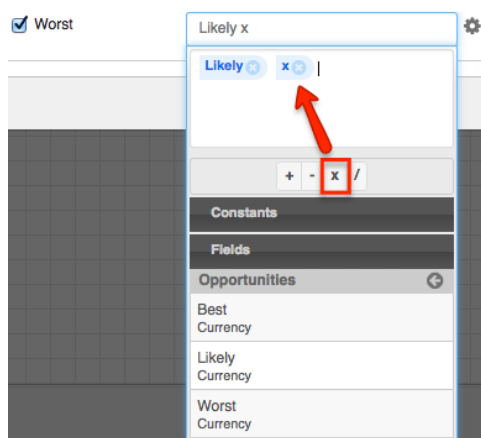


2. In the criteria builder, place the variable for "Likely Currency" onto the criteria window by clicking on Fields > Opportunities > Likely Currency. This will automatically add the variable to the window:

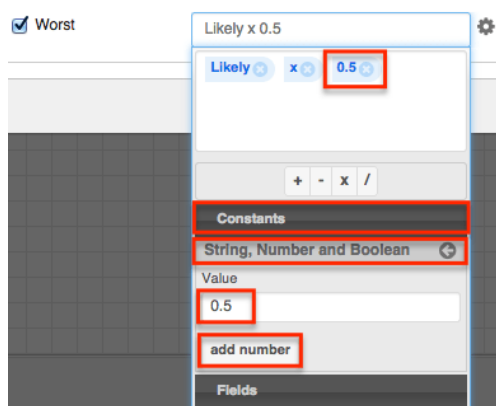




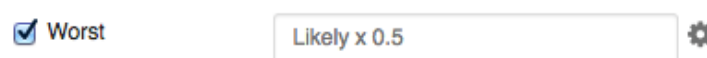
3. Click on the multiply (x) operator from the operators list to add it to the formula window:



4. Now tell the criteria builder to multiply the Likely amount by half, or 0.5. Click on Constants > String, Number and Boolean > type "0.5" in the Value field (with no quotes) and then click "Add Number" to move the value to the criteria builder canvas.

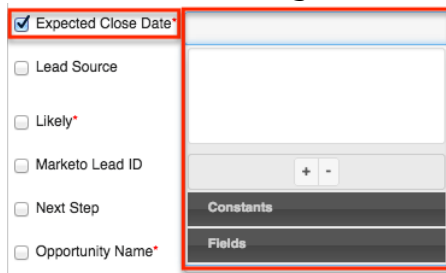


5. When the formula is complete, click away from the criteria builder window to see the formula in the field value container:



9. Date Fields : Date and datetime fields will reveal a criteria builder where the admin can calculate a particular value. Please see the Fixed Dates section of the [Creating Conditions for Events and Actions](#) documentation on this page to

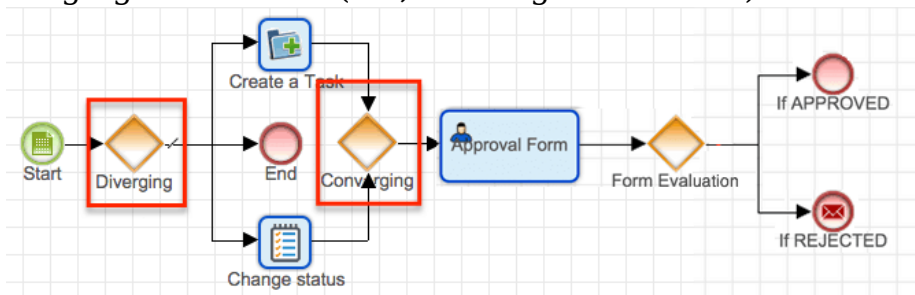
learn how to configure date fields.



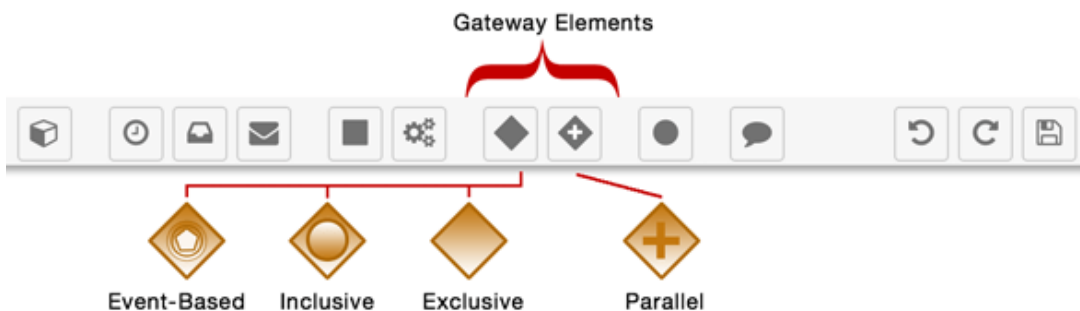
10. Click "Save" to preserve these settings and return to the Visual Designer canvas.

## Adding Gateway Elements

Gateways are connective elements used to control the flow of a process via merging and splitting. When a single activity may result in several different outcomes, a Gateway serves as a splitting mechanism (i.e., divergent element). When several activities may result in a common outcome, a Gateway serves as a merging mechanism (i.e., convergent element).



A Gateway is represented as a diamond in the Visual Designer and by the fourth group of icons on the design toolbar. There are two icons that each enable at least one type of configurable divergent or convergent moment. To add a Gateway element to a process definition, drag and drop one of the two Gateway icons onto the designer canvas. Right click on the diamond-shaped icon that appears in order to define a Gateway type, direction, and configure its settings.



The four types of Gateways are explained in the following sections.

Gateway Type	Divergent	Convergent	Use
<a href="#">Exclusive Gateway</a>	&#2013266076;	&#2013266076;	When divergent, determines a single outgoing path; When convergent, accepts only the flow that reaches it first
<a href="#">Inclusive Gateway</a>	&#2013266076;		Evaluates all criteria to determine one or more outgoing paths
<a href="#">Parallel Gateway</a>	&#2013266076;	&#2013266076;	When divergent, begins the concurrent execution of all outgoing paths; When convergent, waits for completion of all concurrent paths
<a href="#">Event-Based Gateway</a>	&#2013266076;		Evaluates Wait events and Receive Message events

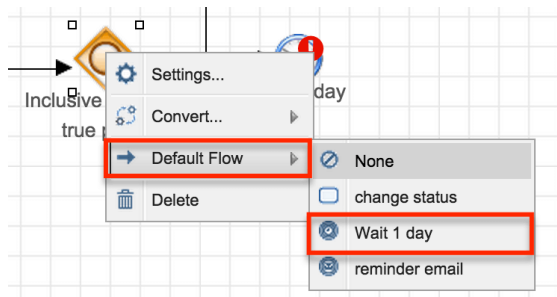
Note: A convergent gateway is usually required after a divergent gateway, but not always. Carefully consider the outcome for each path in all possible user scenarios and be sure to use the appropriate End event(s). When divergent paths do not converge, you will most likely need to use [Terminate Process](#) End events. For more information on End events, please refer to the [Adding End Events](#) section of this page.

## Default Sequence Flows

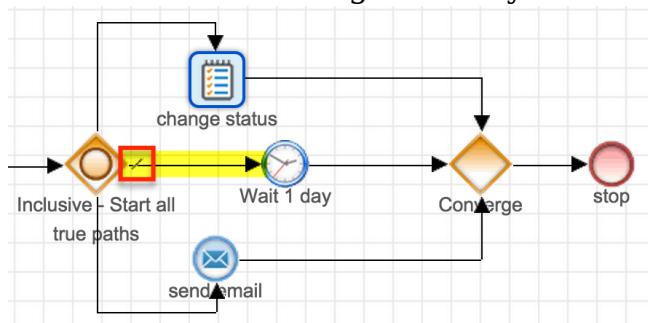
Default sequence flows are outgoing [sequence connectors](#) for exclusive, inclusive, and conditional gateways. Default sequence flows represent the path your process takes when none of the defined conditions evaluate to true. The default flow element should be defined before you configure any criteria for the outgoing flows. Default flow elements require no conditions and will therefore not have a corresponding Criteria field in the Gateway's criteria builder pop-up. For more information on setting Gateway criteria, please refer to the [Creating Conditions for Events and Actions](#) section of this documentation.

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To define a default sequence flow, first connect the Gateway to all possible outcome elements. Next, right click on the Gateway icon and hover over the Default Flow option. A menu will appear listing all of the potential flow routes from the Gateway. Select the element that should occur when no criteria are met by the others.



After defining the default flow, the sequence connector leading to the default flow element will be distinguished by a small hash mark through the connector line:



For more information on interacting with sequence connectors, please refer to the

## Exclusive Gateways



Exclusive gateways can be used to diverge or converge flow elements in a process. Exclusive gateways will evaluate several conditions but only direct the flow to or from a single path in the flow.

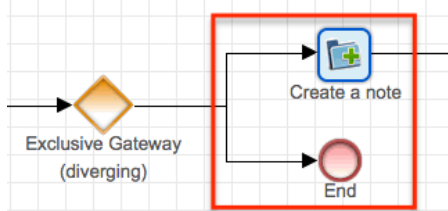
### Divergent Exclusive Gateway

Only one path will succeed from an Exclusive gateway, and it will be the one that first accomplishes its criteria. You must define a [default flow](#) for Exclusive gateways to account for situations where all criteria are false.

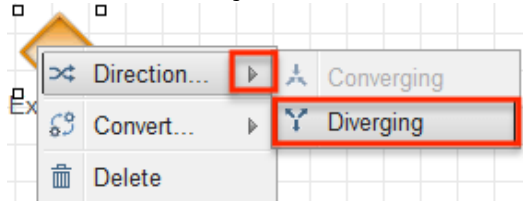
- If several criteria are true, the flow will be routed through the first (topmost) flow that evaluates as true.
- If no criteria are true, the flow will be routed through the default flow. If you have not set a default flow, the process definition will be blocked by this element.

Follow these steps to configure a divergent Exclusive gateway:

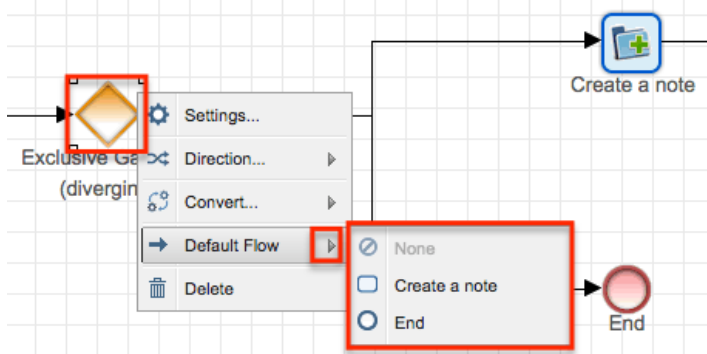
1. Drag the Exclusive gateway icon onto the designer canvas.
2. A divergent Gateway requires two or more subsequent elements (any combination of intermediate events, end events, actions, and/or activities). These must be placed on the canvas and [connectors](#) must join the elements on the canvas before the Gateway can be configured.



3. Once the Gateway has been connected to the subsequent elements, right click on the Gateway icon and select Direction > Diverging:

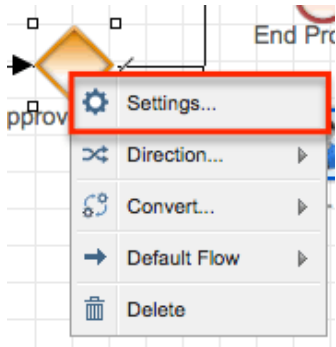


4. Specify a [default flow](#) for the Gateway. If no criteria are fulfilled, the flow will be routed through the default one. From the visual designer canvas, right click on the Gateway icon and hover over the Default Flow option. A menu will appear listing all of the potential flow routes from the Gateway. Select the element that should occur when no criteria are met by the others.

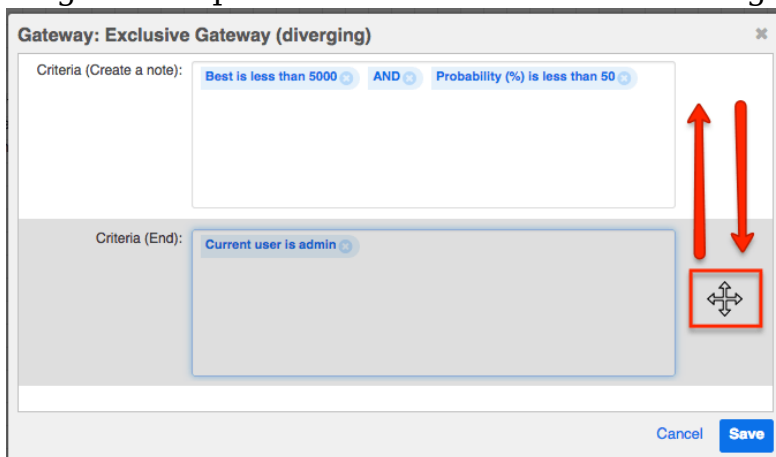


Note: The route set as default will not appear in the Criteria configuration window (step 6).

5. Right click on the element again and select the option "Settings".



6. A pop-up window will appear with a separate Criteria field for each potential outcome except the default one, which requires no criteria.
  - Click inside each criteria field to display the criteria builder tool. Refer to the [Creating Conditions for Events and Actions](#) section of this page for criteria builder instructions.
  - Drag and drop the Criteria fields in descending order of priority.



The criteria will be evaluated as they are presented in this window from top to bottom. Only one path will succeed from an Exclusive gateway, and it will be the one that first accomplishes its criteria. The remaining criteria will not be evaluated. If no criteria are fulfilled, the default flow will succeed (see step 4).

7. Click "Save" to return to the design canvas and continue building the process definition.

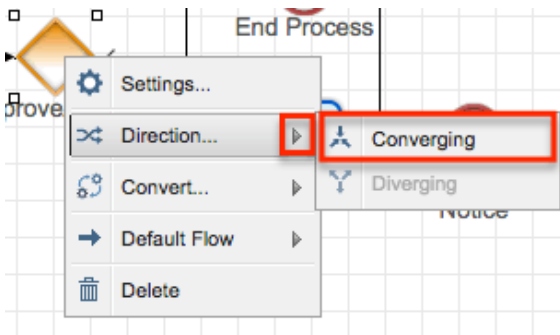
Note: A convergent gateway is usually required after a divergent gateway, but not always. Carefully consider the outcome for each path in all possible user scenarios and be sure to use the appropriate End event(s). When divergent paths do not converge, you will most likely need to use [Terminate Process](#) End events. For more information on End events, please refer to the [Adding End Events](#) section of this page.

#### Convergent Exclusive Gateway

This Gateway joins multiple streams in a single thread, but only accepts the first

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flow that reaches the Gateway; the other flows will not be evaluated after that. There are no settings for this element. To configure this Gateway as a convergent element, right click on the Gateway element and select Direction > Converging:



## Inclusive Gateways

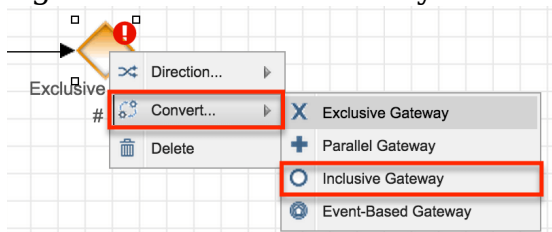


Inclusive gateways are divergent elements that direct a process' flow along all of the paths that accomplish their criteria. This may result in one flow or multiple parallel flows. You must define a [default flow](#) for Inclusive gateways to account for situations where all criteria are false.

- If only one set of criteria evaluates as true, the flow will follow that single path.
- If several criteria are true, the flow will be routed in parallel along all paths that evaluate as true.
- If no criteria are true, the flow will be routed through the default flow. If you have not set a default flow, the Process Definition will be blocked by this element.

Follow these steps to configure an Inclusive gateway:

1. Drag the Exclusive gateway icon onto the designer canvas.
2. Right click on the Gateway icon and select Convert > Inclusive Gateway.



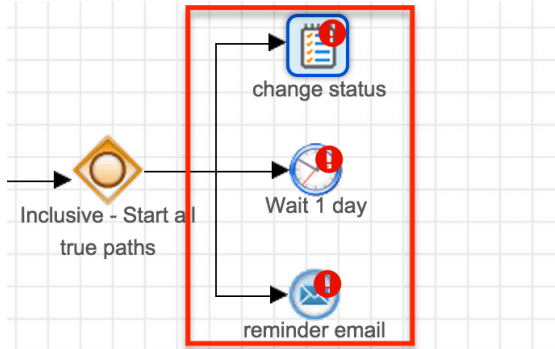
- The icon will transform from an empty diamond to a diamond containing

a circle.

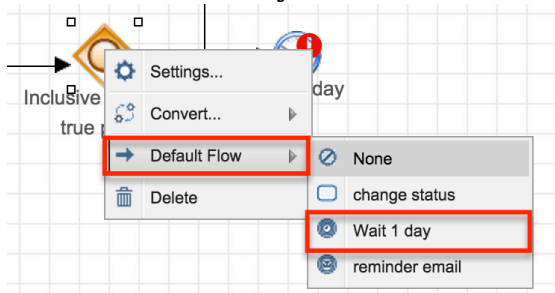
- o Please note that the label will not automatically update and may still be labeled as "Exclusive". Edit this label as appropriate for your process.



3. A divergent Gateway requires two or more subsequent elements (any combination of intermediate events, end events, actions, and/or activities). These must be placed on the canvas and [connectors](#) must join the elements on the canvas before the Gateway can be configured.

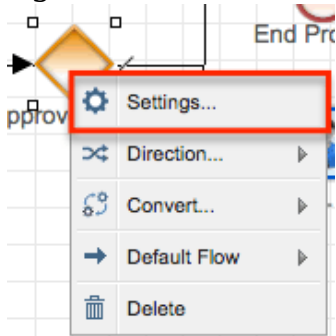


4. Once the Gateway has been connected to the subsequent elements, specify a



Note: The route set as default will not appear in the Criteria configuration window (step 6).

5. Right click on the Gateway again and select "Settings".



6. A pop-up window will appear with a separate Criteria field for each potential outcome except the default one, which requires no criteria. Click inside each criteria field to display the criteria builder tool. Refer to the [Creating Conditions for Events and Actions](#) section of this page for criteria builder instructions.
7. Click "Save" to return to the design canvas and continue building the process



definition.

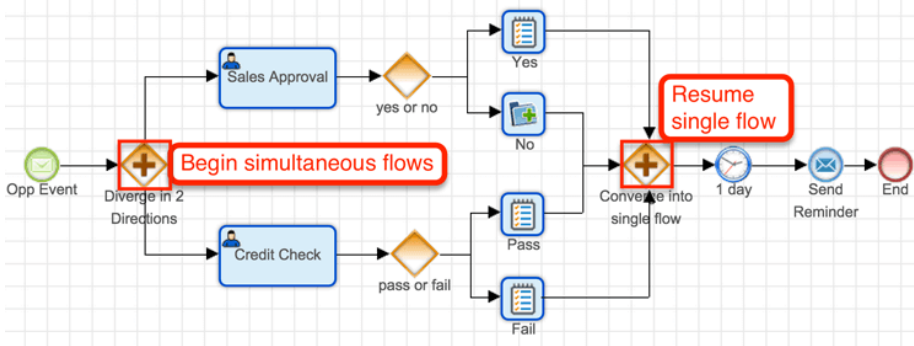
Note: A convergent gateway is usually required after a divergent gateway, but not always. Carefully consider the outcome for each path in all possible user scenarios and be sure to use the appropriate End event(s). When divergent paths do not converge, you will most likely need to use [Terminate Process](#) End events. For more information on End events, please refer to the [Adding End Events](#) section of this page.

## Parallel Gateways



Use a Parallel gateway in a complex process that has multiple things happening all at once (or "parallel" to each other). Unlike other gateways, there is no evaluation inside this gateway; it simply tells the process that two or more flows are about to happen at the same time.

Parallel gateways can be divergent or convergent. Divergent Parallel gateways will direct parallel flows, whereas convergent Parallel gateways will receive parallel flows. The same gateway is used for diverging and converging:

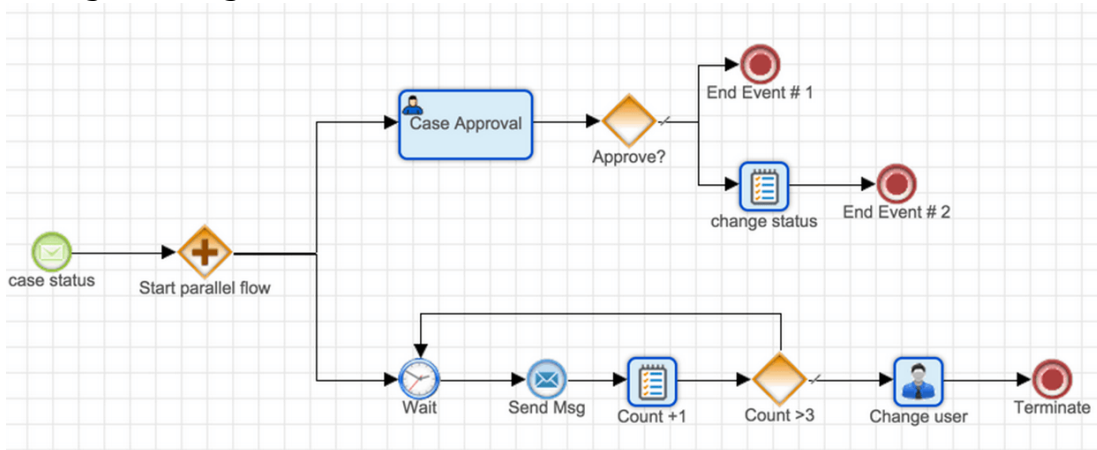


### Divergent Parallel Gateway

The divergent Parallel gateway divides the flow into two or more elements in parallel. For example, in the screenshot above, the process requires approval from the sales manager and a credit check from the accounting department. If you tried to use an Exclusive gateway for this, it would enforce only one of these options (sales approval OR credit check). But using a Parallel gateway, the process can branch off in both directions at the same time and then, optionally, converge later. If the parallel flows reconvene, use a convergent Parallel gateway to merge them.

The following example demonstrates a case-approval process where, if the case

approval is ignored for x amount of time, the approval gets reassigned to someone else. The Parallel gateway is leveraged to kick off two separate functions. The top flow starts the approval and specifies behavior for approve/reject response. The bottom flow starts a timer that sends a reminder message three times before hitting a change-user event.



When using a divergent Parallel gateway, it is important to use the correct End-event type in your process. In the case-approval example, all three end events are set to "Terminate". This means that, if a flow hits any one of the three terminate events, then the entire process will stop running.

- Do Nothing : Ends the current branch; prevents parallel process branches from stopping prematurely
- Terminate Process : Stops the entire process; will terminate all parallel branches even if there are steps remaining

Note: A convergent gateway is usually required after a divergent gateway, but not always. Carefully consider the outcome for each path in all possible user scenarios and be sure to use the appropriate End event(s). When divergent paths do not converge, you will most likely need to use [Terminate Process](#) End events. For more information on End events, please refer to the [Adding End Events](#) section of this page.

### Convergent Parallel Gateway

A convergent Parallel gateway joins multiple streams into a single thread. The process flow will re-commence only when all of the flows that converge into this gateway have arrived. There are no configuration settings for this gateway.

### Event-Based Gateways

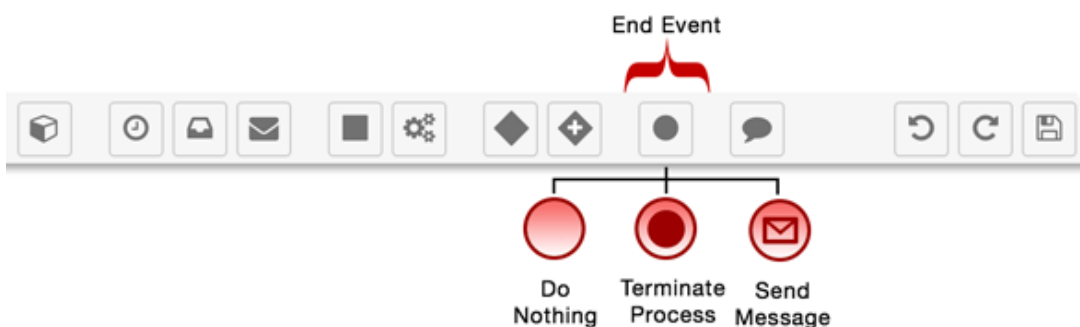


Event-based gateways evaluate only Wait events or Receive Message events. They are similar to exclusive gateways except that they evaluate whether an event has occurred rather than which condition has been met. Event-based gateways stop the process flow until one of the expected events are accomplished and then define the flow direction along a single path. There are no configuration settings for event-based gateways.

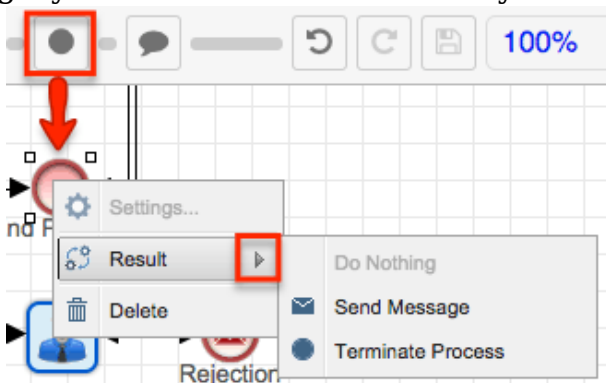
Drag and drop the gateway element onto the canvas; by default it will be set as Exclusive. To convert it into event-based, right click on the icon and select Convert > Event-Based Gateway.

## Adding End Events

End events are represented by the fifth icon grouping on the design toolbar. There is one icon that can be configured three different ways after placing it on the Designer Canvas.



To define an End event type, drag the End event icon onto the Designer Canvas and then right click on the red circle. Choose "Result" from the menu, and then find the appropriate End event type. Note that the active End event type will be grayed out because it is already selected, and the default type is "Do Nothing".



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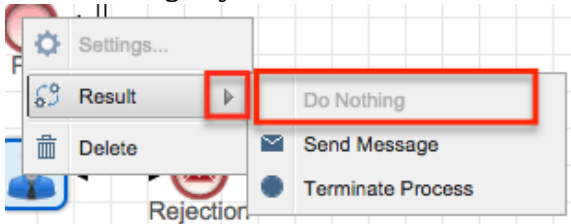
The three types of End event are:

### Do Nothing



Most often used for sequential processes, this event ends a thread of the Process Definition without doing anything. It will not affect parallel threads that may be running simultaneously in the process. Those threads will continue to run uninterrupted by the Do Nothing End event. This event does not need any configuration; it is set by default when you drag and drop an End event onto the canvas.

To create a "Do Nothing" End event, drag and drop the End event icon into the canvas. Right click on the element icon and confirm that "Do Nothing" is grayed out by default in the "Result" menu, indicating that it is the active End event type. If it is not grayed out, click on "Do Nothing" to make it the active End event type.

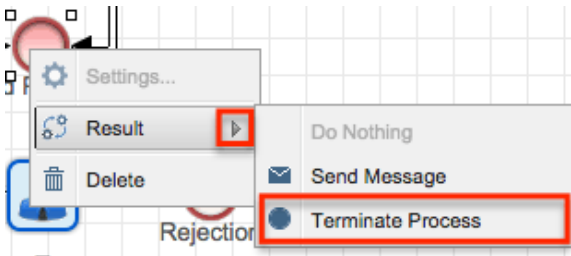


### Terminate Process



Most often used for parallel processes, this event terminates the flow of the branch for which it is designed while simultaneously terminating the entire process, regardless of any parallel events in the process definition. The Terminate Process event does not need any configuration.

To create a "Terminate Process" End event, drag and drop the End event icon into the canvas. Right click on the element icon then choose "Terminate Process" in the Result menu to make it the active End event type.



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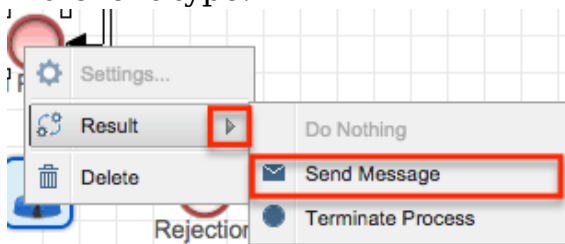
## Send Message



The Send Message End event will signify the end of a process by emailing a message created in the [Process Email Templates](#) module to specified recipients. Please note that Sugar Process Author can only send email templates created in the Process Email Templates module and cannot send email messages created in any other part of the Sugar application. If no Process Email Template is specified in the event configuration, then the Process will terminate but no message will be sent.

To create a Send Message End event, follow these steps:

1. Drag and drop the End event icon into the canvas. Right click on the element icon then choose "Send Message" in the Result menu to make this the active End event type.



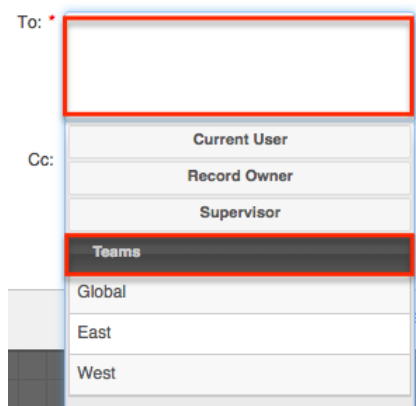
2. Right click on the canvas icon and select the option "Settings" to configure the event. A new window will appear:

- Module : (required) Choose the module that was set as the Target Module for the template.
- Email Template : (required) Choose an email template from the

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dropdown list. This list will only show templates that use the target module specified in the previous field.

- To, Cc, Bcc : (required) Specify the message recipients. Click inside the text area to select variable users, select members of a Sugar team, and/or type one or more email addresses. Please refer to the [Send Message Events](#) section of this page for more information about configuring the To, Cc, and Bcc fields.



The image shows a user interface for selecting recipients. The 'To:' field is highlighted with a red border. Below it, a dropdown menu is open, listing several options: 'Current User', 'Record Owner', 'Supervisor', 'Teams' (which is highlighted with a red border), 'Global', 'East', and 'West'.

## Setting Conditions

Conditional criteria may be defined for elements in a process definition based on , response forms, field values, related modules, specified users, and date intervals.

## Creating Conditions for Events and Actions

Start event, End event, and all types of Action elements will display conditions as logical or mathematical operations, depending on the type of field that is under evaluation.

The available conditional components are:

- [Logical Operations](#) : Used in criteria builders for text and other non-numerical field types.
  - [Module Field Evaluation](#)
  - [User Evaluation](#)
- [Mathematical Operations](#) : Used in criteria builders for date and numerical field types.
  - [Fixed Date](#)
  - [Time Span](#)
  - [Sugar Date Variables](#)

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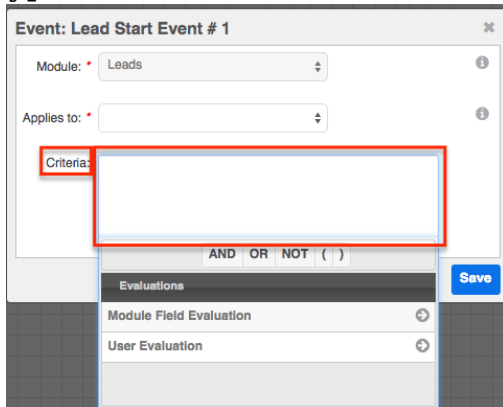
## Logical Operations

Logical operations utilize logic operators in conjunction with the [Module Field Evaluation](#) and [User Evaluation](#) options to specify conditions for an event. For example, a Start event for opportunities may be limited to only opportunities containing a certain sales stage. Logical operations are defined inside a criteria builder in the process definition's design view.

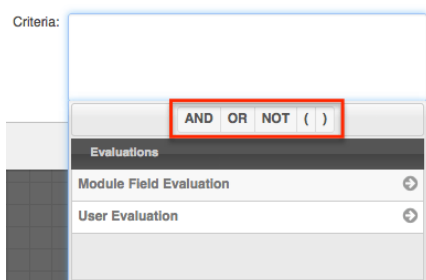
Note: Logical operations may be used in Start events and Send Message events.

The logical operations window will always contain a criteria field and logic operators:

- **Criteria field** : This is the field where the criteria will be constructed. Click inside the criteria field to reveal the logic operators and supportive evaluation types.



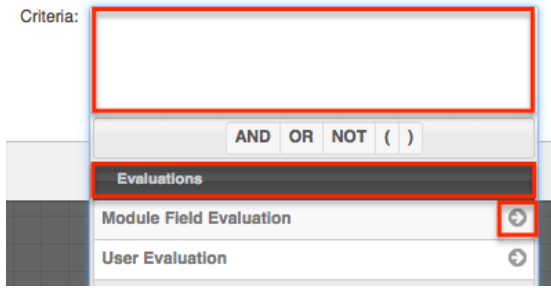
- **Logical Operators** : Click on the AND, OR and NOT buttons to create logical statements. Use the parentheses to group operations.



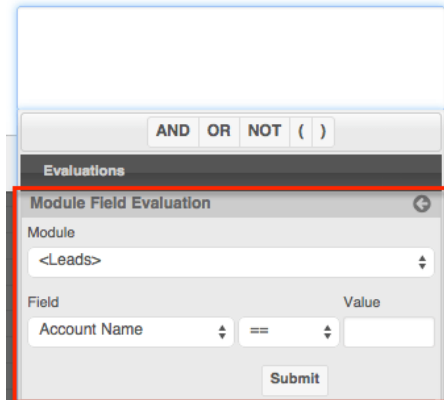
### Module Field Evaluation

Note: Module Field Evaluations are logical operations that may be used in Start events and Send Message events.

To reveal the Module Field Evaluation panel, click inside the criteria field and then click on "Evaluations" and select "Module Field Evaluation":



The Module Field Evaluation panel consists of the following options:



- Module : Click the down arrow to list and select the related module whose values will be evaluated.
- Field : Click the down arrow to list and select the field variable of the chosen module.
- Operator : Click the down arrow to list and select a comparative operator.
- Value : Enter a value to compare.
- Submit : Move the evaluation to the criteria field.

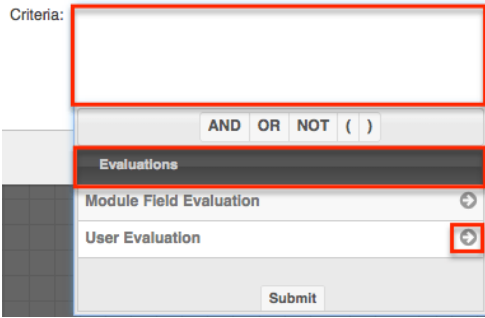
Note: Checkboxes are evaluated as "yes" or "no" (without quotes). Never use single quotes ( ' ' ) or double quotes ( " " ) inside the criteria builder; input types are automatically recognized when processing the condition.

#### User Evaluation

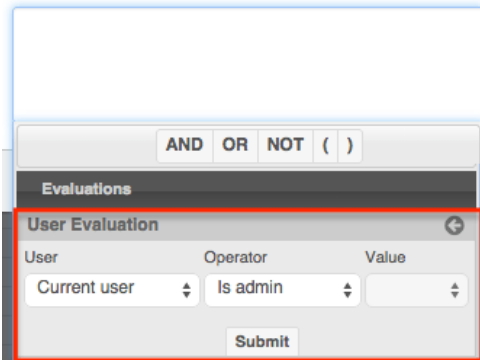
Note: User Evaluations are logical operations that may be used in Start events and Send Message events.

To reveal the User Evaluation panel, click inside the criteria field and then click on "Evaluations" and select "User Evaluation":

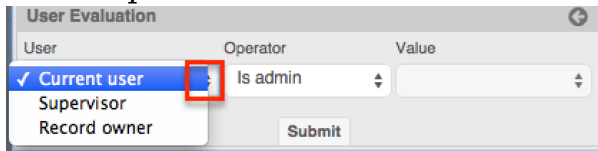




The User Evaluation panel consists of the following options:

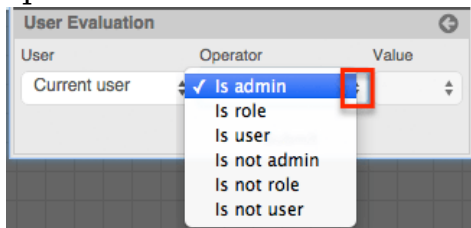


- User : Click the down arrow to list and select the type of user related to the current process:



- Current User : For a Start event, the Current User refers to the user who is assigned to the target record. For any other element, the Current User refers to the last user who has been defined in the process definition.
- Supervisor : applies to the supervisor of the logged-in user who triggers the process
- Record Owner : applies to the user who is assigned to the record that triggers the process

- Operator : Click the down arrow to select the comparison operator:



- Is admin : The condition will only evaluate as true if the user specified in the User field is an admin user. This option will complete the evaluation

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definition and disable the Value field.

- Is role : The condition will only evaluate as true if the user specified in the User field is a member of a certain role. This option will populate the Value field with a list of available user roles.
- Is user : The condition will only evaluate as true if the user specified in the User field is a specific user. This option will populate the Value field with a list of active users. To select multiple users, submit this evaluation once for each user and connect the evaluations with OR operators. Surround all of the User Evaluations with parentheses.

The screenshot shows a user evaluation configuration interface. At the top, there are three evaluation conditions: "Current user == Max Jensen", "Current user == Jim Brennan", and "Current user == Chris Olliver". Each condition is followed by an "OR" operator. Below these conditions is a toolbar with buttons for "AND", "OR", "NOT", "(", and ")", with "OR" and "(" highlighted in red. Below the toolbar is a table titled "Evaluations" with a "User Evaluation" section. The table has three columns: "User", "Operator", and "Value". The "User" column contains "Current user", the "Operator" column contains "Is user", and the "Value" column contains "Chris Olliver". A "Submit" button is located at the bottom of the table, also highlighted in red.

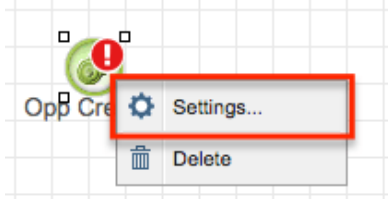
- Is not admin : The condition will only evaluate as true if the user specified in the User field is not an admin user. This option will complete the evaluation definition and disable the Value field.
- Is not role : The condition will only evaluate as true if the user specified in the User field is not a member of a certain role. This option will populate the Value field with a list of available user roles.
- Is not user : The condition will only evaluate as true if the user specified in the User field is not a specific user. This option will populate the Value field with a list of active users. To select multiple users, submit this evaluation once for each user and connect the evaluations with AND operators. Surround all of the User Evaluations with parentheses.

The screenshot shows a user evaluation configuration interface. At the top, there are three evaluation conditions: "Current user != Max Jensen", "Current user != Jim Brennan", and "Current user != Chris Olliver". Each condition is followed by an "AND" operator. Below these conditions is a toolbar with buttons for "AND", "OR", "NOT", "(", and ")", with "AND" and "(" highlighted in red. Below the toolbar is a table titled "Evaluations" with a "User Evaluation" section. The table has three columns: "User", "Operator", and "Value". The "User" column contains "Current user", the "Operator" column contains "Is not user", and the "Value" column contains "Chris Olliver". A "Submit" button is located at the bottom of the table, also highlighted in red.

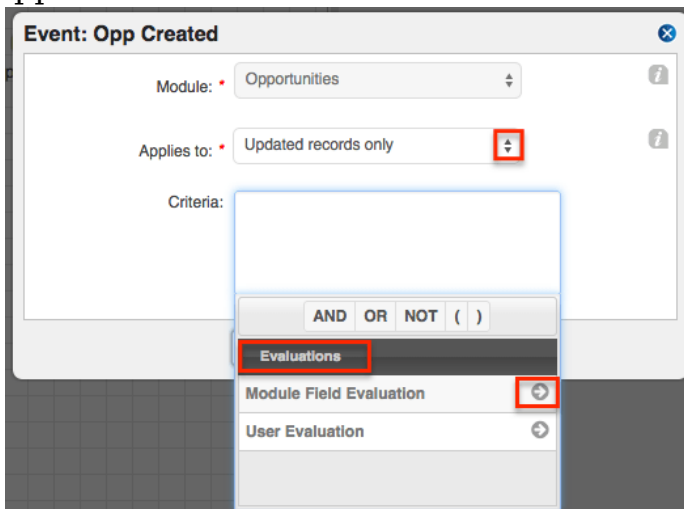
- Value : This field will be disabled if the Operator field is set to "Is admin" or "Is not admin". If the Operator is set to "Is user" or "Is not user", the Value field will load the User list as field options. If the Operator is set to "Is role" or "Is not role", the Value field will load the Roles list as field options.
- Submit : Move the evaluation to the criteria field.

Follow these steps to add a condition to a Start event:

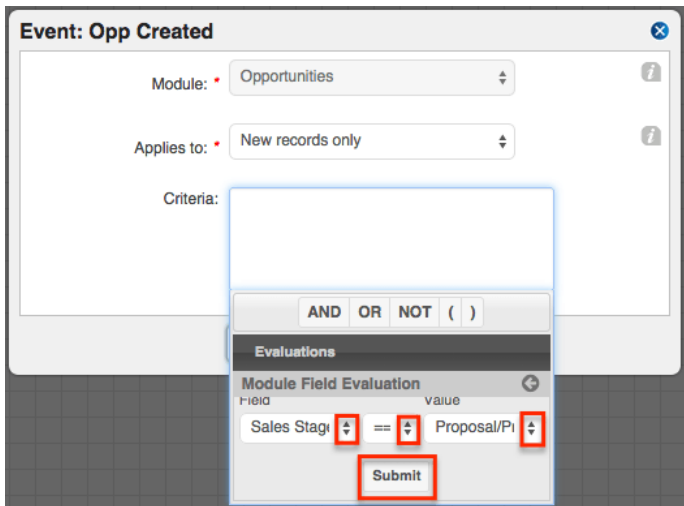
1. Right click on the opportunity Start event icon and choose "Settings".



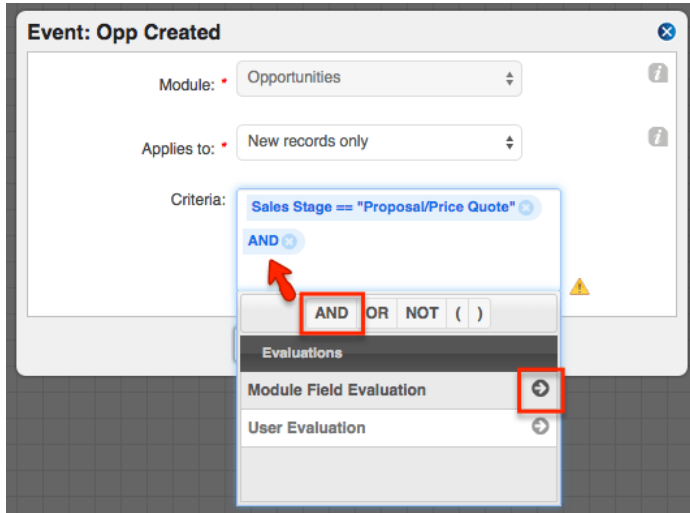
2. Click inside the criteria field and then click on "Evaluations" and select "Module Field Evaluation" to restrict this Process Definition to only certain opportunities.



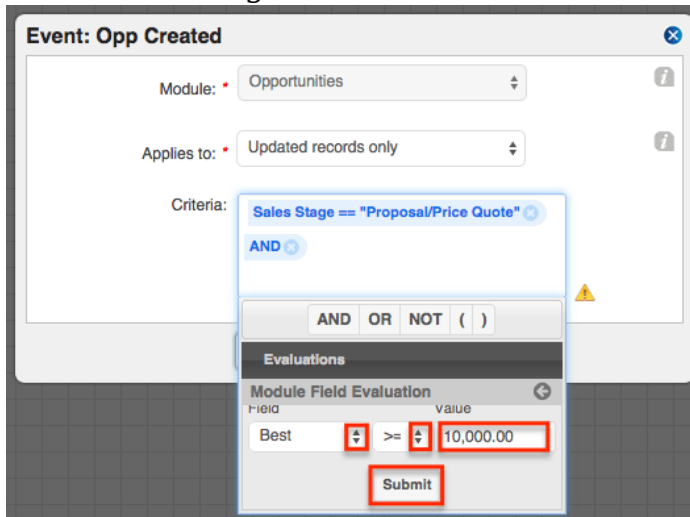
3. Choose a field, operator, and field value for the first condition and then click "Submit" to add the condition to the Criteria window.



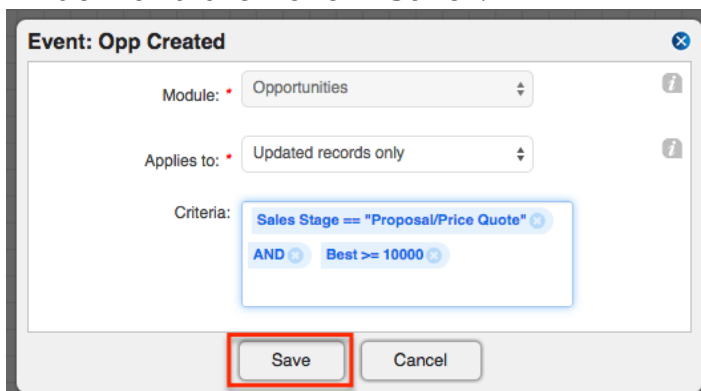
4. Use the boolean logic elements AND, OR, and NOT in conjunction with parentheses for grouped criteria to build a compound filter.



5. Continue adding evaluation filters to the Criteria window.



6. When satisfied, click outside of the Criteria field to close the Evaluations window and then click "Save".



## Mathematical Operations

Mathematical operations utilize mathematical operators in conjunction with the Fixed Date, Time Span, and Sugar Date variable options to specify conditions on an event. Mathematical operators can also be used to calculate a number value for a

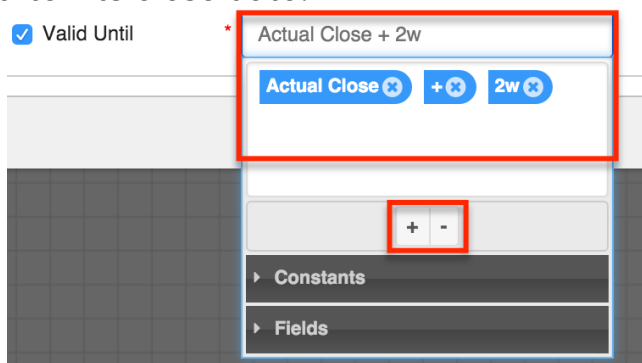
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Sugar field using a combination of Sugar field variables and constant values. Mathematical operations are defined inside a criteria builder in the process definition's design view.

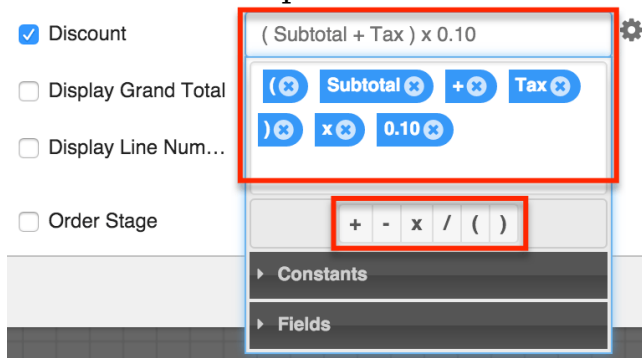
Note: Mathematical Operations may be used for Wait events, Change Field actions, and Add Related Record actions.

Mathematical operators primarily serve two purposes:

- Calculating Dates : Use addition (+) and subtraction (-) to create a date that is relative to another date. For example, set a quote as valid until two weeks after its close date:



- Calculating Numeric Values : Use addition (+), subtraction (-), multiplication (x), and division (/) to create a calculated value relative to another Sugar Field. Define a specific order of operations by leveraging parentheses in your formulas. For example, set a discount amount to 10% of the the sum of a record's subtotal plus tax:



### Fixed Date

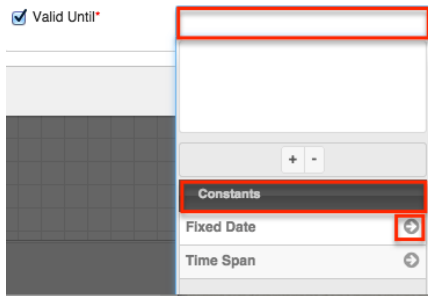
The Fixed Date option enables the administrator to specify a formal, static date as a field value or as a variable in a formula that will calculate a field value. For example, if all opportunities in a process are expected to close at the end of the year, create a Change Field action that uses Fixed Date to change all opportunities' Expected Close Date fields to December 31, 2015.

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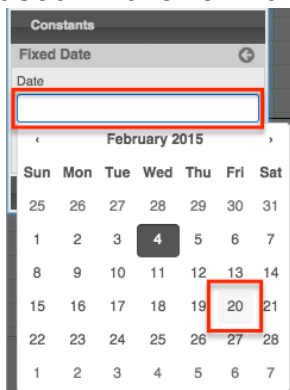
Note: Fixed Dates may be used in mathematical operations for Wait events, Change Field actions, and Add Related Record actions.

To reference a Fixed Date, follow these steps:

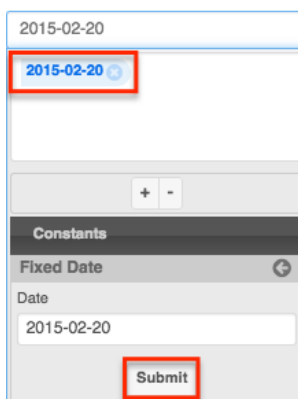
1. Click inside the date field and then click on "Constants" and select "Fixed Date":



2. The window will transition to a single Date field, Click inside the Date field to reveal a calendar picker. Navigate from month to month using the < (back) and > (forward) symbols near the month label. Click on the date that will be used in the formula.



3. Click the Submit button to move the selected date onto the criteria builder canvas:



Note: If the date submitted in this step is the static date for the field value, then the formula is complete. If the Fixed Date is only one component of a larger formula that will be used to determine a field value, then the Fixed Date should be entered in the order it is expected in the formula along with a

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logical combination of Time Span, Sugar Date variables, and/or Mathematical Operators.

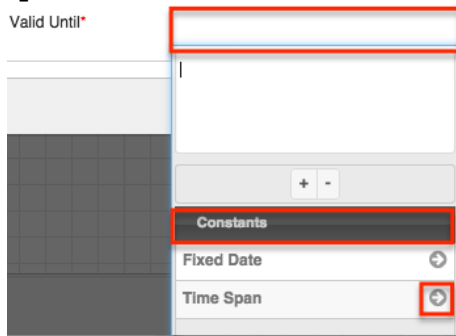
## Time Span

The Time Span option allows the passage of time within a date formula. For example, if a Due Date should be set for two weeks after a record's Start Date, build a formula that uses Time Span "2 weeks" as a variable (Start Date + 2w).

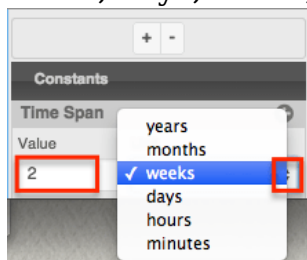
Note: Time Spans may be used in mathematical operations for Wait events, Change Field actions, and Add Related Record actions.

To reference a time span, follow these steps:

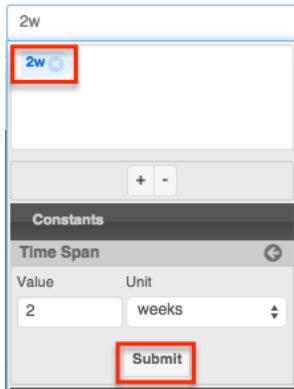
1. Click inside the date field and then click on "Constants" and select "Time Span":



2. The next window will display a Value field and a Units field. Use these two fields together to create a logical time span phrase (e.g., 2 weeks would be set as Value=2; Units=weeks). Time spans can be specified in years, months, weeks, days, hours, or minutes.



3. Click the Submit button to move the selected time span onto the criteria builder canvas:



Note: If the time span is the only component of the date formula, it will be interpreted as {TODAY} + {TIME SPAN} where TODAY is the date and time that the process executes this element in the process definition. If the time span is only one component of a larger formula that will be used to determine a field value, then the time span should be entered in the order it is expected in the formula along with a logical combination of Fixed Date, Sugar Date variables, and/or Mathematical Operators.

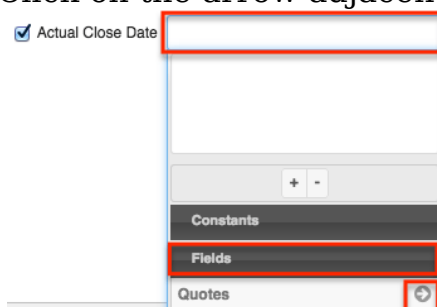
#### Sugar Date Variables

Sugar Date variables are references to date fields on a Sugar record. They can be used to add context to a date formula (e.g., Date Created + 1 month) or referenced independently (e.g., an action or event that triggers on Expected Close Date).

Note: Sugar Date variables may be used in mathematical operations for Wait events, Change Field actions, and Add Related Record actions.

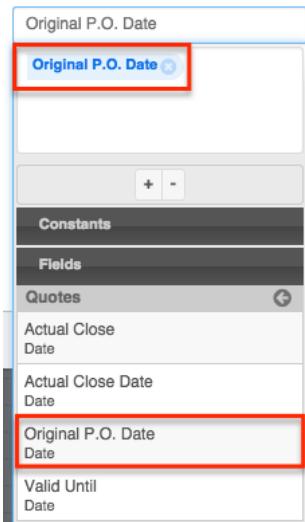
To reference a Sugar date variable, follow these steps:

1. Click inside the date field and then click on "Fields". A list of available modules will appear (the target module and any available related modules). Click on the arrow adjacent to the desired module:



2. After clicking on the module name, the window will reveal a list of all available date fields for that module. Click on the date field and it will instantly appear in the criteria builder window:





Note: If the date variable is the only component of the date formula, then the formula is complete. If the date variable is only one component of a larger formula that will be used to determine a field value, then the variable should be entered in the order it is expected in the formula along with a logical combination of Time Span, Fixed Dates, and/or Mathematical Operators.

## Creating Conditions for Activities and Gateways

Form activities and gateway elements can evaluate user responses to forms or business rules that have been created by the administrator.

The available evaluations are:

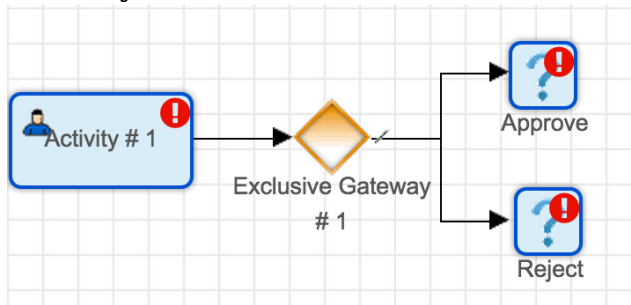
- [Form Response Evaluations](#) : Configure this type of criteria for gateways that follow a Form activity.
- [Business Rule Evaluations](#): Configure this type of criteria for gateways that follow a business rule action.

### Form Response Evaluations

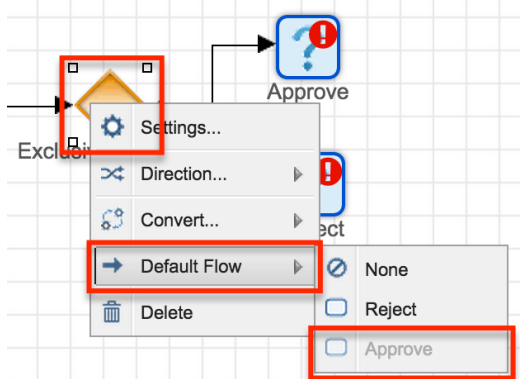
If a process contains an Approve/Reject activity, it must be followed by a gateway with a form response evaluation. To configure this evaluation, follow these steps:

Note: A divergent Gateway requires two or more subsequent elements (any combination of intermediate events, end events, actions, and/or activities). These must be placed on the canvas and connectors must join the elements on the canvas before the Gateway can be configured.

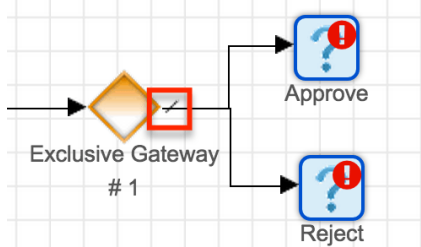
1. Drag an Activity element onto the design canvas as explained in [Adding Form Activities](#).
2. Drag an Exclusive gateway element onto the design canvas to the right of the Activity.
3. Drag two or more Actions or Events onto the canvas to the right of the Gateway.



4. Connect the activity to the gateway and the gateway to the subsequent elements using [Sequence Connectors](#).
5. Right click on the gateway element and specify a [default flow](#). This will be the direction that the flow takes if no criteria are accomplished within the gateway element. For this example, the default flow is set to the action labeled, "Approve". Please note that the default flow options will not be available until the corresponding elements have been placed on the canvas and connected to the gateway.

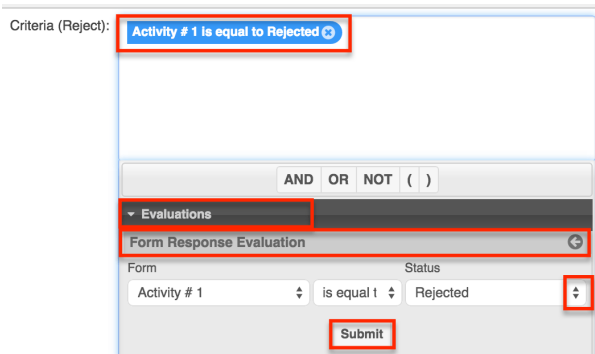


A hash mark will indicate that a default flow has been successfully configured:



6. Next, right click on the gateway element again and select "Settings". Note that only the non-default outcome or outcomes will need to be configured. For the current example, we set the default flow to "Approve" so there is one criteria window, which represents the one non-default element in this example.
7. Click inside the Criteria window to reveal evaluation options. The only

required evaluation for a Form activity is the "Form Response Evaluation". Click on Evaluations > Form Response Evaluation and then select the form response that will result in the non-default flow. In this example, the form response must be "Rejected" or else the default flow will take over. Click "Submit" to move the condition to the Criteria window. If multiple criteria are required, click on the AND, OR, NOT, and parentheses operators as needed and insert additional conditional statements.

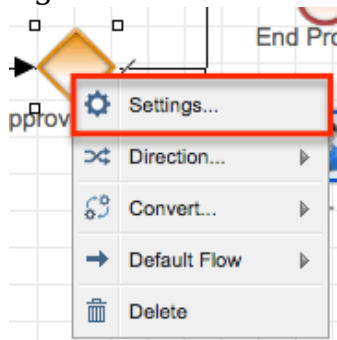


Note: Despite a Form activity having two outcomes (approval and rejection), it is possible to configure additional outcomes using a combination of criteria beyond the form response. For example, a separate outcome may be configured for:

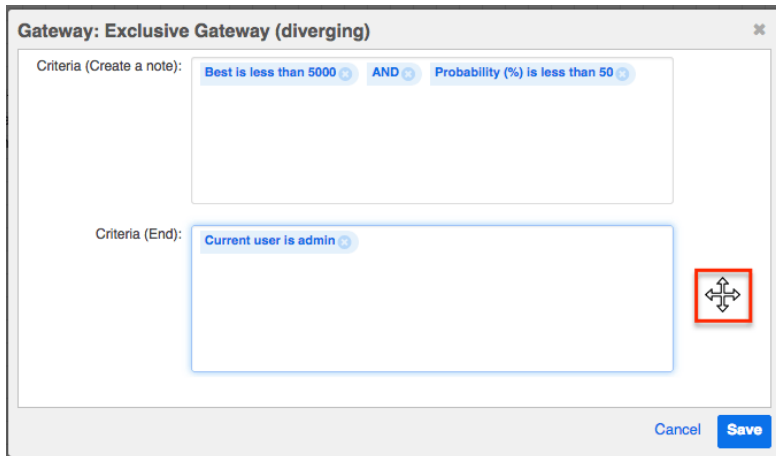
- Form Response = Rejected AND Status = New
- Form Response = Approved AND Status = New
- Form Response = Approved AND Status = Closed
- else [Default Flow](#) : In other words, if none of the above criteria are accomplished, continue with the default flow element. Please note that the default element does not need to be configured. It will always be the outcome when all other criteria evaluate to false.

8. Only one outcome can occur from an Exclusive gateway, and it will be the one that accomplishes the condition. If several criteria are true, the priority will be higher on the one that lies further up the configuration. To change the priority order of a Gateway that is directed toward multiple elements:

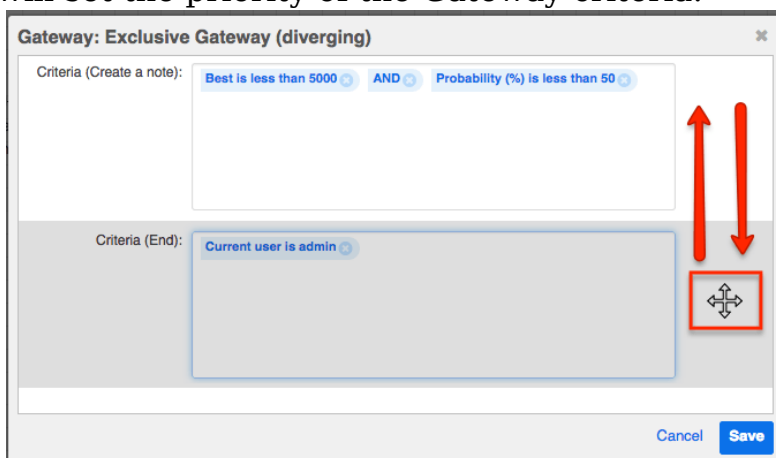
- Right click on the Gateway element and select the option "Settings".



- There will be a criteria builder window for each related element. Place the mouse pointer to the left or right side of the criteria fields and the pointer will change its appearance to a standard "move" cursor type.



- Drag and drop the criteria fields into the desired sequence. This order will set the priority of the Gateway criteria.



- When you are satisfied with the conditions and their processing order, click "Save" to preserve the changes and return to the visual designer canvas.

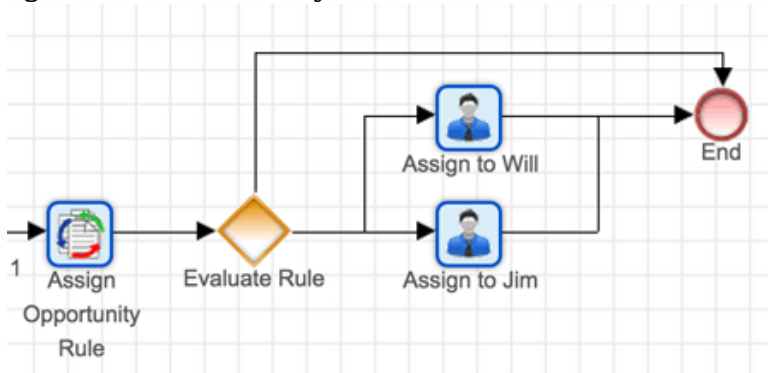
## Business Rule Evaluations

When referencing a process business rule within a process definition, the action must be followed by a gateway with a business rules evaluation.

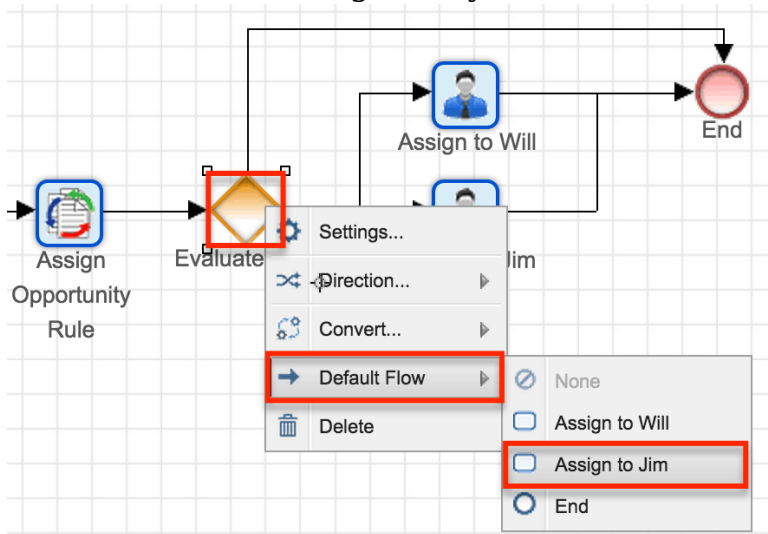
Note: A divergent Gateway requires two or more subsequent elements (any combination of intermediate events, end events, actions, and/or activities). These must be placed on the canvas and connectors must join the elements on the canvas before the Gateway can be configured.

1. Drag an Action element onto the design canvas and configure it as explained in the [Business Rule](#) section of this page.
2. Drag an Exclusive gateway element onto the design canvas to the right of the Action.

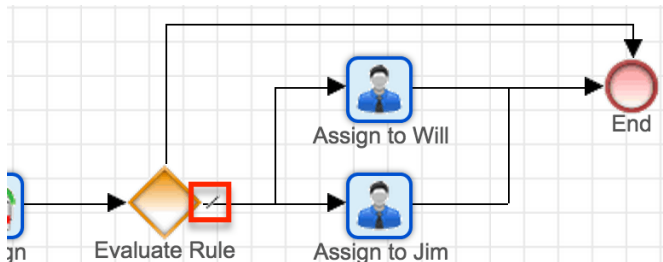
3. Drag two or more action, intermediate, or end events onto the canvas to the right of the Gateway.



4. Connect the action to the gateway and the gateway to the subsequent elements using [Sequence Connectors](#). Notice that, in the example here, there are three potential outcomes for the gateway.
5. Right click on the gateway element and specify a [default flow](#). This will be the direction that the flow takes if no criteria are accomplished within the gateway element. For this example, the default flow is set to the action labeled, "Assign to Jim". Please note that the default flow options will not be available until the corresponding elements have been placed on the canvas and connected to the gateway.



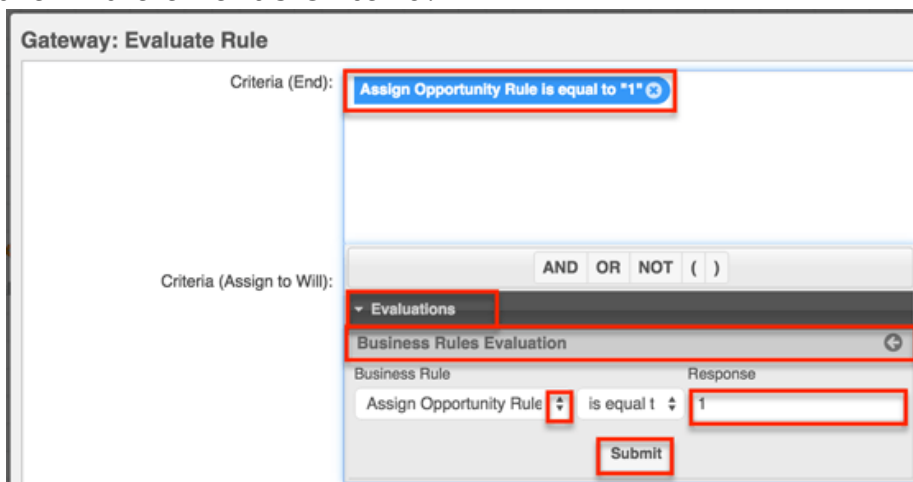
A hash mark will indicate that a default flow has been successfully configured:



6. Next, right click on the gateway element again and select "Settings". Only the non-default outcome or outcomes will need to be configured. For the current example, we set the default flow to "Assign to Jim" so there are two criteria windows, which represent the two non-default elements in this example.



7. Click inside the first Criteria window to reveal the evaluation options. The only required evaluation for a business rule is the "Business Rules Evaluation". Follow these steps to configure the Business Rules Evaluation:
8. Click on Evaluations > Business Rules Evaluation. The Business Rule field will appear and display all of the Business Rules that have been referenced by action elements in the current process definition.
9. Select the business rule that this gateway is evaluating.
10. The Response field will evaluate the "Return Value" designated in the process business rule. Type the Return Value that, when returned by the business rule, will result in the current process path. For example, if a Return Value of 1 causes the process to end, type "1" (no quotes) into the Response field for the End element's Criteria.

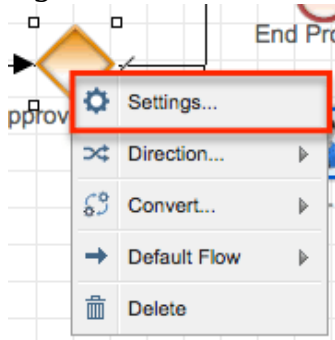


Note: Process business rule "Return Values" will always convert to text for evaluation within a process definition.

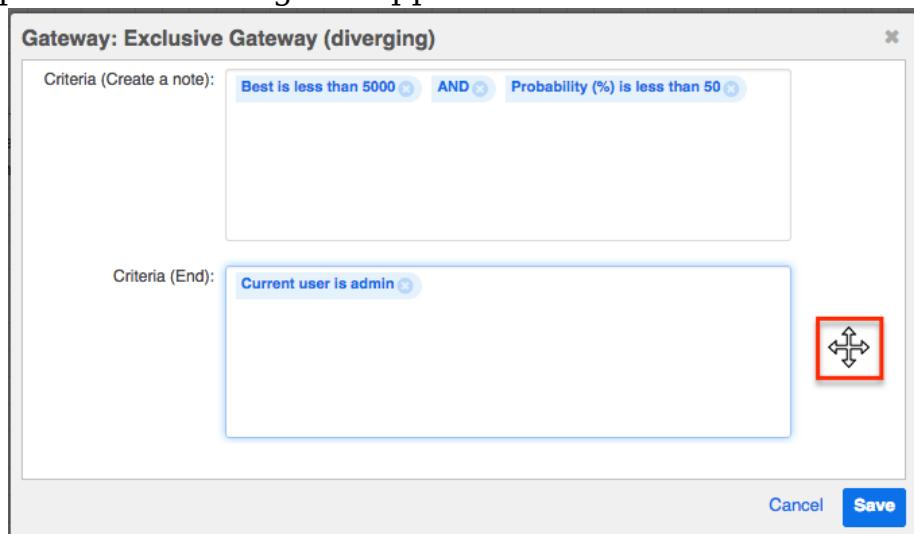
11. Click "Submit" to move the condition to the Criteria window.
12. If multiple criteria are required for any one flow direction, click on the AND, OR, NOT, and parentheses operators as needed and insert additional conditional statements.
13. Continue configuring Criteria for all possible flow outcomes.
14. Only one outcome can occur from an Exclusive gateway, and it will be the one that accomplishes the condition. If several criteria are true, the priority will be higher on the one that lies further up the configuration. To change the

priority order of a Gateway that is directed toward multiple elements:

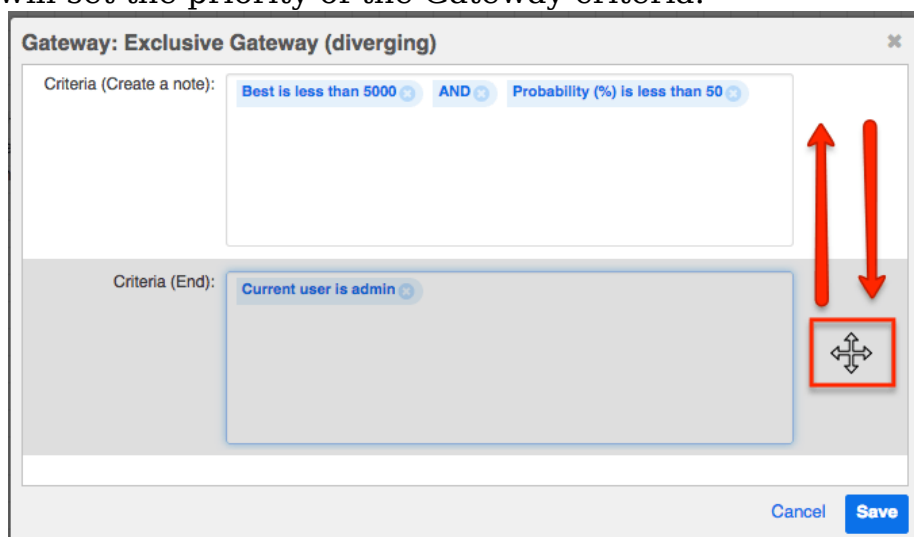
- Right click on the Gateway element and select the option "Settings".



- There will be a criteria builder window for each related element. Place the mouse pointer to the left or right side of the criteria fields and the pointer will change its appearance to a standard "move" cursor type.



- Drag and drop the criteria fields into the desired sequence. This order will set the priority of the Gateway criteria.



- When you are satisfied with the conditions and their processing order, click "Save" to preserve the changes and return to the visual designer canvas.

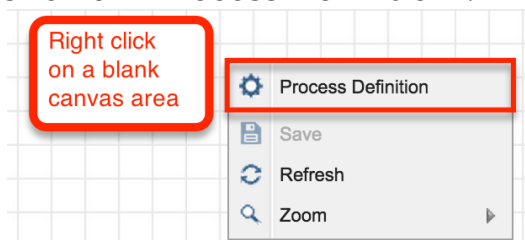
---

## Configuring Process Termination Settings

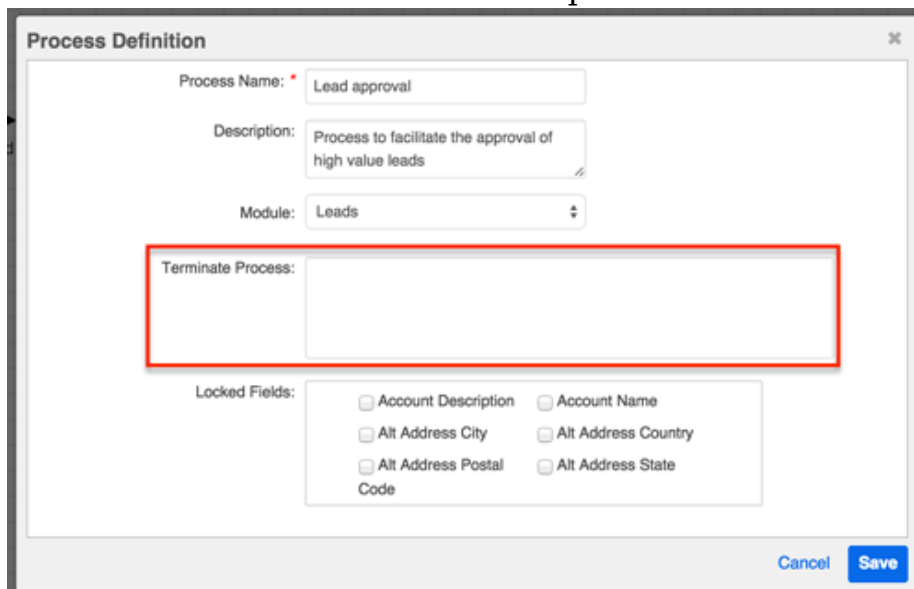
A well-formed process definition will include termination conditions. If a process' target record meets these conditions, the process instance will force stop and display a status of "Terminated" in the Process Management list. This setting is important to prevent conflicts between multiple running processes or conflicts between Sugar Process Author and other automated parts of your Sugar instance (e.g. Workflows, Sugar Logic, or third party customizations).

Follow these steps to define termination conditions for a process definition:

1. Navigate to the Visual Design canvas for the relevant process definition.
2. Find a blank spot on the design canvas and right click to access the Process Definition's general settings.
3. Click on "Process Definition".

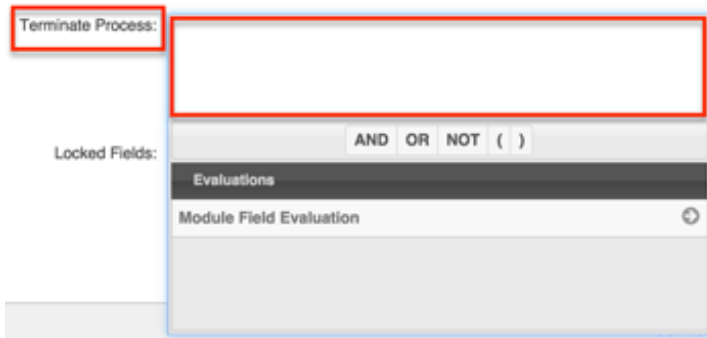


4. The Process Definition settings will appear. Here you can edit the record-level settings such as the Name and Description, but most importantly, set Terminate Process criteria for this process definition.



5. Click inside the Terminate Process field to reveal the criteria builder.





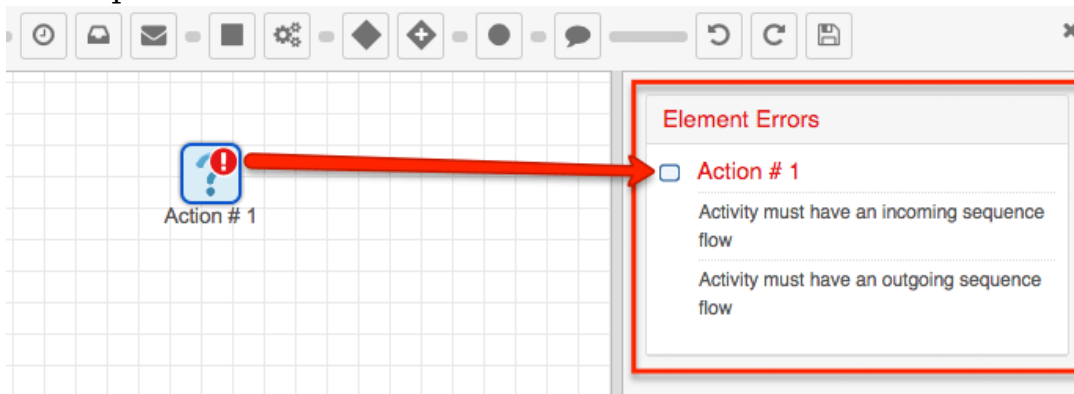
6. Refer to the [Module Field Evaluation](#) section of this page to build a conditional statement that, when met, will force-stop a running process that was triggered by this process definition. These criteria must apply to the target module of the process definition and cannot reference any related modules.



7. Click "Save" to preserve this setting and return to the design canvas. Be sure to save the overall process definition before navigating away from the canvas.

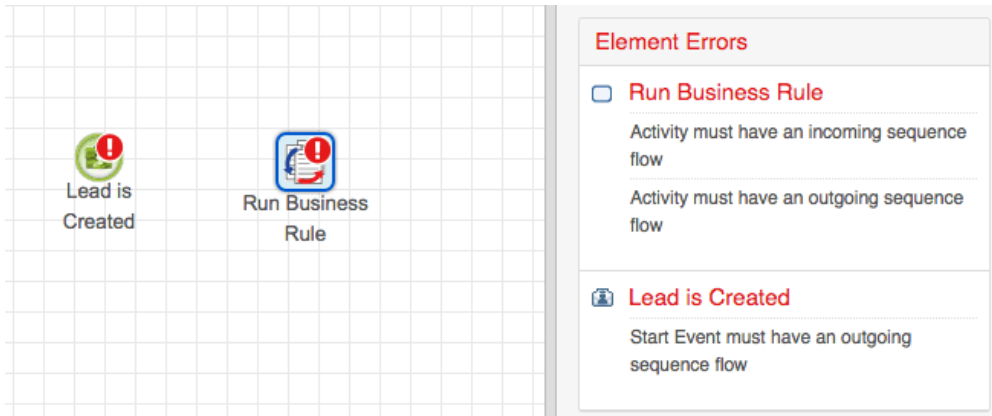
## Resolving Errors in the Element Errors Panel

When using the Visual Designer to create a Process Definition, real-time configuration errors are displayed to the right of the design canvas in the Element Errors panel.



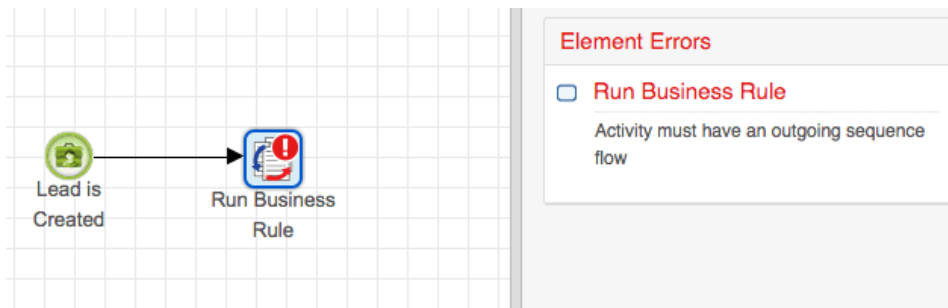
If an element on the canvas contains a flow error, the Visual Designer will place a red exclamation point icon over the element until the error is resolved. This error icon will always have a corresponding explanation in the Element Errors panel.

Some errors will occur and then resolve themselves naturally as the Process Definition is pieced together. For example, all elements will be considered in an error state until the appropriate connectors have been inserted in between elements as shown in this example:

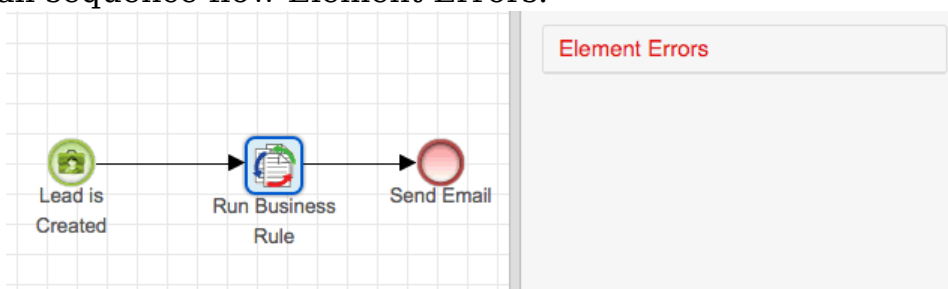


- Place and configure a Start event and an Intermediate event. The Element Errors panel will display three errors because:
  1. A Start event must have a connector to some second element.
  2. An Intermediate event must have a connector from an earlier element.
  3. An Intermediate event must have a connector to a next step or element.

- Now add a [Sequence Flow Connector](#) from the Start event to the Intermediate event. This one connector resolves two of the three element errors because it serves as both an outgoing connector for the Start event and an incoming connector for the Intermediate event:



- Resolve the third and final Element Error by creating an End or Intermediate event after the "Run Business Rule" element and then place a connector between the two. Note that inserting a new Intermediate event or Gateway (instead of an End event) will result in a new error until its outgoing sequence flow is resolved. Placing an End event and its connector, though, will resolve all sequence flow Element Errors.



Some common Element Errors and resolutions include:

Element Error	Resolution
Activity must have an incoming sequence flow.	Insert a <a href="#">sequence connector</a> that flows from a Start or Intermediate element to the Event with the error.
Activity must have an outgoing sequence flow.	Insert a <a href="#">sequence connector</a> that flows to an Intermediate or End element from the Event with the error.
Gateway must have two or more outgoing sequence flows.	Create at least two new Intermediate and/or End events after the Gateway. Connect the Gateway to these elements using a separate <a href="#">sequence connector</a> for each element.
Script task must have a valid type different of [Unassigned].	Right click on the Action element, which should have a large blue question mark over it. Select an item from the <a href="#">Action Type</a> menu to remove the Unassigned designation.

## Exiting the Visual Designer

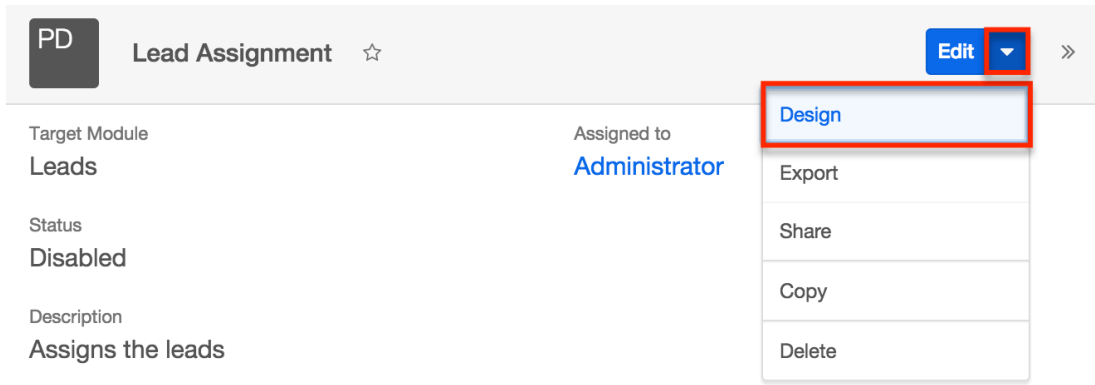
At any time during the design of the process definition, you can exit the visual designer by clicking the X at the top of the screen, just above the Element Errors panel. While the visual designer automatically saves your progress every 15 seconds, you should still be sure to press the save button before exiting the designer.



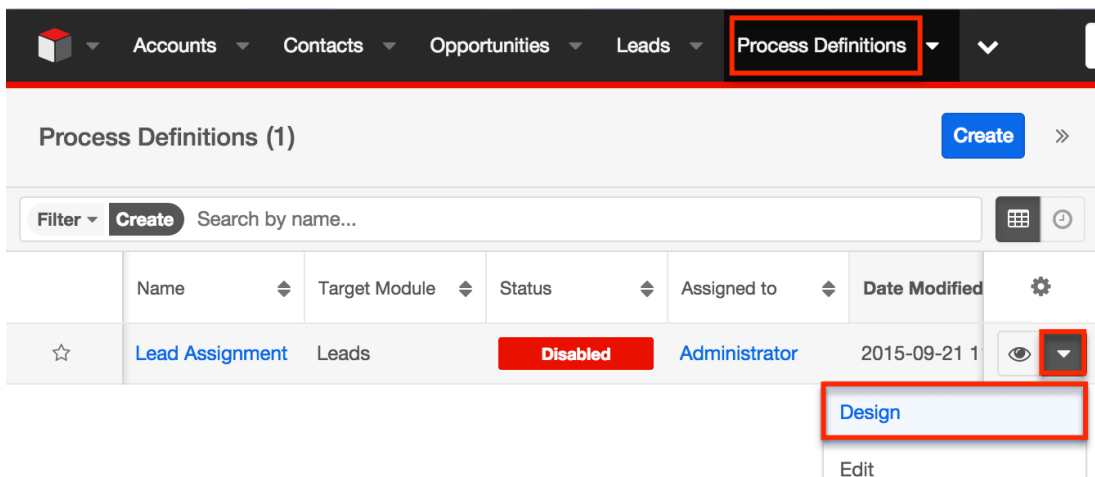
## Returning to the Visual Designer

After exiting the visual design canvas, you can return to design view of a process definition from any of the following locations in Sugar:

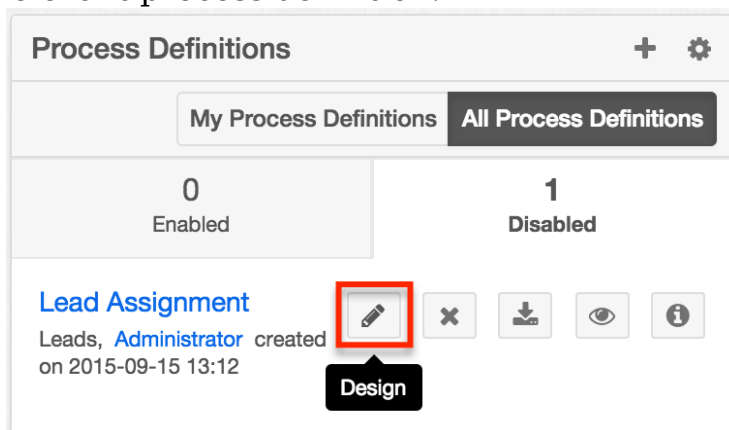
- From the process definition's record view, select "Design" from the record's Actions menu:



- From the Process Definitions module's list view, select "Design" from the record's Actions menu:



- From the Process Definitions dashlet, click on the Design icon adjacent to the relevant process definition:



Please note that it may take several seconds for the design canvas to load.

## Enabling and Disabling Process Definitions

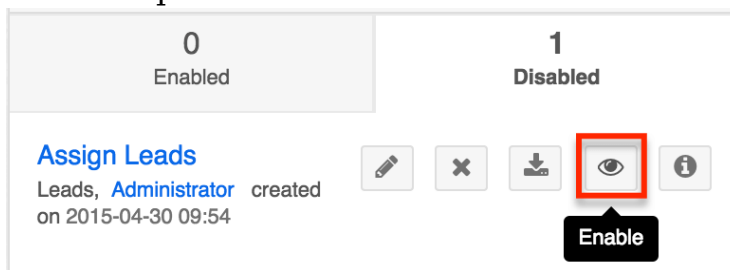
It is necessary to enable process definitions when their design is complete. It is also possible to disable process definitions when needed. The following sections explain how to enable or disable a process definition.

---

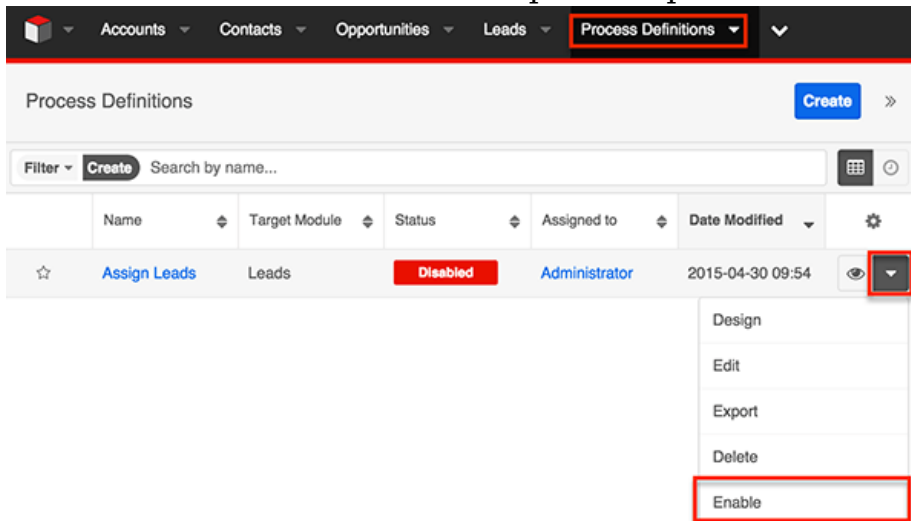
## Enabling Process Definitions

New process definitions are set to "Disabled" by default. This is a preventative feature that ensures a process instance is not triggered inadvertently during the design phase. After the design is fully configured, exit the Visual Designer and set the process definition to "Enabled". There are two ways to enable a process definition:

- **Enabling Via Dashlet :** Visit your [Process Author dashboard](#). Disabled process definitions will be listed in the "Disabled" tab of the Process Definitions dashlet. Find the Enable/Disable icon adjacent to the relevant process definition. Click on the icon and processes will immediately begin running when the process definition's conditions are met.



- **Enabling Via List View :** Navigate to the Process Definitions' list view by clicking on the Process Definitions module tab. From list view, identify the process definition that you want to enable. Click on that row's actions menu and select "Enable" from the dropdown options.



- **Enabling Via Record View :** Click the process definition's name in the list view or from the Process Definitions dashlet to navigate to its record view. Edit the record's Status field to "Enabled" and then click the Save button.

PD Approve Case Escalation ★ < > Cancel Save >>

Target Module: Cases Assigned to: Administrator

Status: Enabled (dropdown menu open showing Enabled and Disabled)

The process definition's Status will change from red to green "Enabled". Processes will immediately begin running when the process definition's conditions are met.

Name	Target Module	Status	Assigned to	Date Modified	
☆ Assign Leads	Leads	Enabled	Administrator	2015-04-30 17:34	👁️ ▼

## Disabling Process Definitions

Disabling a process definition will prevent it from triggering new processes. Any running processes related to the disabled process definition will pause in an In-Progress state until the process definition is re-enabled. To disable a process definition, use either of the two techniques explained in the [Enabling Process Definitions](#) section, choosing "Disabled" instead of "Enabled".

Last Modified: 07/31/2017 10:50am

## Advanced Configuration Options

### Overview

Sugar comes with many different ways to configure your system to best meet your needs. Many configuration options are available throughout the application; though, some advanced options are not available through the interface, but can still be configured.

In the root directory of Sugar, there are two configuration files: `config.php` and `config_override.php`. These files hold many configuration options within your instance of Sugar. The `config_override.php` file is available for you to add or modify Sugar's configuration. For more information on what options are available to change, please refer to the [Developer Guide](#).

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Note: Instances running On-Demand do not have access to modify the `config_override.php` file.

## System Configuration

Changing values in the config files can change functionality and behaviors in Sugar. We always recommend testing your changes on a development or test system before changing values in a production system. After changing the `config_override.php` file, you should perform a quick repair and rebuild from the Admin > Repair menu. For more information on the quick repair and rebuild, please refer to the [Repair](#) documentation.

### Configuring File Permissions

Many features in Sugar require the webserver to have the proper file permission settings to be able to read and write files. At a minimum, the following files and directories need to be writable from your webserver:

- `./config.php`
- `./config_override.php`
- `./sugarcrm.log`
- `./cache/` and all subdirectories and files
- `./custom/` and all subdirectories and files
- `./data/` and all subdirectories and files
- `./modules/` and all subdirectories and files

Sugar running on Windows with IIS will need the IIS user (IUSR\_[computerName]) to have access to these files.

Sugar running on Linux expects the listed files and directories to be owned by the same user running the webserver and to also be in the same group. Sugar would then require the following permissions:

- 775 for the directories listed above
- 664 for the `config.php` file and all files in the directories listed above

When running on Linux, the `config.php` file in your Sugar instance's root directory contains a setting called `default_permissions`. This setting controls the ownership and accessibility to all files and folders created by Sugar. The following is an example of setting Read, Write, and Execute permissions for the Apache user and the Apache group on CentOS operating system:

---

```
default_permissions' => array(
    'dir_mode' => 1528,
    'file_mode' => 432,
    'user' => 'apache',
    'group' => 'apache',
),
```

The values for 'dir\_mode' and 'file\_mode' are decimal equivalent values for the standard octal values entered for permissions. The value 1528 is the decimal equivalent of the octal value 02770 and a value of 432 which is the decimal equivalent of octal value 0660. These are the recommended directory and file permissions for Linux systems.

Note: If the octal values are entered, they will be interpreted as decimal and will not provide the expected file permission settings.

The 'user' and 'group' values determine the ownership of the files created. When empty, your Apache settings will take precedence to determine file and directory ownership. These values should be set explicitly to the Apache user and group on your server and these values will vary depending on the Apache setup and/or Linux OS you are running. To update these values, please edit the config\_override.php file in the root directory of your installation and add the following lines:

```
$sugar_config['default_permissions']['user'] = '<your Apache user>';
$sugar_config['default_permissions']['group'] = '<your Apache group>';
```

Note: These values will take effect for only newly created files, not existing files. If you need to change the file permissions or ownership for existing files, you must execute the changes through the file system.

## Allowing POP Email Accounts

Inbound email accounts are setup to work with IMAP protocols by default. If your email provider required POP3 access instead of IMAP, you can add the following line to the config\_override.php file:

```
$sugar_config['allow_pop_inbound'] = true;
```

This will allow new inbound email accounts to be configured with POP3 or IMAP.

Note: POP3 access is not supported and can cause unintended consequences. IMAP is the recommended protocol to use for inbound email accounts.



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## Security Options

In Sugar, by default, all administrators have access to administrative tools like the Upgrade Wizard, Module Builder, Module Loader, and Backups. The following sections will show a few different ways to disable these options.

### Locking Down Admin Control

If you are managing multiple instances of the Sugar application, you can maintain complete control over the Sugar instances by preventing users with administrative privileges from making any changes. To do this, you can lock down the Upgrade Wizard, Module Builder, and Backups with a single command in the `config_override.php` file:

```
$sugar_config['admin_access_control']=true;
```

### Locking Down Module Loader

To ensure that users with administrative privileges do not load sub-standard modules into Sugar, you can restrict the Module Loader to a specific directory on the webserver that you control. This allows you to check modules before they are loaded into Sugar. To restrict the module loader, simply add the following lines to the `config_override.php` file:

```
$sugar_config['use_common_ml_dir'] = true;
$sugar_config['common_ml_dir'] =
'/Applications/MAMP/htdocs/sugarcrm/screenedModules';
```

This will prevent any admin users from loading a module from any directory other than the specified directory. Once a module is approved through the necessary channels, the module can be placed in the specified directory for any admin to install when necessary.

New uploads for Module Loader are disabled. Installable modules are restricted to the modules pre-loaded below.

Name	Action
Bug_53944_656-661_PRO_CORP_ENT_ULI.zip	<input type="button" value="Upload"/>

Another method for locking down the module loader is to enable the package scanner. The package scanner is enabled by default for instances hosted On-Demand. If you are running Sugar on-site, you can enable the package scanner by adding the following command in the `config_override.php` file:

```
$sugar_config['moduleInstaller']['packageScan'] = true;
```

---

When the package scanner is enabled, the module loader will check the files being loaded for various functions that could be damaging to the server or instance of Sugar. For more information on which functions are blacklisted and how to configure the package scanner, please refer to the [Developer Guide](#).

## Locking Down Backups

To prevent admin users from running a backup of the Sugar files, you can add this the following line to the `config_override.php` file:

```
$sugar_config['hide_admin_backup'] = true;
```

## Enabling Sites as Referers

To prevent Cross-Site Request Forgery (XSRF) attacks, Sugar has a list of acceptable sites that are allowed as a referer to Sugar. If you receive a "Possible Cross Site Request Forgery (XSRF) Attack Detected" message from an approved site trying to access Sugar, you can add that approved site's URL to the list of valid referers by adding the following line to the `config_override.php` file:

```
$sugar_config['http_referer']['list'][] = 'my.site.com';
```

This line will add the specified site to the list of approved sites. If you have multiple sites to add, repeat this line for each site required.

## Performance

If the performance of your Sugar instance begins to degrade, there are some configuration options you can enable to lighten the load on your system. The following options may cause Sugar's performance to increase, but some performance gains will come with a loss of functionality.

## Recommended Server Settings

Sugar recommends a PHP memory limit of at least 512MB. This value may need to be increased depending on how your users utilize Sugar. For example, operations such as mass update and imports may require additional memory depending on your instance size and configuration. To change this limit, edit the setting within `php.ini`:

```
memory_limit = 512M
```

---

In addition, `display_errors` should always be set to "off". Enabling this option can result in adverse behavior for your users. To turn this setting off, edit the option within `php.ini`:

```
display_errors = off
```

When making changes to either of these settings or any other settings within `php.ini`, you must restart the webserver before the settings will take effect.

## Limiting System Resources

Sugar allows non-admin users to be restricted to how many queries they can run per action. By default the limit for all modules is set to 1000 queries. This prevents user-initiated processes from taking up too many system resources. If an operation is performed by a user that attempts too many queries they will see a message returned saying: "Error: Query limit of 1000 reached for Leads module.". To change this limit for all modules, add the following line to the `config_override.php` file:

```
$sugar_config['resource_management']['default_limit'] = 5000; //  
default is 1000
```

**Note:** Setting the `default_limit` value to 0 will remove the query limit altogether for all modules.

In addition to setting the default for all modules, you can specify certain modules to have a different value. To remove the limit for specific modules only you need to specify the modules and the limit for those modules by adding the following lines to the `config_override.php` file:

```
$sugar_config['resource_management']['special_query_modules'][] =  
'Leads';  
$sugar_config['resource_management']['special_query_modules'][] =  
'Contacts';  
$sugar_config['resource_management']['special_query_limit'] = 0; //  
default is 50000
```

In this example, the Leads module, Contacts module, and any other module in the `special_query_modules` array will no longer be limited. All other modules will adhere to the default limit.

**Note:** Setting this limit too low can severely restrict users from performing basic actions. Alternatively, removing the limits altogether may let users inadvertently perform operations that significantly impact overall performance.

---

## Configuring a Slave Database

Sugar allows you to configure your instance to pull reports or list view data from a slave database instead of your live database. Reports and list views can create a heavy load on the database, so separating out the reports or list view data on a different database or server can help alleviate some performance issues.

To configure a slave database, set the appropriate array in the `config_override.php` file:

- Reports : `$sugar_config['db']['reports']`
- Dashlets, Subpanels, and List Views : `$sugar_config['db']['listviews']`

Set the following values in the array to configure Sugar to use a slave database:

Key	Value
<code>db_host_name</code>	The host name of the server running the slave database
<code>db_user_name</code>	The user name to connect to the slave database
<code>db_password</code>	The password to connect to the slave database
<code>db_name</code>	The name of the slave database
<code>db_type</code>	The type of database running the slave (DB2, mysql, mssql, oracle)

For example:

```
$sugar_config['db']['reports'] =  
    array(  
        'db_host_name' => 'sugar_slave',  
        'db_user_name' => 'ro_user',  
        'db_password' => 'ro_user_password',  
        'db_name' => 'sugarcrm_reports',  
        'db_type' => 'mysql',  
    );
```

**Note:** You must create the slave database and the sync mechanism to keep the slave up to date with the live database. The Sugar application will not sync data from the live database to the slave.

## Changing the Upload Directory

---

Sugar stores content, such as images, documents, and installable modules, uploaded by users in the upload directory. Some of these documents may be large in size and can cause performance issues. Administrators can move the upload directory to a different location to ensure that enough space is available for uploads without affecting the system. You can change the location of the uploads to a different folder within the sugar directory or use an absolute path to place the folder anywhere in the file system. You can change this location by adding the following line to the `config_override.php` file:

```
$sugar_config['upload_dir'] = 'd:\upload\';
```

**Note:** Remember to copy files from the old upload directory into the new upload directory for accessibility. The upload directory should be writable by the user running the webserver.

## Changing the Cache Directory

Sugar uses a cache directory to store files (such as compiled templates, aggregated variable definitions, remote mailbox data, various cache files) produced by the system to optimize functionality and enhance system performance. These files can take considerable space, especially in larger systems. You can change the location of the cache to a different folder within the sugar directory or use an absolute path to place the folder anywhere in the file system. You can change this location by adding the following line to the `config_override.php` file:

```
$sugar_config['cache_dir'] = 'd:\cache\';
```

Some of the cache files can be accessed by direct URLs. So if you move the cache directory, you should also ensure that the URL `/cache/` (relative to the main Sugar site URL) on your webserver is configured to refer to the new cache location. For more information on how to configure mappings between URLs and file system directories, refer to your webserver documentation.

**Note:** The cache directory needs to be created first, or you may receive an Internal Server error. The cache directory should be writable by the user running the webserver.

## Configuring Count Queries

By default, list views and subpanels in Sugar return record counts. This can be convenient to know how many records were found for a specific search, but in order to retrieve the record count; Sugar needs to perform additional queries on

---

the database. When there are large amounts of data, these queries can cause performance issues. You can disable these count queries in Sugar by adding the following line to the `config_override.php` file:

```
$sugar_config['disable_count_query'] = true;
```

Instead of seeing the total record count, you will see the current known record count with a plus sign next to it.

## Disabling Related Calculation Fields

When a calculated field in Sugar uses the related function in the Sugar Logic, this will cause the calculated field to be executed when the related module is updated. This can cause a cascading effect through the system to update related calculated fields. When this happens you may receive a 502 Gateway Error. You can disable the related calculation field updates by adding the following line to the `config_override.php` file:

```
$sugar_config['disable_related_calc_fields'] = true;
```

Note: This is a global setting that will affect all modules. If you have a calculated field in Accounts that sums up all Opportunities for the account, setting this value to true will no longer update the opportunity account sum in Accounts until the account record itself is modified. However, if this setting is left disabled, the sum would update any time a related opportunity or the account is modified.

## Disabling Automatic Searches

By default, list views in Sugar remember the last search performed by the current user in each module. While this can be convenient, it is sometimes unnecessary. If the last search performed in a module was an extensive search, the next time the user navigates to that module will inadvertently perform the search again. This can have a negative impact on performance in Sugar.

Set the following values in the `$sugar_config['save_query']` value in the `config_override.php` file to configure different options for saving list view queries:

Value	Description
all	Populates the last search and executes it Note: This is the default behavior in Sugar.

no	Discards the previous search and executes a search with no criteria
populate_only	Populates the last search, but does not execute it.

For example:

```
$sugar_config['save_query'] = 'populate_only';
```

Note: The `$sugar_config['save_query']` setting is not supported for Sidecar modules and only applies to Legacy modules.

## Using a Custom Page For Campaign Trackers

When sending campaigns through Sugar, tracker URLs are used for images, links, and the opt-out link in the campaign. When the recipient of the campaign clicks one of these links they are by default taken to the Sugar instance that sent the campaign. Many organizations may want to use a custom page to send recipients to instead of using Sugar, or when running Sugar onsite it may be behind a firewall and not accessible to the recipients of the campaign. Use the following steps to create a custom landing page to use for tracker URLs while still properly recording the activity in Sugar.

1. Create an `index.php` page on the desired web server that is open to the Internet.
2. Add the following code to the custom `index.php` page to ensure all campaign activities are properly recorded in Sugar.

```
<?php
    if ($_REQUEST['entryPoint'] == 'removeme' || $_REQUEST['entryPoint']
== 'campaign_trackerv2' || $_REQUEST['entryPoint'] == 'image') {
        if (strlen($_REQUEST['identifier']) == 36) {
            $ch = curl_init();
            if (strlen($_REQUEST['track']) > 0) {
                curl_setopt($ch, CURLOPT_URL,
\"http://sugar_url/index.php?entryPoint=\" . $_REQUEST['entryPoint'] .
\"&identifier=\" . $_REQUEST['identifier'] . \"&track=\" .
$_REQUEST['track']);
                curl_setopt($ch, CURLOPT_HEADER, 1);
                curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, 0);
                curl_setopt($ch, CURLOPT_FOLLOWLOCATION, 0);
                curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
                curl_setopt($ch, CURLOPT_USERAGENT,
$_SERVER['HTTP_USER_AGENT']);
```

---

```

        $headers = curl_exec($ch);
        $headerArray = explode("\n\n", $headers);
        foreach ($headerArray as $value) {
            if (substr(strtolower($value), 0, 8) ==
\"location\") {
                header($value);
            }
        }
    } else {
        curl_setopt($ch, CURLOPT_URL,
\"http://sugar_url/index.php?entryPoint=\" . $_REQUEST['entryPoint'] .
\"&identifier=\" . $_REQUEST['identifier']);
        curl_setopt($ch, CURLOPT_HEADER, 0);
        curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, 0);
        curl_setopt($ch, CURLOPT_FOLLOWLOCATION, 1);
        curl_setopt($ch, CURLOPT_USERAGENT,
$_SERVER['HTTP_USER_AGENT']);
        curl_exec($ch);
    }
    curl_close($ch);
    unset($ch);
}
}
?>

```

Note: Replace all instances of "http://sugar\_url" in the code above with the actual Site URL of your Sugar instance.

3. Finally, specify the external server URL in the Admin > Campaign Email Settings > Location of campaign tracking files option in order for the tracking links to be correctly generated in the campaign emails. For more information on setting this value, please refer to the [Email](#) documentation.

## Configuring Cron for Schedulers

Sugar's scheduler jobs are executed by the cron utility which runs on your server. There are several configuration options available to ensure that long-running or failed scheduler jobs do not impede your other scheduler jobs from running in a timely manner.

First, `max_cron_runtime` determines how long a single job should be allowed to run. If a single job exceeds this limit, `cron.php` is aborted with the long-running job marked as in progress in the job queue. The next time cron runs, it will skip the job that overran the limit and start on the next job in the queue. Additionally, if the



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total running time of a single cron run across all current jobs exceeds `max_cron_runtime`, then cron will complete whatever job it is currently executing, then stop. The next time cron runs, it will pick up with the next queued job. The `max_cron_runtime` uses seconds as its units and defaults to 1800 (30 minutes). You may wish to adjust this number based on the typical time requirements of scheduler jobs in your instance.

By default, `max_cron_runtime` is not enforced on your instance. In order to enforce this limit, set `enforce_runtime` to true.

```
$sugar_config['cron']['enforce_runtime'] = true; // default is false
$sugar_config['cron']['max_cron_runtime'] = 1800; // seconds, default
is 1800
```

The timeout configuration controls how long cron will wait before re-starting a job that previously failed to complete. Once a job has been marked as in progress for longer than the timeout setting, the next cron run will mark the job as failed, making it eligible in the queue to be executed by the following cron run. The timeout uses seconds as its units and defaults to 3600 (1 hour). You may wish to adjust this number based on how quickly you wish a failed or long-running job to be reattempted. Please note that should `enforce_runtime` be set to false or your `max_cron_runtime` be longer than the timeout, a job which is running normally may be set to "failed" upon reaching this timeout limit.

```
$sugar_config['jobs']['timeout'] = 3600; // seconds, default is 3600
```

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