Sugar Corporate 6.4 Administration Guide

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Admin Wizard

Overview

The Admin Wizard displays when you log into Sugar for the first time after installation. This wizard guides you through the process of branding, localizing, and configuring email settings in Sugar that will be applicable to all users in your organization. You can skip this step if you prefer to do it at a later time.

Sugar users

A Sugar user can be a System Administrator, or a user with or without module-specific administration or developer privileges.

A System Administrator is a user who has access to all Sugar records and full control over administering and developing the application.

Module administration privileges allow users to have administrator access to records or to have control over the customization and administration of the modules. The System Administrator can grant this type of access to a user to allow the individual to manage a specific module. For more information, see Role Management.

When you log into Sugar as an administrator, the Admin link displays on the top right corner of your page. Click this link to view the Administration page. The Administration page displays sections that group tasks according to the area of administration.

Specifying system-wide settings

Follow the steps listed below to specify system-wide settings:

1. Click Next on the Welcome to Sugar screen to view the Branding screen.

The Sugar logo, which is the default, displays as the current logo.

2. Enter the following information:

Name. Enter the name that you want displayed in the title bar of your browser.

Select Logo. Specify the image file, in .png or .jpg format, containing your organization's logo. Click Browse to navigate to the file's location and upload it. The recommended size of the logo is 212x40 pixels.

3. Click Next to view the System Locale Settings page.

4. Specify the default settings for displaying data format, such as time, date, and currency. To change the default language in Sugar for all users in your organization, select the language pack from the Language drop-down list.

5. Click Next to view the SMTP Server Specification page.

6. Specify the email account to send emails to Sugar users regarding assignment notifications and new user passwords.

    ¢ To use Gmail, click Gmail, and enter the email address and password.

    ¢ To use Yahoo, click Yahoo, and enter the email address and password.

    ¢ To use Microsoft Exchange, click Exchange, and enter the server name and port number. To enter SMTP over SSL or TLS, select the appropriate option from the drop-down list. Optionally, to use SMPT authentication, enter the Exchange username and password.

    ¢ If you are not using any of the above, click Other, and enter the name of the SMTP server, and optionally, enter the appropriate username and password for SMPT authentication.

7. To ensure that you can successfully send emails, click Send Test Email and check if the test email was received at the specified email address.

8. Click Next.

To exit the screen and begin using Sugar, click Finish. This displays your Home page in Sugar.

9. To configure your user preferences, click Continue. For information on configuring User Preferences, see Accessing Sugar and setting your User Preferences.

10. To view options to perform other administrative functions such as creating users and teams, click the Admin link on the top right corner of your page to go to the Administration page.

Users

Overview

This section describes how to manage teams, users, and roles.

User Management

Use the User Management option to create, edit, activate, and deactivate users in Sugar. You can create a Regular User, a System Administrator, and a Group User.

A Regular user can access and use Sugar modules but does not have administrative privileges.

A System Administratoris a user who has administrative privileges in Sugar to perform tasks such as creating users. The System Administrator can access all modules and records. Role restrictions, discussed later in this chapter, do not apply to System Administrators.

A Group User is a bucket that is used for inbound emails, and does not count toward the number of Sugar licenses that you purchase for your organization. For example, creating a group mail account for Support creates a group user named Support to handle customer support issues. Users can distribute the emails to other users from the group inbox. You can create a group user from the Users Home page or when you create a group for incoming emails as described in Inbound Email.

The user name displays in the list on the Users Home page and the employees list on the Employees Home page after you create a Regular user or an Administrator. Group user namesand Portal API user names display in the Users list but not in the employees list.

You can assign users to rolesand teams depending on the tasks they perform for the organization.If necessary, you can reassign a user's records to other users. For example, when a user leaves the organization you can reassign that individual's tasks to other members of the team.

Note: Inactive users do not count towards the number of Sugar licenses you purchase for your organization.

To create a regular user or an administrator user

1. Click **User Management** in the Users panel of the Administration Home page.

This displays the Users Home page.

2. Select Create New User from the Actions drop-down list on the **Users** tab,and enter the following information under User Profile:

   a. In the User Profile section, enter the user's name, user type, and current status. If you do not select a user type, the system creates a Regular user. If you have downloaded the person's photo in .jpg or .png format on your local machine, click Browse to navigate to the location and upload the picture into the record.

   b. In the Employee Information section, specify information such as the user's current status, title, department, phone numbers, IM (Instant Messenger) type, and home address. You can add additional comments in the Notes field.

   c. In the Email Settings section, you can set one or more email addresses for the user's mail accounts. You can further specify whether an email address is the user's primary email address or whether it will be used for an automated response to email. You can also specify an email client from the drop-down list, and specify the user's account information for the pre-configured email provider. For more information on setting up and configuring emails, see Configuring Email Settings.

3. If the system-generated password feature is not enabled, you can create a password on the Password tab. You can manually send the password to the user along with the username. Alternatively, you can enable the system to generate a temporary password automatically and email it to the user. For more information on system-generated passwords, see Password Management. The user will need a username and password to log into Sugar and change the password on the User Preferences page.

4. On the Advanced tab, you can specify default system settings, such as locale settings, as described in Editing your User Preferences. You can enable the Mail Merge option to enable Sugar Plug-in for Word to merge names and addresses from Sugar with form letter templates created in Word.

5. On the Access tab in the Detail View, you can add or remove a role to change the user's access permissions for a Sugar module, and to perform specific actions, such as editing and deleting records within the module. You can enable or disable access to any Sugar module and to any action within a module. By default, the user has permissions to access any module and perform any action.

Scroll down the Access page, and in the Roles section, click Select to assign the user a role from the Roles list. For information on creating roles, see Role Management.

6. To create the user, click **Save**.

Sugar creates the User record, and a corresponding Employee record. You can now assign the user to roles and teams.

To assign roles and teams to a user

1. Select the user from the Users list.

This displays the user's Detail View page.

2. To assign a role to the user, scroll down the page, click Select in the Roles section and select one or more roles that you want to assign to the user.

The user is assigned to the role, which is now listed in the Roles sub-panel.

3. To assign the user to a team, scroll down the page, click Select in the My Teams sub-panel and select one or more teams that you want to assign to the user.

The user is assigned to the team, and the team is now listed in the My Teams sub-panel.

To reassign records to a different user

1. Select Reassign Records from the **Actions** list on the **Users** tab.

This displays the Reassign Records page.

2. Select the user whose records you want to reassign.

3. Select the new user to whom you want to assign the records.

4. Select the new user's team, from the Set Team drop-down list if required. Use the default value of No Change if both users belong to the same team.

5. Select the modules to assign to the new user from the Modules to include list.

Records related to the selected modules will be reassigned to the new user.

6. To assign specific records, select one or more filters from the Filter list. For example, to assign new and pending bugs only, you can select New and Pending as the filters.

7. Click Submit to reassign the records.

8. On the Record Reassignment page, do the following:

   a. If you are planning to use the Record Reassignment function with an existing workflow, select the Verbose Output checkbox.

   b. If you are planning on sending email notifications and adding record reassignments to the Audit table, check the Include Workflow/Notifications/Audit checkbox.

9. Click Continue to proceed with the reassignment.

This displays the **Record Reassignment Processing Accounts** page.

10. Click Return to return to the Record Reassignment page.

To manage user information

- To update the status of some or all users, including Sugar Users, and Sugar administrators, select multiple records in the Users List View, and click Mass Update in the Actions drop-down list. For more information, see Editing and Deleting Multiple Records.

- To view a user's details, click the name in the Users list.

- To edit user details, click **Edit** on the user's Detail View page, change the information as needed, and click **Save**.

- To duplicate the user details, click **Duplicate** on the user's Detail View page, edit the information as necessary, and click **Save**. The following field values cannot be

duplicated: Publish key, Layout options, Email addresses, User Preferences, and Locale settings.

- To import user data, click Import Users from the Actions drop-down list on the **Users** tab and follow the steps listed in the Import Wizard.
- To reset to the default values for User preferences, Homepage, or Dashboard, click the appropriate button in the Detail View.

To delete a user

1. Click the user's record in the List View.

This displays the user's Detail View page.

2. Click Delete.

Sugar displays a message alerting you that corresponding employee record will also be deleted, and that workflow definitions and reports involving the user must be updated.

To create a Group User

1. Select Create Group User from the Actions drop-down list on the Users tab.
2. Enter a username for the Group User in the User Name field. For example, you can enter Support Queue for the Support team.
3. In the Status field, select Active to indicate the Group User is being used; or else, select Inactive.
4. In the Email Settings section, set one or more email addresses for the user's mail accounts. You can further specify whether an email address is the primary email address or whether it will be used for an automated response to emails.
5. Click Save to create the user; click Cancel to exit the page without creating the user.

Team Management

Use the Team Management option to group users into teams to manage records in a secure manner.

Teams provide data security because users can access a record only if they are members of a team that is assigned to manage the record. Teams apply to every record in Sugar. All records are assigned to at least one team, and can be assigned to more than one team.

A user can belong to one or more teams.

The following teams are available:

- Private: Sugar creates a private team for every user. Only the user can access and manage records assigned to the user's own private team. Private teams include the reporting hierarchy. Users can see the records of any user who is below them in the hierarchy, regardless of their team membership.
- Global: This is the universal team. When users are created, they are members of the Global team by default. Every user can view records assigned to the Global team.
- East: This team is provided for your use and has no special characteristics.
- West: This team is provided for your use and has no special characteristics.

Note: You cannot delete the Global team.

Administrators are implicit members of every team, and can, therefore, see all records.

Users can be both explicitly and implicitly assigned to teams, and will appear as either Member, or Member Reports-to. When a user is manually, or explicitly, assigned to a team, theuser's reporting hierarchy is implicitly added to the team as well. This ensures that members of the user's management hierarchy also have visibility into the user's records. For example, if Will and Chris both report to Jim, and Will is a member of the East team, and Chris is a member of the West team, then Jim will be an implicit member of the East and West teams. To delete Jim from the West team, either Chris must be removed from the West team, or he must no longer report to Jim.

Implicit members appear as Member Reports-to in the Membership column.

Implicit team membership has the following characteristics:

- Implicit team members cannot be removed from teams; the Remove icon does not appear next to their names.
- Implicit team members can also be explicitly, or manually, assigned to teams; the Remove icon will appear next to their names.
- Due to the implicit membership, clicking the Remove icon will not remove them from the team.

- To remove an implicit member from a team, either a down-level user in the reporting hierarchy must be removed from the team, OR the reporting hierarchy must be broken.

You can create any number of teams, depending on the needs of your organization. For example, based on the reporting hierarchy, you may want to create a team of users who report to the same manager. Based on product management requirements, you may want to create a cross-functional team of users who report to different managers but who manage the same product.

By default, all Sugar records such as accounts, contracts, and opportunities are assigned to a specific team and can only be accessed by the members of that team. If users spread across teams need to access a record, it can be assigned to multiple teams. In such cases, the user who creates the record can select a primary team and one or more secondary teams.

Note: Users who are assigned to a record can access it regardless of team membership.

To create a team

1. Click **Create Team** in the Actions drop-down list in the Teams tab or click the Create button in any Teams page.
2. Enter the team name (mandatory) and a brief description on the Teams page.
3. Click **Save**.

This displays the team's Detail View page. Follow the steps listed below to assign users to the team.

4. Click **Select** in the Users sub-panel in the team's Detail View page to view the Users list.
5. Choose the users you want to add to the team and click **Select**; to search for a user, use the Search field on the top of the page.

The names of the selected users display in the Users sub-panel on the team's Detail View page.

To manage team information

1. To view a team's Detail View page, click the team's name in the Teams List View page.
2. To edit team details, click **Edit** on the Detail View page, change the information as needed, and click **Save**.

3. To duplicate the team details, on the team's Detail View page, click **Duplicate**, edit the information as necessary, and click **Save**.

4. To export team information such as team name and team ID, select the records in List View, and click Export. For more information, see the chapter on importing and exporting data.

5. To delete the team, click **Delete** on the Detail View page; to delete multiple teams, select the teams from the Teams home page, and click **Delete**. If the team has existing record assignments, follow the process described in the section below.

Delete Private Teams

Administrators can delete private teams associated with deleted users. Deleted private teams no longer appear in the User selection lists.

To delete a private team

1. Click the Admin link on the top right corner of your page to go to the Administration page.

2. Click Team Management in the Users section of the Administration page to view a list of teams in Sugar.

3. Click the checkbox associated with the team you want to delete.

4. Select Delete from the Actions drop-down menu.

Note: You must first delete the user before you delete the private teams associated with the user.

Creating Team Notices

For each team, you can create team notices to broadcast team-specific information to team members. These broadcasts display as a scrolling marquee in the Team Notices Dashlet of the each team member's home page.

To create a team notice

1. Click **Team Notices** on the Teams tab.

2. Click Create Team Notice on the Team Notice home page.

The Team Notices page displays on the page.

3. Enter information for the following fields:

Date Start. Click the Calendar icon and select the date to begin broadcasting the team notice.
Date End. Click the Calendar icon and select the date to end the broadcast.
Team. Click **Select** to view the team from the team's List View; click a team name to select it.
Status. Select Visible from the Status drop-down list to make the notice visible to team members; select Hidden to hide the notice.
Title. Enter the message title.
Description. Enter the message text.
URL Title. Enter a title for the notice URL. This title is a hyperlink to the URL.
URL. Enter the notice URL. The URL hyperlink is inserted into the Team Notices.

4. To create the team, click **Save**; click **Cancel** to exit the page without saving your changes.

5. To view the Team Notice list, click **Team Notices** on the Teams tab.

To manage team notices

1. To update the start date and end date of some or all notices, use the Mass Update panel on the Team Notices Home page as described in Editing and Deleting Multiple Records.

2. To edit a notice, click its title in the Team Notices list, revise the details as needed, and click **Save**.

3. To delete one or more notices, on the Team Notices Home page, select the notice you want to delete and click the corresponding Delete icon.

Role Management

Roles control user actions on records, teams control record data access. A role defines a set of permissions to perform actions such as viewing, editing, and deleting information. You can control user actions by using roles to restrict access to modulesand module fields, and to limit the actions that a user can perform in Sugar.

System Administrators cannot be restricted with roles, and they can access any module and perform any action.

Users are affected by a role only if they are assigned to it. That is, users who are not assigned a role can, by default, access and take any action in any module. Users can have multiple roles assigned to them, and a role can be assigned to multiple users.

Some examples are:

- You can assign engineers in your organization to a role that prevents access to the Opportunities module.

- You can assign junior sales representatives to a role that allows them to edit opportunities, accounts, and contacts, but not delete them.

For more fine-grained access control, you can restrict access to specific fields within a module. For example, you can restrict access to the billing address within the Accounts module. You can grant limited access or hide the fields completely.

For organizations that would like to delegate ownership of specific tasks in certain modules to groups or individuals, Sugar provides different access types within roles. Roles can provide users with administrator access to manage all records in a specified module, and developer access to customize modules using the Developer Tools and to configure any administrative settings specific for the module.

The access types that Sugar provides through roles are as follows:

- Normal: The user granted this access type can view and manage records depending on team membership. Regular users are granted Normal access.

- Admin: The user granted this access type can administer all records in the specified module regardless of team membership. However, the user does not have access to administration tools, such as Studio and Workflow Management.

- Developer: The user granted this access type has developer privileges for the specified module. This allows the user to access the administration and development tools, namely Studio, Workflow Management, and Dropdown Editor, that are required to customize the module. Additionally, the user can access any administration tools that are available to manage the modules. For example, the user may be able to access the Releases tool for the Bugs module or the Time Periods tool for the Forecast module. However, appropriate team membership is required to view records in the module. Users with Developer access to Users, Teams, and Roles are allowed to manage users, passwords, teams, and roles.

Note: A System Administrator can access all modules and records. Developers with access to Users, Teams, and Roles cannot change a System Administrator's privileges.

- Admin & Developer: Theusergranted this access type has both Administration and Developer privileges for the specified module. This allows the user to not only view and manage all records but also access administration and development tools available to manage the module. The user does not require team membership to view records in the module.

Administration tools available to module administrators with Developer access are as follows:

Module	Tool Group	Tools
Any Module	Developer Tools	Studio, Workflow, Dropdown Editor

Users/Teams/Roles	Users	User Management, Team Management, Role Management, and Password Management.
Products	Products & Quotes	Product Catalog, categories, Types, Manufacturers, Shipping Providers
Bug Tracker	Bug Tracker	Releases
Forecasts	Forecasts	Time Periods
Contracts	Contracts	Contract Types

For complete control over record access, you must set access control at both the module level and the field level. For example, if the field level access is set to Read Only, and you want to restrict actions such as Edit and Delete at the record level, you must set access control at the module level.

All changes to roles such as changing role definitions, assigning, or revoking roles take effect when the assigned users log into Sugar after the change has been made.

Note: A user must not only belong to the appropriate role but also to the team assigned to a record in order to perform actions on that record. This is because records are assigned to a team to take action. Admin users can view any record.

Sugar provides the following set of Admin & Developer roles for your use:

- Customer Support Administrator: This role has administrator and developer privileges for Accounts, Bug Tracker, Cases, Contacts, and Knowledge Base.
- Marketing Administrator: This role has administration and developer privileges for Accounts, Contacts, Leads, Campaigns, Targets, and Target Lists.
- Sales Administrator: This role has administrator and developer privileges for Accounts, Contacts, Forecasts, Forecast schedule, Leads, Opportunities, and Quotes.
- Tracker: This role grants access permission to create and manage tracker reports. Users assigned to this role can view the Tracker page and its contents in the Home module, run pre-defined tracker reports, and create custom tracker reports, you will need to add them to this role.

Creating Roles

When you create a role, you specify whether access is permitted or not, the modules that the role can access, the access type such as Normal (for Regular users) or administrator, and the actions that they can perform.

When a user is assigned multiple roles, the more restrictive settings prevail.For example, if a user is assigned to two roles pertaining to a module where one role grants administrator access and the other grants Regular User access, then the user has only Regular User access because it is more restrictive.

Not Set:

A special case is the Not Set value in a role definition. You can use this setting to ensure that a role does not affect a particular setting. This allows simple roles to be constructed and then combined to achieve the desired security level.

For example, if users are assigned to both the following roles:

Role A, where Access Type = Admin and Export (action) = None

Role B, where Access Type = Normal and Export (action) = All

Then, users can see records that are assigned to the team to which they belong, but they cannot export the data.

If you change the Access Type to Not Set:

Role A, where Access Type = Admin and Export (action) = All

Role B, where Access Type = Not Set and Export (action) = None

Then the user can see all records in the module, but cannot export the data.

When new roles are created, the default value of Access, User Type, and Operations is Not Set. The default value of Not Set applies a permission to each role option as follows:

Access: Not Set = Enabled

User Type: Not Set = Normal

Action (Delete, Edit, etc): Not Set = All

When you create a role, you specify the following permissions for each Sugar module:

Access: This setting specifies which modules the role is permitted to access. Options are as follows:

- ¢ Not Set: Ensures that the role does not affect a particular setting. This is the default setting for new roles.
- ¢ Enabled: Permits the user to view the module.
- ¢ Disabled: Hides the module from the user’s view.

Actions: This setting lists the following actions:

- Delete: Grants permission to delete records in the module. If None is selected, the Delete button is disabled on the Detail View page.
- Edit: Grants permission to edit records in the module. If None is selected, the Edit button is disabled on the Detail View page. Additionally, the user cannot use the Mass Update panel to update records for the module.
- Export: Grants permission to export record data in the module. The Export link located at the top of List View page is removed when this privilege is not available to the user.
- Import: Grants permission to import record data in the module. The Import link in the navigation bar does not appear when this privilege is not available.
- List: Grants permission to access the List View pages in the module.
- View: Grants permission to view records in the module.

You can specify who can perform each of the above actions. Options are as follows:

- ¢ All: All users who are assigned to the role can perform the action
- ¢ Owner: The person who created the record can perform the action
- ¢ None: Nobody can perform the action
- ¢ Not Set: Ensures that the role does not affect a particular setting

To create a role

1. Click the Role Management link in the Users section of the Administration page.

This displays the Roles List View page.

2. Click the **Create Roles** List View page**.**

This displays the **Roles >> Create** page**.**

3. Enter a name and description for the role.
4. Click Save.

This displays the Detail View page of the role with a list of available modules along with the action type.

5. To specify access to a module, double-click the Access field corresponding to that module, and select the desired option from the drop-down list.

6. To specify the access type, double-click the Access Type field corresponding to the module, and choose the desired option from the drop-down list.

7. To specify who can perform a specific action, double-click the action field and select the desired option from the drop-down list.

8. To set field-level permissions, see To set field-level permissions for a module.

9. Click **Save**.

To set field-level permissions for a module

1. Select the role on the Roles List View page.

This displays the role's Detail View page.

2. Select the module from the left pane.

The current role permissions for the module display at the top and the module fields display below. A plus sign (+) next to a field name indicates grouped fields. For example, the Billing Street field also includes the city, state, postal code and country. The permissions that you set for Billing Street also apply to the other fields that are grouped with it. You can click the plus sign to view grouped fields.

3. To set permissions for a field, click Not Set and select one of the following options from the drop-down list:

Read/Write. Permits role members to view and edit the field value.
Read/Owner Write. Permits role members to view the field value and the record owner to view and edit the field value.
Read Only. Permits all users, including record owners to only view the field value.
Owner Read/Owner Write. Permits only the record owner to view and edit the field value.
None. The field is hidden from all users.

4. Click Save.

Note: To restrict actions such as editing and deleting records, you will need to set access control at the module level.

You need to assign users to the role. You can do this now or at a later time.
To assign users to a role

1. Scroll down to the Users sub-panel in the role's Detail View page and click **Select**.

2. Select users from the Users list.

The system assigns the selected users to the role and displays the username in the Users sub-panel of the Roles page. Alternatively, you can also assign users to a role in the User Preferences sub-panel of the User Management page. Role restrictions do not apply to Admin users.

3. Click Save.

To manage roles

- To view the role details, click the role name on the Roles List Viewpage.
- To edit the name of the role and its description, on the Detail View page, click **Edit**, revise the information, and click **Save**.
- To edit the access rights of a role (for example Mass Update) per module, follow the steps listed below:

a. Go to the Role's Detail View page.

The Role's Detail View page displays its access control information, per module.

b. Double-click on a cell.

c. Select a value from the drop-down list in the cell.

d. Click Save.

- To duplicate the access control information, on the Detail View page, click **Duplicate**, enter a new name for the role, and then click **Save**. Note that the users list associated with the role is not duplicated.
- To delete the role, click **Delete** on the Detail View page.
- To remove a user, click the Remove (rem) icon corresponding to the user name in the Users sub-panel.

To view roles for a user
Follow the steps listed below to view access permissions for a specific user:

1. Click **List Roles by User** on the Actionsdrop-down list on the Roles tab.

2. Select the user from the drop-down list.

This displays the details of the user's privileges for each module. The restrictions are then merged and the more restrictive settings across all roles are assigned to the user. You cannot change any of the privileges because they are associated with the role.

Password Management

As a System Administrator, you can use the Password Management section to create and manage passwords and password rulesthat apply to all users in your organization.

You can enable the System-Generated Password option to generate and send temporary passwords automatically to new users when you create a record for them. Users can log into Sugar with this password and create a new password for themselves on the User Preferences page. If you do not enable this option, you will need to create the password manually and provide it to the user.

You can create and manage templates to send system-generated passwords and links to reset passwords. Sugar provides default email templates to send system-generated passwords and links to reset user-generated passwords. You can view these two templates when you select Email Templates from the Emails tabActionsdrop-down list. Sugar uses these templates, unless you specify a custom template. For more information on creating and editing email templates, see Creating Email Templates.

Sugar also provides an option to display the Forgot Password link in the Sugar Login window. Users who forget their passwords can click this link to submit their request for a new password. When Sugar receives such a request, it automatically sends a link to a page where the user can create a new password.

For security purposes, you can set an expiration date for user-generated password andsystem-generated passwords. When a password expires, you can send the user a system-generated link to the page where the person can create a new password. You can also set an expiration date for these page links.

Creating Password Rules

You can create password rules that specify password requirements for user-created password, for example minimum length, the number of characters, uppercase and lowercase letters, numbers, and special characters in passwords.

You can use regular expressions to specify characters and words that are not permitted in user-generated passwords. These rules display in the Change Password section of the User Preferences page. Users will have to follow these rules to successfully change their passwords.

When you enable new password rules, they apply only to new passwords. Existing passwords will work, even if they do not meet the requirements of the new password rules. When users attempt to reset their password using the Forgot Password feature or on their User Preferences page, they need to create a password that meets the criteria of the new password rules.

Securing Access to Sugar

You can also enable the Login Lockout feature to lock users out of the system after a specified number of failed login attempts. The system restores the ability to log in after the specified time interval has

elapsed. Sugar displays an alert in the Detail View of the user's record to notify you that the user has been locked out.

As an additional precaution, you can enable Captcha validation to prevent automated programs from gaining unauthorized access to user accounts. You need to create an account with reCAPTCHA for your organization and obtain a public key and private key for your Sugar instance to use Captcha validation in Sugar. You need to enter these keys on the Password Management page. Navigate to the reCAPTCHA website at http://recaptcha.net/ and create the account. When you enable Captcha validation, the Captcha image displays in the Sugar Login window when a user clicks the Forgot Password link. The user must submit the characters from the image in order to receive the link to reset the password.

Enabling Authentication in Sugar

LDAP Authentication

You can enable authentication in Sugar if your organization has implemented Lightweight Directory Access Protocol (LDAP) or Active Directory authentication. When users in your system attempt to log into Sugar, the application authenticates them against your LDAP directory or Active Directory. If authentication is successful, the user is allowed to log into Sugar. You need to specify the encryption key for the system and forward it to your users if you are using LDAP with SOAP.

Users need to enter the key number in Outlook if they are using the Sugar Plug-in for Microsoft Outlook. The Sugar Plug-in for Microsoft Outlook uses this key to encrypt user passwords before forwarding them to Sugar for authentication. Sugar decrypts the password with the same key and forwards the user names and passwords to the LDAP server for authentication. Users are allowed to access Sugar through the Sugar Plug-in for Microsoft Outlook if authentication is successful.

SAML Authentication

If your organization has implemented Security Assertion Markup Language (SAML) for single sign-on, you can enable it in Sugar.

Note: Settings for Sugar password requirements, password reset, and password expiration are not applicable when LDAP authentication or SAML authentication is enabled.

To specify and manage password settings

1. Click Password Management in the Users sub-panel of the Administration Home page.

This displays the Password Management page.

2. You can specify the following information:

Password Requirements. In this section, enter the minimum and maximum number of characters that passwords can contain. You can also specify more detailed requirements, such as uppercase and lowercase characters, numbers, and special characters that the password can contain.

To enforce password rules, you can use regular expressions. Click Show Advanced Options to specify regular expressions. In the Regex Requirement field, enter specific characters and words that are not permitted in passwords. In the Regex Description field, you can enter a brief description of the Regex expression.

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

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

System-generated passwords

You can enable Sugar to email a system-generated link to users who need to reset their passwords in this section. Ensure that you have configured an email server for outbound emails on the Email Settings page, and that you have valid email addresses for all your users.

For security reasons, you can set an expiration date for system-generated passwords. You can specify a time period or the number of logins after which the password expires. To specify a time period, select Password Expires in and enter the time period in days, weeks, or months. To specify the number of logins, select Password Expires upon and enter the number of logins.

User Reset Password

You can configure settings to enable users to reset their passwords using the Forgot Password link that displays in the Login Window in this section. By default this link is disabled for LDAP authentication purposes.

Enable Forgot Password Feature. This option, which is enabled by default, enables users who forgot their passwords to use the Forgot Password link on the Login window to submit their user name and email address to Sugar. The system automatically sends them an email with a link to the page where they can reset their password.

Generated Link Expiration. Use this option to specify whether the Forgot Password link expires or not. Select None if you do not want the link to expire. Or else, select Link Expires in and enter the time period in minutes, hours, or days, when the link remains active.

Enable reCAPTCHA Validation. You can select this option only when the Enable Forgot Password feature option is enabled. When you enable reCAPTCHA validation, the Public key and Private key fields display below. Enter the Public key and the Private key that you received from reCAPTCHA for your Sugar instance in the appropriate fields.

Change other admin passwords

System administrators are able to view the Password tab for all users, including other administrators, if the **Enable System-Generated Passwords** is not enabled in the **Password Management** section. Administrators are able to change the password within the **Password** tab in a user record.

To change another admin's password

Follow the steps listed below to change another system administrator's password:

1. Click the Admin link on the top right corner of your page to go to the Administration page.

2. Click User Management link in Users section.

This displays the List View of users in Sugar.

3. Click the edit icon next to the user's name that you want to modify.

4. Click the Password tab and input old and new passwords.

5. Click Save.

Transfer admin rights to other users

In addition to changing each other's passwords System Administrators can transfer admin rights to other users.

To transfer admin rights to another user

1. Click the Admin link on the top right corner of your page to go to the Administration page.
2. Click User Management link in the Users section of the Administration page.
3. Click the user's name in the list of users displayed on this page.

This displays the Edit View of the user's page.

4. Select System Administrator from the User Type drop-down list and click Save.

Email Templates

In this section, you can create message templates to use when sending out generated passwords and links to reset passwords.

Email template containing system-generated password. To create an email template for system-generated passwords, select System-generated password email from the drop-down list and click Create.

Email template containing system-generated link to reset password. To create an email template to send a link to users who forgot their passwords, select Forgot Password email from the drop-down list, and click Create.

Sugar creates the template and displays it in the Email Templates Home page. On the Emails tab, select Email Templates from the Actions drop-down list to view available email templates.

Note: If you choose to create your own templates to send passwords, copy the password variable provided in the default template, named System-generated password email, into your email template. The password variable is not available in the Insert Variable drop-down list of the Email Template form.

User-Generated Password Expiration. You can specify whether the user-generated password expires or not in this section.

Select one of the options listed below. The last two options ensure that users change their passwords periodically for the security of your Sugar application.

None. The password never expires.

Password Expires in. The time period, in days, weeks, and months, after which the password expires.

Password Expires after logins Enter the number of times a user can log into Sugar with the current password. When this number is met, the password expires and the user must specify a new password.

Login Lockout. In this section, you can specify how many times a user can unsuccessfully attempt to log in before being locked out of the system for security reasons, and when the lockout ends.

If you do not want to impose a lockout, select None. If not, select Lockout users after unsuccessful login attempts and enter the number of attempts a user is allowed. To enable login after a certain time period, select Enable login again after and enter the time period in minutes, hours, or days.

LDAP Support

You can enable LDAP authentication in this section.If you are using LDAP authentication, you must disable the Forgot Password option.

To enable LDAP authentication, select the Enable LDAP box, and enter the following information in the fields below:

Server. Enter the LDAP server name.

Port Number. Enterthe server's port number.

User DN. Enter the user DN name; for example, ou=people, dc=example, dc=com.

User Filter. Enter any additional parameters to apply when authenticating users. For example, is_user_id=1.

Bind Attribute. Enter the attribute name that is used to bind the user's name in LDAP. For example, in openLDAP, the attribute name is userPrincipleName.

Login Attribute. Enter the attribute name that is used to search for the user in LDAP. For example, in openLDAP, the attribute name is dn.

Group Membership. Select this checkbox if you wish to specify that the user is a member of a specific group, and enter the following information:

Group DN. Enter the group DN name; for example, ou=groups, dc=example, dc=com.

Group Name. Enter thegroup name; for example, cn=sugarcrm.

User Attribute. A unique identifier used to check if the user is a member of the group. For example, uid.

Group Attribute. The attribute of the group that will be used to filter against the User Attribute. For example, MemberUid.

Authentication. Select this checkbox to use specific user credentials to bind to the LDAP server, and enter the user name and password in the fields that display below.

Auto Create Users. Select this checkbox to create the user name in the Sugar database if it does not already exist.

Encryption Key. If you are using LDAP with SOAP, enter the encryption key to encrypt user passwords in the Sugar Plug-in for Microsoft Outlook. The php_mcrypt extension must be enabled in the php.ini file.

SAML Authentication.

Use this section to enable SAML authentication. You must disable the Forgot Password option if you are using SAML authentication.

Select the Enable SAML Authentication checkbox and enter the following information:

Login URL: Enter the SAML URL for authentication. This is the path to the SAML server you are authenticating to.

X509 Certificate: Enter the SAML X.509 certificate public key.

5. Click **Save**.

Sugar Connect

Overview

Connect to the various SugarCRM services where you can access the SugarCRM forums and Sugar Wiki, search FAQs (Frequently Asked Questions), download the latest Sugar version, file and research reported bugs, request new features and more.

Sugar Support Portal

Use this option to access the SugarCRM forums, search FAQs (Frequently Asked Questions), download the latest Sugar version, buy network subscription, log into the network, file bugs, research reported bugs, and request new features.

The SugarCRM forums cover discussions on a broad range of topics such as setting up the Sugar application and Frequently Asked Questions (FAQs) . You need to register your organization with SugarCRM to participate in the discussions. You can view postings on any of the Sugar forums without registering your organization.

Sugar Updates

Use this option to check automatically or manually for Sugar updates.By default, the option to check for updates automatically is enabled.

If you choose to check for Sugar updates automatically, you will be notified when new Sugar versions or updates are available. To perform a manual check, uncheck the Automatically Check for Updates option and click Check Now. If you already have the latest version, You have the latest version available message displays at the bottom of the panel.

Online Documentation

Use this option to view and download PDF copies of available documentation on installing and using the Sugar application and plug-ins.

License Management

Use this option to manage Sugar licenses for your organization. Sugar administrators also count towards the number of licenses purchased by an organization.

SugarCRM provides a Download Key number to download the application. During installation when you purchase Sugar. You need to enter the key number along with associated information, such as the expiration date. This information is displayed in the License Management sub-panel and you can edit it, if necessary. When you save the updated information, the system automatically checks it against the information in SugarCRM database. If the information in the SugarCRM database is different from what you entered, then it overrides your revised information. For example, if you change the expiration date, the system checks the SugarCRM database for the expiration date based on when you purchased the application. If that number is different, then the License Management panel will override your change with the expiration date stored in the SugarCRM database. Contact Customer Support if the displayed information is incorrect.

Typically, licenses are purchased for one year. Periodically re-validate the license information with SugarCRM during this time. Sugar automatically re-validates the license information twice a week if you enable automatic checks for Sugar updates as described in Sugar Updates. Manually revalidate the license information once every three months if you have not enabled automatic Sugar updates or if you have a firewall. Sugar displays the date and time of revalidation in the License Validation sub-panel if the revalidation is successful.

Sugar exhibits the following behavior before the license expires:
From 30 days before the expiration date until the expiration date, a warning is displayed only to admin users regarding the upcoming expiration.
From the expiration date until 30 days after the expiration date, a different warning is displayed only to admin users regarding the expiration date having passed. All users are still able to log in.
From 30 days after the expiration date, a warning is displayed to all users regarding the expiration. The message also mentions that only the admin can log in and only the license management page is accessible by the admin.
To edit or update license information

1. Click **License Management** in the Sugar Connect sub-panel in the Administration page to view the License Properties page.

This page displays sections for License Management and License Validation.

2. Click **Edit** in the License Management section, and enter information for the following fields:

Download Key. The download key that you received from SugarCRM when you purchased the application.
Expiration Date. The date when the license expires.
Number of Users. The number of users the license allows.

3. Click **Save** to save the information.

When you enable automatic checks for Sugar updates, the system automatically revalidates the license when you save the information. The revalidation date and time display in the License Validation sub-panel.
Check the proxy server configuration in the System Settings panel as described in Proxy Settings if automatic revalidation fails. Follow the steps listed below to manually revalidate the license.
To manually revalidate license information

1. To revalidate the license information, click **Re-validate** located above the License Validation panel.

The system communicates with the License Validation server to validate your license.

2. If the system fails to connect with the License Validation server for any reason, use the **Manual Validation** link located at the bottom of the panel.

3. In the Manual Validation panel, click **Export Download Key** to export the sugarkey.lic file.

The system displays the Opening sugarkey.lic dialog box.

4. Select Save to Disk to copy the sugarkey.lic file on your local machine and click OK. Your machine must have a browser and Internet access.

5. Go to http://updates.sugarcrm.com/license and submit the sugarkey.lic file for validation.

6. If validation is successful, the system prompts you to save the file.

By default, the file is named sugarvalidationkey.lic, but you can change the name if necessary.

7. Log into your Sugar installation and navigate to Admin > License Management > Manual Validation.

8. Browse to the location of the sugarvalidationkey.lic file on your local machine and click **Import**.

Sugar updates the validation status for the download key.

System

Overview

This section includes options to configure system-wide settings that apply to all users in your organization.

System Settings

Use this option to configure the system-wide settings according to your organization's specifications. Users can override some default settings, such as the datetime format, on their User Preferences page

User Interface

Use this section to configure the user interface.
To configure the user interface

1. Configure the following fields:

Listview items per page. Enter the maximum number of records you want displayed in the list view. The system paginates lists that contain more than the specified number of records.
Prevent user customizable Homepage layout. Select this box if you want to prevent users from moving Sugar Dashlets on the Home page. However, users can still create additional Sugar Dashlets and pages.
Maximum number of Sugar Dashlets on Homepage. Enter the maximum number of Sugar Dashlets you want displayed on the Home page. Users will not be able to add more than the number of Sugar Dashlets that you specify. The default value is 15.
Display server response times. This option is enabled by default. The footer on every page 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.
System Name. This field displays your system name.
Current Logo. This field displays your organization's logo that currently displays in the User Interface.
Select Logo. Enter the path to the location of the logo that you want to upload from your local machine. Or, click Browse to navigate to the location of the logo on your local machine. The dimension should be 212 X 40, with the standard transparent background color, in PNG or JPG format.
Lead Conversion Options. Use this option to enable users to copy, move or do nothing with the activities related to the converted leads.
Subpanel items per page. Enter the maximum number of records you want displayed in the List View. The system paginates lists that contain more than the specified number of records.
Subpanel items per page (Mobile). Enter the maximum number of records you want displayed in the list view when users log into Sugar from a wireless device. The default is three records per page. The system paginates lists that contain more than the specified number of records.
Prevent user customizable subpanel layout. Select this box if you want to prevent users from dragging and dropping sub-panels to a different location in their Detail View layout.
Show Full Names. Select this box if you want the full name for users displayed instead of their login names.
Display module icon as favicon. Select this option if you want to display the module icon in the browser's navigation tab instead of the Sugar icon, which is the default. For example, when you are in the Accounts module, the navigation tab will display the Accounts icon.
Minimum Dashlet Auto-Refresh Interval. Use this to specify system-wide auto-refresh interval of data in Dashlets for all users. When you select a value from this drop-down list, users will be able to see and set values more than your selected value in their drop-down lists. For example if you select Every 3 minutes,

values displayed in user's drop-down lists are Every 3 minutes, Every 5 minutes, and Every 10 minutes. Users can customize their auto refresh intervals within this range only.
Configure AJAX User Interface.The AJAX UI enables navigation through most of the Sugar application without requiring full page refreshes. This results in improved performance with reduced page rendering times. However, the AJAX UI cannot be applied to the following:

- ¢ Some older third party modules
- ¢ Some core modules with complex customizations

When users try to access the above modules in an AJAX UI, an error message displays, warning them of the issue with the module.
Use the Configure AJAX User Interface link to disable the AJAX UI for specific modules. The AJAX user interface has been disabled for the following modules by default:

- ¢ Emails
- ¢ Reports
- ¢ Users

Note: The Admin UI is not AJAX UI-enabled so that admin users can access the Admin panel and disable the AJAX UI systemwide.

2. To save the settings, click **Save**.
3. To restore the default settings, click **Restore**; to exit the page without saving your changes, click **Cancel**.

Proxy Settings

If you are using a proxy server to connect to the web, you will need to enter the information here to allow the system to check for Sugar updatesand to validate license keys as described in License Management.

1. Configure the following fields:

Use proxy server. If you want to connect to the web through a proxy server, select this option. The system displays fields to specify the proxy host and port number.
Proxy Host. Enter the name of the proxy server host
Port. Enter the port number for the proxy host.
Authentication. Select this box if you want to enable proxy authentication to allow Sugar to connect to the company's proxy server.
User Name. Enter the user name.
Password. Enter a password for the user.

2. To save the settings, click **Save**; to restore the previous settings, click **Restore**; to exit the System Settings page without saving your changes, click **Cancel**.

Customer Self-Service Portal

Select this option to integrate your organization's self-service portal with Sugar. This enables your customers to access Sugar records such as Notes and Cases.

1. Select the Enable self-service portal integration box.

2. To save the setting, click **Save**; to restore the previous setting, click **Restore**; to exit the System Settings page without saving your changes, click **Cancel**.

SkypeOut

Select this option to allow users to click a phone number field to make calls through Skype.
To enable Skype

1. Select the Enable SkypeOut integration box.

2. To save the setting, click **Save**; to restore the previous setting, click **Restore;** to exit the System Settings page without saving your changes, click **Cancel**.

Mail Merge

If your users have installed the Sugar Plug-in for Microsoft Word, this option allows them to perform a mail merge with Word documents. For example, you can merge contact information from Sugar with form letters created in Microsoft Word. The Mail Merge link displays at the top of a List View.

Note: Users must also select the Mail Merge option on their User Preferences page.

1. Select the **Enable mail merge** box.

2. To save the setting, click **Save**.

To restore the previous setting, click **Restore**; to exit the System Settings page without saving your changes, click **Cancel**.

Default Offline Client Status

Enable this option if you would like all users to use the Sugar application on their local machines without connecting to the Sugar server. If not, you can enable specific users to use the Offline Client.

Advanced

1. Select any of the following advanced configuration options:

Validate user IP address: For security reasons, by default, this option is enabled to validate the IP addresses of users who log into Sugar.

Note: Some high availability systems may change IP addresses for load balancing purposes. If the IP address changes during a user session, the user will be logged out, and will have to log back into Sugar.

Log slow queries. Select this option to log the system's slow responses to user queries in the sugarcrm.log file. This information is for performance tuning investigation.
Maximum upload size. Enter the maximum file size, in bytes, that users are allowed to upload.

Note: The upload size is also dependent on PHP's upload settings.

Portal Session Timeout. Enter the maximum time, in seconds, for a Sugar Portal session. The session will timeout when the time limit is reached.
Log memory usage. Select this option to record memory usage in the sugarcrm.log file.
Slow query time threshold. Specify a threshold, in milliseconds, to define slow queries. Queries that take longer than the threshold time are logged in the sugarcrm.log file. This information is for performance-tuning investigation. If you have enabled the Tracker Queries option on the Tracker Settings page, you can run the pre-defined Slow Queries report to view slow queries.
Display stack trace of errors. When you select this option, if an error occurs when users are running the application, the system displays where the error occurred in the application's stack trace. This information is for debugging purposes.
Developer Mode. Select this option to disable caching so that you can immediately view changes made to language, vardefs, and template files.
vCal Updates Time Period. Select this option to specify the number of months in advance of the current date that Free/Busy information for calls and meetings is published. The minimum value is one month, and the maximum value is 12 months. To turn off Free/Busy publishing, enter 0.

2. To save the settings, click **Save**.

3. To restore the previous settings, click **Restore**; to exit the System Settings page without saving your changes, click **Cancel**.

Logger Settings

The Sugar Logger logs events that occur in the Sugar application. By default, the logs are written to sugarcrm.log in the Sugar root directory. Hence, if a problem arises, you can refer to the log file for information that may help in troubleshooting it.

When you upgrade Sugar, the application parses your Logger settings automatically from the log4.php properties file of your previous Sugar version, and populates the Logger Settings sub-panel with the information.

You can, however, change the settings if necessary.

The logging levels are as follows:

- debug: Logs events that help in debugging the application.
- info: Logs informational messages.
- warn: Logs potentially harmful events.
- error: Logs error events in the application.
- fatal: Logs severe error events that leads the application to abort. This is the default level.
- security. Logs events that may compromise the security of the application.
- off. The logger will not log any events.

When you specify a logging level, the system will create log files for the specified level as well as higher levels. For example, if you specify 'Error', the system creates log files for 'error', 'fatal', and 'security'.

The default size of a log file is 10 MB. Downloading large log files from the web server can be a slow process. Hence, if you view log files frequently, it is recommended that you view actions that occurred since the last entry in the current log file.
To configure logger settings

1. In the Logger Settings panel, enter the following information:

Log File Name. Specify a name for the log file.
Extension. Enter the file extension. The default is.log.
Append After File Name. From the drop-down list, select a time period to append to the file name. This makes it easier to identify the log that you want to view.
Maximum Log Size. Specify the maximum size of the log file in MegaBytes(MB). The default is 10MB.
Log Level. From the drop-down list, select the event level that you want to capture in the log file. The default is fatal.
Default Date Format. Enter the default date format for the log file. This format must be supported by strftime. The default is %c.
Maximum Number of Logs. Specify 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. The default is 10 logs.
Configure Log Settings. Click this link to view the Sugar log file, as described in To configure log settings.

2. To save the settings, click **Save**.
3. To restore the previous settings, click **Restore**; to exit the System Settings page without saving your changes, click **Cancel**.

To configure log settings

1. In the Logger Settings panel, click the Configure Log Settings link.

2. Select one of the following:

   - All. Select this option to view the entire log for the current session.

   - Next. Select this option to view only new entries in the log file.

   - Mark Point. Select this option to indicate that you want to view actions that were logged after the last entry in the current log file. Then click Refresh From Mark to view actions that occurred since the time you clicked Mark Point.

For example, to debug a problem, select the debug logging level on the Logger Settings page, click Configure Log Settings, and then click All to view all user actions in the log file. To view only new user actions since the time you clicked All, click Next. This action will display only new entries in the log file. To view new user actions since the last entry in the current log file, select Mark Point and then click Refresh from Mark. This action will append new entries to the current entries in the log file.

3. To search the log by keyword, enter it in the Search box. To search for entries using a regular expression, enter it in the Search box, and select the Reg Exp box. Press Enter on your keyboard to begin the search.

   Note: The Ignore Self option is not used.

Sugar displays the log entries on the screen.

Import Wizard

Use this link to easily import data into the system for selected modules without having to visit each individual module. The process of importing the data is identical to the user data import.

Follow the steps listed below to import data using the Admin Import Wizard:

1. Click the Import Wizard link.

2. This displays the Step 1: Select Data Source page.

3. Select the module you want to import data into, from the drop-down list.

4. Click Next.

5. Follow the instructions provided in the Import Wizard to complete the process.

You can also import data from Google Contacts for person-type modules such as Contacts, Leads, and Targets.

Follow the steps listed below to import Google Contacts:

1. Click the Import Wizard link.
2. This displays the Administration » Import » Step 1: Select Data Source page.
3. Select a person-type module from the drop-down list.
4. Select the (My data is in:) an external application or service button.
5. Click Sign in if you have not already entered your Google account credentials.

This displays an external account record form in the Administrator >> Edit page.

Note: You could have entered your Google credentials previously through the Sign In button (you do not need to do it every time), or within the External Accounts section of your User Settings page.

6. Select Google from the Application drop-down list.
7. Enter the Google account credentials in the App User Name and App Password fields.
8. Click Connect.

This brings you back to the Step 1: Select Data Source page.

9. Click Next.

This displays the Step 2: Confirm External Source Properties page. You can modify the mapped module field names in this page.

10. Click Import Now to import your Google Contacts.

Locale

Use this option to set system-wide default formats for date, time, language, name, and currency. If you are using MySQL, you can also specify the collation order for records in the application.
User Interface: Use this section to set the default values in the Sugar User Interface.
Default Date Format. Select a date format for all recordssuch as Quotes and Contractsfrom this drop-down list. Users can override the default format by setting a different date format in their User Preferences page.

Default Time Format. Select a time format from this drop-down list to display in all records such as Cases. Users can override the default format by setting a different time format in their User Preferences page.
Default Language. Select the default language for the Sugar User Interface from this drop-down list. Users can select a different language from the login page, provided they have installed the appropriate language pack. For more information on displaying/hiding available languages, see To display/hide available languages.
Default Name Format. Enter the default salutation and name format to display in list views and detail views. You can specify any combination of salutation first name, and last name. For example: Mr. John Smith, Mr. Smith, or John Smith.Users can override the default format by setting a different time format in their User Preferences page.
Default Currency. Use this section to override the default currency that you set during installation. On the User Preferences page, users can override the default currency that you specify in this panel.
Currency. Enter the name of the currency that your organization uses to conduct business.
Currency symbol. Enter the symbol for the currency.
ISO 4217 Currency Code. Enter the ISO code for the currency.
1000s Separator. Specify a delimiter to separate thousands when users specify a numeric value for the amount.
Decimal Symbol. Specify a default decimal symbol.

Export Settings

Use this panel to specify export settings such as the delimiter used to separate data in export files, and the default character set used to export data from Sugar. The settings you specify here apply to all users in the organization. However, users can define a different default export character set on their User Preferences page to export data from Sugar.
This character encoding is also used when importing data into Sugar.
By default, Sugar uses UTF-8 to store and export data. For locales that use character encoding other than UTF-8, you must specify the appropriate default character set. This ensures that the character set Sugar uses to create the exported file is mapped to the correct character set on the user's machine. For example, MS Windows uses SJIS in Japan. So, for users in this locale, you will need to select SJIS as the default export character set.
By default, both users and administrators can export files from Sugar. However, you can prevent users from exporting files.
Export Delimiter. Specify the delimiter, such as a comma or a period, to use while exporting data.
Default Character Set for Import and Export. The default is UTF-8. For locales other than US and Western Europe, select the appropriate character set from the drop-down list.
Disable export. Select this option if you want to prevent end users and users with administrative privileges from exporting data.
Admin export only. Select this option to allow only users with administrative privileges to export data.

Database Collation

Sugar displays this sub-panel only if you are using the MYSQL database. This setting manages the connection layer between SugarCRM and your MySQL database, and should be set to match the collation of your database tables. You can select the desired collation order from the drop-down list. The default is utf8_general_ci. Changing this setting will not alter your existing tables, and all new tables created after this change will inherit the collation setting name.

CAUTION: The database will return errors if you run queries against multiple tables, and if tables in the query have a different collation.

To save the settings, click **Save**; to exit the page without saving your changes, click **Cancel**.

Backups

Use this option to backup the Sugar configuration files. Note that this option does not backup the database.
To backup Sugar configuration files

1. Click the **Backups** option in the System sub-panel on the Admin page.
2. In the Directory field, specify a directory that is writable by the same user as the Apache process.
3. In the Filename field, enter a file name for the zip file including the .zip extension.
4. To ensure that backup can be performed, click **Confirm Settings**.
5. Click **Run Backup** to create the .zip file of your Sugar application files.

Note: To backup your database information, refer to your database vendor's documentation.

Currencies

Use this option to define a new currency and rate.

For each new currency that you define, enter the name, symbol (for example, $), conversion rate to the US $, the currency code (such as CDN for the Canadian dollar). Set the Status to Inactive if you do not want users to use this currency for transactions.

Note: Install Adobe Flash 8 to display the Euro symbol in **Charts**.

Repair

Use this option to upgrade and rebuild data from a previous version of Sugar for the current version of the program.You also use this option to convert a Sugar installation to offline mode.

The options are listed below.
Quick Repair and Rebuild: Repairs and rebuilds the database, extensions, vardefs, Sugar Dashlets, and so on for selected modules. Click this option, select the modules you want to repair, and click Repair. You also use this option to clear any custom My Activity Stream link types from the cache.
Upgrade Teams: Scans all users to ensure that they each has a personal team, and that they are members of the global team, automatically fixing any discrepancies after an upgrade. It may also be useful to restore the private teams for all users in the event they become corrupted or are removed for any reason.

Expand Column Width. Expands certain char, varchar, and text columns in MSSQL database.
Rebuild .htaccess file: Rebuilds the .htaccess file to limit access to certain files directly.
Rebuild Config File: Rebuilds the config.php file by updating the version and adding defaults when not explicitly declared. Click this option to check the file and, if necessary, click Rebuild.
Rebuild Extensions: Rebuilds extensions including extended vardefs, language packs, menus, and administration
Rebuild Relationships: Rebuilds relationship metadata and drops the cache file.
Rebuild Schedulers: Rebuilds your default Scheduler Jobs. Click this option and then click Rebuild.
Rebuild Sugar Dashlets:Rebuilds the cache file for Sugar Dashlets.
Rebuild Workflow: Rebuilds the workflow cache and compiles plug-ins.
Rebuild Javascript Languages: Rebuilds Javascript versions of language files.
Rebuild JS Compressed Files: Copies original Full JS Source files and replaces existing compressed JS files.
Rebuild JS Grouping Files: Re-concatenates and overwrites existing group files with latest versions of group files.
Rebuild Minified JS Files: Copies original Full JS Source Files and minifies them, then replaces existing compressed files.
Repair JS Files: Compresses Existing JS files - includes any changes made, but does not overwrite original JS Source files.
Repair Non-Lowercased Fields: Repairs mixed-case custom tables and metadata files to fix issues where code expects lowercase field names.
Repair Teams:Rebuilds private team membership based on user reporting hierarchy. Click this option, select one or all of the following: Global team, Private team, and team hierarchy, and click Rebuild.
Repair Roles: Repairs roles by adding all new modules that support access control as well as any new access controls to existing modules.
Repair Inbound Email Accounts: Repairs Inbound Email accounts and encrypts account passwords.
Remove XSS: Removes XSS Vulnerabilities from the database. Click this option, select a module, and click Execute. If any XSS strings are found, the system lists them in the Object(s) found field below.
Repair Database: This option is applicable to MYSQL databases only. It repairs your Sugar database based on values defined in the vardefs. You can choose to display the SQL that will be executed on the screen, export it, or execute it.
Repair Activities: Repairs Activities (Calls, Meetings) end dates.
Check Reports: Checks whether reports are still valid after an upgrade and lists any invalid reports that are found during the check.
Enable/Disable Seed Users: Enables or disables seed users populated during demo installation. Click this option, and if the seed users are enabled, click Deactivate to disable them. If the seed users are disabled, click Activate to enable them.

Scheduler

Use the Scheduler to ensure timely execution of custom processes such as workflows and email campaigns. You can schedule jobs such as monitoring inbound emails, executing workflows, running reports, and dispatching campaign emails.

The Scheduler integrates with external UNIX systems and Windows systems to run jobs that are scheduled through those systems.

You can schedule the following types of job:

Prune Tracker Tables. This job removes entries from the tracker and tracker_sessions database tables if they are older than the number of days specified on the Tracker Settings page.
Check Inbound Mailboxes. This job monitors inbound emails in active mail accounts that you set up using the Inbound Email option in the Email panel of the Admin page.
Run Nightly Process Bounced Campaign Emails. This job polls any mail account in which, the Possible Actions parameter is set to Bounce Handling. This is an essential component of monitoring mass email campaigns.
Run Nightly Mass Email Campaigns. This job processes the outbound email queue for your organization's mass campaign emails.
Prune Database on 1st of Month. This job reads all the tables in your Sugar database, finds records that have been soft-deleted (deleted = 1), creates a large SQL file, and physically deletes those records on the 1st of every month. It is mostly a performance job, and is not essential to the use of Sugar. The backup files are placed in cache/backups with time-stamped filenames.
Process Workflow Tasks. This job processes workflow events. If you set a timed trigger for an event, for example, when a lead is a week old, then it finds the predefined workflow actions and fires them when appropriate.
Run Report Generation Scheduled Tasks. This job runs reports and emails them to the assigned user as per the schedule specified for a given report. The reports are sent to the user through an email from a PHP script that runs at regular intervals to send out the emails at the appropriate time. The user can choose which reports to receive and how often to send the reports in the Reports module of the Sugar application.
Update Tracker Session Tables. This job sets all active entries in the tracker_sessions table to be inactive if they are older than 20 minutes. The tracker_sessions table keeps track of the current number of users logged into the system and the time of their most recent activity. A user session will be marked as inactive if the user has not registered a tracker entry in the past 20 minutes.
Configuring Settings for Scheduler Jobs
For Microsoft Windows, you can use the Task Scheduler. For UNIX and Linux systems, you will need to add a new cron job to the crontab.

To add a new cron job to your crontab for Unix and Linux Systems

1. At the command prompt, type crontab -e.

2. Add the following line to your crontab using the full path to the PHP directory in your Sugar installation:

* * * * * cd /path/to/sugar; /path/to/php -c/path/to/php.ini -f cron.php /dev/null 2>&1
where:
path/to/sugar is the path to where your Sugar installation resides.
path/to/php is the path to the PHP installation that you want to use.
path/to/php.ini is the path to the PHP configuration file that you want to use.

3. Save your changes and close.

If you encounter problems, do the following:

1. Determine the user ID that Apache server uses to run.

In a properly configured virtual host environment provided by your host, Apache will run as your Login User ID for files in your virtual directory. If you are unsure, contact the Customer Service department for your host.

a. Search for a file named httpd.conf. Typically, this file is located in the /etc folder. It will vary with the distribution.

b. Open the file using a text editor and locate the line that starts with “User”. The name that follows it directly is the name of the user that Apache will run as on your system.

2. Determine the capabilities of your PHP installation.

The Sugar Scheduler is designed to work with PHP and its extensions; specifically, the database Connector, the IMAP libraries, and the cURL libraries.
Ensure that the PHP binary (php-cli or just php) is available and has those libraries available.
Search for the PHP binary as follows:

a. Type which php. On most correctly configured PHP installations, you will find the binary in /usr/bin or /usr/local/bin. If so, move on to Step number 3.

Or

b. Type find / -name php. Typically, this command will return a long list. Parse through the list to find an executable file named php.

c. If you cannot find the PHP binary, scroll down to the Troubleshooting Tips at the end of this section and read item number 2.

3. Create a cron job for the Apache user

a. Type crontab -e -u [the Apache user].

b. Enter the following line to your crontab:

* * * * * cd /path/to/sugar; php -f cron.php > /dev/null 2>&

c. To fine-tune this job, change the first two *s. The first is the Minutes value, the second is the Hours value.

For example, to run the cron job every three minutes, enter:
"*/3 * * * * cd /path/to/sugar; php -f cron.php> /dev/null 2>&1

4. Test the crontab line as follows to confirm that your system is ready to run:

a. At a terminal prompt, copy and paste the command for your cron job, and run it; the logic here is that if the command will execute successfully when run manually, the crontab will be able to execute successfully as well.

b. If your cron job looks as follows:

* * * * * cd /var/www/html/sugarcrm; path/to/php -f cron.php > /dev/null 2>&1
Enter the command from "cd.." to "2&>1" into a terminal and press Enter.

c. If any errors occur, refer to Troubleshooting Tips.

5. Save your changes and close.

To add a new cron job to your crontab for Microsoft Windows (2000, XP, Server)
Set up the Windows batch file as follows:

1. Create a batch file that will execute all the necessary commands.

2. Enter the following paths in the batch file:

    ¢ cd c:\path\to\Sugarinstance

where SugarInstance is your Sugar installation.
This folder should contain the cron.php file.

    ¢ c:\path\to\php.exe -c c:\windows\php.ini -f cron.php

3. Run the batch file from a command prompt to ensure that the output has no errors.

4. If you encounter problems, do the following:

    a. Determine the PHP binary to use for PHP 5.2.x.

For the 5.2x version of PHP, the PHP-CGI binary is named php-cgi.exe (not php-cli.exe) and is typically located in the root folder of your PHP install folder. To allow it to interact with the dynamic libraries, specify the location of the php.ini file. This can vary from system to system. If you are unsure, enter the command described above.
The system will identify the php.ini file and its location.

5. Create the batch file.

    a. Click Scheduler in the Systems panel of the Admin page.

At the bottom of the default screen, you will see the contents of the commands you need to add to a batch file.

    b. Open notepad.exe, copy and paste what Sugar's recommendation into a blank file.

    c. Change the Save As Type to "dropdown to All Files *.*. " and save it as a .bat file.

    Note: This is only a recommendation. It may not work for your particular instance. Check the folder paths because they are often the cause for problems with the Scheduler.

6. Test the batch file.

    a. From the command prompt, navigate to the folder where you saved the batch file.

b. Enter the full name of the batch file to execute it.

c. Note and correct any reported errors, usually related to paths that cannot be found.

7. Create a scheduled task.

a. Click Start and navigate to Control Panel/Scheduled Tasks/Add Scheduled Task.

b. Go through the Wizard, browse to the batch file you just created, and select it.

c. Schedule a daily job, and ensure that you select Open advanced properties for this task when I click finish.

d. On the Advanced Properties page, navigate to the Schedule tab, and click **Advanced**.

e. Check off Repeat task to enable the fields below it, and select Every Minute or specify the interval you think is appropriate.

8. Save your changes and close the Wizard.

To schedule a job

1. On the Scheduler tabActions drop-down list, click **Create Scheduler**.

2. In the Basic Setup sub-panel, enter the following information:

Job Name. Enter a name for the job.
Status. From the drop-down list, select Active to run the job at the specified intervals; select Inactive if you want to save the job schedule information but not run the job.
Job. Select a job from the drop-down list, or to run a script from a web server, enter the URL in the adjacent field.
Interval. Specify the time interval to check for new scheduled jobs.
By default, Sugar displays the basic option. Use this option to specify the time interval in minutes and hours. The default is every one minute daily.
To define a specific time, click the Show Advanced options link, and enter the time in minutes, hours, date, month, and day.

3. In the Advanced Options sub-panel displays below, enter information for the following fields:

Execute If Missed. Select this box to run any jobs that the scheduler missed.
Date & Time Start. Click the Calendar icon and select the start date for the job; select the time, in hours and minutes, from the adjacent drop-down list.
Date & Time End. Click the Calendar icon and select the end date for the job; select the time, in hours and minutes, from the adjacent drop-down list.

Active From. From the drop-down list, select the time, in hours and minutes, when the job becomes active.
Active To. From the drop-down list, select the time, in hours and minutes, when the job becomes inactive.

4. Click **Save** to create the job; click **Cancel** to exit the page without creating the job.

5. To export one or more scheduler definitions in a .csv file format to a local machine, select them from the list and click Export.

To manage scheduled jobs

1. Navigate to the System sub-panel on the Admin page, and click **Scheduler**.

Sugar displays the Schedule List page on the screen.

2. Select any job from the job list to view its settings or the Job log. You can edit, duplicate, or delete the settings. You can also delete a job by clicking the del icon corresponding to the job in the Schedule list.

3. To edit the settings, click **Edit**.

4. Make the necessary changes and click **Save** to update the settings; click **Cancel** to exit the page without saving your changes.

Troubleshooting Tips

Linux

1. The Sugar Scheduler fails to run even though the cron.log file shows that the crontab is triggering the new job.

- ¢ The Apache user's PATH does not include the location of the PHP binary.
  - l Change the crontab entry to include the FULL path to the PHP binary as shown below:

* * * * * /usr/local/bin/php -f cron.php > /dev/null 2>&1

- ¢ The Apache user's PATH does not include the location of the php.ini file, and thus the external libraries (such as mod_mysql and mod_imap) are unavailable at run time.
  - l Change the crontab entry to include a PHP switch to explicitly define a php.ini to use as shown below.

* * * * * php -c /path/to/php.ini -f cron.php > /dev/null 2>&1"

2. No PHP binary found or it is broken.

¢ Change the mechanism by which your cron job calls Sugar's cron.php.

l Determine if this is an option at this time by finding either curl or wget on your system. This is done with the commands which curl and which wget.

If you use cURL, your crontab entry should look as follows:
* * * * * curl --silent http://Domain/sugarInstance/cron.php
where Domain is the website where your Sugar installation resides, and sugarInstance is your Sugar installation.
If you use wget, your crontab entry should look like:
* * * * * wget -q http://Domain/sugarInstance/cron.php

Note: Both curl and wget have numerous switches that do not always map to different versions on different platforms. Experiment in the terminal until you find the perfect line, and add it as the line for your crontab entry.

Windows

1. The most common problem is that the PHP binary does not have the proper libraries available at run time. As a result, it cannot make calls to your database or to your Email server. To force PHP to be aware of these libraries, it needs to access the php.ini file, which in turn tells it where to find everything that is available.

a. Locate the php.ini file: if you are unsure, run the following command:

phpinfo();
The system identifies the php.ini file and its location.

2. The second most common breakage is incorrect paths to the extensions that PHP needs; a map is useless if the information is bad.

a. Open php.ini in your favorite text editor.

b. Find the section named Paths and Directories.

c. The relevant entry is extension_dir.

d. Keeping in mind that this file piggybacks on Window's $PATH$ variable, double-check the paths listed.

e. Correct any errors - sometimes giving an absolute path solves hard-to-diagnose problems, for example, full path listing from c:\... onwards.

Necessary extensions are disabled.

f. Open your php.ini file in a text editor.

g. Find the section named Dynamic Extensions.

h. Scroll down to the Windows-specific list.

i. Make sure that the necessary extensions are uncommented (no ";" preceding the line). The bare minimum for Sugar Scheduler to run is to have php_curl, your database Connector, typically php_mysql (for PHP5), and php_imap.

j. Test the batch file again.

Diagnostic Tool

Use this option to capture system configuration for diagnostics and analysis. The diagnostic tool pulls up system information and stores it in a zip file on the server for download. This file summarizes the basic information required to resolve the problem. Attach this file to the help request you sent to Customer Support.

To capture system configuration

1. On the Diagnostic Tool page, click **Execute Diagnostic** to run the tool.

The system displays a list of system configuration files. By default, the system captures configuration information for all the selected files.

The system performs the following actions of these files:

SugarCRM Config.php - Copies the config.php file from the root directory after replacing the DB password with an asterisk for security purposes.

SugarCRM Custom directory - Copies the custom directory to a zip file to enable Customer Support to know what has been customized through the Layout Editor.

phpinfo() - Executes phpinfo and stores it in a file.

MySQL - Configuration Table Dumps - copies a few tables from the database and replaces sensitive information with an asterisk for security purposes.

MySQL - All Tables Schema - writes the schema for all tables to an HTML file.

MySQL - General Information - Pulls up some general information, like MySQL version, character sets, etc.

MD5 info - Runs md5 checks on all files in the sugar directory and compares it against a stock Sugar installation's md5s. This enables Customer Support to learn which, if any, files have been manually customized.

BeanList/BeanFiles files exist - If a custom module has been loaded, and the author did not define these references correctly, it can cause problems. This action checks all the references to ensure they are correct.

SugarCRM Log file - copies the log file.

Sugar schema output (VARDEFS) - copies the Sugar database schema.

2. Deselect the ones you do not want to view, and then click **Execute Diagnostic**.

The system creates a zip file that contains the captured configuration information.

3. To view the file, click the **Download the Diagnostic file** link at the bottom of the page; to delete the file, click the **Delete the Diagnostic file** link.

4. If you choose to download the file, the File Download dialog box displays on the page. To view its contents, click **Open**, and click the file you want to view. To save the zip file contents, click **Save**, and select a location on your local machine.

Themes

Use this option to manage Sugar themes for your organization. You can enable or disable a theme. Sugar displays only enabled themes in the Theme drop-down list from which users make their selection. By default, all themes are available to users.

To set system default theme

System default theme can be set by the administrator. This can later be changed by the individual user. To set the system default theme follow the steps listed below:

1. Click the **Admin** link on the top right corner of your page to go to the **Administration** page.

2. Click Themes link in the System section of the Administration page.

3. Select the default theme from the **Default Theme** drop-down list.

4. Click Save.

To manage themes

1. Navigate to the System section of the Administration Home page, and click Themes Settings.

This displays the Themes Settings page.

2. To disable a theme, click the Right arrow to move it from the Enabled list to the Disabled list; to enable a theme, click the Left arrow to move it from the Disabled list to the Enabled list.

3. Click Save.

Tracker

Use this option to enable the system to track user actions and other information for Sugar modules, including custom modules.

Sugar uses this information to create tracker reports. For information on tracker reports, see Viewing and Creating Tracker Reports.

By default, all tracker settings are disabled.
To configure tracker settings

1. Select the appropriate box to enable one or more of the following options:

Tracker actions. Enable this option to track user actions such as modules accessed on a particular day and the actions performed in those modules such as viewing or editing records. Sugar records tracker actions in the database. You can run a trackers report to view this data.
Tracker sessions. Enable this option to track a user's session data such as session round trips, start and end dates.
Tracker performance. Enable this option to track performance-related information such as database access, file access, server response time, and memory usage.
Tracker queries. Enable this option to track SQL queries that exceed the slow_query_ time_msec limit set in the config.php file. If the Log Slow Queries option is enabled on the System Settings page, then any query exceeding the number of milliseconds defined in this setting will be logged in the database. The queries tracked will substitute the runtime SQL values with the '?' character so that the SQL pattern is treated as a single slow query entry.
Log Slow queries. Enable this option to log slow queries. This information is for performance-tuning investigation. If you have also enabled the Tracker Queries option, you can run the pre-defined Slow Queries report to view slow queries.
Number of days of Tracker data to store when Scheduler prunes the tables. Enter the number of days of data to be retained after the Prune Tracker Tables scheduler is run.
Slow query time threshold. Specify the threshold, in milliseconds, that defines slow queries. Queries that take longer than the threshold time are logged in the sugarcrm.log file. This information is for performance-tuning investigation. If you have also enabled the Tracker Queries option, you can run the pre-defined Slow Queries report to view slow queries.

2. Click Save to save the settings.

Note: In order to obtain data on memory usage, your PHP system must support the memory_get_usage function.

Activity Streams

Sugar Feed has been renamed My Activity Stream in Sugar Release 6.2.0. Select this option to enable the My Activity Stream functionality for your organization. My Activity Stream enables users to be informed as soon as a team membercreates a new Contact, Lead, Opportunity, or Case. Team members are also notified of status updates when a lead is converted, when a case is closed, and when an opportunity is closed. When a user performs any of these actions, Sugar displays a message in the My Activity Stream Dashlet on the Home page of team members.

You can activate My Activity Stream for one or more of the following modules: Leads, Cases, Opportunities, and Contacts.

Additionally, you can enable the My Activity Stream to allow users to post status updates, external links, images, and YouTube videos. Your organization can also create custom link types. These posts can be viewed only by members of the specified team.
To enable and manage My Activity Stream

1. In the System sub-panel, click My Activity Stream Settings.

The My Activity Stream Settings page displays on the screen. Specify the following settings.
Enable My Activity Stream. Select this option to enable this functionality for users in your organization.
Activate My Activity Stream For: To activate My Activity Stream for a module, select the checkbox appropriate for the module.
Activate My Activity Stream.Select this option to enable users to post status updates, images, links, and YouTube videos.

2. Click Save to save the settings. To delete all existing entries in the Activity Stream, click Delete My Activity Stream Entries and click OK to confirm your action.

My Activity Stream entries for images, links, and YouTube videos are automatically deleted after two weeks. If you add custom link types, you can clear them from the cache using the Repair - Quick Repair and Rebuild option.

Connectors

Use this option to manage Sugar Cloud Connectors to external data sources. Sugar provides Connectors to LinkedIn, Hoover's, Zoominfo©-Person, Zoominfo©-Company, Twitter, Facebook, Google Docs, Citrix GoToMeetings, IBM LotusLive, Cisco WebEx meetings, and InsideView.

Connectors are designed for company-type or person-type modules such as Accounts, Leads, and Contacts and for activity-type modules such as Meetings and Documents. You can enable all Connectors except Facebook, Google Docs, GoToMeeting, Lotus Notes, and WebEx for any module, standard or custom, that is listed in Studio provided the module has a standard Detail View layout. For example, though the Knowledge Base module is listed in Studio, you cannot enable Connectors for it because it does not have a standard Detail View layout.

Note: You can enable InsideView for Accounts, Opportunities, Leads and Contacts only.

For all Connectors except InsideView, you can also map Connector fields to fields in Sugar as described later in this section. InsideView displays as a separate panel within the Detail View pages of Accounts, Opportunities, Leads and Contacts records.

Connectors are enabled by default to allow users to search external data sources for new information from within a Sugar record in the module. Users can view the external data or merge it with the existing information in the Sugar record. For example, they can update addresses and phone numbers for an account. For information on merging data, see Integrating data from external sources. You can disable Connectors, if needed.

You can specify the Connector fields to use when searching a data source, as described in Setting Connector Search Fields.

Developers in your organization can create Connectors to other data sources, and you can upload them into Sugar using the Module Loader. You can also search for other available Connectors on Sugar Forge at http://www.sugarforge.org and Sugar Exchange at http://www.sugarexchange.com.

To configure Connector properties

You do not need to configure the Connector properties for InsideView. For all other Connectors, follow the steps listed below:

1. Navigate to the System section of the Administration Home page, and click Connectors.

This displays the Connector Settings page.

2. Click Set Connector Properties.

The Set Connector Properties page displays tabs for the Connectors in Sugar. Tabs for any other Connectors that you install also display on this page.

If you have obtained API keys for Hoover's and Zoominfo, enter them on this page to activate these connectors. If you have not obtained them, it is recommended that you do so. If you do not enter the API keys for these Connectors, Sugar uses a default key, which does not display on the screen.

For LinkedIn, Google Docs, Citrix GoToMeetings, and Cisco WebEx, no API key is required. Users need individual accounts with each application to be able to access the application in Sugar.

You need to obtain API key and App Secret from Facebook; Consumer Key and Consumer Secret from Twitter, and OAuth Consumer Key and OAuth Consumer Secret for IBM LotusLive.

Hoover's requires a WSDL URL. This is the location of the Web Service Definition Language (WSDL) needed to create the client objects that enable Sugar to communicate with the data source's web services.

Hoover's Connector tab displays the following fields:

- Endpoint URL. This is the location that services your SOAP calls. The Endpoint URL for Hoover's is http://hapi.hoovers.com/axis2/Hapi.wsdl.

- WSDL URL. The WSDL URL for Hoover's is:

http://hapi.hoovers.com/axis2/Hapi.wsdl.

- API key. This field displays the introductory API key for Hoover's. You will need to replace this with the API key that you obtain from Hoover's.

Zoominfo-Person Connector tab displays the following fields:

- Person Search Query URL: This is the location that services your SOAP calls while searching for individuals by name or email address.The URL for Zoominfo-Person is:

http://api.zoominfo.com/PartnerAPI/X...arch_query&pc=

Person Detail Query URL: This is the location that services your SOAP calls while searching for details about a person such as the job title, company name, company phone number, company address, and a brief biography. The URL for Zoominfo-Person is:

http://partners.zoominfo.com/Partner...son_detail&pc=

- ¢ Partner Code: Enter the Partner code that you obtained from Zoominfo.
- ¢ API Key. This field displays the introductory API key for Zoominfo-Person. You will need to replace this with the API key that you obtain from Zoominfo.

The Zoominfo-Company Connector tab displays the following fields:

- ¢ Company Search URL. This is the location that services your SOAP calls while querying for company names. The URL is:

  http://api.zoominfo.com/PartnerAPI/X...arch_query&pc=

- ¢ Company Detail URL.This is the location that.services your SOAP calls while searching for company-specific information. The URL is:

http://api.zoominfo.com/PartnerAPI/X...any_detail&pc=

- ¢ Partner Code: Enter the partner code that you obtained from Zoominfo.
- ¢ API Key. This field displays the introductory API key for Zoominfo-Person. You will need to replace this with the API key that you obtain from Zoominfo.

3. If a Connector's URL has changed, enter the new URL in the appropriate field.
4. To ensure that data source is correctly configured, click Test Connector.

If the configuration is correct, Sugar displays a message stating that the test was successful.

5. Click Save to add the settings; to exit the page without saving the changes, click Cancel.

To enable or disable modules for Connectors

1. Click Enable Connectors on the Connector Settings page.
2. Drag and drop module names from the Disabled to the Enabled column to enable Connectors like LinkedIn, Hoovers, ZoomInfo, Twitter, and InsideView, for the desired modules.

To disable modules for Connectors like LinkedIn, Hoovers, ZoomInfo, Twitter, and InsideView, drag the modules from the Enabled list to the Disabled list.
For Facebook and LotusLive, mark the following checkbox:
Enable users to create external account records to this connector. In order to use this connector, the properties should also be set in the Set Connector Properties settings page.
For Google, GoToMeeting, and WebEx, mark the following checkbox:
Enable users to create external account records to this connector.

3. Click Save.

Setting Connector Search Fields

You can choose the fields by which users can search a data source. However, your choices are limited by the Search parameters that the data source supports. The table below lists the supported and default Search fields for Hoover's and Zoominfo.

Data Source	Supported Search Fields	Default Search Fields
Hoover's	Company Name, State, City, Country, Postal Code	Company Name
Zoominfo-Person	First Name, Last Name, Company Name, Email Address, Current Job Company Name, College/University. Note: The Company Name field serves as an additional filter for the convenience of filtering the results based on company name. But the Company Name field will not work by itself. The First Name, Last Name, and/or Email Address search values should be provided in conjunction with the Company Name.	First Name, Last Name, Email Address, Current Job Company Name
Zoominfo-Company	Company Name, Country, Postal Code, State	Company Name, State, Company.

Note: The search results you see depend on the Search rules set by the data source provider.

To select Connector search fields

1. On Connector Settings page, click Manage Connector Search.

Each Connector tab displays separate lists of Connector fields for each Connector-enabled module.

2. To use a field in Connector Search for a module, drag it from the Available list to the Default list.

3. Click Save.

Users can view the selected fields in the module's Search sub-panel on the Data Merge page.

Mapping Connector Fields

You can map Connector fields to fields in a Sugar module to determine how the data is merged from the data source into the Sugar record. For the Connectors that Sugar provides, field mappings are set by default. You can change these mappings and also map additional fields.

For each data source, you can map a module field to one Connector field. The Connector fields that appear in the Data List View are determined by which Connector fields are mapped. However, some of the Connector fields display data in the Data Merge form but not in the List View. Other Connectors may or may not display data in the List View or Merge Form.

The table below lists the fields that display in the Data List View, Additional Details Pop-up window, and the Data Merge Form.

Data Source	Data List View Fields	Additional Details Pop-up/Data Merge Form Fields
Hoover's	City, Country, Company ID, Annual Sales, Company Name	Company Name, City, State, Country, Phone Office, Annual Sales, Street Address 1, Street Address 2, Postal Code, Total Employees
Zoominfo-Person	First Name, Last Name, Current Job Company Name, Job Title, College/University	First Name, Last Name, Current Job Company Name, Current Job Start Date, Current Job Industry, Current Job Title, Current Job Street Address, Current Job City Address, Current Job State Address, Current Job Zip Address, Current Job Country Code, Biography, Collection/University, Image URL, Zoominfo Person URL, Email Address, Direct Phone, Fax, Affiliation Job Title, Affiliation Company Name, Affiliation Company Phone, Affiliation Company Website
Zoominfo-Company	Company Name, City, State, Website, Revenue, Employees	Company Name, City, State, Website, Postal Code, Country, Industry, Phone, Website, Description, Company Ticker, Company Profile URL, Annual Revenue, Employees

To map Connector fields

1. On the Connector Settings page, click Map Connector Fields.

Each Connector tab displays a list of fields in the Connector and a corresponding drop-down list of fields in Connector-enabled Sugar modules.

2. To change a default mapping or to add a new mapping, select the Sugar field from the drop-down list corresponding to the field in the Connector.

3. Click Save to save the mappings.

Sugar uses these field mappings when merging data.

Note: Developers in your organization can customize the Sugar code to change the order in which connectors are prioritized when using the Smart Copy feature during data merge. Currently, your developers can manually edit the display_config.php file located in custom/modules/Connectors/metadata. In this file, the Connectors are grouped by the modules for which they have been enabled. The Connectors for each module are listed in the order that they will appear on the Data Merge screen.

If a data source Connector supports pop-up windows to display data, then Sugar also uses these field mappings to determine which fields display the pop-up window for the data source. For example, the mapped field for LinkedIn displays the LinkedIn icon. When users point the cursor at this icon, a pop-up window displays the LinkedIn data for the field.

PDF

Use this section to configure settings for PDF files of reports and quotes. These settings display in the Document Properties window of the PDF file when you select Properties from the File menu. Administrators can specify other settings such as the logo, keywords for search, and document title.

By default, the page orientation for report PDFs and project PDFs is set to Landscape. The page orientation for quote PDFs is set to Portrait. Developers in your organization can change these configurations, if needed. Users can configure the default font type and size for PDFs from the User Preferences page.

You can add additional fonts for PDF files. To do this, you will need to create a package containing the required fonts and load it into Sugar using the Module Loader. To configure PDF settings

1. In the Document Properties section, you can configure the following settings:

Title. Enter the title of the document.
Subject. Enter the subject of the document.
Author. The name of the user who created the PDF file.
Keyword(s). The keywords associated with the document to help users find the document when they perform a keyword search.

2. In the Images section, you can configure the following settings:

Select New Image for Quotes. The default image that displays on this page is the logo that you specify in System Settings. Click Browse to select a different header logo for quotes.

Select New Image for Reports. The default image that displays on this page is the logo that you specify in System Settings. Click Browse to select a different header logo for reports.

Note: You must install the PHP GD library to successfully upload images in PNG format.

3. Click Save to save your settings; click Restore to revert to default settings; click Cancel to exit the page without saving your settings.

Generating Fonts for Quote PDFs

To enable users to create PDF versions of quotes and email them to customers directly from the Quotes detail view, you must ensure that the correct fonts are installed and specify the appropriate character set from the Import/Export Character Set drop-down list in the User Preferences page. On Microsoft Windows, if you are using USD or Western European fonts, you can select ISO-8859-1 (Western European and US) or CP 1252. The default character set in Sugar is UTF-8.

For other languages such as Japanese, you will have to create the appropriate font.
To generate a font for PDF files

1. Use a program such as Font Forge to generate PS Type1/Binary font of.afm (Adobe Font Metrics) type.
2. Copy the file into sugarcrm/include/fonts.
3. Navigate to the layout directories located in sugarcrm/modules/Quotes/layouts/ or sugarcrm/custom/modules/Quotes/layouts/.
4. In any layout file such as Invoice, Standard, and Custom Layout, find the parameter $font=include/fonts/FontName where FontName is the name of the font that you generated.
5. Save the file.
6. On the User Preferences page, select the appropriate character set for the chosen language.
7. Generate a quote PDF to ensure that the settings are correct.

Mobile

Use this section to enable or disable Sugar modules for Sugar Mobile and Sugar Mobile for iPhone.

Sugar Mobile enables users to access Sugar modules, including custom modules within a web browser on a smartphone or PDA. Sugar Mobile for iPhone is a native mobile application that enables users to access Sugar from their iPhone.

You can add, edit, and remove fields, including Calculated Value fields, to customize the mobile view layout from Studio. For information on creating and editing fields, see Creating and Editing Fields. For information on changing page layouts, Editing Layouts for Sugar Modules.

Note: Calculated Value fields will not be updated in real time in mobile Edit View.

You can make the following configuration changes for Sugar Mobile for iPhone:

- You can hide any module that is visible by default.
- You can display modules that are not on the default list, including custom modules.
- You can specify the maximum number of primary records and related records to display on the iPhone screen.
- In the Edit View layout, you can add and remove fields, including Calculated Value fields.
- You can move fields within List View, Edit View, and Search layouts.

For these changes to take effect, you must log out of Sugar Mobile for iPhone and log in again.
To manage mobile settings

1. Select Mobile Settings from the System section.

On the Mobile Settings page, modules that are enabled by default are listed in the Enabled column. Modules that are not enabled are listed in the Disabled column.

2. In the Listview items per page (Mobile) field, you can change the number of records that display per page in List View on a mobile device. The default is 10 records per page.
3. In the Subpanel items per page (Mobile) field, you can change the number of related records that display in a sub-panel in Detail View. The default is three records per page.
4. To enable a module for Sugar Mobile, drag it from the Disabled column to the Enabled column.
5. To disable a module for Sugar Mobile, drag it from the Enabled column to the Disabled column.

6. Click Save.

Global Search

Administrators can select the modules that users can search on when using Global Search. This includes both standard and custom modules that have been deployed in Sugar.

To Enable/Disable modules for Global Search

To enable/disable modules for Global Search, follow the steps listed below:

1. Click the **Admin** link on the top right corner of your page to go to the **Administration** page.

2. Click **Global Search** in the **System** section.

This opens the **Global Search** page.

3. Drag and drop modules between **Enabled Modules** and **Disabled Modules** to select which modules users can search on when using **Global Search**.

4. Click Save.

Note: Global Search on Sugar installations running on Oracle is case-sensitive by default. To change this, add the following line to the config.php file: $sugar_config['oracle_enable_ci'] = true;

Languages

Administrators are able to manage languages that are available to users.

To display/hide available languages

Follow the steps listed below to display/hide available languages:

1. Click the Admin link on the top right corner of your page to go to the Administration page.

2. Click Languages link in the System section of the Administration page.

3. Drag and drop items from the Enabled Languages box to the Disabled Languages to select languages that are available for your users.

4. Click Save.

To verify that your language selection has been deployed, logout of Sugar and view the available languages from the Language drop-down list in the Sugar login page.

OAuth Keys

OAuth (Open Authorization) is an open standard for authorization that enables users to share their private resources such as photographs, videos, and contact lists, stored on one site with another site without divulging personal credentials such as username and password. For more information, see this wiki article.

You need a pair of keys (text strings) - a public consumer key and a private consumer key - to establish an OAuth connection. A good example of a public key is the username used in websites that require login. A good example of a private key is the password required for such websites. Note that this private key is not sent, making it more secure than a password. Together, these keys identify which application connects to the service. It is your choice, as an admin, to decide how many different keys to have and whom to give them to.

Use the OAuth Key link to create the pair of keys discussed above. Send the created keys to the consumer of the API (for example, application developers) to use for establishing an OAuth connection.

Tokens

Tokens are created when the user establishes OAuth connection with the OAuth key pair. These are the connections between the Sugar user, the OAuth keys, and the permissions and enable the external application/user to access data. Tokens created for each OAuth connection are listed in the Tokens sub-panel of the corresponding OAuth Consumer Keys Detail View page.

Email

Overview

Administrators can setup and manage mail accounts for inbound and outbound emails, including campaign emails, using the options defined in this section.

Email Settings

Use this option to configure a mail server for outbound emails, enable email notifications to users when records are assigned to them, and specify which HTML tags, such as applets and frames tags, to strip from incoming emails before displaying them in Sugar.
To configure email settings

1. In the Email section of the Administration page, click Email Settings.
2. In the Outgoing Mail Configuration sub-panel, enter information for the fields listed below.

To add Google's Gmail server, click Prefill Gmail Defaults. The system fills in the SMTP Server and SMTP Port fields with the Gmail server's address and port number respectively.
From Name. Enter the sender's name; for example, the name of your organization.
From Address. Enter the sender's email address.

3. Select your email provider, such as Gmail, Yahoo, or Exchange. If you are not using any of these, click Other.
4. Enter the email address and password for the specified provider.
5. Allow users to use this account for outgoing email. Select this option to allow all users to use the account, for which username and password were provided, to send emails using the outgoing mail server used to send system notifications and alerts. If you do

not select this option, users will have to provide their own account information when using the outgoing mail server.

6. Click Send Test Email to check if the settings are valid. If they are not, Sugar displays an error message.

7. In the Email Options section, you can specify the following settings:

Assignment Notifications. Enable this option to send email notifications to users automatically when records are assigned to them.
Send Notifications from assigning user's email address. Select this option to send notifications from the email address of the user who is assigning a record to another user.
Delete related notes and attachments with deleted emails. When you select this option, related notes and attachments are deleted when an email is deleted.

8. In the Email Security Settings section, you can specify the following information:

Select Outlook Default Minimum Security Precautions. Select this option if you do not want to strip the Style tag, which is used by Outlook.
Toggle all options. Check this box to strip all the listed tags from emails in the Email client. To strip some of the listed tags, uncheck this box and then select individual tags to strip.

9. Click **Sav**e to save the settings**;** click **Cancel** to exit the page without saving your changes.

Inbound Email

Use this option to create and manage group mail accounts, and bounce handling accounts.

Group Mail Accounts: Allow multiple users, such as team members,to view and import 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.

Bounce Handling Accounts. A bounce handling account 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 Cases from Emails. When you create a group mail account, you can set it up to automatically generate cases from inbound emails.When the case is created, it is assigned to a team and an email notification is sent out. The email's subject line is copied to the case's subject line and the body is copied as the case description. The email is related to the case and is listed in the History sub-panel of the case's Detail View.

Optionally, you can use the auto-reply template to automatically notify customers that you received their email. You can also to set up the template to notify them that a case has been created to resolve the issue. The Subject line of the email contains the number of the newly created case. The case number format follows the Case Macro setting that displays on the Inbound Email Home page. Sugar imports an email and associates it with a case based on the Subject line. When users send an email from the detail page of a case, the case number appears in the Subject field of the email.

The Case Macro field displays the default case macro string. To customize it, you can change CASE to a different word, but you must preserve the rest of the string.
To set up a Group mail account

1. From the Actions drop-down list on the Inbound Email tab, click **New Group Mail Account**.

Sugar displays the Group Mail Account page on the screen.
In the Mail Account Information section, enter information for the following fields:
Name. Enter the user's name, or an alternate name for the mail account.
Mail Server Address. Enter the address of the external mail server.
Mail Server Protocol. Select IMAP from this drop-down list. Additional fields display on the screen to select the folder you want to monitor, a Trash folder to store deleted emails, and a Sent folder to store copies of outgoing emails.
Monitored Folders. This field displays when you select IMAP as the protocol. By default, the system monitors the Inbox. To monitor other folders, click Select to view a list of available folders in the external mail account. To select multiple folders, hold down the Shift key or the Ctrl key. After you select the folders that you want to view in Sugar, click OK to view them in your inbox.
Trash Folder. To select a Trash folder from the Folders list, click Select. After you specify the trash folder, click OK.
Sent Folder. To add a folder to view your outbound emails, click Select. After you specify a folder, click OK.
Status. From the drop-down list, select Active to activate the Group mail account or Inactive to deactivate it. Users cannot view emails from a deactivated account.
User Name. Enter the username to access the mail server.
Password. Enter the user's password to access the mail server.
Mail Server Port. Enter the server port number.
Use SSL. If your mail server supports secure socket connections, selecting this box will force SSL connections when importing emails into Sugar.

2. In the Email Handling Options section, enter information for the following fields:

Assign to Teams. Select the team from this drop-down list to permit access to the Group mail account.
From Name. Enter the name of the person or company that will send the emails.
From Address. Enter the email address from which emails will be sent.
Reply-to Name. Enter the name to which you want replies to be addressed.
Reply-to Address. Enter the email address associated with the Reply-to name.
Allow User to Send Emails Using "From" Name and Address. Select this option if you want to enable users to use this account's From name and address as their Reply To address.
Import Emails Automatically. Select this option to create email records automatically in Sugar for all incoming emails.
Create Case from Email. Select this option to create cases automatically from inbound emails. When you select this option, you will need to specify how the emails are distributed in the Distribution Method field.
Distribution Method. This field displays only when you select the Create Case option and allows you to select Round-Robin or Least-Busy. With the Round-Robin option, the system distributes cases evenly

among all users within the specified team. With the Least-Busy option, the system distributes cases to the least busy user within the team assigned to the Group folder.
New Case Auto-Reply Template. This field displays only when you select the Create Case option. You can use a Case Reply template to set up an automated response notifying email senders that a case has been created to resolve their issue. You can select an existing template from the drop-down list, or click Create to create a new template. The response contains the system-generated case number in the subject line of the email. The body of the email for which the case was created displays below the template text.
For information on creating email templates, see Creating Email Templates.
Leave Messages on Server. This option, which applies to imported emails, displays only when you select a Group folder. Select Yes if you do not want to delete the emails from the external server when you import them into Sugar. Select No if you want to delete emails from the external server.
Auto-Reply Template. Use this template to set up an automated response notifying email senders that you received their email. From the drop-down list, select an existing template, or click Create to create a new one. If both templates are selected, Sugar will respond to the sender with the Create Case Reply template instead of the Auto-Reply template.
No Auto-reply to Domain. To exclude a domain from receiving the automatic email response, enter the domain name. 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.

3. Optionally, click Test Settings to ensure that the settings are accurate.

4. Click Save to save the settings.

The system creates the mail account and displays its detail page.
To set up a bounce handing mail account

1. Select New Bounce Handling Account from the Inbound Emails tab drop-down list.

2. Enter the required information as described in To set up a Group mail account.

3. Optionally, click Test Settings to ensure that the settings are accurate.

4. Click Save to save the settings.

The system creates the bounce handling account and displays its detail page.
To manage group mail accounts and bounce handling accounts

- To view the details of an account, click its name in the Inbound Email home page.
- To activate and deactivate multiple accounts, or change team assignments, select them in the List View and use the Mass Update panel to make the changes.
- To edit an account, click **Edit** in the Detail View, revise the information, and click **Save**.

- To duplicate an account, click **Duplicate** in the Detail View. The system creates a new mail account and displays the Edit View. Edit the details as needed and click Save.
- To delete a mail account, select it from the List View and click **Delete.** Alternatively, click Delete from the Detail View. To delete multiple group mail accounts, select them in the List View and click **Delete**.

Campaign Email Settings

You can specify settings for email campaigns from the Campaigns module. From the Administration Home page, you can change some default values, namely, the number of emails sent per batch and the location of the campaign tracking files. You can also specify whether you want to keep copies of campaign messages or not.
To configure campaigns email setup from Campaigns module

1. On the Campaigns tab Actionsdrop-down list, select Set up Email.

The Email Setup section displays the default values for the following. You can enter new values, if needed:
From Name. Sugar display the name entered on the Email Settings page.
Mail Transfer Agent. Select the mail transfer protocol from the drop-down list. SMTP is the default protocol.
From Address. The email address for the sender.

Note: The name, address, and mail transfer agent information that display on this page reflect the default values set on the Email Settings page. Hence, any change that you make to these values reflect on the Email Settings page and not the Campaign Email Settings page that you access from the Administration Home page.

SMTP Server. Enter the name of the SMTP server.
SMTP Port. The system displays the SMTP port number.
Use SMTP Authentication. To use SMTP authentication, check this box and enter the email account username and password in the fields that display below.
Enable SMTP over SSL or TLS: Select either SSL or TLS from the drop-down list.
In the Mass Mailing Options section, enter the information shown below. You can also enter this information using the Campaign Email Settings option on the Administration Home page.
Number of emails sent per batch. Enter the maximum number of emails to send per batch.
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. 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 point to theindex.php file located in the root directory of your Sugar instance.
Keep copies of campaign messages. The Default is No. Selecting No will store only the template of the campaign message and the required variables to recreate the message.

Selecting Yes will save a copy of all email messages sent during all campaigns in the Sugar database. This takes up space in the Sugar database and slows down performance. Hence, it is strongly recommended that you use the default setting.

2. Click Next.

The page displays existing bounce handling mail accounts.

3. To create a bounce handling mail account, click Create New Mail Account.

4. Enter the mail account information as described in To set up a Group mail account and click Next.

The system displays a summary page that lists the specified settings.

5. Click Save to save the settings and create a bounce handling inbox; to navigate back to the previous screen, click Back; to go back to the Campaigns Home page without saving any of the specified information, click Cancel.

To configure campaign email setup from the Administration page

1. Navigate to the Emails section on the Administration Home page, and select Campaign Email Settings.

Sugar displays the Campaign Email Settings configuration page on the screen.

2. Specify mass mailing options as described in To configure campaigns email setup from Campaigns module

3. Click Save.

The updated settings display on the page as well as on the Email Setup page of the Campaigns module

Email Queue

Use this option to view, send, and delete mass campaign emails that are in the queue for dispatch. The system sends out the email only after the start date/time has passed. After a campaign email has been processed, you can view its status in the Campaign module. The system tracks statistics such as the Sent date and number of times an email delivery was attempted.

Use the Scheduler to run nightly mass email campaigns as well as to monitor bounced campaign emails. For more information on scheduling email mailings, see Scheduler.
To manage queued emails

1. To send out campaign emails, select the campaign in the Queue sub-panel below and click Send Queued Campaign Emails.

You can select more than one campaign at a time.

2. To delete campaign emails, select the campaign in the Queue sub-panel below and click Delete; click OK to confirm the deletion.

3. To search for a specific campaign, enter the campaign name, or recipient name, or recipient address in the Search fields above and click Search; click Clear to clear the search fields.

Email Archiving

Sugar Email Archiving is an automatic email importing service. Enable this feature to allow users to import emails into Sugar by sending them from any mail client or service to a Sugar-provided email address.
To enable Email Archiving for all users in the system:

1. Go to Admin>Email and click the Email Archiving link.

This displays the Admin >> Email Archiving page.

2. Read the Email Archiving feature description, Master Subscription Agreement, and privacy policy.

3. Select the I agree to the above terms and the privacy agreement checkbox.

4. Click Enable Email Archiving.

This displays a second Admin >> Email Archiving page where Status displays as Enabled. You can mouse-over the Information icons (i) next to each field name to read quick tips and info on the field.

5. Copy the Email Archiving Address available in this page to send to all users.

Users need to include this email address in their email messages or meeting invitations in the To, CC or BCC fields to enable archiving of the message or meeting.
To modify the required string in the Subject of Case-related emails
By default, only emails with [CASE:{number}], in the subject attach to the respective case.
Follow the steps listed below to modify the required string in the Subject of Case-related emails:

1. Go to Admin>Email.

2. Click the Inbound Email link in the Email section.

This displays the Inbound Email » Home page with default Case Macro value set to [CASE:%1].

3. Update the Case Macro value, keeping the %1 in the new string, for example [TICKET NUMBER:%1]. The %1 value decides where there the case number is positioned in the string.

Note: Note: If this value is empty, all emails related to the Case via Contacts, regardless of the subject, attach to the Case.

4. Click Save.

To disable Email Archiving for all users in the system:
Follow the steps listed below to disable Sugar Email Archiving for all users in the system:

1. Go to Admin>Emails and click the Email Archiving link.

This displays the Administration >> Email Archiving page.

2. Click Disable Email Archiving.

This disables Email Archiving and displays the Administration >> Email Archiving page with the Master Services Agreement.

Note: When you disable Email Archiving, the email address associated with this feature will be permanently removed from the Email Archiving server. A new email address will be created when Email Archiving is re-enabled.

Developer Tools

Overview

The Developer tools section displays options that enable you to build new modules and customize existing ones.

The Module Builder enables you to build custom modules; Studio enables you to customize existing modules. To create relationships between modules, see Creating Relationships.

After you build a module in Module Builder, you can deploy the module directly within the current instance, or you can use the Module Loader to install it in another Sugar instance. For more information, see Module Loader.

You can add custom modules as Sugar Dashlets on your Home page. For more information on Sugar Dashlets, see Managing Sugar Dashlets.

Module Builder

Use the Module Builder to create custom modules in Sugar.You can also make custom modules available for mobile views using the Mobile Settings option.

The process of creating a custom module is as follows:

1. Create a package to house the new module. You can create one or more modules within a package.

2. Create a module using one of the following templates that Sugar provides for you.

Basic. This template provides basic fields such as ID, Date Entered, and Created By. Use this template to create a module from scratch.

Company. This template provides organization-specific fields such as Company Name, Industry, and Billing Address. Use this template to create a module that is similar to the Accounts module.

File. This template provides document-specific fields such as File Name and Document Type. Use this template to create a module that is similar to the Documents module.

Issue. This template provides case and bug-specific fields such as ID, Description, and Created By. Use this template to create a module that is similar to the Cases module or Bug Tracker module.

Person. This template provides individual-specific fields such as salutation, title, name, address, and phone number. Use this template to create a module that is similar to the Contacts module or the Leads module.

Sale. This template provides opportunity-specific fields such as Lead-Source and Probability. Use this template to create a module that is similar to the Opportunities module.

3. Create new fields, if necessary. You can also rename default fields from the template.

Note: Apart from field names, you cannot edit other field properties in a template. However, you can duplicate the fields and save them with a different name to customize them. You can choose which fields appear in the module layouts.

4. Customize page layouts for List View, Edit View, Detail View, Sub-panels, Search form, and Sugar Dashlets, if necessary.

5. Create relationships between the new module and other modules, if needed. A Sugar module, typically, has multiple relationships with other Sugar modules. When you create a custom module, you can define its relationship with other Sugar modules.

6. Save the package and distribute it.

You can choose one of the following options to distribute the package:

¢ Publish. This option is designed for distribution to specific users or customers. The system creates a zip file, which you can save on your local machine. You can then email it to one or more individuals who can use the Module Loader to upload the zip file into their Sugar instance.

After the module is installed through Studio, you can add or remove fields and make other changes to a published module.

- Deploy. This option is designed to install the custom module on your Sugar instance and make it available to users in your organization. After deployment, if needed, you can make further changes to the module in Module Builder and deploy it again to update the installed module.

You can also add or remove fields and make other changes to a deployed module through Studio. However, note that if you change a deployed custom module in Studio and then re-deploy it from Module Builder, the following information will be lost:

- Custom field labels will be lost and, hence, will not display in the page layouts even though the custom fields and the associated data exist in the database.
- The layouts for the custom module will be lost and will have to be created again. If you created custom fields in Studio and added them to the layouts prior to re-deployment, you will have to add them again to the layouts in Module Builder.
- Custom relationships will be lost. The relationship tables and relationships between records that are stored in those tables are deleted from the database.

- Export. This option is designed for distribution to developers. The system creates a zip file, which you can save on your local machine and email to other developers. Using the Module Loader, developers can install it on their Sugar instance and customize it further in Module Builder if necessary. The package is visible only in Module Builder and, hence, only administrators can access it until it has been deployed.

To create a package

1. In the Developer Tools sub-panel, click Module Builder to view the Module Builder page.

2. Click New Package.

Sugar displays the Package page on the screen.

3. Enter a name for the package and click Save.

The system refreshes the page and displays options to duplicate, publish, deploy, export, and delete the package.

4. Enter information for the following fields:

Author. Enter your name as the creator of the package.

Key. Enter an alphanumeric key to distinguish modules with similar names. The system will prefix all class names, directories and tables names with this key.

Description. Enter a brief description of the package.

5. Click Save to create the package; to delete the package, click Delete.

6. After you save the package, if you want to create a copy, click Duplicate.

The system appends a 1 to the package name and saves it as a new package.

7. To publish the package after saving it, click Publish.

8. To deploy the package on your Sugar instance after saving it, click Deploy.

9. Click Export to save the package as a zip file on your local machine.

To create a module

1. Click the New Module icon on the Package page.

The Module page displays on the screen

2. Enter information for the following fields:

Module Name. Enter a name for the module.

Label. Enter a name for the module that you want displayed in the Sugar User Interface.

Importing. Selecting this option to allow data import into the module.

Team Security. By default, this option is enabled to allow you to assign a team to access and manage records created in the module. Deselect the box to disable team security, if necessary.

Navigation Tab. By default, this option is enabled to create a tab for the module that is identical to other Sugar module tabs.

Type. Click a template to select it for your module

3. Click Save to save the module and add it to the package.

The system refreshes the page to display the selected template. The new module is nested within the package listed in the Packages panel on the Module Builder home page.

The Packages panel on the left lists all the modules you create within a package. Default fields, labels, layouts, sub-panels, and relationships from the selected template are nested under the module. You can click them to view their details. You can also edit the default layouts, add new fields, and create relationships with other Sugar modules.

For information on customizing a layout or the Search form, see Editing Layouts for Sugar Modules. For information on creating new fields, see To add fields. For information on defining relationships, see Creating Relationships.

To edit Sugar Dashlets

1. On the custom module page, click View Layouts. Alternatively, click Layouts in the Packages panel on the left.

2. Click Sugar Dashlet.

You can edit the List View and the Search form for Sugar Dashlets.

3. To edit the List View, click Sugar Dashlet List View and follow the procedure described in To edit List View.

To edit the Search form, click Sugar Dashlet Search and follow the procedure described in To edit the Search form.

To distribute or install a package

1. In Module Builder, select the package and click Publish, Deploy,or Export.

When you select Publish or Export, the system saves it as a zip file that you can export to your local machine and distribute as needed. When you select Deploy, the system installs all the custom modules in the package on your Sugar instance.

2. When you choose Publish or Export, select Save to Disk and click OK.

Use the Module Loader to upload the file from your machine into Sugar and install the module. For more information, see Module Loader.

Deleting Packages

You can delete a package if necessary. When you delete a package, all the files that it contains are also deleted. If you delete a package after it has been deployed, you can uninstall the deployed package using the Module Loader. When you uninstall a package, you have the option of retaining or removing the database tables.

You do not need to delete a package before you install a newer version. The files from the new version will override any existing files from the earlier package. That is, any updates that you made to the package before re-deploying will override files from the earlier package.

Module Loader

Use the Module Loader to install Sugar modules, custom modules, upgrades, language packs, Sugar Dashlets, and themes.

You can create custom modules in the Module Builder. A custom module is contained within a package. When you deploy the package, it becomes available to other users in your organization. When you publish or export the package, you can save it as a zip file on your local machine and then use the Module Loader to upload them it into Sugar. For more information on creating packages, see Module Builder.

If you delete a package in Module Builder after it is already installed or deployed, you can uninstall the deployed module in the Module Loader. You can also disable installed modules through the Module Loader.

Before you attempt to install custom modules, you must enter its license information as described in License Management.

To install a module

1. In the System sub-panel of the Administration Home page, click Module Loader.

If you deployed the package, it is listed in the top panel and has already been made available to other users in your organization. You can uninstall it or disable it by clicking the appropriate button.

2. Click **Browse** to navigate to the location of the module's zip file on your local machine.

3. Select the file and then click Open.

The path to the zip file displays in the Module field.

4. Click **Upload**.

The uploaded module displays in the bottom panel.

5. Click **Install**.

The license agreement displays on the screen.

6. Select Accept to accept the agreement and then click **Commit** to install the module.

If the installation is successful, the system displays a message stating that the module installed successfully.

7. To go back to the Module Loader page, click **Back to the Module Loader**.

The new module's tab is now visible to all users.

To disable and enable a module

1. To disable a module, click the Disable button located next to the module's name.

Sugar displays the License Agreement on the page.

2. Click Accept to accept the agreement.

3. Click Commit.

After the module has been disabled, Sugar displays a message stating that the module has been disabled.

4. Click Back to Module Loader.

The Enable button displays next to the module's name.

5. To enable the module, click Enable.

To uninstall a module

1. In the Module Loader, click the **Uninstall** button corresponding to the module's name.

The system displays a message stating that the module is ready to be uninstalled and displays options to remove or retain the database tables that were created for the new module.

2. To remove the tables from the database, select Remove Tables; if not, select Do Not Remove Tables.

3. Click **Commit** to uninstall the module; click Cancel to retain the module.

4. Click Save.

Studio

Studio enables you to customize modules by adding new fields, editing existing fields, field labels, page layouts, sub-panels, and Quick Create forms.You can also customize mobile views for Sugar modules

that can be accessed from a mobile device. After you customize a module, you can export it to your local machine and upload in into another Sugar instance using the Module Loader.

The Studio home page displays a list of existing modules in the left panel. These include the default Sugar modules as well as any custom modules that have been deployed. The associated fields, labels, layouts, and sub-panels for each module are grouped within the module. You can click the Plus sign (+) preceding the module name to view them. The right panel displays the same information in the form of icons. You can click a module in either panel to drill down to its fields, labels, layouts, and sub-panels.

The bottom of the page displays buttons to the (Developer Tools) Home, Studio, Module Builder, and the Dropdown Editor.

Editing a Module

You can create and edit custom fields, drop-down lists, and field labels for a module. You can also edit the default fields, layouts, and sub-panels. After you edit a module, the updated version will not be available to other users until you publish it. You can use Studio to make changes to a published module.

Note: If you make changes to fields and layouts of a custom module in Studio, some information will be lost if the module is re-deployed from the Module Builder. For more information, see the description of Deploy in Module Builder

To edit a module

1. In Studio, select the module that you want to edit.

2. Select from the following options:

Labels: Select this option to edit field labels. For more information, see Editing Field Labels.
Fields: Select this option to create custom fields, and to edit default fields and custom fields. For more information, see To add fields. Select this option to edit and create drop-down lists. For more information, see Dropdown Editor.
Layouts: Select this option to edit the List View, Detail View, Edit View, Search, and Quick Create forms. For the Leads module, you can also edit the Convert Lead form. For more information, see Editing Layouts for Sugar Modules.
Relationships: Select this option to view existing relationships and create new ones between modules. After you create a relationship, you will need to deploy it to make it available to users. For more information, see Creating Relationships.
Subpanels: Select this option to edit one or more of the module's sub-panels. For more information, see To edit a sub-panel.
Mobile Layouts. Select this option to edit layouts in Sugar mobile. You can edit the List View, Detail View, Edit View, and the Search form for mobile views. For more information, see Editing Layouts for Sugar Modules.

3. Click Save.

Editing Field Labels

You can edit field labels, button labels, link labels, module titles, and pop-up window messages using the Label editor. You can also change the default field labels for all the language packs that you have installed. Every module list displays the database fields and the labels they map to in the user interface.

Using the Label Editor instead of the Layout Editor to edit multiple labels for a module reduces the time to edit them.
To change field labels

1. Select the module and click Labels.

A list of existing database fields and the labels to which they are mapped displays on the page.

2. If you want to select a different language pack, select the appropriate one from the list of pre-installed language packs in the Language drop-down menu.

3. Select the label that you want to edit and enter the new name.

4. Click Save.

5. To navigate back to a different module or to Studio, click the appropriate breadcrumb above the Save button.

Creating and editing Fields

You can add custom fields to any module in Sugar. When you add a custom field, the application adds the field to the appropriate database table and stores the generated metadata. You can then add the fields to the desired layout, such as Edit View and Detail View. For custom modules, you can create fields in the Module Builder.

Use Studio to edit fields in a custom module after it has been published.

The Field Editor allows you to edit some properties of custom fields and change the display label and some properties of standard fields such as the field length, row size, and column size. You can also mark a standard field as a required field or an audited field. These properties are described in To add fields.

Note: You cannot change the field name or data type of existing fields. However, you can change the display label.

To add fields

1. To add a new custom field to a module, select the module and click Fields.

The page displays the current default fields that Sugar provides as well as any existing custom fields.

2. Click Add Fields.

The Field Editor displays the field types as shown below:
The information that you need to specify varies depending on the selected data type.

3. In the Field Editor, enter values for the following:

Data Type. From the drop-down list, select one of the data types listed below.

- Text Field. Creates a text field for fields such as first name and last name.
- Address. Creates fields for street, city, postal, state, and country.
- Checkbox. Creates a checkbox for data fields with a Yes/No action; users can click the checkbox to turn on or turn off the action.
- Currency. Creates a field to enter a currency. The system automatically creates a field of the currency type if the field does not exist.
- Date. Creates a field to enter a date.
- DateTime. Creates a field to enter the date and time. Enter the default values in the field that displays when you select this data type. You can select a date and time, such as first day of next month, 12:00pm from the drop-down list below.
- Encrypt. Creates a field for information, such as social security numbers, whose value is stored in an encrypted format in the Sugar database. Sugar uses Blowfish encryption to encrypt passwords. The value is not encrypted in the user interface and is visible to users.
- **DropDown**. Creates a field that you can associate with a drop-down list of values. For more information on drop-down lists, see **Dropdown Editor**.
- Decimal. Creates a field to hold a number with a specified precision past the decimal point. Sugar stores the exact representation of the number in the database. For example, 1.23 is stored as 1.23.
- Float. Creates a field to hold a number with a specified precision past the decimal point. Sugar stores a very close approximation of the specified value. For example, 1.23 may be stored as 1.2345670000. Because using the Float data type instead of the Decimal data type enhances performance, it is recommended that you use it if exact precision is not required.
- HTML. Creates static HTML-formatted text to display in record views.

- IFrame. Creates an IFrame field. For more information, see Embedding Links and IFrames in a Layout.
- Image. Creates an image field to upload an image to display in a record. By default, this field is available in Contacts, Users, and Employees.
- Integer. Creates a field to specify positive or negative numbers. You can specify a range with the Min and Max Value fields.
- MultiSelect. Creates a drop-down list of values. Users can select one or more values from the list.
- Flex Relate.Creates a drop-down list from which you can associate a related record. Because you can add only one Flex-Relate field to a module, this option does not display in the Data Type drop-down list if you attempt to add it to a module that already contains a Flex Relate field.
- Phone. Creates a field to enter a phone number.
- Radio. Creates a radio button.
- Relate. Creates a field to associate a record with another record as a one-way relationship. You can add multiple Relate fields to a module. The Users module can be selected for custom Relate fields that can be used to relate records to Users.

Note: Relate fields and custom relationships are independent of each other. Changes made to either one are not reflected in the other.

- Text area. Creates a large field for a block of text.
- URL. Creates a field that links to a URL.
- TextField. Create a field for text.

Depending on the data type that you select, you will need to specify values for some of the fields listed below.

- Field Name. Enter a name for the field. The system adds it to the Sugar database. Do not use spaces or special characters.
- Display Label. The system uses the field name as the label that will display in the Sugar User Interface. You can enter a new value if needed.

¢ System Label. Sugar auto-populates this field with the label that it uses internally to refer to the field. This is the label that Sugar displays on the module's Edit Labels page in Studio. You can change this value.

¢ Help Text. Enter descriptive text for the field. Sugar displays this text when the user points the cursor at the field. Regular users cannot view this text.

¢ Comment Text. Enter additional comments, if needed, about the field.

¢ Width. Enter the width in pixels to scale an uploaded image to this width.

¢ Height. Enter the height in pixels to scale an uploaded image to this height.

¢ Border. Check this box if you want a border around the image.

¢ Default Value. Enter a default value for the field, if necessary.

¢ HTML. Sugar displays this text box when you select the HTML data type. Enter the HTML code in this box.

¢ Max Size. Enter the maximum number of characters that users can enter in the field. This is for text data fields.

¢ Mass Update. Sugar displays this option when you select the DropDown data type or the Date data type. Use it to add the field to the module's Mass Update section. Data types that are available for Mass Update are listed below:

- Date
- Datetime
- DropDown
- MultiSelect
- Radio

Data types that are not available for Mass Update are listed below:

- Address
- Checkbox
- Currency
- Decimal
- Encrypt
- Float
- HTML
- IFrame

- Image
- Integer
- FlexRelate
- Phone
- Relate
- TextArea
- URL
- TextField

The following fields are available for Mass Update:

- Assigned to
- Teams

¢ Drop Down List. For DropDown, MultiSelect, and Radio field data types. For information on creating a drop-down list, see To create a drop-down list.

¢ Min Value. Sugar displays this field if you select the Integer data type. Enter a minimum value during data input.

¢ Max Value. Sugar displays this field when you select the Integer data type. Enter a maximum value during data input.

¢ Auto Increment Next Value. You can specify an incremental value for the next number for numerical fields such as bug numbers, case numbers, and quote numbers.

Note: If you are using Oracle database, changes to the auto-increment value will be reflected in the Sugar User Interface only after creating a record in the target module such as Bugs, Cases, and Quotes.

¢ Precision. Sugar displays this field when you select the Decimal data type. Enter a number to specify the number of digits to the right of the decimal point.

¢ Calculated Value Field. Select this option to create a field for calculated values. You can enter the formula in the Formula field, or click Edit Formula to use the Formula Builder. For more information, see Calculated Value Fields.

¢ Required Field. Select this option to specify that users must enter a value for the field when creating a record.

- Reportable. By default, this box is selected to enable you to specify this field when you run reports. Enabling this option also makes the field available to you in workflows.

Note: Only fields marked Reportable can be specified in time-based workflows.

- Audit. Select this option to display field values when a user clicks View Change Log on a record's Detail View.

- Importable. From the drop-down list, select one of the following:

Select Yes to enable users to import a value into the field.
Select No to prevent users from importing a value into the field.
Select Required to make it a required field during import.

- **Duplicate Merge**. From the drop-down list, specify one of the following options for the Duplicate Merge functionality that allows users to merge records from a record's Detail View.

  - Enabled: The field will appear on the Merge Duplicates page, but will not be available as a filter condition on the Find Duplicates page.

  - Disabled: The field will not appear on the Merge Duplicates page, and will not be available as a filter condition on the Find Duplicates page.

  - In Filter: The field will appear on the Merge Duplicates page and will also be available in the Find Duplicates page.

  - Filter Only: The field will not appear on the Merge Duplicates page, but will be available on the Find Duplicates page.

  - Default Selected Filter: The field will be used for a filter condition by default on the Find Duplicates page, and will also appear on the Merge Duplicates page.

4. Click Save to create the field.

The new field is listed in the Custom section. The system appends the field name with '_c' to indicate that it is a custom field. You can now add the field to the desired layout of a module.

To edit fields in Studio

1. Select the module and click fields to navigate to the Edit Fields page.

The Edit Fields page displays custom fields in the Custom section and default fields in the Default section.

2. Click the field to view its properties in the Field Editor.

3. Edit the properties as needed and click Save.

You can view the updated field in the module's records.

To manage fields

- To duplicate the field, click Clone, enter a new name, and click Save.
- To delete the field, click Delete. You must also remove the field from any layout to which it was added.

Calculated Value fields

A Calculated Value field is one in which a formula determines the field value, enabling you to calculate data automatically based on user input. For example, you can calculate estimated sales commission based on the opportunity amount. You can use any available field in the module for which you are creating the Calculated Value 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.

You can use a Calculated Value field in formulas for other Calculated Value fields. For example, you can use a Calculated Value field to display a field value across tabs in Detail View and Edit View. You can also use Calculated Value fields in workflows and reports. Any changes you make to the value of the original field, manually or through a workflow, are reflected in the calculated field on the selected tabs of the layout.

For formula examples, see Examples of Calculated Value formulas.

Import, mass update, and data merging are automatically disabled for Calculated Value fields. When a Calculated Value field is deleted, the associated formula is deleted as well.

Sugar provides a formula builder, which includes a list of functions and fields.The functions are described below.

Function	Description	Example
strlen(String s)	Returns the number of characters in the String s.	strlen("Hello") = 5

ln(Number n)	Returns the natural log of n.	ln (e) = 1
divide(Number numerator, Number denominator)	Returns the numerator divided by the denominator.	divide(8, 2) = 4
negate(Number n)	Returns negated value of n.	negate(4) = -4
number(String s)	Returns the numeric value of s	number("1.200") = 1200
median(Number n, ...)	Returns the median of the supplied numbers	median(4, 5, 5, 6, 7) = 5
pow(Number n, Number p)	Returns n to the p power	pow(2, 3) = 8
add(Number n, ...)	Returns the sum of the given numbers.	add(2, 1, 3) = 6
subtract(Number a, Number b)	Returns a minus b.	subtract(9, 2, 3) = 4
Log(number, base)	Returns the supplied baseLog of number.	log(100, 10) = 2
floor(Number n)	Returns n rounded down to the next integer.	floor(5.73) = 5
multiply(Number n, ...)	Multiplies the supplied numbers and returns the result.	multiply(-4, 2, 3) = -24
max(Number num, ...)	Returns highest value number passed in	max(-4, 2, 3) = 3
min(Number num, ...)	Returns lowest value number passed in	min(-4, 2, 3) = -4
abs(Number num)	Returns the absolute value of num.	abs(-5) = 5
ceil(Number n)	Returns n rounded up to the next integer.	ceil(5.12) = 6
average(Number n, ...)	Returns the average of the given numbers	average(2, 5, 11) = 6
contains(String haystack, String needle)	Returns true if needle is within haystack.	contains("Hello World", "hello") = true
equal(Generic item1, Generic item2)	Returns true if "item1" is equal to "item2".	equal("one", "one") = true, equal(1, "one") = false

greaterThan(Number num1, Number num2)	Returns true num1 is greater than num2.	greaterThan(3, 5) = false
isValidEmail(String email)	Returns true if email is in a valid email address format.	isValidEmail("invalid@zxcv") = false isValidEmail("good@test.com") = true
and(boolean1, ...)	Returns true if and only if all parameters are true.	and(true, true) = true, and(true, false) = false
not(Boolean b)	Returns false if b is true, and true if b is false.	not (false) = true
or(boolean1, ...)	Returns true if any parameters are true.	or(false, true) = true
isWithinRange(Number num, Number min, Number max)	Returns true if num is greater than or equal to min and less than or equal to max.	isWithinRange(3, 3, 5) = true isWithinRange(2, 3, 5) = false
getDropdownKeySet(String list_name)	Returns a collection of the keys in the supplied dropdown list. This list must be defined in the DropDown editor.	valueAt(2, getDropdownKeySet("my_list"))
createList	Returns list made up of passed in variables.	create list(123, "Hello World","three", 4.5)
getDropdownKeySet(String list_name)	Returns a collection of keys in the supplied dropdown list. This list must be defined in the DropDown Editor.	valueAt(2, getDropDownKeySet("my_list"))
ifElse (Boolean c, Val2, Val2)	Returns Val1 if c is true or Val2 if c is false	ifElse (true,"first","second") = "first" ifElse(false,"frist","second") = "second
valueAt(Number index,createList values)	Returns the value at position index in the collection values	valueA(1,createList(:"a","b","c") ="b"
strToUpper(String s)	Returns s converted to upper case	strToLower("Hello World") = "HELLO WORLD
strToLower(String s)	Returns s converted to lower case	strToLower("Hello World") = "hello world"
concat(String s, ...)	Appends two or more pieces of text together	concat("Hello", " ", "World") = "Hello World"

toString(val)	Converts the given value to a string	toString(5.5)=”5.5”
translateLabel(String label, Strng module)	Returns the translated version of a given label key.	transateLabel(“LABEL_NAME”,”Accounts”) = “Name”
getDropdownValue(String list_name, String key)	Returns the translated value for the given key found in the list_name DropDown list. This list must be defined in the DropDown editor.	getDropdownValue("my_list", "foo")
date(String d)	Converts the given string in the current user’s date format into a date	date("5/20/2011")
today()	Returns a date object representing todays date	
now()	Returns a date object representing today’s date and the current time	addDays(now(), 7) = (one week from now)
addDays($date, $days)	Returns a date object moved forward or backwards by $days days	addDays(date("1/1/ 2010"), 5) = "1/6/2010"/
isAfter(Date day1, Date day2)	Returns true day1 is after day2	isAfter(date("1/1/2001"), date("2/2/2002")) = false
isBefore(Date day1, Date day2)	Returns true day1 is before day2	(date("1/1/2001"), date("2/2/2002")) = true
dayofweek(Date d)	Returns the day of week that d falls on	Sun = 0, Mon = 1, ... , Sat = 6
daysUntil(Date d)	Returns number of days from now until the specified date	
monthofyear(Date d)	Returns the month of year that d is in	Jan = 1, Feb = 2, ... , Dec = 12
related($link, String $rel_field)	Returns the value of the field in the related module. If the link is to many, the first record's value is returned	related($accounts, "name") = The name field from a related Account record
count($link)	Returns a count of the records related via the link to the current record. Works on one or many links	count($cases) = The number of cases related the current record

rollupSum	Returns the sum of the values of a field in the records related by a given link	rollupSum($link, String $rel_field)
rollupMin($link, String $rel_field)	Returns the lowest value of the number field provided from all of the records related by a given link	rollupMin($opportunities, "amount") = The lowest amount of all the Opportunities related to the current record.
rollupMax($link, String $rel_field)	Returns the highest value of a given number field from the records related by a given link	rollupMax($opportunities, "amount") = The highest amount of all the Opportunities related to the current record.
rollupAve($link, String $rel_field)	Returns the average value of a given number field across records related by a given link	rollupAve($opportunities, "amount") = The average amount of all the Opportunities related to the current record.

You can use the following field types to create Calculated Value fields:

- TextField
- Checkbox
- Currency
- Decimal
- Encrypt
- Float
- IFrame
- Image
- Integer
- Phone
- TextArea

- Date
- Datetime

Creating a Calculated Value field

1. In Studio, navigate to the module in which you want to create the field.
2. Create a field using any of the field types mentioned above.
3. Enable the Calculated Value option.

Sugar displays a Formula field beneath the Calculated Value option.

4. Click Edit Formula.

Sugar displays the Formula Builder pop-up window. This top section of this window displays a text area to enter the formula. Available functions and fields appear below in as separate lists. For the description of a function, point your cursor at its name.

5. To find a function, enter the full or partial name in the Search field above the Functions list. Alternatively, scroll down the list to select it.

Sugar displays the selected function in the text area. If you have already selected a field, Sugar appends the function to the field.

6. To find a field, enter its full or partial name. Alternatively, select the appropriate field from the Fields list.

Sugar displays the selected field in the text area. If you have already selected a function, Sugar appends the field to the function.
To view the full list of functions or fields after searching for a function or a field, delete the text in the Search field.

7. Click Save to create the formula.

Sugar validates the formula and saves it. In case of an error, the system does not save the formula, and displays an error message.

8. Add the field to the Detail View and Edit View layouts.

You can also add it to other layouts such as Search and Sugar Dashlet.

Note: In Sugar Mobile, you can add it to the Edit View layout. However, the values are calculated and displayed only after you save the record.

9. Save and deploy your changes.

Sugar displays the Calculated Value field in the Detail View of records in the module.

Sugar Logic enhancements

You can create formulas involving related modules in code and also in Formula Builder in Studio.

New functions take a link (relationship) and the field (string) in the related module.

Relationships between the calculated value fields are not displayed to users, posing a challenge for them to figure out which functions to use. The only solution is to have the developer at the customer-end look into the vardef files and view the relationships (that are hidden from the user). On-demand customers need to download the Sugar files or request for a copy of the file system from Sugar Support.

Note: You cannot run filters on related calculated value fields.

The section below lists some examples of creating formulas. For detailed information, see the chapter on Sugar Logic in the 6.3.0 Sugar Developer Guide.

Examples of Calculated Value formulas

The following are some examples of creating formulas for Calculated Value fields.

- **Commission Amount for Opportunities**

This formula calculates the value for an estimated sales commission@10%, based on the opportunity amount.

```
multiply ($amount, 0.1)
```

- **Lead Scores**

This formula scores Leads using the following criteria:

- 10 points for entering a name longer than 5 characters (probably a real name).
- 5 points for having a mobile or work phone number (10 points for both).
- 10 points for being referred.
- 10 points for lead opportunities worth 1,000 or more.

```
add (
ifElse(greaterThan(strlen(concat($first_name, $last_name)), 5), 10, 0),
ifElse(equal($phone_mobile, ""), 0, 5),
ifElse(equal($phone_work, ""), 0, 5),
ifElse(equal($refered_by, ""), 0, 10),
ifElse(greaterThan(number($opportunity_amount), 999), 0, 10)
)
```

- **Account Rating**

  This formula rates accounts as small, medium, and large based on the number of employees; 0-50 employees = Small, 50-100 employees = Medium, more than 100 employees = Large.

```
ifElse(equal($employees, ""), "Small",
ifElse(greaterThan(number($employees), 100), "Large",
ifElse(greaterThan(number($employees), 50), "Medium",
"Small")))
```

- **Account Region**

  This formula creates a Region field and populates it automatically based on the State.

```
ifElse(isInList(strToUpper($billing_address_state),
createList("CA", "AZ", "WA", "OR", "NV", "UT", "ID")), "West",
ifElse(isInList(strToUpper($billing_address_state),
createList("MT", "WY", "CO", "NM", "ND", "SD", "NE", "KS", "TX")), "Mountain",
ifElse(isInList(strToUpper($billing_address_state),
createList("ME", "NY", "PA", "WV", "VA", "NC", "SC", "GA", "DL")), "East",
"Misc")))
```

- **Displaying field values across multiple tabs of a layout**

  You can use Calculated Value fields to display a field value across tabs in Detail View and Edit View.

  In this example, using the Accounts module, we mirror the value of the Industry field from the More Information tab to the Other tab, in Detail View and Edit View.

  a. Create a new Calculated Value field named Industry.

  b. In the Formula Builder, select $industry from the Fields list.

Sugar displays the field in the text area.

  c. Add the field to the Other tab of the Detail View and Edit View layouts.

When the value of Industry field on the More Information tab changes, the value of the Industry field on the Other tab changes as well.

Creating a Dependent Value field

Formulas can be created to determine whether a field is visible within the Edit and Details View layouts. The created formulas have outputs that are either True or False. Fields created using dependent values will display only when the output of the formula is True. Follow the steps listed below to create dependent fields for example in the Date Created field in Accounts module

1. Click Studio in the **Developer Tools** section of the **Administration** page.

2. Select Fields under Accounts in the Modules section.

3. Select **date_entered** in the **Edit Fields** pane.

This displays the Edit Field pane.

4. Select the **Dependent** checkbox in the **Edit Field** pane.

This displays the **Visible if** field.

5. Click the Edit Formula button.

This displays the Formula Builder pop-up box. Items listed in the Functions column display the function details, description and examples when you mouse-over them to help you create functions.

6. Select functions and fields from the Functions and Fields columns and click Save in the Formula Builder pop-up box.

7. Click Save in the Edit Field pane.

Enable search using date and number ranges

Admin users can manage settings for date/datetime and number fields to enable users to run searches on date and number ranges.

Follow the steps listed below to enable users to run searches on date and number ranges in date/ datetime and number fields, for example Date Created fields in Accounts module:

1. Click Studio in the Developer Tools section of the Administration page.

2. Select fields under Accounts in the Modules section.

3. Select date_entered in the Edit Fields pane.

This opens the Edit Field pane.

4. Select the Enable Range Search checkbox in the Edit Field pane and click Save.

Editing Subpanels

Every record's Detail View displays sub-panels for related records from other modules. You can add or remove fields for these sub-panels depending on the information that you want to display to users. You can also rename a sub-panel if needed.
To edit a sub-panel

1. Select the module and then click Subpanels.

Sugar displays the sub-panels for the selected module on the page.

2. Select the sub-panel that you want to edit.

The page displays the list of default fields and a list of fields that are available for display.

3. To change the sub-panel's name, enter the new name in the Title field.

4. To add a field to the sub-panel, select it from the Hidden column and drag it to the Default column.

5. To remove a field from the sub-panel, select it from the Default column and drag it to the Hidden column.

6. To save and display your changes in the module, click Save & Deploy.

7. If you do not want the changes that you made, click Restore Default to change back the layout to its original form.

   Note: You cannot use the Restore Default button to restore the default title of the sub-panel.

8. To view a list of time stamps for changes that were made to the sub-panel, click View History.

You can view changes that were made at a particular time on a certain date and reinstate those changes if needed. For more information, see To preview and restore changes.

Editing Layouts for Sugar Modules

You can edit the page layouts for modules in Sugar, Sugar Mobile, and Sugar Mobile Plus. You can move fields, add fields, and remove fields. You can also change the tabbing order to move from field to field.

The breadcrumbs to navigate back to Studio display above the layout. The Toolbox stores fields that are not currently displayed in the layout. It also provides new rows to add to the view and a list of available fields that you can add.

You can edit the following layouts for a module:

- List View
- Detail View

- Edit View
- Convert Lead form for the Leads module
- Quick Create form
- Sugar Dashlet
  - ¢ List View
  - ¢ Search
- PopupView
  - ¢ ListView
  - ¢ Search
- Search
  - ¢ Basic Search form
  - ¢ Advanced Search form
- Sub-panels
- Mobile Layouts:

For web browser-based mobile view, you can edit the following layouts:

- ¢ Mobile EditView
- ¢ Mobile DetailView
- ¢ Mobile ListView
- ¢ Mobile Search

For Sugar Mobile, you an edit the following layouts:

- ¢ Mobile EditView

- Mobile DetailView

List View Layout

When you select List View, the system displays separate columns of fields that are currently displayed in the view, fields that are available for display, and hidden fields. You can click and drag a field from one column to the other depending on what you want to display to users.

Detail View, Edit View, and Quick Create Form Layouts

When you select Detail View or Edit View, the system displays the various sections of the current layout, along with the fields in each section. You can click and drag a field to a different location within the layout.

For Edit View, Detail View, and Quick Create forms, you can also change the order in which the user tabs from field to field. For example, when users create a new account, they can tab from the Account Name field to the Website field and so on. You can change the tabbing order to so that users tab from account name to email.

To edit List View

1. In Studio, select the module.

2. Click Layouts, and then click ListView.

To edit a Sugar Dashlet List View, navigate to Layouts > Sugar Dashlet > Sugar Dashlet ListView.
To edit the List View for a Pop-up window, navigate to Layouts > PopupView > Popup ListView. Sugar displays the Pop-up window when you click Select in the sub-panel of a related module in a Detail View.
To edit the List View for Sugar Mobile and Sugar Mobile for iPhone, navigate to Layouts > Mobile Layouts> Mobile ListView.
Sugar displays the List View page on the screen. The Default column lists fields that currently display in the User Interface. The Available column lists fields that are available to users through Advanced Search. Users can search for and add any of these fields that they want to view in the search results. The Hidden column lists fields that you do not want users to view when they perform an advanced search.

3. To display a field in List View, select and drag the field from the Available or Hidden column and drop it into the Default column.

4. To remove a field from List View, select and drag the field from the Default column and drop it in the Available column.

5. To hide a field from users, drag it from the Default or Available column and drop it in the Hidden column.

6. To move a field within the layout, drag and drop it into its new location.

7. Click Save & Deploy to display the updated List View in the User Interface.

8. Click View History to view a list of previous changes along with the date and time of each change.

   a. To preview the changes made at a particular time, click the adjacent Preview button.

   b. To restore the previous version of the List View, click the adjacent Restore button.

9. To revert back to the default layout, click Restore Default.

To edit a Detail View, Edit View, or Quick Create form

1. Select the module in Studio.

To edit the Detail View layout, navigate to Layouts > Detail View
To edit the Edit View layout, navigate to Layouts > Edit View
To edit the Quick Create form layout, navigate to Layouts > Quick Create.
To edit a layout for Sugar Mobile and Sugar Mobile for iPhone, navigate to Layouts > Mobile Layouts, and select the layout of your choice.

Note: Only changes to the Edit View are applicable to Sugar Mobile for iPhone.

2. You can edit a layout as follows:

   ¢ To add new fields or replace existing ones with blanks, drag the filler row under New Row and drop it into the layout. You can then drag a field from the Toolbox into the filler row.

   Note: In the Edit View layout of the Leads module, the First Name and Last Name fields are used to input the lead's name. Sugar concats these two values to display the lead's name in the Detail View.

   ¢ To remove an existing field, drag it to the Recycling Bin in the Toolbox. The field is removed from the layout, but is not deleted from the system.

   ¢ To replace an existing row in the layout with another one, drag the new field from Available Fields and drop it on the field that you want to replace.

   ¢ To create a panel or row, drag New Panel or New Row into the Current Layout.

   ¢ A new panel or row contains two blanks fields. To add more fields to the panel or row, drag New Panel or New Row into the panel again.

- ¢ To enter or edit a field label, click the Edit icon within the field and enter the label in the Properties panel; click Save to create the label.
- ¢ To move a field to a different location, drag it to the desired location on the page.
- ¢ To edit the tabbing order, click the Edit icon within the field and enter a numeric value in the Tab Order field of the Properties panel; click Save. The tabbing order for each field is represented by numbers such as 1, 2, and 3. You can change one or more numbers to change the order in which users tab to those fields.
- ¢ To display each panel as a separate tab instead of displaying all panels on one page, select the Display Tabs as Panels option located next to the Restore Default button.

3. Click Save to save your changes.
4. Click Save & Deploy to display the updated view in the Sugar User Interface.
5. Click View History to view a list of previous changes along with the date and time of each change.
   a. To preview the changes made at a particular time, click the adjacent Preview button.
   b. To restore the previous version of the view, click the adjacent Restore button.
6. To revert back to the default layout, click Restore Default.

Copy/Sync Edit and Detail Views

Modifications made to the Edit View in Layouts can be copied to the Detail View. The Layouts Detail View can also be synced with the Edit View so that any changes made to the Edit View are automatically reflected in the Detail View.

To copy/sync Edit and Detail Views

Follow the steps listed below to sync modifications made to the Edit View of Layouts of a module, for example Accounts, to the Detail View of the Layouts of the same:

1. Click Studio in the Developer Tools section of the Administration page.
2. Select Layouts under Accounts in the Modules section.
3. Click EditView in the Accounts Layouts pane.

4. Drag and drop items between the Toolbox and Layout sections.

5. Select the Sync to DetailView checkbox.

6. Click Save and Deploy.

7. Go to the Accounts module in Sugar to verify that the changes have been deployed

To edit the Search form

1. To edit the Search form for the module, click the module, navigate to Search, and select Basic Search or Advanced Search.

To edit the Search form of the module's Sugar Dashlet, navigate to Sugar Dashlet > Sugar Dashlet Search.
To edit the module's Popup View Search form, navigate to PopupView > Popup Search.
To edit the Search form for Sugar Mobile and Sugar Mobile for iPhone, navigate toMobile Layouts > Mobile Search.
The fields in the current Search form are listed in the Default column, and the available fields are listed in the Hidden column.

2. To remove an existing field from the search form, drag it from the Default list to the Hidden list.

3. To add a field to the search form, drag it from Hidden column to the Default column.

4. To save your changes, click Save & Deploy.

5. To revert back to the default layout, click Restore Default.

Note: You cannot use fields from related modules in Mobile Search.

To preview and restore changes

1. Click View History to view a list of time stamps for changes that were made to a layout, a Search form, or a sub-panel.

2. To preview the changes for a timestamp, click the adjacent Preview button.

The Preview page provides a Restore button that corresponds to each timestamp. You can use this button to restore the changes made for a specific timestamp. Alternatively, click a timestamp to restore the layout that existed before the changes made at that time.
To edit the Convert Lead form

1. In Studio, select the Leads module and navigate to Layouts.

2. Select Convert Lead to view the Convert page.

This page displays a list of related modules, such as accounts, opportunities, notes, and so on. Users can create these related record during the process of converting a lead to a contact. You can add and remove related modules as needed.

3. If you want the user to create a record in a related module during lead conversion, select the Required box corresponding to the module. The user will then have to create the related record in order to successfully convert the lead to a contact.

4. To copy values from fields that exist in both Leads and a related module to the newly created records, select the Copy Data box corresponding to the related module. The fields must have the same name in both modules. For example, if you add a custom field called Category to both Leads and Notes, and then enable the Copy Data option for the Notes module, the Category field in Leads will be copied into any new Notes created during the convert Lead process.

5. To select a record from a module that has a one-to-one relationship, or a one-to-many relationship with the Contacts module (that is, many contact records associated with one record in the related module), select the Allow Selection box. By default, only the Accounts module has a relationship with the Contacts module, hence the Allow Selection box is selected for Accounts.

6. To edit a module's page layout, click the Edit icon, make the necessary changes, and click Save.

7. To remove the relationship with a related module, click the Delete icon, and click OK to confirm the removal.

The deleted module no longer displays in the list of related modules in the Convert Lead form.

Exporting Module Customizations

You can export a module's customized layouts, fields, and field labels from one Sugar instance to other Sugar instances. To do this, you will need to package the customizations in Studio, export it to your local machine, and upload it into another Sugar instance. The system applies the customizations to the appropriate layouts, fields, and field labels.
To publish a customized module

1. On the Studio home page, click Export Customizations.

The Export Customizations page displays a list of customized modules and the type of customization, such as customized layouts, fields, or labels.

2. Enter the following information:

Package Name. Enter a name for the export package. The package will contain the customizations that you select.
Author. Enter your name as the author.
Description. Enter a brief description of the package.

3. Select the customizations you want to export.

4. Click Export.

The system creates a zip file and displays a dialog box that allows you to open the file or save it to a disk.

5. Select Save to Disk and click OK.

On Windows, the system saves the zip file in the Downloads directory.

6. Open the other Sugar instance, upload and install the zip file using Module Loader. For more information, see Module Loader.

Embedding Links and IFrames in a Layout

A Link field allows you to store a URL in a record such as a customer's website or a link to a related internal or external system. The URL can either be entered as a normal field in an Edit View, or it can be dynamically generated based on other fields in the record. For example, you can automatically generate a link to a Google map of an account's address. To do this, click the Generate URL check box and insert the following in the Default Value field:

http://maps.google.com/?q=

Next, select billing_address_postalcode from the drop down above the Default Value field and click the Insert Field button.

The default value now reads:

http://maps.google.com/?q={billing_address_postalcode}

You can also embed a view of the website itself in the layout rather than as a link by using the IFrame field. IFrames support regular URLs as well as generated URLs.

You cannot edit generated URLs in a record's Edit View. You can only change them in the Module Builder or Studio. You can edit regular URLs in a record's Edit view.
To embed a manually entered URL

1. From the Data Type drop-down list, select IFrame or URL.
2. Enter a name for the field.
3. Enter the desired max size.
4. If using an IFrame, enter the desired height in pixels for the view.
5. Click Save to create the field.

To embed a dynamically generated URL

1. From the Data Type drop-down list, select IFrame or URL.
2. Enter a name for the field
3. Click the Generate URL checkbox.
4. Insert the base URL into the Default Value field.
5. Select a field you wish to include in the URL from the dropdown and click Insert Field.
6. Click Save to create the field.

Creating Relationships

Typically, a Sugar module has relationships with other Sugar modules. For example, Accounts is related to Contacts, Leads, Opportunities, and several other modules. Related records from these modules display in fields or sub-panels on an account's detail page. You cannot edit these pre-defined relationships.

In Module Builder, you can create relationships between undeployed modules, and between undeployed modules and deployed modules. If you want to change a relationship after you have deployed the module, you can redefine or delete the relationship and then re-deploy the module package.

In Studio, you can create relationships only between deployed modules. After you deploy a relationship in Studio, you cannot change it.

You create one relationship at a time from the Relationship Editor. When you create a relationship for a module, it is considered to be the primary module and the module that you relate it with is the related module. Depending on the relationship type, the relationship is expressed with sub-panels and related-to fields. When you create a new relationship between two modules, the system automatically creates the necessary sub-panels, related-to fields, and metadata relationships.

Note: It is recommended that you use a Relate field to create a one-way relationship between modules. To create a two-way relationship between modules, use the Relationship Editor.

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.

In Module Builder, you can select Activities as the related module but not its sub-modules such as Tasks, Calls, and Meetings. The relationship is automatically reflected in these sub-modules.

In Studio, you can select a sub-module of Activities when you create a relationship. So, when you select Activities as a related module in the Module Builder, you can use Studio to define the relationship further for its sub-modules.

Relationship types

The relationship types are as follows:

One-to-one: Records in the primary module and the related module are uniquely related to each other. For example, an account can be associated with only one contact and a contact can be associated with only one account. This account value will display in the contact's Detail View, and the contact value will display on the account's Detail View.

One-to-many: A record in the primary module can have relationships with many records in the related module. For example, an account can be associated with many contacts, and many contacts can be associated with the same account. The Detail View of the primary module will display a sub-panel for the related module, and the Detail View of the related module will display a Related-to field containing a link to the related record.

Many-to-one: Records in the primary module can have a relationship with one record in the related module. For example, an account can be associated with one contact. The Detail View of the primary module will display a field for the related module from which you can select a record, and the Detail View of the related module will show a sub-panel for the primary module from which you can create or select records.

Many-to-many: In this relationship, records in both the primary module and the related module can have relationships with multiple records in each module. For example, an account can be associated with many bugs, and a bug can be associated with many accounts. The Accounts Detail View will display a Bugs sub-panel. Similarly, the Bugs Detail View will display an Accounts sub-panel.

The type of relationship that you can create depends on your choice of primary and related modules. This is because only a module with sub-panels can have a one-to-many or a many-to-many relationship with another module. A sub-panel is needed to show all the related records from the other module.

For example, with Accounts as the primary module and Knowledge Base as the related module, you can create only a one-to-one relationship between them. This is because Knowledge Base lacks a sub-panel. Therefore, Accounts cannot display related records from Knowledge Base. However, if Knowledge Base is the primary module and Accounts is the related module, you can create a one-to-many relationship between them because Accounts has sub-panels and, therefore, Knowledge Base can display related records from Accounts.

If you are creating a relationship between a custom module and a Sugar module, then you can choose any relationship type because all custom module types include at least one sub-panel.

Sub-panel types

Sugar provides many sub-panel types for your use. When you create a relationship that involves sub-panels, Sugar displays all sub-panel types available for that module for your selection. A sub-panel can display different sets of fields depending on the primary module to which it is related. For example, there are several types of sub-panels for Contacts. The Contacts sub-panel that appears under Accounts contains different fields than the Contacts sub-panel that appears under Cases.

The Default type of sub-panel contains the most commonly used fields in the module. Every module has a Default type that contains a set of fields to display as a sub-panel. Select Default if you want to display the most commonly used fields in the sub-panel in the relationship that you create.

For example, if you create a one-to-many relationship between Calls and Accounts, you can select a sub-panel type for the Accounts sub-panel in the Calls Detail View. To use a sub-panel consisting of the most commonly used fields from Accounts, select the Default sub-panel type; to use the Accounts sub-panel from the email's Detail View, select ForEmails.

You can create relationships in Module Builder as well as in Studio. However, there are some differences, which are noted in the table below:

Relationship in Module Builder	Relationships in Studio
You can create relationships with other Sugar modules as well as other modules within any undeployed package.	In Studio, you can create relationships only between deployed modules.
If you want to change a relationship after you have deployed the module, you can redefine or delete the relationship and then re-deploy the module package.	You can delete a relationship after you deploy it, but you cannot redefine it.
You can select Activities as the related module but not its sub-modules such as Tasks, Calls, and Meetings. But the relationship is automatically reflected in these sub-modules.	You can select a sub-module of Activities when you create a relationship. So, when you select Activities as a related module in the Module Builder, you can use Studio to further define the relationship for its sub-modules.

To create a relationship in Module Builder

1. Click the custom module to view its details.

2. Click View Relationships.

Sugar displays existing relationships, if any, on the page.

3. Click Add Relationship.

4. To localize the relationship label, select the language pack from the Language drop-down list.

5. Select the relationship from the Type drop-down list.

If you select a One-to-One relationship, you can choose a related module. Sugar displays the related module as a field in the primary module, and the primary module as a field in the related module.
If you select a One-to-Many relationship, you can select a related module. Sugar displays sub-panels of the related modules in the Detail View of the primary module. The sub-panel options vary depending on the related module that you select.
If you select a Many-to-One relationship, you can select a related module. Sugar displays a the primary module as a sub-panel in the Detail View of the related module.
If you select a Many-to-Many relationship, you can select sub-panels for the primary module as well as the related module.

6. From Related Module drop-down list, select the module you want to relate to the primary module.

7. From the Subpanel field for the related module, select the sub-panel type that you want displayed on the detail page of the primary module.

8. From the Subpanel field for the primary module, select the sub-panel that you want displayed on the detail page of the related module.

9. Click Save to create the relationship.

The new relationship displays under the Add Relationship button in the middle panel. Sugar appends it with an asterisk to denote a custom relationship.
To create a relationship in Studio

1. Select the module in Studio and click Relationships.

Sugar displays a list of existing relationships for the primary module on the page.

2. To create a relationship, click Add Relationship.

The Relationship Editor displays on the page.

3. Follow the process described in To create a relationship in Module Builder.

To manage a relationship

1. To edit a relationship, in Module Builder, click its name in the Relationships list and make the necessary changes in the Edit Relationship tab and save it.

You cannot edit or delete relationships in Studio.

2. To delete a relationship, click Delete.

Rename Modules

Rename Tabs is now labeled Rename Modules. With this feature, module names are displayed in singular and plural form, depending on their use. For example, if the module name is Contact (for singular) and Contacts (for plural), the module tab is displayed as **Contacts** and options in the **Actions** drop-down list display as **Create Contact**, **View Contacts**, and so on. This also applies to every instance of the module name across the system.

You can also change the names of the modules appearing within the application using singular and plural labels for the module names. For example, Contact can be modified to Person and Contacts can be modified to People.
To rename modules

1. In Developer Tools, click Rename Modules link.

This displays the Administration » Rename Modules page.

2. Click the Edit icon located next to the module name.

This displays the Singular Label and Plural Label fields.

3. Input the information in the fields to define the singular and plural names of the module.

4. Click Save.

Display Module Tabs and Subpanels

This option enables you to hide or display selected module tabs and sub-panels from users and reorder them as needed.

When you hide a module tab from a user, it is not visible to the user upon logging into Sugar. However, if the hidden module is related to a module that is visible to users, it displays as a sub-panel in the Detail View of the related module. Therefore, users can still access related records of the hidden module from the Detail View of the related module.Hidden modules are also available to users through the Reports module. Therefore, use roles to block users completely from accessing a module. For more information, see Role Management.

When you hide a sub-panel, users cannot view related records from the Detail View of a related module.

You can allow users to configure tabs for modules that they can access from their User Preferences page. This will enable users to override the global settings that you set with this option.

By default, the following modules are hidden:

- Projects
- Bug Tracker
- Forecasts
- Contracts
- Knowledge Base

Note: You cannot hide the Home tab.

To configure module tabs and subpanels

1. In Developer Tools, select Display Module Tabs and Subpanels.

Sugar displays all the module tabs and sub-panels on the Select Module Tabs and Subpanels page.

2. To hide a module, drag it from the Displayed Tabs column and drop it in the Hidden Tabs column; to display a module, drag it from the Hidden Tabs column and drop it in the Displayed Tabs column.
3. To rearrange the display order of a tab, drag and drop it into the desired position.
4. To prevent users from configuring module tabs, deselect the Allow users to configure tabs option.
5. To hide a sub-panel, drag it from the Displayed Subpanels column and drop it into the Hide Subpanels column. To display a sub-panel, drag it from the Hidden Subpanels column and drop it in the Displayed Subpanels column.
6. Click Save to save the configuration; click Cancel to exit the page without saving your changes.

Configure Shortcut Bar

Use this option to select the modules for which Quick Create forms would be available on the Shortcut bar. By default, Cases, Bug Tracker, Documents, and Targets are disabled, hence icons for these modules do not display in the Shortcuts bar.

To enable or disable Quick Create forms for a module

1. To enable the Quick Create form for a module, select the module from the Disabled Modules list and drag it to the Active Modules list.

To disable the Quick Create form for a module, select the module from the Active Modules list and drag it to the Disabled Modules list.

2. Click Save to update the settings.

Configuring Grouped Modules

You can use the Configure Grouped Modules feature to organize modules within groups. Users can select these groups to view the modules within those groups. For example, you can group the Contacts, Leads, and Opportunities modules under a Sales group, and the Cases, Bug Tracker, and Products modules under a Support group. Users can then select either the Sales group or the Support group to view the corresponding set of modules.

You can add the same module to multiple groups. For example, Contacts can be part of the Sales group as well as the Marketing group.

The system provides following group tabs:

- Sales
- Marketing
- Support
- Activities
- Collaboration
- Reports

You can change the labels for any of these tabs and also add new groups, if needed.

Users have the ability to change the configuration to grouped modules or ungrouped modules from their User Preferences page.

To configure and manage grouped modules

1. In Developer Tools, click Configure Grouped Modules.

Sugar displays the default groups on the Configure Grouped Modules page. The associated modules are listed below each group tab.:

2. To edit the name of a group tab, click the Edit icon, located beneath the group name, and enter the new name in the text field; click Save.

Sugar displays the new group name.

3. To remove a module tab from a group tab, place the cursor on the name and drag it to the Remove Module from Group bucket on the left.

The module no longer displays under the group tab.

4. To add a module to a group tab, select it from the Modules list on the left, drag and drop it into the Group list, just below the Edit and Delete icons.

Under a group tab, you can rearrange the order of the module tabs by selecting a tab name and dragging it to a different location in the list.

5. To save your changes and make them available for users, click Save & Deploy.

To add a new group tab

1. Click Add Group.

This displays the New Group page.

2. To name the new group tab, click the Edit icon, enter the name in the text field, and click Save.

3. To add a module tab under the new group tab, select it from the Modules list and drop it in the group, below the Edit and Delete icons.

4. To save your changes and make it available for users in the Sugar User Interface, click Save & Deploy.

Dropdown Editor

Most modules display at least one drop-down field containing a list of values from which users can choose. For example, when users create an account, they can choose a specific industry type and an account type in the respective drop-down fields.

As the administrator, you can use the Dropdown Editor to create new drop-down lists, and to edit values of a drop-down list to suit your organization's needs. When you create a new drop-down field in Studio, you must associate it with an existing drop-down list.

Note: You cannot use a custom Stage drop-down list when you create a quote.

To create a drop-down list

1. Scroll down to the Developer Tools section on the Administration home page, and select Dropdown Editor. Alternatively, on the Studio home page, click the Dropdown Editor tab located at the bottom of the page.

Sugar displays the Dropdown Editor page, which contains existing drop-down lists.

Note: You can also add a drop-down list in the process of creating a custom field with the DropDown data type in Studio.

2. Click Add Dropdown.

Sugar displays fields to add a new drop-down listin the Edit drop-down tab.
The Name field displays the name that you specified. The system automatically appends _list to the drop-down name to identify the data type in the database. You can use your own data type naming convention if needed.

3. From the Language drop-down list, select a pre-installed language pack of your choice.

4. In the Item Name field, enter a name for the item.

5. This is the name that is saved in the Sugar database.

6. In the Display Label field, enter a label name for the item.

This is the label that displays to users.

7. Click Add.

The name of the item displays above the Item Name field. This is the name that displays in the User Interface. To add additional items, click Add and repeat the process.

8. To display the items in ascending order, click Sort Ascending; to display them in descending order, click Sort Descending.

9. Click Save to save the drop-down list.

The list displays in the dropdown list on the Edit Field tab of a module.
To edit an existing drop-down list

1. Select an existing drop-down field from the Dropdown Editor.

2. To change an item's display label, click the corresponding Edit icon and enter the new label.

3. To remove an item, click the corresponding Delete icon.

4. To add a new item, enter the item name and display label in the fields below; to add additional items, click Add and enter values for the next item.

5. Click Save to save your changes; to undo your changes, click Undo; to redo your changes, click Redo.

Workflow Management

Workflows enable you to track events, set out alerts, and execute necessary actions when the specified conditions are met; for example, when a time period expires or a record changes, Sugar can send out an alert to the assigned user and team.

Note: You must first enable the notification settings to send alerts to recipients. If the events are time-based, records must be initially saved or changed to start the timed event.

The workflow cycle is as follows:

1. Create a workflow definition.

2. Specify the conditions as described in Creating a Condition to trigger alerts, and optionally, actions.

3. Create an alert or select from existing list as described in Creating Alerts.

4. Create actions or select from existing list as described in Creating Actions.

5. In case of multiple workflows, specify the execution sequence as described in Specifying the Workflow Sequence.

6. Schedule a job to run the workflow as described in To schedule a job.

To create a workflow definition

1. In Studio, select Workflow Management or in the Studio wizard, select Edit Workflow.

The Workflow Home page displays existing workflows on the screen. You can search for a workflow, create workflow definitions, and alert templates from this page.

2. On the Workflow Definitions tab, select Create Workflow Definition, and enter the following information:

Name. Enter a name for the workflow.
Execution Occurs. From the drop-down list, select the event to trigger the workflow. Execution can occur when a record is saved or when a specified period of time has elapsed.

Note: Set up the cron and ensure that it executes at least once before you create a time-based workflow.

Status. From the drop-down list, select Active to implement the workflow; select Inactive if you do not want to implement the workflow yet.
Target Module. From the drop-down list, select the module to which the workflow applies.
Applies to. From the drop-down list, select the records to which the workflow applies.
Processing Order. From the drop-down list, select the sequence in which to execute the workflow.
Description. Enter a brief description of the workflow.

3. Click Save to create the workflow; click Cancel to exit the page without creating the workflow.

The workflow definition's Detail View displays on the screen. You can edit, delete, and duplicate the workflow from the Detail View. To create a similar workflow definition, you can duplicate the workflow, save it, and then edit it as needed to create a new workflow.
Next, on the Workflow detail page, create conditions and alerts.

Creating a Condition

A condition specifies the event that triggers the workflow.
To create a condition

1. In the Workflow's Detail View, click Create in the Conditions sub-panel.

Sugar displays a list of possible conditions in a pop-up window.

2. Select a condition.

Sugar displays the selected condition in the text field below. If the condition you select requires you to specify a field or a module, the system underlines it in the text field.

3. Double-click the field or the module in the text field.

A pop-up window displays a drop-down list from which you can select the field or the module.

Note: Only fields marked Reportable can be specified in time-based workflows.

4. Click Save.

Sugar displays the selected field or module in the text box.

5. Click Save to create the condition.

The condition is now listed in the Conditions sub-panel on the Workflow detail page. Next, you must create or select an alert.

Creating Alerts

You can create individual alerts, or you can use alert templates. After you create an alert, you can specify one or more users as the recipients of the alert. You can send out alerts as emails or as invitations.

To create an Email Alert Template

1. On the Workflow Definitions tab, select Alert Email Templates.

2. On the Alerts Templates page, select the module from the drop-down list and click Create.

3. Enter information for the following fields:

Name. Enter a name for the template.
From Name. Enter the sender's name.
From Address. Enter the sender's email address.
Description. Enter a brief description of the template.
Target Module. From the drop-down list, select a record or a specific field, which when updated, triggers the alert. For example, if you want to send out an alert when the ownership of an account changes, select Ownership from the drop-down list.

4. Related Module. To trigger an alert in case of a change to a related module, select the module from the drop-down list.

5. In the Alert body field, enter the text and then select the old value and click Insert. Then select the new value and click Insert again.

For example: The ownership of this account has changed from <old value> to <new value>.

6. Alt Text. If your system cannot render HTML, then select this box to send out the alert as a plain text message, and enter the message in plain text in the field below.

7. Click Save to create the template; click Cancel to exit the page without saving the template.

When you create an alert from a workflow definition's Detail View, the alert template is listed in the Custom Template drop-down list when you choose Custom Template as the Source Type.

To create an alert

1. In the Alerts sub-panel, click Create to create a new alert.

2. On the Alerts page, enter information for the following fields:

Name. Enter a name for the alert.
Alert Type. From the drop-down list, select the type of alert.
Source Type. From the drop-down list, select Normal Message if you will be entering the alert message in the Alert Text box; select Custom Template if you want to use a pre-existing alert template.
Alert Text. If the source type is Normal Message, enter the message in this box.

Custom Template. This field displays existing alert templates if you select Custom Template as the source type. Select the template from the drop-down list.

3. Click Save to create the alert; click Cancel to exit the page without creating the alert.

The Alert Recipient List sub-panel displays to enable you to create a list of recipients of this alert.
To create an alert recipient list

1. In the Alert Recipient List sub-panel, click Create.

A pop-up window displays options to select the recipients.

2. Select an option from the list.

Sugar displays the selected option in the text field below. If an option requires you to specify details such as a user or address type, the system underlines the keywords.

3. Double-click the keyword to select from existing records.

4. Click Save.

The selected users are listed in the Alert Recipient List sub-panel. To remove a recipient, click the Remove (rem) link.
Next, you need to specify the actions to execute.

Creating Actions

You can create an action to execute when an event occurs. Some examples of actions are updating fields and creating records.
To create an action

1. On the Workflow detail page, click Create in the Actions sub-panel.

A pop-up window displays a list of possible actions.
Update fields in the target module: Value of the fields in the target record will be modified/changed.
Update fields in a related record: Value of the fields in a related record will be changed according to the selection of options.
Create a record in a module associated with target module: A new record is created.
Create a record associated with a module related to the target module: A new record is created according to the selection.

2. Select one or more actions from the pop-up window.

Sugar displays the selected actions in the text field below.

3. If a selected action requires you to specify a record, double-click the underlined keyword in the text field, select the related module from the drop-down list, and click Save.

4. Click Save to create the action.

Specifying the Workflow Sequence

If you created more than one workflow process for a particular module, you can rearrange the order of the execution as necessary.
To specify the workflow sequence

1. Navigate to the Workflow Detail View, and select Workflow Sequence on Workflow Definitions tab.
2. On the Workflow Sequence page, select the module from the drop-down list, and click Select.

Sugar displays the workflow processes that you created for the module.

3. To change the workflow sequence, rearrange the process order using the Up and Down arrows.

Testing the Workflow

To test the effect of a workflow, perform the following steps:

1. Log into Sugar as an administrator.
2. Click the Admin link at the right-hand corner of the page.
3. On the Administration Home page, navigate to Email > Email Settings and ensure that the Email settings are correct. Issuing alerts depend on these settings.
4. Ensure that the Enable Notifications On? option is selected. This is required to send a Workflow Alert to the intended recipient.
5. Log in as a Sugar user.
6. Click User Preferences.
7. Change the email address to an address from which you can retrieve emails.
8. Access an opportunity.
9. Change the Sales Stage to Closed Won.
10. Save the record.

You should now receive an email regarding the opportunity win. A new case is also created for the account associated with the opportunity when the Sales Stage becomes Closed Won.

Workflow Example

The following example describes how to automatically create and assign a task when an opportunity closes as Closed Won. This involves creating a workflow definition that specifies the conditions for executing the workflow, the users and/or teams who receive the alert, and the actions that occur during execution

Preconditions:

- The Scheduler is set to run automatically
- System Email Settings have been configured

Step 1: Create the workflow definition:

a. Target module is Opportunities

b. Execution Occurs When the record is saved

c. Processing Order is Alerts then Actions

d. Status is Active.

e. Save the workflow definition.

Step 2: In the Conditions sub-panel of the workflow's Detail View:

a. Select the condition When a field in the target module contains a specified value.

b. Click Next, and click the specific field link, select Sales Stage from the Field Drop-down list, and select Sales Stage Equals Closed Won as the field in the target module.

c. Save the condition

Step 3: Create the alert:

a. In the Alerts sub-panel of the workflow's Detail View, click Create, and enter a name for the alert.

b. Select Email as the Alert type, and enter the message in the Alert Text field.

c. Select Normal Message as the Source type, and save the alert.

d. In the Alert Recipient sub-panel of alert’s Detail View, click Create, and select A user associated with the target module.

e. Click Next, and select User who is assigned the record.

f. Save the alert, and in the alert's Detail View, click the Return to Workflow Definition link.

Step 4: Create the action:

- In the Actions sub-panel of the workflow's Detail View, click Create.
- Select the action Create a record in a module associated with target module.
- Click the record link that displays below and select Task as the module.
- Click Next, and select the fields that you want to populate in the task record, such as the subject line, due date, and assigned user.
- Click the links for the selected fields and enter values. For example, enter Call Contact as the Subject, and select 1 day from Triggered Date as the due date.
- Save the task.

The workflow definition is now complete.
Step 5: Check the Scheduler to ensure that workflow will be executed.

a. Navigate to Admin > System > Scheduler.

b. Click Scheduler, and ensure that the Process Workflow Tasks job is active. You can click the job to view or edit its details, such as the Start date and time.

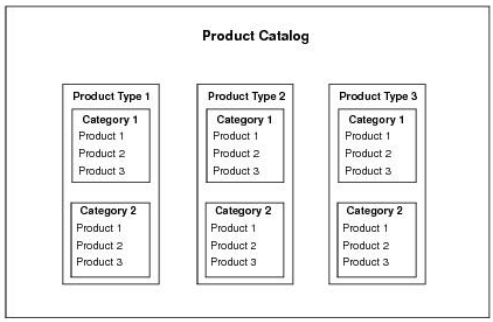
Step 5: Test the workflow as described in Testing the Workflow.

Products and Quotes

Overview

This section consists of options that enable you to manage the product catalog, along with the related information on manufacturers and shipping providers. Products can be broadly classified into product types; for example, Software and Hardware. Each product type can be further organized into several categories. For example, the software product type can contain product categories such as Spreadsheets and Word Processors. You can create categories within a category.

The figure below illustrates product groupings within the catalog:



Product Catalog

Use this option to maintain the product catalog for your organization.

From the Product Catalog Home page, you can view a list of current products. You can add new products to the catalog or import the data from CRM applications such as Salesforce.com or through a .csv file.

Product Types

The Product Types option enables you to classify records in the product catalog. You can also import product types as described in "Importing Data".

Product Categories

The Product Categories option enables you to create new categories to further group records under a Product Type. You can also import product category information from an external location.

Manufacturers

The Manufacturers option enables you to maintain a list of product manufacturers and specify the order in which they are presented for selection in the Quotes module. You can also import manufacturer data from an external location.

Shipping Providers

The Shipping Provider option enables you to maintain a list of shipping providers for selection in the Quotes module.

Tax Rates

The Tax Rates option lets you maintain a list of national and international tax rates. Tax Rates are available for selection in the Quotes module.

Adding Products to the Catalog

You can add items to the product catalog.

To add a product to the catalog

1. On the Administration Home page, click the **Product Catalog** option in the Product and Quotes sub-panel.
2. On the Product Catalog tab, click **Create Product for Catalog**.
3. On the Product Catalog page, enter information for the following fields:

Product Name. Enter the name of the item.
Category. Click Select to choose the category to which the new item belongs; click Clear to delete the selection.
Product URL. Enter the URL to where the product information is located.
Tax Class. From the drop-down list, select the appropriate option to specify whether the item is taxable or not.
Manufacturer. From the drop-down list, select the manufacturer of the item.
Mft. Part Number. Enter the manufacturer's part number for the item.
Vendor Part Number. Enter the retailer's part number for the item.
Currency. From the drop-down list, select the currency in which the price is quoted.
Cost. Enter the cost price of the item. This price will not appear in quotes.
List Price. Enter the list price of the item.
Discount Price. This is the minimum price of the item. The system calculates this price based on the percentage that you specify in the Default Pricing Formula field, described below.
Default Pricing Formula. From the drop-down list, select a formula to arrive at the discount price. Depending on the formula, the system takes the cost price into consideration to calculate the discount price. If you select Profit Margin, enter the points in the adjoining field; if you select Markup over Cost or Discount from List, enter the percentage in the adjoining field.
Availability. From the drop-down list, select whether the item is in stock or not.
Date Available. If the item is out of stock, click the Calendar icon and select the date when it will be available.
Quantity in Stock. Enter the number of units that are in stock.
Weight. Enter the item weight.
Type. From the drop-down list, select from product type to which the item belongs.
Support Name. Enter the name of the Customer Support person.
Support Contact. Enter the person's contact information, such as the phone number.
Support Desc. Enter a brief description for the type of support provided to customers.
Support Term. From the drop-down list, select the length of the support period.
Description. Enter a description of the product.

4. Click **Save** to add the product to the catalog; click **Cancel** to exit the page without creating the product.

To manage the product catalog

1. To view the details of an item, click its name in the Product Catalog List.

2. To edit the information, on the detail page, click **Edit**, revise the information, and click **Save**.

3. To duplicate the information, on the detail page, click **Duplicate**, and click **Save**.

4. To delete an item, on the detail page, click **Delete**. When you delete a product type or category, all records under it are also deleted.

5. To import products, on the Products tab, select **Import Products**, and follow the process described in "Importing Data".

6. To export item data from the catalog to your local machine, click the Export link in the Product Catalog List sub-panel, and follow the process described in "Exporting Data".

7. To update or delete some or all the records on the Product Catalog list, use the Mass Update sub-panel as described in "Editing and Deleting Multiple Records".

To create a product type

1. On the Product Catalog Home page, click **Product Types**, and then click **Create**. Alternatively, on the Administration Home page, click **Product Types** in the Products and Quotes sub-panel, and then click **Product Type List** from the module tab.

The Product Types Home page displays fields to create a new type.

2. Enter information for the following fields:

Product Type. Enter a name for the new product type.
Description. Enter a brief description for the product type.
Order. Enter a number to specify the order in which the product type will appear in the drop-down list.

3. To create the type, click **Save**.

4. To create another product type, click **Save & Create New**.

To manage product types

1. To view the details of a product type, click its name in the Product Type List.

At the bottom of the page, the Product Type sub-panel displays the details.

2. To edit the details, revise the information in the Product Type fields and click **Save**.

The revised product type is displayed at the end of the list.

3. To delete a product type, click the del icon corresponding to the name in the Product Type List; click **OK** to confirm the deletion.

4. To import product type data, on the Products tab, click **Import Product Types**, and follow the process described in "Importing Data".

To create a product category

1. On the Administration Home page, click the **Product Categories** option in the Product and Quotes sub-panel.

2. In the Product Categories Home page, click **Create**.

Sugar displays fields to create a new category in the Product Category sub-panel.

3. Enter information for the following fields:

Product Category. Enter a name for the category.
Parent Category. If the product category is a sub-set of another category, click **Select** to choose the parent from the Product Categories list; click **Clear** to remove your selection.
Description. Enter a brief description of the category.
Order. Enter a number to specify the order in which this category will appear in the Product Category drop-down list.

4. To create the category, click **Save**.

5. To create another category, click **Save** and **Create New**.

To manage product categories

1. To view the details of a category, click its name in the Product Category List.

Sugar displays the category's details in the Product Category sub-panel.

2. To edit the details, revise the information in the Product Category fields and click **Save**.

3. To delete a product category, click the del icon corresponding to the name in the Product Categories List; click **OK** to confirm the deletion.

4. To import product category data, on the Products tab, click **Import Product Categories**, and follow the process described in "Importing Data".

To create a manufacturer

1. On the Admin Home page, select **Manufacturers** in the Products and Quotes sub-panel. Alternatively, select **Manufacturers** from the Product Catalog, Product Categories, or Product Types tabs.

2. On the Manufacturers Home page, click **Create**.

Sugar displays the Manufacturer sub-panel.

3. Enter information for the following fields:

Manufacturer. Enter the manufacturer's name.
Status. From the drop-down list, select **Active** to add the name to the Manufacturers drop-down list.
Order. Enter a number to specify the order in which the name displays in the drop-down list.

4. To create the manufacturer, click **Save**.

5. To create another manufacturer, click **Save** and **Create New**.

To manage manufacturers

1. To view the details of a manufacturer, click the name in the Manufacturer List.

The Manufacturer sub-panel displays the manufacturer information.

2. To edit the details, click **Edit**, revise the information, and click **Save**.

3. To delete a manufacturer from the list, click the del icon corresponding to the name in the Manufacturer List; click **OK** to confirm the deletion.

To create a shipping provider

1. On the Admin Home page, click **Shipping Providers** in the Products and Quotes sub-panel.

2. On the Shipping Provider Home page, click **Create**.

3. In the Shipping Provider sub-panel that displays below the list, enter information for the following fields:

Shipping Provider. Enter the name of the provider.
Status. From the drop-down list, select Active to display the name in the Shipping Provider drop-down list.
Order. Enter a number to specify the order in which the name is displayed in the drop-down list.

4. To create the provider, click **Save**.

5. To create another provider, click **Save and Create New**.

To manage shipping providers

1. To view the details of a provider, click the name in the Shipping Provider List.

Sugar displays the provider's details in the Shipping Provider sub-panel.

2. To edit the details, revise the information, and click **Save**.

3. To delete a provider from the list, click the del icon corresponding to the name in the Shipping Provider List; click **OK** to confirm the deletion.

To create tax rates

1. On the Administration Home page, click Tax Rates in the Products and Quotes sub-panel.

2. On the Tax Rate page, click Create.

3. In the Tax Rate sub-panel that displays below the list, enter information for the following fields:

Tax Rate Name. Enter a name for the tax rate.
Percentage. Enter the tax percentage.
Status. From the drop-down list, select Active to display the name in the Tax Rate drop-down list.
Order. Enter a number to specify the order in which the tax rate is displayed in the drop-down list.

4. To create the tax rate, click Save.

5. To create another rate, click Save and Create New.

To manage tax rates

1. To view the details of a tax rate, click the name in the Tax Rate list.

Sugar displays the rate details in the Tax Rate sub-panel.

2. To edit the details, revise the information, and click Save.

3. To import a list of tax rates as a .csv file, select Import from the Tax Rate tab. You can view the import file in Excel or save it to your local machine. For more information on importing data see"Importing Data".

4. To delete a tax rate from the list, click the del icon corresponding to the name in the Tax Rate list; click OK to confirm the deletion.

Bug Tracker

Overview

This section provides the Releases option that enables you to maintain a list of releases for your product. This list will be available in the Release drop-down box that is displayed when reporting a new bug in the Bug Tracker module.

Creating a Release

1. On the Administration Home page, select **Releases** from the Bug Tracker sub-panel.
2. On the Releases Home page, click **Create**.
3. In the Release sub-panel that displays below the list, enter information for the following fields:

Release Version. Enter the version number of the release.
Status. From the drop-down list, select Active to display the name in the Release drop-down list.
Order. Enter a number to specify the order in which the release is displayed in the drop-down list.

4. To add the release to the list, click **Save**.
5. To add another release to the list, click **Save and Create New**.

Forecasts

Overview

This section provides the Time Periods option that enables you to define time periods for the Forecasts module. These time periods display in the Time Periods drop-down list in the Forecasts Module.

You must define at least one time period to represent a fiscal year. Then you can choose to define quarters and months as time periods within a year, as needed. Time periods can overlap and can include times from other periods.

Creating and managing Time Periods

To create a time period

1. On the Admin Home page, click **Time Periods** in the Forecast sub-panel.
2. On the Time Periods Home page, click **Create Time Period**.
3. Enter information for the following fields:

Time Period. Enter a name for the time period; for example, Q1 2006.
Start Date. Click the Calendar icon and select the start date of the time period.
Is Fiscal Year? Select this box if the time period represents the fiscal year.
End Date. Click the Calendar icon and select the end date for the time period.

4. To create the time period, click **Save**; click **Cancel** to exit the page without saving your changes.

After you save the time period, the Forecast Schedule sub-panel displays on the time period's detail page.
To manage time periods

1. To view details of a time period, click its name in the Time Periods list.

2. To export one or more time periods from the list to your local machine, select them in the **Time Period** list sub-panel, click the **Export** link, and follow the process described in Exporting Data.

3. To update or delete some or all the time periods, use the Mass Update sub-panel as described inEditing and Deleting Multiple Records.

4. To edit a time period, on the Detail View page, click **Edit**, revise the information, and click **Save**.

5. To duplicate a time period, on the detail page, click **Duplicate** and then click **Save**.

6. To delete a time period, on the detail page, click **Delete**.

Creating a Forecast schedule

After you create a time period, you can create a schedule to run the forecast automatically for a specific user. Some schedules might need to include start dates for a quarter prior to when the quarter officially begins. When you create a forecast schedule for a user, you can select the Cascade checkbox if you want it to be available for all the user's direct and indirect reports as well as just the specified user.
To create a forecast schedule

1. In the Forecast Schedule sub-panel of the time period's detail page, click **Create**.

2. On the Forecast Schedule page, enter information for the following fields:

Forecast Start Date. Click the Calendar icon and select the date to run the forecast.
Schedule For. From the drop-down list, select the user for whom you are creating the forecast.
Status. Select Active to run the forecast as scheduled; select Inactive to stop running the forecast.
Cascade? Check this box if you want all the user's direct and indirect reports to receive the forecast as well.

3. To save the schedule, click **Save**; click **Cancel** to exit the page without saving your changes.

Contract Types

This section provides the Contract Type option that enables you to define contract types for the Contracts module. When a user creates a contract, the Types drop-down list displays the contract types for selection.

Because a contract can reference multiple documents such as Statements of Work and Non-Disclosure Agreements, you can associate one or more documents with a contract type. When users create a

contract of a specific type, the associated documents display in the Documents sub-panel. Users can then edit and manage these documents as needed.

To create a contract type

1. On the Admin Home page, click **Contract Types** in the Contracts sub-panel.
2. On the Contract Types home page, click **Create**.
3. In the Contract Type sub-panel that displays at the bottom of the page, enter information for the following fields:

Name. Enter a name for the contract type.
List Order. Enter a number to specify the order in which the name is displayed in the **Types** drop-down list in the **Contracts** module.

4. To add the contract type to the list, click **Save**.
5. To add another contract type to the list, click **Save and Create New**.

The new contract type now displays in the **Contract Types** list.

To manage Contract Type records

- To export one or more Contract Type records in.csv format, select them from the list and click Export. You can open the file in Excel or save it to your local machine.
- To delete one or more Contract Type records, select them from the list and click Delete.

To associate documents with a contract type

1. In the Documents sub-panel of the contract's detail page, click **Select** to display the **Documents List**.
2. Click one or more documents in the Documents List to select them.

The selected documents along with details such as document type and revision number display in the Documents sub-panel on the Contract Type page. For templates, the Template? box is selected.

3. To edit the document, click the Edit icon corresponding to the document name.
4. To remove a document, click the rem icon corresponding to the document name.

Employee Records

As an administrator, you can create and manage employee records. When you create an employee record, it is automatically added to the Employees list as well as the Users list. Similarly, when you delete an employee, the associated user record is also deleted.

To create an employee record

1. Log into Sugar as an administrator.

2. Click the **Employees** link located at the top right-hand corner of the page.

3. From the Actions drop-down list on the Employees tab, select **Create Employee**.

4. On the Employees page, enter information for the following fields:

First Name. Enter the employee's first name.
Last Name. Enter the employee's last name.
Picture. If you have downloaded the person's picture in .jpg or .png format on your local machine, click Browse to navigate to the location and upload the picture into the record.
Employee Status. From the drop-down list, select one of the following status options:
Active: Select this option to specify a current employee of your organization.
Terminated: Select this option if the employee is no longer working for your organization.
Leave of Absence: Select this option if the employee is going to be absent from work for an extended period of time.
Title. Enter the employee's official title.
Department. Enter the name of the department to which the employee belongs.
Reports to. Enter the name of the employee's supervisor.
Office Phone. Enter the employee's office phone number.
Mobile. Enter the employee's cell phone number.
Other. Enter an alternative phone number for the employee, if any.
Fax. Enter the fax number for the employee.
Email. Enter the email address for the employee.
Home Phone. Enter the home phone number for the employee.
Other Email. Enter an alternative email address for the employee, if any.
IM Type. From the drop-down list, select the type of Instant Messenger service that the employee has.
IM Name. Enter the employee's user name for the IM service.
Notes. Enter any comments concerning the employee.
Primary Address. Enter the employee's primary address.
City. Enter the name of the city.
State. Enter the name of the State.
Postal Code. Enter the zip code of the address.
Country. Enter the name of the country.

5. Click **Save** to create the employee record; click **Cancel** to exit the page without saving your changes.

You can now view the record in the Employees List View as well as the Users List View.
To manage employee records

- To edit an employee's record, open the record, and click **Edit**. Update the information as needed, and click **Save**.

- To delete an employee, open the record, and click Delete.

- To search for an employee, use the Search sub-panel located above the Employees list.
- To view an employee's details such as the title and contact information, click the employee name in the List View.
- To email an employee, click the user's email address in the List View.
- To export employee records, select them from the list, click **Export** and follow the process detailed in Exporting Data.
- To edit the status of multiple employees, use the Mass Update panel as described in Editing and Deleting Multiple Records.
- To duplicate a record, on the detail page, click **Duplicate**, modify the information if needed, and click **Save**. Duplication is a convenient way of creating a new employee. You can change the information in the duplicate record to create the new employee.
- To go back to the Employees Home page from a detail page, select **Employees** from the Actions drop-down list on the module tab.

Contract Types

Overview

This section provides the Contract Type option that enables you to define contract types for the Contracts module. When a user creates a contract, the Types drop-down list displays the contract types for selection.

You can associate one or more documents with a contract type because a contract can reference multiple documents such as Statements of Work and Non-Disclosure Agreements. When users create a contract of a specific type, the associated documents display in the Documents sub-panel. Users can then edit and manage these documents as needed.

Creating a Contract Type

To create a Contract type

1. On the Admin Home page, click **Contract Types** in the Contracts sub-panel.
2. On the Contract Types home page, click **Create**.
3. In the Contract Type sub-panel that displays at the bottom of the page, enter information for the following fields:

Name. Enter a name for the contract type.
List Order. Enter a number to specify the order in which the name is displayed in the **Types** drop-down list in the **Contracts** module.

4. To add the contract type to the list, click **Save**.
5. To add another contract type to the list, click **Save and Create New**.

The new contract type now displays in the **Contract Types** list.

Managing Contract Type records

To manage Contract Type records

- To export one or more Contract Type records in.csv format, select them from the list and click Export. You can open the file in Excel or save it to your local machine.
- To delete one or more Contract Type records, select them from the list and click Delete.

Associating Documents with a Contract Type

To associate Documents with a contract type

1. In the Documents sub-panel of the contract's detail page, click **Select** to display the **Documents List**.
2. Click one or more documents in the Documents List to select them.

The selected documents along with details such as document type and revision number display in the Documents sub-panel on the Contract Type page. For templates, the Template? box is selected.

3. To edit the document, click the Edit icon corresponding to the document name.
4. To remove a document, click the rem icon corresponding to the document name.

Employee Records

Overview

As an administrator, you can create and manage employee records. When you create an employee record, it is automatically added to the Employees list as well as the Users list. Similarly, when you delete an employee, the associated user record is also deleted.

Creating Employee records

To create an employee record

1. Log into Sugar as an administrator.
2. Click the **Employees** link located at the top right-hand corner of the page.
3. From the Actions drop-down list on the Employees tab, select **Create Employee**.
4. On the Employees page, enter information for the following fields:

First Name. Enter the employee's first name.
Last Name. Enter the employee's last name.
Picture. If you have downloaded the person's picture in .jpg or .png format on your local machine, click Browse to navigate to the location and upload the picture into the record.
Employee Status. From the drop-down list, select one of the following status options:
Active: Select this option to specify a current employee of your organization.
Terminated: Select this option if the employee is no longer working for your organization.
Leave of Absence: Select this option if the employee is going to be absent from work for an extended period of time.
Title. Enter the employee's official title.
Department. Enter the name of the department to which the employee belongs.
Reports to. Enter the name of the employee's supervisor.
Office Phone. Enter the employee's office phone number.
Mobile. Enter the employee's cell phone number.
Other. Enter an alternative phone number for the employee, if any.
Fax. Enter the fax number for the employee.
Email. Enter the email address for the employee.
Home Phone. Enter the home phone number for the employee.

Other Email. Enter an alternative email address for the employee, if any.
IM Type. From the drop-down list, select the type of Instant Messenger service that the employee has.
IM Name. Enter the employee's user name for the IM service.
Notes. Enter any comments concerning the employee.
Primary Address. Enter the employee's primary address.
City. Enter the name of the city.
State. Enter the name of the State.
Postal Code. Enter the zip code of the address.
Country. Enter the name of the country.

5. Click **Save** to create the employee record; click **Cancel** to exit the page without saving your changes.

You can now view the record in the Employees List View as well as the Users List View.

Managing Employee records

To manage employee records

- To edit an employee's record, open the record, and click **Edit**. Update the information as needed, and click **Save**.
- To delete an employee, open the record, and click Delete.
- To search for an employee, use the Search sub-panel located above the Employees list.
- To view an employee's details such as the title and contact information, click the employee name in the List View.
- To email an employee, click the user's email address in the List View.
- To export employee records, select them from the list, click **Export** and follow the process detailed in Exporting Data.
- To edit the status of multiple employees, use the Mass Update panel as described in Editing and Deleting Multiple Records.
- To duplicate a record, on the detail page, click **Duplicate**, modify the information if needed, and click **Save**. Duplication is a convenient way of creating a new employee. You can change the information in the duplicate record to create the new employee.
- To go back to the Employees Home page from a detail page, select **Employees** from the Actions drop-down list on the module tab.

Knowledge Base Administration

Overview

Knowledge Base enables users to write articles on any subject for the benefit of other Sugar users. For more information on loading modules, see Module Loader. For more information on creating and managing articles, see Creating Articles.

Similar to other Sugar records, each article must have an assigned team and an assigned user. Only members of the assigned team can access and manage articles.

Tagging Articles

Knowledge Base articles reside in the Sugar database. Users and administrators can use tags to group articles according to the subject or any other criteria. When you tag an article, the system creates a link between the article and the tag. You can apply multiple tags to an article. By default, the Knowledge Base module includes the FAQs root tag.

A tag can be of two types: root tags and sub-tags. A sub-tag is nested within a root tag. Both root tags and sub-tags can contain other sub-tags to further group articles into smaller categories.

The number of articles that a tag contains is displayed within parentheses next to the tag name. Select a tag to view a list of associated articles in the right panel. By pointing the cursor at the article's title or by clicking the title, you can view its contents.

For information on creating, editing, duplicating, emailing, and deleting articles, see Knowledge Base Module. Tagging, moving, and deleting articles are described later in this section.

Administrators can create, rename, and delete tags. Users can create tags during the process of creating or editing articles. However, they cannot rename or delete tags.
To create tags

1. On the Knowledge Base tab, select Knowledge Base Admin.

Sugar displays the Knowledge Base Admin page on the screen. This page displays existing tags. By default, the Knowledge Base module includes the FAQs root tag. The number of articles that a tag contains is displayed within parentheses.

2. To create a new tag, from the Admin Actions drop-down list, select Create New Tag.

3. To create a new root tag, select Tags and enter the tag name in the adjoining text field.

To create a sub-tag, select an existing tag and enter the tag name in the text field.

4. Click Save to create the tag.

Sugar displays the new root tag below the Tags folder. A new sub-tag displays within the parent tag.
To tag articles

1. Select Apply Tag to Articles from the Admin Actions drop-down list, and select the tag that contains the articles from the Tags list below.

The system displays the articles in the right panel.

2. Select the articles from the list and click Select Tags.

The existing tags display in a separate window.

3. Select the tag that you want to associate with the article and click Apply Tags.

4. The article is copied from the previous tag to the new tag.

To rename a tag

1. Select Rename Tag from the Admin Actions drop-down list and select the tag from the Tags list below

Sugar displays the current tag name and a text field to enter the new name next to the drop-down list.

2. Enter the tag's new name and click Save.

The system changes the tag name.
To delete a tag

1. Ensure that the tag is empty. You can move or delete articles within the tag.

2. Select Delete Tag from the Admin Actions drop-down list, and select the tag from the Tags list below.

3. Click Delete Tag.

Managing Articles

You can delete outdated articles that have passed their expiration date. If you want to delete a tag, you will need to first either delete or move the articles that it contains. Deleting an article from a tag

removes the association between them. However, the article still exists in the Sugar database and associations with other tags, if any, remain unchanged.

To move articles from a tag

1. Select Move Selected Articles from the Admin Actions drop-down list and select the tag that contains the articles from the Tags list below.

Sugar displays the articles in the right panel.

2. Select the articles from the list and click Select Tags.

Sugar displays the existing tags in a separate window.

3. Select the tag that you want associated with the article and click Move.

Sugar moves the article into the new tag from the previous tag. If the article already existed in the new tag, the system overwrites it.

To delete articles from a tag

1. Select Delete Selected Articles from the Admin Actions drop-down list and select the tag that contains the articles from the Tags list below.

The system displays the articles in the right panel.

2. Select the articles from the list and click Delete.

The system deletes the article from the tag.

Enabling Full Text Search

In order to use Knowledge Base, your database must have the capability to perform a full text search. MySQL provides this feature. If you are using Microsoft SQL Server, you need to perform additional steps as detailed below:

1. If you have installed SQL Server 2005 Express Edition, then you must upgrade to SQL Server 2005 Express Edition with Advanced Services, available at:

http://msdn.microsoft.com/vstudio/express/sql/download

2. When installing SQL Server 2005 Express Edition with Advanced Services, do not accept all defaults because the default setting for full text indexing is Do not install.

3. After installing the Microsoft SQL Server Express/Ultimate edition, ensure that full text indexing service is turned on. You can verify this in the Services Panel. You can access the Services Panel from the Control Panel.

Advanced Configuration Options

Overview

Advanced Configuration options enable you to exercise tighter control over user actions in your Sugar instances.

Locking Down Upgrade Wizard, Module Builder, and Backups

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.

To lock down the Upgrade Wizard, Module Builder, and Backups

1. Navigate to the config.php file in the Sugar root directory.

2. Set the following parameter as shown below:

```
$sugar_config['admin_access_control']=true
```

3. Save the file.

Restricting the 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 that you control. This allows you to check modules before they are loaded into Sugar.

To restrict the Module Loader

1. Navigate to the config.php file in the Sugar root directory.

2. Set the following parameters as shown below:

$use_common_ml_dir=true
$common_ml_dir='ml directory'
where ml directory is the name of the directory from which module will be loaded into Sugar.

3. Save the file.

Limiting System Resources

By default, Sugar terminates any request or post that runs more than 1000 queries. For reports,export, import, administration, and synchronization, the maximum number of queries allowed is 50,000 per request. This prevents user-initiated processes from taking up too many system resources. You can change these settings as desired in the config.php file.

Configuring Default Permissions for Sugar Files on Linux

If you are running Sugar on Linux platform, you can control ownership and accessibility to all Sugar files and folders by configuring default user and group permissions.

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' => 02770,
'file_mode' => 0660,
'chown' => 'apache',
'chgrp' => 'apache',),
For dir_mode, you may see a value of 1528, which is the decimal equivalent of the octal value 02770.
For file_mode you may see a value of 432 which is the decimal equivalent of octal value 0660.

Cache upload enhancements

Changing upload directory

To enhance performance of the Reports module, you can configure a slave database to share the load with the master Sugar database.

The upload directory is set by the upload_dir configuration variable. The default value is upload/, which is the upload directory inside the Sugar installation directory. You can set it to any path in the filesystem by putting the absolute path of the new upload directory into this variable.

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 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. Administrators can move the cache directory to a location outside the Sugar install directory to ensure space availability. The location of the cache directory is stored in the configuration variable cache_dir and the default value is cache/ - i.e. cache directory inside the Sugar installation directory. It can be set to the absolute filesystem path of the new cache directory.

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 SugarCRM 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 filesystem directories, refer to your webserver documentation.

The cache directory should be writable by the user running the webserver.

Sharing Calendar Information in Microsoft Outlook

You can specify settings in Outlook so that the free/busy information from the Outlook calendar for a user is shared with the user's Calendar in Sugar. The settings must be configured on each user's computer.
Follow the steps listed below in Microsoft Outlook:

1. Select Tools > Options. Then click **Calendar Options**.
2. Click **Free/Busy Options**.
3. Select the Publish at my location checkbox, and enter the path for the Sugar email account information following the syntax:

http://serviceman/sugarcrm/vcal_serv...outlook&email=

myemail@servername.com
where myemail@servername is the email address specified under **Email Options** in the user's User Preferences page in Sugar. On the User Settings page in the Calendar Options, the URL for publishing free/busy information is displayed in Your Publish URL.

4. For Search location enter the path for the Outlook account information, such as:

http://servername/sugarcrm/vcal_server.php/type=vfb&source=outlook&email=%NAME%@%SERVER%
where *%NAME% and %SERVER%* are Outlook replacement variables to construct the email address.