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Customizable Forecasts

Available in: **Professional**,
Enterprise, and **Developer**
Editions

Sales forecasts represent the best estimate of how much revenue you can generate. They give your managers and executives a view of your overall business no matter how dispersed your sales teams are.

Because forecasting is so universal, customizable forecasting is a flexible solution for even the most advanced requirements. For many managers, forecasting needs to be flexible to provide the right level of visibility into the business. Managers may need to view forecasts for different time periods, product lines, subordinates, revenue schedules, and many other factors. The Summer '05 release includes more customization capabilities in forecasting so managers can easily create the precise forecasts they need to successfully manage their organizations. For example, the new forecast role hierarchy feature allows you to specify how forecasts roll up to a designated forecast user, based on your organization's role hierarchy.

See Also:

[Setting Up Customizable Forecasting on page 3](#)

[Using Customizable Forecasting on page 7](#)

IMPLEMENTATION TIPS

- An administrator or user with the "Customize Application" permission can set up customizable forecasting for your organization.
- If available, click **Introducing Customizable Forecasting** on the Forecasts tab. Then, click **Request Now!** and salesforce.com will notify you when your organization has been enabled for customizable forecasts. Once enabled, follow each procedure in [Setting Up Customizable Forecasting on page 3](#).
- If you have more than one user in a management role, set the appropriate person as the forecast user for that role. See [Assigning Users in Your Forecast Role Hierarchy on page 6](#).
- See [Weekly Export on page 22](#) for a list of the customizable forecast fields that are now included in weekly backup files.

BEST PRACTICES

- Review the two new tip sheets for customizable forecasting:
 - [Setting Up Customizable Forecasting](#)
 - [Using Customizable Forecasts](#)(To access these tip sheets, click the tip sheet title above or go to CRMSuccess.com; they will also be available via the **Help and Training** link in the application with the Summer '05 release.)
- Make sure that all the appropriate users are in your forecast role hierarchy. If any are not and should be, see [Enabling Users for Customizable Forecasting on page 5](#).

- Make sure that the appropriate user is the assigned forecast user for a role whenever there is more than one user in a role in your forecast role hierarchy. Each user at the bottom of your forecast role hierarchy can be a forecast user. However, above that, a single user must be chosen for forecasts to roll up to that user. See [Assigning Users in Your Forecast Role Hierarchy](#) on page 6.
- Make sure each forecast manager role in your forecast role hierarchy is assigned to a forecast user. If there is no logical user to fill a forecast manager role, assign a dummy user to this role to ensure that other forecasts roll up correctly.
- If your forecast setting for **Forecast Type** is "Use Product Families," select a **Product Family** from the Forecasts tab to view forecasts for that product family. Choose "None" to view opportunities with no products.

SETTING UP CUSTOMIZABLE FORECASTING

Before you begin, submit a request from the Forecasts tab splash page for salesforce.com to enable customizable forecasting for your organization. Then, get started using customizable forecasting by clicking **Setup | Customize | Forecasts**:

- Click **Fiscal Year** to customize your fiscal year settings. See [Setting Your Fiscal Year](#) on page 3.
- Click **Settings** to customize the default settings for your organization. See [Defining Customizable Forecast Settings](#) on page 4.
- Click **Forecast Role Hierarchy** to set up your forecast role hierarchy. See [Setting Up Your Forecast Role Hierarchy](#) on page 5.
- Click **Enable Forecasting** to launch customizable forecasting for your organization and set up your initial forecast role hierarchy. See [Enabling Customizable Forecasting](#) on page 6.

NOTE

If these options are not available to you, you may not have customizable forecasting. See [Do I Have Customizable Forecasting?](#) on page 7 to determine if your organization has enabled customizable forecasting.

Setting Your Fiscal Year

Your fiscal year determines your monthly or quarterly forecasting cycle, the month it starts, and whether the **Fiscal Year** is named for the starting or ending year. For example, if your fiscal year starts in April 2005 and ends in March 2006, your fiscal year setting can be either 2005 or 2006.

To set your fiscal year for customizable forecasting:

1. Begin by archiving your data first because changing your fiscal year settings affects your opportunity and forecast data. We recommend running and exporting the following reports:
 - Opportunity Pipeline
 - Quarterly Forecast Summary
 - Quota vs. Actual

User Permissions Needed	
To set fiscal year:	"Customize Application"

2. Click **Setup | Customize | Forecasts | Fiscal Year**.
3. Choose a **Forecast Period** of monthly or quarterly depending on your organization's forecasting cycle.
The forecast period you choose determines the time increment your organization uses for quotas and forecasts. If you choose monthly, you can still see totals by quarters but, if you choose quarterly, monthly forecast totals are not available.
4. Choose a **Fiscal Year Start Month** that represents the beginning of your organization's fiscal year.
5. Select a **Fiscal year is based on** option that represents how your organization refers to a fiscal year. For example, if your fiscal year starts in April 2004 and ends in March 2005 but is called *Fiscal Year 2005*, choose **The ending month** because the last month determines how your organization refers to that fiscal year.
6. Do not check **Apply to all forecasts and quotas** unless you want to change the fiscal year settings of forecasts created before you enabled customizable forecasts. Checking this option changes your historical forecast data.
7. Click **Save**.

Defining Customizable Forecast Settings

Before you enable customizable forecasting, define the following settings:

- **Forecast Date** determines how opportunity amounts contribute to forecasts. Select from the options listed below.
- **Forecast Type** determines how many forecasts your users will submit in a forecast period. See the steps below for a description of options.
- **Default View** determines the default date range users can view when they click the Forecasts tab.

1. Click **Setup | Customize | Forecasts | Settings**.
2. Choose a **Forecast Date** that determines how opportunity amounts contribute to forecasts:
 - Choose **Opportunity Close Date** if you want the entire opportunity amount to contribute to the forecast period for that date. If your organization does not use products, this is the only option available.
 - Choose **Product Date** if you want the amount of the product on the opportunity to contribute to the forecast period that corresponds with the **Product Date**. When no products exist on an opportunity or the product date is blank, Salesforce uses the **Opportunity Close Date** in the user's forecast instead.
 - Choose **Schedule Date** if you want the individual revenue schedule amounts to contribute to the forecast periods that correspond with the schedule dates. If a product does not have a revenue schedule, Salesforce uses the **Product Date** in the user's forecast instead.
3. Choose a **Forecast Type** that determines how many forecasts your users will submit in a period:
 - Choose **Use Overall Forecast** if your organization does not use products. Your users will have one forecast and one quota for each period. If your organization does not use products, this is the only option available.

User Permissions Needed

To define forecast settings:	"Customize Application"
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- Choose **Use Product Families** if your users have one quota and one forecast for each product family. See the online help for information about using product families.
4. Choose a default view for your users. This setting determines what forecast date range and product family to display for users when they first click the Forecasts tab. Users can change their view but the default remains the same for all users.
 5. Click **Save**.

Setting Up Your Forecast Role Hierarchy

Your forecast role hierarchy lists each user that can use customizable forecasting. It determines how forecasts roll up through your hierarchy. It is based on the role hierarchy for your organization.

When salesforce.com enables customizable forecasting for your organization, it automatically generates a forecast role hierarchy based on your organization's role hierarchy. To customize your forecast role hierarchy:

- Make sure that all the appropriate users are in your forecast role hierarchy. If any are not and should be, see [Enabling Users for Customizable Forecasting](#) on page 5.
- Make sure that the appropriate users are the assigned forecast user for a role whenever there is more than one user in a role in your forecast role hierarchy. Each user at the bottom of your forecast role hierarchy can be a forecast user. However, above that, a single user must be chosen for forecasts to roll up to that user. See [Assigning Users in Your Forecast Role Hierarchy](#) on page 6.

User Permissions Needed

To set up forecast role hierarchy:	"Customize Application"
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Enabling Users for Customizable Forecasting

Enable the appropriate users to use customizable forecasting by adding them to the forecast role hierarchy. For example, you may want to consider the following:

- Remove any non-sales management roles and their subordinate roles from the forecast role hierarchy. You can do this by not assigning a forecast user to the role.
 - Disable forecasting for any users who are not in sales and do not have quotas. Note that when you disable users from your forecast role hierarchy, Salesforce disables the **Allow Forecasting** option on their user information page.
1. Click **Setup | Customize | Forecasts | Forecast Role Hierarchy**.
 2. Click **Users** next to a role to view a list of users assigned to that role.
 3. Select a user and click **Add** to enable the user for customizable forecasting. To disable a user, select the user and click **Remove**.
 4. Click **Save**.

NOTE

If you add more than one user to a role, make sure that the appropriate user is the assigned forecast user for that role. See [Assigning Users in Your Forecast Role Hierarchy](#).

Assigning Users in Your Forecast Role Hierarchy

After users are enabled for customizable forecasting, assign a forecast user to each role in your forecast role hierarchy. Assigning a user to a role in the forecast role hierarchy means that all forecasts from users below that user in the forecast role hierarchy roll up to that person. For example, a manager and executive assistant may have the same role, but the manager is the assigned forecast user in the forecast role hierarchy because all the forecasts for subordinates roll up to the manager. Both the manager and executive assistant can submit forecasts, but forecasts of other users do not roll up to the executive assistant.

If a role in the forecast role hierarchy is not assigned to a user, that role and all its subordinate roles are not included in your forecasts.

1. Click **Setup | Customize | Forecasts | Forecast Role Hierarchy**.
2. Click **Assign** next to a role to assign a user to that role. If you have already enabled customizable forecasting, click **Edit**.
3. Choose a user to be assigned to the selected role. If no users are available for the role, enable the appropriate user; see [Enabling Users for Customizable Forecasting](#).
4. Click **Save**.

Enabling Customizable Forecasting

Enabling customizable forecasting for your organization allows your forecast users to view and submit their customizable forecasts from the Forecasts tab based on your customizable forecast settings.

1. Click **Setup | Customize | Forecasts | Forecast Role Hierarchy**.
2. Click **Enable Customizable Forecasting**. If this option is not available, customizable forecasting is already enabled for your organization. After you enable customizable forecasting, three new user permissions are available:

Permission	Description
Override Forecasts	Allows users to override their own forecasts and forecasts for users below them in the forecast role hierarchy. All standard profiles except Read Only receive this permission.
Edit Personal Quota	Allows users to change their individual quotas. All standard profiles except Read Only receive this permission. Users with the "Manage Users" permission can always edit any quota. Users can always edit the quotas of users that report directly to them.
View All Forecasts	Allows users to view any forecast regardless of their place in the forecast role hierarchy. The System Administrator profile includes this permission.

3. Choose the appropriate opportunity page layouts that you want to include the new Opportunity Forecasts related list. Optionally, choose the **Append** . . . option to add this related list to page layouts even if users have customized them.

4. Click **Save**.
5. If your organization has custom profiles, enable or disable these permissions where necessary in your custom profiles. See the online help for information on changing your profiles.

NOTE

With customizable forecasts, your forecasts still depend on how your **Opportunity Stage** picklist values map to **Forecast Categories**. See the online help for instructions on reviewing these mappings.

Submitting Customizable Forecasts in Batches

Submitting forecasts takes a snapshot of forecast data and makes that data available in forecast history and reports. Users can submit their forecasts individually by clicking **Submit** from their forecast.

To submit multiple forecasts at once:

1. Click **Setup | Customize | Forecasts | Batch Submit**.
2. Choose the appropriate forecast period.
3. Select the users that have forecasts you want to submit and click **Add** to add them to the list of **Selected Users for Batch Submit**. Select more than one at a time using **Ctrl+click**.
4. Click **Submit**.
5. Click **OK**.

User Permissions Needed	
To submit forecasts in batches:	"Customize Application"

USING CUSTOMIZABLE FORECASTING

Use customizable forecasts to review your forecast and drill down through your forecast amounts to see the opportunities included in your forecast. Override forecast amounts directly from the opportunity, or override the forecast from the Forecasts tab without notifying users below you in the forecast role hierarchy.

To enable customizable forecasts, your administrator must first contact Salesforce and then customize the Forecasts tab for your needs. See [Setting Up Customizable Forecasting](#) on page 3 for information on implementing customizable forecasting for your organization.

Do I Have Customizable Forecasting?

Customizable forecasting may be difficult to distinguish because the tab name does not change when you convert to customizable forecasting. Here is how to tell if you have customizable forecasting:

Customizable forecasting has the same binoculars icon as forecasting, but the icon displays a "NEW" label if you are using customizable forecasting.

Customizable Forecasting Home

Clicking the Forecasts tab displays your forecast for the selected forecast period.

User Permissions Needed	
To see forecasts of other users:	"View All Forecasts"
To override your forecast:	"Override Forecasts"

- Click **Edit** to make changes to the selected forecast. See [Overriding Customizable Forecasts](#) on page 9 for instructions on overriding forecast amounts.
- Click **Submit** to submit your forecast, making a snapshot of your forecast data available in your forecast history and forecast reports. See [Submitting Customizable Forecasts](#) on page 12.
- Click **Forecast History** to display the forecast data you submitted in the past. Then, click **Forecast Summary** to return to the current forecast data.
- Click **Printable View** to display the selected forecast in a simple, print-ready layout.
- Review your forecast and the forecasts of any direct reports. See [Viewing Customizable Forecasts](#) on page 9 for instructions on different viewing options.

If your forecast is not available, contact your administrator about adding you to the forecast role hierarchy.

NOTE

The Forecasts tab is unlike other tabs in that it automatically calculates data for you based on your opportunity data. You do not need to create or delete forecast records.

Managing Customizable Forecasts

Your forecasts represent your opportunity amounts, dates, and stages. To make sure your forecasts are an accurate representation of your revenue potential:

User Permissions Needed	
To see forecasts of other users:	"View All Forecasts"
To override your forecast:	"Override Forecasts"

1. Review your forecast amounts. See [Viewing Customizable Forecasts](#) on page 9 for instructions on different viewing options.
2. Determine if you want to override any amounts.
3. Override amounts if necessary. This requires the appropriate user permission. See [Overriding Customizable Forecasts](#) on page 9.
4. Submit your forecast to make a snapshot of your forecast data available in your forecast history and forecast reports. See [Submitting Customizable Forecasts](#) on page 12.

Viewing Customizable Forecasts

When you click the Forecasts tab, review the amounts listed and determine if they are ready to be submitted.

User Permissions Needed	
To see forecasts of other users:	"View All Forecasts"
To override your forecast:	"Override Forecasts"

- Initially, your name appears below **View forecast of:** indicating the owner of the forecast displayed. Users with the appropriate permissions can click the magnifying glass icon and select another user to view that person's forecast.
- If your organization uses product families, choose an option from the **Product Family** picklist to summarize the forecast by that product family. Choosing **--All--** product families disables the **Edit**, **Submit**, and **Forecast History** options; choose another product family to use these options. See [Defining Customizable Forecast Settings](#) on page 4 for information on customizing your organization to use product families.
- Select a date range under **Range Start** to view another forecast period.
- Select a **Range Length** to view fewer or more forecast periods.
- Select an option next to **Display Units** to view forecast totals using a different unit of measurement. To display what portion each total is of your quota, choose **% Quota**.
- If you have direct reports (users that report directly to you), their forecasts display below yours. The **Choose a view** option allows you to change the way forecast information is displayed for your direct reports. Use this option to group forecast data by subordinate or forecast period.
 - **View by Period** displays a list of direct reports and their forecasts for each forecast period. Click any name to view the forecast for that user.
 - **View by Direct Report** displays a list of forecast totals for each direct report. Click **View** next to any subordinate name to view the forecast for that user.
 - Clicking any amount displays the opportunities and forecast overrides included in that amount.

Overriding Customizable Forecasts

You can make your forecast a more accurate assessment of your forecasted sales by overriding forecast amounts as needed. Any user can override a forecast from the opportunity by changing the **Stage** or **Forecast Category** of the opportunity. Users with the "Override Forecasts" permission can override their forecast or any direct report's forecast at the forecast level.

User Permissions Needed	
To see forecasts of other users:	"View All Forecasts"
To override your forecast:	"Override Forecasts"

Overriding Your Forecast from the Opportunity

1. View the opportunity you want to override.
2. Click **Edit** from the Opportunity Forecasts related list.
3. Make any changes. The options available differ depending on whether you won the opportunity.
4. If products are on the opportunity, select the appropriate **Change Category** option to change the forecast category for that product.
5. Click **Save**. The opportunity is marked with the appropriate icon indicating its override status. See [Forecast Override Indicators](#) on page 10 for a description of each override icon.

Click **Save & Refresh** to update the record and redisplay the totals.

Overriding Your Forecast at the Forecast Level

1. Click **Edit** from your forecast on the Forecasts tab.
2. Click the Forecasts subtab at the bottom of the page.
3. Click the amount to override on your forecast. You may not have permission to override all the amounts listed.
4. Enter a new amount and any comment.
5. Click **Save**. The forecast is marked with the appropriate icon indicating its override status. See [Forecast Override Indicators](#) on page 10 for an descriptions of each override icon.
6. Click **Forecast Summary** to return to the forecast.

Overriding the Forecast of Your Direct Reports

1. Click **Edit** from your forecast on the Forecasts tab.
2. Click the Forecasts subtab at the bottom.
3. Click the amount to override in your direct report's forecast.
4. Choose one of the override options to control which override amounts, if any, are included in the forecast:
 - **John Doe's forecast override** - Use this option to accept the forecast override that your direct report has made.
 - **John Doe's forecast without overrides** - Use this option to ignore the direct report's override but include an override made by someone further down the chain. This includes opportunity-level overrides.
 - **John Doe's forecast without any overrides** - Use this option to ignore all forecast-level overrides but include opportunity-level overrides. If you have overridden amounts at the opportunity, your own opportunity forecasts are used in this calculation. Choose this option if you want forecast amounts to be based on opportunity amounts including overrides made at the opportunity level.
 - **My override of John Doe's forecast** - Use this option to enter an amount that replaces the current amount in your forecast. Your manager will see this amount in your forecast but your subordinates will not.
5. Click **Save**. The forecast is marked with the appropriate icon indicating its override status. See [Forecast Override Indicators](#) on page 10 for an descriptions of each override icon.
6. Click **Forecast Summary** to return to the forecast.

NOTE

The Forecasts tab is unlike other tabs in that it automatically calculates data for you based on your opportunity data. You do not need to create or delete forecast records.

Forecast Override Indicators

An icon displays for each override to indicate the status of the override. Use the following table to determine the status of an override.



The opportunity has been updated since an override.



A subordinate has overridden the forecast.



A person that reports directly to you has overridden the forecast.



You have overridden the forecast.



The forecast data is not up-to-date. Refresh your browser in a few minutes.

Customizable Forecast Fields

Here is a description of the fields (in alphabetical order) that make up a forecast in customizable forecasting:

Forecast Fields

Field	Description
Comments	The comments you enter when overriding your forecast.
Forecast Category	Category determined by the opportunity Stage value. Options are: Best Case includes amounts you are likely to close, closed/won opportunity amounts, and amounts in the Commit category. Closed includes amounts for closed/won opportunities. Commit includes amounts you are confident about closing and closed/won opportunity amounts. Omitted means the amount does not contribute to your forecast. Pipeline includes amounts from all open opportunities.
Forecast Item	Record that contributes to the forecast. This displays in the detail of a forecast amount.
My Forecast Override	The amount you enter when overriding a forecast amount.
Submitted By	The user who submitted a forecast.
Type	Type of override. Options are "Opportunity" or "Forecast Override."

Opportunity Forecast Fields

Opportunity Forecast Field	Description
My Forecast Amount	The amount you enter when overriding your direct report's opportunity amount.
My Forecast Category	The category selected when you override the category of an opportunity.
My Forecast Comments	The comments you enter when overriding one of your opportunities or the opportunity of a direct report.
My Forecast Period	The period you selected when overriding a direct report's opportunity period.

Submitting Customizable Forecasts

On the Forecasts tab, your forecast totals are always available to you and users above you in your role hierarchy. However, forecast totals are only available in forecast history and reports after you submit them.

To submit your forecast:

1. Click **Submit** from your forecast on the Forecasts tab.
2. Click **OK** to confirm. Salesforce takes a snapshot of your forecast totals and makes them available in reports and your forecast history.

User Permissions Needed

To see forecasts of other users:	"View All Forecasts"
To override your forecast:	"Override Forecasts"

Sales Methodologies

Available in: **Professional** and
Enterprise Editions

The Summer '05 release features integration with the leading sales methodology applications and processes to ensure that Salesforce works hand-in-hand with your sales methodology.

Current sales methodology partners include:

- Miller Heiman
- SPI (Solution Selling)
- The Complex Sale
- ValueVision

Some of these partners - such as Miller Heiman, SPI, and The Complex Sale have already developed integrated methodology applications that are Sforce certified. These applications were developed specifically for Salesforce and are sold by each of the methodology partners. Each of the methodology applications includes bidirectional data integration that pulls Salesforce information such as account, contact, and opportunity information and sends information back to Salesforce that is stored in custom fields created for each methodology.

IMPLEMENTATION TIPS

- To learn more about sales methodology partners, click **Sales Methodologies** in the Tools section of the Accounts or Opportunities tab home page. This launches a popup window which provides more information and the means to sign up with one of these leading partners.
- Customize your page layouts and field-level security to display any custom sales methodology fields.
- Create custom reports that include any custom sales methodology fields. You can create custom reports to report on user compliance with your methodology, revenue and forecasting by methodology stage, and virtually any other analysis involving the methodology-related fields.

BEST PRACTICES

- Instruct your users how to fill in any custom sales methodology fields according to the sales methodology training they have received.
- Check your custom sales methodology reports regularly to ensure that your salespeople are using the sales methodology effectively.

Mass Address Update

Available in: **All** Editions

For companies that have problems maintaining consistent data in Salesforce, mass address update is a first step towards improving data quality. Administrators can now change the country and state/province fields for accounts, contacts, leads, and contracts from inconsistent values to identical values. This enables far more accurate reporting and greater business insight.

Use the mass update addresses tool to standardize the country and state/province values for your organization's existing address fields in accounts, contacts, contracts, and leads. For example, instead of having multiple records with US, USA, or United States in the address fields, you can use mass update addresses to enter one name, such as US, for all of the records.

See Also:

[About Mass Updating Addresses on page 15](#)

IMPLEMENTATION TIPS

- Update countries first, and then update states or provinces within that newly standardized country value.
- When updating addresses, the mass update addresses tool lists all existing country and state/province values in your organization's account, contact, lead, and contract address fields. This includes existing values on records located in the Recycle Bin.

BEST PRACTICES

- Use the mass update addresses tool to convert inconsistent address formats to one international standard, such as ISO codes. For a list of ISO codes, see [International Organization for Standardization](#).
- Use the mass update addresses tool regularly to cleanse your address data of inconsistent values created by users or via import, synchronization, or the Sforce API.
- Any country or state/province value can be created manually or via import, synchronization, or the Sforce API. Address values are not validated upon creation.
- Remember to change any report filters, list views, assignment rules, and escalation rules to reflect any address updates. For example, if you change "United States" to "US" in all of your records, then a list view that filters for records with "United States" will no longer find the records that were changed to "US" unless you update your list view definition.
- Review the new [Managing Data Quality](#) tip sheet for more information on mass updating addresses and other techniques for maintaining data quality.

(To access this tip sheet, click the tip sheet title above or go to [CRMSuccess.com](#); it will also be available via the **Help and Training** link in the application with the Summer '05 release.)

ABOUT MASS UPDATING ADDRESSES

To update your organization's existing address fields in accounts, contacts, contracts, and leads:

User Permissions Needed

To mass update addresses:	"Modify All Data"
To mass update addresses of contracts:	"Modify All Data" AND "Activate Contracts"

1. Choose **Setup | Data Management | Mass Update Addresses**.
2. Select the type of data to update - **Countries** or **State/Province**. If you chose **State/Province**, enter the country in which to update the state or province. Click **Next** to continue.
3. Select the values to update and click **Add**. The Selected Values box displays the values that will be updated. To remove values, click **Remove**.
The Available Values box displays the address values found in existing records. To find additional addresses to update together as a group, enter all or part of a value and click **Find**.
If your organization has large amounts of data, this step will not allow you to search for values or to view a list of available values. Instead, enter existing values to update in the text area provided. Each value should be separated by a new line.
4. In the **Replace selected values with** field, enter the value with which to replace the specified address data, and click **Next**. If your organization has large amounts of data, this field is called **Replace entered values with**.
The number and type of address records which will be updated in your organization are displayed. If your organization has large amounts of data, only the values that will be updated are displayed.
5. Click **Replace** to update the values.

Calendar Settings

Available in: **All** Editions

Salesforce has added two new organization-wide calendar settings designed to enhance your users' productivity.

- **Last Calendar View Shortcut** - Enable a new shortcut in the sidebar that quickly links users to the last calendar they were viewing, such as the daily, weekly, monthly, or multi-user calendar view.
- **Details on Group Calendar Views** - Enable a new option to display event details on group calendar views. Group calendar views include multi-user calendar views, public or resource calendars, and group events. Previously, event details were displayed in a popup box when users moused over the event in a calendar.

See Also:

[Enabling the Calendar Shortcut on page 17](#)

[Showing Details on Group Calendar Views on page 17](#)

IMPLEMENTATION TIPS

- If you enable the **Calendar** shortcut, it displays in the sidebar in a new section called "Shortcut." This section displays for all users on every page, except pages in which the sidebar is not visible such as setup pages or reports.
- If you want to hide the **Calendar** shortcut for some users, customize the home page layout for those users via **Setup | Customize | Home | Home Page Layouts**.
- When customizing home page layouts, note that the placement of the **Calendar** shortcut is controlled by the Recent Items component.
- Enabling the ability to view event details on group calendar views does not override your organization's calendar sharing settings or managers' access to their subordinates' events.
 - To view event details via this option, your organization-wide calendar sharing must include "Show Details." Click **Setup | Security Controls | Sharing Rules** to set your organization's calendar sharing.
 - Regardless of your calendar sharing settings, managers in the role hierarchy continue to be able to view the event details of users below them in the hierarchy.

BEST PRACTICES

- If your users typically view multi-user calendar views with large numbers of users, you may not want to enable the ability to view event details in the calendar. When event details are displayed on the page, the calendar may become very large. If you do not enable this new option, users can still view event details by mousing over the event in a group calendar view.

ABOUT CALENDAR SETTINGS

Enabling the Calendar Shortcut

The **Calendar** shortcut in the sidebar of every page provides a quick link for users to return to the last calendar they were viewing, such as the daily, weekly, or monthly calendar view. You can choose to enable or disable this shortcut for all of your users.

1. Click **Setup | Customize | Activities | Calendar Shortcut**.
2. Select the checkbox to show the **Calendar** shortcut for all users.
3. Click **Save**.

The shortcut displays in the sidebar of all pages, except pages in which the sidebar is not visible such as setup pages or reports.

NOTE

When customizing home page layouts, note that the placement of the **Calendar** shortcut is controlled by the Recent Items component. See the online help for information on customizing your users' home pages.

Showing Details on Group Calendar Views

If your organization-wide calendar sharing includes Show Details or if you are the manager of another user in the role hierarchy, group calendar views typically display the details of users' events when you mouse-over the "busy" areas of the calendar. You can customize calendar settings so that event details display on-screen rather than in mouse-over text. This setting applies to group calendar views for all users. Group calendar views include multi-user calendar views, public resource calendars, and the calendar view when creating or editing a group event.

1. Click **Setup | Customize | Activities | Calendar Details**.
2. Select the checkbox to show the details of users' events on all group calendar views.
3. Click **Save**.

NOTE

Enabling this setting does not override calendar sharing. If a user's calendar details are not visible to other users via calendar sharing or the user's position in the role hierarchy, this setting does not change that.

User Permissions Needed

To customize calendar settings:	"Customize Application"
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User Permissions Needed

To customize calendar settings:	"Customize Application"
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ADDITIONAL SALESFORCE ENHANCEMENTS

Activity Enhancements

- In the Summer '05 release, salesforce.com has standardized which fields are available in activity list views and the Open Activities and Activity History related lists. The list of activity fields available as column headers is now the same for list views and the related lists.
 - In the Open Activities and Activity History related lists, the **Type** column has been replaced with the **Task** column on all page layouts. Previously, the **Type** column in related lists displayed "Task" or "Event" to indicate the type of an activity. Now, the **Task** column displays a check mark for tasks and blank for events.
 - The **Type** column in activity list views and related lists now displays the value of the **Type** picklist field, such as "Call," "Meeting," or "Email."
- You can now create mail merge documents directly from an account, solution, or asset using the **Mail Merge** button on the Activity History related list.
- When editing a record that includes a date or date/time field, you can now add the current date or date/time by clicking the link next to the field. This applies to all custom fields of type date or date/time and also to standard date and date/time fields, such as the **Due Date** field on a task.

Campaigns

- Campaign statistics have been redesigned for better performance, and the counting of converted leads is now directly associated with the campaign to which the lead was originally associated.

Fields

- A new checkbox field, **Fax Opt Out**, is now available on both contacts and leads. By default, it is not checked for all contacts and leads. We recommend you use the import wizards to mass update this field as necessary to mark which leads and contacts have not consented to receive solicitation faxes; you can use the new import ID matching to ensure you are updating the right records during import (see [Import Wizard Enhancements](#) on page 87). Uncheck this box if you have received written consent from the person to send solicitation faxes. Add this field to the appropriate page layouts and change the field-level security to visible.
- Add the new **Shipping Address** field to the appropriate contract page layouts to track a contract's shipping address separately from the **Billing Address**.

- More fields are now available as merge fields for email templates, mail merge templates, custom links, and custom s-controls. Merge fields now include **Record Type ID**, **Last Activity**, **Owner ID**, among other additions. Use the merge fields available in the drop-down list for the function you are performing. Merge field names are not the same throughout the application.
- When editing a record that includes a date or date/time field, you can now add the current date or date/time by clicking the link next to the field. This applies to all custom fields of type date or date/time and also to standard date and date/time fields, such as the **Due Date** field on a task.
- A **New** button has been added to tab home pages to let you easily create a new record. The button is located at the top of the key records list on of the Accounts, Campaigns, Cases, Contacts, Contracts, Documents, Leads, Opportunities, Products, and Solutions tabs.
- In the Mass Reassign Account Teams wizard, you can use division as a criteria when searching for accounts. The drop-down list is located at the second step of the wizard for organizations that have enabled divisions to segment their data.

Help and Training Window Enhancements

The Help and Training window, accessible via the **Help** link on every page, provides easy access to resources from salesforce.com such as online help, tip sheets, FAQs, customer support, and training. The Help and Training window has been enhanced to make it easier for you to find the answers you need:

- Clicking the **Help** link on any page links you directly to context-sensitive help about that page so you can quickly get the answers you need.
- When you search for answers in the Help and Training window, the results include both online help topics and solutions from the salesforce.com Customer Support team.
- On the search results page, click the **Relevant Solutions** or **Relevant Help Topics** links to quickly jump to search results.
- The search results include a link to the relevant solution or help topic along with a small blurb about that link so you can see at-a-glance which search results are the most relevant to you.
- The search results for help topics have been optimized to return only the most relevant topics without showing duplicate entries.
- Each online help topic now contains specific information about which product Editions include that feature. Also shown are the exact user permissions required to use the feature.
- The online help table of contents has been organized with distinct headings - such as Getting Started, Setup, Working Remotely - so you can more easily find the information you need.

List Pages

- On any detail page, you can click the **Back to List:** link to return to your most recently viewed list page. The kind of list that you will be returning to is appended after the colon. For example, if the last list page you viewed was the 'D' page of the "All Accounts" view, clicking **Back to List: Accounts** returns you to that page of the "All Accounts" view. Alternately, if your most recently viewed list page was a list of cases, then the link would be **Back to List: Cases**. The link is not available if you have not yet viewed any list pages in your current session.

Products

- You can now clone a product to create a new product with the same information. Cloning an existing product is an easy way to create new products with the same price book and standard price.
- The **Product Code** and **Product Name** fields have been lengthened to 255 characters.

Recycle Bin

- Each user can now have up to 5000 records at a time in the Recycle Bin. If a user reaches this limit, Salesforce automatically removes the oldest records, as long as they have been in the Recycle Bin for at least two hours, until the number of records is below 5000.
- Find critical records in your Recycle Bin quickly. Select **My recycle bin** or **All recycle bin** to include items you deleted or items anyone deleted in your search results. Enter your search terms and click **Search:**
 - Search terms have an implied AND operator between them.
 - An implied wildcard is appended to your search terms.
 - Searches look for matches in the field displayed in the Name column of the Recycle Bin. Note that some fields such as **Case Number** are listed in the Name column and included in searches.

Search Enhancements

- From the search results page, select an entry to jump directly to that item or click **Edit** to edit it.
- Your recent items are now listed first in search results when your search keywords match the beginning of a record name that is included in your Recent Items list.

For example, if the contact "Tom Jones" is in your Recent Items list in the sidebar and you search for *tom*, the "Tom Jones" contact record will be listed first in the matching contacts in your search results.

NOTE

Only your first search keyword is used when searching for matches among your recent items.

When searching for records with auto-number fields, you must include any leading zeroes in order to match your recent items first. For example, if case "00001005" is in your Recent Items list, your search keyword must be *00001005* in order to return that case first in your search results. Searching for *1005* will still find that case but it is not guaranteed to be first in your search results.

Supported Browsers

- Mozilla Firefox 1.0 or later is now fully supported with the exception of Offline Edition and the mail merge functionality.
- Users with Netscape Navigator version 7.2 and later can now do the following, which were previously unsupported:
 - Create and edit email letterheads
 - Create and edit HTML email templates that use letterheads
 - Use the formatting toolbar to create HTML text when creating custom HTML email templates and when sending an HTML email.
 - Select an HTML email template with a letterhead when sending an email.

Verisign Certificates Updated

With the Summer '05 release, salesforce.com has renewed the Verisign security certificates for Outlook Edition, Office Edition, and Offline Edition. For Outlook Edition and Offline Edition, you will not notice any changes. Both clients will continue to work as before.

For Office Edition, you will need to reinstall the client application. To do this, click **Setup** | **Office Edition** | **Install Office Edition** and click the **Install Now** button.

- Reinstalling Office Edition installs the new Verisign security certificate from salesforce.com on your computer so you can use Office Edition without receiving any security warning messages.
- If you do not reinstall Office Edition, you will receive macro security warning messages in the following situations:
 - When you start Office Edition
 - When you use Outlook email, if you have set Microsoft® Word as your email editor
 - When you start Microsoft® Word or Excel, if you have your macro security setting at "High"

- If your company prevents you from installing applications on your computer, you can temporarily use Office Edition without the security certificate until your IT department can reinstall Office Edition for you.

To do this, select the **Always trust macros from this publisher** checkbox when prompted with the security warning message. Then click the **Enable Macros** button. Content from salesforce.com will be trusted by Office and you will not be prompted with security warning messages.

Weekly Export

With the Summer '05 release, data from customizable forecasts can be included in weekly data exports. To include forecast data in your export file, select all of the following checkboxes on the Data Export page:

- **Period**
- **ForecastOverride**

Note that **ForecastOverride** represents forecast data regardless of whether forecast overrides exist.

- **OpportunityOverride**
- **LineitemOverride**

Note that **LineitemOverride** represents opportunity product overrides.

Email-to-Case

Available in: **Professional**,
Enterprise, and **Developer**
Editions

Service organizations need an efficient way to manage and respond to incoming customer emails. With Summer '05, the new Email-to-Case function will meet that need by reducing the processing and response time for customer emails. By using multiple customer service email addresses, incoming messages can automatically generate cases that are routed to appropriate users or case queues. Ongoing email interactions with customers happen from within cases for greater efficiency and better tracking of all email dialogues.

See Also:

Preparation on page 24

Setting up Email-to-Case on page 24

Working with Case Emails on page 26

Email-to-Case Merge Fields on page 27

IMPLEMENTATION TIPS

- Set up a routing address for each type of account managed by your organization's users. For example, if you have Gold and Platinum support accounts, set up routing address like goldsupport@acme.com and platinumsupport@acme.com.
- Create auto-response rules to determine the email template that is used when responding to cases captured via email. You can create an auto-response rule based on any attribute of the incoming case by clicking **Setup | Customize | Cases | Auto-Response Rules**.
- Use the new Email-to-Case merge fields to include information about an email to which you are responding. Merge fields allow you to include information from an email thread in an email response to a customer. See [Email-to-Case Merge Fields](#) on page 27 for more information.
- Add the Emails related list to the Cases page layout.
- The limit on the number of emails a day that an organization can convert into cases is 2500 per day for Professional, Enterprise, and Developer Editions (total number of cases, inclusive of all email messages). If your organization exceeds its daily Email-to-Case limit, the following API exception code is returned to the Email-to-Case agent: EMAIL_TO_CASE_LIMIT_EXCEEDED. You can configure the agent to take appropriate action, such as notifying your administrator, when this occurs.

BEST PRACTICES

- You can create a custom report to view a list of both inbound and outbound emails by case by choosing the Cases with Emails report type in the report wizard. This type of report is only available to organizations with Email-to-Case enabled.

- You can also create a custom report on emails with a filter criteria of "Status equals new" to see a list of all emails to which users have not responded.
- To see which emails have not been responded to on a case, look for open activities on the Open Activity related list.

ABOUT EMAIL-TO-CASE

Preparation

Before you can begin using Email-to-Case:

1. Determine the email routing addresses that your customers can use to submit cases to your support department. Emails are automatically converted to cases based on the settings specified for each routing address.
2. Configure your email routing addresses and enable Email-to-Case. See [Setting up Email-to-Case](#) on page 24.
3. Download the Email-to-Case agent from www.sforce.com.
4. Install the agent behind your network's firewall.
5. Test your email routing addresses by manually sending emails to the addresses and verifying that the emails are converted to cases based on the settings specified for each routing address.

NOTE

You can create email templates that support representatives can use to respond to Email-to-Case emails. These templates can include merge fields that display information from the original email in the response. See [Email-to-Case Merge Fields](#) on page 27 for a list of merge fields.

Setting up Email-to-Case

To set up Email-to-Case, you need to add a new email routing address, verify the new email routing address, and enable Email-to-Case functionality.

User Permissions Needed

To set up Email-to-Case:	"Customize Application"
To enable Email-to-Case	"Modify All Data" AND "Customize Application"

1. Click **Setup | Customize | Cases | Email-to-Case**.

From the Email-to-Case Settings page, you can:

- Click **Edit** to edit an existing routing address.
- Click **Del** to delete an existing routing address.
- Click **Verify** to confirm and verify the email address used in an existing routing address. A verification email is immediately sent to the new routing address, which includes a link, that when clicked, completes the verification process.

2. From the Routing Addresses related list, click **New**. You can create up to 50 routing addresses to administer separate email addresses for Email-to-Case. A routing address is activated once Email-to-Case is enabled.
3. Enter the routing address settings.

Setting	Description
Routing Name	The name for the routing address. For example, Gold Support or Standard Support.
Email Address	The inbound email address for this Email-to-Case routing address. Emails sent to this address are created as cases using the specified settings. The email address must be unique. Note that this is the email address to which you will provide a link on your company's support website.
Priority	The priority assigned to cases created from emails sent to this email address.
Origin	The value assigned to the Origin field for cases created via this Email-to-Case routing information.
Record Type	The record type used to create cases from emails sent to this email address. If a routing address has a case record type of "None," then new cases will default to the record type of the user configured in the Email-to-Case agent. If your organization does not use record types, this setting is not available.

When a customer sends an email to this routing address, a case is created in your organization with the email subject as the case **Subject** and the email body as the case **Description**.

4. Click **Save** to save the routing address settings.
Alternatively, click **Save & New** to save the routing address, and then create a new routing address.
5. Click **Verify** next to the email address. A verification email is immediately sent to the new routing address, which includes a link that you click to complete the verification process. The new routing address will not be verified until you access the email and click this link.
Salesforce notifies you that the new email routing address is verified.
6. Click **Continue**.
7. In your email application, locate the routing address verification email and follow the instructions to verify the email address.
8. Return to the Email-to-Case Settings page by clicking **Setup | Customize | Cases | Email-to-Case**.
9. Click **Edit** to enable Email-to-Case.
10. Select the **Enable Email-to-Case** checkbox and click **Save**.
To disable Email-to-Case at any time, simply deselect the checkbox.
11. Add the Emails related list to the Cases page layout.

Working with Case Emails

Cases generated via Email-to-Case display in an Emails related list that includes all emails sent by your customer regarding a particular case, as well the email threads between you and your customer. The first 200 characters of an email message appear in the related list so that you can see what the message is about without having to click on it.

To work with Email-to-Case emails:

- Click **Send An Email** to send an email to a contact, another user, or any other email address. See the online help for more information on sending emails.
- Click **Reply** to respond to an email. The email response automatically includes the email body as received from the customer. Enter your response and click **Send**.
- Click **To All** to respond to all participants on an email thread.
- Click the subject of the email to view the email. From the email, you can reply to the sender, reply to everyone, forward the email, or delete it.
- While viewing an email, you can display a list of all the emails associated with the case by clicking **Email Message List**, and you can navigate to the case's other emails by clicking **Next** or **Previous**.
- While viewing an email, click **Forward** to forward it. The email automatically includes the email body as received from the customer. Optionally, enter text and click **Send**.
- If the original email was an HTML email, you can click the **Click here to view HTML version** link to see the HTML version. If you want to see the entire email header, click the **Click here to view original email headers** link.
- To view any attachments contained in incoming emails, go to the Attachments related list of the email. To view attachments sent with outbound emails, view the Attachments related list of outbound emails.

NOTE

The size limit for an attachment is 10MB. If an attachment goes over this limit, your Salesforce administrator will receive an email indicating that the attachment could not be saved. However, the email itself will still be entered into Salesforce.

- Click **Del** to delete an email. Note that a deleted email can be retrieved from the Recycle Bin. However, if you delete an email from a case, then delete the case, you will not be able to retrieve the deleted email from the Recycle Bin.

In the Email related list, emails are listed in the order received - the first email being the most recent. Emails in the related list display one of the following statuses:

Email Status	Description
New	An inbound email that has not been read.
Read	An inbound email that has been read but not replied to.
Sent	An outbound email.
Replied	An inbound email that has been replied to. Replying to a sent email gives it a replied status.

When a case contains a new (unread) email, an "Email" task associated with that case is automatically created in the case owner's task list with the email subject displayed. The owner can easily see the new task on the Home tab or from the Open Activities related list of the case. From the task, the owner can click a link to view the email associated with the case. When the user responds to the email, the task is removed from the owner's task list and added to the case's Activity History related list. The user can also move an email task to which they have not responded to the Activity History related list by changing its status to "Completed."

NOTE

When inbound emails create a new case and your assignment rules route that case to a queue, the "Email" task is assigned to the user configured in the email agent.

Email-to-Case Merge Fields

Use the new Email-to-Case merge fields to include information about an email to which you are responding. Merge fields allow you to include information from an email thread in an email response to a customer. Create email templates that use the new merge fields below.

Case Fields

Salesforce Field Name	Merge Field Name
Case Thread ID (case reference ID)	{!Case_Thread_Id}

Email Message Fields

Salesforce Field Name	Merge Field Name
BCC Address	{!EmailMessage_BccAddress}
CC Address	{!EmailMessage_CcAddress}
Created Date	{!EmailMessage_CreatedDate}
Email Message ID	{!EmailMessage_EmailMessage_ID}
From Address	{!EmailMessage_FromAddress}
From Name	{!EmailMessage_FromName}
Headers	{!EmailMessage_Headers}
HTML Body	{!EmailMessage_HtmlBody}
Is Incoming	{!EmailMessage_Incoming}
Last Modified Date	{!EmailMessage_LastModifiedDate}
Message Date	{!EmailMessage_MessageDate}

Email Message Fields

Salesforce Field Name	Merge Field Name
Status	{!EmailMessage_Status}
Subject	{!EmailMessage_Subject}
Text Body	{!EmailMessage_TextBody}
To Address	{!EmailMessage_ToAddress}

Self-Service Portal Style Editor and Portals Tab

Available in: **Professional**,
Enterprise, and **Developer**
Editions

The Summer '05 release of Salesforce offers tools to help companies efficiently configure their customer Self-Service portals to match their corporate websites, without any design or technical help. Administrators can use the new style editor to adjust multiple portal color themes including the fonts and colors of text, background, headers, and footers - all by using a point-and-click editor. A new Portals tab provides convenient and easy access to the Self-Service portal preview, setup, reports, and user management functionality.

See Also:

[Customizing Your Self-Service Fonts and Colors on page 30](#)

[Self-Service Page Attributes on page 31](#)

[Using the Portals Tab on page 32](#)

[Displaying the Portals Tab on page 32](#)

IMPLEMENTATION TIPS

- Save time designing your Self-Service portal by modifying elements unique to specific pages first, then modifying elements shared across multiple pages.
- While designing your portal, you can revert to the default color theme at any time by clicking **Reset to Default** on the Color Theme Editor page.
- The existing Self-Service style sheet templates have been updated and renamed "color themes" for this release. If your organization uses one of Salesforce's color themes, you may want to look at your Self-Service portal for changes. If you want to use the original style sheet template, click **Set As Active** from the Self-Service Portal Fonts and Colors page, select **Classic Default** from the **Color Theme** drop-down, and click **Save**.
- If your organization is currently using a custom style sheet for the Self-Service portal (accessible via a URL on your company's website), then you will need to customize one of the new color themes, and set it as active. See [Customizing Your Self-Service Fonts and Colors on page 30](#) for more information.
- Contact salesforce.com about activating Self-Service for your organization.

BEST PRACTICES

- Customize your Self-Service portal theme first, and then set it as active so as not to disturb your customers.
- Modify the profile of users who will be managing the Self-Service portal so that the Portals tab setting is **Default On** and click the **Overwrite users' personal tab customizations** checkbox. To modify a profile, click **Setup | Manage Users | Profiles**, and select the name of a profile.

ABOUT SELF-SERVICE PORTAL STYLE EDITOR AND PORTALS TAB

Customizing Your Self-Service Fonts and Colors

You can customize the fonts and colors of the Self-Service portal to reflect your company's branding. Your portal's fonts and colors are specified in a portal "color theme." Select a predefined color theme and customize it using a point-and-click editor.

User Permissions Needed	
To set up the Self-Service portal:	"Manage Self-Service Portal"
To modify Self-Service pages:	"Manage Self-Service Portal" AND "Customize Application"

1. Click **Setup | Customize | Self-Service | Self-Service Portal | Fonts and Colors**. Salesforce offers predefined themes that you can customize. Click **Preview** to view any theme.
2. Select the color theme you want to customize.
From the color theme page, you can:
 - Click the **Reset to Default** link to remove all customizations from a theme.
 - Click the **Back to All Themes** link to return to the list of color themes.
 - Click **Preview <Theme Name>** to view the theme you are customizing.
3. Choose a portal page to customize. Color themes are customized page-by-page with some page elements being shared by multiple pages.
From the portal page, you can:
 - Click **See Examples** to see all of the elements that you can customize.
 - Click **Clear** next to an element to remove customizations.
 - Click **Preview <Theme Name>** to view the theme you are customizing.
 - Click the **Back to All Pages** link to return to the list of all portal pages.
4. Click **Edit** next to the visual element you want to customize. Some elements are visible only on the selected portal page, and some are shared across multiple portal pages. Changes you make to shared elements affect all pages.

NOTE

Depending on the visual element, you can customize attributes using a point-and-click editor or a custom style sheet editor which lets you modify the cascading style sheets (CSS) directly. Choose the **click here** link to switch between the two. If you are using the point-and-click editor, select the **Show advanced attributes** box to access the **click here** link.

We recommend that only users familiar with cascading style sheets (CSS) define them.

5. Edit the visual element as desired.
If you are using the point-and-click editor:
 - a. Click **Edit** next to a basic or advanced attribute. If you do not see the advanced attributes, select the **Show advanced attributes** box.
 - b. In the popup window, change the attribute as needed.
 - c. Click **OK** to confirm your changes in the popup window.If you are using the custom style sheet editor, enter valid CSS code.

See [Self-Service Page Attributes](#) on page 31 for a list of all the page attributes you can edit.

6. Click **Save** to save all changes to the visual element and its attributes. Customizations are not visible to your Self-Service users until you set the color theme as active.
7. Repeat these steps to customize all visual elements and their attributes as necessary.
8. Return to the list of color themes by clicking the **Back to All Pages** link and then the **Back to All Themes** link.
9. Click **Set Active Theme**.
10. Select the theme to activate for your portal, live and in real-time. Your organization can only have one active theme.
11. Click **Save**.

NOTE

Since changes to an active theme take effect immediately, we recommend that you fully customize a theme before activating it so as not to disturb your customers.

Self-Service Page Attributes

The following is a list of Self-Service page attributes which can be modified with the point-and-click editor:

Page Attribute	Description
Color	The color of the text.
Bold	The bolded value of the text. For example, whether the text is bolded or not.
Font size	The size of the text.
Font	A specific style of type in which letters are displayed.
Font Family	A prioritized list of font family names for an element. Web browsers use the first font value recognized.
Underline	The underline value of the text. For example, whether the text is underlined or not.
Border Color	The color of a border.
Border Style	The style of a border, such as dotted, dashed, or solid.
Border Width	The width of a border.
Bottom Border Width	The width of a bottom border.

Page Attribute	Description
Padding	The amount of space between the border and the element.
Padding Top	The amount of space to put between the top border and the element.
Padding Right	The amount of space to put between the right border and the element.
Padding Left	The amount of space to put between the left border and the element.
Padding Bottom	The amount of space to put between the bottom border and the element.
Height	The height of the element.
Line Height	The height of a line.
Background Color	The background color of the element.
Background Repeat	The format in which the background image displays. For example, whether the image displays repeatedly in a horizontal or vertical format.
Background Image	The background image of the element. The relative or absolute URL which hosts the image must be inside the surrounding URL() syntax. For example, url(/sserv/img/tabBg_gray.gif).

Using the Portals Tab

Clicking on the Portals tab displays the portals home page. From there, you can:

- View your customer Self-Service portal home page.
- Click on your Self-Service portal pages to see how your customers will interact with them.
- Under **Reports**, click any report name to jump to that report.
- Select any of the links under **Tools** to access utilities for managing your Self-Service portal and Self-Service users.

User Permissions Needed	
To set up the Self-Service portal:	"Manage Self-Service Portal"
To modify Self-Service pages:	"Manage Self-Service Portal" AND "Customize Application"

Displaying the Portals Tab

To display the Portals tab, customize your display via **Setup | My Personal Information | Change My Display | Customize My Tabs**. If the Portals tab is not available to you, contact your administrator.

- The Portals tab is set to "Tab Hidden" for all profiles in Enterprise and Developer Edition, meaning that users cannot customize their display to view this tab unless an administrator modifies the tab settings for their profiles via **Setup | Manage Users | Profiles**.
- In Professional Edition, the Portals tab is set to "Default Off," meaning that users can customize their personal display to show this tab if they choose.

ADDITIONAL SUPPORTFORCE ENHANCEMENTS

Advanced Case Escalation

- Case escalation rules have more flexible choices. Previously, Salesforce determined when to escalate a case by adding the number of hours specified in your **Age Over** field to the case creation date/time. Some customers want to calculate escalation time by adding **Age Over** to the last case modified time.

Now, you have three choices in the **Specify how escalation times are set** option for each escalation rule entry. Your **Age Over** setting can be based on the number of hours since:

- A case was created
- The case was created unless it has been modified; once modified, the case will never get escalated
- The most recent time a case was modified

For example, if you choose **Based on last modification time of the case** and your **Age Over** setting is five, cases will get escalated five hours after the most recent last modified time and date as long as the case is open.

- Before the Summer '05 release, case escalation rules reset the escalation time whenever a case was saved. Now, each time you save a case or change the case owner, your escalation rules re-evaluate that case. Once the case matches an escalation rule entry, Salesforce calculates when the case should be escalated and stops checking other escalation rule entries. For example, if you have two escalation rule entries that specify:

- Escalate three hours after creation date if **Case Reason** equals "Crash"
- Escalate four hours after creation date if **Case Reason** equals "Bug"

A case created with **Case Reason** of "Bug" will be scheduled for escalation four hours after it was created. Later, a user changes the case, which causes the escalation rules to re-evaluate the case. If escalation rules find that the **Case Reason** is now "Crash," it schedules the case to be escalated three hours after creation date. If the case was created more than three hours ago, the case is escalated as soon as possible.

- The **Age Over** field in case escalation rules is no longer limited to 999 hours. Enter any number up to 9999.

Solutions

- The "Does this solution help you answer your question?" function on Solution detail pages is now available when **Enable Solution Browsing** is enabled on the Self-Service Setup page. To enable solution browsing, click **Setup | Customize | Self-Service | Self-Service Portal | Settings | Self-Service Setup**.
- Users with the "Edit" permission on solutions can now assign categories to solutions without receiving an insufficient permission error.

Custom Summary Formulas for Reports

Available in: **All** Editions

Every organization has unique requirements for analyzing information critical to their sales, marketing, and service departments. Frequently, users need to aggregate and perform calculations on raw data to get the right insight. With Summer '05, users can create their own mathematical formulas in custom reports that combine data from multiple summary fields in a report to make critical information more accessible.

Create custom summary formulas in your reports to calculate additional totals using the existing summaries in that report and a set of common operators. The available operators are:

+	Add
-	Subtract
*	Multiply
/	Divide
^	Exponentiation
()	Priority

See Also:

[Building Custom Summary Formulas on page 37](#)

[Operators for Custom Summary Formulas on page 38](#)

IMPLEMENTATION TIPS

- Custom summary formulas are unique for each report and are not saved across reports.
- The fields available for custom summary formulas are the summaries for the selected report type. Therefore, you do not need to display a summary field in your report in order to create a formula based on that summary.
- The merge fields in custom summary formulas are not the same as in email templates or custom formula fields. Therefore, you cannot copy and paste merge fields between custom summary formulas and custom formula fields. Instead, use the drop-down list of fields to create custom summary formulas.
- Custom summary formulas can contain up to 240 characters (including spaces and return characters).
- A summary formula cannot reference another summary formula.
- Summary formulas can reference number, currency, percent, and checkbox (true/false) fields for the types of records included in your report. For example, a summary formula in an Opportunities with Partners report can reference opportunity **Amount** or **Stage Duration**, as well as account **Annual Revenue**.

- Regardless of the summary formula data type, your summary formula can contain fields of different data types, including: number, currency, percent, and checkbox (true/false) fields.
- When fields are deleted, they are also deleted from the summary formulas that reference them.
- The summary types **Sum**, **Largest Value**, **Smallest Value**, and **Average** are not available for use with the **Record Count** field.
- The **Smallest Value** summary type includes blank (null) or zero values in the summary formula calculation if these values are present in your report data.
- The **Largest Value** summary type includes the largest blank (non-null) value present in your report data.
- Percents are represented as decimals in summary formulas. 20% is represented as 0.20.
- Operators can be used to give fields in summary formulas a negative value. For example: `{!EMPLOYEES:SUM} + - {!SALES:SUM}`.
- **"#Too Big!"** displays on report cells if your custom summary formula output is over 18 digits. When this happens, check your formula for calculations that could result in more than 18 digits. Avoid multiplying large numbers, raising a large number to a power, or dividing by a very small number.
- Formulas treat blank (null) report cells as zero values.
- **"#Error!"** displays on report cells whenever an error occurs while calculating a formula's value. **"#Error!"** also displays when formulas divide by zero. To resolve the error, check your formula and provide an alternative value.

BEST PRACTICES

- Use custom summary formulas to create percentages. For example, create a "win rate" by selecting **Percent** from the **Format** drop-down, and dividing the summary of **Won** fields by the summary of **Closed** fields on opportunities: `{!WON:SUM} / {!CLOSED:SUM}`.
- Highlight all levels of percentage subtotals created with custom summary formulas by using the new conditional highlighting feature. On the **Select Chart & Highlights** step of the report wizard, enter low and high breakpoint numbers, and select a color to represent the breakpoint number ranges on the report.
- Use custom summary formulas to calculate totals across multiple records in a report. Use custom formula fields to calculate a value within a single record. See [Formula Fields](#) on page 47 for more information on custom formula fields.

ABOUT CUSTOM SUMMARY FORMULAS

Building Custom Summary Formulas

You can create custom summary formulas to calculate additional totals based on existing report summaries. A formula is an algorithm that derives its value from other fields, expressions, or values. Create up to five formulas per report. Formulas cannot be shared across multiple reports.

To build custom summary formulas on the Select Columns to Total page of the report wizard for summary and matrix reports:

1. Click **New** from the Custom Summary Formulas section.
2. Enter a label for your formula as it will appear on the report. The label must be unique. Optionally, enter a description.
3. Select the data type for your formula from the **Format** drop-down list. See [Choosing a Formula Data Type](#) on page 50 for more information on formula data types.
4. From the **Decimal Places** drop-down, select the number of decimal places to display for currency, number, or percent data types. This setting is ignored for currency fields in multi-currency organizations. Instead, the **Decimal Places** for your currency setting apply.
5. Build your formula:
 - a. Select one of the fields listed in the **Select Field** drop-down list. This field's value is used in your formula.
 - b. Select the kind of summary type to use in your formula. This option is not available for fields like **Record Count** that do not have these types of summaries.

Summary Type	Description
Sum	The summary value of data in a field or grouping of fields.
Largest Value	The largest value of data in a field or grouping of fields.
Smallest Value	The smallest value of data in a field or grouping of fields.
Average	The average of data in a field or grouping of fields.

- c. Click **Insert**.
 - d. Click the appropriate operator icons to the right. See [Operators for Custom Summary Formulas](#) on page 38.
 - e. Repeat these steps as necessary.
6. Click **Validate Syntax** to check your formula for errors. Syntax which contains errors is automatically highlighted by the cursor.
 7. Click **Done**.

NOTE

Clicking **Done** does not save your formula. Rather, your formula is included in the report wizard and saved once the report is saved.

Operators for Custom Summary Formulas

+ (Add)

Description:	Calculates the sum of two values.
Use:	value1 + value2 and replace each value with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: {!EMAIL_OPT_OUT:SUM} + {!DO_NOT_CALL:SUM} calculates all Email Opt Out fields plus all Do Not Call fields on the leads in your report. This formula is a number data type that returns a positive integer.

- (Subtract)

Description:	Calculates the difference of two values.
Use:	value1 - value2 and replace each value with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: {!AMOUNT:SUM} - {!Opportunity.Discounted_Amount__c:SUM} calculates the difference of all Amount fields and all Discounted Amount fields on the opportunities in your report. This formula is a currency data type that returns a currency sign and decimal places.

* (Multiply)

Description:	Multiplies its values.
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Use:	value1 * value2 and replace each value with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: {!RowCount} * {!AGE:AVG} calculates the record count times the average age value of all opportunities in your report. This formula is a number data type that returns a positive or negative integer or decimal.

/(Divide)

Description:	Divides its values.
Use:	value1 / value2 and replace each value with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: {!WON:SUM} / {!RowCount} calculates the percent of Won opportunities using a record count representing the number of all opportunities in your report. This formula is a number data type that returns a positive or negative integer.

^(Exponentiation)

Description:	Raises a number to a power of a specified number.
Use:	number^number and replace each number with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: {!ACTIVE:SUM} ^ 2 calculates the number of active Salesforce users to the 2nd power for administration. This formula is a number data type that returns a positive integer.

() (Open Parenthesis and Close Parenthesis)

Description:	Specifies that the expressions within the open parenthesis and close parenthesis are evaluated first. All other expressions are evaluated from left to right.
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Use:	(expression1) expression2... and replace each expression with merge fields, expressions, or other numeric values.
Example for Reports:	This example applies to custom summary formulas in reports: (<code>{!DURATIONHOURS:SUM}</code> * <code>{!RowCount}</code>) / 24 calculates the duration of all activities times the record count per 24 hours. This formula is a percent data type that returns a positive or negative integer or decimal, representing what percent of a day is spent on activities.

ADDITIONAL REPORTING ENHANCEMENTS

Conditional Highlighting

- On the Select Chart & Highlights page of the report wizard, you can now choose up to three number ranges and colors to conditionally highlight summary data in your report cells.
- Use this feature with custom summary formulas to highlight high or low percentages, averages, and ratios so users can quickly see which data falls above or below expectation. For instance, you might use red, yellow, and green to showcase which users have substandard, acceptable, or exceptional win rates.
- If you do not want to highlight a particular range, choose white as the color for that conditional highlighting.
- Conditional highlighting is only available for summary and matrix reports. For more information on custom summary formulas, see [Custom Summary Formulas for Reports](#) on page 35.

Dashboards

- You can now choose a manual axis range for bar or line dashboard charts and enter a minimum and maximum axis range. This is useful for focusing on a particular range of numbers, such as 95 to 100, on a chart in which the axis range extends from 0 to 100. Note that the range automatically extends to include values that may exist outside the range.
- When choosing table or metric for dashboard charts, you can define up to three number ranges to display as colors to highlight summary data, such as high or low percentages, averages, and ratios. This is useful for quickly calling attention to specific number ranges.

Login History Report

- You can now create a custom user report that summarizes users' login history by selecting the **Login Date**, **Login Date/Time**, and **Source IP Address** fields. Note that the login information does not show whether users logged in using the API or a remote client such as Office Edition or Outlook Edition.
- You can also see which users have never logged in by selecting **Login Date/Time**, the "Equals" operator, and leaving the third value blank.

Report Customization

- You can now choose a manual or automatic X or Y-axis range for bar, line, or column charts. If you choose manual, enter numbers as the minimum and maximum axis range to be displayed. This is useful for focusing on a particular range of numbers, such as 95 to 100, on a chart in which the axis range extends from 0 to 100. Note that the range automatically extends to include values that may exist outside the range.
- Negative numbers are now supported on line, bar, and column charts (except for stacked charts).
- The **Export to Excel** button has been renamed **Export Details to Excel** to better reflect that clicking the button exports all detail rows and not the totals.
- When exporting details to Excel, the number of decimal places specified in your organization's currency setting determines the number of decimal places exported. Decimal places are now rounded to match the number of decimal places specified in your organization's currency setting. To manage your organization's currencies, click **Setup | Company Profile | Manage Currencies**.
- For opportunity reports you can now include user custom fields for the opportunity owner, and for account reports you can now include user custom fields for the account owner.

Reports Tab Organization

- You can now quickly organize the report folders on the Reports tab, allowing you to view the folders that are most relevant to you near the top of the page. Reposition the report folders by clicking the new **Reorder Folders** button, selecting a folder in the list box, and clicking the **Up** or **Down** arrow. Optionally, click the **Top** or **Bottom** arrow to move a folder to the top or bottom of the list. Click **Save** when finished.
- Click the new **Collapse All** link on the Reports tab to hide all the lists of reports for all folders.
- Expanding and collapsing the report folders is now faster. From the Reports tab, click the green triangles to expand and collapse the folders without waiting for page reloads or a repositioning of the page.

Multiforce

Available in: **Professional**,
Enterprise, and **Developer**
Editions

Multiforce is the on-demand multitasking environment offered by salesforce.com. With Multiforce, you can create and deploy completely new on-demand applications right within Salesforce or Supportforce. It enables users to switch between these on-demand applications (or "apps") with a single click through the Multiforce app menu. Your new applications share the same data model, security model, and user interface as Salesforce and Supportforce.

The Multiforce app menu is a drop-down list that displays in the top right navigation bar on every page. By default, it contains the standard Salesforce and Supportforce apps. It can also contain custom apps, which can represent any kind of information that you want to manage online. For example, you could build "Hiringforce" to manage job postings and applicants, "Projectforce" to manage projects, "PRforce" to manage press releases and media relations, and so on.

When you switch between apps via the Multiforce app menu, the following changes take place:

- The visible tabs change
- The **New...** links in the taskbar change
- The logo in the top left corner changes
- The **Home** tab displays

Whenever you log out, your last custom app is saved and displayed at the start of your next session.

See Also:

[What Are Custom Apps? on page 44](#)

[Defining Custom Apps on page 45](#)

[Managing Custom Apps on page 46](#)

IMPLEMENTATION TIPS

- Users with the "Customize Application" permission can create and manage custom apps.
- Organizing your organization's tabs according to role and/or business task will reduce tab clutter and allow users to focus on the tabs that are most relevant to their job function.
- There is an area labeled "Custom App Settings" on the profile edit page accessible via **Setup | Manage Users | Profiles | Edit**. In this area, select the apps that will be visible to users who have that profile. In addition, choose a default app for that profile; the default app displays when new users with that profile log in for the first time.
- When you define a new custom app and make that custom app visible to a profile, users with that profile can customize their personal display to include additional tabs in that custom app. The tab visibility settings on that profile are what control whether users will initially see the tab ("Default On"), can later add the tab if desired ("Default Off"), or can never see or use the tab ("Hidden").

- The Multiforce app menu automatically displays if there are two or more apps visible for your profile. If your profile has only one app visible, the Multiforce app menu is hidden; the top right navigation bar will look as it did in releases prior to Summer '05.
- Because Professional Edition organizations cannot customize the standard user profiles or add custom profiles, all custom apps in those organizations will be visible to all users.
- You can customize the Multiforce app menu so that most frequently used apps are at the top (or in whatever order you choose).
- Note that custom apps have no impact on security, and that search results and recent items are not limited to the current app.
- To localize custom app labels, use the Translation Workbench.
- To view changes that have been made to custom app definitions, go to **Setup | Security Controls | Setup Audit Trail**.

BEST PRACTICES

- Review the new [Building Custom Apps](#) tip sheet for more information about Multiforce and custom apps.
(To access this tip sheet, click the tip sheet title above or go to CRMSuccess.com; it will also be available via the **Help and Training** link in the application with the Summer '05 release.)
- If you regularly use more than one custom app, you can open multiple browser windows and use a different custom app in each window.
- To quickly navigate to any tab in any app, open the All Tabs page by clicking the right-most tab with the right arrow. The default view, "All Tabs," is an alphabetical list of all tabs that are available to users with your profile.
- If you navigate to a tab via the All Tabs page, your task bar may not have a **New...** link for that kind of record. Instead, you can use the **New** button next to the Key Records list to create a new record.

ABOUT CUSTOM APPS

What Are Custom Apps?

An "app" is a group of tabs that works as a unit to provide application functionality. Salesforce.com provides two standard apps: Salesforce and Supportforce. You can customize the standard apps to match the way you work.

Furthermore, you can build your own on-demand apps by grouping standard and custom tabs into new custom apps. A custom app consists of a label, a description, and an ordered list of tabs. You can also set custom logos for your custom apps. With custom apps, you can extend the kinds of information that you manage and share online beyond CRM.

User Permissions Needed

To manage custom apps:	"Customize Application"
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The Multiforce app menu is a drop-down list that displays at the top of every application page. When you choose an app from the Multiforce app menu, your screen changes to reflect the contents of that app. For example, if you switch from an app that contains the Opportunities tab to another app that does not, the Opportunities tab will disappear, and the **New Opportunity** link will no longer appear in the task bar.

Apps are associated with profiles. Profiles control which tabs you can see or hide, as well as which apps are available to you. You can personalize the tabs in your apps as much as your profile allows. See the online help topic "Customizing Your Display" for information on personalizing which tabs you see.

Defining Custom Apps

Define custom apps to build on-demand applications for your users.

1. Click **Setup | Extend | Custom Apps**.
2. Click **New**.
3. Specify a label for the custom app. The label of a custom app can have a maximum of 40 characters, including spaces. This label displays in the Multiforce app menu for users to switch to this custom app.
4. Optionally, enter a description of the custom app.
5. Click **Next**.
6. Optionally, specify a custom logo. Click **Insert an image** to choose an image file from the document library. The image must be in GIF or JPEG format and less than 20KB in size. If the image is larger than 300 pixels wide by 55 pixels high, then it will be scaled to fit.
7. Click **Next**.
8. Use the right and left arrow buttons to add or remove tabs in the custom app.
9. Use the up and down arrow buttons to define the order in which tabs will display in the custom app.
10. Optionally, select the **Overwrite users' personal custom app customizations** checkbox to override any custom app personalizations users may have made. This option is available only when editing a custom app.
11. For Professional Edition users, click **Save** to finish the wizard. For Enterprise or Developer Edition users, click **Next**.
12. Check the **Visible** box to choose the user profiles for which the new custom app will be available.
13. Check the **Default** box to set the new custom app as that profile's default app. This means that new users who have the profile will see this app when they log in for the first time.
14. Click **Save** to finish the wizard.

User Permissions Needed	
To manage custom apps:	"Customize Application"

Managing Custom Apps

After creating custom apps, you can edit, delete, or reorder them. Click **Setup | Extend | Custom Apps** to display a list of your organization's apps. Use this page to view, create, edit, delete, or reorder custom apps.

- To view details for an app, click the app label.
- To change the properties of an app, click **Edit**, make the appropriate changes, and click **Save**. Note that you cannot change the label or description of standard apps.
- To remove a custom app, click **Del**. Standard apps cannot be deleted.
- To create a new custom app, click **New**. See [Defining Custom Apps](#) on page 45.

User Permissions Needed	
To manage custom apps:	"Customize Application"

Reordering Custom Apps

You can change the order in which app labels appear in the Multiforce app menu. The Multiforce app menu is a drop-down list that displays at the top of every application page.

1. Click **Setup | Extend | Custom Apps**.
2. Click **Reorder**.
3. Click the arrows as desired to change the app order.
4. Click **Save**. The changes will take effect immediately.

Formula Fields

Available in: **All** Editions

Now you can build commonly-used calculations into Salesforce custom fields to compute total deal size, discounts on opportunities, lead scoring, round robin assignment of cases and leads, and much more. The possibilities are endless!

Formula fields are custom fields that automatically calculate their values when you display them. Just like custom fields, you can display formula fields on detail pages, list views, and reports. They are not available on edit pages because they are read-only fields.

Create formula fields using the values of other fields and a vast set of available operators and built-in functions. See [Operators and Functions](#) on page 54 for a complete list.

See Also:

[About Formulas](#) on page 50

[Choosing a Formula Data Type](#) on page 50

[Elements of a Formula](#) on page 51

[Useful Advanced Formulas](#) on page 52

[Building Formulas](#) on page 53

[Operators and Functions](#) on page 54

IMPLEMENTATION TIPS

- See [Useful Advanced Formulas](#) on page 52 for example formulas.
- Users with the "Customize Application" permission can create and edit formula fields.
- To create a formula field, click **Setup | Customize**, select the appropriate activity, tab, or users link, and then click the **Fields** link. Click **New** in the custom fields section and choose **Formula** as the type of field. Next follow the instructions in [Building Formulas](#) on page 53.
- While creating a formula field, click **Help on this function** to view a description, usage information, and examples of the function selected.
- If you have implemented workarounds for calculated fields using custom fields and external API-based calculations, consider migrating them into formula fields. For example, if your current custom field is called CALC1:
 - Add a new formula field called CALC1_NEW and make the formula produce the same result as the custom field.
 - Verify the accuracy of your formula by comparing results in CALC1 and CALC1_NEW.
 - If CALC1_NEW is producing accurate results, delete the CALC1 field.
 - Rename the CALC1_NEW field to CALC1.
 - Update all reports, list views, and display pages that reference the old field to use the new field. Even though it has the same name, it has a different field ID.

BEST PRACTICES

- Review and print the new [Formula Field Quick Reference Guide](#) for an easy-to-use summary guide of available functions and operators.

(To access this tip sheet, click the tip sheet title above or go to CRMSuccess.com; it will also be available via the **Help and Training** link in the application with the Summer '05 release.)

- Formulas for a type of record can reference fields only for that type of record. For example, an opportunity formula can reference **Amount**, **Stage**, or any custom opportunity field, but they cannot reference fields stored in related lists or other tabs.
- Use formula fields to calculate a value within a single record. Use custom summary formulas to calculate totals across multiple records in a report. See [Custom Summary Formulas for Reports](#) on page 35 for information.
- Formula fields that a user can see may reference fields that are hidden or read only using field-level security. If the formula field contains sensitive information, use field-level security to hide it.
- Formula fields can contain up to 1000 characters (including spaces and return characters). If your formula requires more characters, create separate formula fields and reference them in another formula field.
- Use special picklist fields in your formulas such as `{!IsEscalated}` for cases and `{!IsWon}` for opportunities.
- Long text area, multi-select picklist, and **Description** fields are not available for use in formulas.
- The value of a field cannot depend on another formula that references it.
- Fields referenced in formulas cannot be deleted. Remove the field from the formula before deleting it.
- Task **Due Date** is not available for use in formulas.
- You can add activity formula fields to task and event page layouts. Note that a task-related formula field on an event page layout may not be useful. Likewise, event-related formula fields on task page layouts may not be useful.
- Use the `{!IsTask}` merge field to determine if a record is a task or event. For example, the following formula displays text indicating if the record is a task or event:
IF({!IsTask}, "This is a task", "This is an event")
- Blank fields are handled differently in formulas based on the data type of the formula. This can affect the output of formulas that use logical operators or the ISNULL or NULLVALUE functions.
 - Text fields are never null. They always have a value even if that value is blank.
 - Blank date and date/time fields are treated as null. They always return false when used in logical operations.
 - Blank number, percent, and currency fields are treated according to the "Blank Field Handling" option you choose. Use the **Treat blank fields as zeroes** option to use a zero value for empty fields when calculating your formula. Use the **Treat blank fields as blanks** option to treat blank fields as null, meaning that logical operations return false if your formula refers to any blank fields.

Working with Date and Date/Time Fields

- Date and date/time fields cannot be used interchangeably. The name alone may not indicate if a field is a date or date/time. For example, **Created Date** and **Last Modified Date** are date/time fields whereas **Last Activity Date** is a date field.

- Use addition and subtraction operators with date or date/time fields to calculate duration. For example, subtract a date from another date to calculate the number of days between the two. Likewise, you can subtract the date/time from another date/time to get the number of days between the two in the form of a number.
- Use addition and subtraction operators with numbers to return another date or date/time. For example, **{!CreatedDate} + 5** calculates the date and time five days after a record's created date. Note that the expression returns the same data type as the one given; a date field plus or minus a number returns a date, and a date/time field plus or minus a number returns a date/time.

Working with Text Fields

- Long text area fields are not available for use in formulas.
- Text fields are never null even when they are blank. Avoid using text fields in NULLVALUE or ISNULL functions. Instead, use the LEN function to determine if a text field is blank, such as **IF(LEN({!Field})=0 , "this is empty", "this is not empty")**.
- Before creating a hyperlink formula field using the HYPERLINK function, consider the differences between custom links and hyperlink formula fields:
 - Hyperlink formula fields are just like other custom fields that you can display in list views and reports.
 - Custom links display on detail pages in a predefined section; hyperlink formula fields can display on a detail page wherever you specify, even in a related list.
 - Using custom links, you can specify display properties such as opening in a separate popup and window position; hyperlink formula fields open in a new browser window.
 - Your formulas can reference custom links. Before deleting a custom link, make sure it is not referenced in a formula field.
 - Hyperlink formula fields that contain relative URLs to Salesforce pages, such as /rpt/reportwizard.jsp, can be added to list views, reports, and related lists. However, use a complete URL, including the server name and https://, in your hyperlink formula before adding it to a search layout. Note that formula fields are not available in search result layouts.
- To insert text in your formula field, surround the text with quotation marks. For example, to display "CASE: 123," use this formula **"CASE: "& {!CaseNumber__c}**.
- Use the backslash (\) character before a quote or backslash to insert it as a literal value in your output. For example, **"Trouble\Case \"Ticket\": "** in your formula displays Trouble\Case "Ticket": on detail pages.

Working with Number Fields

- Use the decimal version of a percent when working with percent fields in formulas. For example, **IF({!Probability} =1...)** for 100% probability or **IF({!Probability} =.9...)** for 90% probability.
- Reference auto-number fields as text fields in formulas.
- The output of your formula must be less than 19 digits or an error displays.
- Formulas can contain a mix of numbers, percents, and currencies as in this example: **{!AnnualRevenue} / {!NumberOfEmployees}**.

ABOUT FORMULA FIELDS

About Formulas

A formula is an algorithm that derives its value from other fields, expressions, or values. Formulas can help you automatically calculate the value of a field based on other fields. Build formulas for:

- **Custom Fields**
Create custom formula fields that automatically calculate a value based on other values, merge fields, or expressions. Users can view formula fields on record detail pages but cannot see the underlying algorithm nor can they edit the value of a formula field. To create a custom formula field, see [Building Formulas](#) on page 53.
- **Reports**
Create custom summary formulas in your reports to calculate additional totals based on the existing summaries in that report. To begin creating a custom summary formula, follow the instructions for [Building Custom Summary Formulas](#) on page 37.

Before building a formula, review the following attributes of a formula:

- [Choosing a Formula Data Type](#) on page 50
- [Elements of a Formula](#) on page 51

For common uses of formulas, see [Useful Advanced Formulas](#) on page 52.

NOTE

Custom formula fields are not available in Offline Edition, Offline PDA Edition, or Web-to-Lead and Web-to-Case forms.

Choosing a Formula Data Type

The data type of a formula determines the type of data you expect returned from your formula. Review the following data types.

Currency	Returns a number in currency format with a currency sign and decimal place.
Date	Returns data that represents a day on the calendar. The current date can be acquired by calling the built-in function TODAY() in a formula. The date data type is not available for reports.
Date/ time	Returns data that represents a moment in time. A date/time field includes the date and also the time of day including hour, minutes, and seconds. You can insert the current date and time in a formula using the NOW() function. The date/time data type is not available for reports.
Number	Returns a positive or negative integer or decimal.

Percent	Returns a number in percent format followed by a percent sign. Percent data is stored as a decimal divided by 100, which means that 90% is equal to 0.90.
Text	Returns a string of characters. To display text in addition to the formula output, insert that text in quotes. Use the text data type for text, text area, URL, phone, email, address, and auto-number fields. The text data type is not available for reports.

Elements of a Formula

A formula can contain references to the values of other standard or custom fields, operators, functions, literal values, or other formulas. Use any or all of the following when building a formula:

Literal Value	<p>A text string or number you enter that is not calculated or changed. For example, if your commissions are always calculated by 2% of an opportunity amount, your formula would contain the literal value 2% of the opportunity amount:</p> <p>ROUND(("{!Amount}*0.02), 2)</p> <p>This example contains every possible part of a formula. This formula contains:</p> <ul style="list-style-type: none"> • A function called ROUND used to return a number rounded to a specified number of decimal places. Note that the last 2 in this formula is the input required for the ROUND function that determines the number of decimal places to return. • A field reference called {!Amount} that is dynamically replaced with the amount of an opportunity. • An operator, *, that tells the formula builder to multiply the contents of the Amount field by the literal value, 0.02. • A literal number, 0.02, that represents a commission percent. Use the decimal value for all percents. To include actual text in your formula, enclose it in quotes.
Field Reference	Reference the value of another custom or standard field using a merge field. The syntax for a merge field is <code>{!field_name}</code> for a standard field or <code>{!field_name__c}</code> for custom fields. Use the drop-down list to insert a merge field in your formula where necessary.
Function	A system-defined formula that can require input from you and returns a value or values. For example, TODAY() does not require input but returns the current date. The TEXT(value) function requires your percent, number, or currency input and returns text.
Operator	A symbol that specifies the type of calculation to perform or the order in which to do it. For example, the + symbol specifies two values should be added. The open and close parentheses specify which expressions you want evaluated first.

NOTE

These advanced formulas apply only to formula fields and not custom summary formulas in reports.

Commission Amounts for Opportunities

The following is a simple formula where commission is based on a flat 2% of the opportunity amount.

IF(ISPICKVAL({!StageName}, "Closed Won"), ROUND({!Amount}*0.02, 2), 0) calculates the commission amount for any opportunity that has a "Closed Won" stage. The value of this field will be the amount times 0.02 for any closed/won opportunity. Open or lost opportunities will have a 0 commission value.

See [ISPICKVAL](#) on page 67 and [ROUND](#) on page 73 for more information on using the functions in this example.

Contact's Age

FLOOR((TODAY()-{!Birthdate})/365) calculates a person's age based on a standard field called **Birthdate**. The person's **Birthdate** is subtracted from today's date, which returns the number of days since the person's **Birthdate**. This number is divided by the number of days in a year and rounded down to the nearest integer.

See [FLOOR](#) on page 64 and [TODAY](#) on page 74 for more information on using the functions in this example.

Round Robin Assignment of Cases or Leads

The following formula example for leads assumes you have 3 lead queues and you want to assign an equal number of incoming leads to each queue. You can also assign cases using a similar formula.

MOD(VALUE({!Lead_Number__c}),3) is the formula for a custom formula field named **Round_Robin_ID** that assigns each lead a value of 0, 1, or 2. This formula uses a custom auto-number field called **Lead Number** that assigns each lead a sequential number starting with 1. The MOD function divides the lead number by the number of lead queues available (3 in this example) and returns a remainder of 0, 1, or 2. Use the value of this formula field in your lead assignment rules to assign lead records to different queues. For example:

- Round_Robin_ID = 0 is assigned to Queue A
- Round_Robin_ID = 1 is assigned to Queue B
- Round_Robin_ID = 2 is assigned to Queue C

See [MOD](#) on page 70 and [VALUE](#) on page 75 for more information on using the functions in this example.

Simple Discounting

ROUND({!Amount}-{!Amount}* {!Discount_Percent__c},2) calculates the discounted amount of an opportunity rounded off to two digits. This example is a number formula field on opportunities that uses a custom percent field called **Discount Percent**.

See [ROUND](#) on page 73 for more details on the ROUND function.

Building Formulas

Your custom formula fields require special attributes. To build your formula:

1. Begin building a formula field the same way you create a custom field. See the online help for instructions on creating custom fields.
2. Select the data type for the formula. Choose the appropriate data type for your formula based on the output of your calculation. See [Choosing a Formula Data Type](#) on page 50.
3. Choose the number of decimal places for currency, number, or percent data types.
4. Click **Next**.
5. Build your formula:
 - a. Select one of the fields listed in the **Select Field** drop-down list.
 - b. Click the appropriate operator icon to the right. Use the examples in [Operators and Functions](#) on page 54.
 - c. Optionally, click the **Advanced Formula** tab to use functions and view additional operators and merge fields. Functions are pre-built formulas that you can customize with your input parameters. See [Operators and Functions](#) in the online help for a description of each operator and function.
6. Click **Validate Syntax** to check your formula for errors.
7. Optionally, enter any comments for this field.
8. If your formula references number, currency, or percent fields, choose an option for handling blank fields. To give any blank fields a zero value, choose **Treat blank fields as zeros**. To leave these fields blank, choose **Treat blank fields as blanks**.
9. Click **Next**.
10. In Enterprise and Developer Editions, set the field-level security to determine whether the field should be visible for specific profiles, and click **Next**.
11. Choose the page layouts that should display the field. The field is added as the last field in the first two-column section on the page layout. For user custom fields, the field is automatically added to the bottom of the user detail page.
12. Click **Save** to finish or **Save & New** to create more custom fields.

NOTE

Because formula fields are automatically calculated, they are read only on record detail pages and do not update last modified date fields. Formula fields are not visible on edit pages.

User Permissions Needed	
To view formula field details:	"View Setup and Configuration"
To create, change, or delete formula fields:	"Customize Application"

Operators and Functions

Use the following operators and functions when building formulas. Click on the name or description below to view more details. Note that the examples included here apply only to formula fields, unless specified otherwise.

Math Operators

+	Calculates the sum of two values.
-	Calculates the difference of two values.
*	Multiplies its values.
/	Divides its values.
^	Raises a number to a power of a specified number.
()	Specifies that the expressions within the open parenthesis and close parenthesis are evaluated first. All other expressions are evaluated from left to right.

Logical Operators

=	Evaluates if two values are equivalent.
<>	Evaluates if two values are not equivalent.
<	Evaluates if a value is less than the value that follows this symbol.
>	Evaluates if a value is greater than the value that follows this symbol.
<=	Evaluates if a value is less than or equal to the value that follows this symbol.
>=	Evaluates if a value is greater than or equal to the value that follows this symbol.

Text Operators

&	Connects two or more strings.
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Date and Time Functions

DATE	Returns a date value from year, month, and day values you enter.
DAY	Returns a day of the month in the form of a number between 1 and 31.

MONTH	Returns the month, a number between 1 (January) and 12 (December) in number format of a given date.
NOW	Returns a date/time representing the current moment.
TODAY	Returns the current date as a date data type.
YEAR	Returns the four-digit year in number format of a given date.

Informational Functions

ISNULL	Determines if an expression is null (blank) and returns TRUE if it is. If it contains a value, this function returns FALSE.
NULLVALUE	Determines if an expression is null (blank) and returns a substitute expression if it is. If the expression is not blank, returns the value of the expression.

Logical Functions

AND	Returns a TRUE response if all values are true; returns a FALSE response if one or more values are false.
CASE	Checks a given expression against a series of values. If the expression is equal to a value, returns the corresponding result. If it is not equal to any values, it returns the else_result.
IF	Determines if expressions are true or false. Returns a given value if true and another value if false.
NOT	Returns FALSE for TRUE and TRUE for FALSE.
OR	Determines if expressions are true or false. Returns TRUE if any expression is true. Returns FALSE if all expressions are false.

Math Functions

ABS	Calculates the absolute value of a number. The absolute value of a number is the number without its positive or negative sign.
CEILING	Rounds a number up to the nearest integer.
EXP	Returns a value for e raised to the power of a number you specify.
FLOOR	Returns a number rounded down to the nearest integer.

LN	Returns the natural logarithm of a specified number. Natural logarithms are based on the constant e value of 2.71828182845904.
LOG	Returns the base 10 logarithm of a number.
MOD	Returns a remainder after a number is divided by a specified divisor.
ROUND	Returns the nearest number to a number you specify, constraining the new number by a specified number of digits.
SQRT	Returns the positive square root of a given number.

Text Functions

BEGINS	Determines if text begins with specific characters and returns TRUE if it does. Returns FALSE if it does not.
CONTAINS	Evaluates text and returns TRUE if it contains specified characters. If not, returns FALSE.
GETSESSIONID	Returns the user's session ID.
HYPERLINK	Creates a link to a URL specified that is linkable from the text specified.
ISPICKVAL	Determines if the value of a picklist field is equal to a string you specify.
LEFT	Returns the specified number of characters from the beginning of a text string.
LEN	Returns the number of characters in a specified text string.
MID	Returns the specified number of characters from the middle of a text string given the starting position.
RIGHT	Returns the specified number of characters from the end of a text string.
TEXT	Converts a percent, number, or currency type field into text.
TRIM	Removes the spaces and tabs from the beginning and end of a text string.
VALUE	Converts a text string to a number.

+ (Add)

Description:	Calculates the sum of two values.
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Use:	value1 + value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	{!Amount} + {!Maint_Amount__c} + {!Services_Amount__c} calculates the sum of the opportunity Amount , maintenance amount, and services fees. Note that Maint amount and Service Fees are custom currency fields on opportunities.

- (Subtract)

Description:	Calculates the difference of two values.
Use:	value1 - value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	{!Amount} - {!Discount_Amount__c} calculates the difference of the opportunity Amount less the Discount Amount . Note that Discount Amount is a custom currency field on opportunities.

* (Multiply)

Description:	Multiplies its values.
Use:	value1 * value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	{!Consulting_Days__c} * 1200 calculates the number of consulting days times 1200 given that this formula field is a currency data type and consulting charges a rate of \$1200 per day. Note that Consulting Days is a custom field on opportunities.

/ (Divide)

Description:	Divides its values.
Use:	value1 / value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	{!AnnualRevenue} / {!NumberOfEmployees} calculates the revenue amount per employee. Note that this is a currency field on accounts.

^ (Exponentiation)

Description:	Raises a number to a power of a specified number.
Use:	number^number and replace each number with merge fields, expressions, or other numeric values.
Example:	{!NumberOfEmployees}^4 calculates the number of employees to the 4th power.

() (Open Parenthesis and Close Parenthesis)

Description:	Specifies that the expressions within the open parenthesis and close parenthesis are evaluated first. All other expressions are evaluated from left to right.
Use:	(expression1) expression2... and replace each expression with merge fields, expressions, or other numeric values.
Example:	({!UnitPrice} - {!ListPrice}) / {!UnitPrice} calculates the difference between the list price and sales price divided by the sales price. As a percent data type on opportunity products, this calculates the discounted percent.
Example for Reports:	This example applies to custom summary formulas in reports: ({!DURATIONHOURS:SUM} * {!RowCount}) / 24 calculates the duration of all activities times the record count per 24 hours. This formula is a percent data type that returns a positive or negative integer or decimal, representing what percent of a day is spent on activities.

= (Equal)

Description:	Evaluates if two values are equivalent.
Use:	expression1=expression2 and replace each expression with merge fields, expressions, or other numeric values.
Example:	Due Date = {!CreatedDate} + 5 assigns a due date that is 5 days past the create date. IF({!Probability} = 1, ROUND({!Amount}*0.02, 2), 0) calculates the 2% commission amount of an opportunity that has a probability of 100%. All other opportunities will have a commission value of 0. Possible results: <ul style="list-style-type: none">• An opportunity with a Probability of 90% will have a commission of 0.• An opportunity with a Probability of 100% and an Amount of \$100,000 will have a commission of \$2,000.

<> (Not Equal)

Description:	Evaluates if two values are not equivalent.
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Use:	expression1 <> expression2 and replace each expression with merge fields, expressions, or other numeric values.
Example:	IF({!Maint_Amount__c} + {!Services_Amount__c} <> {!Amount}, "DISCOUNTED", "FULL PRICE") displays "DISCOUNTED" on an opportunity if its maintenance amount and services amount do not equal the opportunity amount. Otherwise, displays "FULL PRICE." Note that this example uses two custom currency fields for Maint Amount and Services Amount .

< (Less Than)

Description:	Evaluates if a value is less than the value that follows this symbol.
Use:	value1 < value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	IF({!AnnualRevenue} < 1000000, 1, 2) assigns the value "1" to accounts with revenues less than one million and the value "2" to accounts with revenues greater than one million.

> (Greater Than)

Description:	Evaluates if a value is greater than the value that follows this symbol.
Use:	value1 > value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	IF({!commission__c} > 1000000, "High Net Worth", "General") assigns the "High Net Worth" value to opportunities with a commission greater than one million. Note, this is a text formula field on opportunities that uses a commission custom field.

<= (Less Than or Equal)

Description:	Evaluates if a value is less than or equal to the value that follows this symbol.
Use:	value1 <= value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	IF({!AnnualRevenue} <= 1000000, 1, 2) assigns the value "1" to accounts with revenues less than or equal to one million and the value "2" to accounts with revenues greater than one million.

>= (Greater Than or Equal)

Description:	Evaluates if a value is greater than or equal to the value that follows this symbol.
Use:	value1 >= value2 and replace each value with merge fields, expressions, or other numeric values.
Example:	IF({!commission__c} >= 1000000, "YES", "NO") assigns the "YES" value to opportunities with a commission greater than or equal to one million. Note, this is a text formula field on opportunities that uses a commission custom field.

& (Concatenate)

Description:	Connects two or more strings.
Use:	string1&string2 and replace each string with merge fields, expressions, or other values.
Example:	"Expense# "& {!ExpenseNumber__c} displays the text "Expense# " followed by the expense number. This is a text formula field that uses an expense number custom field.

ABS

Description:	Calculates the absolute value of a number. The absolute value of a number is the number without its positive or negative sign.
Use:	ABS(number) and replace number with a merge field, expression, or other numeric value that has the sign you want removed.
Example:	ABS({!ExpectedRevenue}) calculates the positive value of the Expected Revenue amount regardless of whether it is positive or negative.

AND

Description:	Returns a TRUE response if all values are true; returns a FALSE response if one or more values are false.
Use:	AND(logical1,logical2,...) and replace logical1,logical2,... with the values that you want evaluated.
Example:	IF(AND({!Price}<1,{!Quantity}<1),"Small", null) displays "Small" if the price and quantity are less than one. This field is blank if the asset has a price or quantity greater than one.

BEGINS

Description:	Determines if text begins with specific characters and returns TRUE if it does. Returns FALSE if it does not.
Use:	BEGINS(text, compare_text) and replace text , compare_text with the characters or fields you want to compare.
Example:	IF(BEGINS({!ProductCode}, "ICU"), "Medical", "Technical") displays the text "Medical" for any Product Code that begins with "ICU." For all other products, displays "Technical."

CASE

Description:	Checks a given expression against a series of values. If the expression is equal to a value, returns the corresponding result. If it is not equal to any values, it returns the else_result.
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Use:	CASE(expression,value1, result1, value2, result2,..., else_result) and replace expression with the field or value you want compared to each specified value. Replace each value and result with the value that must be equivalent to return the result entry. Replace else_result with the value you want returned when the expression does not equal any values.
Example:	<p>CASE({!Days_Open__c},3, "Reassign", 2, "Assign Task", "Maintain") displays a different action text depending on the number of days a case has been open:</p> <ul style="list-style-type: none"> • "Reassign" for any case open three days. • "Assign Task" for any case open 2 days. • "Maintain" for all other cases. <p>This formula field uses a custom text formula field called Days Open.</p> <p>CASE(MONTH({!LastActivityDate}),1, "January", 2, "February", 3, "March", 4, "April", 5, "May", 6, "June", 7, "July", 8, "August", 9, "September", 10, "October", 11, "November", 12, "December", "blank") displays the month of the last account activity or blank if there are no activities for the account.</p> <p>Tips for using CASE functions:</p> <ul style="list-style-type: none"> • Be sure your value1, value2... expressions are the same data type. • Be sure your result1, result2... expressions are the same data type. • CASE functions cannot contain functions that return true or false. Instead, make true or false expressions return numbers such as CASE(1, IF(ISPICKVAL({!Term__c}, "12"), 1, 0), 12*{!Monthly_Commit__c}, IF(ISPICKVAL({!Term__c}, "24"), 1, 0), 24*{!Monthly_Commit__c}, 0). In this formula, Term is a picklist field that is multiplied by the custom field Monthly Commit whenever it contains the value 1 for true. • The else_result value is required. • CASE functions return an error whenever any of the expressions return an error, regardless of which one should be returned. For example, CASE({!Field__c}, "Partner", "P", "Customer", "C", LEFT({!Field__c}, -5)) returns an error even if the value of the field is "Partner" or "Customer" because the last statement is illogical. • If the field in your CASE function is blank, it returns your else_result value. For example, this formula: CASE({!Days_Open__c},3, "Reassign", 2, "Assign Task", "Maintain") displays "Maintain" if the Days Open field is blank, 0, or any value other than 2 or 3.

CEILING

Description:	Rounds a number up to the nearest integer.
Use:	CEILING(number) and replace number with the field or expression you want rounded.
Example:	CEILING(2.5) returns 3, which is 2.5 rounded up to the nearest number. CEILING({!Magnitude__c}) returns the value of a formula number field that calculates the magnitude of an earthquake up to the nearest integer. <i>See Also:</i> FLOOR on page 64 ROUND on page 73

CONTAINS

Description:	Evaluates text and returns TRUE if it contains specified characters. If not, returns FALSE.
Use:	CONTAINS(text, compare_text) and replace text and compare_text with the fields or characters you want to compare.
Example:	IF(CONTAINS({!ProductCode}, "part"), "Parts", "Service") displays "Parts" for any product with the word "part" in it. Otherwise, displays "Service." Note that your compare_text is case sensitive, so a product code that contains the text "Part" or "PART" in this example displays "Services."

DATE

Description:	Returns a date value from year, month, and day values you enter.
Use:	DATE(year, month, day) and replace year with a 4-digit year, month with a 2-digit month, and day with a 2-digit day.
Example:	DATE(2005, 01, 02) creates a date field of January 2, 2005.

DAY

Description:	Returns a day of the month in the form of a number between 1 and 31.
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Use:	DAY(date) and replace date with a date field or value such as TODAY().
Example:	DAY({!Code_Freeze__c}) returns the day in your custom code freeze date. Note this does not work on date/time fields.

EXP

Description:	Returns a value for e raised to the power of a number you specify.
Use:	EXP(number) and replace number with a number field or value such as 5.
Example:	EXP(3) returns the value of e to the third power. {!Principal__c} * EXP({!Rate__c} * {!Years__c}) calculates the compound interest based on a custom currency field for principal, custom percent field for rate, and custom number field for years.

FLOOR

Description:	Returns a number rounded down to the nearest integer.
Use:	FLOOR(number) and replace number with a number field or value such as 5.245.
Example:	FLOOR({!commission__c}) rounds commission down to the nearest integer. See Also: CEILING on page 63 ROUND on page 73 Contact's Age on page 52

GETSESSIONID

Description:	Returns the user's session ID.
Use:	GETSESSIONID()
Example:	HYPERLINK("https://www.myintegration.com?sId=" & GETSESSIONID() & "?&rowID=" & {!Name} & "action=CreateTask","Create a Meeting Request") creates a link to an application outside of Salesforce, passing the parameters so that it can connect to Salesforce via the API and create the necessary event.

HYPERLINK

Description:	Creates a link to a URL specified that is linkable from the text specified.
Use:	HYPERLINK(url, friendly_name) and replace url with the web address and replace friendly_name with the link text.
Example:	<p>HYPERLINK({!Website}, "Company's Website") creates a link named Company's Website that connects a user to the website address on the account record.</p> <p>HYPERLINK("00U/e?retURL=%2F006x0000001T8Om&what_id=" & {!Id}, "Create Event") adds a link called "Create Event" that, when clicked, creates a new event that is associated with the current opportunity.</p> <p>HYPERLINK("http://servername/call?id=" & {!Id} & "&phone=" & {!Phone}, {!Phone}) creates a linkable phone number field that automatically dials the phone number when clicked. In this example, replace "servername" and "call" with the name of your dialing tool and the command it uses to dial. The merge field, {!Id} inserts the identifier for the contact, lead, or account record. The first {!Phone} merge field tells the dialing tool what number to call and the last {!Phone} merge field uses the value of the Phone field as the linkable text the user clicks to dial.</p> <p>Tips for using HYPERLINK functions:</p> <ul style="list-style-type: none">• Hyperlink formula fields are of type text.• Hyperlink formulas support the following protocols: HTTP, HTTPS, FTP, FTPS, MAILTO, FILE, SIP, TEL, CALLTO.• Include the protocol and URL in quotes as in HYPERLINK("http://www.cnet.com", "cnet").• Avoid using text functions such as LEN, LEFT, or RIGHT on HYPERLINK function results.• When linking to Salesforce pages, use a relative link, such as "00U/e?retURL=%...", for hyperlink formulas unless you want to add the formula field to a search layout. Use the complete URL, including the server name and https://, in a hyperlink formula to add it to a search layout. Note that formula fields are not available in search result layouts.

IF

Description:	Determines if expressions are true or false. Returns a given value if true and another value if false.
Use:	IF(logical_test, value_if_true, value_if_false) and replace logical_test with the expression you want evaluated; replace value_if_true with the value you want returned if the expression is true; replace value_if_false with the value you want returned if the expression is false.
Example:	IF(AND(!Payment_Due_Date__c < TODAY(),!Payment_Status__c="UNPAID"), "PAYMENT OVERDUE", null) determines if the payment due date is past and the payment status is "UNPAID." If so, returns the text "PAYMENT OVERDUE" and if not, leaves the field blank. This example uses a custom date field called Payment Due Date and a text custom field called Payment Status on contracts. Tips for using IF functions: <ul style="list-style-type: none">• Make sure your value_if_true and value_if_false expressions are the same data type.• The first argument in an IF function cannot be another IF function.

ISNULL

Description:	Determines if an expression is null (blank) and returns TRUE if it is. If it contains a value, this function returns FALSE.
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Use:	ISNULL(expression) and replace expression with the expression you want evaluated.
Example:	<p>(IF(ISNULL({!Maint_Amount__c}), 0, 1) + IF(ISNULL({!Services_Amount__c}), 0, 1) + IF(ISNULL({!Discount_Percent__c}), 0, 1) + IF(ISNULL({!Amount__c}), 0, 1) + IF(ISNULL({!Timeline__c}), 0, 1)) / 5 calculates what percent of your important opportunity fields are being filled by your sales personnel. This formula field checks 5 fields to see if they are blank. If so, a zero is counted for that field. A "1" is counted for any field that contains a value and this total is divided by 5 (the number of fields evaluated).</p> <p>Note that this formula requires you select the Treat blank fields as blanks option under Blank Field Handling while the Advanced Formula subtab is showing.</p> <p>Tips for using ISNULL functions:</p> <ul style="list-style-type: none"> • Text fields are never null so using this function with a text field always returns false. For example, the formula field IF(ISNULL({!new__c}) 1, 0) is always zero regardless of the value in the New field. • Empty date and date/time fields always return true when referenced in ISNULL functions. • Choose Treat blank fields as blanks for your formula when referencing a number, percent, or currency field in an ISNULL function. Choosing Treat blank fields as zeroes gives blank fields the value of zero so none of them will be null.

ISPICKVAL

Description:	Determines if the value of a picklist field is equal to a string you specify.
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Use:	ISPICKVAL(picklist_field, text_literal) and replace picklist_field with the merge field name for the picklist; replace text_literal with the picklist value in quotes.
Example:	IF(ISPICKVAL({!Status} , "Activated"), NOW()-{!ActivatedDate}, null) calculates the number of days since the contract was activated. If the contract status is not "Activated," this field is blank. Tips for using ISPICKVAL functions: <ul style="list-style-type: none"> Your text_literal expression should be of type text and enclosed in quotes. Do not include an ISPICKVAL function within a CASE function. Replace picklist_field with a custom or standard field of type picklist. <p><i>See Also:</i> Commission Amounts for Opportunities on page 52</p>

LEFT

Description:	Returns the specified number of characters from the beginning of a text string.
Use:	LEFT(text, num_chars) and replace text with the field or expression you want returned; replace num_chars with the number of characters from the left you want returned.
Example:	TRIM(LEFT({!LastName}, 5))&"- "&TRIM(RIGHT({!SSN__c}, 4)) displays the first 5 characters of the contact's last name and the last 4 characters of the contact's social security number separated by a dash. Note that this example uses a text custom field called SSN on contacts. Tips for using LEFT functions: <ul style="list-style-type: none"> Reference auto-number fields as text fields in formulas. If the num_chars value is less than zero, Salesforce replaces the value with zero.

LEN

Description:	Returns the number of characters in a specified text string.
Use:	LEN(text) and replace text with the field or expression whose length you want returned.
Example:	LEN({!ProductCode}) returns the number of characters in a Product Code field.

LN

Description:	Returns the natural logarithm of a specified number. Natural logarithms are based on the constant e value of 2.71828182845904.
Use:	LN(number) and replace number with the field or expression for which you want the natural logarithm. Note: LN is the inverse of the EXP function.
Example:	LN(10) returns the natural logarithm of 10, which is 2.30. LN(!Value__c) returns the natural logarithm of a custom number field called Value .

LOG

Description:	Returns the base 10 logarithm of a number.
Use:	LOG(number) and replace number with the field or expression from which you want the base 10 logarithm calculated.
Example:	LOG(!Salary__c) calculates the logarithm of a person's salary. In this example, Salary is a custom currency field. -LOG(!Hydrogen__c) calculates the pH and acidity using the LOG function and a custom number field called Hydrogen , which represents the concentration of Hydrogen ions in the liquid measured in moles per liter.

MID

Description:	Returns the specified number of characters from the middle of a text string given the starting position.
Use:	MID(text, start_num, num_chars) and replace text with the field or expression to use when returning characters; replace start_num with the number of characters from the left to use as a starting position; replace num_chars with the total number of characters to return.
Example:	MID(!ProductCode, 4, 10) returns 10 characters of the Product Code field beginning with the fourth character from the left. Tips for using MID functions: <ul style="list-style-type: none">• If the start_num value is less than one, Salesforce replaces the value with one.• If the num_chars value is less than zero, Salesforce replaces the value with zero.

MOD

Description:	Returns a remainder after a number is divided by a specified divisor.
Use:	MOD(number, divisor) and replace number with the field or expression you want divided; replace divisor with the number to use as the divisor.
Example:	MOD(3, 3) returns 0 MOD(4, 3) returns 1 MOD(123, 100) returns 23 <i>See Also:</i> Round Robin Assignment of Cases or Leads on page 52

MONTH

Description:	Returns the month, a number between 1 (January) and 12 (December) in number format of a given date.
Use:	MONTH(date) and replace date with the field or expression for the date containing the month you want returned.
Example:	MONTH(!SLAExpirationDate__c) returns the month that your service-level agreement expires. This example uses a custom date field called SLA Expiration Date . MONTH(TODAY()) returns the current month in a number format. For example, the month of February would be the value "2."

NOT

Description:	Returns FALSE for TRUE and TRUE for FALSE.
Use:	NOT(logical) and replace logical with the expression that you want evaluated.
Example:	IF(NOT(ISPICKVAL(!Status, "Closed")), ROUND(NOW()-!CreatedDate, 0), NULL) checks to see if a case is open and if so, calculates the number of days it has been open by subtracting the date and time created from the current date and time. The result is the number of days open rounded to 0 decimal places. If the case is not open, this field is blank.

NOW

Description:	Returns a date/time representing the current moment.
Use:	NOW()
Example:	<p>IF(ISPICKVAL({!Status}, "Open"), ROUND(NOW()-{!CreatedDate}, 0), NULL) checks to see if a lead is open and if so, calculates the number of days it has been open by subtracting the date and time created from the current date and time. The result is the number of days open rounded to 0 decimal places. If the lead is not open, this field is blank.</p> <p>Tips for using NOW functions:</p> <ul style="list-style-type: none">• Do not remove the parentheses.• Keep the parentheses empty. They do not need to contain a value.• Use a date/time field in a NOW function instead of a date field. Created Date and Last Modified Date are date/time fields whereas Last Activity Date is a date field.• See TODAY on page 74 if you prefer to use a date field.• The date and time of NOW is always calculated using the user's time zone.• Use addition and subtraction operators with a NOW function and other date/time fields to return a number, representing number of days. For example NOW() - {!CreatedDate} calculates the number of days since the created date of a record. In this example, the formula field data type is a number.• Use addition and subtraction operators with a NOW function and numbers to return a date and time. For example NOW() +5 calculates the date and time 5 days ahead of now. In this example, the formula field data type is a date/time.

NULLVALUE

Description:	Determines if an expression is null (blank) and returns a substitute expression if it is. If the expression is not blank, returns the value of the expression.
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Use:	NULLVALUE(expression, substitute_expression) and replace expression with the expression you want to evaluate; replace substitute_expression with the value you want to replace any blank values.
Example:	NULLVALUE(!Payment_Due_Date__c, !StartDate) +5) returns the date five days after the contract start date whenever Payment Due Date is blank. Payment Due Date is a custom date field on contracts. Tips for using NULLVALUE functions: <ul style="list-style-type: none"> • Avoid using this function with text fields because they are never null even when they are blank. Instead, use the LEN function to determine if a text field is blank, such as IF(LEN(!Field)=0, "this is empty", "this is not empty"). • Choose Treat blank fields as blanks for your formula when referencing a number, percent, or currency field in a NULLVALUE function. Choosing Treat blank fields as zeroes gives blank fields the value of zero so none of them will be null. • Use the same data type for both the expression and substitute_expression.

OR

Description:	Determines if expressions are true or false. Returns TRUE if any expression is true. Returns FALSE if all expressions are false.
Use:	OR(logical1, logical2...) and replace any number of logical references with the expressions you want evaluated.
Example:	IF(OR(ISPICKVAL(!Priority), "High"), ISPICKVAL(!Status), "New"), ROUND(NOW()-!CreatedDate), 0), NULL) returns the number of days a case has been open if the Status is new or the Priority is high. If the case was opened today, this field displays 0.

RIGHT

Description:	Returns the specified number of characters from the end of a text string.
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Use:	RIGHT(text, num_chars) and replace text with the field or expression you want returned; replace num_chars with the number of characters from the right you want returned.
Example:	<p>TRIM(LEFT(!LastName, 5))&"- "&TRIM(RIGHT(!SSN__c), 4)) displays the first 5 characters of the contact's last name and the last 4 characters of the contact's social security number separated by a dash. Note that this assumes you have a text custom field called SSN on contacts.</p> <p>Tips for using RIGHT functions:</p> <ul style="list-style-type: none"> • Reference auto-number fields as text fields in formulas. • If the num_chars value is less than zero, Salesforce replaces the value with zero.

ROUND

Description:	Returns the nearest number to a number you specify, constraining the new number by a specified number of digits.
Use:	ROUND(number, num_digits) and replace number with the field or expression you want rounded; replace num_digits with the number of decimal places you want to consider when rounding.
Example:	<p>ROUND (1.5, 0) = 2</p> <p>ROUND (1.2345, 0) = 1</p> <p>ROUND (-1.5, 0) = -2</p> <p>ROUND (225.49823, 2) = 255.50</p> <p>Tips for using ROUND functions:</p> <ul style="list-style-type: none"> • Enter zero for num_digits to round a number to the nearest integer. • Salesforce automatically rounds numbers based on the decimal places you specify. For example, a custom number field with two decimal places stores 1.50 when you enter 1.49999. • The decimal numbers displayed depend on the decimal places you selected when defining the field in the custom field wizard. The num_digits represents the number of digits considered when rounding. <p>See Also: FLOOR on page 64 CEILING on page 63 Simple Discounting on page 52 Commission Amounts for Opportunities on page 52</p>

SQRT

Description:	Returns the positive square root of a given number.
Use:	SQRT(number) and replace number with the field or expression you want computed into a square root.
Example:	SQRT(25) returns the square root of 25, which is 5. SQRT({!Amplitude__c}) returns the square root of a custom number field representing the amplitude of an earthquake. Tip for using SQRT functions: <ul style="list-style-type: none">Calculating the square root of a negative number results in an error on the detail page.

TEXT

Description:	Converts a percent, number, or currency type field into text.
Use:	TEXT(value) and replace value with the field or expression you want to convert to text format. Avoid using any special characters besides a decimal point (period) or minus sign (dash) in this function.
Example:	TEXT({!ExpectedRevenue}) returns the expected revenue amount of an opportunity in text format without a dollar sign. For example, if the Expected Revenue of a campaign is "\$200,000," this formula field displays "200000." {!SerialNumber} &"-"& TEXT({!Quantity}) returns an asset ID number starting with the serial number and ending with the quantity separated by a dash. The Serial Number field is already text but the Quantity field is a number, requiring the TEXT function before it. Tips for using TEXT functions: <ul style="list-style-type: none">The returned text is not formatted with any currency, percent symbols, or commas.Values are not sensitive to locale. For example, 24.42 EUR are converted into the number 24.42.Percents are returned in the form of a decimal.

TODAY

Description:	Returns the current date as a date data type.
---------------------	---

Use:	TODAY()
Example:	<p>TODAY()-{!Date_in_approval__c} calculates how many days a contract is in the approval process. This example is a number formula field on contracts that uses a custom date field called Date in approval.</p> <p>Tips for using TODAY functions:</p> <ul style="list-style-type: none"> • Do not remove the parentheses. • Keep the parentheses empty. They do not need to contain a value. • Use a date field with a TODAY function instead of a date/time field. Last Activity Date is a date field whereas Created Date and Last Modified Date are date/time fields. • See NOW on page 71 if you prefer to use a date/time field. • The date of TODAY is always calculated using the user's time zone. • Use addition and subtraction operators with a TODAY function and other date fields to return a number, representing number of days. For example TODAY()-{!LastActivityDate} calculates the number of days since the last activity date. In this example, the formula field data type is a number. • Use addition and subtraction operators with a TODAY function and numbers to return a date. For example TODAY() +5 calculates the date five days ahead of today. In this example, the formula field data type is a date. <p>See Also: Contact's Age on page 52</p>

TRIM

Description:	Removes the spaces and tabs from the beginning and end of a text string.
Use:	TRIM(text) and replace text with the field or expression you want to trim.
Example:	TRIM(LEFT({!LastName},5))& "-" & RIGHT({!FirstName}, 1) returns a network ID for users that contains the first 5 characters of their last name and first character of their first name separated by a dash.

VALUE

Description:	Converts a text string to a number.
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Use:	VALUE(text) and replace text with the field or expression you want converted into a number.
Example:	<p>VALUE({!Lead_Number__c}) returns a number for the text value in the auto-number field Lead Number. This can be useful if you want to use the Lead Number field in a calculation. Note that auto-number fields are actually text fields and must be converted to a number for numeric calculations.</p> <p>Tips for using VALUE functions:</p> <ul style="list-style-type: none"> • Make sure the text in a VALUE function does not include any special characters other than a decimal point (period) or minus sign (dash). For example, the formula VALUE({!Text_field__c}) produces these results: <ul style="list-style-type: none"> • If Text field is 123, the result is 123 • If Text field is blank, the result is #Error! • If Text field is \$123, the result is #Error! • If Text field is EUR123, the result is #Error! <p>See Also: Round Robin Assignment of Cases or Leads on page 52</p>

YEAR

Description:	Returns the four-digit year in number format of a given date.
Use:	YEAR(date) and replace date with the field or expression that contains the year you want returned.
Example:	YEAR(TODAY())- YEAR({!Initial_Meeting__c}) returns the number of years since your initial meeting with a client. This example uses a custom date field called Initial Meeting . Possible results are:

Customizable Standard Related Lists

Available in: **All** Editions

Salesforce customers love the flexibility of Customforce, allowing administrators to create their own custom related lists and configure them to meet the needs of their specific businesses. With Summer '05, that flexibility has been extended to include most standard related lists as well. Customize the columns displayed, column order, and sort order of the records in virtually any related list, all with just a few clicks. For Enterprise and Developer Edition customers, related list customizations are definable for each page layout, supporting granular combinations of profile and record-type-based layouts.

See Also:

[Customizing Related Lists on page 78](#)

[Using the View More Link on page 79](#)

IMPLEMENTATION TIPS

- Keep your related lists simple by removing unnecessary default standard fields.
- Consider placing hyperlink formula fields in related lists as a shortcut to predefined URLs. See [Formula Fields](#) on page 47 for more information.
- To change the label of a custom related list on a custom object, you must edit it through the relationship wizard because the steps required to customize *custom* related lists are now consistent with customizing *standard* related lists.
- When adding the maximum number of ten fields for a related list, view the detail and edit pages to see if the related list fields make those pages too wide.
- Sort by whatever column is most meaningful for users so that they can quickly scan the list. This option is not available for activity related lists.

BEST PRACTICES

- On the Campaign detail page, add the **Next Steps** and **Last Activity Date** fields to the Opportunities related list to allow marketing managers to quickly see if the opportunities generated from a marketing campaign are being contacted by sales.
- On the Account detail page, add your company's custom **Decision Making Influence** picklist field to the Contacts related list, and sort the records in the list to quickly identify key decision makers for the account, without having to run reports.
- On the Case detail page, add your company's custom **Follow-Up Required** checkbox field to the Activity History related list to easily identify which tasks or events require additional customer contact.

ABOUT CUSTOMIZABLE RELATED LISTS

Customizing Related Lists

A related list is the section of a record or other detail page that lists items related to that record. For example, the Stage History related list of an opportunity or the Open Activities related list of a case.

To customize the columns displayed, column order, and record sort order of related lists on record detail pages:

1. Click **Setup | Customize**, select the appropriate activity or tab link, and choose the Page Layouts link.
For custom objects, click **Setup | Extend | Custom Objects**, and select the desired custom object.
2. Click **Edit** next to the page layout whose related list you want to customize.
3. From the Related List Section, select a related list and click **Edit Related List Properties**. Some related lists are not customizable because they link to data rather than store it. You can mouse-over any related list section to see if it is customizable.
4. Select one or more fields.
 - Use Ctrl+click to select multiple fields individually.
 - Use Shift+click to select multiple fields as a group.
5. Use the arrows to add or remove fields to the related list columns on the page layout, and to define the order in which the related list columns display. You can include up to 10 fields per related list.
6. Select a field from the **Sort By** drop-down list to sort the items in the related list, which will be displayed in ascending order unless you select **Descending**. The default sort order varies per record. The **Sort By** drop-down is not available for activities.
7. If necessary, select additional page layouts in which to apply your related list customizations.
8. If necessary, click **Revert to Defaults** to undo any customizations and use the default Salesforce fields in the related list.
9. Click **OK** to store your customizations. Changes are not saved until you click **Save** on the page layout.
10. Select the **Overwrite users' personal related list customization** to apply the related lists in the page layout to all users, even if they have already customized their display.
11. Click **Preview** to review the page layout. From the preview in Enterprise and Developer Editions, select a profile to see how the pages will look for users with different profiles.
12. Click **Save**.

User Permissions Needed

To customize related lists:	"Customize Application"
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Using the View More Link

The **View More** link under related lists on detail pages now tells you how many more records are related to the record, up to 50. For example, View More (9) or View More (50+). Click **View More** to see more records from a related list that are associated with the record. The **View More** link displays if a related list has more than five items in it. The number of additional records is not shown for activity related lists.

ADDITIONAL CUSTOMFORCE ENHANCEMENTS

Advanced Filters

- In the last release, we added the ability to use OR and NOT filters in reports. Now, we have extended this same functionality to filters for list views.
- The picklist *lookup* icon in report filters was so popular, we have extended it to list view filters. When creating a list view, click the *lookup* icon to select picklist values whenever you choose a picklist field in a list view filter.
- If you have been using Salesforce for awhile, you have probably created filters for many uses such as workflow rules, assignment rules, reports, and list views. To reference checkbox fields in your filters, you can now use "True" and "False" values to represent checked and unchecked. Your existing values of "1" for checked and "0" unchecked will still work.

Below is an example of a filter for a list view showing all the open and escalated cases:

- Closed equals False
- Escalated equals True

Audit Trail

The audit trail will begin tracking changes to:

- Your contract settings
- Any email address change requests for your users
- Custom app definitions
- Any use of the campaign member update tool
- Tab settings for standard profiles
- Roles and role creation

Customforce Name Changes

- The following application elements have undergone name changes:
 - Web links are now known as "custom links."
 - The "Customize Salesforce" user permission is now known as "Customize Application."
 - The "View Salesforce Configuration" user permission is now known as "View Setup and Configuration."
 - Sforce controls are now known as "custom s-controls."

Email and Mail Merge for Custom Objects

- You can now send mail merge documents from a custom object record. Add the Activity History related list to your page layouts for a custom object. Clicking the **Mail Merge** button on this related list works just like it does on other detail pages.
- You can now use email templates to send an email from a custom object record. Clicking the **Send An Email** button on the Activity History related list works just like it does on other detail pages.

Extended Customforce Limits

- The ability to create custom tabs, custom objects, and custom s-controls has been extended to Professional Edition.
- Now create up to 200 custom objects in Enterprise Edition and 50 in Professional Edition. You can also create up to 24 custom tabs in Enterprise Edition and 10 in Professional Edition.
- More custom fields are available depending on your edition:
 - Team Edition organizations can create up to 10 custom fields on each tab and 10 for users.
 - Enterprise Edition and Developer Edition organizations can create up to 500 custom fields for each tab and 20 for activities and users.
 - Custom objects can have up to 500 custom fields in Enterprise Edition and 100 in Professional Edition. Your custom object relationships are counted in this limit.
- Now, create custom relationships with assets. Choose "Asset" from the **Related To** drop-down list when creating a relationship for a custom object.

Record Types

- Create record types using a convenient option that applies the same page layout for all profiles. In step two of the new record type wizard, choose **Apply one layout to all profiles** and select the layout to the right.

Roles

- Now, you can collapse and expand the list of roles in your organization. Click **Setup | Manage Users | Roles**, choose **Show in tree view** from the drop-down list, and click **Collapse All** to view a smaller set of roles at once. Click **Expand All** to display a full list of roles if you have less than 1,000 roles in your organization.

Team Edition Additions

- Team Edition organizations can create up to 10 custom fields on each tab and 10 for users.
- HTML email templates are now available to all Team Edition organizations. Begin by clicking **Setup | Communication Templates | Letterheads** to create a letterhead that contains your logo and branding. Then, click **Setup | Communication Templates | Email Templates** to build HTML email templates that use your company letterhead. Optionally, add the HTML Email Status related list to the appropriate page layouts to track the status of your outbound email messages.
- Notes and attachments are now available to all Team Edition organizations. Add the Notes & Attachments related list to any page layout.

User Permission Changes

- When transferring ownership of custom object records, you can no longer transfer a custom object record to a user who does not have the "Read" permission for that custom object.
- In Enterprise and Developer Editions, delegated administrators can now preview page layouts by profile to see how each page layout will appear to users with different profiles. This is important for delegated administrators of custom objects who are able to set page layouts and field-level security for the custom objects they administer.
- If your organization uses account teams or sales teams, you can make changes to team members on multiple records at a time. If you have the permission "Use Team Reassignment Wizards," you can add, remove, or replace a team member on any record that contains that team member. Previously, only users with the "Modify All Data" could use these wizards.

To use these wizards, click **Mass Reassign Account Teams** from the Tools section at the bottom of the Accounts tab, or click **Mass Reassign Opportunity Teams** from the Tools section at the bottom of the Opportunities tab.

To add a new team member to an opportunity, the team member must have read access to the associated account. Team members who do not have read access to the account will not be added to the opportunity team unless you have the "Modify All Data" permission or are the account owner or above the account owner in the role hierarchy.

To replace a team member and reassign associated records, you need the "Modify All Data" permission, or you must be the record owner or above the record owner in the role hierarchy. Associated records that do not meet these criteria will not be reassigned.

- For organizations that use divisions to segment data, a new user permission has been added to give you greater control over your end-users' experience with divisions. The "Affected By Divisions" permission controls which users will use divisions. When this permission is enabled for a user's profile, the user's search results, list views, and reports are automatically filtered by division, and the user can see the Division drop-down list in the sidebar of every page. With this permission deselected, a user's searches, list views, and reports always show records in all divisions and the Division drop-down list is not available.

The "Affected By Divisions" permission has been added to all standard profiles. If you want to disable this permission for some users, create custom profiles.

Sforce Data Loader

Available in: **Enterprise** and
Developer Editions

The Sforce Data Loader is a client application for the bulk import or export of data. Use it to insert, update, delete, or extract Salesforce records.

The Sforce Data Loader can move data into or out of any type of Salesforce record. When importing data, it reads, extracts, and loads data from comma separated values (CSV) files. When exporting data, it outputs CSV files.

The Sforce Data Loader offers the following key features:

- An easy-to-use wizard interface
- An alternate command line interface
- Support for large files with thousands to millions of rows
- Drag-and-drop field mapping
- Support for all objects, including custom objects
- Detailed success and error log files in CSV format
- A built-in CSV file viewer
- Platform independence, by virtue of being written in Java™

NOTE

The Sforce Data Loader is currently a pilot feature. Contact salesforce.com for more information.

See Also:

[System Requirements on page 84](#)

[Installing the Sforce Data Loader on page 85](#)

[Inserting, Updating, or Deleting Data on page 85](#)

[Exporting Data on page 86](#)

IMPLEMENTATION TIPS

- To obtain the Sforce Data Loader, contact salesforce.com. After the Sforce Data Loader has been enabled for your organization, you can download it at **Setup | Data Management | Sforce Data Loader**.

BEST PRACTICES

- See the online help for a complete description of how to configure and use the Sforce Data Loader.

- You can run the Sforce Data Loader from the command line to manage scheduled operations such as nightly extractions. For details, see the online help.

Best Practices for Performing Mass Updates

To update a large number of records at one time, we recommend the following steps:

1. Obtain your data by performing an export of the objects you wish to update, or by running a report. (For information on running reports, see the online help.) Make sure your report includes the record ID.
2. As a backup measure, save an extra copy of the generated CSV file.
3. Open your working file in a CSV editor such as Excel, and update your data.
4. Launch the Sforce Data Loader and follow the update wizard. See [Inserting, Updating, or Deleting Data](#) on page 85. Note that matching will be done according to record ID.
5. After the operation, review your success and error log files.
6. If you made a mistake, use the backup file to update the records to their previous values.

Best Practices for Performing Mass Deletes

To delete a large number of records at one time, we recommend the following steps:

1. As a backup measure, export the objects you wish to delete, making sure to select all fields. (See [Exporting Data](#) on page 86.) Save an extra copy of the generated CSV file.
2. Next, export the objects you wish to delete, this time using only the record ID as the desired criteria.
3. Launch the Sforce Data Loader and follow the delete wizard. Map only the ID column. See [Inserting, Updating, or Deleting Data](#) on page 85. Map only the ID column.
4. After the operation, review your success and error log files.

ABOUT THE SFORCE DATA LOADER

System Requirements

To use the Sforce Data Loader, you need:

- Windows 2000, Windows XP, Linux, or another operating system that supports Java™.
Windows users can run the Sforce Data Loader wizards, while non-Windows users can run the application from the command line.
- 60 MB free disk space
- Java 1.4.2_03 or any later version of Java 1.4

Installing the Sforce Data Loader

1. To obtain the Sforce Data Loader, contact salesforce.com. After the Sforce Data Loader has been enabled for your organization, you can download it at **Setup | Data Management | Sforce Data Loader**.
2. From the Sforce Data Loader download page, click **Download the Sforce Data Loader** and save the installer to your PC.
3. Double-click the downloaded file to launch the InstallShield wizard.
4. Click **Next**.
5. Accept the license agreement and click **Next**.
6. Accept the default directory, or click **Change...** to choose another directory. Click **Next**.
7. Click **Install**.
8. Click **Finish**.
9. To start the Sforce Data Loader, double-click the Sforce Data Loader icon on your desktop, or choose **Start | Programs | salesforce.com | Sforce Data Loader | Sforce Data Loader**.

Inserting, Updating, or Deleting Data

The insert, update, and delete wizards allow you to add new records to Salesforce, modify existing records in Salesforce, or delete existing records in Salesforce.

User Permissions Needed

To insert records:	"Create" on the record
To update records:	"Edit" on the record
To delete records:	"Delete" on the record

1. Start the Sforce Data Loader by choosing **Start | Programs | salesforce.com | Sforce Data Loader | Sforce Data Loader**.
2. Click **Insert**, **Update**, or **Delete**. These commands can also be found in the File menu.
3. Enter your Salesforce username and password. Click **Log in** to log in. After your login completes successfully, click **Next**. (Until you log out or close the program, you will not be asked to log in again.)
4. Choose an Sforce object. If your object name does not display in the default list, check **Show all Sforce objects** to see a complete list of the objects that you can access. The objects will be listed by localized label name, with developer name noted in parentheses. To view descriptions of Sforce objects, see the *Sforce Web Services Developer's Guide* on the Sforce website at www.sforce.com.
5. Click **Browse...** to select your CSV file.
6. Click **Next**. After the Sforce object and CSV file are initialized, click **OK**.
7. Define how the columns in your CSV file map to Salesforce fields. Click **Choose an Existing Map** to select an existing field mapping, or click **Create or Edit a Map** to create a new map or modify an existing map.
8. Click **Next**.
9. For every operation, the Sforce Data Loader generates two unique CSV log files; one filename starts with "success," while the other starts with "error." Click **Browse...** to specify a directory for these files.
10. Click **Finish** to perform the operation, and then click **Yes** to confirm.
11. As the operation proceeds, a progress information window reports the status of the data movement.

12. After the operation completes, a confirmation window will summarize your results. Click **View Successes** to view your success file, click **View Errors** to open your errors file, or click **OK** to close.

Exporting Data

You can use the Sforce Data Loader export wizard to extract data from any Salesforce object.

User Permissions Needed	
To export records:	"Read" on the records

1. Start the Sforce Data Loader by choosing **Start | Programs | salesforce.com | Sforce Data Loader | Sforce Data Loader**.
2. Click **Export**. This command can also be found in the File menu.
3. Enter your Salesforce username and password. Click **Log in** to log in. After your login completes successfully, click **Next**. (Until you log out or close the program, you will not be asked to log in again.)
4. Choose an Sforce object. If your object name does not display in the default list, check **Show all Sforce objects** to see a complete list of objects that you can access. The objects will be listed by localized label name, with developer name noted in parentheses. To view descriptions of Sforce objects, see the *Sforce Web Services Developer's Guide* on the Sforce website at www.sforce.com.
5. Click **Browse...** to select the CSV file to which the data will be exported.
6. Click **Next**.
7. Create a SOQL query for the data export:
 - a. Choose the fields you want to export.
 - b. Optionally, select conditions to filter your data set. If you do not select any conditions, all the data to which you have read access will be returned.
 - c. Review the generated query and edit if necessary.
8. Click **Finish**, and then click **Yes** to confirm.
9. As the operation proceeds, a progress information window reports the status of the data movement.
10. After the operation completes, a confirmation window will summarize your results. Click **View Extraction** to view the CSV file, or click **OK** to close.

NOTE

SOQL is the Sforce Object Query Language that you can use to construct simple but powerful query strings. Similar to the SELECT command in SQL, SOQL allows you to specify the source object (such as account), a list of fields to retrieve, and conditions for selecting rows in the source object. See the *Sforce Web Services Developer's Guide* on the Sforce website at www.sforce.com for more information.

Import Wizard Enhancements

Import My Contacts wizard available in: **All** Editions

Import My Organization's Accounts and Contacts wizard available in: **Team, Professional, Enterprise, and Developer** Editions

Import My Organization's Leads wizard available in: **Professional, Enterprise, and Developer** Editions

In response to customer feedback, the Summer '05 release includes significant enhancements to the import wizards.

Improved Matching to Prevent Duplicate Records

The import wizards for contacts, accounts, and leads now allow more ways to match records in order to prevent duplicates:

- Contacts can be matched by Salesforce ID, name, or email.
- Accounts can be matched by Salesforce ID or by name and site.
- Leads can be matched by Salesforce ID, name, or email.

Mass Update of Records

You can now use the import wizards to perform mass updates of accounts, contacts, or leads when you select to match records by Salesforce ID. A Salesforce ID is a case-sensitive 15-character or 18-character string of numbers and letters which uniquely identifies a particular record. Matching by ID is inclusive of both contacts and accounts; if you match one by ID, the other will also be matched by ID.

Improved Performance and Queuing of Imports

The performance of the account and contact wizards has been markedly improved. In most cases, they run several times faster than before.

When two import processes attempt to modify the same Salesforce records, the import wizards now consistently update records according to which import was started first. The import that is started first will be processed first, and then the other import will be processed. As a result, data from the second import may overwrite data from the first import.

IMPLEMENTATION TIPS

See the Salesforce online help for specific instructions on using the import wizards. The basic steps for importing records has not changed in the Summer '05 release.

Mass Updating Accounts, Contacts, and Leads

Now that you can match records according to ID, you can mass update accounts, contacts, or leads:

1. Run a report to export records. Make sure to include the **ID** field in your report.
2. Save a backup copy of your export file.
3. Open the working copy of your export file in a spreadsheet program to change field values as needed.
4. Import the modified values, using Salesforce ID as the matching type. When importing by ID, note that record IDs are case-sensitive and must match exactly.

Default Field Mappings

- When importing from comma-separated values (CSV) files, the default field mappings for leads, contacts, and accounts now include **Lead ID**, **Contact ID**, and **Account ID** fields, respectively.
- When importing accounts or leads by ID for your organization, the **Record Owner** field in your import file is ignored. The accounts and leads in Salesforce are updated according to the matching IDs, but the record owners remain unchanged.

Matching Accounts and Contacts by Name and Site

- If you choose to match contacts by name and accounts by name and site, the import wizards automatically create an account for each unique account name and site in the import file and also create a separate contact for each contact name listed in the file. The contacts are then associated with the appropriate accounts.
- The following mechanisms prevent the creation of duplicate accounts:
 - If a record in your import file has the same **Account Name** and **Account Site** as an existing Salesforce account, then the wizards add your import data to the existing data in Salesforce.
 - If a record in your import file has an **Account Name** and **Account Site** that are "similar" to an existing Salesforce account, then the wizards add your import data to the existing data in Salesforce.
 - If more than one record in your import file has the same **Account Name** and **Account Site**, the wizards merge those records and create only one account in Salesforce.
 - If the **Account Site** field is empty in your import file, the wizards match just on the **Account Name** field, ignoring any site values that may exist in Salesforce.
- The following mechanisms prevent the creation of duplicate contacts:
 - For contacts with the same **Account Name**, **Account Site**, **First Name**, and **Last Name** (or the same **Account Name**, **Account Site**, and **Full Name**), the wizards merge your import data with existing data in Salesforce. The contact name by itself is not sufficient information for matching; you must also include the contact's account.
 - If two contacts have "similar" names in the **Account Name**, **Account Site**, and **First Name** and **Last Name** (or **Full Name**) fields, the wizards merge the contacts into one record in Salesforce. However, if two contacts have the same First Name (Local) or Last Name (Local), the wizard will not merge those records.
- Local name fields are imported but not checked for duplicates.

Matching Accounts and Contacts by Salesforce ID

- In this case, a record's Salesforce ID will be the criteria for preventing duplicates. That is, if you are matching by ID and a record in your source file has the same ID as a record in Salesforce, then that record will be updated in Salesforce. Note that record IDs are case-sensitive and must match exactly.

Matching Contacts by Email

- If you choose **Email** as the **Contact Matching Type**, contacts are matched according to their email address, on a per account basis. That is, within a specified account, if a contact in your import file has the same email address as a contact in Salesforce, then that contact will be updated in Salesforce. If you are not matching by email and there is an existing contact in Salesforce with the same email, then a new contact will be created for that account.

Matching Leads

- You can choose whether to match leads in your import file with existing leads in Salesforce. Leads can be matched according to the following types: Salesforce ID, name, or email. Choosing a matching type sets the criteria for avoiding duplicate leads. For example, if you are matching by email and a lead in your source file has the same email address as a lead in Salesforce, then that lead will be updated in Salesforce. If you are not matching by email and a lead in your source file has the same email address as a lead in Salesforce, then a new lead will be created.
- If you choose a matching type of "None" in the lead import wizard, for each lead in your import file, the Import My Organization's Leads wizard creates a new lead in Salesforce. You can merge leads after they are imported.
- The new import wizard **Matching Type** options do not apply when importing leads for campaigns. The behavior of the campaign member import wizards has not changed.

BEST PRACTICES

- The recommended matching type is by name (or by name and site, in the case of accounts). The exception is for mass updating records, when you should match by ID.
- Before performing an import, make sure to save a backup copy of your import file.

Sforce 6.0 Web Services API

With the Summer '05 release, salesforce.com is upgrading the Sforce Web services API. As always, considerable effort has been made to ensure backwards compatibility for applications that have been written against previous versions of the SOAP API, starting with version 2.5. (Note: older XML-RPC APIs should remain unchanged with this release.) The new API provides a number of powerful enhancements that further improve any integration already in place between Salesforce and your other systems.

The Sforce Web Services API has been updated with the following enhancements:

- **describeSubjects** - a new call that is an array-based version of describeSubject. It can improve the startup time of your application.
- **describeTabs** - a new call that you can use to render the tabs that are available to the user. DescribeTabs has all the metadata needed to render Multiforce applications in another user interface.
- **SelfServiceUser** - a new object that supports the create, update, query, setPassword, and resetPassword calls for Self-Service portal users. With this object, you can enable Single Sign-On for your Self-Service users.
- **SOSL enhancements** - Document, Product, and Solution objects are searchable through SOSL.
- **Custom formula fields** - in the API, custom formula fields are supported on a read-only basis. Also, you can filter on custom formula fields in SOSL queries.

Complete documentation for all new calls, objects, and other changes will be available with the Summer '05 release in the *Sforce Web Services Developer's Guide* on the Sforce website at www.sforce.com. To locate the guide on www.sforce.com, choose the **Resources** tab and click the **API Documents** link.

ADDITIONAL SFORCE ENHANCEMENTS

Security

- It is now possible to restrict the domain names of users' email addresses to a list of explicitly allowed domains. For example, the company Acme could prohibit its users from changing their email addresses to any domain other than acme.com. Any attempts to set an email address with another domain would result in an error message. Contact salesforce.com to enable this functionality for your organization.
- Higher protection of your organizations' usernames is now enforced during the retrieval of forgotten passwords. When a user clicks the **Forgot Your Password?** link on the login page, he or she must complete the following process:
 - When prompted, enter a valid username.
 - Open a message that is automatically sent to the user's email address.
 - Click the verification link in that message.
 - When prompted, correctly answer his or her password question.
 - Open a second automated email message.
 - Use the temporary password provided in that second message to log in.
 - Establish a new password.
- Fraudulent use of email addresses is now prevented by sending a confirmation message to the new email address whenever a user's email address is changed within the application. Upon opening the message, the user must click a verification link before the new email address will take effect. This occurs when a user edits his or her personal information, when an administrator edits a user's personal information, when an Email-to-Case routing address is changed, and any other time a user's email address is changed within the application.
- Session timeout settings are more flexible with a value that allows you to set session timeout for eight hours. Click **Setup | Security Controls | Session Settings** to change your session timeout setting.
- Provide even greater security for your data with a new option under **Setup | Security Controls | Session Settings**. The new **Require secure connections (https)** setting, when enabled, requires logins and other system connections to use SSL (secure sockets layer). By default, Salesforce uses SSL for all pages, but does not require it. Thus, if you change the URL from <https://> to <http://>, you will still be able to access the application. Enabling this new option ensures that all communications between you and the application are encrypted. This option is available in Professional, Enterprise, and Developer Editions only.
- Review the new [Tips for Network Security](#) tip sheet for more information on the security options available in the application.

(To access this tip sheet, click the tip sheet title above or go to CRMSuccess.com; it will also be available via the **Help and Training** link in the application with the Summer '05 release.)

Single Sign-On

Use Single Sign-On to centrally control password policies and the deprovisioning of users. Single Sign-On can also allow users within a corporate network to log in to the salesforce.com application seamlessly and automatically. For example, this feature allows customers to post links on an intranet page or to send report links by email, and users will automatically be logged in to view the report.

This feature requires a partner product or the implementation of a delegated authentication listener. If your organization has implemented Single Sign-On, enter the external DNS name of the server on which you have implemented delegated authentication on the Company Information page accessible via **Setup | Company Profile | Company Information**.

Contact salesforce.com to learn more about enabling Single Sign-On for your organization.