

## **Unica Collaborate V12.1.6 Corporate Marketer's Guide**



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# Chapter 1. Unica Collaborate

Unica Collaborate provides marketing organizations with the ability to distribute the execution of centrally managed marketing campaigns throughout the enterprise.

It allows centralized marketers to maintain control over corporate standards and business rules, while it allows remote users to tailor or provide input to the campaign for greater local customization and relevance, ultimately increasing response rates and revenue.

Collaborate supports campaign customization by remote users; however, the remote users can change only those parameters that are specified by the campaign designer.

For example, a retail company might want to centrally control certain selection criteria, but allow individual store owners to control selections that are related to their stores or locations.

## Collaborate use cases

Collaborate enables organizations to accomplish their goals by supporting multiple collaborate use cases.

Specifically, Collaborate enables you to:

- Centralize marketing efforts while it ensures that corporate business rules, logic, and best practices are enforced, allowing execution and controlled customization throughout the organization.
- Promote field compliance by having corporate marketers centralize campaign design with corporate business rules (such as opt-outs) and customer preferences.
- More efficiently design, conduct, manage, and measure both global and localized cross-channel marketing initiatives.
- Increase the number of users who are able to contribute to and run campaigns, providing more flexibility within an organization and enabling measurement and management of marketing efforts.



- Provide "self-serve" customer interaction management within an enterprise, for less technical-oriented marketers and individuals closest to the customer, without compromising corporate rules, goals, or objectives.
- Manage customer interactions in real-time through email and the web.
- Allow marketing decision-making and campaign management to be handled by field marketers, while corporate marketers manage corporate marketing communication and policies.

## Corporate marketers

Corporate marketers develop templates for reusable campaign logic and lists of customer contacts.

Corporate marketers manage corporate campaigns and oversee marketing activities of field marketers. They also specialize in designing and generating campaigns from which the field marketer can choose.

### **Primary corporate marketer tasks**

In Collaborate, corporate marketers perform the following tasks:

- Design campaign flowcharts.
- Create corporate campaigns.
- Manage campaign workflow.
- Create reports that are used to assess campaign success.
- Design templates for Corporate Campaigns, On-demand Campaigns, and Lists, for use by field marketers and other corporate marketers.

### **Corporate marketer tasks in Campaign**

Corporate marketers also frequently use Campaign, through which they design and build flowcharts that are associated with Lists, On-demand Campaigns, and Corporate Campaigns.

## Corporate marketer roles

Corporate marketers must be assigned the Corporate Marketer role in the Global security policy, or its equivalent, to perform their tasks.

To work in Campaign, corporate marketers must be assigned the following roles:

- Global Policy Execute
- Global Policy Design
- Global Partition Design or Execute

## Field marketers

Field marketers create and run local or regional marketing activities for a territory or line of products.

Field marketers work directly with customers, understand their needs, and can make good decisions on how best to reach their customers with on-demand or corporate marketing campaigns.

Field marketers may be line-of-business users, partners, branch office managers, retail store managers, or members of local sales forces. Field marketers create on-demand (local) campaigns that they can run at any time to target a local customer base.

## Field marketers tasks

In Collaborate, field marketers work with:

- Lists

Field marketers typically create Lists in Collaborate and define criteria to select contacts for the Lists. These Lists can then be used by one or more On-demand Campaigns as needed.

- On-demand Campaigns

Field marketers can create and run On-demand Campaigns to target their set of customers.

- Corporate Campaigns

Field marketers subscribe to the Corporate Campaigns they want to participate in. For those Corporate Campaigns, field marketers review and choose which of their customers are targeted by the Corporate Campaign.

## Field marketer roles


Field marketers must be assigned the Field Marketer role in the Global security policy, or its equivalent, to perform their tasks.

## Logging in to HCL Unica

This procedure assumes that you know the website address (or URL) to your server and you have an assigned user name and password. If you need help, contact your HCL Unica administrator.

1. Open a supported browser and enter the URL to the HCL Unica server.  
The prompts that display vary based on the security settings that are defined for your installation.
2. If prompted, accept the digital security certificate.
3. On the login page, enter your user name and password, then click **Sign In**.  
If you are prompted to accept the digital security certificate, click **Yes** to accept the certificate.

The dashboard or the default start page displays. The options that are available to you depend on the permissions that are assigned to you by your HCL Unica administrator.

 **Note:** For a list of supported browsers, see the Recommended Software Environments and Minimum System Requirements guide.

## Collaborate documentation and help

Collaborate provides documentation and help for users, administrators, and developers.

The following table describes the various tasks of Collaborate. The **Documentation** column contains names of documents where you can find more information about the tasks.

**Table 1. Get up and running**

**This two-columned table describes the Collaborate installation or upgrade tasks in one column, and the corresponding documents in the second column.**

Task	Documentation
Find out about new features, known issues, and limitations	Collaborate Release Notes
Learn about the structure of the Collaborate system tables	Collaborate System Tables and Data Dictionary
Install or upgrade Collaborate	One of the following guides: <ul style="list-style-type: none"> <li>• Collaborate Installation Guide</li> <li>• Collaborate Upgrade Guide</li> </ul>
Implement the IBM® Cognos® reports provided by Unica Collaborate  Implement Unica Insights reports provided by Unica Collaborate	Cognos Reports Installation and Configuration Guide  Unica Insights Installation and Configuration Guide

The following tables describe administrative tasks in Collaborate. The **Documentation** column contains names of documents where you can find more information about the tasks.

**Table 2. Configure and use Collaborate**

**This two-columned table describes the Collaborate administrative and user tasks in one column and the corresponding documents in the second column.**

<b>Task</b>	<b>Documentation</b>
<ul style="list-style-type: none"> <li>• Set up and configure the system for users</li> <li>• Adjust security settings</li> <li>• Map tables, define offer templates and custom attributes</li> <li>• Run utilities and perform maintenance</li> </ul>	<i>Unica Collaborate Administrator's Guide</i>
<ul style="list-style-type: none"> <li>• Create and deploy marketing campaigns</li> <li>• Analyze campaign results</li> </ul>	Unica Collaborate Corporate Marketer's Guide  Unica Collaborate Field Marketer's Guide
Use REST APIs	Unica Collaborate REST APIs

The following tables contain information about online help and obtaining PDFs for Collaborate. The **Instructions** column describes how to open online help and access documentation for Collaborate.

### **Table 3. Getting help**

**This two-columned table contains information about how to start online help and access PDF documentation for the Collaborate. Second column contains instructions for the tasks.**

<b>Task</b>	<b>Instructions</b>
Open online help	<ol style="list-style-type: none"> <li>1. Choose <b>Help &gt; Help for this page</b> to open a context-sensitive help topic.</li> <li>2. Click the <b>Show navigation</b> icon in the help window to display the full help.</li> </ol> <p>You must have web access to view context-sensitive online help. Contact HCL Support for more information about accessing and installing Unica Knowledge Center locally for offline documentation.</p>

<b>Task</b>	<b>Instructions</b>
Obtain PDFs	Use either of the following methods: <ul style="list-style-type: none"><li>• Choose <b>Help &gt; Product documentation</b> to access Collaborate PDFs.</li><li>• Choose <b>Help &gt; All HCL Unica suite documentation</b> to access all available documentation.</li></ul>
Unica Knowledge Center	To access the Unica Knowledge Center, choose <b>Help &gt; Support for this product</b> .

# Chapter 2. Customize Collaborate

You can customize the Collaborate interface to meet your needs. Customization settings are available in Collaborate when you click **Settings** or **Settings > Collaborate Settings**.

The following table describes what you can customize.

**Table 4. Options for customizing Collaborate**

Option	Description
Set current page as Home	Set the current page to display automatically as soon as you log in to Collaborate.
Basic Settings	Set the security policy to apply to new items by default.
Timezone	Choose your local timezone.
Projects Options	Define the project list and view to show by default for projects.
Tasks Options	Define the task list and view to show by default for tasks.
Collaborate Analytics Options	Set a default report to display when you go to the <b>Analytics &gt; Collaborate Analytics</b> page, and set the Analytics home page as your login page.
Instances Options	Customize your default view of Lists, On-demand Campaigns, and Corporate Campaigns.
Calendar/ Timeline Settings	Select options to customize how you view the calendar and task milestones.

You (or another user with the appropriate permission) can set up dashboards to show the information that you view most often. Each dashboard can include one or more "portlets" that present:

- List management.
- Subscription management.

- Campaign management
- Calendar

## Setting your basic settings

Use the basic settings option to choose the security policy that is used by default when you create items.

To set the security policy, complete the following steps.

1. Select **Settings > Collaborate Settings**.

The **Administrative Settings** page opens.

2. Click **Basic Settings**.

The **Basic Settings** page opens.

3. In the **Default Security Policy** field, select the security policy to use by default when you create items in Collaborate.

You can leave **Global** selected, which is the default, to use the global security policy that is defined by your administrator. Otherwise, you can select a security policy that your administrator instructed you to select. As a best practice, do not change the security policy without the guidance of your administrator. For more information about security policies, contact your administrator or see the Collaborate Administrator's Guide.

4. Click **Save Changes** to save your changes.

## Setting your instance options

You can use instance options to customize your default views of Lists, On-demand Campaigns, and Corporate Campaigns.



For example, you might want to specify that the On-demand Campaigns list that opens by default shows only On-demand Campaigns set to run in the current week.

1. Select **Settings > Collaborate settings**.

The **Administrative Settings** page opens.

2. Click **Instances Options**.

The **Instances Options** page opens.

3. In each of the List, On-demand Campaign, and Corporate Campaign sections, select the default view.

4. Click **Save Changes** to save your changes.

When you open the Lists, On-demand Campaigns, or Corporate Campaigns page, your default list is shown.

## Setting your start page

The start page is the page that displays when you log in to HCL Unica. The default start page is the default dashboard, but you can easily specify a different start page.

If you do not want a dashboard page to display when you first log in to HCL Unica, you can select a page from one of the installed Unica products as your start page.

To set a page you are viewing as your start page, select **Settings > Set current page as home**. Pages available for selection as a start page are determined by each HCL Unica product and by your permissions in HCL Unica.

On any page you are viewing, if the **Set current page as home** option is enabled, you can set the page as your start page.

# Calendar

Historically, organizations produced paper-based calendars and updated them with the latest information. The calendar feature provides marketing groups with electronic means to view and update calendar data.

Field marketers and corporate marketers can use the Collaborate calendar to view the time horizon for marketing campaigns.

Marketing organizations typically organize their work with calendars. For example, seasonal events drive marketing programs, and other external dates, such as store openings, and seasonal product announcements.

You can use the calendar as an aid for planning marketing campaigns.

- You can view and update the timelines for Lists, On-demand Campaigns, or Corporate Campaigns.
- You can get an up-to-date view of planned or run marketing efforts over time.

You can customize the appearance of the calendar in the following ways.

- You can set a default view of the calendar: Click **Settings > Collaborate Settings > Calendar/Timeline Settings**.
- You can choose the look of the calendar in the Set View Options dialog box.
- You can filter the items that are displayed on the calendar with Advanced Search.

## Calendar features

The calendar in Collaborate displays Lists, On-demand Campaigns, or Corporate Campaigns. You can also edit the views.

The Collaborate calendar has the following features:

- The calendar includes start and end dates for the displayed items.

- You can display Corporate Campaigns and On-demand Campaigns on the same calendar in different colors for easy differentiation.
- You can open a Corporate Campaign, List, or On-demand Campaign directly from the calendar.

## **Default and per session calendar views**

You can use one of two types of settings when you view the calendar:

- The default calendar settings, which are in effect every time you log in.
- The per session calendar settings. The per session calendar is the calendar that results from making temporary changes to the calendar view, without changing the default settings.

## **Objects displayed in a calendar**

You can display any of the following objects in a calendar:

- Corporate Campaigns
- On-demand Campaigns
- Lists
- Corporate Campaigns and On-demand Campaigns

## **Calendar item dates**

Each List, On-demand Campaign, or Corporate Campaign that is displayed in a calendar has a start and end date. These are the target start and end dates you set when you create the object.

## **Display options for the calendar**

You can modify the calendar display in the following ways:

- You can modify the default calendar settings.
- You can set the calendar view for the current session.
- You can toggle between calendar views:
  - Timeline view

- Calendar grid view
- Text view
- You can use the advanced search feature to filter the Lists, On-demand Campaigns, or Corporate Campaigns that are displayed in the calendar.


## Timeline view

This view displays a time-based view of the Lists, On-demand Campaigns, or Corporate Campaigns you select to display. You can select the time range for the calendar items you select to display in a timeline view.

In a timeline view, each calendar item is displayed as a horizontal bar across its date range. If you enable color coding, each calendar item is colored according to attributes you select.

You can select the date range for the timeline from the following options:

- **Week** displays one week. Each day is listed as a column. The starting day is either Sunday or Monday, depending on the default calendar settings.
- **Month** displays a single calendar month. Each day is listed as a column, and days are grouped into weeks.
- **Quarter** displays three calendar months. Each week is listed as a column, and weeks are grouped into months.
- **Fiscal Year** displays a fiscal year. Your administrator can configure the starting month for a fiscal year. Each month is listed as a column, and the months are grouped into quarters.
- **Calendar Year** displays a calendar year that starts in January and ends in December. Each month is listed as a column, and the months are grouped into quarters.


 **Note:** Any day that is specified as non-work time is disabled in a timeline view.

## Month-based text or calendar grid view

A month-based calendar view displays a calendar for a selected month.

In addition to a month-based timeline view, you can select from the following month-based calendar views:

- 1-Month Text: Each day contains a text listing of selected, Lists, On-demand Campaigns, or Corporate Campaigns.
- 1-Month Calendar Grid: Each calendar item is displayed as a horizontal bar that begins on the item start date and ends on the item end date. If you enable color coding, each calendar item is colored according to attributes you select.

 **Note:** Any day that is specified as non-work time is indicated by a gray X in the background in a calendar grid view.

### **Color-coded by attribute view**

You can color-code the calendar display for Lists, On-demand Campaigns, or Corporate Campaigns by selected attributes. You can apply color-coding to a calendar grid view or to a timeline view.

You can filter the calendar display for Lists, On-demand Campaigns, or Corporate Campaigns according to the values of a selected attribute, such as the following.


- Execution status
- Schedule status
- Template type

The calendar displays a legend in the lower-right corner of the screen.

For example, consider the following On-demand Campaign attribute and its possible values:

- Attribute name: Campaign Execution Status
- Valid attribute values: Active, Complete, Under development

If you group and display On-demand Campaigns by Campaign Execution Status, the resulting calendar is displayed with four colors in the legend. There is one color for each valid attribute value, and one for N/A.

 **Note:** The color that is assigned to N/A is displayed in the calendar when calendar items are not assigned a value for the selected attribute.

## Horizontal bars used in calendars

The timeline view and calendar grid view display calendar items as horizontal bars.

Note the following information about bars:

- The bars represent the date range for objects that are displayed on the calendar.
- The bar color depends on values of an attribute you optionally select for color coding.
- The shape of the bars determines the following about item start and end dates:
  - Rounded left end: The start date is the date indicated by the left end of the bar.
  - Rounded right end: The end date is the date indicated by the right end of the bar.
  - Flat left end: The start date is before the visible date range.
  - Flat right end: The end date is beyond the visible date range.

## Accessing the calendar

You can access the calendar for Lists, On-demand Campaigns, or Corporate Campaigns by clicking the **Set View Options** icon.







1. From the **Collaborate** menu, select **Lists, On-demand Campaigns, or Corporate Campaigns**.
2. From the **View** menu, select **Set View Options**.
3. Set the view options.

You can display the calendar as a Timeline, a Text Calendar, or a Graphical Calendar.

4. Click **Apply**.

## Navigating the calendar

All calendar/timeline views contain the following icons:

Icon	Description
	Opens the Set View Options dialog box. Use this link to change the way that the calendar is displayed.
	Opens the Advanced Search dialog box.
	Changes the date range that is displayed, moving back one unit in time. For example, if your current calendar view is a monthly timeline of September 2009, clicking  displays August 2009.
Current date range	Opens a drop-down list of available date ranges. Use this link to quickly change to any other date range.  For example, if you are viewing a monthly calendar for July 2009, you can change the view to January 2010 by clicking this link and then choosing January 2010 from the drop-down list.
	Changes the date range that is displayed, moving forward one unit in time. For example, if your current calendar view is a weekly timeline from 7/20/2009 through 7/26/2009, clicking  displays 7/27/2009 through 8/2/2009.

## Setting per-session calendar views

You can change the views of the calendar from default settings by clicking View from the **Calendar** page or a listing of Lists, On-demand Campaigns, or Corporate Campaigns.

1. Access the calendar.
2. Click **View**.  
The Set View options dialog box opens.
3. Select options to change the view.

4. Click **Apply**.

## Accessing calendar objects by date

You can filter the calendar to display all of the Collaborate objects for a selected date.

You can view all the objects at a more granular level. For example, if the calendar is displaying Corporate Campaigns for June 2009, you can click **7** to open a list page that contains all Corporate Campaigns whose date ranges contain June 7th, 2009.

Click the date in an open calendar that displays Lists, On-demand Campaigns, or Corporate Campaigns.

## Accessing an object from the calendar


You can view the List, On-demand Campaign, or Corporate Campaign from its calendar.

Click the List, On-demand Campaign, or Corporate Campaign on the calendar.

The List, On-demand Campaign, or Corporate Campaign opens.

## Exporting the calendar

You can save a snapshot of the current calendar in HTML format.

1. With the calendar open, click the menu next to the print icon (  ) and select **Export**.
2. Choose one of the following options:
  - Click **Open** to open the compressed file of the calendar.
  - Click **Save** and choose a location to save the calendar to disk.
  - Click **Cancel** to return to the Calendar screen without publishing.

The system publishes the calendar into a compressed file archive.




## Publishing the calendar


You can save a snapshot of the calendar at a certain moment in time. When you publish the calendar, you chose which information you want to display and how you want to display it.

To get a snapshot of the current calendar, save it in HTML format (into a ZIP compressed archive file).

### 1. Choose the calendar view to publish.

Select the objects, time range, and appearance for the calendar view. You can make selections in either of the following ways:

- From the **Local Marketing** menu, select **Calendar**. Then, select items to view.
- At a list page for Lists, On-demand Campaigns, or Corporate Campaigns, click the **View** icon (  ) and choose a calendar view.

 **Note:** If the current calendar view includes projects, Project data is exported as well. The exact data that is exported depends on how the project template was set up; Summary and custom tabs might be exported for some or all projects.

### 2. Click the **Print** icon ( ) and select **Export**.

### 3. Take one of the following actions.

- Click **Open** to open the compressed file of the calendar.
- Click **Save** and choose a location to save the calendar to disk.
- Click **Cancel** to return to the **Calendar** page without publishing.

The system publishes the calendar into a compressed file archive. You can use any application for working with compressed files to access the calendar HTML pages. You can go to the next and previous pages of the calendar view in your web browser. If you exported any project data, you can also go to that data from the calendar HTML pages.

## Viewing the timeline


If you choose a timeline view, you can choose from several date ranges. The screen can display data for a single week all the way up to data for an entire year.

### Timeline view of the calendar

If you choose a timeline view, you can choose from several date ranges. The screen can display data for a single week, up to data for an entire year.


The timeline view displays a grid-like view of the objects that you selected and filtered (for example, Active Lists). The objects are organized by a unit of time, depending on which timeline view you selected.

Each object is displayed in a horizontal bar across its date range. The name of the object displays on the bar.

 **Note:** If you select **Enable Color Coding** from the calendar view options screen, the bar for each object is displayed in a color that is based on an attribute you chose.

Choose a date-range for the timeline.

- **Week:** displays one week, with each day listed as a column. The starting day is either Sunday or Monday depending on the option that is selected in the **Calendar/Timeline Settings** page.
- **Month:** displays a single calendar month. Each day is listed as a column, and days are grouped into weeks.
- **Quarter:** displays three calendar months. Each week is listed as a column, and those weeks are grouped into months.
- **Fiscal Year:** displays a fiscal year. The starting month depends on a configuration setting, `firstMonthInFiscalYear`. Each month is listed as a column, and the months are grouped into quarters.
- **Calendar Year:** displays a calendar year, which starts in January and ends in December. Each month is listed as a column, and the months are grouped into quarters.



 **Note:** Any day that is specified as non-work time has its column that is disabled. Additionally, the name of the non-work time (for example, "Labor Day") displays when you point to the date. This feature is not available when the time scale is Quarter, Fiscal Year, or Calendar Year.

## Navigating the timeline view

You can navigate the timeline by doing any of the following:

- Click the expand icon (+) next to an object to display objects that are contained in the hierarchy.
- Click the expand icon (+) next to an object to display tasks within the workflow for that object.
- Click the object name to drill down to a timeline that contains the objects contained in its hierarchy.

 **Note:** Clicking a task opens the **Workflow** page of the project with which the task is associated.

- Click the zoom in () and zoom out () icons. These icons are displayed above the timeline. Zooming changes the date range of the timeline. For example, zooming in from a monthly timeline takes you to a weekly timeline. The top level is (fiscal) yearly, and the lowest level is weekly.

## Text or graphical calendar views

The calendar views display data for a selected month. The view contains a cell for each day of the selected month. The cell for a day contains either a list of items active on the day (text) or a portion of a horizontal bar for each active item (graphical).


The page displays a grid that contains a column for each day of the week: either five columns that represent the weekdays, or seven, if you choose to display weekend days. You set this option on the **Calendar/Timeline Settings** page. The page contains either five or six rows, each representing a week.

## Monthly calendar

The monthly calendar view displays a calendar of the selected month. It lists the objects you selected and filtered on (for example, Active Lists).

Choose either of these monthly calendar views.

- **1-Month Text:** Each day contains a list of objects. An object is displayed for all days in its date range.
- **1-Month Graphical:** Each object is displayed in a horizontal bar that begins on its start date and ends on its end date. If you select **Enable Color Coding** from the calendar view options page, the bar for each object appears in a different color.

 **Note:** Any day that is specified as non-work time is indicated by a gray X in the background. Additionally, the name of the non-work time (for example, "Labor Day") displays when you point to the date.

## Navigating the text/graphical calendar

Navigate the calendar by performing any of the following actions:

- Click the object to display its summary page. For example, clicking a project opens the project's List opens the List's Summary page.
- Click the date to display a list page that contains objects that fall on that date.

## Calendar color coding

You can display objects in a color-coded manner on either the graphical calendar or in the timeline views.


First, select the **Enable Color Coding** check box in either the **Calendar/Timeline Settings** page or the **Set View Options** dialog box. After you check the box, the **Based on values for** menu opens. This list contains attributes for your Lists, On-demand Campaigns, and Corporate Campaigns (depending on which objects you are currently displaying in the calendar).

From this list, you can choose any attribute that is an enumerated type. For example, consider the following attribute:

- Name: Product Family
- Valid values: CDs, Credit Card, Home Mortgage

If you choose to group objects by this attribute, your calendar contains four colors: one for each valid value, CDs, Credit Card, and Home Mortgage, and **N/A**. **N/A** corresponds to any objects that do not contain a value for the Product Family attribute.

The calendar also displays a legend in the lower-right corner of the screen. The legend lists all valid values (CDs, Credit Card, and Home Mortgage, and **N/A**) along with the color corresponding to that value.

 **Note:** You can also color code by the template on which the project is based.

## Horizontal bars on the calendar

The timeline view and graphical calendar view display horizontal bars. The bars help illustrate the duration and dates of calendar objects.

Note the following information.

- The bars represent the date range for objects that are displayed on the calendar.
- The name of the object displays on the bar.
- The bars can be colored based on an attribute you select.
- The shapes of the bars indicate the following conditions of the object.
  - Rounded-end "start": indicates that the object starts on the date where the bar has a rounded end.
  - Rounded-end "end": indicates that the object ends on the date where the bar has a rounded end.
  - Flat-end "start": indicates that the object starts before the visible date range.
  - Flat-end "end": indicates that the object ends after the visible date range.

## Color-coding calendar items

You can use color-coding to display objects in a calendar according to a selected attribute.

You can display different colors of Corporate Campaigns, according to whether the Corporate Campaign is active or not.

 **Note:** You can also set color-coding for the default calendar settings.

1. Open one of the following:

- Calendar
- Lists
- Corporate Campaigns
- On-demand Campaigns

2. Click **View**.

The Set View Options dialog box opens.

3. Check **Enable Color Coding**.

4. Choose a calendar item and corresponding attribute on which to base color-coding from the lists that are displayed.

5. Click **Apply**.


## Zooming in or out of a timeline view

When you select a timeline view, you use the zoom feature to expand or collapse the date range for the view.

The top level for zooming out displays a year-based date range.

The lowest level for zooming in displays a week-based date range.

For example, zooming in from a monthly timeline takes you to a weekly timeline.

Click the zoom in icon () or zoom out icon () to change the view.

## Viewing the server clock and time zone

You can view the server live clock and time zone information on tabs and pages of Lists, On-demand Campaigns, and Corporate Campaigns.

You can have your administrator set the **showServerLiveClock** parameter to view the server time zone and live clock that shows the server time on the Summary and Workflow tabs, the Scheduler pop-up window, and post-task pop-up pages of Lists, On-demand Campaigns, and Corporate Campaigns.

# Chapter 3. Corporate Campaigns

Corporate Campaigns are marketing campaigns that are planned, scheduled, and executed by a centralized marketing team.

Corporate Campaigns are campaigns that present a corporate marketing message to targeted contacts. In Collaborate, Corporate Campaigns execute on a fixed schedule, which you specify by using scheduled workflow tasks in the Corporate Campaign Workflow tab.

Corporate marketers typically use Collaborate to incorporate recommendations about which target customers to include with a Corporate Campaign from field marketers throughout an organization. A Corporate Campaign allows corporate marketers and field marketers to collaborate on a corporate-level campaign.

## Why field marketers participate in Corporate Campaigns

By participating in Corporate Campaigns, field marketers help distribute the marketing campaign effort, enabling the organization to take advantage of the marketing design and strategy expertise that is provided by a central team of marketing specialists, as well as the familiarity field marketers have with their personal contacts.

### **Corporate marketer's role in a Corporate Campaign**

Using Collaborate, corporate marketers present the following to field marketers:

- The campaign marketing initiative, in the form of marketing messages and other materials
- The portions of a proposed target list that are assigned to each field marketer

### **Field marketer's role in a Corporate Campaign**

Field marketers participate in specific Corporate Campaigns. Optionally, you can use the Subscription feature to manage field marketers' participation in Corporate Campaigns. Participating field marketers review their portions of the proposed target list and provide input to corporate marketers about whom to add or delete from the campaign. After each



field marketer provides final feedback on their portion of the list, the corporate office fulfills the campaign.

## Examples

The following examples illustrate situations in which field marketers decide which customers to include in a Corporate Campaign:

- One field marketer may decide that a particular corporate initiative is not appropriate for some of their assigned customers and removes those customers from the proposed target list.
- Another field marketer may not have enough resources to handle the demand that is generated by the corporate initiative. In this case, the field marketer decides to remove some customers from the proposed target list.
- Another field marketer may want to include customers that are not originally targeted by the corporate marketing campaign, and adds them to the proposed target list.

## How Corporate Campaigns link to campaigns in Campaign

You create a Corporate Campaign in Collaborate. Then, through the Corporate Campaign user interface, you create a linked campaign in Campaign.

The values of the following attributes of the campaign that is created in Campaign match the values in the Corporate Campaign you created in Collaborate:


- Campaign name
- Campaign code
- Target start and end dates
- Any custom fields that are assigned in the data mapping between Collaborate and Campaign.

## Matching campaign codes

Corporate marketers must ensure that the Corporate Campaign code matches that of the campaign in Campaign.

Corporate Campaign template designers can create the templates so that these two codes match automatically when:

1. Corporate marketers create the Corporate Campaign before they create the linked campaign in Campaign.
2. Corporate marketers use Collaborate to initially create the linked campaign in Campaign.

 **Note:** In order for corporate marketers to create linked campaigns, the corporate template developer must map the data between Campaign and Collaborate.

## Corporate Campaign workflow

The workflow for a Corporate Campaign includes designing the campaign, creating a proposed target list, and incorporating field marketer feedback.

Corporate and field marketers typically work on Corporate Campaigns as follows:

1. Corporate marketers design the corporate marketing campaign.
2. Corporate marketers create a Corporate Campaign in Collaborate.
3. Using the optional Subscription workflow task, corporate marketers invite appropriate field marketers to subscribe to the Corporate Campaign.
4. Field marketers subscribe to the Corporate Campaign.
5. Corporate marketers create the proposed target list for the campaign.
6. Corporate marketers notify field marketers of the availability of the List.
7. Field marketers review the Corporate Campaign and provide feedback to corporate marketers on the target list.
8. Corporate marketers can check field marketer review status.
9. Corporate marketers incorporate field marketer feedback to generate the final target list.

10. Field marketers optionally analyze campaign success.

## Example flow for creating a Corporate Campaign target list

Corporate marketers generate a proposed target list that field marketers review and revise. Then, the corporate marketer generates the final target list.

In this example, the corporation is a financial institution. A corporate marketer is introducing a new financial product and expects marketing decision feedback from a team of field marketers.

### **The corporate marketer generates a proposed target list**

After you design a marketing campaign for the new financial product, the corporate marketer selects customers from the corporate database who are appropriate recipients of this campaign.

The corporate marketer may use the optional Subscription task in the workflow to invite the appropriate field marketers to participate in the Corporate Campaign.

If the corporate marketer does not use the Subscription task, all field marketers who have access to any records in the original target list (as defined by Data Level Filters) are invited to participate in the Corporate Campaign through its Field Marketer Notify task. If there are no data level filters, all field marketers are automatically invited to participate in the Corporate Campaign, and they receive notifications to review of the target list.

### **Field marketers review the proposed target list**

Field marketers subscribe to the Corporate Campaign. They then review their portions of the target list.

Field marketer target assignments are made through the corporate database. For this example, assume the following target assignments for two field marketers within the same corporation:

- Field\_Marketer\_1 is responsible for target\_FM11 and target\_FM12.
- Field\_Marketer\_2 is responsible for trget\_FM21, target\_FM22, and target\_FM23.

Field marketers can view only those target customers that are assigned to them from a Corporate Campaign, as defined through data level filters.

In this example, the following occurs:

- Field\_Marketer\_1 accepts both of their target customers on the proposed list.
- Field\_Marketer\_2 declines all of their target customers on the proposed list because of business constraints.
- Both field marketers finalize their customer selection for the Corporate Campaign.
- Final customer selections that are made by the field marketers are recorded in the database that is used by Campaign.

### **The corporate marketer generates the final target list**

After the field marketers review the proposed customers and make their final decisions, the corporate marketer generates a final target list that incorporates field marketer feedback.

When they are satisfied that the list review is complete, they can click **Verify and Lock**, and mark the Review List task as complete in the workflow, to enable the Fulfillment tasks to begin.

# Chapter 4. Corporate Campaign tasks

The goal of a Corporate Campaign is to target customers that local field marketers approved.

To reach the fulfillment of the Corporate Campaign, corporate marketers perform the following tasks:

1. [Create Corporate Campaigns \(on page 30\)](#).
2. [Assign and invite people to a Corporate Campaign \(on page 31\)](#).
3. [Link a Corporate Campaign to Unica Campaign \(on page 36\)](#).
4. [Generate a target list from the flowchart \(on page 37\)](#).
5. [Submitting the target list to field marketers \(on page 38\)](#).
6. [Checking the validation status for target lists \(on page 39\)](#).
7. [Fulfill the Corporate Campaign \(on page 40\)](#).

## Create Corporate Campaigns

Corporate marketers create Corporate Campaigns with a wizard that guides them through the required steps.

In the first step, corporate marketers select a Corporate Campaign template on which the new Corporate Campaign is based. The template should have the required tabs, workflow, people, and other settings for the Corporate Campaign. Corporate marketers can then modify the Corporate Campaign as necessary.

### Required information

The following information is required when you create a Corporate Campaign:

- Target start date
- Target end date
- Corporate Campaign code, which you can generate automatically

## Post-creation tasks

After you create the Corporate Campaign, corporate marketers can do the following tasks.

- Attach campaign messages or other information about the initiative.
- Assign participants to the Corporate Campaign.

## Creating a Corporate Campaign

You can create a Corporate Campaign by selecting a template and following the steps of the Wizard.

1. From the **Local Marketing** menu, select **Corporate Campaigns**.

2. Click the **Add** icon (.

The Select a Corporate Campaign Template dialog box opens. Templates are listed on the left. If you select a template, information about that template appears on the right.

3. Select a template from the list on the left, and click **Continue**.

4. Continue through the Wizard pages, entering all required information, and optional information as needed.

5. Click **Finish** after you enter the necessary information.

The new Corporate Campaign is saved.

You can modify the Corporate Campaign as necessary now.

## Assign and invite people to a Corporate Campaign

You can manually assign users to participate in a Corporate Campaign and automate the invitation process.

## Manually assigning users to a Corporate Campaign

You can manually assign users as participants in a Corporate Campaign in either of these ways:

- When you create a Corporate Campaign, you can select participants through the Corporate Campaign wizard.

Assigning field marketers to the Corporate Campaign is automated through the Notify Field Marketer task in the workflow.


- You can view and assign Corporate Campaign participants from the People tab of a Corporate Campaign after you create the Corporate Campaign.

You can assign participants as individuals, or by role. When you assign participants by role, you can assign an entire group of field marketers to participate in a Corporate Campaign at once.

## Automatically inviting field marketers to a Corporate Campaign

You can automate the field marketer invitation process by using one of two tasks in the Corporate Campaign workflow:

- Notify Field Marketer task
- Subscription task

 **Note:** If you are manually inviting field marketers, ensure that you do not include these tasks in Corporate Campaign workflow, so that field marketers do not receive automatic invitations.

## People tab


Each Corporate Campaign contains its own People tab.

Use this screen to do the following activities.

- Manage the members of a Corporate Campaign.
- Edit the access level for a member.

- Replace a person in a role when a team member user becomes unavailable.
- Add or remove a role.
- Track team members or request recipients who are out of the office, their delegates, and start dates. (Displays for project or request owners only.)

A Corporate Campaign template can contain information about the functional roles for the project. A template can reduce some of the work necessary to assign people or teams to units of work within the Corporate Campaign.

 **Note:** By default, the People tab is available only for Corporate Campaigns. For information about making it available for Lists or On-demand Campaigns, see the *Collaborate Administrator's Guide*.

## Managing Corporate Campaign members

Use the **People** tab of the Corporate Campaign to manage team members.

To manage Corporate Campaign members, complete the following steps.

1. Click **Edit Member/Role Settings** icon (  ). **Members**.

The **Select Team Members** dialog box opens.

2. Do any of the following options:
  - To add a person or team, select the name from the left pane of the dialog, and click **>>**.
  - To remove a person or team, select the name in the **Select Team Members** list box and click **<<**.
  - To change the role for a person or team, select the name in the **Select Team Members** list box then click **Up** and **Down** to move it to the required role.

 **Note:** You cannot remove a user or team that is assigned to a task.

3. Click **Save Changes**.



The **Select Team Members** dialog box closes. The **People** tab becomes the active window.


The changes that you make are reflected in the list of people and roles. For example, if you added a creative lead, the screen would contain a line similar to the following example:

Member/Access Level	Role	Email Address
P Picasso (participant)	Creative Lead	ppicasso@mycompany.com

## Selecting team members for a Corporate Campaign

You can select other Collaborate users to participate in the Corporate Campaign.

You can assign participants as individuals, or by role. When you assign participants by role, you can assign an entire group of field marketers to participate in a Corporate Campaign at one time.

1. Open the Corporate Campaign.
2. Open the **People** tab.
3. Click the **Edit Member/Role Settings** icon ().

The Select Team Members dialog box opens.

4. To assign team members by role:
  - a. In the upper left of the dialog box, click **Roles**.
  - b. Select roles to assign to the Corporate Campaign from the list on the left.
  - c. Click the right-pointing arrow button to move the selected roles to the Selected Team Members list on the right.
5. To assign individual users:
  - a. In the upper left of the dialog box, click **Folders**.

- b. Expand the folder entries and select individuals to assign to the Corporate Campaign from the list on the left.
- c. Click the right-pointing arrow button to move the selected users to the Selected Team Members list on the right.


6. Click **Save Changes**.

You can now assign work for the Corporate Campaign by role.

## Editing Corporate Campaign member access levels

You can control the access level other Collaborate users have to the Corporate Campaign.

You can specify whether users are Owners or Participants of the Corporate Campaign. The specific privileges of Owners and Participants are determined by the user permissions that are defined by the Collaborate administrator.

1. Open the Corporate Campaign.
2. Open the **People** tab.
3. Click the **Edit Member/Role Settings** icon ().

The Select Team Members dialog box opens.

4. To add users:
  - a. Expand the folder entries and select individuals to assign to the Corporate Campaign from the list on the left.
  - b. Click the right-pointing arrow button to move the selected users to the Selected Team Members list on the right.
5. To make a user an owner of the Corporate Campaign:
  - a. In the Selected Team Members list, select the user.
  - b. Click **Up**.

Repeat this step until the user appears under **Owner** in the list.

6. To make a user a participant in the Corporate Campaign:

- a. In the Selected Team Members list, select the user.
- b. Click **Down**.

Repeat this step until the user appears under **Participant** in the list.

7. Click **Save Changes**.

## Link a Corporate Campaign to Unica Campaign

After you create a Corporate Campaign and assign members, you must create a campaign in Campaign that is linked to the Corporate Campaign.

You must link a Corporate Campaign to a campaign in Campaign so that flowchart run tasks in the workflow of a Corporate Campaign can execute flowcharts that are part of the campaign.

You can create a linked campaign directly from Collaborate. After you do this, you can create and run the flowchart for the linked campaign in Campaign.

After you link a campaign in Campaign to a Corporate Campaign, you can open the campaign in Campaign from the Corporate Campaign.

## Creating a campaign linked to a Corporate Campaign

You can create a campaign that is linked to a Corporate Campaign in Campaign while you work directly with a Corporate Campaign.

1. Open the Corporate Campaign.

2. In the Summary tab, click the **Create a Linked Campaign** icon ().

3. From the icon's drop-down list, select **Create a Linked Campaign**.

The linked campaign is created in Campaign.

## Accessing a Corporate Campaign from Campaign

If you are working on a campaign in Campaign, you can open a Corporate Campaign.

1. Open the **Summary** tab of the campaign.
2. Click the Collaborate link in the form of the tab.

The **Summary** page of the Corporate Campaign opens.

## Generate a target list from the flowchart

After you create a Corporate Campaign and link it to a campaign in Campaign with the same ID, you must create and publish the campaign flowchart in Campaign to generate the list of proposed targets for the Corporate Campaign.

## Opening a linked campaign in Campaign

The **Implementation** icon shows you the summary page of the campaign.

Click the **Implementation** icon in the form of a tab of the **Corporate Campaign** page.

The **Summary** page of the campaign in Campaign opens.

## Creating and running the flowchart for the linked campaign

From the Flowchart tab for the linked campaign, you can create a flowchart with the same name and run the flowchart.

1. In Campaign, select the **Flowchart** tab for the linked campaign.
2. Create the flowchart with the same name as defined in the Corporate Campaign workflow to select the target list according to your corporate campaign strategy.
3. Publish the flowchart.

You can now confirm the target start and end dates and start the Corporate Campaign.

## Submitting the target list to field marketers

You can notify field marketers that you are distributing the target list for them to review their portion.


You can use the field marketer notification feature to notify participant field marketers who are responsible for targets on the list.

### Notifying field marketers

Note the following about notifying field marketers to review a proposed target list for a Corporate Campaign:

- You must first generate the proposed target list.
- You must be the Corporate Campaign owner.
- Only field marketers responsible for targets on the proposed target list are notified.
- Each field marketer who is responsible for targets in the list receives a personalized message you type, along with a message similar to the following.

```
The campaign Name has just started. You have until Date to validate  
the list content.
```

 **Note:** A field marketer becomes responsible for target records through data level filters. If data level filters are not defined, then all field marketers are notified during the execution of the Notify Field Marketer system task.

### Notifying field marketers to review a proposed target list using notifications

You can use notifications to alert field marketers to review the Corporate Campaign proposed target list.

1. Open the Summary tab of the Corporate Campaign.
2. Click **Notify the Field Marketers**.

 **Note:** This task depends on a List Generation task.

3. **Optional:** Select a role to assign the Corporate Campaign review to a group of field marketers.
4. Type a personalized message.
5. Click **OK**.

## Checking the validation status for target lists

You can check the review status for a Corporate Campaign to see that participating field marketers made final decisions on the proposed target list before you generate the final target list.

## Checking the validation status for Corporate Campaign lists

You can check the validation status for Corporate Campaign lists by viewing the data.

1. Open the Summary tab of the Corporate Campaign.
2. Open the Analysis tab.
3. View the validation data.

The work of each field marketer is complete when the status of all records is Validated or Added.

## Fulfill the Corporate Campaign

After your participating field marketers finalize selections for the proposed target list, the field marketers' choices are recorded in the `uacc_corporate_lists` table in the Campaign database.

In this table:

- Records with a value of `A` in the status column were added by field marketers.
- Records with a value of `V` in the status column were validated by field marketers. Validated records are accepted in the target list, and locked.

The final stage of the Corporate Campaign consists of running the campaign to deliver the offer to the final targets through a selected channel such as mail or email.

You fulfill the Corporate Campaign by running the fulfillment flowchart in Campaign.

## Selecting the finalized list for the new flowchart

1. Open the linked campaign in Campaign.
2. Create a flowchart.
3. Select target records from the `uacc_corporate_lists` database table for which the status is `A` (for added records) or `V` (for validated (accepted and locked) records from the original list).
4. Complete the flowchart with any required exclusion rules with processes for any of the following.
  - Generating targets
  - Generating output data
  - Response tracking

## Fulfilling a Corporate Campaign

To fulfill a Corporate Campaign, you must set the dates for the campaign and run it.

1. In the workflow for the Corporate Campaign, create the flowchart run task.
2. In Campaign, create and publish the flowchart.
3. Set the dates for the Corporate Campaign and run it.



# Chapter 5. Corporate Campaigns and field marketers

When a corporate marketer uses the Subscription task in the workflow for a Corporate Campaign, invited field marketers choose whether to subscribe to the Corporate Campaign.

When field marketers subscribe to a Corporate Campaign, they provide corporate marketers with recommendations about which target customers to include in the campaign or wave.

By using field marketer recommendations, central marketing teams can run programs on behalf of some or all of their field marketing teams, while they allow field marketers to provide input about specific individuals to contact.

## **Multi-wave Corporate Campaigns and field marketers**

When a Corporate Campaign contains multiple waves, and uses the Subscription system task in the workflow, invited field marketers choose which waves to subscribe to. A field marketer can subscribe to any subset of waves in the Corporate Campaign.

## Field marketer access to Corporate Campaigns

By default, only corporate marketers are authorized to create and modify all aspects of Corporate Campaigns. As a field marketer, you can view Corporate Campaigns to which you subscribed.

You can view proposed target customers that are assigned to you. You cannot view target customers that are assigned to other field marketers.

You can typically perform the following tasks:

- View the Corporate Campaign summary.
- View any attachments included with the Corporate Campaign.
- Review, accept, add, or remove target customers from the proposed target list.
- Finalize your portion of the proposed target list.
- View the calendar to see the Corporate Campaign schedule.

For more information about your access privileges, see you administrator.

## Corporate Campaign proposed target lists

The proposed target list for a corporate marketing campaign is the initial list of customers for whom the campaign is intended when the campaign is first designed by a corporate marketer.

These customers are associated with field marketers in the corporate database; for example, the associations may be based on the customer's region.

Field marketers are assigned those proposed target customers in a Corporate Campaign to whom they are associated. They must then review those customers and decide on the final list for the Corporate Campaign.

Field marketers can:

- Accept or decline each customer.
- Add target customers to the list of proposed customers.
- Finalize the target list for the Corporate Campaign.

## Corporate Campaign proposed target lists review

There are several tasks field marketers can perform for Corporate Campaigns.

Field marketers typically perform the following tasks for Corporate Campaigns to which they are subscribed:

- Review Corporate Campaign status information and other data in the **Corporate Campaign Summary** page.
- Review attachments to the Corporate Campaign.

Corporate marketers may include attachments to provide field marketers with information that is relevant to the Corporate Campaign. For example, an attachment may contain marketing messages.

- Review their portion of the proposed target list.

- Provide the corporate marketer with recommendations for modifications to the proposed target customer list.

Note the following:

- The changes field marketers make to the proposed target customer list are stored in the corporate database; corporate marketers access the changes there.
- When field marketers finalize their portions of the proposed target list, target customer review data status is updated in a database table.

## Adding customers to a Corporate Campaign

Field marketers can add target customers to a proposed list for a Corporate Campaign to which they subscribe.

Corporate marketers may propose that the list targets previous customers, for example, while field marketers have new target customers in mind. Field marketers can filter their lists of personal contacts to select target customers to add.


When field marketers add customers to the proposed list for a corporate marketing campaign, they can select a set of customers with specific characteristics. For example, corporate marketers can allow field marketers to select from the following criteria when adding customers to a proposed list:

- Name
- Age
- Income range

## Making permanent additions and deletions to a list

When you work with a recurring workflow, you might be tasked with several list review steps within the course of a single Corporate Campaign.

If wanted, you can make permanent additions or deletions from the list; these additions or deletions remain in effect for all future occurrences of the List Review task.

 **Note:** The ability to make permanent additions or deletions to a contact list is controlled by the Review List task in the Corporate Campaign workflow. If this option is not selected for a List Review task, you are not able to add or delete contacts permanently in the corresponding list.

## When to add or remove contacts permanently

You should make permanent additions or deletions to a list when the following statements are true:

- You are using a recurring workflow.
- The recurring workflow includes several List Review tasks.
- You know that the list as generated is incomplete; you need to add or delete contacts. You want these additions and deletions to remain in effect for each future occurrence of the recurring campaign.

## Reviewing proposed target customers for a Corporate Campaign

When you participate in a Corporate Campaign, you must review the proposed target customers for that campaign.

When you are presented with a proposed list of target customers for review, you must either accept or decline each customer before you can finalize your target list selections for the corporate campaign.

You can accept or decline proposed target customers individually, or all at one time. You can also add one or more of your customers to the proposed list.

In recurring Corporate Campaigns, if you are allowed to do so by the campaign creator, you can add to or exclude contacts from a list for each recurrence of the workflow. When you add or remove contacts in this way, the changes you make remain in effect throughout all list review tasks within the recurring workflow. If you are not allowed this option, you can modify only the target list for the current occurrence of the workflow.

1. Open the Corporate Campaign.


2. In the **Summary** page, click **Waiting items**.

The **Contact to Validate** page opens.

3. Accept or decline customers as needed.

- To accept all proposed customers, click **Accept All Records**.
- To decline all proposed customers, click **Decline All Records**.
- To accept specific customers only, check the **Accept** column in the rows for those customers.
- To decline specific customers only, check the **Decline** column in the rows for those customers.
- To decline specific customers permanently, check the **Dec. Perm.** column in the rows for those customers.
- To add customers:
  - a. Click **Search and Add Records**.

Records added using this link get added to the **Newly Added by Field Marketer** list.

 **Note:** This link is not available on the list manager screen for **Declined Records**.

- b. Select one or more target list filtering criteria from the options that are presented on the form, then click **Search**.

The target records resulting from your search are displayed.


- c. Check one or more of the customer records to add to the target list.
- d. Click **Accept Selected**.


If you selected to add or delete contacts permanently, a message opens asking whether you want to add the contacts permanently for recurring campaigns.

- e. Click **OK** to make the additions permanent.

Or click **Cancel** to make the additions apply to the current occurrence only.

4. **Optional:** Check **After the next save, consider my review complete** to validate and lock this list when you save changes.

 **Note:** If you do not check this option, any customer records that you do not accept or decline are displayed when you next review the target contacts.

 **Note:** Added contacts do not display until you close the window and click **Newly added by Field Marketer**.

5. Click **Save** to save changes and complete your review of the proposed target list.

Accepted and removed contacts disappear from the list, and are only viewable in the Accepted/removed lists page.

### Viewing or accepting previously declined targets

You can view previously declined target customers before you finalize your portion of the proposed target list, and, if wanted, accept those customers.

1. Open the Corporate Campaign for which you declined target customers on the proposed list.
2. Click **View Declined**.
3. You can accept any declined target customers from this list by checking the customer entries under the **Accept** column.

You can also select **Accept All Records** or **Set All Records to Review** to accept or review all the previously declined records.

Those customers are now included in the list.

You must now finalize the list.

### Viewing or declining previously accepted targets

You can view previously accepted target customers before you finalize your portion of the proposed target list, and, if wanted, decline those customers.

1. Open the Corporate Campaign for which you accepted target customers on the proposed list.
2. Click **View Accepted**.
3. You can decline any accepted target customers from this list by checking the customer entries under the **Decline** column.

You can also select **Decline All Records** or **Set All Records to Review** to decline or review all the previously accepted records.

Those customers are now removed from the list.

You must now finalize the list.

### Viewing or removing added targets

You can view previously added target customers before you finalize the proposed target list. You can also remove previously added target customers.

1. Open the Corporate Campaign for which you added customers to the proposed list.
2. Click **View Additions**.
3. You can remove any added target customers from the list by checking the customers under the **Remove** column.

You can also select **Decline All Records** to decline all the previously accepted records.

Those customers are now removed from the list.

You must now finalize the list.


### Finalizing your portion of a Corporate Campaign target list

You can finalize the proposed target list for a Corporate Campaign by validating and locking the target list.

You can finalize the proposed target list after you have:

- Reviewed the proposed target list.
- Accepted or declined each customer in the proposed target list.
- Optionally, added target customers to the proposed list.

1. Open the Corporate Campaign.
2. In the **Summary** page, click **Validate and lock list**.

 **Note:** You cannot reverse this action.

The list is now finalized.



# Chapter 6. Subscriptions

A subscription is the invitation to a field marketer to include their territory in a Corporate Campaign, or a wave of a multi-wave Corporate Campaign.

Through subscriptions, field marketers can control which Corporate Campaigns and waves, and potentially which territories within a campaign or wave, they participate in.

In addition, supervisors can control the Corporate Campaigns or waves their staffs participate in. When a supervisor subscribes to a Corporate Campaign, field marketers that are under the supervisor in a defined territory hierarchy are also subscribed to the campaign. For example, if the territory supervisor for New England subscribes to a corporate campaign, the state manager for Vermont also participates in the campaign.

## **Subscriptions and data level filters**

Subscriptions can be used in combination with data level filters to control both what data is included in the generated list of customers for a Campaign, and who is invited to review the list of customers that is generated.

## **Example**

If MA\_FM is the field marketer for Massachusetts (MA), you can use a state-level subscription to invite MA\_FM to include or exclude Massachusetts customers from the Corporate Campaign contact list. If MA\_FM accepts the invitation, MA customers are on the contact review list. Using data level filters, MA\_FM can also be configured to see only MA customers, thus limiting their view to those customers of interest to them. When data level filters are present, only Field Marketers who have data of interest on the generated list are invited by the Notify Field Marketer system task.

Subscriptions can operate at multiple levels. So for example, NE\_FM might be the Northeast Regional FM who supervises the state field marketers in their region, which might include Massachusetts. The corporate marketer can invite regional field marketers to subscribe for their region.

If NE\_FM is invited to subscribe, they can accept or decline. If they accept, data for all customers in their region are included in the list generation. So continuing the example

above, data for Massachusetts's customers would be included in the list. In this case, the MA\_FM has no control over whether MA data is included, because the subscription invitation is issued at the region level. However, if the data level filters are configured to allow MA\_FM to see MA customers, MA\_FM is invited to review the MA customers when the Corporate Campaign contact list is generated.

## Defining territories

To support subscriptions, the administrator must define a territory hierarchy on the Collaborate server. For more information, see the Collaborate Administrator's Guide.

## The Subscription task in a Corporate Campaign workflow

Corporate marketers enable subscriptions by adding the Subscription task to the Corporate Campaign workflow or to each occurrence in a recurring workflow.

By defining Subscriptions tasks in workflows, as opposed to the Corporate Campaign as a whole, you enable field marketers to subscribe to individual waves, drops, and lots of recurring Corporate Campaigns.

The Subscription task is a system task and starts and stops automatically according to its target start and end dates.

## The Subscription task and territories

Subscription invitations are sent to field marketers based on their associated territories.

Territories are defined in a hierarchical relationship. For example, a typical hierarchy would be:

```
Country
  Region
    State
```

In this scenario, there could be a Country manager for each country, under which there would be several region managers for the regions in the country. Under each region manager, there would be managers for each state in the region.

When a corporate marketer configures the Subscription task, they specify the following.

1. Selection Level
2. List of Territories
3. Subscription Level

## Selection Levels

The Selection Level in a Subscription task filters territories and subscription levels that are available to the corporate marketer.

All levels of the defined territory hierarchy are available values for the Selection Level.

For example, the corporate marketer might select one of the following.

- **Country**, in this case the top level in the territory hierarchy. These countries, for example the United States, France, and Germany among others, become the options in the **List of Territories** field.
- **Region**, the second level in the territory hierarchy. Each country contains multiple regions; each region contains multiple states.
- **State**, the bottom level in the territory hierarchy. Each state is grouped under a region.

## List of Territories

The Selection Level determines the territories that appear as options in the **List of Territories** field.

All territories that are defined at the selected level are shown.

For example, if you select Region as the Selection Level, all regions, from all countries, are listed as options in the **List of Territories** field.

You must select one or more of the territories listed.

## Subscription Levels

The Subscription Level is the level in the hierarchy for which users receive subscription invitations.

The Subscription Level can be at the level of the Selection Level, or beneath that level, but not above that level. For example:

If you select Region as the Selection Level, you can select Region or State as the Subscription Level:

- If you select Region, regional managers for the regions you select in the **List of Territories** field receive a subscription invitation.
- If you select State, state managers for the states *within* the regions you select in the **List of Territories** field receive a subscription invitation.
- You cannot select Country as the Subscription Level, as it is a higher level than the Selection Level.

## Subscription example

A corporate marketer can specify a country or region for a Subscription task.

A corporate marketer may specify that for a Subscription task:

1. The Selection Level is Country.
2. The List of Territories is the United States
3. The Subscription Level is State

When this Corporate Campaign starts, each user that is designated as a state manager for a state within the United States receives an invitation to subscribe to the Corporate Campaign.

The corporate marketer might instead set the Subscription Level to Region. In this case, each user that is designated as a region manager receives an invitation to subscribe to the Corporate Campaign. State managers, lower in the territory hierarchy than region managers, do not receive the invitation. However, if the region manager subscribes to the Corporate Campaign, managers of states within that region also participate in the Corporate Campaign.

## Subscriptions and user variables

When a Corporate Campaign has a Subscription system task that is linked to a Flowchart Run system task, the Flowchart Run system task needs to have an associated flowchart that makes use of the subscription response information. You do this by defining a user variable in the flowchart called `SubscriptionList`. This user variable can then be used in a query such as the following:

```
Contact_Info.State IN (UserVar.SubscriptionList)
```

When the flowchart is run from Collaborate, the list of states or regions that are subscribed is sent as a parameter to Campaign, and the query above is run as something like:

```
Contact_info.state in ('MA', 'VT')
```

## How territories, hierarchies, and user associations are defined

The Collaborate administrator defines the territories, hierarchical relationships, and territory managers by loading an XML file on the Collaborate server.

For more information, see the Collaborate Administrator's Guide.

# Chapter 7. Workflows

To help you complete different workflow-related efforts, the **Workflow** tab offers different view modes and an edit mode.

To record and track the tasks that need to be completed during a project, you add information to the project Workflow tab. Project managers add tasks, organize them into stages, and identify dependencies, personnel, and other related information. Project participants update task status and scheduling data, add attachments.

You can manage tasks that are associated with an Advanced List, On-demand Campaign, or Corporate Campaign. The Workflow tab provides a spreadsheet on which you can list all tasks. You can assign dates and team members to each task.

When a project manager creates a Corporate Campaign, On-demand Campaign, or Advanced List, the selected template can provide an initial workflow. The project manager can then use the Workflow tab to customize the workflow that is provided by the template to meet specific needs.

Team members that are assigned to a Corporate Campaign, On-demand Campaign, or Advanced List use the Workflow tab to track their work. Any team member that is involved in the Advanced List, On-demand Campaign, or Corporate Campaign (with the appropriate access permission) can edit any value on the Workflow tab.

## Workflow concepts

Workflows organize the tasks, stages, and milestones for each project. Workflows measure the time that is spent on each part of the project and the people who are assigned to work on it.

### Tasks

Tasks are steps in the workflow where a user or the system acts. The task is not complete until the action is complete.

## Stages

You can group tasks together under headings called stages. Stages can help you with task organization. For example, you can create a stage that has all tasks your field marketers-specific users do. In spreadsheet view mode or edit mode, stages are the headings in bold that group the tasks together.

## Milestones

You can identify workflow tasks as milestones for your project. Example milestones include Job Start, Meeting, and Event.

## Dates

Workflows contain the following types of dates.

- **Forecast/Actual dates** begin as forecast dates: future dates when a task owner plans on starting and completing a task. These dates are specified while the task is still pending. When a team member starts and completes a task, the same dates can be used or different dates that are supplied as the actual dates.

**Actual** dates specify when tasks start and finish.

- **Target dates** are dates that are used to plan the project schedule. Typically, they are set at the beginning of the project.
- **Anchored dates** are fixed dates that cannot change, even if the dates of the tasks upon which they are dependent change.
- **Non-work time** represents dates when people do not work, so the system skips those dates when it calculates durations for tasks. Collaborate currently supports system-wide non-work time that applies to all tasks. It is up to the project manager, On-demand Campaign, or Corporate Campaign manager to determine whether overriding any of these dates is necessary. System administrators enter and maintain these dates.
- **Weekend dates** are dates that you use to specify work that occurs on a weekend on a per-task basis. You can schedule work on a weekend date by using the Schedule Through option for each task.

## Duration

Duration is the actual number of days that are assigned to a task. When you assign start and end dates, the system automatically calculates the difference between the forecast or actual start date, and the forecast or actual end date for a task. The actual number of days between the start and end dates equals the duration of the task.

You can assign duration by using any non-negative number. For example, you can use 0.25 to assign a quarter of a day for the task duration.

Duration is the actual number of days that are assigned to a task. The duration control is in a DD-HH-MM format. You can enter up to 999 days value for the DD field, your applicable business hours that are based on the beginningOfDay and numberOfHoursPerDay configuration settings for the HH field, and a value in 30-minute intervals for the MM field.

## Effort

The work effort in days (as opposed to duration) that it takes a user to complete a task. For example, a task takes three calendar days to complete, but the task owner spends only half a day on the task for each of the three days. In this case, the effort for the task is one and a half days even though the duration is three days.

## Locked tasks

When you edit a task, the task is locked so no other user can edit it at the same time.

## People and roles

You can assign tasks to individual team members or you can assign tasks to all team members in each role. When you assign a task to one or more team members, they are considered to be task owners. You assign roles to team members on the People tab of the List, On-demand Campaign, or Corporate Campaign.project.


Workflows use the following concepts to identify people in the workflow.

- **Task owners** are the people responsible for running or managing workflow tasks.
- **Roles** are used as a bridge between tasks and people. They are useful for assigning work on a generic basis. For example, each type of project you create can have its own



workflow template, and the template can contain standard roles for certain tasks. Then, when you create a project, some (or all) of the tasks have a default role that is already associated with them.

- **Roles** are used as a bridge between tasks and people. When a role is assigned to a task in a List, On-demand Campaign or Corporate Campaign, all users that are associated with that role are owners of the task. Templates can contain roles for certain tasks. Then, when you create a List, On-demand Campaign or Corporate Campaign, some (or all) of the tasks have a default role that is already associated with them.


 **Note:** Each workflow might contain users from different timezones. You chose whether Collaborate displays the timezone after the time stamps on the workflow and workflow columns.

## System tasks

System tasks are workflow tasks that start automatically, based on a combination of start date and completion of tasks on which they are dependent.

You can create these types of system tasks:

- Subscription
- Flowchart Run
- Notify Field Marketers
- List Review
- Recurrence

 **Note:** When you pause a workflow, system tasks that are scheduled during the time the workflow is paused do not run until the workflow resumes.

## Subscription system task

A Subscription system task allows you to have field marketers subscribe to, and participate in, a Corporate Campaign.

The Subscription system task is only used in Corporate Campaigns.

A Subscription system task starts and finished automatically, according to the target start and end date. You can also mark it complete manually.

## Flowchart Run system task

A Flowchart Run system task allows you to specify a flowchart that should run at a particular place in the workflow.

When you create a Flowchart Run system task, you specify one of the following:

- For corporate marketers that are working with Corporate Campaigns, the name of the flowchart in the linked campaign (in Campaign) in the workflow.
- For field marketers that are working with On-demand Campaigns and Lists, the name of the tab that is associated with the flowchart in the On-demand Campaign or List that you want to use to gather data.

When Collaborate runs a Flowchart Run system task, flowchart run is started in Campaign.

Flowchart Run system tasks start and finish automatically when there is a matching flowchart in Campaign, when the target start date is reached and when all tasks it depends on are finished; you do not need to manually start or stop a Flowchart Run system task. The % **Complete** field completes automatically as the task proceeds.

### **Flowchart Run tasks with no assigned flowchart**

The icon for the Flowchart Run system task displays red when no known flowchart is assigned to the task. After you assign a flowchart, the color of the icon changes to black.

### **Flowchart Run tasks and Corporate Campaigns**

For Corporate Campaigns, for the Flowchart Run system task to run correctly, you must save and publish the flowchart of the linked campaign in Campaign.


## Notify Field Marketers system task

The Notify Field Marketers system task allows you to include automatic notification to Field Marketers within the workflow.

This type of system task is used only with Corporate Campaigns.

When a Notify Field Marketers system task starts, Collaborate sends notification to Field Marketers, informing them that contact lists are ready for their review. Collaborate also adds all selected Field Marketers to the People tab of the Corporate Campaign.


The Notify Field Marketers system task starts and finishes automatically; you do not need to manually start or stop a Notify Field Marketers system task. The % **Complete** field completes automatically as the task proceeds.

 **Note:** A Notify Field Marketers system task must depend on a Run Flowchart system task.

## List Review system task

The List Review system task allows you to identify time within the workflow during which Field Marketers review contact lists that result from a flowchart run.

Unlike any other Workflow Task, this task can be finished by a link present on Summary Tab of On-demand Campaign. Without going to workflow tab, you can finish this task directly from Summary Tab.

 **Note:** A List Review system task must depend on a Flowchart Run system task.

List Review system tasks start and finish automatically. You can manually finish a List Review system task when you are sure that all Field Marketers completed the review. After you manually finish the List Review task, the next dependent task (if any) in the workflow starts when its target start date is reached.

When the List Review is completed, manually or automatically, the List is locked to field marketers; field marketers can no longer change their portions of the List.

The two permissions, Update System Task status and Update all System Task, are applied to all Workflow System Tasks along with List Review Task. If these permissions are not granted, then a task cannot be completed from workflow along with List Review Task. List Review can be finished from the **Summary** tab of an On-demand Campaign by clicking **Finish List Review**, even if these security permissions are not granted in the Security Policy.


To specify the number of records to show, you can use the Limit List View option. In List Manager, only the number of records that are specified in the List Review Task are displayed.

If you use a third-party tool to create a list of IDs, you can import them by clicking **Import IDs**. From the **Import IDs** window, you can specify a **.csv** file that contains the customer IDs, the delimiter in the **.csv** file, and the audience level. The **.csv** file should include columns required to uniquely identify a customer based on an audience level. After you click **Import**, the List Manager data is updated with the new imported data to the newly added List. Data from the **.csv** that is a duplicate or is invalid is displayed.

The fields to limit additions are as follows:

- On list review pop-up for templates of On-demand Campaign, Corporate Campaign, and Advanced Lists.
- Corporate Campaign - it is displayed and editable for corporate marketers only. In the case of corporate campaigns, field marketers cannot access this pop-up that is based on security settings. Even if they are allowed access, they can view but cannot edit the settings.
- On-demand Campaigns and advanced lists - these fields are displayed but cannot be edited

If the value of Limit List View option is set to limit the number of records that can be viewed, then the field is automatically set to select the second radio button option with value set to "0." You get an explicit message that no records can be added when the list view is limited. If Unicode characters are present in the List code either by adding an ID prefix or entering manually, then you are not able to export a customer list from List Manager window.

 **Note:** User cannot set both number and percent. For example, to limit to 10% with a maximum of 100.

In the List Manager task, you can specify the available Display Formats. You can identify or filter by Audience Level. Only formats that are selected in the List Review Task are available.

### **List Review system tasks and recurring workflows**

In recurring On-demand Campaigns or Corporate Campaigns, you can enable permanent updates so that any additions or removals that take place during List Review are applied automatically in all occurrences.

### **List Review system tasks and multi-offer campaigns**

In multi-offer On-demand Campaigns or Corporate Campaigns, you can divide a list that is generated by a single Flowchart Run system task into several segments. The results of the Run Flowchart system task are presented as several Lists.

## **Recurrence system task**

Recurrence starts when predecessors are complete. It then recalculates previous dependent tasks that target the start date when these previous tasks are set.

The available recurrence types are Monthly, Weekly, Daily, and Hourly. Date and time calculations must apply to working hours and business days.


On the **Recurrence** tab, you are given the option to choose the Campaign Workflow Type (Nonrecurring or Recurring). After selecting the workflow type, you are able to choose Frequency and Time between occurrences.

There can be only one recurrence task in a sequence of dependant tasks. A control is made when saving the workflow.

### **Hourly recurrence**

For Template Run Flowchart Task Recurrence, you have the Ending option where you can choose No End or Total number of occurrences. You also choose Permissions to modify the recurrence in the instance (All options, No option, and All options but frequency). Run

Flowchart Task properties if the recurrence on task is chosen. You can also get a preview of the next occurrences.

 **Note:** All options allow you to turn from Not recurring to Recurring.

For Instances Run Flowchart Tasks, under the Recurrence tab, you have a start date to choose along with the Ending (no end, total number of occurrences, and end by).

## Creating a flowchart run task

You create a flowchart run task through the workflow spreadsheet.

1. In the workflow spreadsheet, in Edit view, select the row after which you want the Flowchart Run task to appear.

2. Click the **Add a Row** icon (  ).

3. Select **Flowchart Run**.

A new task row is added to the flowchart.

4. In the **Flowchart Name** column, perform one of the following tasks:

- For Corporate Campaigns, enter the name of the flowchart from your linked campaign.
- For On Demand Campaigns and Lists, select the name of the tab that runs the Campaign flowchart.

5. Complete the **Schedule Through, Target Start, Target End, Duration, and Member Role** fields as desired.

You can also change the name of the task.

6. Click **Save and Finish**.

If the workflow is part of a Corporate Campaign, you must save and publish the associated flowchart in Campaign.

## Creating a Notify Field Marketers system task

You can create a Notify Field Marketers system task through the workflow spreadsheet.

1. In the workflow spreadsheet, in Edit view, select the row after which you want the Flowchart Run task to appear.

2. Click the **Add a Row** icon (  ).

3. Select **Notify Field Marketers**.

A new task row is added to the flowchart.

4. Complete the **Schedule Through**, **Target Start**, **Target End**, **Duration**, and **Member Role** fields as desired.

You can also change the name of the task.

5. Make the new Notify Field Marketers system task dependent on a Run Flowchart system task.

6. Click **Save and Finish**.

## Creating a List Review system task

You can create a List Review system task through the workflow spreadsheet.

1. In the workflow spreadsheet, in Edit view, select the row after which you want the Flowchart Run task to appear.

2. Click the **Add a Row** icon (  ).

3. Select **List Review**.

A new task row is added to the flowchart.

4. Complete the **Schedule Through**, **Target Start**, **Target End**, **Duration**, and **Member Role** fields as desired.

You can also change the name of the task.

5. Make the new List Review system task dependent on a Run Flowchart system task.

6. Click **Save and Finish**.

7. If you are working on a multi-offer campaign:

- a. Click the name of the List Review system task.

The Task properties screen opens.

- b. In the **Segment Code** field, enter the name of the segment as it appears in the flowchart in your linked campaign.

- c. Click **Save and Return**.

You can now enable permanent updates to a list.

## Enabling permanent updates to a list

To enable permanent updates to a list, check the **Allow permanent updates** check box.

1. In the workflow spreadsheet, in Edit view, double-click the List Review system task that you want to change.


The Post Task dialog box opens.

2. Check the **Allow permanent updates** check box.

## Creating a Subscription task

You can create a Subscription task through the workflow spreadsheet.



1. In the workflow spreadsheet, in Edit view, select the row after which you want the Flowchart Run task to appear.
2. Click the **Add a Row** icon (  ).
3. Select **Subscription**.  
A new task row is added to the flowchart.
4. Complete the **Schedule Through, Target Start, Target End, Duration, and Member Role** fields as desired.  
You can also change the name of the task.
5. Click **Save and Finish**.

You must now configure the Subscription task.

At least one flowchart run task must depend on the subscription task. You must add the flowchart run task with this dependency.

## Configuring the Subscription task

When you configure the Subscription task, in addition to setting the target task dates, you set the subscription Selection Level, the List of Territories, and the Subscription Level.

Before you complete these instructions, you must create the Subscription task.

These settings determine which field marketers receive invitations to subscribe to the Corporate Campaign.

1. View the workflow spreadsheet, not in Edit mode.
2. Double-click the Subscription task.  
The Post Task dialog box opens.
3. Enter the **Target Start** and **Target End** dates as needed.

4. Select a **Selection Level**.
5. Select one or more territories in the **List of Territories** field.
6. Select a **Subscription Level**.
7. Click **Save and Finish**.

## Example of a Corporate Campaign workflow with system tasks

A typical workflow for a Corporate Campaign might include two flowcharts: one that initially selects a list of contacts, and another that fulfills the campaign after Field Marketers reviewed and approved the initial list.

### **Task 1: Subscription**

Task 1 is a Subscription system task. You configure a subscription task to invite relevant field marketers to participate in the Corporate Campaign.

### **Task 2: Flowchart Run**

Task 2 is a Flowchart Run system task. The Flowchart Name column identifies the name of the flowchart in the linked campaign (in Campaign) that should be run to complete this task. When task 2 runs, the flowchart Corporate Campaign Selection runs in the linked campaign in Campaign to create a list that Field Marketers should review. Task 2 starts and finishes automatically.

### **Task 3: Notify Field Marketers**

Task 3 is a Notify Field Marketers system task. This task notifies Field Marketers that the flowchart run is complete and a list is ready for their review. This task starts automatically when Task 2 completes. Task 3 also finishes automatically.

### **Task 4: List Review**

Task 4 is a List Review system task. This task identifies time within the workflow during which Field Marketers should be reviewing the list that is generated in Task 2. Task 4 starts automatically when Task 3 finishes and finishes automatically when its target end date is

reached; however, you can still manually finish the task when all Field Marketers complete their reviews.

### **Task 5: Flowchart Run**

Task 5 is a Flowchart Run system task. The Flowchart Name column identifies the name of the flowchart in the linked campaign (in Campaign) that should be run to complete this task. When task 5 runs, the flowchart Corporate Campaign Fulfillment runs in the linked campaign in Campaign This fulfillment flowchart creates the final list of contacts by using the results of the Field Marketer review that occurred in Task 4. Task 5 starts and finishes automatically.

### **Task 6: Recurrence**

Task 6 is a Recurrence system task. This task identifies how often a flowchart is run. Acceptable recurrences are hourly, daily, weekly, and monthly. By choosing All Options under Permissions, Field Marketers can turn recurrence from not recurring to recurring.

## **User tasks**

User tasks are workflow tasks that you define and that must be started manually.

You can add a user task to the workflow to accommodate the time necessary to develop creative material for the campaign, followed by a user task to approve the creatives.

Users must manually update the status and progress for user tasks.

## **Task status**


Each task in a workflow has a status, which is shown in the spreadsheet view.

You can also view and modify the status by clicking the task to open the Post Task dialog box.

The task status can be:

- Active

- Pending
- Finished
- Skipped

 **Important:** If you change the status of a task from Finished to Pending, you must change the percent complete value to 0%.

## Editing workflow spreadsheets

When you create a Corporate Campaign, Advanced List, or On-demand Campaign, a wizard that is based on the template you selected collects information. After you complete the wizard pages, you can customize the default workflow that is provided by the project template.

Before you can edit a workflow, the Advanced List, On-demand Campaign, or Corporate Campaign must not be in the **In Progress** state. If it is, you must pause it.

In addition to project templates, which can include workflow tasks and values, your installation can maintain a set of workflow templates. Workflow templates are template components that are independent from project templates. While a project is in the Not Started status, you can assess whether the workflow supplied by the project template is adequate or if a different workflow template provides a better starting point. For more information about workflow templates, see the Collaborate Administrator's Guide.

The ability to customize template-supplied workflows is controlled by your user permissions. If toolbar icons are unavailable or if values are read-only, you do not have the appropriate permissions to edit the workflow.

1. Open the new Advanced List, Corporate Campaign, or On-demand Campaign and click the **Workflow** tab.

The workflow displays as supplied by the template.

2. Click **Edit** ().

The spreadsheet displays in edit mode. For information about the options in this mode, see [Edit mode toolbar \(on page 108\)](#).

3. To replace all spreadsheet rows and values with data from a previously defined workflow template (if the project is in Not Started status), click **Tools > Import and save workflow**.

A warning that this procedure deletes the current workflow displays. Click **OK**, then select a workflow template and click **Import**.

4. To change default task and stage names to reflect your specific tasks and stages, click in the cells in first column to make your edits. You can also change task dependencies. For more information about dependencies, see [Task dependencies \(on page 95\)](#).

5. To add rows to the spreadsheet, click **Add a Row** (  ) and then select **User Task, one System Task, or Stage**.

For more information, see [Adding a stage or task \(on page 97\)](#).

6. To add a stage, click **Add a Row** icon (  ) and then select **Stage**.

7. Enter target or forecast/actual dates for the tasks, depending on how you want to use the schedule.

- You can enter a start date, end date, and duration for a task. If you enter any two of these values, the system calculates the third value automatically. For example, if you enter a target start and a target end date, the system calculates the duration.
- While the Schedule Through column indicates work days for a task, you can enter any date as a start or end date. For example, for a task that is not scheduled to include weekends you can still pick a Sunday as the end date.

8. To specify that a task is a milestone, such as a drop date, click the **Milestone Type** column and select a milestone from the list.

Your administrator sets the milestones options in this list.

9. Select members or roles to assign the task to in the **Members** and **Member Roles** columns .


For more information, see [Adding roles and members to tasks \(on page 71\)](#).

10. Make other selections and entries in the spreadsheet to reflect the workflow for your Advanced List, Corporate Campaign, or On-demand Campaign.
11. Enter any instructions or notes about a task in the **Notes** column.
12. Click **Save** to save your changes.
  - Click **Save and Finish** to save your changes and return to spreadsheet view mode.
  - Click **Save and Resume** to change the status to **In Progress** and return to spreadsheet view mode.
  - Click **Cancel** to undo any changes and return to view mode.

## Adding roles and members to tasks

When you create a Corporate Campaign, Advanced List, or On-demand Campaign, the workflow automatically includes member and reviewer roles for all tasks if the template you selected provides this information. However, you can edit workflow tasks to assign different roles.

To add roles and members to tasks, complete the following steps.

1. Navigate to the **Workflow** tab of your Corporate Campaign, Advanced List, or On-demand Campaign.
2. Click **Edit** (.
3. To select or change the member roles, click in the **Member Role** cell for the task you want to change.
4. Click the turndown icon (▼) to view the list of available roles.
5. Click to select one role, or Ctrl+click to select more roles to assign to this task.
6. To select or change specific members, click in the **Member** cell for the task you want to change.
7. Click the turndown icon to view the list of available members.
8. Save your work.


If you have the "View people tab" and the "Edit team members and roles" permissions, you can select any users or roles, even if they were not included on the **People** tab. When you add a user to the project workflow, the system adds the user to the **People** tab automatically.

## Filling data into a range of cells

To reduce data entry time, you can copy data that is entered for one or more tasks and supply it for another task or tasks by using **Tools** options.


For example, you have 10 consecutive tasks with the same values for target start, target end, target duration, and target effort. You enter the data for the first task. To copy the values that are in the first row into the remaining nine rows, Shift+click to select the cells in those four columns for all 10 tasks. Then, use the **Fill Down** option.


You can also copy the data in one or more adjacent cells and paste it into one or more adjacent cells. See [Workflow copy and paste \(on page 90\)](#).

 **Note:** The options for working with a range of cells apply to adjoining cells only: use Shift+click to select the cells.

1. Open the Advanced List, On-demand Campaign, or Corporate Campaign that has the task values to duplicate, and click the **Workflow** tab.
2. Click **Edit**.
3. Shift+click in the first cell to select it.
4. Move the cursor to the last cell you want to include, then Shift+click in this cell.

The range of cells you selected is highlighted.

 **Note:** You must select a continuous range of cells, rather than selecting multiple, disconnected cells.


5. Click **Tools** () and select one of the following options:

Option	Description
<b>Fill Down</b>	Copies the values in the top-most selected cell (or cells) to all the other selected cells, including the bottom-most.
<b>Fill Up</b>	Copies the values in the bottom-most selected cell (or cells) to all the other selected cells, including the top-most.

6. Click **Save**.

## Printing the Workflow tab

You can either print all information found on your Advanced List, On-demand Campaign, or Corporate Campaign Workflow tab, or select certain columns of information to print.

1. From the Workflow tab, click **Print** ().

A dialog opens with a list of the spreadsheet columns. By default, all columns are selected.

2. Click to clear any columns you do not want to include when you print.

3. **Optional:** Clear the **Shrink to Fit Landscape Page Width** check box to print the columns at a size of 100%.

If you keep this option checked, all selected columns print on a single page. If you use this feature, change your printing preference (for this print job) to landscape.

4. Click **Print Selected Columns**. A preview dialog opens.

5. Click **Print**.

6. Select your printer and printer options. Choose landscape mode for best results.

7. Click **Print** to print the selected workflow columns.



8. In the preview dialog, click **Close** to close the print preview.

## Adding an attachment to a task

To add attachments for a task, a project owner must enable adding attachments for the task. New attachments are added to the **Attachments** tab for the task.

The following users can add or remove task attachments.

- Task owners can add attachments only to their tasks.
- Task owners and users with the Delete Attachment security permission for projects can delete task attachments.

Adding attachments to tasks is similar to adding attachments to other objects. However, note the following behavior that is specific for adding attachments to tasks.

Note the following restrictions:

- There is no versioning for task attachments: uploading a new version overwrites the existing version of the attachment.
- It is possible to have multiple task attachments with the same name for the same task. This situation can occur if multiple owners of the task each upload a file with the same name. You can differentiate the files by the user who created the attachment.
- You can add and remove attachments no matter the state of the task. That is, even if a task is marked complete or skipped, you can still add and remove attachments.
- The Attachments tab for a Corporate Campaign, On-demand Campaign, or Advanced List is divided into two sections: one for files that are attached directly to the Corporate Campaign, On-demand Campaign, or Advanced List, and one for files that are attached to the tasks.
- If a task owner adds task attachments, and later the Corporate Campaign, On-demand Campaign, or Advanced List owner sets the **Enable Task Attachment** flag to false, attachments can no longer be added or removed from the **Post Task Update** dialog. However, task attachments for the Corporate Campaign, On-demand Campaign, or Advanced List can still be removed from the Attachments tab.

1. Navigate to the task to which you would like to add an attachment.

Click the task from a project workflow or from the Tasks list page.

The **Post Task Update** dialog box opens.

2. Click the **Attachments** tab.

The tab displays any attachments that exist for the task.

3. In the **File to Attach** field, select **From My Computer** or **URL**.

4. Complete one of the following actions:

- Click **Browse** to attach a file that is on your computer. When the dialog box appears, navigate to the file you want to attach and click **Open**.
- Enter the URL in the field provided.

5. Add any comments about the attachment.

6. After you add all your attachments, click **Save and Return** to close the dialog box.

## Milestones

A milestone is a point in time within workflow at which all tasks until that time must be complete in order for work to continue.


Your system relies on the display order of the task to find out the prior tasks. All tasks that are displayed before the milestone task on the workflow screen are assumed to be a part of that milestone. If tasks before the milestone are not complete, then the milestone is not met and the next task cannot begin. If the prior tasks are not complete, your system shows the appropriate error message, saying all prior tasks in the milestone should be complete to mark the milestone as complete or active. In that case, the system stops you from updating the milestone task.

## Why use milestones

By using milestones within a workflow, you can better enforce process for your lists and campaigns, so that tasks take place in the intended order. In addition, the specific milestones you select in a workflow aid in reporting.

## How available milestones are defined

To add milestones, click **Collaborate Settings > List Definitions > Workflow Milestone Types**.

 **Note:** You must have administrative privileges to define milestones. Specific milestones are also available for selection as defined in a database table by your administrator.

A milestone cannot be removed if it is used in an instance (Corporate Campaign, On-demand campaign, or Advanced List).

Note: A milestone can be removed if it is used in template, but it cannot be removed if it is used in instance.

Disabled milestones are not shown while you create an instance or template. They are shown in instances or templates where they are already used, however.

## Setting milestones in a workflow

You can set milestones for tasks within a workflow for an Advanced List, On-demand Campaign, and Corporate Campaign from the Milestone Type column.

When you set a milestone, the next task in the workflow cannot begin until the milestone is reached.

## Example

Consider a scenario of three user tasks followed by flowchart run system task. A milestone is declared at 1.3 task.

If you try to update the status of the milestone task (1.3 in this case), your system performs a check to ensure that all prior tasks are complete.

When your system tries to start Task 1.4, it checks the status of the earlier milestone task. If milestone is complete, only then can task 1.4 begin. Otherwise, the appropriate error message would be shown to you and the task does not start.

By using a milestone at task 3, you can ensure that all creatives for the On-demand Campaign are approved by the necessary people before campaign fulfillment begins.

## Defining a milestone for a task

You can set a milestone for a task to ensure that task is complete before the workflow proceeds.

Before you can define a milestone for a task:

- You must define milestones by going to **Collaborate Settings > List Definitions > Workflow Milestone Types**.

 **Note:** You must have administrative privileges to define milestones.

- The **Milestone Type** column must be present in the workflow layout. You can ensure that it is present by basing the Advanced List, On-demand Campaign, or Corporate Campaign on a template that uses milestones or by editing the workflow layout.

1. Open the Advanced List, On-demand Campaign, or Corporate Campaign, then open the Workflow tab.
2. If necessary, change the layout of the spreadsheet view to show the **Milestone Type** column.
3. Click **Edit** to make the workflow spreadsheet editable.
4. In the **Milestone Type** column, in the task row for which you want to set a milestone, select a milestone from the drop-down list.
5. Click **Save** or **Save and Finish** to save the milestone you set.

The milestone is now in effect for the Advanced List, On-demand Campaign, or Corporate Campaign.

## Date dependency calculations

When you enter or change the date for a task, the system calculates other dates that are based on your entry. It uses an internal algorithm to bidirectionally calculate the dates of dependencies, starting with the cell where you entered the date.

When you initiate date dependency calculations for a workflow, note the following issues:

- In addition to factoring in non-work days and hours, date dependency calculations use two additional system-wide properties: start time of day and number of hours per day. Your system administrator configures these settings.
- If a task row is anchored, the date dependency calculation does not update its dates (even if the date columns are empty).
- Date dependency calculations do not affect active and finished tasks; only tasks with a status of Pending.
- Date dependency calculations observe the per-task options for non-work time. The calculation algorithm takes into account whether a task is scheduled to progress during non-work time, weekends, or both.
- Do not log forecasttarget times outside of business hours if you intend to do date dependency or other automatic calculations afterward. That information is overwritten by the automated process.


## Calculating workflow dates automatically

When you enter or change the date of a task, the system calculates other dates that are based on your entry.

To calculate workflow dates automatically, complete the following steps.

1. Enter or change the date for a task in any of the date fields.
2. Select the date and click anywhere on the screen except for another date field.



The **Date Dependency Calculation** icon (  ) is displayed next to the end date.

3. Click the **Date Dependency Calculation** icon.

Alternatively, you can select one of the toolbar icons for recalculating dependency dates.

The other dates in the workflow are updated, because of the new entry.

## Calculating date dependencies above a locked task

If a workflow has a locked task, and you change the date of a task that is located above that task, you receive a warning when you calculate date dependencies.

To clarify this task, the procedure that follows assumes:

- Task 1.8 is locked.
- You need to change the duration of task 1.5 from five days to 10 days.
- All tasks depend on the previous task.

1. Open the workflow for editing, and change the duration on task 1.5 from five days to 10 days.

2. Click the **Date Dependency Calculation** icon (  ) next to the end date of task 1.5.

The system displays a warning message, saying you cannot recalculate through the locked row.

3. Click the start date of task 1.8
4. Click the **Date Dependency Calculation** icon.

The system calculates the dates below the locked task.

# Schedules

There are two options for scheduling in workflows: baseline and up-to-date.

## Baseline scheduling

You use baseline scheduling when you want to compare actual dates to fixed target dates. With baseline scheduling, you never change the target dates, allowing them to serve as a baseline. Users who are assigned tasks receive reminders on completing the actual/forecast dates.

While you work with a baseline schedule, the owner of the Advanced List, On-demand Campaign, or Corporate Campaign sets the initial Target Start and End dates for each task. These dates stay fixed throughout the entire workflow. As the List, On-demand Campaign, or Corporate Campaign progresses, the owner can update the actual/forecast dates with real data based on status information received from team members.

## Up-to-date scheduling

You use up-to-date scheduling when you want to use actual dates to update the official schedule (defined by the Target Start and End dates) regularly. This mode enables project managers to capture the most up-to-date, official schedule; however, it does not provide an easy way of viewing a baseline version of the schedule.

## Using a baseline schedule

System administrators set up permissions and reminders for baseline schedules. Schedule owners set the dates for each task in the baseline schedule. Team members update the progress for their tasks in the baseline schedule.

Before you create your projectsLists, On-demand Campaigns, or Corporate Campaigns, have the system administrator set up the following permissions and reminders:

- Set permissions so that only projectList, On-demand Campaign, or Corporate Campaign owners can update **Target** dates.

- Set reminders (alerts) that are based on the **Actual/ForecastActual** dates.

While you work with a baseline schedule, team members perform the following high-level steps.

1. The owner sets the **Target Start** and **End** dates for each task.

These dates stay fixed throughout the entire projectList, On-demand Campaign, or Corporate Campaign.

2. As the projectList, On-demand Campaign, or Corporate Campaign progresses, team members update the **Actual/ForecastActual** dates with real data.

## Keeping an up-to-date schedule

System administrators set up permissions and reminders for schedules. Schedule owners set the dates for each task in the schedule. Team members update the progress for their tasks.

Before you create your projectLists, On-demand Campaigns, or Corporate Campaigns, have your system administrator set up permissions and reminders as follows.

- Set permissions so that only projectList, On-demand Campaign, or Corporate Campaign owners can update **Target** dates.
- Set reminders (Alerts) that are based on the **Target** dates.
- Set reminders to be sent only to the owner or owners.
- Optionally, set reminders on the **Actual/ForecastActual** dates to be sent to team members.

While you work with an up-to-date schedule, team members perform the following high-level steps.

1. The owner sets the initial **Target Start** and **End** dates for each task.
2. As the projectList or On-demand Campaign progresses, team members update the **Actual/ForecastActual** dates with real data.



3. If a task is delayed (the owner receives reminders that are based on **Target** dates), the owner assesses the situation and adjusts the **Target** dates and durations as necessary.

## Design for multiple drops, lots, waves, and offers

With Collaborate, you can design Corporate Campaigns, On-demand Campaigns, and Lists that fulfill a number of business needs.

### Multi-drop design

Multi-drop Corporate Campaigns, On-demand Campaigns, or Lists are recurring campaigns or lists that run at specified intervals (each month, for example) over a defined time.

Multi-drop campaigns and lists use a workflow or a workflow stage that is configured to repeat at specified intervals. Each drop, or stage, in the workflow is made up of the tasks necessary to fulfill one complete drop, or stage, of the campaign.

### When to use a multi-drop design

Organizations use multi-drop campaigns or lists to manage campaigns that span time and require multiple contact points, usually at regular intervals. Examples of multi-drop campaigns are:

- **Newsletter campaign:** You might create a multi-drop Corporate or On-demand Campaign to manage distribution of newsletters at regular intervals on an ongoing basis.
- **Birthday campaign:** You might create a multi-drop Corporate or On-demand Campaign to manage a campaign where some offer and greeting are sent to contacts during the months of their birthdays.

### Set up multi-drop Corporate Campaigns, On-demand Campaigns, and Lists

Multi-drop Corporate Campaigns, On-demand Campaigns, and Lists use recurring templates. In the multi-drop template, you must:

- Define the stage of your workflow that contains the tasks you want to recur (only one stage can be recurring)
- Define properties for recurrence by using the Recurrence tab

Multi-drop design is applied when you create a Corporate Campaign, On-demand Campaign, or List by using the recurring templates that you established.

## Multi-lot design

Multi-lot Corporate Campaign and On-demand Campaigns are campaigns that distribute the effort of customer contact over time when you deal with a large list of targeted customers.

### **When to use a multi-lot design**

Organizations use multi-lot features to manage customer lists that are too large to handle at one time. A multi-lot design allows Field Marketers to accept a subset of a list for contact in one "lot." Field Marketers can then accept more contacts for contact at subsequent lots, distributing the effort over time.

### **Set up multi-lot Corporate Campaigns and On-demand Campaigns**

To achieve a multi-lot design, your Corporate Campaigns or On-demand Campaigns must use flowcharts in Campaign that are designed specifically for each lot. You can use a single flowchart for all lots or a separate flowchart for each lot. In either case:

- The list generation task for the initial lot selects from your Campaign database to create the first list for Field Marketer review.
- The list generation task for the second lot targets those contacts that were left in the Waiting state after the first list review, as well as any new contacts included from the latest list generation.

## Multi-wave design

A multi-wave design for Corporate Campaigns and On-demand Campaigns allows you to distribute offers through several waves of contact. Multi-wave Corporate Campaigns and

On-demand Campaigns are typically nonrecurring campaigns, with workflows made up of different stages, or waves.

Multi-wave campaigns take advantage of Campaign response tracking. You can design a "second wave" of offers to be sent to contacts who did not respond to the initial offer.

### **When to use a multi-wave design**

Use a multi-wave design when you want to manage campaigns that present a series of offers to customers. For example, an organization may want to create a multi-wave Corporate Campaign to:

1. Send an offer to a list of contacts.
2. Send a second offer to contacts who did not respond to the initial offer.

For example, Field Marketers may use the same flowchart each month to identify prospects who have birthdays in the current month. In this case, the first wave of the campaign must complete, so that you can identify the non-responders. After this wave is complete, the second wave of the campaign can be used to distribute the second offers to the non-responders.

### **Understanding multi-wave Corporate Campaigns and On-demand Campaigns**

To achieve a multi-wave design, your Corporate Campaigns and On-demand Campaigns must use flowcharts in Campaign that are designed to accommodate each wave of contact. You can use a single flowchart for all waves, or create a separate flowchart for each individual wave. In either case:

- The list generation task for the initial wave selects from your Campaign database and creates the first list for Field Marketer review.
- The list generation task for all subsequent waves should select from only those contacts that are generated by the previous wave as input. For example, if you want to send an offer to contacts who did not respond to the first wave, the flowchart that is used for the second wave filters out the responders and select the non-responders from the first wave.

## Multi-offer design

You use a multi-offer design for Corporate Campaigns, On-demand Campaigns, and Lists to create a campaign or List that sends different offers to different customers.

Multi-offer Corporate Campaigns, On-demand Campaigns, or Lists can be nonrecurring or recurring. These campaigns take advantage of the segmenting capabilities in Campaign to target different contact segments with different offers.

### **When to use a multi-offer Corporate Campaign, On-demand Campaign, or List**

Organizations use multi-offer design to manage campaigns and Lists that target different segments of the customer population. Examples of multi-offer design include:

- Offers for responders and non-responders: You might create a multi-offer campaign to provide one offer to those who respond to a campaign, and another separate offer to those who do not respond.
- Offers for different audiences: You might create a multi-offer campaign to manage different offers for different audiences. For instance, a financial institution might send one offer to college students and another offer to individuals who are head-of-household.


### Flowchart design in Campaign for multi-offer campaigns and Lists

Corporate Campaigns, On-demand Campaigns, and Lists must use Campaign flowcharts that divide contacts into Segments to achieve multi-offer design.

Each segment represents a different customer list; each customer list is paired with a different offer in Campaign.

You can use Collaborate to ensure that each customer list is reviewed by the right Field Marketers.

The List Review task matches the segment code in the task with the code written into the List Manager table; it can then filter the list by segment code.


 **Note:** The flowchart must be configured to write the Segment Code for a segment into the List Manager table

## List Review task/segment association for multi-offer campaigns and Lists

For multi-offer campaign and Lists, you create a workflow that consists of user and system tasks, just as you would for any other Corporate Campaign, On-demand Campaign, or List.

With multi-offer campaigns and Lists, however, you must ensure that all customer lists created by the flowchart are reviewed. You do so by associating each List Review task in your workflow with each segment created by the flowchart in the campaign in Campaign

You use the **Segment Code** field that is displayed to identify the appropriate segment for the review.

 **Note:** The Segment Code that you enter must match the segment name as it is displayed in Campaign.

### Creating a multi-offer Corporate Campaign

You can create a multi-offer Corporate Campaign by creating your linked campaign in Campaign and starting it in Collaborate.

1. Create a Corporate Campaign.
2. Modify the workflow.

Enter the flowchart names that are used for each Flowchart Run task. For each List Review system task:

- a. Click the task name.

The task properties window is displayed.

- b. Complete the task properties window as wanted.

In the **Segment Code** field, enter the appropriate segment name as it is displayed in the flowchart in your linked campaign (in Campaign).

3. Create the linked campaign in Campaign.

4. Create the flowcharts corresponding to one or more Flowchart Run tasks in the workflow.

Ensure the following:

- The flowcharts create different segments.
- The Segment Codes are written to the List Manager table.

5. Save and publish each flowchart.
6. Start the Corporate Campaign in Collaborate.

### Creating a multi-offer On-demand Campaign or List

Field marketers can create multi-offer On-demand Campaigns and Lists by selecting a template in which a corporate marketer or administrator already set up the necessary segments, flowcharts, and workflows.

The instructions below describe the steps to take before the field marketer creates the On-demand Campaign or List to be performed by others that are working with Campaign and Collaborate templates.

1. Create flowcharts and forms for your On-demand Campaign or List.

Ensure the following:

- The flowcharts create different segments.
- The Segment Codes are written to the List Manager table.

2. Create an On-demand Campaign or List template and add forms as a custom tab.
3. Modify the workflow.

For each List Review system task:

- a. Click the task name.

The task properties window is displayed.

- b. Complete the task properties window as desired.

In the **Segment Code** field, enter the appropriate segment name as it is displayed in the flowchart that is used to create your forms/tabs.



4. Create an On-demand Campaign or List by using the template.
5. Start the On-demand Campaign or List.


## Workflow task status

Each new workflow task has a status of Pending. As project managers and participants work on tasks, they update the status to indicate the current progress.

You can change the status of a task when you are working in spreadsheet view mode or timeline view mode by clicking the task name. For more information, see [Post Task Update dialog \(on page 92\)](#). You can also change the status of a task when you are in edit mode: Click the **Status** column of the task, then choose the appropriate status from the drop-down list.

**Table 5. Task status**

Status	Description
Pending	Indicates that a task is not yet in progress. When you create a task, it defaults to the pending state. The pending state is symbolized by a blank status field.
Active	Indicates that a task is in progress. Symbolized by the  icon. You can also type <b>A</b> to place a task in the active state
Skipped	Indicates that a task was skipped. Symbolized by the  icon. Skipped tasks are tasks for which members no longer do work. Any dependencies of this task are also disregarded. You can also type <b>S</b> to place a task in the skipped state.

Status	Description
Finished	Indicates that a task is complete. Symbolized by the  <input checked="" type="checkbox"/> icon. You can also type <b>F</b> to place a task in the finished state.

Note the following relationships between the task status and the % **Complete** for a task.

- If you enter **100** as the % **Complete** for a task, the status is updated to **Finished**.
- If you enter **0** as the % **Complete** for a task (if it was previously finished), the status is updated to **Pending**.
- If you enter any number from **1** to **99** as the % **Complete** for a task (if it was previously finished), the status is updated to **Active**.
- If you mark the status for a task as **Skipped**, all of the dates for the task are cleared. Until you click **Save** (or **Save and Finish**), you can retrieve the dates by canceling the editing session. However, after you save the spreadsheet with the dates cleared you cannot retrieve them.

## Completing multiple tasks

If you are assigned tasks for one or more projects Advanced Lists, On-demand Campaigns, or Corporate Campaigns, you can set them to complete at the same time.

To complete multiple tasks at one time, complete the following steps.

1. Open the **Tasks** list page to view all of your assigned tasks.
2. Select the check box for each task you want to complete.
3. Click **Complete Selected**.
4. In the **Complete Selected Tasks** dialog box, select one of the following options:

Option	Description
<b>Leave all dates as they are</b>	The tasks are marked as complete, but no end dates are modified.



Option	Description
<b>Set all actual end dates to now</b>	Each selected task is marked complete, and its actual end date field is set to the current date and time.

5. Click **Continue** to complete the selected task or tasks or **Cancel** to return to the list page without saving your changes.

Any tasks that you selected are removed from the **Tasks** list page and their status is changed to complete. Additionally, their end dates are set, if you selected that option.

## Skipping multiple tasks

You can skip tasks when you are assigned tasks for one or more projects Advanced Lists, Corporate Campaigns, or On-demand Campaigns.

1. Open the **Tasks** list page to view all of your assigned tasks.
2. Select the check box for each task to skip.
3. Click **Skip Selected**.
4. In the confirmation dialog box, click **OK** to skip the selected tasks, or **Cancel**.

Any tasks that you selected and skipped are removed from the **Tasks** list page, and their status is changed to Skipped.

## Workflow copy and paste

For efficiency, you can copy and paste most kinds of tasks in the workflow.

When you are copying and pasting tasks, note the following behavior.

- To copy, you must select a continuous range of cells by using Shift+click. You cannot select multiple, disconnected tasks by using Ctrl+click.
- To select a single cell, you must use Shift+click.

- If you do not insert enough blank tasks to correspond to the ones you are copying, existing task values are overwritten.
- To paste rows at the insertion point, you can click **Paste** from the **Tools** menu or press Ctrl+V. To paste rows after the selected row, you must click **Paste Rows After** from the **Tools** menu.

## Copying data in Internet Explorer

You can copy data from a continuous group of cells to another place in the same workflow, or into the workflow for another Advanced List, On-demand Campaign, or Corporate Campaign.

1. Open the Advanced List, On-demand Campaign, or Corporate Campaign that has the tasks to copy and click the **Workflow** tab.
2. Click **Edit**.
3. Shift+click to select the first source cell. If this value is the only one that you are copying, skip to step 5.
4. Point to the final source cell, then press Shift+click over this cell.  
A range of cells you selected is highlighted.
5. From the workflow toolbar **Tools** menu, select **Copy** to copy the selected task or tasks.  
If you are pasting the tasks into the same workflow, skip to step 7.
6. If you are copying the tasks to another project workflow, go to the destination Workflow tab, and open it for editing.
7. **Optional:** Insert enough blank rows below the destination to act as placeholders for the task values you are copying.

For example, if you copied data from six tasks, make sure that there are six consecutive task rows available. If you do not create the necessary rows, existing values for tasks below the insertion point are overwritten.

8. Shift+click the destination cells.
9. From the workflow toolbar, select **Paste** from the **Tools** menu item to paste the values.

The source data is placed in the workflow, starting from the selected destination task.

## Post Task Update dialog

To provide a quick update for a workflow task when the **Workflow** tab is in spreadsheet view mode or timeline view mode, click the task name. The **Post Task Update** dialog opens. Use this dialog as a quick alternative to editing the entire workflow, when you need to update a single task only. From this dialog, you can update a subset of task values, add attachments, and add comments.


The **Post Task Update** dialog box contains the **Status** and **Attachments** tabs.

### Task status tab

The **Status** tab contains the following fields.

**Table 6. Fields on the Status tab**


Field	Description
Owners	Display only. The task owner or owners. At the task level, Advanced List, On-demand Campaign, or Corporate Campaign members are identified as task owners.  To change the task owners, you use workflow spreadsheet edit mode. In the <b>Members</b> column, add people to a task.
Target Dates Actual Dates	Display only. Calculated start and end dates and duration for the task.  To update these values, change the values in the date and time fields.
Status	The status of the task. Select a value from the supplied list.
Enable attachments	Project owners and the administrators who design workflow templates can indicate whether members can add attachments for the task.

Field	Description
% Complete	<p>Progress for the task. Enter a whole number 0 - 100.</p> <p> <b>Note:</b> To change the state of a task marked as finished back to active, you must change the status to <b>Pending</b> and the % <b>Complete</b> to a number less than 100. If you do not change both values, the task remains marked as completed after you save.</p>
Actual Effort	<p>The time that is spent on the task. Click the field to enter a value in days, hours, and minutes, for example, 03D-02H-00M.</p>
Forecast / ActualTarget date and time	<p>The begin and end dates and times for the task.</p> <p>Collaborate calculates these dates for your task based on the status if you do not enter a start date, end date, or both</p> <p>When you start a task (change the status from <b>Pending</b> or empty to <b>Active</b>), and save:</p> <ul style="list-style-type: none"> <li>• If the start and end date are empty, then the start date is set to the current date and time. The end date is set to the current date time plus duration.</li> <li>• If the start date is set, but the end date is not set, the end date is set to the start date plus duration.</li> <li>• If the end date is set, but the start date is not set, the start date is set to the end date minus duration.</li> </ul> <p>When you complete a task (change status from <b>Pending</b> or empty to <b>Finish</b>), and save:</p> <ul style="list-style-type: none"> <li>• If the start and end date are empty, then the end date is set to current date and time. The start date is set to the end date minus duration.</li> <li>• If the start date is set, but the end date is not set:</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>◦ If the start date is set prior to the current date, then the end date is set to the current date and the duration is set to the end date minus the start date.</li> <li>◦ If the start date is set later than the current date, then the end date is set to the current date and the start date is set to the end date minus duration.</li> <li>• If the end date is set, but the start date is not set, the start date is set to the end date minus duration.</li> </ul> <p>When you change a task to pending, and save:</p> <ul style="list-style-type: none"> <li>• If the start and end dates are empty, those dates are kept empty.</li> <li>• If the start date is set but the end date is not set, then the end date is set to the current time plus duration.</li> <li>• If the end date is set but the start date is not set, then the start date is set to the end date minus duration.</li> </ul>
Comments for revision history	Enter notes to include in the revision history of the project and in any notifications that are sent about the task.
Workflow Notes	Enter notes to display with the task in spreadsheet view or edit mode.

## Task attachments tab

The **Attachments** tab contains the following fields.

 **Note:** Only the owner of a task can add an attachment. You can identify member roles and members for tasks in edit mode.

**Table 7. Fields on the Attachments tab**

Item	Description
Attachments	The top of the page lists current task attachments. The following information displays for each attachment:

Item	Description
	<ul style="list-style-type: none"> <li>• The attachment name, which is a link to the attachment.</li> <li>• The file type and size.</li> <li>• A description, including the date and time the attachment was added, the name of the person who added it, and any additional comments.</li> <li>• Links for removing attachments or for sending the attachment by email.</li> </ul>
File to Attach	Select the source of the file to attach.
Browse	Click to browse your computer for the file to attach. Supported file formats include DOC, PPT, XLS, PDF, GIF, JPEG, PNG, and MPP.
Comments	Enter text to describe the attachment.
Save Attachment	Click to attach the selected file or URL.

## Task dependencies

Collaborate offers different options for managing task dependencies as new rows are added to a workflow spreadsheet and existing rows are removed.

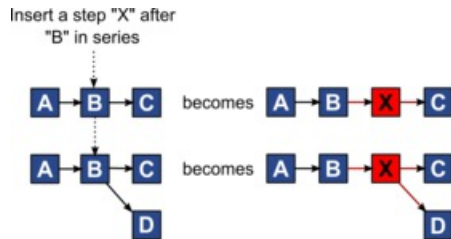
In spreadsheet edit mode, you click **In Series** and select one of the following options:

- **No Dependencies:** the system does not create dependencies for new rows automatically. If you need dependencies for the new tasks and stages, edit the task name to add them manually.
- **In Series:** the system inserts new rows into an existing chain of tasks.
- **In Parallel:** the system inserts new rows in a dependency branch that is parallel to an existing chain of tasks.

## Inserting tasks in series

Inserting **In Series** makes a new task dependent on the task before it, and then makes all items that depended on that task dependent on the new task.

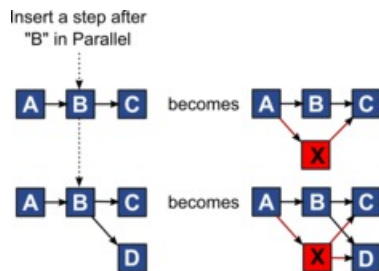
You insert a task in series when it can start only after the previous task is complete. For example, in this figure, if task X cannot be worked on until task B is complete, you insert task X in series.



## Inserting tasks in parallel

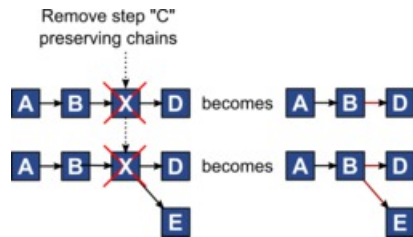
Inserting **In Parallel** makes the task dependent on the items (tasks or stages) that the task before it depended on. This action makes the items that are dependent on the previous task also dependent on the new task.

You insert a task in parallel when it can be worked on at the same time as another task. For example, in this figure, if task X can be worked on simultaneously with task B, you insert task X in parallel.



## Deleting tasks

Deleting a task removes the selected task from the chain. Then, the system relinks the two remaining segments of the chain together so that it is one continuous chain again.



When a task is deleted, its dependent tasks are made dependent on its dependencies before the deletion takes place. This practice preserves all sequential chains of dependencies.

## Default and "last used" modes

To make adding a task as simple and consistent as possible, Collaborate provides the following behavior.

- The default mode is **In Series**. When you begin an editing session, this mode is used as the insertion mode.
- The "last used mode" is remembered for each editing session. When you select a different dependency mode, it is used each time that you add a task until you change it again or end the editing session.
- For example, to add several tasks in parallel, you need to select **In Parallel** mode only one time. Then, every time you insert another task, the system inserts it in parallel unless you explicitly select another mode.

If needed, you can change the dependency that is assigned by the system manually. Click the task name, then edit the comma-separated list of task numbers that display in parentheses after the name.

## Adding a stage or task

To add a task or stage to a workflow, you must have the appropriate permission for the related template.

If the **Add** option is missing from the toolbar, contact your administrator about obtaining the appropriate access rights.



Note the following information about stage and task rows.

- To differentiate stages from tasks, the rows for stages display in the spreadsheet with a shaded background.
- When you add a stage or task, you can indicate where in the spreadsheet to insert it: enter the stage number and the task number before the task name.

For example, if you enter 2.3 `Have team meeting` anywhere in the task list, the task is placed under the task that is labeled 2.2. Any subsequent tasks in that stage are automatically renumbered: the step that was previously labeled 2.3 is now 2.4.

- You can move a stage or task to a different part of the spreadsheet. Use the up and down options on the toolbar to move the stage or task to the appropriate place.
- There are several options for managing dependencies on tasks as new rows are added and existing rows are removed. For more information, see [Task dependencies \(on page 95\)](#).

## Stage and task sequence

If you change the number for a task or stage, the task is inserted before the row that matches the new number.

For example, assume the following stage order:

1. Planning
2. Collateral Design
3. Lead Generation
4. Show Setup-to-Breakdown
5. Marketing Review

If you edit task 5, Marketing Review, changing its number to 3, the new order is as follows.

1. Planning
2. Collateral Design
3. Marketing Review

4. Lead Generation
5. Show Setup-to-Breakdown

Now suppose that you edit task 2, Collateral Design, changing its number to 4. The new order is as follows.



1. Planning
2. Marketing Review
3. Collateral Design
4. Lead Generation
5. Show Setup-to-Breakdown

To move a task or stage to the end, give it any number higher than the final task or stage. For example, to move stage 2, Marketing Review to the end, change its number to 6 or higher.

## Adding rows to the workflow spreadsheet

Add rows to the workflow spreadsheet to add more tasks, System tasks, and stages.

Before you can add a row to the workflow spreadsheet, you open the workflow in edit mode. For more information, see [Edit mode toolbar \(on page 108\)](#).

1. Decide what dependency option you want the new task or stage to use: Click **In Series** () and select **No Dependencies, In Series, or In Parallel**.  
Your selection remains in effect until you change it again.
2. In the workflow spreadsheet, click the stage or task name that you want the new row to follow.
3. Add the stage, task, or system task: Click **Add a Row** () and then select **User Task, a system task, or Stage**.

Collaborate adds the new row to the spreadsheet. Stages display with a shaded background; tasks.

4. **Optional:** Change the dependency that is assigned by the system to the row. The numbers of the tasks that a task or stage depends on display in parentheses after the name. If a date for one task changes, the system changes the dates for all the dependent tasks.

For example, suppose that you add a task and its name is 2.5 Deliver draft to vendor (2.4)2.5 Generate List (2.4). To make this task dependent on task 1.3 instead of task 2.4, change the task name to 2.5 Deliver draft to vendor (1.3)2.5 Generate List (1.3). To make this task dependent on both task 1.3 and task 2.4, separate the task numbers with commas: change the task name to 2.5 Deliver draft to vendor (1.3, 2.4)2.5 Generate List (1.3, 2.4).

For more information, see [Task dependencies \(on page 95\)](#).

5. When you finish editing the workflow, save your changes.


The stage or task is added to the workflow after the insertion point.

## Spreadsheet view mode

When you display the **Workflow** tab in spreadsheet view (the default), information about the stages and tasks in your workflow display in tabular format.

For information about the columns that display, see [Workflow spreadsheet columns \(on page 104\)](#).

In addition to viewing data for the workflow, you can update task status and scheduling information and add attachments. For more information, see [Post Task Update dialog \(on page 92\)](#).

To customize the spreadsheet view, click **Layout** () on the Workflow tab. You can select the columns to display and the width of the first (task name) column. For more information, see [Spreadsheet or timeline view customization \(on page 102\)](#).


## Process flowchart view

The process flowchart view displays the tasks in a network diagram style.


- Each task is displayed as a box with a task number and ID.
- Tasks that have dependencies are connected to any tasks they depend on.
- Sequential tasks are displayed on the same line.
- Parallel tasks are displayed on different lines.
- Independent and orphan tasks are displayed on their own line, with no connections.

## Timeline view mode

When you view the workflow on a timeline, you can update the task status and scheduling information and add attachments.

The Workflow tab timeline view presents a view of the tasks for a projectList, On-demand Campaign, or Corporate Campaign over a period of weeks or months. To display tasks on a timeline, click **View > View as a Timeline/Gantt chart Timeline View** . To replace, navigate to **Spreadsheet view** or **Weekly timeline**.

For more information, see [Post Task Update dialog \(on page 92\)](#).


To customize the timeline view, click **Layout** () on the **Workflow** tab. You can customize the timeline view in any of the following ways:

- Choose weeks or months as the time scale.
- Select the dates to plot: Actual/Forecast or Target.
- Select captions for timeline bars.

For more information, see [Spreadsheet or timeline view customization \(on page 102\)](#).

## Spreadsheet or timeline view customization

When you view the **Workflow** tab in spreadsheet view mode or timeline view mode, you can make choices about the information that you want to see.

To customize the view, click **Layout** (.


### Options on the Project Workflow Tab Layout dialog

The **Project Workflow Tab Layout** dialog displays the following options:

**Table 8. Options on the Project Workflow Tab Layout dialog**

Option	Description
Spreadsheet Layout	To hide the options in the Spreadsheet Layout section on this dialog, click the icon next to the section title. To view a hidden section, click again.
Columns to Display	<p>A list of check boxes that corresponds to the columns you can include in spreadsheet view mode. Click a link above the list to select a preset group of columns to display:</p> <ul style="list-style-type: none"> <li>• <b>all</b>: default setting; all boxes checked (all columns display).</li> <li>• <b>targets</b>: hides Status, % Complete, and Actual date columns.</li> <li>• <b>actuals</b>: hides Target Dates/Effort and Member/Reviewer roles columns.</li> <li>• <b>all dates</b>: displays all columns that are related to target and actual dates.</li> <li>• <b>responsibility</b>: displays columns that are related to who is assigned to complete the tasks.</li> </ul> <p>Alternatively, you can check individual columns to include them or clear columns to remove them.</p>

Option	Description
First Column Width	<p>Defines the width for the first column, which displays task names and dependencies. You can set a different first column width for spreadsheet view mode and for timeline view mode. Select:</p> <ul style="list-style-type: none"> <li>• <b>Remember Last Setting:</b> When you view the workflow spreadsheet, you can adjust the first column width to see more or less of the task names.</li> <li>• <b>Exactly:</b> Select to enter a number that sets the column to an exact width in pixels.</li> </ul>
Timeline Layout	<p>To hide the options in the <b>Timeline Layout</b> section, click the icon next to the section title. To view a hidden section, click again.</p>
Time Scale	<p>The increment of time that is used for measurement. Select <b>Weeks</b> or <b>Months</b>. The default setting is Weeks.</p>
Bars Represent	<p>The bars in the timeline view indicate durations. You can choose to display Actual/Forecast dates, Target dates, or both. The default is to display both.</p>
Bar Captions	<p>By default, the bars do not have captions. Select an option to display task information as bar captions. For example, you can have task names or milestone types display as the captions.</p>
First Column Width	<p>Defines the width for the first column, which displays task names and dependencies. You can set a different first column width for spreadsheet view mode and for timeline view mode. Select:</p> <ul style="list-style-type: none"> <li>• <b>Remember Last Setting:</b> When you view the workflow spreadsheet, you can adjust the first column width to see more or less of the task names.</li> <li>• <b>Exactly:</b> Select to enter a number that sets the column to an exact width in pixels.</li> </ul>

Option	Description
Make these the default settings for this project workflow tab	<p>Check this box to make your selections the default for the <b>Workflow</b> tab. This option ensures that your display settings for this tab do not change until you make another change and check this box.</p> <p> <b>Note:</b> Your settings become the defaults for all users for this workflow, until someone changes the defaults.</p>
Use these settings for current workflow only	<p>Check this box to apply your selections to the current workflow only. This option ensures that your display settings for this workflow do not change until you make another change and check this box.</p> <p>Clear this box to make your selections the default for the <b>Workflow</b> tab. Your settings become the defaults for all users for this workflow until someone changes the defaults.</p>

## Workflow spreadsheet columns

When the workflow displays in spreadsheet view mode (the default view) or in edit mode, data is presented in a spreadsheet of columns and rows. You review and enter information in the spreadsheet cells for each column.

**Table 9. Workflow spreadsheet columns**

Column	Description
Tasks, Stages	<p>Lists the tasks and stages that make up the Advanced List, On-demand Campaign, or Corporate Campaign project.</p> <p>When in edit mode, click a stage or task to revise or change its sequence, name, or dependencies.</p> <p>When in view mode, click a task to update status and scheduling information. For more information, see <a href="#">Post Task Update dialog (on page 92)</a>.</p>

Column	Description
Status	<p>Displays an icon to indicate the status of the task. Tasks can have one of the following statuses.</p> <ul style="list-style-type: none"> <li>• Pending</li> <li>• Active</li> <li>• Skipped</li> <li>• Finished</li> </ul>
% Complete	<p>The percentage value that represents how complete a task is.</p> <p>In edit mode, click the measuring bar for a task and enter a new % Complete number. The measuring bar expands to display a comparable level.</p>
Forecast/Actual Start	<p>For tasks in the pending state, this field represents the Forecast Start date. Forecast Start dates display in italic font. After you change a task from Pending to Active, this field represents the Actual Start date. Actual Start dates are in regular font.</p> <p>In edit mode, click in the cell to use a calendar to select a date and time.</p>
Forecast/Actual End	<p>For tasks in the pending state, this field represents the Forecast End date. Forecast End dates display in italic font. After you change a task from Active to Finished, this field represents the Actual End date. Actual End dates are in regular font.</p> <p>In edit mode, click in the cell to use a calendar to select a date and time.</p>
Forecast/Actual Duration	<p>The duration of the task, in days, hours, and minutes.</p> <p>If you enter both start and end dates, the system automatically calculates a value for this field (the Forecast/Actual End date minus the Forecast/Actual Start date).</p>



Column	Description
Actual Effort	The actual effort that it took to complete the task, as opposed to calendar duration. Effort is measured in days, hours, and minutes.
Anchored Dates	<p>Indicates whether the task is anchored. If a lock icon displays, the dates for the task are anchored.</p> <p>To specify anchored dates for a task, click the column, then select <b>Anchored</b> from the menu. The task date cannot move even if the dates of the tasks it depends on change.</p> <p>If a dependency is not met, the dates in conflict appear with a different icon and in a different font.</p> <p>For example, suppose task 2.2 depends on task 2.1. If the target end date of task 2.1 is after the target start date of task 2.2, both the target end date of 2.1 and the target start date of 2.2 appear in red. This action occurs only if you anchored the date for task 2.2 by selecting the lock icon in the <b>Anchored Dates</b> column.</p>
Schedule Through	<p>Indicators for which dates to use when you determine task dates. The following options are available.</p> <ul style="list-style-type: none"> <li>• <b>Bus. - Business days only:</b> include only standard, non-holiday, non-weekend dates in date calculations that are made for this task. This schedule is the default for all tasks.</li> <li>• <b>Wkd. - Business days + Weekends:</b> include weekends in date calculations that are made for this task.</li> <li>• <b>Off. - Business days + Days off:</b> include predefined system-wide non-work time in date calculations that are made for this task.</li> <li>• <b>All - All calendar days:</b> include all dates in date calculations that are made for this task. No dates are ignored when dates are calculated for this task.</li> </ul>
Target Start	The targeted start date of the task. In edit mode, use the calendar to select a date.

Column	Description
	<p>You can add a custom milestone type to set a target and forecast dates for all tasks in a workflow in a project template. To do this, create a milestone with code <code>START</code>. Then, create a project template. In the workflow of this template, assign one task with this milestone type. When you create and save a project with a target start date that uses this template, the task with the new milestone type copies the project start date as its own target start date as well as its forecast start date. These target and forecast dates are then rippled to all dependent tasks in the project.</p> <p>The milestone type <code>START</code> can only be assigned to one task in a workflow.</p>
Target End	The targeted end date of the task. In edit mode, use the calendar to select a date.
Target Duration	The duration of the task, in days, hours, and minutes. The Target End minus the Target Start dates.
Target Effort	The targeted effort that is estimated to complete the task, as opposed to calendar duration.
Milestone Type	<p>A task milestone that you choose from a list. Example options might be Meeting, Event, and Job Start. System administrators set the milestone types that are on the list.</p> <p>For more information about setting up milestones, see the Collaborate Installation Guide and Collaborate Administrator's Guide.</p>
Member Roles	A role or roles that are associated with the task. These roles can be loaded automatically from the project template that is used to create the project, or the project owner can set them up manually.
Members	The people that are associated with the task.


Column	Description
	<p>If a workflow task has a role in its <b>Member Role(s)</b> column, when you assign people to roles, the workflow automatically adds a person in the corresponding <b>Members</b> column.</p> <p>You can also add people to the Members column manually while you edit the workflow.</p>
Enforce Dep.	If this task depends on other tasks, determines how strictly the system interprets dependencies. When this option is selected, the system restricts project members from updating this task until the tasks it depends on are finished.
Required	Indicates whether this task is required. Required tasks cannot be skipped or deleted and their names cannot be changed.
Task Code	A read-only code that identifies each task uniquely within a project. System integrators use this code to implement custom business logic for tasks.
Notes	Any comments about the task.




## Edit mode toolbar








When you switch from a view mode to edit mode, you can change the workflow. You click the icons on the toolbar to add, move, and delete stages and tasks.



The following table describes the toolbar options.





**Table 10. The edit toolbar for the Workflow tab**

Icon	Description
	<p><b>Add Row.</b> To add a row after an existing row in the workflow, select the row then click this icon to specify the type of row. You can add:</p> <ul style="list-style-type: none"> <li>• Stage: stages organize tasks into groups</li> </ul>

Icon	Description
	<ul style="list-style-type: none"> <li>• User Task</li> <li>• Flowchart Run</li> <li>• List Review</li> <li>• Notify Field Marketers (Corporate Campaigns)</li> <li>• Subscription (Corporate Campaigns)</li> <li>• Recurrence</li> </ul> <p>Collaborate adds the task and renumbers the subsequent tasks.</p>
	<p><b>In Series.</b> By default, the system adds rows to the spreadsheet in series, so each task depends on the task that precedes it. To use a different dependency option, click this icon and make a selection before you add the next task to the workflow.</p> <p>Select a dependency option.</p> <ul style="list-style-type: none"> <li>• No Dependencies: when you add a row, the system does not make it dependent on any other row</li> <li>• In Series: when you add a row, the system makes it dependent on the row above it</li> <li>• In Parallel: when you add a row, the system makes it dependent on the same task or tasks as the row above it</li> </ul> <p>Each row that you add uses the same dependency option until you change your selection.</p> <p>You can also change dependencies manually; click the task or stage name and supply a comma-separated list of numbers in parentheses. For more information, see <a href="#">Task dependencies (on page 95)</a>.</p>
	<p><b>Add Stage Row.</b> Adds a stage in the spreadsheet. Tasks are grouped in stages.</p>
	<p><b>Move row up.</b> Click a task or stage name to select the row, then click this icon to move the selected row upward.</p>

Icon	Description
	<p> <b>Note:</b></p> <ul style="list-style-type: none"> <li>• When you move a row, its task dependencies do not change.</li> <li>• When you move a stage, all of its associated tasks move with it.</li> </ul>
	<p><b>Move row down.</b> Click a task or stage name to select it, then click this icon to move the selected row downward.</p> <p> <b>Note:</b></p> <ul style="list-style-type: none"> <li>• When you move a row, its task dependencies do not change.</li> <li>• When you move a stage, all of its associated tasks move with it.</li> </ul>
	<p><b>Delete row.</b> Click a task or stage name to select it, then click this icon to delete the component.</p> <p> <b>Note:</b></p> <ul style="list-style-type: none"> <li>• You cannot delete the first stage in a workflow spreadsheet.</li> <li>• When you delete a stage, its associated tasks are appended to the previous stage. The tasks are not deleted.</li> </ul>
	<p><b>Recalculate Dates.</b> Shift+click to select one or more adjacent cells in the spreadsheet, then click this icon to apply one of the following options:</p> <ul style="list-style-type: none"> <li>• Preserving slack time between Tasks: recalculates all date dependencies that are based on your changes; any slack time between dependent tasks is not removed.</li> <li>• Removing slack time between Tasks: recalculates all date dependencies that are based on your changes; any slack time between dependent tasks is removed.</li> </ul>
	<p><b>Tools.</b> Offers options that affect the values in specific spreadsheet cells, or that affect a column or the entire spreadsheet.</p>

Icon	Description
	<p>To apply any of the following options, you must first Shift+click to select one or more adjacent cells in the spreadsheet:</p> <ul style="list-style-type: none"> <li>• Copy: copies the contents of the selected cells to the clipboard.</li> <li>• Paste: pastes the contents of the clipboard, beginning at the selected cell.</li> <li>• Paste Rows After: pastes the contents of the clipboard below the selected row.</li> <li>• Mark as: changes the Status and % Complete values for the corresponding task or tasks. For example, Mark as Finished changes the Status to Finished and % Complete to 100%. You can mark tasks as Skipped, Finished, Active, or Pending.</li> <li>• Fill Down/Up: copies the value in the selected cell or group of cells to the cells below or above it.</li> <li>• Clear: erases all entries in the selected cell or group of cells.</li> </ul> <p> <b>Note:</b> You must apply these options to cells that are adjacent; that is, Ctrl+click selections are not supported.</p> <p>The other options on the <b>Tools</b> menu function as follows:</p> <ul style="list-style-type: none"> <li>• Import and save workflow: available if the project is in Not Started status only. Replaces the entire spreadsheet with the tasks and values in a previously defined workflow template.</li> <li>• Clear Column: click a single cell, then select this option to erase all entries in that column. For columns that have a default value, such as Schedule Through, every cell is set to the default.</li> <li>• Clear All: erases the entire spreadsheet.</li> </ul>
	<p>Click to recalculate dependent dates while preserving slack time. Recalculates all date dependencies that are based on your changes; leaves any existing slack time between dependent tasks.</p>

Icon	Description
	Click to recalculate dependent dates while removing slack time. Recalculates all date dependencies that are based on your changes; removes any slack time between dependent tasks.
	<b>Undo.</b> Click to undo your last change.
	<b>Redo.</b> Click to reapply a change you undid with the Undo action.
	<p><b>Save.</b> Click this icon to select one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>Save:</b> Interim save, the spreadsheet remains in edit mode.</li> <li>• <b>Save and Finish:</b> Saves your work and displays spreadsheet view mode.</li> <li>• <b>Save and Return to List:</b> Saves your work and displays the most recently selected list of projects.</li> </ul>
	<b>Cancel.</b> Return to spreadsheet view mode without saving edits that are made since your last save.




Click one of the following options to complete your work:

- **Cancel.** Return to spreadsheet view mode without saving edits that are made since your last save.
- **Save:** Interim save, the spreadsheet remains in edit mode.
- **Save and Finish:** Saves your work and displays spreadsheet view mode.


## Work in spreadsheet view mode

When you initially click the Workflow tab, it displays in spreadsheet view mode and offers the following user interface controls.

**Table 11. Controls on the Workflow tab**

<b>Control</b>	<b>Description</b>
Breadcrumbs links	Breadcrumbs (links to the pages you visited before you arrive at the current page) are located above the projectList, On-demand Campaign, or Corporate Campaign name. Click any active link in the breadcrumb trail to go to that page.
	<b>Edit.</b> Changes the display to edit mode so that you can add, remove, and change workflow stages and tasks and enter detailed information for the tasks. For more information, see <a href="#">Edit mode toolbar (on page 108)</a> .
	<b>Save as Template.</b> Saves the workflow definition as a reusable workflow template (if you have the permission to do so).  A dialog opens for you to name the template. For more information about using template components, see the Collaborate Administrator's Guide.
	<b>Spreadsheet View.</b> Changes the display to spreadsheet view mode, which provides information about each task in tabular format.  When you view the workflow as a spreadsheet, each task name is a link. Click a task to open a dialog where you can add and change information about the task. For more information, see <a href="#">Post Task Update dialog (on page 92)</a> .  <b>Weekly Timeline View.</b> Changes the mode to present a graphic display of scheduling information for the tasks, including duration and status. For more information, see <a href="#">Timeline view mode (on page 101)</a> .  When you view the workflow on a timeline, each task name is a link. Click a task to open a dialog where you can add and change information about the task. For more information, see <a href="#">Post Task Update dialog (on page 92)</a> .



Control	Description
	<p><b>Layout.</b> Opens a dialog where you can select the columns that you want to display in spreadsheet view mode, and choose the time scale and dates to include in timeline view mode. For more information, see <a href="#">Spreadsheet or timeline view customization (on page 102)</a>.</p>

## Changing the layout of the workflow

You can change the layout of the spreadsheet and timeline views of the workflow to display the information that you need.

1. In the **Workflow tab**, click **Layout**.

The Instance Workflow Tab Layout dialog box opens.

2. In the **Spreadsheet Layout** section, select the check boxes of all columns you want to show in the workflow.

You can also use the links after **Columns to display:** to select subsets of available columns.

3. Set the first column width for the spreadsheet view.
4. In the **Timeline Layout** section, select values from the **Time Scale**, **Bars Represent**, and **Bar Captions** drop-down lists.
5. Set the first column width for the timeline view.
6. To have these settings apply only to the currently opened workflow, as opposed to all workflows you view, check **Use these settings for current workflow only**.
7. Click **Apply** or **Apply and Close** to save your selections.

The view of the workflow is updated to reflect your selections.

## Setting the first column width

You can change the width of the first column in the workflow spreadsheet view and keep this setting for your entire session.

To set the first column width, complete the following steps.

1. Navigate to the **Workflow** tab of the project Advanced List, On-demand Campaign, or Corporate Campaign.
2. Use the column width control to resize the first column to your preferred width.
3. Click **Layout** in the upper right section of the screen.
4. In the **Instance Workflow Tab Layout** dialog, complete the following steps:
  - a. In the **First Column Width** section, select **Remember Last Setting**.
  - b. At the bottom of the dialog, check the **Make these the default settings for this project's workflow tab** box.
5. Click **Apply and Close** to save your changes and close the dialog.

The first column width is now set for this Advanced List, On-demand Campaign, or Corporate Campaign for the remainder of your session.

# Chapter 8. Flowcharts for Corporate Campaigns

For a Corporate Campaign, two flowcharts are typically run by corporate marketing through Campaign.

The two flowcharts are:

- A List selection flowchart selects target customers from your customer database. Field marketers then accept or decline the target customers who are associated with them.
- A second flowchart runs the campaign. It selects those customers that are approved by field marketers, associates them with offers, and fulfills the campaign.

## Flowcharts for On-demand Campaigns

For On-demand Campaigns, field marketers typically specify selection criteria made available by the administrator in the On-demand Campaign template.

That selection criteria is sent to the associated List selection flowchart in Campaign and used to select customers from the customer database.

A second flowchart runs the On-demand Campaign that is based on criteria you configure. For example, the On-demand Campaign can have an attribute to indicate whether it should be fulfilled locally or by the corporate office. If it is to be fulfilled locally, the flowchart generates a file that is attached to the On-demand Campaign, and the field marketer can use this file to fulfill the campaign. If it is to be fulfilled by the corporate office, then the results are written to a table that the corporate marketer can use for fulfillment.

While the flowcharts run in Campaign, field marketers can complete all their work through Collaborate. The Flowchart Run tasks in the workflow execute the Campaign flowcharts in the background.

Typically, corporate marketers design and create the flowcharts in Campaign, as well as templates and forms in Collaborate; field marketers work only within Collaborate.

## Flowcharts for Lists

For Lists, field marketers typically specify selection criteria made available by the administrator in the List template.

That selection criteria is sent to the associated list selection flowchart in Campaign and used to select customers from the customer database.

While the flowchart runs in Campaign, field marketers can complete all their work through Collaborate. The Flowchart Run task in the workflow executes the Campaign flowchart in the background.

Typically, corporate marketers design and create the List selection flowcharts in Campaign; field marketers work only within Collaborate

## List selection flowcharts

A list selection flowchart in Campaign uses certain criteria to select customers from the customer database.

This criteria is specified in a Select process.

The flowchart must also contain a Snapshot or Extract process to write the selected list to the Collaborate database.

## List selection flowcharts for Corporate Campaigns

For Corporate Campaigns, the corporate marketer creates and generates the List through Campaign. The contact list is then made available to subscribed field marketers using Collaborate for validation.

### **Steps for generating the Corporate Campaign List**


The following steps outline the tasks for generating the Corporate Campaign List:

1. The corporate marketer creates the Corporate Campaign and the linked campaign, by accessing the **Corporate Campaigns** page through the **Corporate Campaign** command in the **Local Marketing** menu.
2. The corporate marketer configures the linked campaign, by accessing the campaign through the **Campaigns** command in the **Campaign** menu.
3. The corporate marketer builds the List selection flowchart, by accessing the campaign through the **Campaigns** command in the **Campaign** menu.
4. A Corporate Campaign workflow task runs the List selection flowchart.
5. In Campaign, the flowchart runs, resulting in the List being written to the Collaborate database.
6. The corporate marketer accepts the contact list.

### How Corporate Campaign selections are stored

You should design the list selection flowchart that is associated with a Corporate Campaign so that when it runs in Campaign the selected customers are stored in the Collaborate system database, in the `uacc_corporate_lists` table.

### Generating and storing the list through the flowchart


 **Note:** Before the flowchart can store the list selections in the `uacc_corporate_lists` table, the table must be mapped in Campaign.

List selections are made through a Select process in the flowchart. You define the SQL statements to select desired customers for the Corporate Campaign. For example, the Select process might select all customers with a savings account within a specific range.

You can use one or more Select processes to select the target customers for the Corporate Campaign list.


Following the Select processes, you add a Snapshot or Extract process. When you configure the Snapshot or Extract process, ensure that you:

- Export the selections to the `uacc_corporate_lists` table.
- Select the **Append to Existing Data** radio button.

 **Note:** The `uacc_corporate_lists` table contains the history of all the generated lists. If you select either **Replace All Records** or **Update Records**, the contents of the table are overwritten or updated and all the lists are deleted or updated.

## Mapping database fields to the `uacc_corporate_lists` table

In the list selection flowchart, you must map fields in your customer database to the following fields in the `uacc_corporate_lists` table:

Field	Field Type	Saved Value
ListId	Campaign Generated Field	<i>CampaignCode</i> . Generated field <i>CampaignCode</i> should be mapped against <i>ListId</i> field.
AudienceLevel	Derived Field	The audience levels configured in the List Manager module must be hardcoded with the values configured in the <code>listmanager_tables.xml</code> file (for example, "P" for People Table or "P/C" for People Table/Contract Table).
UserBranch	N/A	Not required.
UserID	<Customer_User>	The user name of the field marketer or corporate marketer that is running the flowchart.   <b>Note:</b> Internally, all flowcharts are run by the same Campaign user. The flowchart uses the <b>UserName</b> variable to store in the <b>UserID</b> field the user name of the field marketer or corporate marketer who ran this flowchart.
GenerationDate	<Generate_Date>	Date on which the records are generated. This can be a specific date, a formula, or a date indicated in the campaign.
Status	Derived Field	All records are initially set to T, for To Accept, which corresponds to Waiting in the user interface.

Field	Field Type	Saved Value
		List records can have one of four status values, depending on the actions of field marketers during validation: <ul style="list-style-type: none"> <li>• T: To Accept</li> <li>• V: Accepted</li> <li>• A: Added</li> <li>• D: Deleted</li> </ul>
Audience Level ID	<CustomerID> or <AccountID>	The unique ID for the target of the campaign, typically a Customer ID Or Account ID.

You may need to map additional fields for filtering purposes. For example, if the `region_id` column was added for Data Level Filtering, you need to map it as well.

## List selection flowcharts for On-demand Campaigns and Lists

For On-demand Campaigns and Lists, the corporate marketer typically creates the flowchart in Campaign, then field marketers run the flowchart and generate the lists.

### Steps for generating the On-demand Campaign or List customer list

The following steps outline the tasks for generating the customer list for an On-demand Campaign or List:

1. In Campaign, create and publish the list selection flowchart.
2. In Collaborate, create and publish forms, then add them to a template with custom tabs for displaying the flowchart forms.
3. In Collaborate, create the On-demand Campaign or List using the appropriate template.
4. In Collaborate, select the list composition criteria.
5. In Collaborate, generate the list by running the flowchart.

## User variables for list selection flowcharts

When you build the List selection flowchart in Campaign, you must first specify the user variables to be used in the queries to select your contacts.

You must define two types of user variables:

- All user variables that map to selection criteria that you want field marketers to be able to set when creating an On-demand Campaign or List. For example, if you want field marketers to be able to select an `Income Range` for an On-demand Campaign, you must define a user variable for `Income Range` in the list selection flowchart.
- All user variables that are specified in the following table:

User Variable	Data Type	Value
UserName	Text	<p><code>&lt;User_name&gt;</code> (the ID that the user enters to log in to Collaborate).</p> <p>This parameter is never displayed in Collaborate.</p>
ListId	Text	<p><code>&lt;ID_List&gt;</code></p> <p>This parameter is displayed as the List Code in the <b>List Summary</b> page, or the On-demand Campaign Code on the <b>On-demand Campaign Summary</b> page.</p>
ListSection <code>&lt;Anycharacter_string&gt;</code>	Text	<p>Allows you to combine lists to form new lists.</p> <p>All variables with the prefix "ListSection" are linked to the list of Lists.</p> <p>The list of all Lists contain the field marketer's active Lists that can be included or excluded.</p>



## Guidelines for list selection flowcharts for On-demand Campaigns and Lists

When you build the list selection flowchart in Campaign, you must follow specific guidelines.

The specific guidelines are as follows.

- You must specify the flowchart name in the template for On-demand Campaigns or Lists from which the flowchart is run.
- You cannot use the following processes in a list selection flowchart:
  - Plan
  - Create Segment
  - Cube

If you are using the List Manager, follow these additional guidelines:

- For On-demand Campaigns, the flowchart must end with a Snapshot or Extract process that writes the selections to the `uacc_ondemand_lists` table in the Collaborate system database.
- For Lists, the flowchart must end with a Snapshot or Extract process that writes the selections to the `uacc_lists` table in the Collaborate system database.


### How On-demand Campaign or List selections are stored

When the list selection flowchart associated with an On-demand Campaign or List runs in Campaign, the selected customers are stored in the Collaborate system database.

On-demand Campaign selections are stored in the `uacc_ondemand_lists` table.

List selections are stored in the `uacc_lists` table.

### Generating and storing the list through the flowchart


 **Note:** Before the flowchart can store the list selections in the `uacc_ondemand_lists` or `uacc_lists` table, the table must be mapped in Campaign.

List selections are made through one or more Select processes in the flowchart. You define the SQL statements to select desired customers for the On-demand Campaign or List. For example, the Select process might select all customers with a savings account within a specific range.

You also use user variables to specify parameters in Collaborate that are used as selection criteria in the flowchart in Campaign.

If you are using the List Manager following the Select processes, you add a Snapshot or Extract process. When configuring the Snapshot or Extract process, ensure that you:

- Export the selections to the `uacc_ondemand_lists` or `uacc_lists` table.
- Select the **Add to Existing Data** radio button.

 **Note:** The `uacc_ondemand_lists` and `uacc_lists` tables contain the histories of all the generated lists. In the flowchart in Campaign, if you select either **Replace All Records** or **Update Records**, the contents of the tables are overwritten or updated and all the lists are deleted or updated. The lifecycle of data in these tables is meant to be managed through Collaborate. For example, when you delete a List, the data for that List is cleared. In addition, when the List is rerun, entries from previous runs of that list are cleared from the table.

### Mapping database fields to the `uacc_ondemand_lists` or `uacc_lists` table

In the list selection flowchart, you must map fields in your customer database to the following fields in the `uacc_ondemand_lists` or `uacc_lists` table:

Field	Field Type	Saved Value
ListId	User Variable	<i>UserVar.ListId</i>
AudienceLevel	Derived Field	The audience level(s) configured in the List Manager module must be hardcoded with the values configured in the <code>listmanager_tables.xml</code> file (for example, "P" for People Table or "P/C" for People Table/Contract Table).
UserBranch	N/A	N/A

Field	Field Type	Saved Value
UserID	User Variable	<i>UserVar.UserName</i>  User to which the selected customer is associated. The value must correspond to the ID that the user uses to log in.
GenerationDate	<Generate_Date>	Date on which the records are generated. This can be a specific date, a formula, or a date indicated in the campaign.
Status	Derived Field	"V" is hardcoded.  All records are set to "Accepted" by default.  List records can have one of four status values, depending on the actions of field marketers during validation: <ul style="list-style-type: none"> <li>• T: To Accept</li> <li>• V: Accepted</li> <li>• A: Added</li> <li>• D: Deleted</li> </ul>
AudienceLevelID	<CustomerID>	ID of references

You may need to map additional fields for filtering purposes. For example, if the `region_id` column was added for Data Level Filtering, you need to map it as well.

## Campaign fulfillment flowcharts

A campaign fulfillment flowchart in Campaign begins the actual marketing campaign and controls how specific offers are sent to selected customers.

For On-demand Campaigns, corporate marketers build the campaign fulfillment flowchart in Campaign and associate it with an On-demand Campaign template in Collaborate. Field marketers then run the campaign fulfillment flowchart from within Collaborate.

The selected customers are handled differently for Corporate Campaigns and On-demand Campaigns.

## Campaign fulfillment flowcharts for Corporate Campaigns

The Corporate Campaign fulfillment flowchart can be executed by a Run Flowchart task in the workflow, or the corporate marketer can create and run the fulfillment flowchart through Campaign.

### How you select target customers in the campaign fulfillment flowchart

You select target customers in the campaign fulfillment flowchart from the `uacc_corporate_lists` table in the Collaborate system database.

In a Corporate Campaign, field marketers must approve their associated target customers for inclusion in the campaign. Field marketers can also add customers who were not in the original list that is generated by the list selection flowchart. Only approved or added customers should be selected by the Corporate Campaign's fulfillment flowchart.

The list selection flowchart records the original list of customers in the `uacc_corporate_lists` table in the Collaborate system database. When field marketers review the customer list, their rejections, and additions are recorded in the `uacc_corporate_lists` table as well.

Therefore, the campaign fulfillment flowchart must select the approved target customers from the `uacc_corporate_lists` table, not the original table in the customer database.

### Filtering targets in the `uacc_corporate_lists` table to select the right customers

When you select customers from the `uacc_corporate_lists` table in the Collaborate system database, you must filter your selections that are based on two criteria:

- **Project Code**

You must select only target customers for this Corporate Campaign by matching the campaign's unique code with the `project_code` value. For example, the Select process in the flowchart could include the statement:

```
project_code = "CorpCamp029"
```

- **Status**

You must select only approved target customers by matching values of `A` or `V` in the `Status` column. The Select process in the flowchart should include the statement:

```
Status in ('A', 'V')
```

## Campaign fulfillment flowcharts for On-demand Campaigns

For On-demand Campaigns, the corporate marketer creates and publishes the campaign fulfillment flowchart through Campaign.

Corporate marketers, or administrators, add the form that is automatically created by the publishing of the flowchart to an On-demand Campaign template. Field marketers then use the On-demand Campaign template to create new On-demand Campaigns.

A field marketer runs the campaign fulfillment flowchart for an On-demand Campaign through Collaborate.

### How you select target customers in the campaign fulfillment flowchart

You select target customers in the campaign fulfillment flowchart from the `uacc_ondemand_lists` table in the Collaborate system database.

The list selection flowchart for the On-demand Campaign records the list of customers in the `uacc_ondemand_lists` table. Field marketers refine this list by refining the selection criteria for the On-demand Campaign and rerunning the list selection flowchart.

## **Filtering targets in the `uacc_ondemand_lists` table to select the right customers**

When you select customers from the `uacc_ondemand_lists` table in the Collaborate system database, you must filter your selections that are based on the `UserVar.ID_List` user variable.

### **On-demand Campaign fulfillment**

Corporate marketers can specify On-demand Campaign fulfillment requirements to field marketers through a custom tab on the On-demand Campaign template.

### **Local or corporate service fulfillment**

Depending on how your administrator configured the On-demand Campaign template, you might have to fulfill the On-demand Campaign. Or, you might be required to use a corporate service to fulfill the campaign. Or you might have to choose between these methods.

When you are permitted by the corporate office to fulfill the On-demand Campaign, the corporate marketers might configure the mail merge feature to facilitate fulfillment.

### **The mail merge feature**

Field marketers or corporate marketers can use the Collaborate mail merge feature to personalize standard letters by merging a Microsoft™ Word letter document with a file that contains contact data for on-demand marketing campaign target customers.

## **View campaign and list attributes in Collaborate**

Corporate marketers can expose the list and campaign attributes. The attributes can then be viewed by field marketers for On-demand Campaigns and Lists.

### **Field marketers view of campaign and list attributes**

Field marketers can view the selection criteria for a List or On-demand Campaign, and the fulfillment specifications for an On-demand Campaign. This information comes from the flowchart attributes the corporate marketer exposes in Collaborate.

Selection criteria and fulfillment specifications are made available as tabs in the template for the On-demand Campaign or List.


Field marketers cannot view this information for Corporate Campaigns; therefore, these tabs are not available in Corporate Campaigns.

## Making flowchart attributes visible in Collaborate

For On-demand Campaigns, corporate marketers can make list and campaign attributes visible to field marketers by using Collaborate.

Before you can complete this task, you must define the selection criteria as user variables.

1. Edit the flowchart with the criteria you want to make visible to field marketers.

2. In the flowchart editor, click the **Options** icon (  ).


3. From the drop-down menu, select **Parameter List**.

The Campaign Settings window displays the Expose Parameters tab.

This tab contains all the settings that are used in the processes that are contained in the flowchart, as well as the user variables that you have already defined.

4. Check the box next to the parameters that you want to be visible to field marketers.

Only the selected parameters are visible in Collaborate.

 **Important:** Each published flowchart must have the user variables **UserName** and **ListID**. If these two user variables are not present when the flowchart is published, the associated form in Collaborate is not saved. These variables must also be exposed to publish and create forms.

5. Select the name of each checked user variable or setting to define how they are displayed in Collaborate:

- a. Enter the name of the setting that is selected in the **Prompt** field to use as the name of the linked field in Collaborate.

b. Enter the text that is displayed in a help bubble if the field marketer selects the associated help icon in Collaborate.


c. Select desired interface in which the criteria value are input or selected in Collaborate.

The following types are available:

- Edit Box
- Select One From Drop-Down List
- Select One using Radio Buttons
- Select Multiple From List
- Select Multiple Using check box

6. Redefine the default value if it is not correct.

The default value of the user variable is specified in the **Default Value** field, if it is assigned to the variable.

 **Note:** If you do not select a user variable, Collaborate uses the value that is specified in the **Default Value** field. If no default value is specified, then all possible values are selected.

7. Click **OK** when finished.

## Process display settings and field marketer actions

Each process in Campaign has its own group of settings to which you can provide access.

The following table describes the possible actions a field marketer can take for each selected setting.

Processes	Display Settings	Supported Field Marketer Actions
Select	Query Expression	Enables the user to edit the request that is used by the process.
Export	Cell Size Limit	



Processes	Display Settings	Supported Field Marketer Actions
	Cell Size Limit Method Cell Size Limit Random Seed Result Cell Size (output)	Enables the user to set this limit  Not supported  Not supported  Displays the total number of customers who meet the selection or export criteria in the Results tab.
Merge Reference	Cell Size Limit Result Cell Size (output)	Enables the user to set a target count limit.  Displays the total number of customers who meet the selection or export criteria in the Results tab.
Segment	Mutually Exclusive Segments For each segment: Cell Size Limit / Query Expression / Result Cell Size (output)	Not supported.  See above. Query Expression is not supported.
Sample	Random Seed Specify Size by For each sample: Cell Size Limit / Result Cell Size (output)	Enables the user to select records randomly.  Enables the user to specify the type of sample (percent or number of records).  See above.
Snapshot Output	Export To Export Operation	Enables the user to save the extraction result in a table or a file.

<b>Processes</b>	<b>Display Settings</b>	<b>Supported Field Marketer Actions</b>
Event	Export Table/File Name Delimited file Include Headers Output File/Table Name	<p>If the process is configured to export data to a table or a file, you can view the file name and location, or let the user specify her own name and location for the file.</p> <p>Enables the user to include the column headers in the tables.</p> <p>If the process is configured to export data to a table or a file, the name of the output file must be entered for the generated file to be attached to the list or campaign in Collaborate.</p>
Segment	Mutually Exclusive Segments For each segment: Cell Size Limit / Query Expression / Result Cell Size (output)	<p>Not supported.</p> <p>See above. Query Expression is not supported.</p>
MailList CallList	Random Seed	<p>If the process is configured to export a contact list, the name of the export table/file must also be entered for the generated file to be attached to the On-demand Campaign in Collaborate.</p>

## Running flowcharts

For Corporate Campaigns, the corporate marketer must run the list generation flowchart through a Flowchart Run task in the workflow.


### Running flowcharts for Corporate Campaigns

For fulfillment flowcharts, the corporate marketer has the option of running the flowchart through Campaign.

### Running flowcharts for On-demand Campaigns and Lists

For On-demand Campaigns or Lists, the field marketer schedules the flowcharts when editing the On-demand Campaign or List workflow, or runs them directly via the Generate List and Run Campaign links in the Summary tab of the On-demand Campaign or list in Collaborate.

A field marketer can also run the flowchart from the Summary tab of the On-demand Campaign or List, by clicking **Run Campaign** or **Generate List**.

 **Note:** Field marketers typically do not work directly in Campaign.

### Reviewing run history

You can view the history of flowchart runs in the **Analysis** tab of the Corporate Campaign, On-demand Campaign, or List. In the Analysis tab, select **Run History** from the drop-down list in the upper-right corner.

For each run, the run history shows user variables, input, and output parameters and counts for the generated lists.

## Attaching flowchart output files to On-demand Campaigns

For an On-demand Campaign, you can have flowchart output files that are attached automatically.

To attach files, follow these guidelines:

- Output files must be exported by the flowchart to a single folder on the Campaign server under partitions/partition\_x.
- You must expose the **Output File** output parameter to Collaborate so that the system knows which file in the directory to attach to the List or On-demand Campaign.
- You must make flowchart attributes visible in Collaborate
- You must specify the access mode and path between the Collaborate server and the Campaign server in the `collaborate_config.xml` file.

You can choose to retrieve files by:


- Accessing the Campaign folder (the default)
- FTP
- HTTP
- TFTP

# Chapter 9. Working with Lists, On-demand Campaigns, and Corporate Campaigns

This section contains common information about working with Lists, On-demand Campaigns, and Corporate Campaigns.

The content in this section applies to each of these objects, as the instructions are the same. For example, you delete a List, On-demand Campaign, or Corporate Campaign in the same way; therefore information about deleting these objects is presented together.


Where necessary, differences between Lists, On-demand Campaigns, and Corporate Campaigns are noted.

 **Note:** You may not have the necessary permissions to perform all tasks that are described in this section, or you may have permissions to perform the task on some objects, but not others. For example, field marketers can typically make changes to Lists and On-demand Campaigns, but can only view Corporate Campaigns. For more information, see your administrator.

## Viewing and editing the **Summary** page

You can edit some, but not all, data on the **Summary** page for a List, On-demand Campaign, or Corporate Campaign.

By default, the **Summary** section for a List, On-demand Campaign, or Corporate Campaign is collapsed while in view mode. You can expand the section by clicking the header.

1. Open the List, On-demand Campaign, or Corporate Campaign to view the **Summary** page.
2. Click the **Edit** icon ().

Certain fields in the **Summary** page become editable. For example, fields that you can typically edit are

- Name
- Description
- Target Start Date
- Target End Date
- Other custom attributes that are created by your administrator

Typically, you cannot edit campaign codes or List Review data.

3. Edit data as necessary.

4. Click **Save Changes**.

The **Edit Summary** page closes, and the changes you made are reflected in the **Summary** page.

## Modifying the default contents of the Lists, On-demand Campaigns, and Corporate Campaigns pages

You can change which Lists, On-demand Campaigns, or Corporate Campaigns are displayed by default, as well as the columns included in the page.

When you select **Lists**, **On-demand Campaigns**, or **Corporate Campaigns** from the **Local Marketing** menu, a page opens listing those objects.

1. While you are viewing the Lists, On-demand Campaigns, or Corporate Campaigns page,

click the **Options** icon (  ).

The Options dialog box opens.

2. In the Default drop-down list, select the set of Lists, On-demand Campaigns, or Corporate Campaigns that you want shown by default when you open that page.

3. Determine which columns to show by selecting columns from the **Available Columns** list and **Selected Columns** list and by using the horizontal arrow keys to move columns between lists.

Continue until the columns you want to display are all in the **Selected Columns** list.

4. Determine the order of columns by selecting columns in the **Selected Columns** list and by using the vertical arrow keys to move columns up and down.

Continue until the columns are in the wanted order.

5. Click **Save Changes**.

The Lists, On-demand Campaigns, or Corporate Campaigns page changes to reflect your selections. These changes remain in effect when you view the page later.

## Modifying how Lists, On-demand Campaigns, and Corporate Campaigns are displayed

You can change how Lists, On-demand Campaigns, or Corporate Campaigns are displayed in multiple ways.

When you select **Lists**, **On-demand Campaigns**, or **Corporate Campaigns** from the Navigation pane, a page opens listing those objects. The exact content depends on settings that are defined by your administrator.

1. To change how objects are displayed, click the **View** icon (  ).

The Set View Options dialog box opens.

You can select:

- **Timeline**, to show the objects in a table format.
- **Text Calendar**, to show the objects as text entries in the calendar.
- **Graphical Calendar**, to show the objects as graphics in the calendar.

You also select the time period and color coding.

To return to the table view, click the object name in the Navigation pane.

2. To sort the objects when you view as a table, click the name of the column to sort by.  
You can click the name again to switch between ascending and descending order.

The number of objects may be too high for a single screen. If there are multiple screens, you can click the screen number to view at the bottom of the table to see other objects. Additionally, you can click **Show All** to fit all objects in one screen.

## Viewing specific Lists, On-demand Campaigns, or Corporate Campaigns

You can change which Lists, On-demand Campaigns, or Corporate Campaigns are displayed in multiple ways.

When you select **Lists**, **On-demand Campaigns**, or **Corporate Campaigns** from the **Local Marketing**, a page opens listing those objects. The exact content depends on settings that are defined by your administrator.

1. To view all objects, click **All ...** at the top of the page.

All objects are displayed, as well as various filters for the display, for example, **Last Weeks ...**, **My ...**, and **Completed ...**. You can click a filter name to see only objects that meet that criteria.

2. To view objects that meet certain criteria, click the **Filter** icon ().

The Search for dialog box opens.

3. Complete the search criteria that you need, then click **Apply**.

## Opening and editing a List, On-demand Campaign, or Corporate Campaign

You can open a List, On-demand Campaign, or Corporate Campaign from the **Dashboard** or from the page listing that object.



You must have the required permissions to open and edit a List, On-demand Campaign, or Corporate Campaign. For more information, see your administrator.


After you open a List, On-demand Campaign, or Corporate Campaign, you can edit any of its tabs.

1. Click the name of the List, On-demand Campaign, or Corporate Campaign.

The Summary tab for that object opens.

2. Click the name of the tab you want to edit, or remain on the Summary tab to edit it.

For example, if you edit the Workflow, you must open the Workflow tab before you click Edit.

3. Near the top of the page, next to the object's name, click the **Edit** icon ().

4. Edit the contents of the tab as necessary.

5. Click **Save Changes**.

Edits that you made to the tab are saved.

## List, On-demand Campaign, and Corporate Campaign status

A List, On-demand Campaign, or Corporate Campaign each have a status.

The following states are:

- Not Started
- In Progress
- Paused
- Canceled
- Finished

Simple Lists begin in the In Progress state.

Advanced Lists, On-demand Campaigns, and Corporate Campaigns, whether recurring or not, begin in the Not Started state.

## Changing the Lists, On-demand Campaigns, or Corporate Campaign status

The status of the List, On-demand Campaign, or Corporate Campaign is shown in the home page, the pages that list these objects, and in the **Summary** page.

To change the status, you must be viewing the List, On-demand Campaign, or Corporate Campaign Summary page.

1. View the **Summary** page for the List, On-demand Campaign, or Corporate Campaign.
2. From the drop-down list, select the status to change to. Your options are Pause, Cancel, or Finish.


A dialog box prompts you to add comments about the status change.

3. Add a comment and click **Continue** to close the dialog box.

The status of the List, On-demand Campaign, or Corporate Campaign changes to your selection.

## Printing a List, On-demand Campaign, or Corporate Campaign

When you view a List, On-demand Campaign, or Corporate Campaign, you can print it on your local printer.


1. Open the List, On-demand Campaign, or Corporate Campaign.
2. Click the **Print** icon () , and select **Print**.

The Print dialog box opens.

3. Complete the Print dialog box as needed.

## Exporting a List, On-demand Campaign, or Corporate Campaign

When you view a List, On-demand Campaign, or Corporate Campaign, you can export it to a Microsoft Excel file.

1. Open the List, On-demand Campaign, or Corporate Campaign.
2. Click the **Print** icon () , and select **Export**.


The File Download dialog box opens.

3. Click **Open** to open the Microsoft Excel file directly, or **Save** to save it to your computer.

If you choose to save it, you are prompted for the location on your computer.

## Copying a List, On-demand Campaign, or Corporate Campaign

When you view a List, On-demand Campaign, or Corporate Campaign, you can copy it to create one with the same settings.

1. Open the List, On-demand Campaign, or Corporate Campaign.
2. Click the **Copy** icon () .

You are prompted to confirm the copy.

3. Click **OK**.

The **Summary** page for the new List, On-demand Campaign, or Corporate Campaign opens. The name of the new object is *Copy of existing object name*.

4. Edit information in the **Summary** page as needed.

5. Click **Save Changes**.


The object closes.

6. To edit other pages in the List, On-demand Campaign, or Corporate Campaign, open, and edit the object.

## People and teams

In Collaborate, you assign work to teams or individual users.

You assign people or teams to units of work. You make assignments primarily through the People tab on a project, on a List, On-demand Campaign, or Corporate Campaign. You can also add and assign members, teams, and roles when you edit the workflow tab.

 **Note:** You might see only a subset of the people and teams available. Your organization can limit the view of available resources.


## People tab

Each Corporate Campaign contains its own People tab.

Use this screen to do the following activities.

- Manage the members of a Corporate Campaign.
- Edit the access level for a member.
- Replace a person in a role when a team member/user becomes unavailable.
- Add or remove a role.
- Track team members or request recipients who are out of the office, their delegates, and start dates. (Displays for project or request owners only.)

A Corporate Campaign template can contain information about the functional roles for the project. A template can reduce some of the work necessary to assign people or teams to units of work within the Corporate Campaign.

 **Note:** By default, the People tab is available only for Corporate Campaigns. For information about making it available for Lists or On-demand Campaigns, see the *Collaborate Administrator's Guide*.

## Managing Corporate Campaign members

Use the **People** tab of the Corporate Campaign to manage team members.

To manage Corporate Campaign members, complete the following steps.

1. Click **Edit Member/Role Settings** icon (  ). **Members**.

The **Select Team Members** dialog box opens.

2. Do any of the following options:

- To add a person or team, select the name from the left pane of the dialog, and click **>>**.
- To remove a person or team, select the name in the **Select Team Members** list box and click **<<**.
- To change the role for a person or team, select the name in the **Select Team Members** list box then click **Up** and **Down** to move it to the required role.

 **Note:** You cannot remove a user or team that is assigned to a task.

3. Click **Save Changes**.

The **Select Team Members** dialog box closes. The **People** tab becomes the active window.


The changes that you make are reflected in the list of people and roles. For example, if you added a creative lead, the screen would contain a line similar to the following example:

Member/Access Level	Role	Email Address
P Picasso (participant)	Creative Lead	ppicasso@mycompany.com

## Selecting team members for a Corporate Campaign

You can select other Collaborate users to participate in the Corporate Campaign.

You can assign participants as individuals, or by role. When you assign participants by role, you can assign an entire group of field marketers to participate in a Corporate Campaign at one time.

1. Open the Corporate Campaign.
2. Open the **People** tab.
3. Click the **Edit Member/Role Settings** icon (  ).

The Select Team Members dialog box opens.


4. To assign team members by role:
  - a. In the upper left of the dialog box, click **Roles**.
  - b. Select roles to assign to the Corporate Campaign from the list on the left.
  - c. Click the right-pointing arrow button to move the selected roles to the Selected Team Members list on the right.
5. To assign individual users:
  - a. In the upper left of the dialog box, click **Folders**.
  - b. Expand the folder entries and select individuals to assign to the Corporate Campaign from the list on the left.
  - c. Click the right-pointing arrow button to move the selected users to the Selected Team Members list on the right.
6. Click **Save Changes**.

You can now assign work for the Corporate Campaign by role.

## Editing Corporate Campaign member access levels

You can control the access level other Collaborate users have to the Corporate Campaign.

You can specify whether users are Owners or Participants of the Corporate Campaign. The specific privileges of Owners and Participants are determined by the user permissions that are defined by the Collaborate administrator.

1. Open the Corporate Campaign.
2. Open the **People** tab.
3. Click the **Edit Member/Role Settings** icon (  ).

The Select Team Members dialog box opens.

4. To add users:
  - a. Expand the folder entries and select individuals to assign to the Corporate Campaign from the list on the left.
  - b. Click the right-pointing arrow button to move the selected users to the Selected Team Members list on the right.

5. To make a user an owner of the Corporate Campaign:

- a. In the Selected Team Members list, select the user.
- b. Click **Up**.

Repeat this step until the user appears under **Owner** in the list.

6. To make a user a participant in the Corporate Campaign:

- a. In the Selected Team Members list, select the user.
- b. Click **Down**.

Repeat this step until the user appears under **Participant** in the list.

7. Click **Save Changes**.

## Assigning work by role

You can add a user to any list of existing users that are assigned to a task or replace any existing assigned users by clicking the **Assign Work by Role** icon.

Before completing this task, you should select team members for the Corporate Campaign.

1. Open the Corporate Campaign.

2. Open the **People** tab.

3. Click the **Assign Work by Role** icon (  ).

A dialog box opens asking how you want to assign work. You can choose to do the following.

- Add the new user to any existing users assigned to the task.
- Replace any existing assigned users with the new user.

4. Select **append the new user** to add the new user to any existing users assigned to the task, or select **replace the existing assignment** to replace any existing assigned users with the new user.

5. Click **Apply**.

Users are assigned to tasks as you specified.

6. Click **Close**.



## Attachments

You can include attachments with a List, On-demand Campaign, or Corporate Campaign. These attachments provide information that is relevant to the campaign or List.

Corporate or field marketers might include the following as attachments, for example:

- Marketing messages for the initiative, including content for a mail campaign
- Data, such as customer names, generated after you run a List or On-demand Campaign

A List or On-demand Campaign owner or participant can include attachments only if the corporate template developers include the Attachments tab in the List or On-demand Campaign templates.

If the template developer includes attachments in the On-demand Campaign templates, field marketers or corporate marketers can use the attachments to help fulfill campaigns.

Corporate marketers can also add attachments to an On-demand Campaign when the Attachments tab is available through the On-demand Campaign template.

You can also include restricted attachments, such as `upload_allowedFileTypes` and `upload_fileMaxSize`. `upload_allowedFileTypes` indicates the types of files that can be uploaded in Collaborate, and `upload_fileMaxSize` indicates the limit on the maximum size of the file that can be uploaded.

## Adding an attachment to a List, On-demand Campaign, or Corporate Campaign

If the template designer allowed it, when you view a List, On-demand Campaign, or Corporate Campaign, you can add a file as an attachment.

The file that you add can come from your computer or a URL.

1. Open the List, On-demand Campaign, or Corporate Campaign.
2. Open the **Attachments** page.

3. Click the **Add Attachments** icon (  ).

4. In the **File to Attach** field, select **From My Computer** or **URL**.

5. In the field to the right, enter the path to the file.

If you selected From My Computer, you can click **Browse** to visually find the file on your computer.

6. **Optional:** Add notes about the attachment.

7. Click **Save Changes**.

The file is attached to the List, On-demand Campaign, or Corporate Campaign.

## Removing an attachment from a List, On-demand Campaign, or Corporate Campaign

You can delete an attachment from a List, On-demand Campaign, or Corporate Campaign by clicking the **Remove** button.

1. Open the List, On-demand Campaign, or Corporate Campaign.

2. Open the **Attachments** page.

3. In the row for the attachment to remove, click **Remove**.

You are prompted to confirm the deletion.


4. Click **OK**.


The file is no longer attached to the List, On-demand Campaign, or Corporate Campaign.

## Posting a message


When you view a List, On-demand Campaign, or Corporate Campaign, you can post a message.

This message is associated with the List, On-demand Campaign, or Corporate Campaign only. You have the option of having these messages sent to other Collaborate users. You might need to post messages to convey to others that work on the List, On-demand Campaign, or Corporate Campaign about important information about the project.

 **Note:** These messages are separate from alerts. An alert is created when you create a message, but the alert does not contain the content of your message.

1. Open the List, On-demand Campaign, or Corporate Campaign.
2. While you view any page of the List, On-demand Campaign, or Corporate Campaign, click the **Communicate** icon (  ), then select **Post a Message**.  
The Messages dialog box opens.
3. Enter your message in the message field.
4. Select the delivery option.
5. Click **Post Message**.

The message is then associated with the List, On-demand Campaign, or Corporate Campaign. If indicated, it is also sent to users by email.


For those working with the List, On-demand Campaign, or Corporate Campaign, the number next to the **Communicate** icon (  ), indicating that the new message is there.


## Reading messages

Other Collaborate users might attach messages to a List, On-demand Campaign, or Corporate Campaign to pass on important information to other team members.


When you view the List, On-demand Campaign, or Corporate Campaign, you can view these messages. These messages might also be sent to you by email, if the other users chose this option.

1. Open the List, On-demand Campaign, or Corporate Campaign.

The number of messages that are associated with the List, On-demand Campaign, or Corporate Campaign is indicated next to the **Communicate** icon (  ). In this example, there is one message to read.

2. Click  , then select **Read Messages**.

The Messages dialog box opens, listing the messages that are associated with the List On-demand Campaign, or Corporate Campaign.

 **Note:** You can post a new message from this dialog box.

3. Click **Close** when finished.


## Deleting Lists, On-demand Campaigns, or Corporate Campaigns

You must have the required permissions to delete a List, On-demand Campaign, or Corporate Campaign.

Typically, field marketers cannot delete Corporate Campaigns. For more information, see your administrator.


1. From the **Local Marketing** menu, click **Lists, On-demand Campaigns**, or **Corporate Campaigns**.

The page listing that object type opens.

 **Note:** To complete this task, you must view the objects in the Timeline view.

2. Check the field next to the name of one or more List, On-demand Campaign, or Corporate Campaign you want to delete.

You can also check the field next to the Name column header at the top of the table to select all currently displayed objects.

 **Note:** Checking this field selects only the objects that are currently displayed on screen. If the list of objects spans multiple pages, those objects on other pages are not selected.

3. Click the **Delete** icon (  ).

You are prompted to confirm the deletion.

4. Click **OK**.


The selected objects are deleted.

## Deleting a List, On-demand Campaign, or Corporate Campaign

You must have the required permissions to delete a List, On-demand Campaign, or Corporate Campaign.

Typically, field marketers cannot delete Corporate Campaigns. For more information, see your administrator.

While you view a List, On-demand Campaign, or Corporate Campaign, you can delete it.

 **Note:** You can also delete multiple Lists, On-demand Campaigns, or Corporate Campaigns from the pages that list each of these objects.

1. Open the List, On-demand Campaign, or Corporate Campaign.

2. Click the **Delete** icon (  ).

You are prompted to confirm the deletion.

3. Click **OK** to delete the object.

The List, On-demand Campaign, or Corporate Campaign is deleted.

# Chapter 10. Alerts


You can use alerts to communicate information to specific people about the state of an object or about an action that the user needs to take. Default alert subscriptions are set by administrators, but can be overridden on a per-object basis by owners and participants of the specific objects.

For workflow tasks, alerts are either brief or detailed.

## Subscribing to alerts for an object

Users who are not administrators can override default settings within a plan, program, project, or project requestList, On-demand Campaign, or Corporate Campaign. By overriding the default, you can control the alerts that each object owner and participant receives.

If there are permissions that are configured for any of the tabs of a project or requestList, On-demand Campaign, or Corporate Campaign, the system filters the alerts. For example, alerts about attachments are not sent to users who do not have access to a project **Attachments** tab.

1. Open the object for which you want to change alert subscriptions.
2. Click the **Communicate** icon (  ) and select **Subscribe to Alerts**.
3. From the list of alerts, select the alert that you want to change. You can set or clear alert subscriptions for each type of user: **Owner** or **Participant**. The possible entries are as follows:

Option	Description
<b>Check mark</b>	The user receives the alert or alarm.
<b>Blank</b>	The user does not receive the alert or alarm.
<b>n/a</b>	You did not specify team members/users for this access level (for example,

Option	Description
	Program Participant) when you created the object. After you add team members/users with the corresponding access level, you can set alerts for that access level.

4. Click **Accept** to save your changes or **Cancel** to leave the alert settings as they were.

## The Alerts page

When you receive an alert, go to the **Alerts** page to view it. Alerts are also sent to affected users' email addresses (for each user that has a valid email address that is set up).

For a detailed list of events that might trigger an alert and for more information about setting up alerts, see the Collaborate Administrator's Guide.

To view alerts, log in and click the **Alerts** icon (✉). Clicking, or scrolling, over the alerts icon shows a drop-down menu that separates the alerts for your installed applications. The number of alerts is displayed to the left of each application name. After you choose which application's alerts to view, the page displays the following information:

**Table 12. Columns on the Alerts page**



Column	Description
Page heading	The number of unread alerts, in parentheses, and the total number of alerts
Check box	Select alerts for a specific action, for example, to mark a group of alerts for deletion.  Select the box in the first line, next to the Message Text label, to select all the alerts.
Message text	Text of the alert



Column	Description
Date/Time	The time of the event that triggered the alert

You can perform the following actions from the **Alerts** page:

**Table 13. Controls on the Alerts page**

Link/Button	Description
	Select the envelope icon next to an alert to mark the alert as read.  After you click the icon, the alert is disabled. Reselect the icon to mark the alert as unread.
Alert title	Click the link in the alert to go to the object that is the subject of the alert.   <b>Note:</b> The <b>Alerts</b> page remains open while you view the information in a separate window.
Pages	Click a page number to list the corresponding page of alerts.
Delete Selected	Click to delete the selected alerts.
Delete All	Click to delete all of your alerts.
Mark All as Read	Click to mark all your alerts as read, graying out each alert. A confirmation screen is displayed to ensure that you want to mark all alerts as read.
Mark All as Unread	If you have no unread alerts, click this link to mark all your alerts as unread.
Close	Click to close the <b>Alerts</b> page.

# Chapter 11. Templates

Templates are definitions of a List, On-demand Campaign, or Corporate Campaign that corporate and field marketers use to create new objects.

As an administrator, you create templates and specify various parts of the object. For example, among the many settings you determine for a Corporate Campaign template are:

- The associated flowchart in Campaign
- Team members
- Workflow
- Custom tabs

All Lists, On-demand Campaigns, and Corporate Campaigns are based on a template you create, and the object inherits all settings from the template. Corporate or field marketers can change the object's settings as needed.

## **Why use templates?**

Templates are the required building blocks for Lists, On-demand Campaigns, and Corporate Campaigns. Users cannot create these objects without templates.

By using templates, you help users save time because they do not have to configure objects from the beginning; they need to only change settings that are specific to the List or campaign.

For example, if your organization is running multiple Corporate Campaigns that have the same team members and workflow, you can create a template with the right settings for the team and workflow. Corporate marketers then create the Corporate Campaigns that are based on this template, and do not have to configure the team members or workflow.

## Template components

Templates are made up of other components that the administrator creates and manages.

Specifically, templates can include the following components.

Component	Description
Tabs	Individual screens for the campaign. Tabs contain one or more forms.
Forms	Subsection of a tab, containing fields.
Field	Data element that is contained within a form. Each field has a specific format; some fields, for example contain text, and others contain a set of radio buttons. You can place fields into groups, and display them in either a 1- or 2-column layout.
Data mapping	Mappings of data between Collaborate and Campaign.
Icons	Small images that represent the object within the Collaborate user interface.
Attachments	Files or folders that are displayed on the Attachment tab of the List, On-demand Campaign, or Corporate Campaign.
Custom links	Hypertext links are displayed on selected tabs.
Workflow	The set of stages and tasks that are displayed in the project's workflow tab.

## Template creation

You create a template by assembling existing components. As you set up your system, you must create the other components before you can create templates.

### Plan your templates

Before you begin building templates, you must analyze your organization's needs, then decide on the templates you need.

For example, your organization might run three different types of On-demand Campaigns, with different target selection criteria and different workflows. You most likely need three different templates for these On-demand Campaigns.

In addition to planning the number and types of templates, you must plan for the types of objects you need in those templates. For example, the three On-demand Campaign templates you need can share the Summary form, but require different Selection Criteria forms and Workflows.

## Plan template contents

After you plan the types of templates you need, you must determine the contents of those templates; that is, you must decide which fields to include, and how to organize those fields.

You should capture this information about paper or in a spreadsheet, then use the Forms Editor to define the tabs and fields you need.

For example, you might determine that an On-demand Campaign template must include a field for the business unit that requests the campaign. You could list the requirements for this field as follows:

Field Attribute	Value
Internal Name	Business Unit
Display Name	Business Unit
Tab/grouping	In the Summary tab, under the Collateral Request Info section
Input field type	Single-Select
Possible values or database table to retrieve values from	Retail Banking, Investment Services, Insurance, Credit Card Brochure, Postcard, DataSheet, Intro Folder, White Paper, Print Ad, or a table name or column name where Collaborate should look up these values.
Required field/error message, if missing	Business Unit is a required field.
Help Tip	Enter the business unit that requests this collateral piece.

As a best practice, create a similar table for each field you require before you begin creating fields and tabs in the Forms Editor.

## **Before creating templates**

Templates depend on the existence of other, lower-level components. Therefore, you must set up the following objects before you set up templates:

1. Forms
2. Icons
3. Data Mapping
4. Workflows
5. Roles

# Chapter 12. Building and managing templates

To create and manage templates and template components, you use the **Template Configuration** page. Select **Settings > Collaborate Settings**. Then, click **Template Configuration**.

The items and functions on the **Template Configuration** page are organized into two sections, **Template Configuration** and **Templates Components**. There is also an option to validate all templates.

## Template Configuration section

The template configuration section of the **Template Configuration** page contains the **Templates** link. This link opens a page that lists all the existing templates and template folders that are organized by marketing object type. You use the links on that page to create, delete, and organize templates, and to edit or export individual templates.

## Validating templates

To run a utility that validates templates and forms and shows any validation errors, click **Validate Templates** in the template configuration section.



## Templates Components section


The templates components section of the page contains the following links.

**Table 14. Links in the Templates Components section**

### Links in the Templates Components section

Link	Description
Forms	Opens the <b>Form Definitions</b> page, which lists the form definitions and provides options for working with forms. The following information shows for each form definition: <ul style="list-style-type: none"><li>• Name of the form definition</li></ul> Name of the form

Link	Description
	<ul style="list-style-type: none"> <li>List of templates that use the form</li> </ul> <p>Click <b>Create Form</b> (  ) to add a form.</p> <p>Use the links and icons on the <b>Form Definitions</b> page to create, import, enable, disable, delete, export, copy, publish, and manage forms.</p>
Workflow	<p>Opens a list of separately saved workflow templates and shows the following information.</p> <ul style="list-style-type: none"> <li>Name</li> <li>The number of stages and tasks in the workflow template</li> <li>When it was first created and last modified</li> <li>Whether it is enabled</li> </ul> <p>You create workflow templates by saving the work that is done on the Workflow tab of a projectList, On-demand Campaign, or Corporate Campaign template or instance. You can use the links on this list page to delete, enable/disable, import, or export a workflow template.</p>
Data Mapping	<p>Opens a list of data maps and shows the following information.</p> <ul style="list-style-type: none"> <li>Data mapping file names</li> <li>Type: Campaign Data Mapping</li> <li>Type: Campaign Metrics Import (if you have data maps from previous versions, you might see other values)</li> <li>List of templates that use the mapping.</li> <li>Click <b>Add</b> (  ) to add a data mapping file.</li> </ul> <p>You can use the links on the <b>Data Mapping</b> page to add and delete data mapping files.</p>

Link	Description
	For more information, see <a href="#">Data Mapping Definitions (on page 185)</a> .
Icons	<p>Opens a list of icons and shows the following information.</p> <ul style="list-style-type: none"> <li>• Icon images; large and small</li> <li>• Icon name</li> <li>• List of templates that use the icon</li> <li>• Delete link for deleting the icon (does not delete the file from its location on disk)</li> </ul> <p>Click <b>Add</b> (  ) to add an icon.</p> <p>Click <b>Add Icon</b> to add an icon.</p> <p>For more information, see <a href="#">Icons page (on page 187)</a>.</p>

You can also transfer templates from one computer system to another using the export and import features.

## Templates Definition page

Use the links and commands on the **Templates Definition** page to work with templatesassemble template components into project, templates.




The page is organized by object types and lists all the existing templates for these object types. The sections, from top to bottom, are in the following order:

- Project templates

From this page, you can perform the following actions:

Action	Description
Edit	Click the template name to edit the template.



Action	Description
Enable or disable	<p>Click the link to toggle the state of the template, from <b>Enabled</b> to <b>Disabled</b> and back.</p> <p>When a template is enabled, you can use it to create an object.</p>
Delete	<p>Click to delete a template from the system. The link is only available for templates that do not have any objects that are created from them.</p>
Add	<p>Click <b>Add template</b> in the section of the list for the type of template you want to add a template.</p> <p>Click the <b>Add</b> icon (  ) to add a template. From the icon's drop-down list, select the type of object for which you want to create the template.</p>
Open folder	<p>Click the folder name to open the folder.</p>
Jump to Folder	<p>Click <b>Jump to Folder</b> to navigate to and open another template folder.</p>
Move items	<p>Select the items to move, then click the <b>Move Items</b> icon (  ) to display a screen where you can choose a new folder for selected items.</p> <p>Select the items to move, then click <b>Move Item(s) to</b>. You then select a template folder to which to move the template.</p>
Add folder	<p>Click <b>Add Folder</b> to create a template folder.</p> <p>Click the <b>Add Folder</b> icon (  ) to create a template folder.</p>

## Building a template

Before you create templates for objects Lists, On-demand Campaigns, and Corporate Campaigns, determine whether you must add custom tabs. If you do, see the chapter on the Forms Editor and use the procedures in that chapter to create forms for custom tabs or metrics templates.

When the template components you need are available, create a template and assemble the pieces. The steps to create a template are generally the same for each object type, with the following exceptions:.

- You can specify a workflow template for project templates and you can create workflow templates from project templates

1. From the **Settings** menu, select **Collaborate Settings**.

The Administrative Settings screen opens.

2. Click **Templates**.


The Template Configuration Screen opens

3. Click the **Add** icon (  ).

4. Click **Add Template** in the section of the page in which you want to create a template.

5. From the icon's drop-down list, select the type of object for which you want to create a template.

6. Use the information that is provided in the rest of this chapter to determine how to complete each of the tabs for this template.

 **Important:** When you assemble a template, click **Save Changes** when you finish editing a tab, before you navigate to another tab in the template. Otherwise, your changes are not saved.

## Effects of template changes

When you edit a template, be aware you are changing all instances of objects that were previously created from the template.

The exceptions are workflow and attachment folders. When you change the workflow or metrics template for an object template, or add or remove an attachment folder, your changes apply only to objects you create after the changes are made. Existing workflows are not changed, nor are the attachment folders.

The exceptions are workflow, people, or an attachment. When you change the workflow template, add or remove roles, or add or remove an attachment, your changes apply only to objects you create after the changes are made. Existing workflows are not changed, nor are roles or attachments for any existing Lists, On-demand Campaigns, or Corporate Campaigns.

## Template folders

You can create folders for templates in the Templates Definition screen.

You can move templates to any existing folders.

You can create folders for any template. You can move templates between any of the folders for that type of template.

You can jump to any of the folders for a specific template type.

## Editing a template

Template editing is spread across the following tabs. Depending on the object type, only a subset of these tabs may be available.

- **Properties:** basic template properties, such as name and description.
- **People:** roles definition.
- **Campaign:** Campaign integration settings Project templates only, when Collaborate-Campaign integration is enabled.(Corporate Campaign templates only)

- **Recurrence:** recurrence settings.
- **Workflow:** workflow settings (not available for simple Lists).
- **Tabs:** Tab definitions; add additional forms and custom tabs.
- **Attachments:** files that are attached by default to all objects created from the template.
- **Custom Links:** custom links to web pages, and so on.

1. Click **Settings > Collaborate Settings**.
2. In the **Administrative Settings** screen, select **Template Configuration** (located under **Other Options**).
3. Select **Templates**.
4. Select the name of the template you want to edit.

The Properties tab of the selected template is displayed. You can edit fields on any of the object templates tabs; click a tab in the menu bar to navigate to it.

5. Click **Save Changes** to save any changes you made to the template.



## Template Properties tab for defining the template

For all objects, the template Properties tab contains properties for you to set, such as name, description, and security policies.

The properties that you set on this tab display on the Summary tab when you create a project. More properties display on this tab for project templates.

**Table 15. Properties for all templates**

Property	Description
Name	The display name for the template, which displays on the <b>Templates</b> list page.

Property	Description
Description	Short description of the template. Displays on the template selection page when users add a marketing object instanceList, On-demand Campaign, or Corporate Campaign.
Icon	Large and small icon images for the template. The large icon displays when users create an instance that is based on this template. The small icon displays next to the template name in the <b>Templates</b> list page. Click <b>Change Icon</b> to import different image files.
Security Policies	List of security policies that determine which users have access to the template.   <b>Note:</b> Different fields display for project templates.
Template ID	Internal identifier for the template. Use lowercase alphanumeric values only. Do not include accented or non-roman characters or spaces.   <b>Note:</b>  <ul style="list-style-type: none"> <li>• Template IDs must be unique across Collaborate.object type. For example, you cannot have two project templates, both having an identical ID, such as <i>tradeshow</i>. If you have two trade show project templates, use a different ID for each one, such as <i>tradeshow01</i> and <i>tradeshow02</i>.</li> </ul> <p>Additionally, after you use a template ID, you cannot use it again, even if you delete it.</p> <ul style="list-style-type: none"> <li>• You can edit this field only until a user creates the first object instance that is based on this template.</li> </ul>
Default Name	The default name to give to an object instance.  You can leave this field blank.
ID Prefix	Prefix for the external ID of the object. For example, the ID for the first project might be 1001.Each List, On-demand Campaign, and Corporate

Property	Description
	<p>Campaign has an external ID assigned to it. For example, you enter an ID Prefix of <code>TRS</code> for the Tradeshow On-demand Campaign template. The first tradeshow On-demand Campaign that you create would then have an ID of <code>TRS1001</code>.</p> <p>You can set the ID prefix by template, to easily determine the template on which an object is based. For example, you choose an ID Prefix of <b>TRS</b> for the Tradeshow project template. The first tradeshow project that you create would then have an ID of <code>TRS1001</code>.</p>
ID Generation Class	<p>Java™ class to specify a numbering algorithm for objects. By default, Collaborate assigns a sequential number to each object (project).</p> <p>However, you can configure Collaborate to use an algorithm that you define to set the external ID. If you choose this configuration option, the ID Generation Class specifies the Java class that is used to generate the code. You must edit this attribute only if you want to generate IDs according to an algorithm other than the default.</p>

To export metadata for an individual template, click **Export Template** at the top of this tab. See [Exporting a single template \(on page 193\)](#).

In addition to the properties that apply to all templates, templates for projects contain the following properties.

**Table 16. Properties for project templates**

Property	Description
Security Policy Use Model	<p>Specifies how a "use" security policy is determined when a project request becomes a project. When the value of this field is <b>User Security Policy</b>, the <b>Use Security Policy</b> field on this tab is disabled. The person who creates a project or request from this template specifies the "use" security policy when the item is created. When the value of this field is <b>Template Security Policy</b>, the <b>Use Security Policy</b> field on this tab is enabled and the template developer selects the "use" policy.</p>

Property	Description
View Security Policies	Specifies the security policy that determines which users can select this template when they create a project or request.
Use Security Policy	Specifies the security policy that determines which users can access the projects or requests after they are created.
Export Tab	<p>Select the project tab to export when you export the Calendar. You can choose the Summary tab or any custom tab.</p> <p>When users export a Calendar, a link to the specified tab and the data for the tab are included with the exported calendar data. Users can click the link to view the data that is exported for the project.</p>


## Template People tab

The People tab of a template defines roles that are added to Lists, On-demand Campaigns, or Corporate Campaigns that are created from this template.

You must define list definitions for roles before you add roles to a template.

To add a role, select a role from the drop-down list. The available values are populated from the list definitions.

To delete a role, click **Remove** next to the role you need to delete.

 **Note:** You do not need to add roles here if they exist on the workflow template. Roles that are defined in the workflow template are added to the People tab when an instance is created.


## Template Recurrence tab

The Recurrence tab establishes properties for a recurring campaign. Recurring campaigns reference a basic workflow; you can set up recurrence properties to define how many times the basic workflow should recur.

Depending on permissions, users can modify recurrence properties when they create or edit a Corporate Campaign, On-Demand Campaign, or List. If they do so, all tasks in the workflow are replaced by new tasks, with dates that are calculated based on the new recurrence properties.

This tab is displayed in both templates and in the actual instance of a Corporate Campaign, On Demand Campaign, and List. When you create a template, you can access this tab only after you create a Workflow template.

The Recurrence tab contains the following settings:

Property	Description
Campaign Workflow Type	<p>Specifies whether the workflow used by the Corporate Campaign, On-Demand Campaign, or List contains a recurring stage. Options are:</p> <ul style="list-style-type: none"> <li>• Nonrecurring</li> <li>• Recurring</li> </ul> <p>If you select Recurring, the properties on this tab are applied to the stage in the Workflow that is marked for recurrence.</p> <p> <b>Note:</b> Recurrence properties that you set up here can apply to only a single stage of a workflow.</p>
Frequency	<p>Specifies the recurrence pattern. Options are:</p> <p>Daily-Occurs on a daily basis. When you select Daily, you must specify the number of days between each occurrence of the workflow or workflow stage.</p>



<b>Property</b>	<b>Description</b>
	<p>Weekly-Occurs on a weekly basis. When you select Weekly, you must specify the number of weeks between each occurrence of the workflow or workflow stage. (To specify every other week, enter 2 for the number of weeks between each occurrence.) You must also specify the day or days of the week on which the occurrence should take place.</p> <p>Monthly-Occurs on a monthly basis. When you select Monthly, you must specify the number of months between each occurrence of the workflow or workflow stage. You must also choose one of these options:</p> <ul style="list-style-type: none"> <li>• Each date of month-Choose this option if you want the occurrence to take place on a specific date each month.</li> <li>• Each day of week-Choose this option if you want to schedule the occurrence to run on a specific day of a specific week each month. For instance, if you want to run the campaign monthly, on the third Thursday of each month, you should select this option.</li> </ul> <p>Keep in mind that your calendar options apply to your recurrence schedule; that is, the recurrence schedule is built using your settings for valid working days.</p>
Ending	Specifies the total number of occurrences of the workflow or workflow stage. You can also choose to specify a date by which the recurrence should end.
Permissions to modify the recurrences in the instance	<p>Allows you to specify the recurrence options that can be changed in each Corporate Campaign, On-Demand Campaign, or List.</p> <p>This field is displayed only in the Corporate Campaign, On Demand Campaign, or List template; it is not displayed in the actual instance of the Corporate Campaign, On-Demand Campaign, or List. Options are:</p> <ul style="list-style-type: none"> <li>• All options-Users can change all recurrence options.</li> </ul>


Property	Description
	<ul style="list-style-type: none"> <li>• No options-Users cannot change any recurrence options.</li> <li>• All options but frequency-Users can change all options except frequency.</li> </ul>


## Project template Workflow tab

The Workflow tab identifies and organizes tasks for a projectList, On-demand Campaign, or Corporate Campaign. When you create a template, you can include data on its Workflow tab to provide an initial workflow structure for each marketing object instance that users create. To review and define a workflow on the template, you use a spreadsheet-style interface. Users access a similar spreadsheet interface to update the supplied workflow as needed for individual instances.

For more flexibility, the data on the Workflow tab in any template or any individual instance can be saved as a separate workflow template component. Template components, which can include metrics and forms in addition to workflows, make designing templates to meet different needs more modular and efficient. Any workflow template component can be imported into any projectList, On-demand Campaign, or Corporate Campaign type template or instance.

Initially, the Workflow tab displays in view mode. To set up the stages, tasks, milestones, dependencies, and other data that make up the workflow, you switch to editing mode.

 **Note:** When you design the workflow for a template, you can specify team member roles to associate with each task. To do so, you must first define values on the Project Roles tab.

 **Note:** When you design the workflow for a template, you can specify team member roles to associate with each task. To do so, you must first define values on the People tab. For more information, see [Template People tab \(on page 168\)](#).

For detailed information about configuring a workflow, including options for scheduling, calculating dates, and updating tasks, see the Collaborate User's Guide.

## Creating and editing workflow templates

The workflow that you create on the Workflow tab of any projectList, On-demand Campaign, or Corporate Campaign template or instance can be saved as a workflow template. Then, you can reuse the workflow in similar projectLists, On-demand Campaigns, or Corporate Campaigns.

1. In any projectList, On-demand Campaign, or Corporate Campaign template or instance, select the **Workflow** tab.

You can start with a new template or instance, or select one that already has a defined workflow.

2. For a new template or instance, change to edit mode. Set up the tasks, dependencies, and values that you want the template to supply as a starting point for new projectLists, On-demand Campaigns, or Corporate Campaigns. For an existing template or instance, review the workflow.

3. With the Workflow tab in view mode, click task names to review or define settings.

4. Click **Save as Template** (  ).

5. Enter a descriptive name for the template and click **Continue**.

6. Click **Save**. The workflow template displays on the **Workflow Templates** page, and can be imported into any template or instance.

To edit a workflow template, open a projectList, On-demand Campaign, or Corporate Campaign template and import the workflow template that you want to edit into its Workflow tab.

Typically, you set up a new template for this purpose because importing a workflow template overwrites any previously defined values. You can then edit the workflow and save the workflow as a new template with the same or a different name.

## Importing workflow templates


You can import an existing workflow template into your projectList, On-demand Campaign, or Corporate Campaign template. Then, you can customize the workflow template for your new projectList, On-demand Campaign, or Corporate Campaign template.

Before importing a workflow template that references role data in list definitions, ensure that the role data in the import and export environments is the same. For example, if you export a workflow template, import the template into another environment, and then try to change the template's role data in the import environment, the role data reverts to the data that was exported.

1. Create the projectList, On-demand Campaign, or Corporate Campaign template.

If the workflow template you plan to use includes Project Roles, you do not need to define them. The Project Roles are imported with the workflow template.

2. Select the **Workflow** tab.

3. With the Workflow tab in view mode, click **Import Template** ().

The system presents a warning displays that the import overwrites the existing workflow.

4. Click **OK**.

A list of workflow templates opens.

5. Select a template from the list and click **Import**.

The Workflow tab displays the workflow tasks and stages from the workflow template.

Any roles that are referenced by task rows also display on the Project Roles tab.

6. With the Workflow tab in view mode, click tasks to configure approvers.

7. To modify or add stages or tasks, click **Edit**.



Then, customize the workflow as necessary for the project template. Remember to save your changes.

8. When the workflow is complete, click **Save and Finish** to return to view mode.

## Adding workflow to templates

To set up a projectList, On-demand Campaign, or Corporate Campaign template that includes workflow data, you create the template, specify team member roles, and then edit the Workflow tab.

If the integration with Workflow Services is configured, you can use the Advanced Workflow capabilities for workflows.

1. Select **Settings > Collaborate Settings**.
2. Click **Templates**.
3. Click **Add Template** (  ) and select a template type.
4. Locate the project template section and click **Add Template**.
5. Complete the fields in the **Template Properties** form and click **Save Changes**.
6. On the **Project People** tab, specify participant roles then click **Save Changes**.
7. Select the **Workflow** tab and click **Edit** (  ).
8. Select **Enable for Advanced Workflow execution** to enable Advanced Workflow capabilities.
9. Add system and user tasks workflow and organize them into stages.

Remember to save frequently while you work.

10. Edit task dependencies, define task scheduling and duration, and enter other values to supply when users create instances from this template.

For more information, see the *Collaborate User's Guide*.

Remember to save frequently while you work.

11. When the workflow is complete, click **Save and Finish**. The tab returns to view mode.

12. To configure more information for each task, click the task name when the Workflow tab is in view mode.

For workflow tasks, you can configure whether users can add attachments.


For list review tasks, you can configure the list display.

13. Click **View > View as a process flowchart** to display the workflow as a process flowchart.

## Template Campaign tab

You use this tab in a Corporate Campaign template to set up communication between Collaborate and Campaign. This tab is not available for On-demand Campaigns and Lists.

The Campaign tab contains the following settings:

Property	Description
Campaign Service URL	<p>The URL used to start Campaign. For example:</p> <pre data-bbox="451 1434 1317 1461">http://engsvr1:9001/Campaign/services/CampaignServices</pre> <p>Collaborate uses this value to access services provided by a Campaign server when you create a linked campaign.</p> <p> <b>Note:</b> Enter a value here only if you are mapping data between Collaborate and Campaign.</p>
Campaign Data Mapping	<p>The XML file that contains the data map for creating a Campaign campaign from a Collaborate object instance.</p>

Property	Description
Options	<p>A single check box, <b>Use Campaign Code Generated by Campaign</b>. Check this box to force Campaign and Collaborate campaign codes to match.</p>
Partition ID	<p>The Partition ID identifies the partition of the Campaign instance that contains the linked campaign.</p> <p>The default value is <code>partition1</code>, which is correct if Campaign is installed to a single partition. If Campaign is installed on multiple partitions, you can specify the partition to use for creating campaigns.</p> <p>If you leave this field blank, Collaborate obtains the partition ID from the <code>defaultCampaignPartition</code> parameter under <b>Platform &gt; Configuration &gt; Collaborate</b>.</p>
Folder ID	<p>The folder ID where Campaign stores campaigns that are created from within Collaborate.</p> <p>This ID comes from the <code>CampaignUA_Folder</code> system table. You must set up this system table in Campaign before you define it here.</p>

## Template Tabs tab for customizing the user interface

Use this tab to add forms to the **Summary** tab, or to create custom tabs for the marketing object types that support this feature.

For example, you want to collect information about the outside vendor that users plan to contract with to get collateral printed. To do so, you create a form with an attribute for users to select a printing company from a list of several vendors. You also include a text box for users to enter the quoted price of each page of the collateral. You then use the Tabs tab in a project template to add a custom tab and name it **Printing**.

 **Tip:** You cannot rename the standard tabs that display for object instances.

When you configure security policies for your organization, you can configure custom security permissions for these tabs.

**Table 17. Fields for defining a new tab**

Field	Description
Display Name	The display name for the new section on the <b>Summary</b> tab or the new custom tab.
Page Style	<ul style="list-style-type: none"> <li>• Select <b>summary</b> to add a form to the bottom of the <b>Summary</b> tab. Use this option for forms that contain relatively few attributes and forms that users need to see frequently.</li> <li>• Select <b>tab</b> to create a custom tab specifically for the form. Use this option for forms, or groups of forms, that require their own page, as in the <b>Printing</b> tab example.</li> </ul> <p>This option is not available for all template types.</p>
Form	Select the form to add.
Visibility	<p>Select <b>Show in Wizard</b> to display the new Summary section or custom tab in the series of pages that display when users create a marketing object. If you clear this option, the section or tab displays only after users save the object.</p> <p>For project templates only, select <b>Show in Request</b> if this new <b>Summary</b> tab section or custom tab applies to both projects and requests. If you clear this option, the section or custom tab displays for projects only.</p>

## Adding tabs to templates

Add a tab or form to templates to collect information about the marketing object. You can add more forms to the Summary tab. For some types of templates, you can add custom tabs, on which you add forms.



1. Add or edit the template then click its **Tabs** tab.

2. Click the **Add a Tab** icon (  ).

3. Click **Add Tab**.

4. Enter a descriptive name for the tab in the **Display Name** text box.


The name that you choose becomes the name of the tab that users see when they create instances from this template.

5. Choose whether to show the form on the **Summary** tab or its own custom tab.

This option is not available for all template types.

6. Select a form from the **Form** list.

This list contains all the forms available in Collaborate, except for the TCS® (Target Cell Spreadsheet) forms used by campaign projects.

 **Note:** For List templates, forms of type Campaign are not listed.

7. Select the visibility options for the tab.

This option is not available for all template types.

8. Click **Save Changes** to save the tab, **Add a Tab** icon (  ) to add another tab.

## Moving tabs and forms on templates

You can change the position on forms on tabs. You can also change the order of custom tabs as you change and refine templates.


1. Edit the template then click its **Tabs** tab.

2. Click one of the following buttons after **Move**:

- **Down** to move a tab down. Moving a summary tab down places it lower on the object's **Summary** page. Moving a separate tab down places it further to the right


in the tab list. For example, if the tab was fourth in the list, moving it down once makes it fifth.

- **Up** to move up a tab. Moves it up or forward one position.

 **Note:** Summary tabs must come before non-summary tabs.


3. Click one of the following buttons after **Move**.

- **Down** to move down the tab or form. Moving a form on the Summary tab down places it lower on the object's **Summary** tab. Moving a custom tab down places it further to the right in the tab list. For example, if the tab was fourth in the list, moving it down once makes it fifth.
- **Up** to move up a tab. Moves it up or forward one position.

 **Note:** On the Summary tab, the standard form for instance properties must come before any custom forms.

## Deleting custom forms and tabs from templates

You might want to remove forms from tabs or custom tabs from templates. Consider whether you want to change the template by deleting the form or create a new template. If you delete a form or tab, data in existing object instances is lost.

 **Important:** Deleting a custom form or tab from a template also deletes it from all existing object instances that are created from the template. Do not delete a custom form or tab from a published template if users already created object instances from it. If you do, data is lost.

1. Edit the template then click its **Tabs** tab.
2. Scroll to the section that defines the form or custom tab you want to remove and click **Delete** (on the right side of the page).

The form or custom tab is removed from the object template.

3. Click **OK**.

4. Click **Save Changes**.

## Template Attachments tab for adding folders and files

Use this tab to manage attachments in your templates. You can add attachments and folders for future attachments.

On this tab, you:

- Add one or more attachment folders so that users can add and organize attachments: Click the **Add a folder** icon.
- Change the relative position of the folders on the tab: Click **Up** and **Down** to reorder attachment folders.
- Delete folders: Click **Delete** next to the folder you want to remove. All attachments in the folder are also deleted.
- Attach one or more files to the template, so that whenever an object is created from the template, certain images and documents are attached by default. Click **Add an Attachment**.
- Delete default attachments: Click **Delete** next to the file you want to remove.

To add folders and default attachment files:

1. Add or edit the template then click its Attachments tab.
2. Add at least one folder to the tab: Click the **Add a folder** icon and provide a **Name**.
3. To add an attachment, click **Add an Attachment** next to a folder.  
The **Upload Attachment** dialog opens.
4. Enter the file path and name, or click **Browse** to locate the attachment.
5. Click **Save** to attach the file.


The attachment file displays in a list under its folder.

6. On the Attachments tab, click **Save Changes** to save the new folder and its attachment.

Repeat these steps to add as many folders and attachments as needed.

## Template Custom Links tab for accessing other websites

Use this tab to create custom links that display on one or more tabs for the object instances that are created from this template. For example, you might want to link to an application that your organization uses to generate ID codes for collateral pieces or direct marketing offers.

To add a custom link, click **Add a Custom Link** (). For each link, you can add a parameter, such as the query portion for a dynamic URL. To form the complete URL for the link, Collaborate appends a question mark (?) to the end of the URL you supply and then adds the parameter. To include a parameter, click **Add a Parameter**. More fields display for the parameter.

This tab contains the following properties. When your work is complete, click **Save Changes**.

**Table 18. Properties for custom links**

Property	Description
No. of links per row	Specifies the number of links to display in a single horizontal line at the bottom of the selected tab or tabs. The display number depends on the width of the browser window. If blank, the links display continuously and wrap onto more lines.  For example, you create 6 custom links to display on the Summary tab. To organize the links into 3 rows with 2 links in each row, enter 2.
Display Name	Enter a name for the link. This value becomes the name of the link.
ID	Enter a unique internal ID for the custom link.

Property	Description
Description	Enter some descriptive text for the link. This text is shown as a tip when a user moves the cursor over the link.
URL	Enter the fully qualified URL (including http://) of the website to open when users click the link. The website opens in a new browser window.
Tab VisibilityShow in tab	To define where this link displays to users, select one or more tabs. The link displays at the bottom of every selected tab. You can select the Summary tab and the custom tabs previously added to any template of the same type.
Options	For project templates, you can make the link display for both requests and projects that are created from the template, or only for projects. Select <b>Show in Request</b> to display the link for both.

Custom link URLs can include a parameter. For example, the link can open one page for an object that is Not Started, and another page for an object that is In Progress.

**Table 19. Fields for custom link parameters**

Property	Description
Name	Enter a name for the parameter.
Value	Select a value from the list to define the type of object property to use. Depending on your selection, another <b>Value</b> list can display to collect more specification. The choice that you make determines the options available from the subsequent list.  For example, if you select a value of <b>&lt;object type&gt; Properties</b> , a list displays values including Target Start, Actual End, Security Policy, and other relevant properties for the object.


You can add more than one custom link: Click **Add a Custom Link** to display a new set of property fields. If you add more than one custom link, you can change their relative positions: Click **Up** and **Down** to reorder the links.


## Workflow Templates page

You use the options on the **Workflow Templates** page to import, export, delete, enable, or disable previously created and saved workflow templates.

The **Workflow Templates** page lists all the workflow templates and presents the following information and functions.


**Table 20. Options on the Workflow Templates page**

Control	Description
Name	The name of the workflow template.
Stages / Tasks	The number of stages and tasks in the workflow, which is separated by a '/' character. For example, the value in this column for a workflow that has 5 stages and 30 tasks is <b>5 / 30</b> .
Created Date Creation Date	The date the template was created.
Last Modified Date Last Modify Date	The date of the most recent change that is made to the template.
Status	Whether the template is enabled or disabled. When a workflow template is created, its status is set to Enabled by default.
Export link	Exports the workflow template to an XML file. You can then import it into another Collaborate system.
Import Workflow Template link Import icon (  )	Imports an XML file with workflow template data. Typically, you create these files by exporting them from another Collaborate system.
Enable/Disable Workflow Template link	Marks the selected templates as enabled or disabled. A disabled workflow template cannot be imported into a projectList, On-demand Campaign, or Corporate Campaign template.

Control	Description
Enable/Disable	
Delete Selected Workflow Template link Delete icon (  )	Deletes the selected workflow templates.

## Exporting workflow templates

You can export individual workflow templates to use in other List, On-demand Campaign, or Corporate Campaign templates. In some cases, you might want to edit the exported XML file and reimport the workflow template into Collaborate.

1. Select **Settings > Collaborate Settings**.
2. Click **Template Configuration**.
3. Click **Workflow**.
4. Click the **Export** link for the workflow you want to export.
5. Choose a location to save the XML file, and save it.
6. Open the file with a text or XML editor, make your changes, and then save the file.
7. Navigate back to the templates library (**Settings > Collaborate Settings**).
8. Click the **Import Workflow Template** icon (  ) and browse to your edited XML file.
9. Click **Import Workflow Template** and browse to your edited XML file.
10. Name the file to differentiate it from the previous version.  
For example, if you export `Marketing Collateral`, you can name your edited file `Marketing Collateral 2`. You can always rename the file later.


11. Create a template and use the new workflow or open an existing template and replace the old workflow template with the new one.

## Data Mapping Definitions

The **Data Mapping Definitions** page maps data between campaign projects in Collaborate and campaigns in Campaign, objects in Collaborate and campaigns in Campaign. Use the **Data Mapping** link on the **Template Configuration** page to configure data mapping.

The **Data Mapping Definitions** page contains the following columns:

Column	Description
Name	The name of the data mapping file.
Type	<p><b>Campaign Metrics Import:</b> Maps Plan project metrics to Campaign contact and response counts.</p> <p><b>Campaign Data:</b> Maps Collaborate attributes to Campaign attributes.</p> <p>If you have map files from previous versions, you might see other values in the Type column.</p>
Used By	A list of templates that use the data map.

 **Note:** You cannot create a map file within Collaborate. Use a text or XML editor to create and edit the necessary map files.


The **Campaign Service URL** field on the Campaign tab in a Corporate Campaign template behaves as follows:

- If it is blank, data mapping does not occur.
- If it contains information, the value in the field is used to map data between Collaborate and Campaign.



## Adding data mapping files

Use a text or XML editor to create or edit a data mapping file. After you have a data mapping file, you add it to Collaborate.

1. Select **Settings > Collaborate Settings**.
2. Click **Template Configuration > Data Mapping**.
3. Click **Add a data mapping** ().

The Upload Data Mapping dialog box opens.

4. Enter a name for the data mapping file.
5. Browse to the XML file that defines the data mapping.
6. Click **Continue**.

## Editing data mapping files

If you want to update a data mapping file, you must first edit the XML file, and then reload it back into Collaborate.

1. Open the data mapping XML file in a text editor and make your changes.
2. Select **Settings > Collaborate Settings**.
3. Click **Template Configuration > Data Mapping**.

4. Click the file name that you are updating.

The **Update Data Mapping** dialog opens.

5. Select **File**, and browse to the XML file.
6. Click **Continue**.

You are prompted to overwrite the existing file.

7. Click **Save** to overwrite the existing file with the newer version.

## Icons page

On the **Icons** page, you review and add icon files. These icons display in various parts of Collaborate user interface to identify a type of template or object instance.

Click the **Icons** link on the **Template Configuration** page (or **Change Icons** on the template Summary tab) to manage the icons that identify templates and the objects that are created from them.

The **Icons** page contains the following columns:

Column	Description
ImagesImage files	A large and small image for each icon. Click the images to change the icon name or the image files.
Name	The name of icon.
Used By	A list of object templates that use this icon. You specify the icons that are used by a template on the template Properties tab. See <a href="#">Template Properties tab for defining the template (on page 165)</a> .
Delete	A link to delete the icon image file. This link is only available for icons that are not used in any templates.

Collaborate is installed with a set of default icons. You can choose from these icons, or add icons that are customized for your organization. When you add your own custom icons, you upload two file sizes for each icon:

- File image:Main icon: the large (46x54 pixels) image that displays when users create an object instance. For example, the main icon displays next to each template in the List,

On-demand Campaign, or Corporate Campaign template selector (the dialog box that opens when users click Add for an object type).

- **List icon image:** List icon: the small (20x24 pixels) image that displays on the list page next to an object instance. For example, the ProjectList, On-demand Campaign, or Corporate Campaign list page contains the list icons for all of the projectLists, On-demand Campaigns, and Corporate Campaigns on the page.

The image files must be in JPEG, PNG, or GIF format.

## Adding and editing icons

You can add or edit icons to use on templates.

1. Click **Settings > Collaborate Settings > Template Configuration**.

2. Click **Icons**.

3. To add an icon, click **Add an Icon** (  **Add Icon**.

To edit an icon, click the icon image (large or small).

4. Enter a **Name** for the type of template and object the icons identify, such as the name of a type of projectList.

5. Upload the icon image files:

- To upload a main icon, under **File Image** enter a path and file name or click **Browse**.
- To upload a list icon, under **List Icon Image** enter a path and file name or click **Browse**.

To replace an existing file, you must select the check box next to the type of icon you want to change.

6. Click **Continue** to load the files into Collaborate.

7. Click **Save Changes** to confirm the upload.


The new or edited icon displays in the list.

## Importing and exporting templates

The template import/export functionality allows you to:

- Export templates into a self-contained archive, and
- Import templates that were previously exported or saved to a self-contained archive.

Specifically, the export command downloads a ZIP archive to your computer; import uploads a ZIP archive to the Collaborate server.


 **Note:** The Collaborate installation does not install the Unica example templates. If you want to use the examples, you need to import them.

You can use the import and export commands to create a portable archive. For example, you can export all of your templates from a test server after you verify that they work correctly, then import them to a production server.

 **Note:** If you localized roles, they are exported/imported to/from the archive as well.

### Importing templates

You can use the import button to import workflow templates that were created in the same version of Collaborate that you are using. To import templates from an earlier version of Collaborate, you must upgrade.


1. From the **Settings** menu, select **Collaborate Settings**.
2. Click **Template Configuration**.
3. Click the **Import** icon (  ). Click **Import**.

The **Import Templates** dialog is displayed.

4. Enter the path name of the template archive you are importing, or navigate to it using the **Browse** button.
5. Select the template types to import. By default, all types are imported; clear any types that you do not want to import.
6. In the **Update Database** section, choose which database scripts to run:
  - Drop tables
  - Create/Update tables
  - Drop Lookup Tables
  - Create/Update Lookup Tables

Checking all the boxes fully imports the template. However, you lose any data you had if you are reimporting the same templates.

Checking all the boxes fully imports the template. However, if you are reimporting a template and you drop the tables, you lose data in any existing object you created by using the template. For example, if you reimport a campaign project template and drop the tables, you lose any data that you entered in the TCS in any project that created by using that template.


 **Note:** If you are concerned about overwriting data, you can examine the SQL script files in the template archive to see the details, and create the necessary tables and columns manually.

7. Click **Continue** to import the selected templates.

A summary page is displayed, detailing templates that are being imported, and any warnings about current template files that are overwritten.

8. Click:
  - **Save Changes** to import the templates, or
  - **Cancel** to stop the import, and avoid overwriting any existing templates.

The system reads the template files and analyzes them, and reports any errors. Imported templates are saved to the template database, and then all available templates are reloaded from the database.

 **Note:** The archives that contain the example templates are in the `\tools\admin\sample_templates` folder under your Collaborate installation. Use the archive for your database type. (For example, use `sample_templatesDB2` if you are using a DB2® database.)

## Template exporting

If you create or edit a group of templates on a development or test Collaborate server, you can export them and then import them to a production server.

The template export feature in Collaborate allows you to export a group of templates or a single template. In either case, the system creates a self-contained ZIP archive; you can use this archive to import the templates to another Collaborate server.

Export creates separate SQL scripts. These separate scripts give you more control over updating your database to work with the new templates when you import them. For example, if you need to add a column here or there, you can run only the create/alter scripts, so as not to needlessly delete tables and existing data.


The system generates the following script files (to use when you import the template archive).

**Table 21. Generated script files**

File	Description
<code>create.sql</code>	Adds columns to existing tables, and creates new tables that are needed for the templates.
<code>createlkup.sql</code>	Adds columns to existing lookup tables, and creates new lookup tables that are needed for the templates.
<code>drop.sql</code>	Deletes existing tables that are used by the templates. If you do not mind possibly deleting data, you run this script before <code>create.sql</code> to ensure that the database is set up correctly.

File	Description
<code>droplookup.sql</code>	Deletes existing lookup tables that are used by the templates. If you do not mind possibly deleting data, you run this script before <code>createlookup.sql</code> to ensure that the database is set up correctly.
<code>insertlookup.sql</code>	Inserts data into the lookup tables. This script makes it possible to save complete lookup tables (schema plus data) with the template archive.

### Exporting a group of templates

1. From the **Settings** menu, select **Collaborate Settings**.
2. Click **Template Configuration**.
3. Click the **Export** icon (  ). Click **Export**.

The **Export Templates** dialog is displayed.

4. Select the template types to export. By default, all types are exported, so you can clear any types that you do not want to export.
5. Select the **Database Type** from the pull-down list.


This determines the format of the SQL script files that are generated with the exported templates.

6. Click:
  - **Continue** to export the templates, or
  - **Cancel** to stop the export; skip the remainder of the instructions.
7. Click **Open** or **Save** from the File Download dialog that is displayed.

The system creates a ZIP archive that contains the template and SQL script files.

## Exporting a single template

You can export a single template by clicking on the template you want to export and clicking **Export Template**.

1. From the **Settings** menu, select **Collaborate Settings**.
2. Click **Template Configuration**.
3. Click **Templates**.
4. Click the name of the template to export.  
The Properties tab displays.
5. Click the **Export** icon (). Click **Export Template**.
6. Specify the **Database Type** of the system that receives the template metadata through an import operation. The selected database type determines the format of the SQL script files that are generated by the export process.
7. Click **Export** to export the template, or **Close** to cancel the export; skip the remainder of the instructions.
8. On the File Download dialog, click **Open** or **Save**.

The system creates a compressed archive that contains the XML and SQL script files for the selected template. Open or extract the archive file to view these files.

## Template validation

Validate your templates to check for errors.

Collaborate offers two types of predefined template validation checks:

- Database validation
- Attributes validation



You can perform these validation checks on all of your templates at any time: on the **Template Configuration** page, click **Validate Templates**. Information about these validation checks follows.

## Database validation

Database validation checks the validity of the database schema, and whether form attributes match their data type in the database.

The system validates the database when you import, upgrade, and export templates. When you export templates, only forms that are not linked to any template are validated.

When you import and upgrade, you can save templates even if they are invalid. You receive a warning, but you can still save. However, when you add a form, you cannot save the form if validation finds any errors.

## Attribute validation

Collaborate has two types of validation to check for inconsistencies in forms.

When you save templates, the system validates the attributes. Collaborate has two types of attribute validation: template attributes validation and template attribute type validation.

- **Template attributes validation:** Checks whether two or more form attributes point to the same table column in both Summary tab and other, non-Summary tabs. If two or more form attributes on different tabs point to the same table column, the system generates an error message that describes the duplicated references.
- **Templates attributes type validation:** Checks whether two form columns, of different types, from two templates point to same table column but with different type. If two or more form attributes with different types point to the same table column, the system generates an error that describes the inconsistency.

Templates attributes type validation checks whether two form columns from two templates point to same table column but with different type (for example, one has a type of select and the other is multi-select).

If two or more form attributes with different types point to the same table column, the system generates an error that describes the inconsistency.

# Chapter 13. Form Editor

The Form Editor creates and edits template components. Forms capture information about the List, On-demand Campaign, or Corporate Campaign.

Forms are also the way a field marketer provides input to Campaign flowcharts.

## **Forms and attributes**

Forms are collections of attributes. Attributes are used to collect data about Lists, On-demand Campaigns, or Corporate Campaigns.

Forms define how the attributes are displayed for input by field marketers or corporate marketers, and how the supplied values are stored in a database.

## **Forms and Campaign flowcharts**

When a flowchart is published in Campaign, an associated form is automatically created in Collaborate.

## How forms and Campaign flowcharts relate

When a flowchart is published in Campaign, an associated form is automatically created in Collaborate.

You use this form to capture and send information from Collaborate to Campaign.

By using the form in this way, you give field marketers control over certain aspects of On-demand Campaigns and Lists.

The administrator does this by exposing parameters in Campaign, publishing the flowchart, and then working with the automatically created form in Collaborate.

## **Campaign tasks**

In Campaign, you must create flowcharts, expose parameters, and publish the flowcharts.

The typical workflow is as follows:

1. Create an input flowchart. The function of this flowchart is to create a list as an input to Collaborate.
2. For the input flowchart, expose the parameters that the field marketer should be able to control, for example, `gender` and `income range`.
3. Create an output flowchart. The function of this flowchart is to hold the final list of prospects for the On-demand Campaign.
4. For the output flowchart, expose the parameters that the field marketer should be able to control.

For example, you may want to field marketer to be able to customize the greeting and the branch name.

5. Publish both the input and output flowcharts.

## Collaborate tasks

In Collaborate, you must create a template for an On-demand Campaign or List. The typical workflow is as follows:

1. Run the SQL commands that are produced as part of the flowchart publishing process.
2. Edit the forms that were created when the flowcharts were published in Campaign.
3. On the Form Definitions screen, click **Publish** next to the form to make the form available for use in templates.
4. Create a template for an On-demand Campaign or List.
5. Add two tabs to the template, one for the input form and one for the output form.
6. Create an On-demand Campaign or List by using the new template.
7. Generate the list.
8. Run the On-demand Campaign or List.

## Offer integration in On-demand Campaigns


Offer integration takes the assigned offers corporate marketers design in the flowchart in Campaign and publishes it to Collaborate.

While the corporate marketer designs the flowchart, they can assign offers to target cells. When the field marketer runs a flowchart, the offers that are configured by the corporate marketer are used. They also configure On-demand Campaign templates with the same flowchart form, and after the template is ready, field marketers can use the template.

The field marketer is only able to choose between available offers for each cell, and the offer selection is used during a flowchart execution in Campaign.


Field marketers are not able to view or select offers in an instance if offer integration is turned off. If offer integration is turned on, the field marketer is able to view and select offers in an instance.

To enable offers in On-demand Campaigns, in the **Template Properties**, select the **Enable Offer Selection** check box. You are able to view your offers on the **Form Definitions** page.

 **Note:** By default, settings for offer integration at template level are disabled.

## Republish flowchart after changes

A Campaign user can edit the process configuration of a mail list or call list by changing the offer association with the target cells. Any additional offers or deletion of offers to a target cell creates a version of the flowchart. If the flowchart is already published, **Save & Finish** automatically republishes the flowchart. To notify Collaborate about the changes that are made, the Campaign user saves and publishes the flowchart.

 **Note:** If the corporate marketer does not publish the updated flowchart form, the field marketer receives an error message and is not able to run the flowchart.

After the changes are made, a new set of offers with their ID, name, description, and cell information is shown in Collaborate. On the **Form Definitions** page, a merge notification is displayed for that flowchart form. You receive alerts about form republishing or an invalid form whenever a flowchart is republished. You can turn off the form valid/invalid notifications from the **Notification Subscription** page. Opening the form asks the user to merge with the latest list of offers.

## Delete offers

Campaign users might delete offers currently being used in flowcharts and in Collaborate campaigns.

If a cell or offer that is used in the flowchart is updated or deleted from the campaign but the user does not publish the flowchart, there is not a version mismatch for the flowchart. While the system runs the flowcharts from Collaborate, if the system verifies that the offer or cell that is used for execution is not correct, the flowchart execution fails.

Deleting offers behaves the same way as republishing flowcharts after changes are made.

## Adding a form generated from Campaign

An associated form is automatically created in Collaborate when you publish a flowchart in Campaign.

The underlying schema for the associated form does not yet exist in the Collaborate database.

When you open such a form, you are presented with a screen where you can select the database type and the action to take. You select one of the following:

- **Preview SQL**

Select this option to preview the SQL script that is used to create the database table for the form.

- **Run SQL Script**


Select this option to run the SQL script to create the database table for the form.

You cannot work with the form unless the underlying schema exists. That is, before you can edit or publish the form, someone must run the generated SQL commands to create the tables to store the contents of the form.

## Invalid forms

Invalid forms are forms that are associated with a flowchart in Campaign that are modified in Collaborate. Templates that use the form also become invalid. All flowchart run tasks that use the form are canceled.

To make the form and templates that use it valid, and to be able to run flowchart run tasks that use the form, you must run the SQL generated by the republished flowchart.

 **Note:** Invalid forms are marked with a red exclamation point. For example, if a form is deleted when a flowchart is removed in Campaign, then the template is marked with a red cross.

For an upgraded system, if you want to use a user variable value with 450 characters for existing values or tables, then you must manually alter the look-up table that you want to use. Otherwise, the form is invalid.

## Form Definitions page


The **Forms Definition** page uses links and commands to work with forms.

You access the **Forms Definition** page by selecting **Settings > Collaborate Settings**, then clicking **Template Configuration**, then **Forms**.

The following table describes the links that are contained in the **Forms Definition** page:

Link	Description
Name	The name of the form. Click the name to open the form.
	The <b>Pencil</b> icon after a form Name indicates that the form is updated but the changes are not yet published.
	The red exclamation mark indicates that a form is temporarily invalid because the associated flowchart was republished from Campaign.

Link	Description
	The yellow triangle icon indicates that a form is republished and there are changes that must be validated. You must run a SQL script to validate the form.
Disable/Enable	<p>Link to toggle the form between Enabled and Disabled states.</p> <ul style="list-style-type: none"> <li>• <b>Disable:</b> indicates that the form is Enabled. Click to disable the form. Disabling the form prevents it from being selected in a template.</li> <li>• <b>Enable:</b> indicates that the form is Disabled. Click to enable. Enabling a form allows it to be selected in a template.</li> </ul>
Used By	The list of templates that currently use the form. Click a template name to open that template.
Publish	Click to publish the form.
Revert	Click to discard all the changes that are made to the form and revert it to the previous published version.
Delete	Click to delete the form.

 **Note:** When you work with existing or newly published forms, Collaborate does not support working with multiple browser windows or tabs with the same browser session.

## Editing a form

You cannot edit a form in the Published state. You must first disable a published form to edit it. The system continues to use the published version of the form while you are editing it.

1. From the **Settings** menu, select **Collaborate settings**.

The Administrative Settings screen opens.



2. Click **Template Configuration**.

The Template Configuration screen opens.

3. Click **Forms**.

The Form Definitions screen opens.

4. Make changes to the form as necessary.

If you are making multiple changes, you should periodically click **Save Changes** to save the form and continue working.

5. When you are finished editing the form, click **Save and Exit**.

The Form Editor closes and you return to the Form Definitions screen.

You must now either republish or revert the form.

## Reverting a form

You can revert a form to its last published state when you do not want to use recent changes.

1. From the **Settings** menu, select **Collaborate settings**.


The Administrative Settings screen opens.


2. Click **Template Configuration**.

The Template Configuration screen opens.

3. Click **Forms**.

The Form Definitions screen opens.

Changed forms are indicated by a pencil icon (  ).

4. In the row for the modified form, click  .

The form reverts to its last published state.

## Deleting a form

You cannot delete a form that is referenced by a template.

1. From the **Settings** menu, select **Collaborate settings**.

The Administrative Settings screen opens.

2. Click **Template Configuration**.

The Template Configuration screen opens.

3. Click **Forms**.

The Form Definitions screen opens.

4. In the row for the form, click **Delete**.

You are prompted to confirm the deletion.

5. Click **OK** to delete the form.

The form is removed from the system.

## Run History series

Collaborate produces a series of run histories, with each series conceptually tied to a version of the form that is used to generate the results.

You view the run history series in the Run History drop-down menu in the Analysis tab. You can see all revisions of the "run history series" from the Run History drop-down menu, with the most recent one selected by default.


## Merge forms

When a flowchart is republished in Campaign, a new form is generated that must be merged with the old one.

If the new flowchart shows a new parameter, you must merge the form to have that parameter appear.

When you merge forms, note the following.

- For trivial flowchart changes (for example, when a lookup value for an existing user variable is added), you do not need to take any action, other than republishing the flowchart in Campaign. Collaborate recognizes these changes automatically.

 **Note:** However, in this example, you do have the option of not merging the change if Collaborate uses different lookup values.

- If user variables are added to or deleted from the flowchart, the system alerts marketers to the fact they need to revalidate their Lists and On-demand Campaigns.
- Some small changes that are made to a flowchart are ignored by Collaborate. For example, changes to localized text such as labels, prompts, and option prompts are ignored, because Collaborate users typically modify this data. Therefore, the system does not overwrite these changes.
- If you show new user variables in a flowchart, and there are already objects in Collaborate that use this flowchart, the system does not update the existing objects with a default value for any new attributes.

## Republishing a form

You must republish a form when its associated flowchart in Campaign changes.

1. From the **Settings** menu, select **Collaborate settings**.

The Administrative Settings screen opens.

2. Click **Template Configuration**.


The Template Configuration screen opens.

3. Click **Forms**.

The Form Definitions screen opens.

Forms for which the associated flowchart has changed are indicated by a pencil icon



4. In the row for the modified form, click .

5. Edit the form as necessary.

If you are making multiple changes, you should periodically click **Save Changes** to save the form and continue working.

Field marketers should revalidate List and On-demand Campaign instances that use the updated form.

## Changing values displayed in forms

You can modify the display values contained in lookup tables that are used to present choices in drop-down lists and selection tables that are contained in forms.

This allows you to display choices to corporate and field marketers in your organization in their native language. You do this in the Form Editor by modifying individual elements of the form.

1. Edit the form for which you want to modify how values are displayed.

2. Select an element.

3. Click **Update Lookup Table**.

The **Update Lookup Table** window opens.

4. Modify or translate the values in the table.

For example, translate the values for Acquisition, Cross-selling, and Loyalty into a language other than English.

Your changes replace the text that is displayed in the drop-down list or display table that is populated by the lookup table.

 **Note:** This step fails if the lookup table is a view rather than a table.

5. Save and republish the form when you are finished.

## Form status

There are three form status values: published, disabled, and enabled.

The follow table lists the possible form status values:

Status Value	Description
Published	The form is published and is available for use in templates. You cannot edit a form in this state; you must first disable it.  A Published form is also Enabled.
Disabled	A previously Published form was disabled so that it could be edited.
Enabled	A previously Disabled form was enabled so that it could be used by templates.

## Form Editor page

The Forms Editor is a visual tool to help you lay out how you want pages to appear to corporate and field marketers.

The form layout is displayed in the main area of the page. In this area, you can:

- Change the format and labels of the parameters.

- Rearrange the layout by selecting and moving elements around the page.
- Add help text, default values, and mark parameters as required

## Form Editor tabs

The Form Editor contains three tabs:

- [Add an Element tab \(on page 207\)](#) tab
- [Element Properties tab \(on page 212\)](#) tab
- [Form Properties tab \(on page 212\)](#) tab

## Form Editor Commands

The Form Editor contains the following commands:

Command	Description
Save Changes	Saves the changes that are made to this form and continue editing.
Save and Exit	Saves the changes that are made to this form and returns the user to the <b>Form Definitions</b> page.
Preview	Opens a pop-up window that shows how the form looks to corporate and field marketers.
Cancel	Discards the non-saved changes and returns to the <b>Form Definitions</b> page.

## Add an Element tab

You can use the Add an Element tab of the Form Editor to select elements and drag them to the appropriate location on the form.

In this tab, you work with two kinds of elements:

- General Elements, which include the Attribute Group Header
- Custom Elements

## Attribute Group Header

You can add group headers to group the fields on the form. When you add a group header, you specify its properties, then drag it onto the form. The following table describes the properties for a group header:

Property	Description
Group Internal Name	Internal name of the group.
Group Display Name	The label that is displayed to users on the form.
Description	Descriptive text for the group; this is useful for determining the purpose. This text is not displayed to users.
Show Group Heading	Determines if the Group Display Name is shown on the form.
Group Layout	Determines whether the group is displayed in one or two columns. The value of this property sets the form layout until the next group header on the form appears.

## Custom Attributes

You can add custom attributes to the form.

You must first create custom attributes; the custom attributes you create are only available on the current form.


The following custom attribute types are supported:

Type	Description
Text - Single-Line	Text field allowing users to enter a single line of text.
Text - Multi-Line	Text field allowing users to enter multiple lines of text.
Single-Select	Enumerated field, allowing a user to select one value from a list. The choices are driven by a hardcoded list of options you specify when creating the attribute.

<b>Type</b>	<b>Description</b>
Single-Select Database	Same as the Single-Select attribute, except that the list of choices is loaded from a database table that contains valid items.
Single-Select Database Attribute reference	Represents a single property (column) from a row in the lookup table that is used by the parent SSDOR attribute.
Single-Select Database Object reference	Extends the capability of an SSDB attribute, and provides users the ability to create attributes that represent an entity with multiple properties.
Multiple-Select Database	Same as the Single-Select Database attribute, except that you can choose more than one item from the list.
Searchable Multiple-Select Database	Extends the capability of the Multiple-Select Database attribute by searching and selecting large values at one time.
Yes/No	<p>Boolean field, allowing a user to select one of two values. Can appear in any of the following ways:</p> <ul style="list-style-type: none"> <li>• Check box</li> <li>• Drop-down list</li> <li>• Radio button group</li> </ul>
Date Select	Date selector, where the user can enter a date or select a small calendar from which to choose a date.
Integer	Numeric field, allowing users to enter whole numbers.
Float	Numeric field. You can specify the number of decimal places.
Money	Numeric field, allowing users to enter currency values. The system uses the localized currency symbol. You can specify the precision (number of decimal places) for the field.



Type	Description
User-Select	Creates a user selector, which is populated (from Platform) with all system users. You can use this attribute where the value should come from a list of users.
List of Lists	Special type of multi-select attribute that displays all of the lists of a field marketer in a multi-select format.
Hidden	Used to pass the <code>ListID</code> and <code>Username</code> properties from a Campaign flowchart that is brought into Collaborate as a form. You can also use this type to create a field to which you assign a default value that you do not need users to see, for example, a field that is used only for reporting.

 **Note:** Note the following:

- Each attribute type can be displayed with different controls as indicated by the icon in the list.
- To create an attribute, click **Add custom attributes** on the Add an Element tab.

## Creating an attribute

You can create custom attributes from the Add an Element tab of the Form Editor.

Before you can create any custom attributes for the form, the database schema for the lookup tables must be created. You must do this outside of Collaborate with your database management software.


1. Open the Form Editor for the form to which you want to add a custom attribute.
2. With the Add an Element tab open, click **Add custom attributes**.
3. Enter information in the Basic Options section as needed.

Fields that are marked with two red asterisks (\*\*) are required.

Additional Basic Options fields may be added, and the Display Options may change based on the Attribute Type you select.

4. Set the Display Options as needed.
5. Click **Save and Exit** to save the attribute and return to the Form Editor.

The custom attribute is now available for use in this form.

 **Note:** Custom attributes that you create are only available in the form you are editing.

### Creating a dependent attribute

Dependent attributes are attributes whose values are constrained by another attribute value.

You can make only the following attribute types dependent on other attributes:

- Single-Select - Database
- Multiple-Select - Database

If you want to have a field that displays all the cities for a selected state, you can make the City attribute dependent upon the State attribute.

1. Create the parent attribute.  
To continue with the example above, you would create the State attribute.
2. Place the parent attribute onto the form.
3. Create the child attribute.  
For example, you would create the City attribute.
4. In the child attribute, check the field **This field is dependent on the following column.**
5. Select the database table column on which this attribute is dependent.  
For example, you would select the State column.
6. Click **Save and Exit** to save the attribute and return to the form editor.

The dependent custom attribute is now available for use in this form.

## Deleting a custom attribute

You cannot delete custom attributes from forms that were created automatically from a published Campaign flowchart.

1. In the Form Editor, select the custom attribute to delete from the Custom Attributes list.

The custom attribute to delete must be in this list, and not in the form itself.

2. Click **Delete the selected attribute**.

You are prompted to confirm the deletion.

3. Click **OK**.

The custom attribute is deleted.

4. Click **Save Changes** or **Save and Exit** to save the form with the deletion.

To cancel the deletion, click **Cancel**.

## Element Properties tab

The Element Properties tab displays the properties of the currently selected element in the Form Editor.

This tab is displayed when you select a single element in the form.

The values that are displayed in this tab are read-only. To edit the values, click **Edit Custom Attribute** or **Edit Attribute Group**.

## Form Properties tab

The Form Properties tab displays the properties that are related to the form.

Use this tab to view or edit the form properties. The tab contains the following information:

<b>Property</b>	<b>Description</b>
Form name	The name of the form.  If the form is created automatically when a Campaign flowchart is published, then the Flowchart name, ID, type are displayed in read-only mode.
Form Description	Description for the form.
Form Layout	Radio button group that indicates whether the form has a one- or two-column layout.

### **Properties for forms associated with Campaign flowcharts**

If the form was created through the publishing of a Campaign flowchart, it has several additional properties:

<b>Property</b>	<b>Description</b>
Flowchart Type	The flowchart type is either List or Campaign. On-demand Campaigns and Lists typically have two tabs, one for input and one for output. The input form should be designated as List, and the output form should be designated as Campaign.
Flowchart Name	The read-only name of the corresponding flowchart in Campaign.
Flowchart Version	The read-only version of the corresponding flowchart in Campaign.

### **Removing a custom attribute from a form**

You cannot remove custom attributes from forms that were created automatically from a published Campaign flowchart.

1. In the Form Editor, select the element to delete.

2. Click the **Delete** icon (  ).

The element is deleted from the form.

3. Click **Save Changes** or **Save and Exit** to save the form with the deletion.

To cancel the deletion, click **Cancel**.

## Single Select Database

Single Select Database (SSDB) gives you the ability to create single select drop-down attributes that are based on database tables.

You use single select databases when the underlying lookup table exhibits a key-value relationship, and when one entity can be defined by one attribute and identified by one key column.

You can select only one value at a time from a drop-down list or a radio button group, depending on the display format that is selected while you create the attribute.

These tables must follow certain conventions.

1. The table names must have a prefix: *lkup*.
2. It must have at least two columns: a key column and a column that stores display values.
3. It is recommended to have the key column with a primary key constraint to avoid repetition. Even if the lookup table that is pointed to is a view, ensure that the data in the view has unique records.
4. It is recommended to not have more than three columns, where the third column refers to the relationship with another SSDB attribute. Having more than three columns in the lookup table renders the unused columns redundant.
5. Set the **Sort-by Column** field to the same column as the **Display Column**, so that your Display Column values are visible when you select a column sort order.

## Single Select Database Object Reference


Single Select Database Object Reference (SSDOR) attributes extend the capability of a single select database attribute, and provide users the ability to create attributes that represent an entity with multiple properties.

Use the following conventions while you create a single select database object reference.

- Select the database lookup table that has numerous columns that are representing an entity.
- Select the key column carefully as this table might have many columns, and based on the value in the key column, the dependent attributes are populated. You need to use a primary key constraint on this table, as data might keep growing in this table. If the lookup table that is being pointed to is a view, ensure that the data in the view has unique records that are identified by a unique key column.
- Choose the appropriate columns from the available ones to be displayed at the instance level.
- SSDOR attributes are mandatory, but are not read-only.

The underlying database lookup table has multiple columns. An entire row in the lookup table would represent the object (entity). The data in this table may keep on growing.

SSDOR attributes allow users to select the columns they would like to view so that they can make more informed choices of the value to be selected at the outset.

 **Note:** Date/date time type fields are not supported in the SSDOR display column.

## Single Select Database Attribute Reference

A Single Select Database Attribute Reference (SSDAR) represents a single property (column) from a row in the lookup table that is used by the parent SSDOR attribute.

Selection of the lookup table is automatic, depending on the parent SSDOR selected. The lookup table for an SSDAR always points to a parent lookup table.

Use the following conventions while you create SSDAR attributes.

- The form must have at least one SSDOR attribute.
- Select the parent attribute carefully, and the lookup table is populated automatically.
- Give intuitive names to attributes to easily map the attribute to the database column.
- By default, SSDAR is a read-only attribute.

The parent lookup table must have a unique key in the table. The unique key must be made the attribute key in the Form Editor as well. The parent key column should be present in the child attribute lookup table.

## Searchable Multiple-Select Database attribute

You can use the Searchable Multiple-Select Database (SMSDB) attribute along with the existing Multiple-Select Database (MSDB) attribute.

There are several dependencies of this functionality.

1. If an SMSDB attribute is a child of an SSDB attribute, then the result is filtered on the parent attribute's selected value.
2. All the dependency-related features of MSDB attribute behave the same way, in case of this new type of attribute SMSDB.

The difference between MSDB and the SMSDB attribute would be the way user selects the values.

1. SMSDB: Behaves as described by using the pop-up window.
2. MSDB: Existing multi-select box with no pop-up window. There is no change in behavior.

You are able to convert any MSDB into SMSDB, and vice versa, by using the Form Editor user interface. The values that are selected before the conversion are retained after the conversion.

## Using the Searchable Multiple-Select Database attribute

You use the Searchable Multiple-Select Database attribute when you want to search and select large values at one time. A long list is defined as more than 10 values.

1. To create an attribute for SMSDB, first select **Multiple-Select - Database**.
2. Then, select **Searchable Multi-Select** from the **Attribute Type** list in the Display Option section of the Custom Attribute tab.

Other settings for SMSDB remain the same as the MSDB type of attribute.

The Sort-by column is used to decide order of rendering of search results and selected values in view mode of the form tab.

3. After the form is created and published, and then used in a template and an instance of the template that was created, the SMSDB field is displayed in edit mode of the form.

The user interface now has a read-only select box with a **Select** button.

The select box display values that were previously selected in the pop-up window.

The new SMSDB pop-up window has a text field and the **Find** button. When you type in the text you want to search and click **Find**, the result is shown in the same pop-up window in the left pane called **Search Results**.

The **Clear** button next to **Find** is disabled until the search is performed. When **Clear** is enabled and clicked, then the search text field and **Search Results** select box are cleared, and the **Clear** button is disabled until a new search is performed. The **Clear** button does not clear the values that are selected in **Selected Values**. The search term finds all occurrences of the value regardless of its position in the value and regardless of case.

You can select the values in the left bucket and move them to right bucket by using **Add >>**. You can click a single item or Ctrl + click for multiple separated items. Click Shift + click for a pick of sequential items. You can also use **Add All >>** to add all of the items at one time.

The **Remove** button can be used to remove items from the Selected Values list. When an item is removed, it may not make sense to return it to the Search Result list. (It may not be



part of the current valid Search Results for the last search). You can also use **Remove All** to remove all of the Selected Values in one click.

You must click **Accept and Close** to save and confirm these values back in the parent form. Then, all selected values are added in the read-only select box on the parent form.

After the values are saved in the parent form, and at a later point, if you open this pop-up window again, the selected values show up in the right pane.

# Chapter 14. Collaborate Reports

The following section includes the details on various reports that Unica Collaborate offers. The Collaborate reports are grouped as follows.

- Corporate Marketer reports
- Field Marketer reports

## Corporate Marketers reports

### **Contact List Acceptance by User**

This report lists the number of marketers participating in the campaigns (by campaign) and the number of items accepted, added, declined, waiting, and targeted. This report allows the corporate users to track the participation and follow up with field marketers if warranted.

### **Corporate Campaign Performance Comparison with Revenue**

This report lists the marketers who participate in corporate campaigns and their level of participation in the form of how many of their contacts participated and revenue generated. It enables the corporate users to analyze how valuable the contacts of a participating field marketer have been and follow up if warranted.

### **List Profile**

This report provides the profile details of Collaborate campaigns by a selected list and by a report user's selected parameter (age, age range, education level, income, etc). It also allows the corporate users to analyze the contacts within a Campaign to see if there are any concentrations by the selected demographic or it requires further analysis or perhaps the list or logic requires to be changed.

## **On-demand Campaign Performance Comparison with Revenue**

This report compares all selected campaigns and the performance of those campaigns with revenue metrics. It allows the corporate users to determine the success of each campaign against other campaigns.

## **Corporate Campaign Participation Status**

This report lists the field marketers who participated in corporate campaigns and their level of participation (how many of their contacts). It also allows the users to see how many contacts are included as a result of the participation by each field marketer.

## **On-demand Campaign Performance Over Time with Revenue**

This report focuses on the on-demand campaigns in Collaborate. It includes revenue metrics, wherever applicable and available. It allows the corporate marketers to analyze the performance of the on-demand campaigns over a particular time frame.


## **On-demand Campaign Performance Over Time**

This report focuses on the on-demand campaigns in Collaborate. It does not include revenue metrics. It also allows the corporate marketers to analyze the performance of the on-demand campaigns over a particular time frame.

# Chapter 15. Managing flowcharts

Campaign flowcharts define the campaign logic. Each flowchart in a campaign performs a sequence of actions on data that is stored in your customer databases or flat files.

During and after creating flowcharts, you can perform various management activities on them. For example, you can test and run flowcharts, edit them, print them, and so on.

 **Note:** To work with flowcharts, you must have the appropriate permissions assigned by an administrator.


## More information

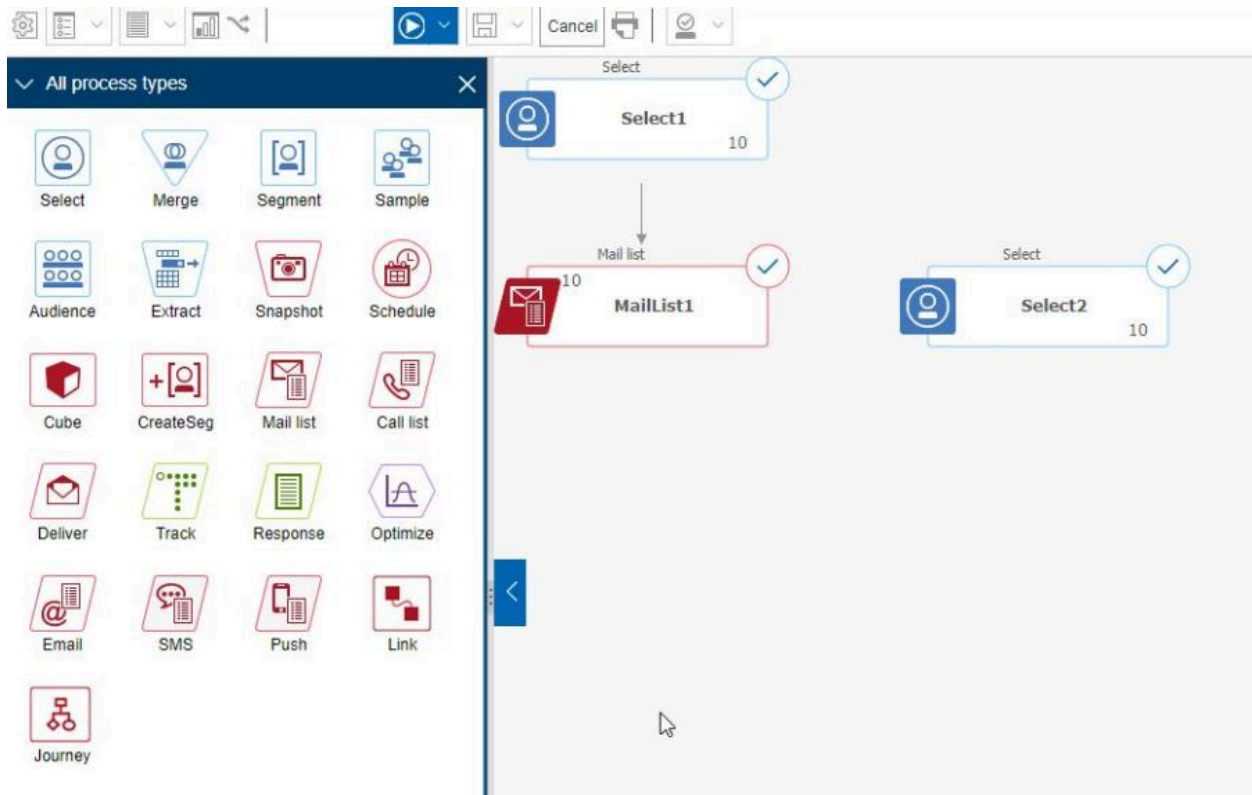
There are restrictions in the use of special characters in flowchart names. For details, see Appendix A of the Campaign User's Guide.

## Flowchart workspace overview

Use the flowchart workspace to design flowcharts for marketing campaigns.

You can open just one flowchart at a time. If you attempt to open another flowchart while one is already open, you are prompted to save your changes. To open two flowcharts at the same time, see [Viewing two flowcharts side-by-side \(on page 231\)](#).


If a flowchart is open for viewing but not editing, the toolbar contains a smaller set of functions and the process palette does not appear. Click the pencil icon  to open a flowchart for editing. The following figure shows a flowchart open for editing.




The flowchart workspace consists of the following elements.

**Table 22. Flowchart window elements**




**Flowchart window elements**











Element	Description
<p> Palette (Edit mode only)</p>	<p>The palette at the left side of the window contains processes that you use to build your flowchart. It is visible only in Edit mode. Drag a process from the palette to the workspace, then configure and connect processes in the workspace.</p> <p>By default, all process types are displayed. Click a category (<b>List generation, Segmentation, Response tracking, Data preparation</b>) to view a subset of processes.</p> <p>To resize the palette, drag the edge of the palette area to widen or narrow it. To hide or show the palette, click <b>Hide palette</b> (gray arrow) or <b>Show palette</b>.</p>








Element		Description
2	Main workspace area	<p>In View mode, you can view but not modify process boxes and you can perform a limited set of operations. In Edit mode, you can configure and connect processes to determine the workflow and behavior of the flowchart. Right-click any process box to open a menu of options.</p> <p>To configure a process: Double-click it, or right-click it and choose <b>Process configuration</b>.</p> <p>To connect processes: Rest the cursor over a process box until four arrows appear, then drag a connection arrow to another process box.</p>
3	Panning area	<p>Use the panning area to highlight the portion of the flowchart that you want to see. This visual representation of the workspace is useful when not all of the process boxes fit on the screen at the same time.</p>
4	Flowchart toolbar	<p>Use the buttons and menus in the toolbar to perform the actions that are described in the following table. Rest your cursor over each item to see what it does. To open a menu, click its down-arrow . The toolbar icons and available options depend on your permissions and whether the flowchart is in View or Edit mode.</p>

The flowchart toolbar contains the following icons and menu options.

**Table 23. Flowchart toolbar icons**

<b>Flowchart toolbar icons</b>
<p>In View mode, click the pencil icon  to open a flowchart for editing.</p>
<p>Use the <b>Run</b> menu  to perform test and production runs of a flowchart or to validate a flowchart. You can also pause, continue, or stop a run.</p>
<p>In View mode, use the <b>Schedules</b> menu  to view or schedule process runs at defined intervals. For details, see the <i>Platform Administrator's Guide</i>.</p>

<b>Flowchart toolbar icons</b>
In View mode, click <b>Delete</b> to permanently delete the flowchart, if you are sure that you no longer need this flowchart. Then confirm or cancel.
In View mode, click <b>Add a flowchart</b>  if you want to create a new flowchart in this campaign.
In View mode, click <b>Copy</b>  to duplicate a flowchart. You are asked for a destination campaign.
In View mode, click <b>Search flowcharts</b> to search all flowcharts in all campaigns for any object (process box, user database, offer, configuration details, and so on).
Click the <b>Properties</b> icon  to change the flowchart name or description.
Use the <b>Options</b> menu  to work with custom macros, stored derived fields, stored triggers, stored templates, stored table catalogs, user variables, user authorization lists, and to match and link target cells.
Use the <b>Log options</b> menu  to view flowchart logs, set logging options, enable or disable logging, clear a log file, or change the path.
Click the <b>Reports</b> icon  to open the <b>Cell specific reports</b> dialog.
Use the <b>Save options</b> menu  to either <b>Save and continue</b> or <b>Save and exit</b> the flowchart designer.
Click <b>Cancel and discard changes</b>  to close the flowchart without saving changes.
Click <b>Print this item</b>  to print a visual depiction of the flowchart. All process boxes in the flowchart are included, regardless of whether they are selected.
Administrators can use the <b>Admin</b> menu  to perform actions on individual flowcharts. See the <i>Campaign Administrator's Guide</i> for details.

<b>Flowchart toolbar icons</b>
Use the Select All, Cut, Copy, Paste, and Delete icons  to select and then perform actions on the selected process boxes. Use <b>Ctrl-click</b> to add or remove process boxes from the selection.
Use the <b>Alignment</b> menu  to align the selected process boxes. To select process boxes for alignment, drag a selection box around the process boxes or use <b>Ctrl-click</b> to add or remove boxes.
Use the <b>Layout</b> menu  to reposition all processes in a flowchart.
Click <b>Fit contents</b>  to resize the flowchart to fit in the workspace.
Use the <b>Zoom</b>  icons to reset zoom, zoom out, or zoom in.
Use <b>Hide all annotations</b> or <b>Show all annotations</b>  to hide or show all annotations that were added to the flowchart. (To add, delete, show, or hide individual annotations, right-click a process box in Edit mode.)
Use the <b>Find process by name</b> field to search for a process box by entering any portion of the name.
Click the <b>Help</b> icon  for a list of topics that explain how to work with flowcharts.

## Creating flowcharts

You can add a flowchart to your campaign either by creating a new one, or copying an existing one.

Copying an existing flowchart may save time because you can start with a completed flowchart and modify it to meet your needs.

To facilitate constructing flowcharts, you can use pre-configured flowchart templates to quickly create common campaign logic or process box sequences. You can also save and reuse other objects such as queries, table catalogs, triggers, custom macros, user variables, and definitions of derived fields.



## Flowchart design considerations

Be aware of the following considerations when you create flowcharts.

- **Avoid cyclical dependencies.** Be careful not to create cyclical dependencies among processes. Consider this example of a cyclical dependency: (a) Your flowchart contains a Select process whose output provides input to a Create Seg process. (b) The Create Seg process generates a strategic segment as its output. (c) You use that segment as input to the Select process. This situation results in an error when you try to run the process.
- **Applying global suppressions.** If your organization uses the global suppression feature, it is possible that a particular set of IDs might be automatically excluded from use in target cells and campaigns. The flowchart log file indicates whether global suppression is applied.

## Creating flowcharts

Follow these instructions to add a flowchart to a marketing campaign. A flowchart determines the campaign logic.


Each marketing campaign consists of at least one flowchart. A typical campaign has a flowchart that selects customers or prospects who will receive offers and a separate flowchart that tracks responses.

For example, a contact flowchart might select a set of customers that will be contacted by phone or email. Another flowchart in the same campaign tracks responses to those offers. After the offers are made, you use the response flowchart to record and analyze responses. You can add multiple flowcharts to a campaign as you analyze and refine your results. More complex campaigns can include many flowcharts to manage multiple offer streams.

Each flowchart is made up of processes. You configure and then connect processes to perform data manipulation, create contact lists, and record contact and response tracking for your campaign. By connecting a series of processes in a flowchart, then running that flowchart, you define and implement your campaign.

For example, a flowchart might include a Select process, which is connected to a Segment process, which is connected to a Call List process. The Select process can be configured to select all customers from your database who live in the northeast. The Segment process can segment those customers into value tiers, such as Gold, Silver, Bronze. The Call List process assigns offers, generates a contact list for a telemarketing campaign, and records the results in the contact history.

The following procedure provides a quick overview of how to create a new flowchart and add it to a campaign or a session. (Alternatively, you can copy an existing flowchart. You can also use the template library to copy configured processes from one flowchart to another.)


 **Note:** If you are creating an interactive flowchart, see the Interact documentation for information.

1. Open a campaign or session.

2. Click **Add flowchart** .

The **Flowchart properties** page opens.

3. Enter a flowchart name (required) and description (optional). For **Flowchart type**, **Standard batch flowchart** is the only option unless you are a licensed user of Interact. If you installed a licensed version of Interact, you can select **Interactive flowchart**.



 **Note:** Flowchart names have specific character restrictions. See the "Special characters in Campaign object names" section in the Campaign documentation.

4. Click **Save and edit flowchart**.

The flowchart window opens. You see the process palette on the left, a toolbar at the top, and a blank flowchart workspace.


5. Add a process to your flowchart by dragging a process box from the palette to the workspace.

A flowchart typically begins with one or more Select or Audience processes to define the customers or other marketable entities with which to work.

6. Double-click a process in the workspace or right-click the process and choose **Process configuration**. Then use the configuration dialog to specify how the process operates.
7. Connect the configured processes to determine the workflow of your campaign.
8. Use **Save and continue**  frequently while you work.
9. When you are done, open the **Save options** menu and choose **Save and exit** .

## Adjusting flowchart layout


When you edit a flowchart, use the **Layout** menu to reposition all process boxes in a single command to improve the appearance of the flowchart. This is a visual change which does not affect the flow of data. The direction of the connection lines between processes determines data flow.

1. Open a flowchart for editing.
2. Open the **Layout** menu  and select an option:
  - **Tree**: Organizes process boxes in a tree format. Useful when each process box has a single input.
  - **Org chart**: Organizes simple flowcharts and is effective for flowcharts with a single input from the top.
  - **Circular**: Arranges process boxes in a radial fashion. Useful for single connection-based flowcharts that lead to one output.
  - **Hierarchical**: Organizes process boxes in horizontal or vertical levels so that most links flow uniformly in the same direction. This layout often provides the most simple and visually straightforward choice.
3. To control whether connection lines appear in front of or behind process boxes, right-click the workspace, open the **View** menu and check or clear **Overlap connections**.

## Copying flowcharts

Copying an existing flowchart to add to a campaign saves time because you can start with a completed flowchart and modify it to meet your needs.


If the copied flowchart includes contact processes (Mail List or Call List) with target cells linked to target cells that are defined in the target cell spreadsheet, new cell codes generate for cells in the new copy of the flowchart so that duplicate cell codes do not occur. If the target cells were defined in the flowchart, and if the **Auto-generate cell code** option in the contact process is off, new cell codes are NOT generated when you paste the copied flowchart.


 **Note:** When you copy a flowchart, if the flowchart logic uses derived fields that reference cell codes from the old flowchart, the logic is broken in the new flowchart.

Process configuration settings are copied to the new flowchart. However, any temporary files or tables that were created as a result of running the original flowchart are not copied to the new flowchart.

## Copying flowcharts

Copying an existing flowchart saves time because you can start with a completed flowchart and modify it to meet your needs.


1. View the flowchart that you want to copy. For example, click a flowchart tab while you view its campaign.
2. Click the **Copy** icon .
3. In the **Duplicate flowchart** dialog, select the destination campaign into which you want to copy the flowchart.
4. Click **Accept this location**.

 **Note:** You can also double-click a folder to select and accept the location in one step.

The flowchart is copied to the campaign that you selected.


Process configuration settings are copied to the new flowchart. However, any temporary files or tables that were created as a result of running the original flowchart are not copied to the new flowchart.


If the copied flowchart includes contact processes (Mail list or Call list) with target cells that are linked to a target cell spreadsheet, new cell codes are generated for cells in the new flowchart so that duplicate cell codes do not occur. If the target cells were defined in the flowchart, and if the **Auto-generate cell code** option in the contact process is off, new cell codes are NOT generated for the new flowchart.

 **Note:** If the flowchart logic uses derived fields that reference cell codes from the old flowchart, the logic does not carry over to the new flowchart.

## Viewing flowcharts in Read-Only mode

If you have View permissions for a flowchart, you can open it in Read-Only mode to see which processes are used and how they are connected. However, you cannot open process configuration dialogs or make any changes.

1. Choose **Campaign > Campaigns**.
2. Use one of the following methods to open a flowchart.
  - Click **View a tab**  next to the campaign name, and select a flowchart from the menu.
  - Open the campaign, then click the flowchart tab.
  - Open the campaign's Analysis tab, then click the name of the flowchart that you want to view.

If you want to see more details of the flowchart, such as how the processes are configured, you must open the flowchart for reviewing or editing: Click the **Edit** icon  in the flowchart toolbar. Your permissions determine whether the flowchart opens in review or edit mode.

## To view a flowchart

You can view a flowchart in three ways:

- On the **Campaigns** page, click the **View a tab** icon next to the campaign and select the flowchart you want to view from the menu.
- Open the flowchart tab directly from the campaign.
- Open the campaign's Analysis tab, then click the flowchart name from the list of flowcharts.


### To zoom in and out

Click the **Zoom In** and **Zoom Out** icons.

## Viewing two flowcharts side-by-side

Some campaign designers prefer to view two flowcharts side-by-side when developing new flowcharts. When using Internet Explorer, you must use **File > New Session** to open additional browser windows.

Do not use any other method to open multiple browser sessions. For example, do not use a new tab; do not open another browser session from the **Start** menu; and do not use **File > New Window**. Using these methods can confuse or corrupt information that is displayed in Campaign.


 **Note:** When using the method below, you cannot copy processes from one flowchart to another. To copy configured processes across flowcharts, use the template library options available on the right-click command menu.

1. Open Internet Explorer.

2. Log in to the HCL Unica Suite and navigate to a Campaign flowchart in view mode only.
3. In the browser window that you opened in Step 1, select **File > New Session** in the Internet Explorer menu bar.

A new Internet Explorer instance opens.

4. In the new browser window, log in to the HCL Unica suite as the same or a different user, and navigate to a Campaign flowchart in view mode only.

 **Remember:** You must disable any pop-up blockers in your browser or browser add-ons, such as toolbars. Pop-up blockers prevent the flowchart window from opening.



## Reviewing flowcharts

Depending on your permissions, you might be allowed to review, but not edit, flowcharts. Reviewing a flowchart means you can look at process configurations and make changes, but you cannot save any changes or perform production runs. The flowchart auto-save option is disabled and cannot be enabled. To save changes to a flowchart, you must have Edit permissions.

If you are allowed to review but not edit flowcharts, you can verify a flowchart's contents without inadvertently changing the flowchart.

You open a flowchart in Review mode the same way as you open a flowchart in Edit mode. Your permissions ensure that you can only access flowcharts in Review mode if you do not also have Edit permissions.

Follow these steps to review a flowchart.


1. Use one of the following methods to open a flowchart:
  - On the **Campaigns** page, **Edit a tab**  next to the campaign, and select a flowchart from the menu.
  - Open a campaign, click the flowchart tab, then click **Edit**  in the flowchart toolbar.

- Open the campaign's **Analysis** tab, click the flowchart link, then click **Edit** .


A message indicates that the flowchart is in review mode and that any changes you make cannot be saved. The page header says "Reviewing" and only the **Cancel** option is visible.

2. You can perform the following actions in Review mode:

- Save processes as a template.
- Save the flowchart as a template.
- Modify the flowchart (but you cannot save your changes).
- Perform test runs, if you have the appropriate permissions.

 **Important:** Even in Review mode, test runs can write output and execute triggers. Also, if you have the appropriate permissions, you can edit custom macros and triggers in the flowchart, and thus might change the flowchart.

## To review the processes in a flowchart

 **Note:** You open a flowchart in Review mode in the same way as you open a flowchart in Edit mode. Your permissions settings automatically ensure that you can only access flowcharts in Review mode if you do not also have Edit permissions.

You can open a flowchart for reviewing in several ways:

- On the **Campaigns** page, click the **Edit a tab** icon next to the campaign and select the flowchart you want to review from the menu.
- Open the campaign, then click the flowchart tab. On the flowchart page, click the **Edit** icon.

You can also press **Ctrl** and click the flowchart tab to open the flowchart directly in Review mode.

- Open the campaign's **Analysis** tab, click the link to the flowchart you want to review, then click the **Edit** icon.

On the Analysis tab, you can also press **Ctrl** and click the flowchart link to open the flowchart directly in Review mode.





When you enter a flowchart in Review mode, you see a message indicating that the flowchart is in review mode and that any changes you make cannot be saved. The page header indicates "Reviewing", and only the **Cancel** option is visible.

## Editing flowcharts


Open a flowchart for editing to make changes to it. For example, you can add or remove processes, reconfigure existing processes, or change the flowchart name and description.


1. Choose **Campaign > Campaigns**.


 **Note:** If your flowchart is in a session, adapt these instructions by choosing **Campaign > Sessions** to open a flowchart from a session.


2. On the **All campaigns** page, find the campaign that contains the flowchart you want to open. The campaign might be listed on the page or it might be in a folder. If you can't locate it, use the **Search flowcharts** link to search for it.
3. After locating the campaign that contains your flowchart, click the **Edit a tab** icon  next to a campaign, and click the name of a flowchart from the menu.



If you try to edit a flowchart that is already being edited by someone else, Campaign warns you that the flowchart is open by another user.

 **Important:** If you continue opening the flowchart, the other user's changes are immediately and permanently lost. To prevent the loss of work, do not continue opening the flowchart without first checking with the other user.

4. Make changes to the flowchart, just as you would when creating a flowchart. For example, double-click a process to reconfigure it, or drag a new process from the palette to the workspace.
5. To change the flowchart name, description, or type, click the **Properties** icon  in the toolbar.

 **Note:** Flowchart names have specific character restrictions. See Special characters not supported (*on page* [15](#) ).



 **Note:** Avoid renaming a flowchart that is using the Scheduler because scheduled tasks rely on the flowchart name. For more information, see the *Platform Administrator's Guide*.

6. Click **Save and continue**  as you work. When you are done, open the **Save options** menu and choose **Save and exit** .


## Opening a flowchart for editing

To change a flowchart, you must open it in **Edit** mode.

1. Use one of the following methods to open a flowchart for editing:


- On the **Campaigns** page, click the **Edit a tab** icon  next to the campaign, and select the flowchart from the menu.
- Open the campaign, then click the flowchart tab. On the flowchart page, click the **Edit** icon .

You can also press **Ctrl** and click the flowchart tab to open the flowchart directly in **Edit** mode.

- Open the campaign's **Analysis** tab, click the link to the flowchart you want to edit, then click the **Edit** icon .


You can also press **Ctrl** and click the flowchart name to open the flowchart directly in **Edit** mode.

2. If you try to edit a flowchart that is already being edited by someone else, Campaign warns you that the flowchart is open by another user.

 **Important:** If you continue opening the flowchart, the other user's changes are immediately and permanently lost. To prevent the loss of work, do not continue opening the flowchart without first checking with the other user.


## Editing a flowchart's properties

To change the name or description for a flowchart, you edit the flowchart's properties.

1. Open the flowchart for editing.
2. Click **Properties**  in the Flowchart toolbar.

The **Edit Flowchart Properties** page opens.

3. Modify the flowchart name or description.

 **Note:** Flowchart names have specific character restrictions. See the "Special characters in Campaign object names" section in the Campaign documentation.

4. Click **Save Changes**.

The modified flowchart details are saved.

## Flowchart validation


You can use the **Validate Flowchart** feature to check the validity of a flowchart at any time except when the flowchart is running.

Validation performs the following checks for a flowchart:

- Processes in the flowchart are configured.
- Cell codes are unique in the flowchart, if the AllowDuplicateCellCodes configuration parameter is set to **No**. If this parameter is set to **Yes**, duplicate cell codes in flowcharts are allowed.
- Cell names are unique in the flowchart.
- Offers and offer lists that are referenced by contact processes are valid (have not been retired or deleted). Offer lists that are referenced but are empty generate warnings, not errors.

- Cells that were linked to a top-down entry from the target cell spreadsheet are still connected.

The validation tool reports the first error found in the flowchart. You might need to run the validation tool several times in succession (after correcting each displayed error) to ensure that you have fixed all errors.

 **Note:** A best practice is to run validation on flowcharts before doing a production run. This is especially important if you are running scheduled flowcharts; using batch mode; or you are not planning to actively monitor the run.


## Validating flowcharts

When you validate a flowchart, each process is checked for errors. Each error that is found displays in succession so you can view and correct each one. A best practice is to run validation on flowcharts before you do a production run. This is especially important if you are running scheduled flowcharts; using batch mode; or you are not planning to actively monitor the run.

Use the **Validate flowchart** feature to check the validity of a flowchart before you do a production run. Validation performs the following checks for a flowchart:

- Processes in the flowchart are configured.
- Cell codes are unique in the flowchart, if the AllowDuplicateCellCodes configuration parameter is set to **No**. If this parameter is set to **Yes**, duplicate cell codes in flowcharts are allowed.
- Cell names are unique in the flowchart.
- Offers and offer lists that are referenced by contact processes are valid (have not been retired or deleted). Offer lists that are referenced but are empty generate warnings, not errors.
- Cells that were linked to a top-down entry from the target cell spreadsheet are still connected.

The validation tool reports the first error found in the flowchart. You might need to run the validation tool several times in succession (after correcting each displayed error) to ensure that you have fixed all errors.

1. On a flowchart page in **Edit** mode, open the **Run** menu  and select **Validate flowchart**.

Campaign checks your flowchart.

2. If errors exist, a message displays the first error that was found. As you correct each error and rerun the validation, any remaining errors display successively.

## Test runs for flowcharts

You can conduct a test run on a flowchart or branch if you do not want to output data or update any tables or files.

When you conduct a test run on a flowchart or a branch, be aware of the following.

- Triggers run on completion of both test and production runs.
- Global suppression is applied when testing processes, branches, or flowcharts.
- The option **Advanced Settings > Test Run Settings > Enable Output** determines whether output is generated during test runs.



Conduct test runs on processes and branches as you are building flowcharts, so that you can troubleshoot errors as they occur. Remember to save each flowchart before you run or test it.

## Doing a test run of a process, branch, or flowchart

Conduct test runs as you build a flowchart so that you can troubleshoot errors as they occur. You can then view a report of any errors in the flowchart.

Always save an edited flowchart before you do a test run. When you do a test run, be aware of the following:

- Test runs do not update any tables or files. However, triggers run on completion of test runs and global suppression is applied.
- The option **Advanced settings > Test run settings > Enable output** determines whether output is generated during test runs.
- When you test run a data manipulation process (Select, Merge, Extract, Audience), you can limit the number of records. Use the **Limit output cell size** option on the Cell Size Limit tab in the process configuration dialog.
- Results from a previous test run are lost.
- If a process requires data from an upstream process, you might have to run the upstream process first so that its data is available to the downstream process.


1. Open a flowchart in **Edit** mode.
2. To test run a process or branch, right-click a process, open the **Run** menu  and select **Test run selected process** or **Test run selected branch**.
3. To test run the entire flowchart, open the **Run** menu  in the toolbar and select **Test run flowchart**.

The process, branch, or flowchart runs in test mode. Each process that runs successfully displays a green check mark. If there are errors, the process displays a red "X".

4. If you want to pause or stop the run, right-click a process box and select **Pause** or **Stop** from the **Run** menu.
5. Use one of the **Save** options in the toolbar. If you click **Save and exit** before the flowchart finishes the test run, the flowchart continues to run and is saved when it finishes. If anyone reopens the flowchart while it is still running, any changes made to the flowchart are lost. For this reason, always save a flowchart before you run it.
6. To determine if there were any errors in the run, click the **Analysis** tab and view the **Campaign flowchart status summary** report.

## Testing a flowchart branch

When you test a flowchart branch, data is not written to any tables. If the run detects errors, you can correct any processes that have errors.


1. On a flowchart page in **Edit** mode, click a process on the branch you want to test.
2. Open the **Run** menu  and select **Test Run Selected Branch**.


The flowchart runs in test mode. Data is not written to any tables.

Each process that runs successfully displays a green check mark. If there are errors, the process displays a red "X".

## Testing and running flowcharts

You can do a test or production run on an entire flowchart, a branch, or an individual process in the flowchart. You can also validate flowcharts. For best results, conduct test runs and perform validation as you build a flowchart, so that you can troubleshoot errors as they occur. Be sure to save each flowchart before you do a test or production run and before you perform validation.

 **Important:** For flowcharts that contain contact processes, each production run of a flowchart can generate contact history only once. To generate multiple contacts from the same list of IDs, snapshot out the list of IDs and read from the list for each flowchart run.

 **Note:** Users with Administrative privileges can access the **Monitoring** page, which displays all running flowcharts and their status. The **Monitoring** page also provides controls to suspend, resume, or stop flowchart runs.

## Doing a production run of a flowchart




When you do a production run of a flowchart, the data that it generates is saved in system tables. After you run and save the flowchart, you can view the results of the run in reports.


Do a production run after you save, validate, and do a test run. A production run writes to the history tables.


The contact processes, such as Mail list and Call list, write entries into Contact History. Each production run can generate contact history only once. Contact processes that already ran for that production run can be rerun only if the contact history from the current run is first deleted. To generate multiple contacts from the same list of IDs, snapshot the list of IDs and read from the list for each flowchart run.

Triggers run on completion of a production run.

After initiating a run, users with Administrative privileges can access the **Monitoring** page, which displays all running flowcharts and their status.

1. Save the flowchart before you run it.
2. If you are viewing a flowchart, open the **Run** menu  and select **Run**.  
If you are editing a flowchart, open the **Run** menu  and select **Save and run flowchart**.
3. To run a process or branch, right-click a process, open the **Run** menu  and select **Save and run selected process** or **Save and run selected branch**.

 **Note:** Running only a process or a branch of a flowchart does not increment the Run ID of a flowchart. When you run only a process or a branch, if contact history records exist, you are prompted to choose run history options before you can proceed. The **Run history options** dialog appears only when you run a branch or process that previously generated contact history for the current Run ID. You can either append information to contact history or replace existing contact history for the Run ID.

4. To run the entire flowchart, open the **Run** menu  in the toolbar and select **Save and run flowchart**.

If the flowchart has already run, you are asked to confirm the run.



The process, branch, or flowchart runs in production mode. Data from the run is saved to the appropriate system tables. Each process that runs successfully displays a green check mark. If there are errors, the process displays a red "X".


5. If you want to pause or stop the run, right-click a process box, open the **Run** menu and select **Pause** or **Stop**.
6. Use one of the **Save** options in the toolbar. If you click **Save and exit** before the flowchart finishes the run, the flowchart continues to run and is saved when it finishes. If anyone reopens the flowchart while it is still running, any changes made to the flowchart are lost.  
  
You must save the flowchart after it runs to view the results of the run in any reports. After you save the flowchart, results of repeated runs are immediately available.
7. To determine if there were any errors in the run, click the **Analysis** tab and view the **Campaign flowchart status summary** report.

## Doing a production run of a process or branch

If you run only a process or a branch, the Run ID of the flowchart is not incremented.


Do a production run after you save, validate, and do a test run. A production run writes to the history tables.

After initiating a run, users with Administrative privileges can access the **Monitoring** page, which displays all running flowcharts and their status.

 **Important:** For contact processes, each production run can generate contact history only once. To generate multiple contacts from the same list of IDs, snapshot out the list of IDs and read from the list for each flowchart run.

1. Open a flowchart in Edit mode.
2. Click a process on the branch that you want to run.

3. Open the **Run** menu  and select **Save and run selected branch**.

 **Note:** When you run only a process or a branch, if contact history records exist, you are prompted to choose run history options before you can proceed. For details, see [Updating contact history by doing a production run \(on page 377\)](#).

Each process displays a check mark after it runs successfully. If there are errors, the process displays a red "X".

4. Click the **Analysis** tab and view the **Campaign flowchart status summary** report to determine whether there were any errors in the run.

## To run a flowchart process

Running only a process or a branch of a flowchart does not increment the Run ID of a flowchart. When you run only a process or a branch, if contact history records exist, you are prompted to choose run history options before you can proceed.


1. On a flowchart page in **Edit** mode, click a process on the branch you want to run.
2. Click the **Run** icon and select **Save and Run Selected Branch**.


Each process displays a blue check mark when it has run successfully. If there are errors, the process displays a red **X**.

## Pausing or stopping a flowchart run

When you pause a running flowchart, branch, or process, the server stops running but saves all of the data that was already processed. When you stop a flowchart run, the results of any currently running processes are lost and a red "X" appears on those processes.


You can pause a run to free up computing resources on the server, for example. After you pause a run, you can continue the run or stop it. After you stop a run, you can continue the run from the point at which it stopped.

 **Note:** If you have the appropriate permissions, you can also control flowcharts from the **Monitoring** page.

1. On a flowchart page, open the **Run** menu .
2. To pause the run, select **Pause**. To stop the run, select **Stop**.

## Continuing a paused flowchart run


When you continue a paused run, the run resumes at the exact point at which it stopped. For example, if a Select process was paused after processing 10 records, it resumes by processing the 11th record.


1. On a flowchart page, open the **Run** menu .
2. Select **Continue**.

 **Note:** If you have the appropriate permissions, you can also control flowcharts from the **Monitoring** page. For details, see the *Campaign Administrator's Guide*.

## Stopping a flowchart run


When you stop a flowchart run, the results of any currently running processes are lost and a red "X" appears on those processes.


1. On a flowchart page, open the **Run** menu .
2. Select **Stop This**.

 **Note:** If you have the appropriate permissions, you can also control flowcharts from the **Monitoring** page.

## Continuing a stopped flowchart run

If you stopped a flowchart run, you can continue the run by running the flowchart branch that begins with the process where the run stopped. That process is rerun along with all downstream processes.


1. On a flowchart page in **Edit** mode, click the process that has a red "X".
2. Open the **Run** menu  and select **Save and run selected branch**.

 **Note:** If you have the appropriate permissions, you can also control flowcharts from the **Monitoring** page. For details, see the *Campaign Administrator's Guide*.

## Troubleshooting runtime errors

Correctly configured processes are displayed in color (the specific color reflects the type of process). A gray process with its name in italics has a configuration error. To find out more information about the error, hold your mouse over the process to display a descriptive error message.

If a flowchart stops running due to an error, the processes that were running display a red **X**. Hold your mouse over the process to see an error message.


 **Note:** If Campaign is configured so that system tables are stored in a database, you are not viewing the flowchart, and the run stops due to a database connection failure, the processes will not display a red **X**. Instead, the flowchart appears as it did when it was last saved.

You should also consult the log file for system error information and review the Analysis and Performance/Profitability reports for the campaign to see that the results are what you expected.

## Deleting flowcharts

Deleting a flowchart permanently removes a flowchart and all of its associated files, including the log file. If there are portions of your flowchart that you want to store for reuse, you can save them as a stored object.

Output files (such as those written by a Snapshot, Optimize, or a contact process) are not deleted, and contact and response history information is retained.


 **Important:** If you try to delete a flowchart that is being edited by someone else, Campaign warns you that the flowchart is open by another user. If you continue deleting the flowchart, the other user's changes are permanently lost. To prevent the loss of work, do not continue deleting the flowchart without first checking with the other user.

## Deleting flowcharts

You can delete a flowchart if you are sure that you no longer need it.

Deleting a flowchart permanently removes a flowchart and all of its associated files, including the log file. If you want to retain portions of your flowchart for reuse, save them as stored objects. Output files (such as files written by a Snapshot, Optimize, or a contact process) are not deleted, and contact and response history are retained.

1. Open a flowchart in **View** mode.
2. Click the **Delete** button.

 **Important:** If you try to delete a flowchart that is being edited by someone else, Campaign warns you that the flowchart is open by another user. If you continue, the other user's changes are lost. To prevent the loss of work, do not continue without first checking with the other user.


3. If you are sure that you want to permanently delete the flowchart, click **OK** to confirm the deletion.

The flowchart and all of its associated files are deleted.

## Printing flowcharts

You can print hardcopies of flowcharts from Campaign.

 **Note:** Do not use the web browser **File > Print** command. This procedure does not always print flowcharts correctly.

1. Open a flowchart in **View** or **Edit** mode.
2. Click the **Print** icon .

## Details about in-database optimization

In-database optimization avoids copying IDs from the database to the Campaign server for processing whenever possible. This option can improve flowchart performance.

In-database optimization determines:

- Whether operations are done on the database server or the local Campaign server; and
- Where the results of operations are stored.


When in-database optimization is on:

- Processing tasks such as sorting, joining, and merging data are done on the database server whenever possible.
- Output cells of processes are stored in temporary tables on the database server.

In-database optimization affects CPU consumption:

- When in-database optimization is on, more CPU is consumed on the database server.
- When in-database optimization is off, more CPU is consumed on the Campaign server.

You can apply in-database optimization globally and override the global setting for individual flowcharts. The best practice is to turn off the global configuration property (**Use in-DB optimization**) and set the option at the flowchart level (**Advanced Settings > Admin > Use in-DB optimization during flowchart run** ).

 **Important:** In-database processing cannot be done if you specify any limitations on the output cell size or if temporary tables are disabled for a process.

### Limitations of in-database optimization

- In-database optimization is not supported for all databases.
- Depending on the logic that is required, some functions are still performed on the Campaign server, even with in-database processing turned on. Some examples are given below:

- The query uses tables from different data sources.

For example, if a Select process queries different data sources, Campaign automatically stores the ID lists for those cases on the application server.

- The query contains non-SQL macros or derived fields.

For example, to calculate a derived field, Campaign evaluates the derived field formula to see whether any part of the calculation can be performed with SQL. If simple SQL statements can be used, the calculation is done in-database. If not, temporary tables are created on the Campaign server to handle the calculations and persist the results from process to process within a flowchart.

### Processing raw SQL in macros

Custom macros that consist of raw SQL statements can be processed in-database, within the following guidelines:

- All raw SQL custom macros must begin with `select` and contain exactly one `from` in the rest of the text.
- For databases that only support `insert into <TempTable>` syntax, you must map at least one base table to the same data source at the same audience level as the raw SQL


custom macro. If the fields that are selected by the raw SQL custom macro are too large for the fields of the temp table, a runtime error occurs.

- If you use a raw SQL query in a Select process that has an input cell, you must use the `<TempTable>` token to obtain the correct list of audience IDs. Also use the `<OutputTempTable>` token to prevent audience IDs from being retrieved from the database back to the Campaign server.
- If you use raw SQL with in-database optimization, you must code the raw SQL to join with the temp table from the upstream process. Otherwise, the results are not scoped by the results from the upstream process.

## Setting in-database optimization to improve flowchart performance

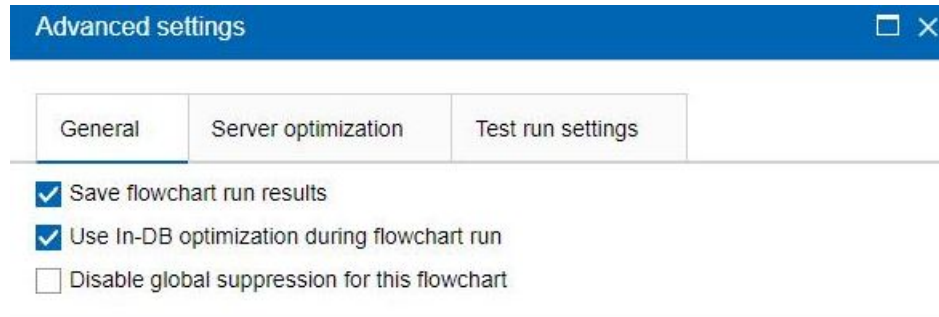
Using in-database optimization can improve flowchart performance. When in-database optimization is on, processing is done on the database server and output is stored in temporary tables on the database server whenever possible.

You can apply in-database optimization in two ways: globally and for individual flowcharts. The best practice is to turn off the global configuration setting and set the option at the flowchart level.

1. To adjust the option globally, at the partition level:
  - a. Choose **Settings > Configuration**.
  - b. Choose **Campaign > partitions > partition[n] > server > optimization**.
  - c. Set **useInDbOptimization** to `TRUE` (on) or `FALSE` (off).
2. To override the option for an individual flowchart:
  - a. Open a flowchart in **Edit** mode.
  - b. Open the **Admin** menu  and select **Advanced settings**.
  - c. Select or clear **Use In-DB optimization during flowchart run**.

Example





Advanced settings


General Server optimization Test run settings

Save flowchart run results

Use In-DB optimization during flowchart run

Disable global suppression for this flowchart

When you save and run the flowchart, in-database processing will be used whenever possible, if you are using in-database optimization.

 **Note:** In-database processing cannot be done if you specify any limitations on the output cell size or if temporary tables are disabled for a process.

## Packaging flowchart files for troubleshooting

If you need help from to troubleshoot a flowchart, you can automatically collect relevant data to send to the Technical Support.

Only a user with permissions to edit or run a flowchart can perform this procedure. If you do not have "View logs" permission, you cannot select the log-related entries in the selection window.

Perform this task to package flowchart data files so you can send them to the Technical Support. You can specify which items to include and indicate date ranges to limit data. The data is written to the folder you choose, and the contents can be compressed and sent to the Technical Support.

1. Open a flowchart in **Edit** mode.
2. Select **Admin > Collect flowchart data**.
3. In the **Create Data Package for Troubleshooting** window, type a name for the package or leave the default name.

The package name will be used to create a subfolder in which the selected data items will be written.

4. Click **Browse** and select the folder where the data package will be saved.
5. Select the items that you want to include in the package or check **Select default items** to select all data that is commonly required. Some items, when selected, may allow additional information to be entered.

For more information, see [Options for packaging flowchart data \(on page 252\)](#).

6. Click **OK** to create the package.
7. Send the data package to the Technical Support by email or use the method recommended by your support representative. The Technical Support accepts uncompressed data (the entire package subdirectory), but you may optionally compress, encrypt, and package the files into a single file before sending them.

In addition to the data items you select, Campaign creates a summary file that identifies:

- Current date and time
- Version and build numbers of the software
- Your user name
- The selections that you included in the package
- Campaign name and ID
- Flowchart name and ID

## Packaging flowchart files for troubleshooting

Only a user with permissions to edit or run a flowchart (either test or production run) can perform this procedure. If you do not have "View logs" permission, you cannot select the log-related entries in the selection window.

Use this task to automatically package flowchart data files so you can send them to the Technical Support if you need help troubleshooting a flowchart.

1. From a flowchart page in **Edit** mode, select **Admin > Collect Flowchart Data**. You see the **Create Data Package for Troubleshooting** window.
2. Type a name for the package, or leave the default name.  
The package name will be used to create a subfolder in which the selected data items will be written.
3. Click **Browse** and select the folder under which the data package will be saved.
4. Select the check box for each item you want to include in the package. Some items, when selected, may allow additional information to be entered with which to filter the extracted data.  
  
Alternatively, you can check the **Select default items** check box. This check box automatically selects all data that is commonly required for troubleshooting flowcharts; this includes all of the listed items except the log files and the contents of the user table, contact and response history tables, strategic segments, and stack trace files.
5. Click **OK** to create the package.

## Transmitting the flowchart data package to Technical Support

You can send the data package to the Technical Support by email or using a method recommended by your support representative. The Technical Support will accept uncompressed data (the entire package subdirectory), but you may optionally compress, encrypt, and package the files into a single file before sending them to HCL.

## Options for packaging flowchart data

Select **Admin > Collect flowchart data** to package flowchart files to send to the Technical Support. When prompted, specify the options described in this topic.

**Table 24. Options for packaging flowchart data**

<b>Item</b>	<b>Description of what is included</b>	<b>Additional specifications you may set</b>
<b>Select default items</b> check box	All data commonly required for troubleshooting flowcharts, including all of the listed items except log files and the contents of the user table and contact history table.	
<b>Flowchart</b>	The flowchart <code>.ses</code> file.	<b>Include run results?</b> Optionally include or exclude the runtime data files, also called the "underscore" files.
<b>Flowchart log</b>	The flowchart <code>.log</code> file.	Optionally set start and end time stamps. If you do not set them, the default is the entire log file.
<b>Listener log</b>	The <code>unica_aclsnr.log</code> file.	Optionally set start and end time stamps. If you do not set them, the default is the entire log file.
<b>Startup log</b>	The <code>AC_sess.log</code> file.	Optionally set start and end time stamps. If you do not set them, the default is the entire log file.
<b>Web message log</b>	The <code>AC_web.log</code> file.	Optionally set start and end time stamps. If you do not set them, the default is the entire log file.
<b>Campaign configuration</b>	The <code>.config</code> file, which lists configuration properties and settings from your	

Item	Description of what is included	Additional specifications you may set
	Campaign environment to help troubleshooting the flowchart.	
<b>Campaign custom attributes</b>	The <code>customcampaignattributes.dat</code> file, which lists attribute name and value pairs for Campaign custom attributes. Only entries that are related to the current campaign are included.	
<b>Cell custom attributes</b>	The <code>customcellattributes.dat</code> file, which lists attribute name and value pairs for Campaign cell custom attributes. Only entries that are related to the current campaign are included.	
<b>Offer definitions</b>	All rows are included for each of the following offer-related system tables: <code>UA_AttributeDef.dat</code> , <code>UA_Folder.dat</code> , <code>UA_Offer.dat</code> , <code>UA_OfferAttribute.dat</code> , <code>UA_OfferList.dat</code> , <code>UA_OfferListMember.dat</code> , <code>UA_OfferTemplate.dat</code> , <code>UA_OfferTemplAttr.dat</code> , <code>UA_OfferToProduct.dat</code> , <code>UA_Product.dat</code> , <code>UA_ProductIndex.dat</code>	

Item	Description of what is included	Additional specifications you may set
<b>Target cell spreadsheet data</b>	The <code>targetcellspreadsheet.dat</code> file, which includes data from <code>UA_TargetCells</code> for the entire target cell spreadsheet. Includes data for the current campaign, in column/row-delimited text format.	
<b>Custom macro definitions</b>	The <code>custommacros.dat</code> file, which includes the following fields from <code>UA_CustomMacros</code> , in column/row format: Name, FolderID, Description, Expression, ExpressionType, DataScrName, DataVarType, DataVarNBytes, CreateDate, CreatedBy, UpdateDate, UpdateBy, PolicyIS, ACLID	
<b>System table mapping</b>	The <code>systablemapping.xml</code> file. Includes all system table mappings, including the data source.	
<b>+ Include system table contents</b>	When you select this option, it expands to list all system tables.	<p>Select each system table to include. The entire table will be included (all rows and all columns).</p> <p>If you do not select any sub-options, the package will not include any system tables.</p>

<b>Item</b>	<b>Description of what is included</b>	<b>Additional specifications you may set</b>
<b>+ Include contact history tables</b>	When you select this option, it expands to show the contact history and detailed contact history tables for each audience level.	<p>For each set you select, the package will include the contact history and detailed contact history records for that audience level.</p> <p>You can optionally set start and end time stamps. If you do not set them, the default is all records.</p> <p>If you do not select a suboption, the package will not contain any contact history table information.</p>
<b>+ Include response history tables</b>	When you select this option, it expands to show response history tables for all audience levels.	<p>For each table you select, the package will include the response history records for that audience level.</p> <p>For each table you select, you can optionally set start and end time stamps. If you do not set them, the default is all records.</p> <p>If you do not select a table, the package will not contain any response history table information.</p>
<b>+ Include user table contents</b>	When you select this option, it expands to show the user table contents that you can select for the package.	<p>Select the user tables from the flowchart to include.</p> <p>If you do not select any, the package will not include any user table contents.</p>

Item	Description of what is included	Additional specifications you may set
		For each user table that you select, you can optionally set maximum number of rows to include. If you do not set a maximum number of rows, the package will include the entire table.
<b>+ Include strategic segments</b>	When you select this option, it expands to show all the strategic segments that you can select for the package.	Select the segment data for each strategic segment from the flowchart that you want to include.
<b>+ Include stack trace files</b>	Option available for UNIX versions only.  When you select this option, it expands to show the list of stack trace files (*.stack) in the same directory as <code>unica_aclsnr.log</code> .	Select the stack trace files that you want to include in the package. If you do not select any sub options, the package will not include any stack trace files.

## Flowchart reference

This section describes the icons in the Campaign interface for working with flowcharts.


### Flowchart tab icons (View mode)

The flowchart tab uses the following icons in **View**

mode. 

The icons, left to right, are described in the following table.



 **Note:** Many of the icons in the interface are associated with features that require permissions. For more information, see the *Platform Administrator's Guide*. The **Copy** and **Delete Flowchart** icons do not appear without the appropriate permissions:

**Table 25. Flowchart tab icons for View mode**


Icon Name	Description
Edit	Click this icon to edit the flowchart.
Run	Click this icon to access the <b>Run</b> menu.
Add a flowchart	Click this icon to add another flowchart to the campaign.
Zoom In	Click this icon to increase the view size of the flowchart.
Zoom Out	Click this icon to decrease the view size of the flowchart.
Print this Item	Click this icon to print the flowchart.
Copy	Click this icon to create a copy of this flowchart.
Delete Flowchart	Click this icon to delete the flowchart.

## Flowchart page icons (Edit mode)

The **Flowchart** page uses the following icons in **Edit**

mode. 

The icons, left to right, are described in the following table.

 **Note:** Many of the icons in the interface are associated with features that require permissions. For more information, see the *Platform Administrator's Guide*.

**Table 26. Flowchart page icons for Edit mode**

Icon Name	Description
Run	Click this icon to access the <b>Run</b> menu.

Icon Name	Description
Properties	Click this icon to view or edit the <b>Flowchart Properties</b> window.
Options	Click this icon to access the <b>Options</b> menu.
Admin	Click this icon to access the <b>Admin</b> menu.
Reports	Click this icon to access the flowchart cell reports.
Cut	Select one or more items in the flowchart and click this icon to remove them.
Copy	Select one or more items in the flowchart and click this icon to copy them.
Paste	Click this icon to paste into the flowchart any items you have cut or copied.
Zoom In	Click this icon to increase the view size of the flowchart.
Zoom Out	Click this icon to decrease the view size of the flowchart.
Print	Click this icon to print the flowchart.

# Chapter 16. List of processes


The following processes, grouped by process type, are available in Campaign.

The sections for the individual processes provide step-by-step guidance for configuring each process. Each set of the individual process configuration instructions assumes that you have added the process to your flowchart as a first step. For details about how to add a process to a flowchart, see [Adding processes to flowcharts \(on page 368\)](#).

You should also see [Manipulating process boxes in flowcharts \(on page 366\)](#) for information about configuring processes in general.

Campaign provides the following types of processes:

- [Data manipulation processes \(on page 365\)](#)
- [Run processes \(on page 366\)](#)
- [Optimization processes \(on page 355\)](#)

 **Note:** Interact, Optimize, and Deliver provide additional processes. For more information, see the documentation for those products.

## Data manipulation processes

Campaign provides the following data manipulation processes:

- [The Audience process \(on page 261\)](#)
- [The Extract process \(on page 277\)](#)
- [The Merge process \(on page 289\)](#)
- [The Sample process \(on page 292\)](#)
- [The Segment process \(on page 298\)](#)
- [The Select process \(on page 314\)](#)

## The Audience process

Audience levels define the target entity that you want to work with, such as account, customer, household, product, or business division. Use the Audience process in a flowchart to switch between audience levels or to filter out IDs by audience level.

Audience levels are defined by an administrator during the table mapping process. When you use the Audience process in a flowchart, you can specify which audience levels you want to target in your campaign. For example, you can configure the Audience process to:

- Select one customer per household based on some business rule (for example, oldest male or the person with the highest account balance);
- Select all accounts belonging to a particular set of customers;
- Select all accounts with a negative balance belonging to a particular set of customers;
- Select all households with individuals holding checking accounts;
- Select customers with three or more purchases within a specified time-frame.

The Audience process can select from any defined table(s), so you can use it as a top-level process in your flowchart to initially select data.

To use the Audience process, you must work with tables for which multiple audience levels are defined. These levels, defined within a single table, provide a relationship to "translate" from one level to another.

- One key is defined as the "primary" or "default" key for the table. (This key represents the audience used most frequently for this data source.) The default level associated with a table is specified during the table mapping process. For more information about mapping tables, see the *Campaign Administrator's Guide*.
- The other keys are "alternate" keys that are available for switching audience levels.

After you switch audience levels, Campaign displays only those tables whose default key is defined at the same audience level. If you work at different audience levels on a regular basis, you might need to map the same table more than once within Campaign, each time with a different primary/default key.

## Restricting audience size

When you configure an Audience process, the default size for the number of records per audience is Unlimited. You may want to restrict the size of the audience if, for example, you are performing test runs of a campaign flowchart or process.

You can limit the audience size to any positive integer. When you limit the audience size, the qualifying records are chosen randomly.

The same random set of records will be used for each subsequent run of the Audience process (unless the input to the process changes). This is important if you intend to use the results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness. If you do not intend to use the results for modeling, you can make the Audience process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0). A value of 0 ensures that a different random set of records will be selected each time the process runs.

## Audience levels

Audience levels are defined by Campaign administrators to represent different potential targets of campaigns, such as account, customer, household, product, or business division.

Audience levels are often, but not always, organized hierarchically. Here are some examples of hierarchical audience levels that are commonly found in customer marketing databases:

- Household > Customer > Account
- Company > Division > Customer > Product

Your organization can define and use an unlimited number of audience levels. If you are using multiple audience levels (for example, customer and household), it is important to understand how to use the Audience process to best accomplish your business objectives.

Audience levels are created and maintained by an administrator. Moving from one audience level to another requires that all of the audience levels that you use have keys defined within the same table. This provides a "look up" mechanism to switch from one level to another.

Audience levels are global, and are attached to each mapped base table. Thus, when a flowchart is loaded, the audience levels are loaded along with the table mappings within that flowchart.

If you have permissions to map tables in Campaign, you can map a new table to one or more existing audience levels, but you cannot create new audience levels. Only users with the appropriate permissions, usually system administrators, can create audience levels.

In the Audience process, you specify an input audience level and an output audience level. The input and output audience levels can be the same (for example, Customer) or different (for example, Customer and Household). Use the Audience process to stay within the same audience level, or to switch audience levels.

## Householding

Householding is a general term that means reducing the number of members in the current audience level by scoping using another audience level.

One of the most common examples of householding is to identify a single individual to target within each household. You might select one individual per household according to a marketing business rule such as:

- The individual with the greatest dollar value across all accounts;
- The individual with the most purchases in a particular product category;
- The individual with the greatest tenure; or
- The youngest male over 18 within the household.

You can use the Audience process to change audience levels and filter IDs according to user-specified criteria.

## When to switch audience levels

Some complex campaigns require processing at different audience levels to arrive at the list of final target entities. This can involve starting at one audience level, performing some computations and taking this output, then moving to another audience level, and performing other computations.

For example, you might want to support complex suppressions at different levels. As a result, in a data model where there is a one-to-many or many-to-many relationship between customers and accounts, a marketing analyst might want to build a campaign that does the following:

- Eliminates all accounts of customers that satisfy certain criteria (for example, eliminate any account that is in default);
- Eliminates particular accounts that satisfy certain criteria (for example, eliminate all the low-profitability accounts).

In this example, the campaign might start at the customer level, perform customer-level suppressions (suppress accounts in default), switch to the account level, apply account-level suppressions (suppress low-profitability accounts), and then switch back to the customer level to obtain the final contact information.

### Configuring the audience process

To use the Audience process, you must work with tables for which multiple audience levels are defined. These levels, defined within a single table, provide a relationship to "translate" from one level to another.

- One key is defined as the "primary" or "default" key for the table. (This default key represents the audience used most frequently for this data source.)
- The other keys are "alternate" keys that are available for switching audience levels.

Once you switch audience levels, Campaign displays only those tables whose default key is defined at the same audience level. If you work at different audience levels on a regular basis, you might need to map the same table more than once within Campaign, each time with a different primary/default key. The default level associated with a table is specified during the table mapping process. For more information about mapping tables, see the Campaign Administrator's Guide .

The options available in the Audience process configuration dialog depend on various choices that you can make:

- Whether the input and output audience levels are the same or different;
- Whether the audience level values are normalized in these tables;
- Whether there are multiple audience levels defined for the selected tables.

For this reason, not all of the options described in the following sections are available for all pairs of input and output table selections.

### Switching and filtering audience levels

Configure an Audience process to switch between audience levels or to filter out IDs by a specific audience level.

To use the Audience process, you must work with tables for which multiple audience levels are defined.

The options that are available in the Audience process configuration dialog depend on various choices that you can make:

- Whether the input and output audience levels are the same or different
- Whether the audience level values are normalized in these tables
- Whether there are multiple audience levels defined for the selected tables

For this reason, not all of the options described below are available for all pairs of input and output table selections.

1. Open a flowchart for editing.

2. Drag the Audience process  from the palette to your flowchart.

The Audience process can select from any defined tables, so you can use it as a top-level process in your flowchart to initially select data. You can also use a process such as Select or Merge to provide input to the Audience process.


3. Double-click the Audience process in the flowchart.




The **Audience process configuration** dialog box opens and the Source tab is open by default.

4. On the Source tab, open the **Input** list and select a data source for the process. You can select a Segment, a Table, or the output cell from any process that is providing input to the Audience process.

The audience level for the selected input is displayed next to the **Input** field. If there is no input, the audience level is shown as **not selected**.

 **Tip:** Notice that the **Select** options indicate the input audience level. For example, if the audience level is Customer, you can select **One entry per Customer**. If the audience level is Household, you can select **One entry per Household**.

5. Select an output audience level from the **Choose audience** list.

 **Note:** If you do not see the expected audience level, you can try remapping a table.

The **Select** options now reflect both the input and the output audience levels.

For example, if your input is Household and your output is Customer, the **Select** options are labeled **All Customer entries, Some Customer entries, One Customer entry per Household**.

6. Use the **Select** and **Filter** options to specify how to select records. The available options depend on whether you are selecting All IDs (in which case filtering is not allowed), switching levels, or staying at the same level.

For details on how to select and filter based on whether you are switching audience levels, see:

- [Options that are available when using the same input and output audience levels \(on page 269\)](#)
- [Options that are available when using different input and output audience levels \(on page 274\)](#)

7. Optionally, use the **Cell size limit** tab to limit the number of IDs generated by the process during production or test runs. .

8. Use the **General** tab to set the following options.
  - a. **Process name:** Assign a descriptive name to identify the process in the flowchart and in various dialogs and reports.
  - b. **Output cell name:** This name matches the Process name by default. It is used in dialogs and reports to identify the output cell (the set of IDs that the process retrieves).
  - c. (Optional) **Link to target cell:** Perform this step if your organization pre-defines target cells in a target cell spreadsheet. To associate the pre-defined target cell with the flowchart process output, click **Link to target cell**, then select a target cell from the spreadsheet. The **Output cell name** and **Cell code** are inherited from the target cell spreadsheet, and both of those field values are shown in italics to indicate that there is a link relationship.
  - d. **Cell code:** The cell code has a standard format that is determined by your system administrator and is unique when generated. Do not change the cell code unless you understand the implications of doing so. By default, the name of a cell created in a process matches the process name. When you save changes to an output cell name, if **Auto generate** is selected, the cell code is regenerated. If you do not want the cell code to change, uncheck **Auto generate**.
  - e. **Note:** Use the **Note** field to explain the purpose or result of the process, such as *Contact one individual per household*. The contents of this field appears when you rest your cursor over the process box in a flowchart.
9. Click **OK** to save and close the configuration.

The process is now configured. You can test run the process to verify that it returns the results that you expect.

### Example: Audience process

This example shows how to configure an Audience process in a flowchart.

The following figure shows a configured Audience process.

**Audience process configuration**

Source | Cell size limit | General

**Specify selection criteria and result audience level**

Input: Demo ( Audience level Customer )

Choose audience: Customer in Trans\_xtnd\_retail\_Auto

Select:

- One Customer entry per... HHold
- Some Customer entry per...
- For each Customer

Based on:

MaxOf MEAN\_HHOLD\_INCOME Derived fields...

Filter..

OK Cancel Help


The process is configured to choose the customer who has the highest credit limit within a household:

- The selected input audience level is **Customer**; it is the default audience level of the `DEMO` table. The Audience Level is displayed to the right of the **Input** field.
- The output audience level is the same: **Customer** as defined in the `DEMO` table. The `DEMO` table has two other audience levels defined: `Branch` and `HouseHold`.
- The process is configured to choose **One Customer entry per... HouseHold** based on the maximum of the field `CREDIT_LIMIT`.

### Example: Filtering records

This example explains how to use filtering in an Audience process in a flowchart.

When you configure an Audience process to select IDs based on a count, or a statistical function ( **MaxOf**, **MedianOf**, **MinOf**) or **Any One**, the **Filter** button becomes available. When you click **Filter**, the **Specify selection criteria** dialog appears, which allows you to enter a query expression to specify which records will be used in the **Based on** calculation.

 **Note:** The filtering criteria is applied before the **Based on** calculation is performed, allowing you to remove records from consideration.

For example, you might want to constrain the date range over which an operation is performed. To use only purchase transactions over the last year, you can enter a filter query expression such as:


```
CURRENT_JULIAN( ) - DATE(PURCH_DATE) <= 365
```

Then, if you are computing a **Based on** calculation that chooses the sum of the **Amount** field, only the amounts from transactions within the last year are summed together.

Options that are available when using the same input and output audience levels

When the input and output audience levels are the same in an Audience process of a flowchart, you can use the following selections to identify the audience.

The **Select** options vary depending on the relationship of the selected audience levels for the **Input** and output (**Choose audience**). Options that are not meaningful are disabled.

 **Note:** The name of the selected audience level is used in the **Select** option labels. For example, if the input audience level is Customer, the **One entry per** option appears as **One Customer entry per**.

The **Select** options include:

One per	<p>One member of the input/output audience level, scoped by another audience level.</p> <p>For example: One customer per household.</p> <p>See <a href="#">Selecting one &lt;Input/Output audience&gt; entry per &lt;Different audience&gt; (on page 270)</a>.</p>
---------	--

Some per	<p>Some members of the input/output audience level, scoped by another audience level.</p> <p>For example: All customers in the household with above average purchases.</p> <p>See <a href="#">Selecting some &lt;Audience&gt; records per &lt;Different audience&gt; (on page 272)</a>.</p>
For each	<p>Select members if the number of members at the selected audience level satisfies some condition.</p> <p>For example: Number of accounts &gt; 1, or number of purchases &gt; 3.</p> <p>See <a href="#">Selecting entries for each entry at that audience level (on page 273)</a>.</p>

*Selecting one <Input/Output audience> entry per <Different audience>*

Choose this option if the input and output audience levels are the same, but a different audience level is used to scope the output.

An example is to select the one customer in each household who has the oldest account. (Input audience level is customer, output audience level is customer, scoping by Household level, using `MinOf(BaseInfo.AcctStartDt)` to select.) Specify a business rule to indicate how the single entity is selected (for example, the minimum, maximum, or median of some field), or else choose **Any one** (in this case, no field choices are available).

1. In the Audience process, select an input source for **Input**.
2. Choose the same audience level for the output audience.
  - The relevant **Select** options become available.
3. Select the **One entry per** option.
4. Select an audience level from the list.

All alternate defined audience levels (other than the input audience) appear in the list.

5. Choose a value from the **Based on** list:

- **Any One** eliminates the need to pick a **Based on** value
- **MaxOf** returns the maximum value of the selected field
- **MedianOf** returns the median value of the selected field
- **MinOf** returns the minimum value of the selected field

Each of these functions will return exactly one member from the input audience level. If more than one entry is tied at the maximum, minimum, or median value, the first encountered entry is returned.

6. If you selected a **Based on** criterion other than **Any one**, select a field on which the function operates. This list includes all the fields from the table selected in the **Choose audience** field and any mapped dimension tables. Expand a table by clicking the " + " sign. Created derived fields are listed at the bottom.


For example, to select the account holder from each household with the highest account balance, select **MaxOf** for the **Based on** criteria and `Acct_Balance` from the list of table fields.

You can also create or select derived fields by clicking **Derived fields**.

7. (Optional) If you selected a count to be based on, the **Filter** button becomes available.

Use the **Filter** function to reduce the number the IDs that will be available to the **Based on** calculation. For example, you might want to select customers based on their average account balance in the last 6 months, but prior to doing that, you would want to filter out all customers whose accounts are inactive.

To filter records before performing the **Based on** computation, click **Filter**. The **Specify selection criteria** dialog appears. You can enter a query expression to specify which records will be used in the **Based on** calculation. The filtering criteria is applied before performing the **Based on** calculation, thereby allowing you to remove records from consideration.

 **Tip:** You create a query expression in the **Specify selection criteria** dialog the same way that you would for a Select process. For instructions, see the topic [Selecting a list of contacts \(on page 315\)](#).

8. Click **OK** to save your query and close the **Specify selection criteria** dialog.
9. Continue configuring the Audience process by completing the fields on the remaining tabs.


### Selecting some <Audience> records per <Different audience>

This selection indicates that there are multiple entries per audience.

In this situation, the input and output audience levels are the same, but a different audience level is used to scope the output. For example, select all customers within each household who have made purchases over \$100 (Input audience level is customer, output audience level is customer, scoping by Household level, using `Maximum Purchase Value>$100.`)

In addition to creating a query, the **Based on** criterion also supports keywords allowing the functional equivalent of a GROUPBY macro function to be performed.

1. Select an input source for Input and the same audience level for the output audience in the Audience process.  
The relevant Select options become available.
2. Select the **Some entries per...** option.  
A list appears next to the selected option.
3. Select an audience level from the list.  
All alternate defined audience levels (other than the input audience) appear in the list.
4. Click in the **Based on** field to enter a query.  
The **Specify selection criteria** dialog opens.
5. Enter or build a valid query expression, then click **OK** to save it and close the **Specify selection criteria** dialog.


 **Tip:** You create a query expression in the **Specify selection criteria** dialog the same way that you would for a Select process. For instructions, see the topic [Selecting a list of contacts \(on page 315\)](#).

6. Continue configuring the process by completing the fields on the remaining tabs.

*Selecting entries for each entry at that audience level*

This selection indicates that there are multiple selections from multiple audience levels.


Select this option if the number of members at the selected audience levels satisfies some condition (for example, `Number of Accounts > 1` Or `Number of Purchases > 3`).

 **Note:** This option is available only if the input audience level is not normalized (that is, the record ID is not unique in the selected Choose Level table), and the input and output levels are the same. It is the only option available if no alternate keys have been defined for your output audience table.

1. Select an input source for **Input** and the same audience level for the output audience in the Audience process.

The relevant **Select** options become available.

2. Select the **For each** option.

 **Note:** This option is available only if the input audience level is not normalized (that is, the record ID is not unique in the selected Choose Level table).

A list appears next to the selected option.

3. Choose a **Based on** selection.

If the table that you selected for **Choose audience** (that is, the output audience) is not normalized, there might be duplication in your results. To avoid duplication, specify a **Based on** method for Campaign to use when selecting records. For example, if your results might include more than one individual in the same household, you can use **Based on** to select only one individual from that household, based on the criterion that you configure in this feature.


You must select one of the **Based on** methods:



- **Count:** This option lets you select the <Input Audience Level> ID, where the number of occurrences of the <Input Audience Level> ID satisfies the specified condition. To toggle between different relationships (<, <=, >, >=, =), click the operator button repeatedly until the desired relation is displayed.

When you select **Count**, the **Filter** button becomes available. Optionally, use the **Filter** function to reduce the number the IDs that will be available to the **Based on** calculation. For example, you might want to select customer IDs based on their average account balance in the last six months, but before doing that, you would want to filter out all customers whose accounts are inactive. When you click **Filter**, the **Specify selection criteria** dialog opens. You can enter a query expression to specify which records will be used in the **Based on** calculation. The filtering criteria is applied before performing the **Based on** calculation, allowing you to remove records from consideration.


- **Condition:** Click in the text box to the right of **Condition**. The **Specify selection criteria** dialog appears. Enter or build a valid query expression, then click **OK** to save your expression and close the **Specify selection criteria** dialog.

 **Tip:** You create a query expression in the **Specify selection criteria** dialog the same way that you would for a Select process. For instructions, see the topic [Selecting a list of contacts \(on page 315\)](#).

4. Continue configuring the process by completing the fields on the remaining tabs.

### Options that are available when using different input and output audience levels

When the input and output audience levels are different in an Audience process of a flowchart, you can use the following selections to identify the audience.

 **Note:** The name of the selected audience level is used in the **Select** option labels. For example, if the input audience level is Customer, the **One entry per** option appears as **One Customer entry per**. In the following sections, this dynamically changing portion of the option text is indicated with <Input/Output Audience> where appropriate.

The **Select** options include:

All	<p>Select all members of the input audience level, scoped by another audience level. For example: All customers per household.</p> <p>See <a href="#">Selecting all &lt;Output Audience Level&gt; entries (on page 275)</a>.</p>
Some	<p>Select some members of the output audience level, keeping only those IDs that satisfy a specified condition. For example: All customers aged 18 or over within a household.</p> <p>See <a href="#">Selecting some &lt;Different Output Audience Level&gt; entries (on page 276)</a></p>
One per	<p>Select exactly one output audience record for each input audience record. For example: One customer per household.</p> <p>See <a href="#">Selecting one &lt;Output Audience&gt; per &lt;Different Input Audience&gt; (on page 276)</a>.</p>

### Selecting all <Output Audience Level> entries

Select this option to switch to the output audience level without performing any filtering. For example, you can select all customers in a household or all accounts belonging to a customer.

This option creates an output cell with all output audience level entries associated with the input IDs. It switches audience levels without applying any selection or filtering criteria.

If you change from a primary audience level to another audience level, you will no longer be able to use derived fields in downstream processes.

1. Select an input source for **Input** and a different output audience for **Choose audience**.

The **Select** options become available.

2. Select **All <Output Audience Level> entries**.

3. Click **OK**.

Selecting some <Different Output Audience Level> entries

Select this option to switch from the input audience level to a different output audience level, keeping only those IDs that satisfy a specified condition. For example, you could select all customers aged 18 or over within a household, or select all accounts of a customer with positive balances.

1. Select an input source for **Input** and a different output audience for **Choose audience**.

The **Select** options become available.

2. Click to select **Some <Output Audience Level> entries**.

The **Based on** field becomes available.

3. Click in the **Based on** field to enter a query.

The Specify Selection Criteria window appears. The **Based on** criteria allows you to enter a query expression to limit the output audience level entries selected.

4. Enter or build a valid query expression, then click **OK** to save the query and close the Specify Selection Criteria window.

5. Click **OK** to close the Audience process configuration dialog, saving your entries.

Selecting one <Output Audience> per <Different Input Audience>

Select this option to choose exactly one output audience record for each input audience record (for example, to choose one email address per customer).

You must specify a business rule to indicate how the single entity should be selected (min/max/median of some field) or choose **AnyOne** (in this case, no field choices are available).

This option is available only if the input audience level is not normalized (that is, the record ID is not unique in the selected **Choose Level** table).

In addition to creating a query, the **Based on criterion** also supports keywords allowing the functional equivalent of a `GROUPBY` macro function to be performed.

1. Select an input source for **Input** and an output audience for the Audience process.

The **Select** options become available.

2. Select **One <Output Audience Level> per <Input Audience Level>**.

3. Select a value from the **Based on** drop-down list.

(Field selection, using the drop-down list to the right, becomes inactive when you select **Any One**. If this is your selection, skip to step 5.)

4. Select a field in the next drop-down list to which the **Based on** function relates:

- a. Click in the **Based on** text box.

The Select Field window appears. All fields from the table selected in the **Choose audience** drop-down list appear, including any mapped dimension tables.

You can expand a table by clicking the "+" sign. Created derived fields are listed at the bottom.

- b. Select a field and click **OK**.
- c. (Optional) Create derived fields by clicking **Derived fields**.

5. (Optional) To filter records before performing the **Based On** computation, use **Filter**.

6. Click **OK**.

## The Extract process

Use the Extract process to select fields from one table and write them out to another table for subsequent processing. The Extract process is designed to pare down a large amount of data to a manageable size for subsequent operations, resulting in vast performance improvements.

The Extract process can take input from a cell, single table, strategic segment, optimized list (Optimize only), or Deliver landing page (Deliver only). If you select a strategic segment as input, you must join it to a table before you can extract fields.

If you use several Extract processes in a series, only the fields in the final Extract process are written out.

If you use several Extract processes in parallel (in different branches in the same flowchart), they behave the same as persistent derived fields:


- The extracted fields attach to the inbound cell
- The extracted fields are calculated before query execution in that process
- Multiple extracted fields are available in subsequent processes
- When extracted fields are sent to a contact process:
  - If an extracted field is not defined for a cell, its value = NULL
  - If a single ID is in more than one cell, one row is output for each cell
- When extracted fields are sent to a Segment or Decision process, the extracted field must exist in all selected input cells for it to be used in segmenting by query.

## Extracted tables

Data is extracted as either a binary file on the Campaign server or as a table with a **UAC\_EX** prefix.

Extract tables are not deleted at the end of a flowchart run. An extract table persists so that users can continue to access it to perform operations such as profiling its fields.

An extract table is deleted only when you delete its associated Extract process, flowchart, campaign, or session.

 **Note:** To conserve space, system administrators can periodically delete tables with a **UAC\_EX** prefix. However, if these tables are removed, you must rerun the affected Extract processes before you rerun flowcharts or profile fields in the now-missing tables. Otherwise, Campaign generates "Table Not Found" errors.

## Example: Extracting transaction data

This example explains how to use the Extract process to obtain data about purchase transactions.

Assume that you designed a campaign to perform selections or calculations based on the last three months of purchase transactions for all non-delinquent customers (approximately 90% of your customer base), resulting in 4 GB of data.

Even if Campaign created a temporary table for these customers, joining it back to the purchase transaction table would entail pulling over approximately 90% of the 4 GB rows (and discarding all transactions except for the last three months) to execute a `GROUPBY` macro, for example.

Instead, you can configure an Extract process (placed at the purchase transaction level) to pull out all transactions within the last three months, put them into a table in the database, and then subsequently run multiple `GROUPBY` macros and other calculations against it (for example, min/max and average).

## Prerequisites for extracting data from Deliver landing pages

Several prerequisites must be met before you can configure an Extract process to accept input from Deliver landing pages.

- Deliver must be installed, running, and enabled.
- Deliver landing pages must be appropriately configured.
- The mailing must be executed and responses from mailing recipients must be received.

For more information about Deliver landing pages, see the Deliver User's Guide.

## Extracting subsets of data for further processing and manipulation

Use the Extract process to pare down a large amount of data to a manageable size for subsequent operations, resulting in performance improvements.



The procedure for configuring the Extract process differs depending on whether you are extracting data from a cell, table, or strategic segment or from a Deliver landing page.

To extract data from an optimized list, see the Optimize User's Guide.

## Extracting data from a cell, table, or strategic segment

This procedure explains how to use the Extract process to obtain data from an input cell, such as a Select process, or from a single table or a strategic segment. In this way, you can pare down a large amount of data to a manageable size for subsequent operations, resulting in improved performance.

See [The Extract process \(on page 277\)](#).

1. Open a flowchart for editing (click **Edit**  in the flowchart toolbar).
2. Drag the Extract process  from the palette to your flowchart.
3. Optionally, connect a configured process, such as a Select process, as input into the Extract process.
4. Double-click the Extract process in the flowchart.

The **Extract process configuration** dialog opens and the Source tab is open by default.

5. On the **Source** tab, use the **Input** list to select an input cell, a table, or a strategic segment. The **Select based on** list indicates your selection. If you selected a strategic segment, you must join it to a table by selecting a table from the **Select based on** list.
6. Specify which records to select. If you want to include all records from the input data source, choose **Select all records**.
7. If you prefer to use a subset of IDs from the selected data source, choose **Select all records with**, so you can do a query for the records that you want to extract.

The Expression box shows columns labeled **Field name**, **Oper**, **Value**, and **And/Or**.


When the button says **Text Builder**, you can build expressions by populating the columns labeled **Field name**, **Oper**, **Value**, **And/Or**.


When the button says **Point & click**, you can view or edit raw SQL and you can use the **Formula helper** to pick macros, operators, and string functions from a list.

With either method (**Text Builder** or **Point & click**), you can select fields from the **Available fields** list, including Campaign Generated Fields and Derived fields.


8. Construct a query to determine which records are selected:

- a. To specify which field to query, click in the **Field name** cell. The **Available fields** list should appear. If the list does not appear, click in the **Field name** cell again. In the **Available fields** list, expand the fields until you see the one that you want. Select an available field by double-clicking it or by highlighting it and clicking **Use**.

 **Note:** When deciding which field to use, you can highlight an available field and click **Profile** to see a list of values in that field. Then use the **Profile selected field** dialog to examine the field values. For more information, see [Previewing field values from your user data \(on page 397\)](#).

 **Note:** When the list of Available fields is displayed, you can use the **Derived fields** button if you want to create or select a variable for querying. For more information, see [Derived fields \(on page 397\)](#).

- b. Click in the **Oper** cell, then double-click a comparison operator in the **Operators** list (=, <, >, <=, >=, <>, In, Not in, Between).
- c. Click in the **Value** cell, then double-click a value. If no values appear, double-click (**Profile...**) in the Values list to open the **Profile selected field** dialog so you can select from a list of values. You can also double-click in the **Value** cell to edit the value directly.

 **Note:** If you do not see the expected list (**Available fields, Operators, Values, For selected expression**), try either single clicking or double clicking on a cell in the **Expression** area.

You now have an expression that consists of a field name, operator, and value.



9. Click **Check syntax** to confirm whether the query syntax is valid. Checking the syntax does not put any load on the database server.
10. To add and combine multiple expressions, follow the guidelines below:
  - a. To add another expression, click the **And/Or** cell, then double-click **AND** or **OR** in the **Values** list to indicate how to combine the expressions.
  - b. Build your next expression, consisting of a field name, operator, and value.
  - c. To add parentheses to control evaluation order, double-click the Field Name in any row to display the **For selected expression** list. In the list of expressions, double-click **Add ( )** to add a set of parentheses, **Remove ( )** to remove a single set of parentheses, or **Clear all ( )** to remove all of the parentheses in the selected expression. Parentheses allow you to group expressions when defining complex queries. For example, (AcctType = 'Gold' AND Rank = 'A') OR NewCust = 'Yes' is different from AcctType = 'Gold' AND (Rank = 'A' OR NewCust = 'Yes').
  - d. To reorder the selected expression, double-click **Move up** or **Move down**.
  - e. To add a blank row below the selected expressions, double-click **Insert**.
  - f. To delete the selected expression, double-click **Delete**.
11. Optionally, click the **Text Builder** button so its label changes to **Point & click**. When the button says **Point & click**, you can view or edit raw SQL. You can also use the **Formula helper** to pick macros, operators, and string functions from a list.

Select Customer IDs with Advanced...


Expression

Field name	Oper.	Value	And/Or
CUSTOMER_MAIL_O...	=	'Y'	

Expression

CUSTOMER\_MAIL\_OPTIN = 'Y'

Point & click
Formula helper
Check syntax
Test query

 **Note:** If your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:


<table\_name>.<field\_name>.

For related information, see [Creating raw SQL queries \(on page 392\)](#). Also see [Creating queries with Formula helper \(on page 386\)](#).

12. Click the **Point & click** button to change back to the original query mode. The button label changes back to **Text Builder**.

13. (Optional) Use **Test query** to see how many IDs the query returns.


A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

 **Important:** Global suppressions and cell size limits are not applied in test query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

14. Continue configuring the process, as described below, or click **OK** to close the process configuration dialog and save the query expression.

15. Optionally, use the **Cell size limit** tab to limit the number of IDs generated by the process during production or test runs.


If you selected **Random seed**, in most cases you can accept the default seed. The random seed represents the starting point that Campaign uses to select IDs randomly.

 **Note:** The same random set of records will be used for each subsequent run of the Extract process (unless the input to the process changes). This is important if you intend to use the results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness. If you do not intend to use the results for modeling, you can make the Extract process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0). A value of 0 ensures that a different random set of records will be selected each time the process runs.

16. On the **Extract** tab, use the **Target data source** field to select an output location:
  - To store the data in binary format, select Campaign Server.
  - To store the data in a uniquely named table with a `UAC_EX` prefix, select an available database.

Then select fields from the list of **Candidate fields** and add them to the **Fields to extract** list. Use the controls to remove or reorder fields. For information about using the Extract tab, see [Extract tab reference \(on page 287\)](#).

17. Optionally, use the **Dimension** tab to add existing dimension tables to the extract table and specify the key fields to join on. The extract table becomes a base table for the selected dimension tables and can be used in downstream processes.

 **Note:** The **Dimension** tab is not applicable if you are extracting data to the Campaign Server.

18. Select the **General** tab to set the following options.
  - a. **Process name:** Assign a descriptive name. The process name is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process.

- b. **Output cell name:** This name matches the Process name by default. It is used in dialogs and reports to identify the output cell (the set of IDs that the process retrieves).
- c. (Optional) **Link to target cell:** Perform this step if your organization pre-defines target cells in a target cell spreadsheet (TCS). To associate the pre-defined target cell with the flowchart process output, click **Link to target cell**, then select a target cell from the spreadsheet. The **Output cell name** and **Cell code** are inherited from the TCS, and both of those field values are shown in italics to indicate that there is a link relationship. For more information, read about using target cell spreadsheets.
- d. **Cell code:** The cell code has a standard format that is determined by your system administrator and is unique when generated. Do not change the cell code unless you understand the implications of doing so. By default, the name of a cell created in a process matches the process name. When you save changes to an output cell name, if **Auto generate** is selected, the cell code is regenerated. If you do not want the cell code to change, uncheck **Auto generate**.  
See Changing the cell code (*on page*      ).
- e. **Note:** Use the **Note** field to explain the purpose or result of the process. Common practice is to reference the selection criteria or other important information. The contents of this field appears when you rest your cursor over the process box in a flowchart, in View or Edit mode.

19. Click **OK** to save and close the configuration.

The process is now configured. You can test run the process to verify that it returns the results you expect.

## Extracting data from a Deliver landing page


You can use the Extract process in a flowchart to extract data from an Deliver landing page. The Extract process selects fields from one table and writes them out to another table for subsequent processing.

Ensure that your Unica environment meets the requirements before attempting to extract Deliver landing page data. For more information, see [Prerequisites for extracting data from Deliver landing pages \(on page 279\)](#).

1. In a flowchart in **Edit** mode, double-click the Extract process in the flowchart workspace.

The process configuration dialog appears.

2. On the **Source** tab, select **Deliver landing pages**.
3. In the popup window, select an Deliver landing page as input.

 **Note:** You can select only one Deliver landing page as input to an Extract process. To extract data from more than one landing page, configure multiple Extract processes.

4. If there is more than one audience level available for the landing page, select the appropriate audience level from the drop-down list. If there is only one audience level available, it is automatically selected.

5. Click **OK**.


6. On the **Extract** tab, use the **Target data source** field to select an output location:
  - To store the data in binary format, select Campaign Server.
  - To store the data in a uniquely named table with a `UAC_EX` prefix, select an available database.

Then select fields from the list of **Candidate fields** and add them to the **Fields to extract** list. Use the controls to remove or reorder fields. For information about using the Extract tab, see [Extract tab reference \(on page 287\)](#).

7. Perform any of the following optional tasks:


- Add a derived field to the list of candidate fields.
- Specify that duplicate IDs are excluded from the output. See [Skipping duplicate IDs in process output \(on page 409\)](#).
- Limit the size of the output cell (that is, limit the number of IDs generated by the process).
- Use the **General** tab to modify the **Process name**, **Output cell** names, or **Cell codes**, link to a target cell, or enter a **Note** about the process.

For information about linking to target cells, see [Linking flowchart cells to targeted offers defined in a target cell spreadsheet \(on page 409\)](#).

 **Note:** Profiling is not available for Deliver landing page attributes.

8. Click **OK**.

The process is configured. You can test the process to verify that it returns the results you expect.


 **Note:** During the extraction process, Campaign creates an intermediate view in the system tables database with a `UCC_LPV` prefix. This internal view remains in the database until the process box is deleted. If you remove the view, you must reconfigure its corresponding Extract process before rerunning the process or flowchart; otherwise, Campaign generates a missing table error.

### Extract tab reference

Use the fields on the Extract tab when you configure an Extract process in a flowchart.

**Table 27. Fields on the Extract tab**

Field	Description
Target data source	Location to which the output from this process will be written. The Campaign Server and any other data sources

Field	Description
	to which you are connected are available in the <b>Target data source</b> drop-down list.
Candidate fields	<p>List of fields available to extract, including field name and data type, based on your input data source. To see the list of fields, you may need to click the arrow next to an item to expand the item.</p> <p>If your input source is a landing page in Deliver, each field name is an attribute of the landing page. If the attribute contains special characters or spaces, it is converted to a valid field name. Data types of all landing page attributes are listed as text.</p> <p> <b>Note:</b> Schema object names are limited to 30 characters. Restrict your attribute names to 30 characters or less to produce valid column names for extracted output.</p>
Fields to extract	<p>Fields that you chose to extract from the Candidate fields list. The <b>Output name</b> defaults to the field name in the <b>Fields to extract</b> column.</p> <p>If you change the Output name, you can use any combination of letters and numbers. Do not use spaces, hyphens (-), periods (.), slashes (/ or \), or any special characters.</p>
Profile...	Click <b>Profile</b> to preview a list of values in the selected candidate field. Profiling is not available for Deliver landing page attributes.
Derived fields...	Click <b>Derived fields...</b> to create a variable in the list of candidate fields. Derived fields are variables that do not

Field	Description
	exist in a data source and are created from one or more existing fields, even across different data sources.
More...	Click <b>More...</b> to open the <b>Advanced settings</b> dialog. This dialog includes the option to exclude duplicate IDs from the output and specify how Campaign identifies duplicates.



## The Merge process

Use the Merge process to specify which input cells are included and combined and which input cells are excluded (suppressed).

In this way, you can include or exclude cells from subsequent processes in your flowchart. For example, use the Merge process to suppress "opt-out" customers who requested that they not receive any marketing materials.


### Merging and suppressing contacts

The Merge process accepts input from multiple cells and produces one combined output cell. When you merge cells, you can choose to include or exclude content.

1. Open a campaign and click a flowchart tab.
2. Click the **Edit** icon  in the flowchart window.
3. Configure at least two processes whose output you want to merge.  
For example, configure two Select processes.
4. Drag the Merge process  from the palette to your flowchart.
5. Drag an arrow from an upstream process (for example, a Select process) to the Merge process, to connect the boxes. You must connect from the upstream process to the Merge process. Repeat to connect any other upstream processes into the



Merge process. An arrow indicates the direction of data flow between the connected processes

 **Note:** All cells that provide input to the Merge process must have the same audience level. For example, multiple Select processes must use the Household audience.

6. Double-click the Merge process in the flowchart.

The process configuration dialog box opens and the **Method** tab is open by default. Cells from processes that are connected to the Merge process are listed in the **Input** list.

7. If you want to exclude IDs from the merged output, select a cell in the **Input** list and add it to the **Records to exclude** list. For example, use this option to exclude Opt Outs.


8. If you want to include IDs in the merged output, select a cell in the **Input** list and add it to the **Records to include** list. The IDs in the cells that you add to this list will be combined into one list of unique IDs.

9. Specify how to merge the lists from the input cells that are in the **Records to include** list:

- **Merge/Purge on include:** This option produces a list of unique IDs that exist in at least one input cell. Duplicate IDs are included only once. This method uses a logical "OR" or "ANY." For example: Include customer A if that customer is in *either* the **Gold.out** cell OR the **Platinum.out** cell.
- **Match (AND) on include:** Include only those IDs that exist across all input cells. This method uses a logical "AND" or "ALL." For example: Include customer A only if that ID exists in *both* the **Gold.out** cell AND the **LoyaltyProgram.out** cell. This option is useful when you want to include customers that meet multiple criteria. If an ID does not exist in all of the Merge process input cells, the ID is not included.

10. Optionally, use the **Cell size limit** tab to limit the number of IDs generated by the process during production or test runs. .

If you selected **Random seed**, in most cases you can accept the default seed. The random seed represents the starting point that Campaign uses to select IDs randomly.

 **Note:** The same random set of records will be used for each subsequent run of the Merge process (unless the input to the process changes). This is important if you intend to use the results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness. If you do not intend to use the results for modeling, you can make the Merge process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0). A value of 0 ensures that a different random set of records will be selected each time the process runs.

11. Use the **General** tab to set the following options.

- a. **Process name:** Assign a descriptive name. The process name is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process.
- b. **Output cell name:** This name matches the Process name by default. It is used in dialogs and reports to identify the output cell (the set of IDs that the process retrieves).
- c. (Optional) **Link to target cell:** Perform this step if your organization pre-defines target cells in a target cell spreadsheet. To associate the pre-defined target cell with the flowchart process output, click **Link to target cell**, then select a target cell from the spreadsheet. The **Output cell name** and **Cell code** are inherited from the target cell spreadsheet, and both of those field values are shown in italics to indicate that there is a link relationship.
- d. **Cell code:** The cell code has a standard format that is determined by your system administrator and is unique when generated. Do not change the cell code unless you understand the implications of doing so. By default, the name of a cell created in a process matches the process name. When you save changes to an output cell name, if **Auto generate** is selected, the cell code is regenerated. If you do not want the cell code to change, uncheck **Auto generate**.

- e. **Note:** Use the **Note** field to explain the purpose or result of the process. For example, indicate which records you are including or excluding. The contents of this field appears when you rest your cursor over the process box in a flowchart.

12. Click **OK** to save and close the configuration.


The process is now configured. You can test run the process to verify that it returns the results you expect.


## The Sample process

Use the Sample process to divide contacts into groups. The classic use of sampling is to establish target and control groups that you can use to measure the effectiveness of your marketing campaign.


### Dividing contacts into sample groups

To create target and control groups, use the Sample process. There are several sampling methods: **Random** creates statistically valid control groups or test sets. **Every other X** allocates every other record to a sample group. **Sequential portions** allocates a number of records into subsequent samples.

1. Open a flowchart for editing.
2. Drag the Sample process  from the palette to your flowchart.
3. Connect at least one configured process (such as a Select process) as input to the Sample process box.
4. Double-click the Sample process in the flowchart.
5. Use the **Input** list on the **Sample** tab to select the cells that you want to sample. The list includes all output cells from any process connected to the Sample process. If multiple cells are providing input, you can optionally select the **Multiple cells** option. If more than one source cell is selected, the same sampling is performed on each source cell.

 **Note:** All selected cells must be defined at the same audience level, such as Household or Customer.

6. Use the **# of Samples/Output cells** field to specify how many samples to create for each input cell. By default, three samples are created for each input cell, with default names Sample1, Sample2 and Sample3.
7. To change the default sample names, double-click a sample in the **Output name** column, then type a new name. You can use any combination of letters, numbers, and spaces. Do not use periods (.) or slashes (/ or \).

 **Important:** If you change the name of a sample, you must update all subsequent processes that use this sample as an input cell. Changing a sample name might unconfigure subsequent connected processes. In general, you should edit the names of samples before connecting subsequent processes.

8. Use one of the following methods to define the sample size:
  - To divide records up by percentages: Select **Specify size by %**, then double-click the **Size** field to indicate the percentage of records to use for each sample. Use the **Max size** field if you want to limit the size of the sample. The default is **Unlimited**. Repeat for each sample listed in the **Output name** column, or use the **All remaining** check box to assign all remaining records to that sample. You can select **All remaining** for only one output cell.
  - To specify the number of records for each sample size: Select **Specify size by # records**, then double-click the **Max size** field to specify the maximum number of records to allocate to the first sample group. Specify the **Max size** for the next sample that is listed or use the **All remaining** check box to assign all remaining records to that sample. You can select **All remaining** for only one output cell.


Optional: Click **Sample size calculator** and use the calculator to determine the optimal sample size. (See [About the sample size calculator \(on page 296\)](#).) Then copy the value from the **Min. sample size** field in the calculator, click **Done** to close the calculator, and paste the value into the **Max. size** field for **Specify size by # records**.

9. Ensure that each sample in the **Output name** list has a Size defined or has **All remaining** checked.
10. In the **Sampling method** section, specify how to build the samples:
  - **Random sample:** Use this option to create statistically valid control groups or test sets. This option randomly assigns records to sample groups using a random number generator based on the specified seed. Seeds are explained later in these steps.
  - **Every other X:** This option puts the first record into the first sample, the second record into the second sample, up to the number of samples specified. This process repeats, until all records are allocated to a sample group. To use this option, you must specify the **Ordered by** options to determine how records are sorted into groups. The **Ordered by** options are explained later in these steps.
  - **Sequential portions:** This option allocates the first *N* records into the first sample, the next set of records in the second sample, and so on. This option is useful for creating groups based on the top decile (or some other size) based on some sorted field (for example, cumulative purchases or model scores). To use this option, you must specify the **Ordered by** options to determine how records are sorted into groups. The **Ordered by** options are explained later in these steps.

11. If you selected **Random sample**, in most cases you can accept the default seed. The **Seed** represents the starting point that Campaign uses to select IDs randomly.

To generate a new seed value, click **Pick** or enter a value in the **Seed** field. Examples of when you might need to use a new seed value are:

- You have exactly the same number of records in the same sequence and if you use the same seed value, records are created into the same samples each time.
- The random sample produces undesired results (for example, all males are being allocated to one group and all females to another).

 **Note:** The same random set of records will be used for each subsequent run of the Sample process (unless the input to the process changes). This is important if you intend to use the results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each

model's effectiveness. If you do not intend to use the results for modeling, you can make the Sample process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0). A value of 0 ensures that a different random set of records will be selected each time the process runs.

12. If you selected **Every other X** or **Sequential portions**, you must specify a sort order to determine how records will be allocated to sample groups:
  - a. Select an **Ordered by** field from the drop-down list or use a derived field by clicking **Derived fields**.
  - b. Select **Ascending** to sort numeric fields in increasing order (low to high) and sort alphabetic fields in alphabetical order. If you choose **Descending**, the sort order is reversed.
  
13. Use the **General** tab as follows:
  - a. **Process name**: Assign a descriptive name. The process name is used as the box label on the flowchart. It is also used in dialogs and reports to identify the process.
  - b. **Output cell names**: By default, output cell names consist of the process name followed by the sample name and a digit. These names are used in dialogs and reports. You can double-click an output cell name to change it by typing in the field. Or, click the **Copy** button to open a text box that shows all of the existing Output cell names. Copy them manually, then click **OK**. Then click the **Paste** button to paste them into a text box, where you can edit them. Then click **OK** to copy the edited Output cell names into the fields. You can use the **Reset cell names** button if you want to revert to the default output cell names.
  - c. **Cell codes**: The cell code has a standard format that is determined by your system administrator and is unique when generated. Do not change the cell code unless you understand the implications of doing so. By default, the name of a cell created in a process matches the process name. When you save changes to an output cell name, if **Auto generate cell codes** is selected, the cell code is regenerated. If you do not want the cell code to change, uncheck **Auto generate cell codes**.
  - d. **Note**: Use the **Note** field to explain the purpose or result of the process. The contents of this field appears when you rest your cursor over the process box in a flowchart.

14. Click **OK**.

The process is configured and enabled in the flowchart. You can test run the process to verify that it returns the results you expect.

### About the sample size calculator

Campaign provides a sample size calculator to help determine the statistical significance of sample sizes in evaluating campaign results.

There are two ways to specify the level of accuracy that you want. You can enter an error bound and compute the minimum sample size needed, or you can enter a minimum sample size and compute the error bound that will result. Results are reported at the 95% confidence level.

#### Determining the appropriate sample size

The sample size calculator determines the minimum number of contacts to include in your sample, based on what you consider to be an acceptable margin of error. Results are reported at a 95% confidence level.

Determining the appropriate sample size is important when your goal is to make inferences about a group of people based on a sample. In general, a larger sample size produces a smaller margin of error. Use the sample size calculator to either compute the sample size needed for a particular error bound, or to determine the error bound for different sample sizes.

1. On the **Sample** tab of the Sample process configuration dialog, click **Sample size calculator**.

The Sample size calculator opens.

2. For **Response rate estimate**, enter your best guess for the **Minimum** and **Maximum** response rates that you expect from your marketing campaign.

These two values must be percentages between 0% and 100%. The lower the expected response rate, the larger the sample size must be to achieve the same level of accuracy for the measured response rate.

3. If you are not using a predictive model, select **No model** as the **Modeling estimate**.
4. If you are using a predictive model, select **Model performance**, then enter percentages for the **Cumulative gain** and **File depth**.

To obtain these values:

- a. Open the Evaluate reports in IBM SPSS® Modeler Advantage Enterprise Marketing Management Edition, and open the Testing partition.
- b. Select the **Gains** tab, and display the information as a **Table**.
- c. Use a value from the first column (Segment) of the table as the **File depth**, to indicate the percentage of customers that you intend to contact.
- d. Use the corresponding value from the last column (Cumulative Gain) of the table as the **Cumulative gain**.

The calculator uses this information to determine the number of samples that you need to use, based on the expected response rate and modeling performance.

5. Use either approach:
  - To determine the minimum sample size based on the margin of error that you are willing to accept: Enter a value of 0% to 100% in the **Error bound (+ or -)** field to indicate the percentage margin of error that you are willing to accept for this sample. Then click **Compute sample size**. The **Min. sample size** field indicates the smallest sample that will meet the specified error bound. A smaller error bound percentage requires a larger sample size. Conversely, a larger error bound requires a smaller sample size. For example, a 3% error bound requires a larger sample size than if you allow for a 10% error bound.
  - To determine the margin of error that will result from a specific sample size: Enter a value in the **Min. sample size** field to indicate the sample size that you plan to use, then click **Compute error bound**. Based on the results, you can decide whether



to increase or decrease the sample size. Larger sample sizes result in smaller error bounds. If the resulting error bound is too high, use a larger sample size.


6. After you determine the optimal sample size:
  - a. Copy the value from the **Min. sample size** field.
  - b. Click **Done** to close the calculator.
  - c. Confirm that **Specify size by # records** is selected.
  - d. Paste the value into the **Max. size** field in the Sample process box.

## The Segment process

Use the Segment process to divide data into distinct groups, or segments. Connect a Segment process to a contact process, such as a Call list or Mail list, to assign treatments or offers to the segments.

For example, you can divide your customers into high-value, medium-value, and low-value segments based on their prior purchase history. Each segment can receive a different offer when the segment is input to a contact process. There is no limit to the number of segments that you can create.

You can segment data in two ways: by using the distinct values in a field, or by using a query to filter the data in a field. In addition to database table fields, you can use derived fields to segment data. In this way, you can perform custom grouping, to segment your customers however you want.

 **Note:** Segments that are created by the Segment process are not persistent across flowcharts or sessions. To create a "permanent" segment (also called a strategic segment), an administrator can use the Create Seg process.

### Segmenting by field

When you segment data by a field in a database table, each distinct value in the field creates a separate segment. This option is most useful when the values in the field correspond to the segments you want to create.

For example, assume that you want to assign a different offer to customers in each of 10 regions. Your customer database contains a field called `regionID`, which indicates the region to which each customer belongs. Segment by the `regionID` field to create the 10 regional segments.

### Segmenting by query

The segment by query option segments your data based on the results of a query that you create. This option is most useful when it is necessary to filter the data in a field to create the required segments.

For example, assume that you want to divide your customers into high-value (more than \$500), medium-value (\$250-\$500), and low-value (under \$250) segments based on their purchase history over the last year. The `PurchaseHistory` field in your customer database stores the total dollar amount of each customer's purchases. Use a separate query to create each segment, selecting records with values in the `PurchaseHistory` field that meet the criteria of the segment.

 **Note:** You can also segment data using raw SQL.

### Using segments as input to another Segment process

Segments can be used as input cells to another Segment process in a campaign flowchart. For example, you can segment by age range, then further segment by preferred channel.

For this example, assume that you want to segment your customers into age ranges. Your database contains the field `AgeRange`, which assigns one of six age ranges (such as 26-30) to each customer. Segment by the `AgeRange` field to create six segments.

You could then use these six segments as input to another Segment process that further divides customers by another field or query. For example, assume that your database contains a field called `PreferredChannel`, which specifies each customer's preferred contact channel: Direct mail, telemarketing, fax, or email. Using the six age range segments as input, you could then create a second Segment process to segment by the `PreferredChannel` field. Each of the six age range segments is further segmented into four preferred channel segments, to produce a total of 24 output segments.

## Segmenting considerations

Consider the following options and guidelines when you configure a Segment process in a campaign flowchart.

### **Choosing a segmenting method**

You can segment by field or by query when you configure a Segment process in a campaign flowchart.

In some cases, the same results can be achieved when segmenting either by field or by query. For example, assume that the `AcctType` field in your database divides your customer accounts into Standard, Preferred and Premier levels. Segmenting by the `AcctType` field will create three segments for these account types.

You could achieve the same results using queries, but creating the segments would require writing three separate queries. Determine the most efficient method based on the data that you are segmenting.

### **Making segments mutually exclusive**

You can specify that segments are mutually exclusive, meaning that each qualifying record is guaranteed to be placed into no more than one segment. When the segments are assigned to offers, each customer will receive only one offer.

Records are placed in the first segment whose criteria they satisfy, based on a priority order that you define. For example, if a customer qualifies for segments 1 and 3, and segment 1 is before segment 3 in the priority order, that customer will appear only in segment 1.

### **Restricting segment size**

When you configure a Segment process, the default size for the number of records per segment is Unlimited. You may want to restrict the size of the created segment if, for example, you are performing test runs of a campaign flowchart or process.

You can limit the segment size to any positive integer. When you limit the segment size, the qualifying records are chosen randomly.

The same random set of records will be used for each subsequent run of the process (unless the input to the process changes). This is important if you intend to use the Segment results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness.

If you do not intend to use the results for modeling, you can make the Segment process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0) in the upstream process that provides input to the Segment process. A value of 0 ensures that a different random set of records will be selected each time the process runs.

### **Selecting source cells**

When you configure a Segment process in a campaign flowchart, all selected cells must be defined at the same audience level. If more than one source cell is selected, the same segmentation is performed on each source cell.

### **Using segments as input to another Segment process**

Segments can be used as input cells to another Segment process in a campaign flowchart. For example, you can segment by age range, then further segment by preferred channel.

For this example, assume that you want to segment your customers into age ranges. Your database contains the field `AgeRange`, which assigns one of six age ranges (such as 26-30) to each customer. Segment by the `AgeRange` field to create six segments.

You could then use these six segments as input to another Segment process that further divides customers by another field or query. For example, assume that your database contains a field called `PreferredChannel`, which specifies each customer's preferred contact channel: Direct mail, telemarketing, fax, or email. Using the six age range segments as input, you could then create a second Segment process to segment by the `PreferredChannel` field. Each of the six age range segments is further segmented into four preferred channel segments, to produce a total of 24 output segments.

### ***Choosing a segmenting method***

You can segment by field or by query when you configure a Segment process in Campaign .

In some cases, the same results can be achieved when segmenting either by field or by query. For example, assume that the `AcctType` field in your database divides your customer accounts into Standard, Preferred and Premier levels. Segmenting by the `AcctType` field will create three segments for these account types.

You could achieve the same results using queries, but creating the segments would require writing three separate queries. Determine the most efficient method based on the data that you are segmenting.

### *Making segments mutually exclusive*

You can specify that segments are mutually exclusive, meaning that each qualifying record is guaranteed to be placed into no more than one segment. When the segments are assigned to offers, each customer will receive only one offer.

Records are placed in the first segment whose criteria they satisfy, based on a priority order that you define. For example, if a customer qualifies for segments 1 and 3, and segment 1 is before segment 3 in the priority order, that customer will appear only in segment 1.

### *Restricting segment size*

When you configure a Segment process, the default size for the number of records per segment is Unlimited. You may want to restrict the size of the created segment if, for example, you are performing test runs of a campaign flowchart or process.

You can limit the segment size to any positive integer. If the segment size that you specify is less than the total number of records generated, the segment will consist of randomly selected qualifying records.

### *Selecting source cells*


When you configure a Segment process in a campaign flowchart, all selected cells must be defined at the same audience level. If more than one source cell is selected, the same segmentation is performed on each source cell.

## Segmenting data by field

You can use the Segment process to divide data into segments based on field values. When you segment data by a field in a database table, each distinct value in the field creates a separate segment.

[Segmenting considerations \(on page 300\)](#)

Segmenting data by field is most useful when the values in the field correspond to the segments that you want to create. For example, assume that you want to assign a different offer to customers in four different regions. Your customer database contains a field that is called `region`, which indicates the region to which each customer belongs. Segment by the `region` field to create the four regional segments.

1. Open a flowchart for editing.
2. Drag a Segment process  from the palette to your flowchart.
3. Connect at least one configured process, such as a Select process, as input into the Segment process.
4. Double-click the Segment process in the flowchart to open the **Segment process configuration** dialog.

Cells from processes that are connected to the Segment process appear in the **Input** list.

5. On the **Segment** tab, open the **Input** list and select the input to the Segment process. To select multiple cells, use the ellipsis button (...) next to the **Input** list.
6. Select **Segment by field**, then use the drop-down list to select the field that you want to use to create the segments. For example, to segment by region, select the `region` field. The **Profile selected field** dialog opens, and Campaign immediately begins examining the field values. By profiling the field values, Campaign can determine which segments to create.

For more information about this dialog, see [Previewing field values from your user data \(on page 397\)](#).

7. Wait for profiling to finish to ensure that all segments are properly created. Then click **OK** to close the **Profile selected field** dialog.

The **# of segments** field and the list of **Segment names** are updated based on the profiling results of the field that was selected for **Segment by field**. For example, if you segment by field "Status" which has two values "A" and "B", two segments are created, "Status\_A" and "Status\_B."

8. Optionally, you can edit the segment names, adjust the maximum size, create mutually exclusive segments, or create extract tables. For information about options that you can set, see the following topics:

- [Segment process: Segment tab \(on page 309\)](#)
- [Segment process: Extract tab \(on page 312\)](#)
- [Segment process: General tab \(on page 313\)](#)

9. Click **OK** to save your selections and close the **Segment process configuration** dialog.

The process is now configured. You can test the process to verify that it returns the results you expect.


## Segmenting data with queries


You can use the Segment process to segment data based on the results of a query that you create.


### [Segmenting considerations \(on page 300\)](#)

Segmenting by query is most useful when it is necessary to filter the data in a field to create the required segments. For example, assume that you want to divide your customers into high-value (more than \$500), medium-value (\$250-\$500), and low-value (under \$250) segments that are based on their purchase history over the last year. The `PurchaseHistory` field in your customer database stores the total dollar amount of each customer's

purchases. Use a separate query to create each segment, selecting records with values in the `PurchaseHistory` field that meet the criteria of the segment.

 **Note:** You can also use raw SQL to segment data.

1. Open a flowchart for editing.
2. Drag a Segment process  from the palette to your flowchart.
3. Connect at least one configured process, such as a Select process, as input into the Segment process.
4. Double-click the Segment process in the flowchart to open the **Segment process configuration** dialog.  
Cells from processes that are connected to the Segment process appear in the **Input** list.
5. On the **Segment** tab, open the **Input** list and select the input to the Segment process. To select multiple cells, use the ellipsis button (...) next to the **Input** list.
6. Select **Segment by query**.
7. Determine the number of segments that you want to create, and enter that number in the **# of segments** field.
8. Now you will construct a query for each segment: Select the first segment and click **Edit** to open the **Edit segment** dialog.

 **Note:** For reference information about each available control, see [Segment process: New segment and Edit segment controls \(on page 313\)](#).

9. If you want to include all IDs from the segment or table that you selected as the Input source, choose **Select all <audience> IDs** (The word <audience> indicates the audience level, such as Customer, that is specified for the selected input data source.)



10. If you prefer to use a subset of IDs from the selected data source, choose **Select <audience> IDs with**, so you can do a query for the records that you want.

The Expression box shows columns labeled **Field name**, **Oper**, **Value**, and **And/Or**.


When the button says **Text Builder**, you can build expressions by populating the columns labeled **Field name**, **Oper**, **Value**, **And/Or**.


When the button says **Point & click**, you can view or edit raw SQL and you can use the **Formula helper** to pick macros, operators, and string functions from a list.

With either method (**Text Builder / Point & click**), you can select fields from the **Available fields** list, including Campaign Generated Fields and Derived fields.


11. Construct a query to determine which records will be used to create the segment:

- a. To specify which field to query, click in the **Field name** cell. The **Available fields** list should appear. If the list does not appear, click in the **Field name** cell again. In the **Available fields** list, expand the fields until you see the one that you want. Select an available field by double-clicking it or by highlighting it and clicking **Use**.

 **Note:** When deciding which field to use, you can highlight an available field and click **Profile** to see a list of values in that field. Then use the **Profile selected field** dialog to examine the field values. For more information, see [Previewing field values from your user data \(on page 397\)](#).

 **Note:** When the list of Available fields is displayed, you can use the **Derived fields** button if you want to create or use derived fields. For more information, see [Derived fields \(on page 397\)](#).

- b. Click in the **Oper** cell, then double-click a comparison operator in the **Operators** list (=, <, >, <=, >=, <>, In, Not in, Between).
- c. Click in the **Value** cell, then double-click a value. If no values appear, double-click (**Profile...**) in the Values list to open the **Profile selected field** dialog so you can select from a list of values. You can also double-click in the **Value** cell to edit the value directly.

 **Note:** If you do not see the expected list (**Available fields, Operators, Values, For selected expression**), try either single clicking or double clicking on a cell in the **Expression** area.

You now have an expression that consists of a field name, operator, and value.

Select all Customer IDs  
 Select Customer IDs with Advanced...

Expression


Field name	Oper.	Value	A...
CUSTOMER_MAIL_OPTIN	=	'Y'	▲

12. Click **Check syntax** to confirm whether the query syntax is valid. Checking the syntax does not put any load on the database server.

13. To add and combine multiple expressions, follow the guidelines below:

- a. To add another expression, click the **And/Or** cell, then double-click **AND** or **OR** in the **Values** list to indicate how to combine the expressions.
- b. Build your next expression, consisting of a field name, operator, and value.
- c. To add parentheses to control evaluation order, double-click the Field Name in any row to display the **For selected expression** list. In the list of expressions, double-click **Add ( )** to add a set of parentheses, **Remove ( )** to remove a single set of parentheses, or **Clear all ( )** to remove all of the parentheses in the selected expression. Parentheses allow you to group expressions when defining complex queries. For example, (AcctType = 'Gold' AND Rank = 'A') OR NewCust = 'Yes' is different from AcctType = 'Gold' AND (Rank = 'A' OR NewCust = 'Yes').
- d. To reorder the selected expression, double-click **Move up** or **Move down**.
- e. To add a blank row below the selected expressions, double-click **Insert**.
- f. To delete the selected expression, double-click **Delete**.

14. Optionally, click the **Text Builder** button so its label changes to **Point & click**. When the button says **Point & click**, you can view or edit raw SQL. You can also use the **Formula helper** to pick macros, operators, and string functions from a list.


 **Note:** If your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:

```
<table_name>.<field_name>.
```

15. Click the **Point & click** button to change back to the original query mode. The button label changes back to **Text Builder**.

16. (Optional) Use **Test query** to see how many IDs the query returns.

A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

 **Important:** Global suppressions and cell size limits are not applied in test query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

17. Click **OK** to save the query for this segment and close the **Edit segment** dialog.
18. In the **Segment process configuration** dialog, edit the remaining segments to define queries for them.

19. Continue configuring the Segment process by using the controls on the Segment, Extract, and General tabs. For more information, see the following topics:

- [Segment process: Segment tab \(on page 309\)](#)
- [Segment process: Extract tab \(on page 312\)](#)
- [Segment process: General tab \(on page 313\)](#)

20. Click **OK** to save your selections and close the **Segment process configuration** dialog.

The process is now configured. You can test the process to verify that it returns the results you expect.

## Segment process: Segment tab

Use the Segment tab of the **Segment process configuration** dialog to indicate how to divide incoming data into distinct groups, or segments.

The following table describes the controls on the Segment tab of the **Segment process configuration** dialog.

**Table 28. Segment tab**

Control	Description
Input	Specifies the input to the Segment process. The drop-down list contains all output cells from any process connected to the Segment process. Select <b>Multiple cells</b> if you want to select more than one input.
Segment by field	Specifies a field to use for segmenting data. The data is segmented using the values that exist for the selected field. Each distinct value in the field creates a separate segment. For example, a field that contains the values A, B, C results in three segments.
Profile	Opens the <b>Profile selected field</b> dialog, which calculates the values and distributions of records in the selected field. Active only when segmenting by field. To reprofile the field at any time after initially selecting it, click <b>Profile</b> .
Derived fields...	Active only when segmenting by field. Opens the <b>Create derived field</b> dialog so you can create a new field.
Segment by query	Segments data based on a query that you create.
# of segments	Active only when segmenting by query. Indicates the number of segments to create. By default, three segments are created, with default names "Segment1," "Segment2," and "Segment3." The <b># of segments</b> field does not allow

Control	Description
	<p>you to enter a value greater than 1000 because that is the maximum number of segments that can be created in a flowchart.</p> <p>When segmenting by field: The <b># of segments</b> field is updated based on the profiling results of the selected field. The number of segments depends on the values that are detected in the field.</p>
Mutually exclusive segments	<p>Specifies whether the segment is to be mutually exclusive (that is, each qualifying record is guaranteed to fall into no more than one segment).</p>
Create extract tables	<p>This control specifies whether segments should create Extract tables for each output cell. Selecting this option ensures that Campaign can provide a later process with the information necessary to keep track of duplicate target audiences across segments.</p> <p>Select this check box to enable the options on the Extract tab.</p> <p>This check box is disabled if <b>Mutually exclusive segments</b> is selected.</p>
Segment name	<p>Lists all segments by name. By default, three segments are created, with default names "Segment1," "Segment2," and "Segment3."</p> <p>When segmenting by field: Segment names are updated based on the profiling results of the selected field. For example, if you are segmenting on a field called "Acct_Status" which has two distinct values "A" and "B", two segments are created, named "Acct_Status_A" and "Acct_Status_B."</p>


<b>Control</b>	<b>Description</b>
Max. size	Maximum number of records allowed in each segment.
Size	Number of records that meet the criteria for the segment. Before the process is run, this number defaults to the total number of records in the output cell.
Query	The <b>Query</b> column in the list of segments appears only when segmenting by query. It indicates the query criteria that is used to create the segment. To change the query criteria, double-click the segment name or select a segment and click <b>Edit</b> .
Up 1, Down 1 arrows	Move the selected segment up or down in the list. Segments are processed in the order in which they are listed.
New segment	Active only when segmenting by query. Opens the <b>New segment</b> dialog so you can create a new segment by specifying a query.
Edit	This button opens the <b>Edit segment</b> window for the selected segment. When segmenting by field, you can change the segment name or Max size. When segmenting by query, you can change the name, size, and query expression.
Remove	Removes the selected segment. When a segment is removed, the <b># of segments</b> field updates automatically. If there is only one segment available, the <b>Remove</b> button is disabled to avoid deleting the only segment.
Do not run subsequent processes for empty segments	Prevents downstream processes from running for empty segments.

## Segment process: Extract tab

Use the Extract tab of the **Segment process configuration** dialog to select fields to extract. In this way, you allow the output from the Segment process to be accessible as input to Mail list or Call list processes in a flowchart.

The following table describes the fields, buttons, and controls on the Extract tab. The controls on the Extract tab are active only if you selected **Create extract tables** on the Segment tab.

**Table 29. Extract tab**

Field	Description
Target data source	Location to which the output from this process is written. The Campaign server and any other data sources to which you are connected are available from the <b>Target data source</b> drop-down list.
Candidate fields	<p>List of fields available to extract, including field name and data type, based on your input data source.</p> <p>If your input source is a landing page in Deliver, each field name is an attribute of the landing page. If the attribute contains special characters or spaces, it is converted to a valid field name. Data types of all landing page attributes are listed as text.</p> <p> <b>Note:</b> Schema object names are limited to 30 characters. Restrict your attribute names to 30 characters or less to produce valid column names for extracted output.</p>
Fields to extract	Fields that you selected to extract from the <b>Candidate fields</b> list. The Output name defaults to the field name in the <b>Field to extract</b> column.


Field	Description
	If you change the Output name, you can use any combination of letters and numbers. Do not use spaces, hyphens (-), periods (.), slashes (/ or \), or any special characters.
Profile	Opens the <b>Profile selected field</b> dialog, which calculates the values and distributions of records in the selected field. Active only when a field name is selected in the <b>Candidate fields</b> list.
Derived fields...	Opens the <b>Create derived field</b> dialog.
More...	Opens the <b>Advanced settings</b> dialog, which includes the option to skip duplicate records and to specify how Campaign identifies duplicates.

### Segment process: General tab

Use the General tab of the **Segment process configuration** dialog to modify the **Process name**, **Output cell name**, or **Cell code**. You can also enter a **Note** to explain the purpose of the Segment process. The note appears when you rest your cursor over the process box in a flowchart.

### Segment process: New segment and Edit segment controls

The following table describes the controls on the **New segment** and **Edit segment** dialog boxes. You can access these dialog boxes when configuring a Segment process.

 **Note:** The **New segment** dialog box can be accessed only when you are segmenting by query. When you segment by field, only the **Name** and **Max. size** fields are available in the **Edit Segment** dialog box.



**Table 30. New Segment and Edit Segment dialog box controls**

Control	Description
Name	Name of the segment.
Max. size	Maximum number of records that are allowed in the segment.
Select based on	Specifies a data source on which to base your query.
Select all data source type	Includes all the IDs from the data source in the <b>Input</b> drop-down list.
Select data source type with	Provides access to the functions for creating a query to select only certain IDs based on criteria you define.
Advanced...	<p>Opens the Advanced settings dialog, which provides the following options:</p> <ul style="list-style-type: none"> <li>• Use raw SQL: Use a raw SQL query to segment data.</li> <li>• Use query scope from input cell: Available only if a source cell to this Segment process uses a query. Select the check box to combine the query in the source cell (using "AND") with the current selection criteria.</li> </ul>
Derived fields...	Opens the <b>Create derived field</b> dialog.
Query text box and buttons	For information about using the query text box and related fields and buttons, see "Creating queries in processes" in the Campaign Administrator's Guide.

## The Select process



Use the Select process to select IDs from your marketing data, such as customers, accounts, or households that you intend to contact.

Select is one of the most frequently used processes in Campaign. Many flowcharts begin with one or more Select processes. The Select process outputs a cell that contains a list of IDs, such as customer IDs, which can be modified and refined by other processes.

## Filtering the mapped user tables

You can filter the mapped user tables that appear in the **Available Fields** section in the **Select process configuration** window. The tables are filtered by table name.

To filter the mapped user tables by table name, complete the following steps:

1. Open a flowchart for editing (click **Edit**  in the flowchart toolbar).
2. Double-click the Select process box in the flowchart to open the **Select process configuration** window.
3. Click the Filter icon  next to **Available Fields**.
4. Enter the text to filter the tables and click **Apply**.

You cannot use any special characters except underscore in the filter text. The search is not case sensitive.

The filtered list of tables is displayed. The Filter icon changes to a dark green color.

5. To clear the filter, click the Filter icon , and in the **Filter** window, click **Clear**.

The filter is applicable until you click **Clear** or you close the **Select process configuration** window.

## Selecting a list of contacts

Configure a Select process to select contacts from your marketing data.

To select contacts, you can specify all IDs in a segment or table, or you can use a query to find just the contacts that you want. One or more Select processes can then be used as input into another process. For example, you can select all Gold customers, then create another selection of Silver customers. You can then use a Merge process to create a single list of eligible contacts.


1. Open a flowchart for editing (click **Edit**  in the flowchart toolbar).


2. Drag a Select process  from the palette to your flowchart.

3. Double-click the Select process box in the flowchart.

The **Select process configuration** dialog box opens and the **Source** tab is open by default.

4. On the **Source** tab, use the **Input** list to select a Segment or Table as the data source.

To select multiple tables, click the ellipsis button  next to the **Input** field, then check the tables that you want to use.

 **Note:** If IBM Digital Analytics is integrated with Campaign, you can select **IBM Digital Analytics** segments as the input.

5. If you want to include all rows from the segment or table that you selected as the Input source, choose **Select all <audience> IDs** (The word *<audience>* indicates the audience level, such as Customer, that is specified for the selected input data source.)

6. If you prefer to use a subset of IDs from the selected data source, choose **Select <audience> IDs with**, so you can do a query for the records that you want.

The Expression box shows columns labeled **Field name**, **Oper**, **Value**, and **And/Or**.

When the button says **Text Builder**, you can build expressions by populating the columns labeled **Field name**, **Oper**, **Value**, **And/Or**.


When the button says **Point & click**, you can view or edit raw SQL and you can use the **Formula helper** to pick macros, operators, and string functions from a list.


With either method (**Text Builder / Point & click**), you can select fields from the **Available fields** list, including Campaign Generated Fields and Derived fields.

7. Construct a query to determine which records are selected:


- a. To specify which field to query, click in the **Field name** cell. The **Available fields** list should appear. If the list does not appear, click in the **Field name** cell again. In the

**Available fields** list, expand the fields until you see the one that you want. Select an available field by double-clicking it or by highlighting it and clicking **Use**.

 **Note:** When deciding which field to use, you can highlight an available field and click **Profile** to see a list of values in that field. Then use the **Profile selected field** dialog to examine the field values. For more information, see [Previewing field values from your user data \(on page 397\)](#).

 **Note:** When the list of Available fields is displayed, you can use the **Derived fields** button if you want to create or select a variable for querying. For more information, see [Derived fields \(on page 397\)](#).

- b. Click in the **Oper** cell, then double-click a comparison operator in the **Operators** list (=, <, >, <=, >=, <>, In, Not in, Between).
- c. Click in the **Value** cell, then double-click a value. If no values appear, double-click (**Profile...**) in the Values list to open the **Profile selected field** dialog so you can select from a list of values. You can also double-click in the **Value** cell to edit the value directly.

 **Note:** If you do not see the expected list (**Available fields, Operators, Values, For selected expression**), try either single clicking or double clicking on a cell in the **Expression** area.

You now have an expression that consists of a field name, operator, and value.

Select process configuration

Source Cell size limit General

Specify the criteria of records to select

Input Auto\_MailListForResPB

Select all Customer IDs  
 Select Customer IDs with

Advanced...

Expression

Field name	Oper.	Value	A...
CUSTOMER_MAIL_OPTIN	=	'Y'	

Text Builder Formula helper Check syntax Test query

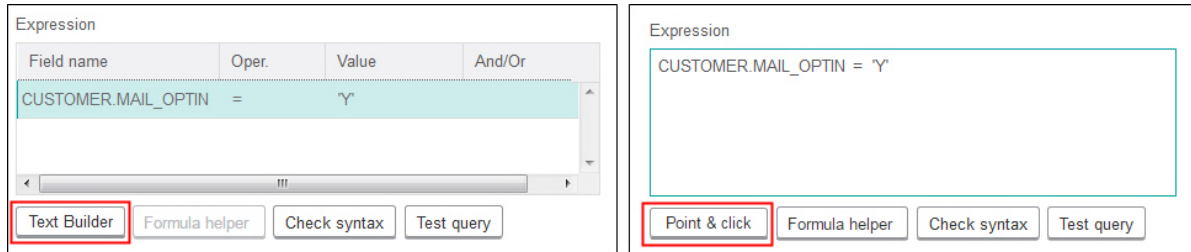
Select based on Auto\_MailListForResPB

Values (Profile...)

OK Cancel Help

8. Click **Check syntax** to confirm whether the query syntax is valid. Checking the syntax does not put any load on the database server.
9. To add and combine multiple expressions, follow the guidelines below:
  - a. To add another expression, click the **And/Or** cell, then double-click **AND** or **OR** in the **Values** list to indicate how to combine the expressions.
  - b. Build your next expression, consisting of a field name, operator, and value.
  - c. To add parentheses to control evaluation order, double-click the Field Name in any row to display the **For selected expression** list. In the list of expressions, double-click **Add ( )** to add a set of parentheses, **Remove ( )** to remove a single set of parentheses, or **Clear all ( )** to remove all of the parentheses in the selected expression. Parentheses allow you to group expressions when defining complex queries. For example, (AcctType = 'Gold' AND Rank = 'A') OR NewCust = 'Yes' is different from AcctType = 'Gold' AND (Rank = 'A' OR NewCust = 'Yes').
  - d. To reorder the selected expression, double-click **Move up** or **Move down**.
  - e. To add a blank row below the selected expressions, double-click **Insert**.
  - f. To delete the selected expression, double-click **Delete**.

10. Optionally, click the **Text Builder** button so its label changes to **Point & click**. When the button says **Point & click**, you can view or edit raw SQL. You can also use the **Formula helper** to pick macros, operators, and string functions from a list.



**Note:** If your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:

<table\_name>.<field\_name>.

For related information, see [Creating raw SQL queries \(on page 392\)](#). Also see [Creating queries with Formula helper \(on page 386\)](#).


11. Click the **Point & click** button to change back to the original query mode. The button label changes back to **Text Builder**.
12. (Optional) Use **Test query** to see how many IDs the query returns.

A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

**Important:** Global suppressions and cell size limits are not applied in test query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

13. Continue configuring the process, as described below, or click **OK** to close the process configuration dialog and save the query expression.
14. Optionally, use the **Cell size limit** tab to limit the number of IDs generated by the process during production or test runs.

If you selected **Random seed**, in most cases you can accept the default seed. The random seed represents the starting point that Campaign uses to select IDs randomly.

 **Note:** The same random set of records will be used for each subsequent run of the Select process (unless the input to the process changes). This is important if you intend to use the results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness. If you do not intend to use the results for modeling, you can make the Select process select a different random set of records each time it runs. To do this, use a Random Seed of zero (0). A value of 0 ensures that a different random set of records will be selected each time the process runs.

15. Use the **General** tab to set the following options.

- a. **Process name:** Assign a descriptive name, such as `Select_Gold_Customers`. The process name is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process.
- b. **Output cell name:** This name matches the Process name by default. It is used in dialogs and reports to identify the output cell (the set of IDs that the process retrieves).
- c. (Optional) **Link to target cell:** Perform this step if your organization pre-defines target cells in a target cell spreadsheet. To associate the pre-defined target cell with the flowchart process output, click **Link to target cell**, then select a target cell from the spreadsheet. The **Output cell name** and **Cell code** are inherited from the target cell spreadsheet, and both of those field values are shown in italics to indicate that there is a link relationship.
- d. **Cell code:** The cell code has a standard format that is determined by your system administrator and is unique when generated. Do not change the cell code unless you understand the implications of doing so. By default, the name of a cell created in a process matches the process name. When you save changes to an output cell name, if **Auto generate** is selected, the cell code is regenerated. If you do not want the cell code to change, uncheck **Auto generate**.
- e. **Note:** Use the **Note** field to explain the purpose or result of the process. Common practice is to reference the selection criteria or other important information. The

contents of this field appears when you rest your cursor over the process box in a flowchart.

16. Click **OK** to save and close the configuration.

The Select process is now configured. You can test run the process to verify that it returns the results you expect.

## Run processes

Campaign provides the following run processes:

- [The Call list process \(on page 321\)](#)
- [The CreateSeg process \(on page 331\)](#)
- [The Cube process \(on page 333\)](#)
- [The Mail list process \(on page 335\)](#)
- [The Schedule process \(on page 344\)](#)
- [The Snapshot process \(on page 351\)](#)

### The Call list process

Use the Call list process to assign offers to contacts, generate a contact list for a telemarketing campaign, and log the contact history. The Call list process is often referred to as a contact process.

You configure a Call list process the same way as you configure a Mail list process. See [Configuring Mail list or Call list processes \(on page 321\)](#).

### Configuring Mail list or Call list processes

Follow these instructions to configure a Mail list or Call list process in a Campaign flowchart. Configure a Mail list or Call list process to assign offers to contacts, generate a contact list for a direct mail or telemarketing campaign, and write the results to contact history.




1. Open a flowchart for editing.

2. Drag a Mail list  or Call list  process from the palette to your flowchart.

3. Connect one or more configured processes as input to the Mail list or Call list.


The input processes must produce output cells, which provide input to the Mail list or Call list process. For example, a Select process produces a list of IDs, which are used by the Mail list or Call list process.

 **Important:** All of the cells that you select as input cells must have the same audience level.

4. Double-click the Mail list or Call list process in the flowchart workspace to open the configuration dialog.

5. Use the **Fulfillment** tab to build the contact list and specify whether the output is sent to a list or table.

a. From the **Input** list, specify the cells to use as the data source for the contact list.


If multiple processes are connected to the Mail list or Call list process (or if an input process generates multiple cells), click the ellipsis button  then select which inputs to use. For example, if Gold, Silver, and Bronze cells are connected to a Mail list, you can select one, two, or all three of them. When more than one cell is selected, the Input list says **Multiple cells**.

b. To export the list to a table or file, select **Enable export to**, then use the appropriate options:

- To write the output to a file, select **File** from the **Enable export to** list, then provide a file name and other details. You can write to a file to test the output of the Mail list or Call list process. After you run the process, review the file to confirm that the results are what you expect.
- To write the output to a database table, select a table from the **Enable export to** list.

- If the database table that you want to use is not in the list, or if you want to write the output to an unmapped table, select **Database table**. Use the **Specify database table** dialog to indicate the table name and database. User variables are supported in the table name that you specify.
  - To create a user table, select **New mapped table** from the **Enable export to** list. For instructions, see the Campaign Administrator's Guide.
  - Specify how to handle updates to the output file or table:
    - **Append to existing data**. Add the new information to the end of the table or file. This option is the best practice for database tables. If you select this option for a delimited file, labels are not exported as the first row.
    - **Replace all records**. Remove any existing data from the table or file and replace it with new information.
    - **Create new file**. This option is available if you specify a new file in the **Enable export to** field.
- c. If you only want to write to contact history, and you do not want to generate output to a table or file, clear the **Enable export to** option. (To specify how to log to the Contact history tables, use the Log tab, explained later in these steps.)
- d. (Optional) **Summary file**: Enter a path and file name in the **Summary file** field, or navigate to a location by clicking the ellipsis button. A summary file is a text file with the extension `.sum`. This file contains information about the contents of the list. Typically, you include this file with the list when you send it to the fulfillment center. A summary file is generated only if you select the **Enable export to** option.
- e. (Optional) To send a trigger when the process finishes running, select **Send trigger(s)**, and choose the trigger that you want to send. To send multiple triggers, use **Ctrl+Click** to select more than one trigger. The selected triggers are listed in the **Send trigger(s)** field, and they are separated by commas.
6. Use the **Treatment** tab to assign one or more offers or offer lists to each target cell. The cells that appear depend on the inputs you selected on the Fulfillment tab:

- a. Double-click the **Offer** field next to a Target cell, then select an offer. To assign multiple offers to a cell, select one or more target cells, then click **Assign offers**. You can then choose which offers to assign to which cells.

 **Note:** If the input cells are linked to a top-down cell defined in the target cell spreadsheet, and offers are already assigned in the target cell spreadsheet, the offers are displayed here. You can override these assignments. Any changes that you make here are reflected in the target cell spreadsheet after you save the flowchart.

- b. If you want to use control groups to exclude some IDs from the contact list, check **Use holdout control groups**, then change the **Control?** field to **Y** for each cell that you want to use as a control. Those cells appear in the **Control cell** list and cannot be assigned offers.

- c. For each non-control cell, you can specify a control cell and an offer.

7. The **Parameters** tab shows the parameter names and values for each offer that was assigned on the **Treatment** tab. For example, an offer might have the parameter "Channel" with values of 'Email' and 'Phone'. If there are no parameterized offers, you can skip this tab.

- a. Use the **For cell(s)** list to select the cells that you want to affect.


To save data entry time, select **[All cells]** to assign values that apply to most of the cells, then select individual cells to override the values. When you select **[All cells]**, you see one row per offer per parameter. Values that you enter in the **Assigned value** field apply to every cell that gets that offer.


If you assigned the same offer to multiple cells on the **Treatment** tab, but you assign different parameter values for each cell, the **[All cells]** view displays the text **[Multiple values]** in the **Assigned value** column, and the **For cell(s)** list shows the value that is assigned to each cell.


When you select an individual cell in the **For cell(s)** list, you see only the offers assigned to the selected cell. Values that you enter in the **Assigned value** field apply to that cell only.

- b. Click in the **Assigned value** field (or select a row in the table and click **Assign value**), then select or type a value to assign to the parameter. For example, if the parameter is **Discount**, the available values might be 10%, 15%, and 20%. The available values depend on how the offer was defined.

The configuration setting `Campaign | partitions | partition[n] | server | flowchartConfig | disallowAdditionalValForOfferParam` determines whether you are allowed to specify additional values or whether you are restricted to values in the list for offer attributes of type **Single select drop down**.


 **Note:** If you edit an offer to change a parameter value after assigning the offer, the original value continues to be used in any assigned offers. This behavior prevents unintentional changes of attribute values for offers that have already been assigned. For example, say you assign an offer that has a Cost Per Offer value of \$1.00. Later, someone edits the offer on the Offer Summary page and changes the value to \$1.99. The Assigned value on the **Parameters** tab of the Mail list or Call list remains set to its original value of \$1.00. To update the value, you must explicitly remove and then re-add the offer on the **Treatment** tab: Select the Target cell, click **Assign offers**, and remove the offer. Select a different tab, then select the **Treatment** tab again and reassign the offer. Now when you select the **Parameters** tab, the edited value (\$1.99) appears.


 **Note:** Do not use a Campaign generated field (UCGF) in a Mail list derived field unless the generated field is constant. Campaign assumes constant values for generated fields and does not re-calculate them for records in the result set. Therefore, you may see blank or incorrect results from derived fields that call a generated field that changes value. Instead of using a derived field, output the necessary generated field directly into your Mail list fulfillment table or file. Then read that table or file back into Campaign as a Select and use a Snapshot process to manipulate a new fulfillment table or file using data from the old one.

8. Use the **Personalization** tab to specify which fields to write out to the contact list. For example, if you are building a mailing list, include contact names and addresses.
- The **Export fields** list indicates which fields to write to the output list.
  - If you selected a table on the Fulfillment tab, the **Export fields** list includes all of the fields from that table. You must map each data field to a corresponding table column. To automatically find matching fields, click **Match** . Fields with exact matches for the table field names are automatically added to the list. If there are multiple matching fields, the first match is taken.
  - If you selected a file on the Fulfillment tab, the Export fields list is empty and you must specify which fields to output.
  - When you select Candidate fields, you can click the arrow next to an item to expand it. For example, you can expand the Campaign generated fields list, then select **Treatment code**. By including the **Treatment code** in your output, you can use it to track responses. Direct Response tracking requires customers to provide the same code when they respond to the offer (for example, by using a coupon). Use **Ctrl+Click** or **Shift+Click** to select multiple fields.
  - To view the values in a field, select the field and click **Profile**.
  - Use the **Add** and **Remove** controls to adjust the contents of the list.
  - The order of the fields in the Export fields list determines the order that the data is written out.
9. To sort the output and specify how to handle duplicate IDs in the list, click **More** on the **Personalization** tab.

You see the **Advanced settings** dialog.

- a. Decide whether your list will include or omit duplicate IDs. For example, if your Audience ID is Household, there might be duplicate Audience IDs for each person in that household. You may or may not want each person included in the list. To omit duplicate IDs, choose **Skip records with duplicate IDs**, and specify which record to retain if duplicate IDs are returned. For example, to keep only the family member with the highest household income, select **MaxOf** and **Household\_Income**.

 **Note:** This option removes duplicates that occur in the same input cell. If the same ID exists in multiple input cells, your contact list might still contain duplicates. If your goal is to remove all duplicates from the list, use a Merge or Segment process upstream of the Mail list or Call list process to purge duplicate IDs or create mutually exclusive segments.


 **Note:** This option pertains only to the fulfillment table (the list) and not to contact history. The contact history tables always contain unique IDs only. For example, say that your output list includes multiple family members (duplicate IDs for Households). The contact history will contain only one record for Household, using the first CustomerID found. The flowchart designer must ensure that the result set obtains the correct records before the records reach the contact history tables. Use the Extract process to de-dupe the results before the Mail list or Call list process box to ensure that the correct records are written to both the fulfillment table and contact history.

- b. To sort the output, use the **Order by** options. For example, to sort by surname in reverse order, select the **Last\_Name** field and **Descending**.
- c. Click **OK** to close the **Advanced settings** dialog.

10. Use the **Log** tab to control what is written to contact history.

You must have the appropriate permissions to enable or disable the contact history log options.

- a. To log contact history to the system tables, check **Log to contact history tables**. This option makes contact information available for tracking and reporting throughout Campaign.


 **Note:** When you create a mailing list, do not log to contact history if you plan to send the list to a mailing house for processing (such as validating addresses). Instead, consider using a Track process to log the information after it is returned from the mailing house. In this way, you capture only the list of customers who were mailed an offer. Another approach is to allow the Mail list to update contact

history, then use the Track process to update the contact history records that were created by the Mail list process.

- b. (Optional) To store contact information in another location, in addition to or instead of the contact history tables, check **Log into other destination**. This option is useful if your organization requires further processing of the information in another format, or if you want to examine the output before you update contact history.

11. If you selected **Log into other destination** on the Log tab:

- a. Use **Select cells** to specify which input to use (if there are multiple inputs).
- b. Use **Log to** to select a destination table or file. If you select **File**, define the output file name and parameters.

Indicate which field data to include by moving candidate fields to the **Fields to output** list. You can automatically find matching fields by clicking **Match** .

Fields with exact matches for the **Table field** names are automatically added to the **Field to log** list. If there are multiple matching fields, the first match is taken. The order of fields in the list determines the order of data in the file.

- c. Use the following options to specify how updates to the destination file or table are handled:
  - **Append to existing data:** Add the new contact information to the end of the table or file. Appending data is a safe choice for database tables because it preserves existing data. If you select this option for a delimited file, labels are not exported as the first row.
  - **Replace all records:** Remove any existing data from the table or file, and replace it with the new contact information.

An informational field indicates whether **Skip records with duplicate IDs** is set to Yes or No. You set this option on the **Personalization** tab but it also applies to the table or file that you specified for **Log into other destination**, where you are additionally logging contact history.

12. To customize the information that gets written to contact history, click **More options** on the Log tab.

The **Log** dialog for contact history logging options opens.

- a. To avoid updating contact history when this process runs, select **Create treatments only**.

This option generates new treatments in the Treatments table without updating the contact history, allowing for a delayed update to the history tables. For example, use this option if you plan to remove invalid and duplicate addresses through post-processing. By waiting to update contact history with the final list of IDs to which offers are sent, the resulting contact history will be smaller and more accurate.

If you select this option, the other options in this dialog that no longer apply are disabled.

By default, this option is not selected, so contact history is updated when the process runs.

For more information about logging contact history, see [Contact history](#) (on page ).


- b. To generate new treatments with the same package ID as in the most recent process run, select **Use last package ID**.

All offers given to an individual in the same contact process are considered to be a single "package". By default, **Use last package ID** is not selected. Not selecting this option ensures that each package is assigned a unique ID for each production run of the contact process.

If you selected **Create treatments only** to prevent customer history from being updated, you can also select **Use last package ID** to ensure that the package ID from the prior run is assigned to each set of offers. This action links the offers to the existing contact history.


- c. Use the **Tracking audience level** to determine which audience level is written to contact history.



 **Note:** The Mail list or Call list process removes duplicate records based on the Audience level of the input process. Changing the **Tracking audience level** does not affect how records are de-duped. For example, say the input process for a Mail list process uses Audience level 1. However, you want to log records to contact history at Audience level 2. In this case, you must configure an Audience process to change the audience level. Then connect the Audience process as input to the contact process. Now you can select a Tracking audience level of 2.

- d. Use the **Contact date (flowchart run date will be used if empty)** field to specify when to contact the people in the contact list. If you do not specify a date, Campaign uses the flowchart run date.
- e. Use the **Contact status code** list to specify a status code for tracking.
- f. Use the controls to add fields from the **Candidate fields** list to the **Fields to log** list.
- g. Click **Close** to return to the **Log** tab of the process configuration dialog.

13. (Optional) To permanently delete existing contact history and associated response history entries before the next run of the contact process, click **Clear history** on the **Log** tab.

 **Important:** **Clear history** permanently deletes contact and response history records from the system tables. This data is not recoverable.

14. (Optional) Use the **General** tab to assign a name and descriptive note to the process. The **Process name** is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process. The content of the **Note** field appears when you rest your cursor over the process box in a flowchart.


15. Click **OK**.

The process is now configured. You can test run the process to verify that it returns the results you expect. A test run does not output data or update any tables or files, but it does run any triggers that were selected on the **Fulfillment** tab.

## The CreateSeg process

Use the CreateSeg process to create lists of audience IDs from customer database tables. Define the CreateSeg process in the **Sessions** area of Campaign so that the segments are available globally for use in all campaigns.

The CreateSeg process is intended to be used by Campaign administrators. A CreateSeg process that is defined in a session flowchart creates a strategic segment, which can then be used in any flowchart. The segments can then be used as input for processes. They can also be used to create dimensions and cubes, or as the global suppression segment for an audience level.

 **Note:** A best practice is to create all global constructs in a session flowchart.

To work with strategic segments, you do the following:

- Create segments in the **Sessions** area, using CreateSeg.
- Manage segments from the **Segments** area.
- Use the segments in campaigns from the **Campaign** section.


### Creating segments for global use in multiple campaigns

Administrators use the CreateSeg process in session flowcharts to create segments that can be used in multiple campaigns. The resulting segments are called strategic segments.

The **Save flowchart run results** option under **Admin > Advanced settings** must be enabled for flowcharts that include CreateSeg processes. Otherwise, the strategic segments will not persist. To enable this option, the configuration property `Campaign|partitions|partition[n]|server|flowchartRun|saveRunResults` must be set to `TRUE`

Define a CreateSeg process in the Sessions area of the application so the segments are available globally. Users can then use the segments in any campaign.

1. Open a session flowchart for editing.

2. Drag the CreateSeg process  from the palette to your flowchart.
3. Connect one or more data manipulation processes (for example, a Select process) as input to the CreateSeg process.
4. Double-click the CreateSeg process.


The **CreateSeg process configuration** dialog box opens and the Define segments tab is open by default.

5. On the **Define segments** tab:
  - a. Select one or more source cells from the **Input** list. These source cells will be turned into segments. If there is only one input, it is already selected.
  - b. Select **Create mutually exclusive segments** if you want to ensure that each qualifying record belongs to no more than one segment.
  - c. In the **Result segments** area, highlight an input cell and click **Edit** to configure the segment.

The **Edit segment** dialog opens.

6. In the **Edit segment** dialog:
  - a. Give the segment a name that describes its purpose. The name that you assign is the name that will appear when users select this segment from lists.
  - b. Provide a brief description of the segment contents (for example, what input was used to create the segment).
  - c. From the **Create under** list, select a folder where the segment will be stored.
  - d. From the **Temp table data source** list, select a data source in which to cache the strategic segment. Use the **Ctrl** key to select multiple data sources.

If you prefer to store the temporary tables in a binary file on the server, rather than in a user data source, do not select a data source. To deselect a data source (for example, to revert to no data source selection), **Ctrl+click** the item again.

 **Note:** Selecting a data source is required only if `doNotCreateServerBinFile` on the `Campaign|partitions|partition[n]|Server|Optimization`

configuration page is set to `TRUE`. If this property is set to `TRUE`, at least one valid data source must be selected.

- e. From the **Security policy** list, select a security policy, if applicable, to apply to the new segment.
- f. Click **OK** to return to the **Define segments** tab.

7. (Optional) Use the **General** tab to assign a name and descriptive note. The name and note only appear in the session flowchart. They are not used to identify the generated segment in lists.

8. Click **OK** to save and close the configuration.

9. To create or update strategic segments, run the CreateSeg process in production mode or use the Run menu to save and run the flowchart in production mode. Test runs do not create or update strategic segments.

After you save and run the flowchart in production mode, the strategic segments are available for use in other flowcharts. Typically, the next step is to associate the strategic segment with a campaign

## The Cube process

Administrators use the Cube process to allow users to drill into data from multiple sources. Data cubes consist of dimensions that are based on strategic segments.

The Cube process is intended for technical users or consultants. A best practice is to create all global constructs, such as cubes and strategic segments, in the **Sessions** area of the application.

Users can select one or more defined segments, create a cube, and then drill into the data to select a target audience. The audience can then be converted into the appropriate processes, such as Select, for inclusion in a flowchart.

## Creating a multi-dimensional cube of attributes

Configure a Cube process to create a multi-dimensional cube of attributes. Any cubes created in the **Sessions** area will be available globally.

Before you can create a cube using a Cube process, you must create a strategic segment or dimension hierarchy.


1. Open a session flowchart for editing.

2. Drag the Cube process  from the palette to your flowchart.

3. Double-click the Cube process in the flowchart.

The **Cube process configuration** dialog box opens and the Source tab is open by default.

4. On the **Source** tab, use the **Input segments** list to select one or more segments as input for the cube.

 **Important:** If you select more than one source segment, ensure that they all have the same audience level.

5. Click the **Cube definitions** tab to define your cube:

- Click **Add** to add a new cube. Enter a name and description. Select up to three dimensions from the corresponding lists. The dimensions must be related to the strategic segments that the cube source is based on. When you click **OK**, the new cube definition appears in the list of cubes on the **Cube definitions** tab.
- Select a cube and click **Edit** to modify it.
- Select a cube and click **Remove** to delete it.

6. Click the **Select additional fields to track** tab to specify additional fields for tracking.

You can:

- Select and move the fields you want to track from the **Available fields** list to the **Selected fields** list, using the **Add>>** button

- Click **Derived fields** to select or create derived fields to track.
- Click **Profile** to see the contents of the selected field.

7. (Optional) Click the **General** tab to assign a name and descriptive note.

The name displays on the process box in the flowchart. The note displays when you hover the cursor over the process box in the flowchart.

8. Click **OK**.

The process is configured. You can test the process to verify that it returns the results you expect.

## The Mail list process

Use the Mail list process to assign offers to contacts, generate a contact list for a direct mail campaign, and log the contact history. The Mail list process is often referred to as a contact process.

### Configuring Mail list or Call list processes


Follow these instructions to configure a Mail list or Call list process in a Campaign flowchart. Configure a Mail list or Call list process to assign offers to contacts, generate a contact list for a direct mail or telemarketing campaign, and write the results to contact history.

1. Open a flowchart for editing.


2. Drag a Mail list  or Call list  process from the palette to your flowchart.


3. Connect one or more configured processes as input to the Mail list or Call list.

The input processes must produce output cells, which provide input to the Mail list or Call list process. For example, a Select process produces a list of IDs, which are used by the Mail list or Call list process.

 **Important:** All of the cells that you select as input cells must have the same audience level.

4. Double-click the Mail list or Call list process in the flowchart workspace to open the configuration dialog.
5. Use the **Fulfillment** tab to build the contact list and specify whether the output is sent to a list or table.
  - a. From the **Input** list, specify the cells to use as the data source for the contact list.

If multiple processes are connected to the Mail list or Call list process (or if an input process generates multiple cells), click the ellipsis button  then select which inputs to use. For example, if Gold, Silver, and Bronze cells are connected to a Mail list, you can select one, two, or all three of them. When more than one cell is selected, the Input list says **Multiple cells**.
  - b. To export the list to a table or file, select **Enable export to**, then use the appropriate options:
    - To write the output to a file, select **File** from the **Enable export to** list, then provide a file name and other details. You can write to a file to test the output of the Mail list or Call list process. After you run the process, review the file to confirm that the results are what you expect.
    - To write the output to a database table, select a table from the **Enable export to** list.
    - If the database table that you want to use is not in the list, or if you want to write the output to an unmapped table, select **Database table**. Use the **Specify database table** dialog to indicate the table name and database. User variables are supported in the table name that you specify.
    - To create a user table, select **New mapped table** from the **Enable export to** list. For instructions, see the Campaign Administrator's Guide.
    - Specify how to handle updates to the output file or table:

- **Append to existing data.** Add the new information to the end of the table or file. This option is the best practice for database tables. If you select this option for a delimited file, labels are not exported as the first row.
  - **Replace all records.** Remove any existing data from the table or file and replace it with new information.
  - **Create new file.** This option is available if you specify a new file in the **Enable export to** field.
- c. If you only want to write to contact history, and you do not want to generate output to a table or file, clear the **Enable export to** option. (To specify how to log to the Contact history tables, use the Log tab, explained later in these steps.)
- d. (Optional) **Summary file:** Enter a path and file name in the **Summary file** field, or navigate to a location by clicking the ellipsis button. A summary file is a text file with the extension **.sum**. This file contains information about the contents of the list. Typically, you include this file with the list when you send it to the fulfillment center. A summary file is generated only if you select the **Enable export to** option.
- e. (Optional) To send a trigger when the process finishes running, select **Send trigger(s)**, and choose the trigger that you want to send. To send multiple triggers, use **Ctrl+Click** to select more than one trigger. The selected triggers are listed in the **Send trigger(s)** field, and they are separated by commas.
6. Use the **Treatment** tab to assign one or more offers or offer lists to each target cell. The cells that appear depend on the inputs you selected on the Fulfillment tab:
- a. Double-click the **Offer** field next to a Target cell, then select an offer. To assign multiple offers to a cell, select one or more target cells, then click **Assign offers**. You can then choose which offers to assign to which cells.
-  **Note:** If the input cells are linked to a top-down cell defined in the target cell spreadsheet, and offers are already assigned in the target cell spreadsheet, the offers are displayed here. You can override these assignments. Any changes that you make here are reflected in the target cell spreadsheet after you save the flowchart.



b. If you want to use control groups to exclude some IDs from the contact list, check **Use holdout control groups**, then change the **Control?** field to **Y** for each cell that you want to use as a control. Those cells appear in the **Control cell** list and cannot be assigned offers.

c. For each non-control cell, you can specify a control cell and an offer.

7. The **Parameters** tab shows the parameter names and values for each offer that was assigned on the **Treatment** tab. For example, an offer might have the parameter "Channel" with values of 'Email' and 'Phone'. If there are no parameterized offers, you can skip this tab.

a. Use the **For cell(s)** list to select the cells that you want to affect.

To save data entry time, select **[All cells]** to assign values that apply to most of the cells, then select individual cells to override the values. When you select **[All cells]**, you see one row per offer per parameter. Values that you enter in the **Assigned value** field apply to every cell that gets that offer.


If you assigned the same offer to multiple cells on the **Treatment** tab, but you assign different parameter values for each cell, the **[All cells]** view displays the text **[Multiple values]** in the **Assigned value** column, and the **For cell(s)** list shows the value that is assigned to each cell.


When you select an individual cell in the **For cell(s)** list, you see only the offers assigned to the selected cell. Values that you enter in the **Assigned value** field apply to that cell only.


b. Click in the **Assigned value** field (or select a row in the table and click **Assign value**), then select or type a value to assign to the parameter. For example, if the parameter is **Discount**, the available values might be 10%, 15%, and 20%. The available values depend on how the offer was defined.

The configuration setting `Campaign | partitions | partition[n] | server | flowchartConfig | disallowAdditionalValForOfferParam` determines whether

you are allowed to specify additional values or whether you are restricted to values in the list for offer attributes of type **Single select drop down**.

 **Note:** If you edit an offer to change a parameter value after assigning the offer, the original value continues to be used in any assigned offers. This behavior prevents unintentional changes of attribute values for offers that have already been assigned. For example, say you assign an offer that has a Cost Per Offer value of \$1.00. Later, someone edits the offer on the Offer Summary page and changes the value to \$1.99. The Assigned value on the **Parameters** tab of the Mail list or Call list remains set to its original value of \$1.00. To update the value, you must explicitly remove and then re-add the offer on the **Treatment** tab: Select the Target cell, click **Assign offers**, and remove the offer. Select a different tab, then select the **Treatment** tab again and reassign the offer. Now when you select the **Parameters** tab, the edited value (\$1.99) appears.

 **Note:** Do not use a Campaign generated field (UCGF) in a Mail list derived field unless the generated field is constant. Campaign assumes constant values for generated fields and does not re-calculate them for records in the result set. Therefore, you may see blank or incorrect results from derived fields that call a generated field that changes value. Instead of using a derived field, output the necessary generated field directly into your Mail list fulfillment table or file. Then read that table or file back into Campaign as a Select and use a Snapshot process to manipulate a new fulfillment table or file using data from the old one.


8. Use the **Personalization** tab to specify which fields to write out to the contact list. For example, if you are building a mailing list, include contact names and addresses.
  - The **Export fields** list indicates which fields to write to the output list.
  - If you selected a table on the Fulfillment tab, the **Export fields** list includes all of the fields from that table. You must map each data field to a corresponding table column. To automatically find matching fields, click **Match** . Fields with exact matches for the table field names are automatically added to the list. If there are multiple matching fields, the first match is taken.


- If you selected a file on the Fulfillment tab, the Export fields list is empty and you must specify which fields to output.
- When you select Candidate fields, you can click the arrow next to an item to expand it. For example, you can expand the Campaign generated fields list, then select **Treatment code**. By including the **Treatment code** in your output, you can use it to track responses. Direct Response tracking requires customers to provide the same code when they respond to the offer (for example, by using a coupon). Use **Ctrl+Click** or **Shift+Click** to select multiple fields.
- To view the values in a field, select the field and click **Profile**.
- Use the **Add** and **Remove** controls to adjust the contents of the list.
- The order of the fields in the Export fields list determines the order that the data is written out.

9. To sort the output and specify how to handle duplicate IDs in the list, click **More** on the **Personalization** tab.

You see the **Advanced settings** dialog.

- a. Decide whether your list will include or omit duplicate IDs. For example, if your Audience ID is Household, there might be duplicate Audience IDs for each person in that household. You may or may not want each person included in the list. To omit duplicate IDs, choose **Skip records with duplicate IDs**, and specify which record to retain if duplicate IDs are returned. For example, to keep only the family member with the highest household income, select **MaxOf** and **Household\_Income**.

 **Note:** This option removes duplicates that occur in the same input cell. If the same ID exists in multiple input cells, your contact list might still contain duplicates. If your goal is to remove all duplicates from the list, use a Merge or Segment process upstream of the Mail list or Call list process to purge duplicate IDs or create mutually exclusive segments.

 **Note:** This option pertains only to the fulfillment table (the list) and not to contact history. The contact history tables always contain unique IDs only. For example, say that your output list includes multiple family members (duplicate IDs


for Households). The contact history will contain only one record for Household, using the first CustomerID found. The flowchart designer must ensure that the result set obtains the correct records before the records reach the contact history tables. Use the Extract process to de-dupe the results before the Mail list or Call list process box to ensure that the correct records are written to both the fulfillment table and contact history.

- b. To sort the output, use the **Order by** options. For example, to sort by surname in reverse order, select the **Last\_Name** field and **Descending**.
- c. Click **OK** to close the **Advanced settings** dialog.

10. Use the **Log** tab to control what is written to contact history.

You must have the appropriate permissions to enable or disable the contact history log options.

- a. To log contact history to the system tables, check **Log to contact history tables**. This option makes contact information available for tracking and reporting throughout Campaign.


 **Note:** When you create a mailing list, do not log to contact history if you plan to send the list to a mailing house for processing (such as validating addresses). Instead, consider using a Track process to log the information after it is returned from the mailing house. In this way, you capture only the list of customers who were mailed an offer. Another approach is to allow the Mail list to update contact history, then use the Track process to update the contact history records that were created by the Mail list process.

- b. (Optional) To store contact information in another location, in addition to or instead of the contact history tables, check **Log into other destination**. This option is useful if your organization requires further processing of the information in another format, or if you want to examine the output before you update contact history.

11. If you selected **Log into other destination** on the Log tab:

- a. Use **Select cells** to specify which input to use (if there are multiple inputs).

- b. Use **Log to** to select a destination table or file. If you select **File**, define the output file name and parameters.

Indicate which field data to include by moving candidate fields to the **Fields to output** list. You can automatically find matching fields by clicking **Match** .

Fields with exact matches for the **Table field** names are automatically added to the **Field to log** list. If there are multiple matching fields, the first match is taken. The order of fields in the list determines the order of data in the file.

- c. Use the following options to specify how updates to the destination file or table are handled:

- **Append to existing data:** Add the new contact information to the end of the table or file. Appending data is a safe choice for database tables because it preserves existing data. If you select this option for a delimited file, labels are not exported as the first row.
- **Replace all records:** Remove any existing data from the table or file, and replace it with the new contact information.

An informational field indicates whether **Skip records with duplicate IDs** is set to Yes or No. You set this option on the **Personalization** tab but it also applies to the table or file that you specified for **Log into other destination**, where you are additionally logging contact history.

12. To customize the information that gets written to contact history, click **More options** on the Log tab.

The **Log** dialog for contact history logging options opens.

- a. To avoid updating contact history when this process runs, select **Create treatments only**.

This option generates new treatments in the Treatments table without updating the contact history, allowing for a delayed update to the history tables. For example, use this option if you plan to remove invalid and duplicate addresses through post-processing. By waiting to update contact history with the final list of IDs to which offers are sent, the resulting contact history will be smaller and more accurate.

If you select this option, the other options in this dialog that no longer apply are disabled.

By default, this option is not selected, so contact history is updated when the process runs.


For more information about logging contact history, see [Contact history](#) (on page [17](#)).

- b. To generate new treatments with the same package ID as in the most recent process run, select **Use last package ID**.

All offers given to an individual in the same contact process are considered to be a single "package". By default, **Use last package ID** is not selected. Not selecting this option ensures that each package is assigned a unique ID for each production run of the contact process.

If you selected **Create treatments only** to prevent customer history from being updated, you can also select **Use last package ID** to ensure that the package ID from the prior run is assigned to each set of offers. This action links the offers to the existing contact history.


- c. Use the **Tracking audience level** to determine which audience level is written to contact history.

 **Note:** The Mail list or Call list process removes duplicate records based on the Audience level of the input process. Changing the **Tracking audience level** does not affect how records are de-duped. For example, say the input process for a Mail list process uses Audience level 1. However, you want to log records to contact history at Audience level 2. In this case, you must configure an Audience process to change the audience level. Then connect the Audience process as input to the contact process. Now you can select a Tracking audience level of 2.

- d. Use the **Contact date (flowchart run date will be used if empty)** field to specify when to contact the people in the contact list. If you do not specify a date, Campaign uses the flowchart run date.
- e. Use the **Contact status code** list to specify a status code for tracking.
- f. Use the controls to add fields from the **Candidate fields** list to the **Fields to log** list.

g. Click **Close** to return to the **Log** tab of the process configuration dialog.

13. (Optional) To permanently delete existing contact history and associated response history entries before the next run of the contact process, click **Clear history** on the **Log** tab.

 **Important:** **Clear history** permanently deletes contact and response history records from the system tables. This data is not recoverable.

14. (Optional) Use the **General** tab to assign a name and descriptive note to the process. The **Process name** is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process. The content of the **Note** field appears when you rest your cursor over the process box in a flowchart.


15. Click **OK**.

The process is now configured. You can test run the process to verify that it returns the results you expect. A test run does not output data or update any tables or files, but it does run any triggers that were selected on the **Fulfillment** tab.

## The Schedule process

Use the Schedule process to initiate a process, a series of processes, or an entire flowchart. The Schedule process works only if the flowchart is running.

A Schedule process is active for a defined period of time. During that time, specified events might occur that cause subsequent connected processes to begin running. The most common use of the Schedule process is to control timing of the entire flowchart.

 **Note:** triA flowchart can include multiple Schedule process boxes as long as they are in independent branches. However, errors can occur if a process has more than one Schedule ancestor in different ancestral branches leading to the same process.


You can configure a Schedule process to define the total scheduling period by setting up a time limit in days, hours, and minutes starting from when the process begins running.

- You can schedule a process to run in a variety of ways, including repetitively, by trigger, and by calendar.
- You can combine multiple scheduling options. For example, you can schedule a process to run every Monday at 9:00 a.m., and whenever it is triggered by a specific event, such as a visit to the website.
- You can schedule a batch process, for example, to run late at night when it will not interfere with daytime jobs.

There are no limits on the number of options that you can use simultaneously in scheduling a flowchart, as long as the selections do not conflict. (For example, you cannot schedule a flowchart to run both "Once Only" and "Every Monday.")

In general, a process runs only when all of its inputs have run successfully (that is, when all processes connected to the current process have run, even if the dependency is only temporal). However, when multiple schedule inputs exist within a branch, the process will run whenever any **one** of its inputs completes (an "OR" rather than an "AND" of its inputs).

A contact process with tracking enabled contains an inherent schedule. Using a Schedule process in the middle of a flowchart is an advanced feature. Make sure that you are getting the desired behavior and correct results.

 **Note:** If the Schedule process in your flowchart tells the flowchart to run before a previous run is complete, Campaign holds the request until the previous run is finished. Only one run can be held in this manner. In certain cases, this might mean that the flowchart does not run as many times as you expect.

For example, if your flowchart takes two hours to run, and you have a Schedule process that tries to trigger three runs that are only 10 minutes apart, Campaign will start the first run. When the Schedule process attempts to start the second run, Campaign will queue it. When the Schedule process attempts to start the third run, Campaign will ignore it. When the first run is finished, Campaign will start the second run. The third run will never start.



## Scheduling processes in a running flowchart

Configure the Schedule process to initiate processes in a running flowchart. The Schedule process works only if the flowchart is running.

1. Open a flowchart for editing.

2. Drag the Schedule process  from the palette to your flowchart.

3. Double-click the Schedule process box in the flowchart.

The **Schedule process configuration** dialog box opens and the Schedule tab is open by default.

4. On the Schedule tab, specify the scheduling conditions:

- a. Specify a value for **Total schedule period** by entering the appropriate values in the **Days**, **Hours**, and **Minutes** fields. The total schedule period is the total time over which the Schedule process will be active. By default, the total schedule period is 30 days.
- b. Select a run frequency from the **Schedule to run** drop-down list, to specify exactly when the Schedule process will activate subsequent connected processes.
  - If you select **Once only**, the flowchart will run exactly once, regardless of what other schedule options have been added. If any other value is selected, then the scheduling options are connected as OR statements and the Schedule process kicks off any process to which it is connected when any option is satisfied.
  - The first option that is satisfied will begin the Schedule run. If **Schedule to run** is the only option enabled and the setting is **Once only**, the process runs immediately (unless a delay or user authorization has been enabled).
  - The **Hours** and **Minutes** fields enable you to specify the time at which you want the schedule to run. The time entry form is based on a 24 hour clock (also referred to as "military time"). In other words, 9 hours 30 minutes is 9:30

a.m., and 22 hours 45 minutes is 10:45 p.m. Because the time base is 24 hours, there is no need to designate a.m. or p.m.

5. If you select **Custom run** from the **Schedule to run** list, you can use one or both of the following options to specify when the schedule runs:


- Choose **Run on time**, then specify dates and times for the process to run. Multiple entries must be separated by commas. Click **Calendar** to select dates and times from a calendar.
- Choose **Run on trigger(s)** if you want the schedule to be triggered by an event.

The named trigger(s) must be defined using **Options > Stored Triggers**. Separate multiple triggers with commas. The trigger name can contain any characters except commas. A trigger name does not have to be unique. You can use the same trigger in multiple campaigns or flowcharts and activate them all at the same time.

For more information, see [Inbound and outbound triggers \(on page 348\)](#).

6. Use one or both of the following options if you want to specify a delay or require authorization.

- If you choose **Wait for user authorization before each run**, a prompt for user authorization will appear each time any other schedule conditions are satisfied, and the Schedule process will not activate unless specific authorization is provided. This option takes precedence over any other schedule indicators; the process will not start unless authorization is given.

 **Note:** When a flowchart is running with a client attached, user authorization can only occur through the client. If no client is attached, any user with read/write privileges for the campaign can authorize it to continue.

- If you choose **Delay period before each run**, specify the amount of time to wait after a schedule condition has been satisfied before the process runs, using the **Days**, **Hours**, and **Minutes** fields. This delay applies to all other specified schedule options. For example, if a Schedule process is configured to run at 9:00 a.m. on Monday morning with a delay of one hour, subsequent processes will begin to run at 10:00 a.m.

7. (Optional) Specify triggers to send after the Schedule run is completed.

If you select **Send trigger(s) after each run**, Campaign runs one or more triggers each time the Schedule process is activated. An outbound trigger executes a command line, which can be a batch file or a script file. Any named triggers must be defined using **Options > Stored triggers**. If you specify multiple trigger names, they must be separated by commas.

8. (Optional) Click the **General** tab to assign a name and descriptive note.


The name displays on the process box in the flowchart. The note displays when you hover the cursor over the process box in the flowchart.

9. Click **OK**.

The process is configured and appears enabled in the flowchart. You can test the process to verify that it returns the results you expect.

## Inbound and outbound triggers

You can configure the Schedule process to be triggered by an event and to trigger events upon completion. Use **Options > Stored Triggers** to define triggers, then call the triggers by configuring the Schedule process in a flowchart.

 **Note:** For performance advantages, use the HCL Unica Scheduler to send triggers to Campaign. To learn more about the Scheduler, see the *Platform Administrator's Guide*.

## Inbound triggers: Events that activate the Schedule process

An inbound trigger is an external event that sets a flowchart or campaign in motion. A trigger can be anything that you define. Examples include clicking a website link, receiving an email message, a telemarketer's response indicator, completion of a database upload, or any other defined event.

To specify inbound triggers that activate the Schedule process, configure the Schedule process and select **Custom run** from the **Schedule to run** list, then use the **Run on trigger(s)** option.

The **Run on trigger(s)** option uses **unica\_actrg** (included with your Campaign installation) to run. To understand how **Run on trigger** works behind the scenes, it is helpful to look at an example: [Example: Run on Trigger \(on page 350\)](#).

## Outbound triggers: Events activated by the Schedule process

An outbound trigger executes a command line, which can be a batch file or a script. Campaign can run one or more triggers each time the Schedule process activates the trigger names in the **Send trigger(s) after each run** field. If you specify multiple trigger names, they must be separated by commas.

This function allows you to send an outbound trigger to an executable file. The full path and the name of the file must be defined in the Stored Trigger Definitions dialog. Each time that the Schedule process is activated, Campaign runs the specified executable file.

## Using triggers with other scheduling options

Triggers can be used with any other scheduling options or alone. Used in combination, you can, for example, set up a flowchart to run every Monday at 9:00 a.m. as well as every time someone clicks on an internet banner advertisement.

If, for example, you scheduled the flowchart to **Run on trigger(s)** based on hits on a website, and you also specify a **Delay period before each run**, the flowchart will not begin until both the event (the Web hit) occurs and the delay period expires.

### To configure a Schedule process to run on a trigger

1. On the Schedule tab of the Schedule process configuration dialog, select **Custom Run** from the **Schedule to Run** drop-down list.

The **Custom Run** features become enabled.

2. In the **Run On Trigger(s)** field, enter the name of each trigger that can activate this Schedule process. Separate multiple triggers with commas.
  - The trigger name can contain any characters except commas.
  - A trigger name does not have to be unique. You can use the same trigger in multiple campaigns or flowcharts and activate them all at the same time.

### Running on triggers

When you select **Custom Run** from the **Schedule to Run** drop-down list, the **Run On Trigger(s)** option is available. Enable this option to specify one or more inbound triggers that activate the Schedule process.

If you enable **Run on Trigger(s)**, you must specify one or more triggers. The named trigger(s) must be defined using **Tools > Stored Triggers** for the Schedule process to be fully configured.

An inbound trigger is an external event that will automatically set a flowchart or a campaign in motion. A trigger can be anything that you define; for example, clicking a website link, receiving an email message, a telemarketer's response indicator, completion of a database upload, or any other defined event.

The **Run On Trigger(s)** option uses the application **unica\_actrg** (included with your Campaign installation) to run. To understand how **Run On Trigger** works behind the scenes, it is helpful to look at an example.

### Example: Run on Trigger

An online retailer has a cross-sell campaign that runs on a trigger, so that when a customer makes a purchase, it triggers cross-sell offers.

Specifically, when the customer makes a purchase:

- The website runs the **unica\_actrg** executable, passing the campaign code and the trigger name (**web\_purchase**).
- The Campaign listener checks that the campaign is active and the trigger name exists, then runs the Schedule process, and the campaign flowchart is triggered.

For more details about triggers, see the Campaign Administrator's Guide.

### Sending triggers after each run

An outbound trigger executes a command line, which can be a batch file or a script file. You can have Campaign run one or more triggers each time the Schedule process activates the

trigger names in the **Send Trigger(s) After Each Run** field. If you specify multiple trigger names, they must be separated by commas.

This function allows you to send an outbound trigger to an executable file. The full path and the name of the file must be defined in the Stored Trigger Definitions window. Each time the Schedule process is activated, Campaign runs the specified executable file.

### Using triggers with other scheduling options

Triggers can be used with any other scheduling options or alone. Used in combination, you can, for example, set up a flowchart to run every Monday at 9:00 a.m. as well as every time someone clicks on an internet banner advertisement.

If, for example, you have scheduled the flowchart to **Run On Trigger(s)** based on hits on a website, and you also specify a **Delay Period Before Each Run**, the flowchart will not begin until both the event (the Web "hit") occurs and the delay period has expired.

## The Snapshot process

Use the Snapshot process to capture data for export to a table or a file.

To make sure that duplicate rows are not exported, set **Skip records with duplicate IDs to Yes** in the snapshot configuration. Or you can use an Extract process and then snapshot the results.

To associate or track offers with the list, use the snapshot as input to a Mail list or Call list process. When you configure the Mail list or Call list process, export the necessary data to an alternate location (either a file or a table).


### Taking a snapshot of data for export to a table or file

Use the Snapshot process to capture data for export to a table or file. Select the source of the values that you want to capture, and define the output table or a file for those values.

1. Open a flowchart for editing.

2. Drag the Snapshot process  from the palette to your flowchart.

3. Connect one or more configured processes to provide input to the Snapshot process.


 **Note:** All of the cells that you select as input must have the same audience level.

4. Double-click the Snapshot process in the flowchart workspace.


The **Snapshot process configuration** dialog box opens and the Snapshot tab is open by default.

5. Use the Snapshot tab to specify how to capture data.

a. Use the **Input** list to specify which cells to use as the data source for the snapshot.

 **Note:** If the Snapshot process is not connected to a process that provides output cells, there are no cells to select from in the **Input** list. Also, the **Multiple cells** option is available only if the input process generates multiple cells.


b. Use the **Export to** list to select a table or file for the Snapshot output.


 **Note:** You can test the Snapshot process by running the process with output exported to a temporary file that you can review.

- You can select an existing table from the list
- If the table that you want to use is not in the list, or if you want to output to an unmapped table, select **Database table**. Use the **Specify database table** dialog box to specify the table and database name. User variables are supported in the table name that you specify here.
- You can select **File** to open the **Specify output file** dialog, so you can define how to output to a **Flat file with data dictionary**, **Flat file based on existing data dictionary**, or **Delimited file**.
- If you want to create a new user table, select **New mapped table** from the **Export to** list. For instructions on mapping tables, see the Campaign Administrator's Guide.
- Choose **[Extract table]** if you want to export to an extract table, which has a UAC\_EX prefix. An extract table persists so that users can continue to access it to perform operations such as profiling its fields.

- c. Select an option to specify how updates to the output file or table are handled:
- **Append to existing data.** Add the new information to the end of the table or file. If you select this option for a delimited file, labels are not exported as the first row. This is a best practice for database tables.
  - **Replace all records.** Remove any existing data from the table or file, and replace it with the new information.
  - **Update records.** Available only if you are exporting to a table. All fields that are specified for the snapshot are updated with the values from the current run of the process.
  - **Create new file.** Available only if you are exporting to a file. This option is selected by default if you are exporting to a file. Each time that you run the process, a new file is created with an underscore and digit appended to the file name (`file_1`, `file_2`, and so on).

6. To specify which fields to snapshot, use the controls to move selected fields from the **Candidate fields** list to the **Fields to snapshot** list. You can select multiple fields with **Ctrl+Click** or select a range of fields with **Shift+Click**.

 **Note:** To view the values in a field, select a field in the **Candidate fields** list and click **Profile**.


- If you selected a table as the snapshot destination, the fields in that table appear in the **Candidate fields** list. You can automatically find matching fields by clicking the **Match**  button. Fields with exact matches for the table field names are automatically added to the **Fields to snapshot** list. If there are multiple matching fields, the first match is taken. You can manually modify the pairings by using **Remove <<** or **Add >>**.
- To include generated fields, expand the list of Campaign generated fields in the **Candidate fields** list, select a field, then use the controls to move the field to the **Fields to snapshot** list.
- To work with derived fields, click the **Derived fields** button.
- You can reorder the **Fields to snapshot** by selecting a field and clicking **Up 1** or **Down 1** to move it up or down in the list.



7. To skip records with duplicate IDs or to specify the order in which records are output, click **More** to open the **Advanced settings** dialog.

a. To remove duplicate IDs within the same input cell, select **Skip records with Duplicate IDs**. Then choose the criteria to determine which record to retain if duplicate IDs are found.

For example, select **MaxOf** and **Household\_Income** to specify that when duplicate IDs are found, Campaign exports only the ID with the highest household income.

 **Note:** This option removes duplicates only within the same input cell. Your snapshot data can still contain duplicate IDs if the same ID displays in multiple input cells. To remove all duplicate IDs, use a Merge or Segment process upstream of the Snapshot process to purge duplicate IDs or create mutually exclusive segments.

b. To sort the snapshot output, select the **Order by** check box, then select the field to sort by and the sort order.

For example, select **Last\_Name** and **Ascending** to sort IDs by surname in ascending order.

c. Click **OK**.

8. Use the **General** tab to set the following options:

- **Process name:** Assign a descriptive name. The process name is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process.
- **Note:** Use the **Note** field to explain the purpose or result of the process. The contents of this field appears when you rest your cursor over the process box in a flowchart.

9. Click **OK** to save and close the configuration.

The process is now configured. You can test run the process to verify that it returns the results you expect.

## Optimization processes

Use the optimization processes to help determine a campaign's effectiveness and refine your marketing campaigns over time.

The Track and Response processes help you to track who is contacted and who responds. In this way, you can evaluate the response to your campaigns and modify them over time.

The Model process automates the creation of a response model that can be used to predict responders and non-responders.

The Score process scores contacts against a data model to rate the likelihood of each customer making a purchase or responding to an offer. Scoring accurately identifies the best customers or prospects for a campaign. In this way, you can determine the most effective campaign, offer, and channels.

For more information, see the following topics:

- [The Track process \(on page 359\)](#)
- [The Response process \(on page 355\)](#)
- The SPSS model and SPSS score processes require IBM SPSS Modeler Advantage Enterprise Marketing Management Edition. For information, see the Unica Campaign and IBM SPSS Modeler Advantage Enterprise Marketing Management Edition Integration Guide.

## The Response process

The Response process tracks the responses of customers who were contacted in a contact process, such as Mail list or Call list.

Based on rules that you define during process configuration, the Response process evaluates which responses are considered valid and how they are credited back to campaigns or offers. The output of the Response process is written to several response history system tables, where the data can be accessed for analysis using Campaign performance and profitability reports.

In its simplest form, the Response process can appear in its own flowchart connected to a Select process (and optionally a Segment process). In such a flowchart, the Select process selects IDs from a mapped table containing data about responders and their response actions. These IDs are segmented by the Segment process into meaningful groups, and finally passed to a Response process, where response tracking rules are applied and output is written to response history tables.

A Response process is tightly aligned with its corresponding contact process, in which the responders now being tracked were possibly members of cells targeted with particular offers.


### Updating response history

Use the Response process to update response history. The Response process compares campaign response information with contact history and writes information to the response history tables for the appropriate audience level.

A Response process is tightly aligned with its corresponding contact process, in which the responders now being tracked were possibly members of cells targeted with particular offers. Therefore, before you can configure a Response process, you must:

- Know the audience level of your contact list.
- Ensure that contact history and response history system tables are mapped for each audience level that you are contacting and tracking. This is usually done by the Campaign administrator.
- Set up a separate Response process for each audience level in which you are tracking responders.
- Know the codes representing the response types that you want to track.
- Know what Campaign-generated codes (campaign, cell, offer, or treatment codes) were sent to your contact list, so you can map them for tracking.
- Enable the ability to create temp tables in the Campaign system tables database (set the `AllowTempTables` configuration property to true).


Follow the steps below to configure a Response process.

1. Navigate to the list of campaigns where you created your contact flowcharts (the flowcharts that assigned the offers that you plan to analyze).
2. Typically, you create a separate flowchart to handle the response process. You could also have one response flowchart per channel or one global response tracking flowchart for all campaigns.
3. Click **Edit**  to open the flowchart for editing.

4. Drag the Response process  from the palette to your flowchart.


5. Connect a Select or Extract process as input to the Response process.

The Select or Extract process typically reads from an action table. An action table is an optional database table or file containing response data that is collected after offers are presented to customers. Often, data originates from several tables such as transactions or sales information.

 **Note:** Administrators must ensure that the action table is locked during response processing. Administrators must also clear rows after each Response process run to ensure that responses are not credited multiple times. For example, use Campaign to run SQL after the Response process to purge the action table. For important information, see the Campaign Administrator's Guide.

6. Double-click the Response process in the flowchart to open the process configuration dialog.
7. Use the **Source** tab as follows.

- a. If you followed the steps in this procedure, the **Input** list already displays the correct input. The input should originate from the mapped action table that holds your customer response information.


 **Note:** If you are using a delimited flat file as input to the Response process, you must ensure that all of the data types in the input files are mapped appropriately, as this is not enforced by the Response process. Using a mismatched data

type (for example, having a treatment code mapped as "numeric" when the `UA_Treatment.TreatmentCode` field is a "string" type) causes a database error on some databases (for example, system tables on DB2).

- b. For **Response date**, select a date from your action table to associate with the records that will be output by the Response process. By default, a value of "Today" is selected.
  - c. For **Response type code**, choose a field from your action table. The response type codes are globally defined and available for all campaigns. Response types are the specific actions that you are tracking, such as click-through, inquiry, purchase, activation, and use. Each response type is represented by a unique response code.
8. Use the **Mapping to treatments** tab to select the fields to be tracked and match them to a list of offer and treatment attributes.
- a. In the **Candidate action fields** list, expand the action table that you are using, so you can see the list of fields.

- b. Use the **Add** button to match **Candidate action fields** to the corresponding attributes in the **Matched offer/Treatment fields** list. The **Offer/Treatment attribute** column lists all offer or treatment attributes in the system.

It is best to match at least one Attribute of Interest and one Response Code.

 **Note:** Unmapped fields and fields for which values are not available (or are NULL) are not used for response attribution. For a treatment instance to receive response credit, all populated fields must match, except for controls. For controls, all codes are ignored.

9. Click the **Log** tab to specify additional fields to log to response history.

Use the controls to match fields from the **Candidate fields** list with fields in the **Fields to log** list.

You can automatically match fields by clicking **Match**. Fields with exact matches for the **Table field** names are automatically added to the **Fields to log** list. If there are multiple matching fields, the first match is taken.

10. Click the **General** tab to assign a name and descriptive note to the process.

11. Click **OK**.

The process is now configured. You can test run the process to verify that it returns the results that you expect.

When you save and run the flowchart, information is written to the response history system tables. Campaign administrators must be sure to clear rows after each Response process run to ensure that responses are not credited multiple times.

## The Track process

Use the Track process to update the contact statuses or additionally tracked fields for existing records in contact history. The Track process can update existing contact history records, create new records, or do a combination of both.

The Track process lets you log contact information to the contact history tables, separate from the contact process that generated the list of contacts.

For example, if your mail house does post-processing to remove invalid and duplicate addresses, then you probably would not write your initially-generated list to contact history. Instead, you would wait for the mail house to send you a confirmation list of IDs to which they actually sent offers.

In this case, your input to the Track process will be the final mailing list used by the mail house after they performed post-processing, and your contact history will be more accurate. Later, if some direct mail pieces are returned as undeliverable, you can use the Track process to update the contact status for those contacts as "Undeliverable."

Additionally, there are times when the target list is large, and it is not necessary to load all of this information into contact history. Instead, you can log only those contacts who were actually contacted. Often, you do not know who was or was not contacted until you receive

feedback from call centers or mail houses. You can use the Track process so that when feedback is received from different sources you can insert it into the contact history tables.

For details about logging contacts to contact history, see [Contact history](#) (on page [359](#)).

### Example 1


You create two separate flowcharts to take advantage of the Track process's delayed writing to contact history.

Create your contact list in Flowchart 1: A Select process selects data and provides input to a Segment process, where the data is segmented by value tier. The segmented data from the Segment process is input to a Mail List process. You configure the Mail List process to output a list of IDs to a file, without logging contact history, because you want the contact list to undergo post-processing by the mail house.

Create Flowchart 2 to handle the contact list that the mail house returns to you, and to write the final list of contacts to contact history. Flowchart 2 consists of a Select process whose input is the list of customers who were actually contacted by the mail house, connected to a Track process which then writes the information to contact history.

### Example 2

In a variation of the previous example, the mail house returns a list of IDs that could not be contacted. To obtain the list of contacted IDs, select the original output contact list from Flowchart 1 and use a Merge process to suppress the IDs that could not be contacted. The output from the Merge process is then your list of contacted IDs, and these IDs can be passed to a Track process for writing to contact history.


 **Note:** In both examples, the Treatment code is needed to map the updated data back to the original list.

## Tracking contact history

Configure a Track process to update existing rows in contact history or create new rows.

For examples, see [The Track process \(on page 359\)](#).

1. Open a flowchart for editing.

2. Drag the Track process  from the palette to your flowchart.
3. Connect one or more configured processes as input into the Track process.
4. Double-click the Track process in the flowchart.


The **Track process configuration** dialog box opens and the Source tab is open by default.

5. Use the **Source** tab to select input cells that contain potential responders. Cells from processes that are connected to the Track process appear in the **Input** list.
  - a. Use the **Input** list to select different or additional source cells.
  - b. Use the **Contact date** field to select a date to associate with records that the Track process will update. By default, a value of "Today" is selected. You can also use derived fields to populate the **Contact date**.
  - c. Select a **Contact status code** to associate with the records that you are updating in contact history.
6. Click the **Mapping to treatments** tab.

Use the **Candidate action fields** list to choose the relevant field to match to the Treatment Code. The Treatment Code uniquely identifies the row in the contact history to update.


Select a field to use for matching, and click **Add** to move it to the **Matched offer/treatment fields** list, so it is paired with a treatment code.

7. Click the **Log** tab to specify how to update contact history.

 **Note:** You must have the appropriate permissions to enable or disable updates to contact history tables.

- a. To update contact history in the system tables, select the **Log to contact history tables** check box.
- b. Specify how to update the contact history tables:



- **Update existing records:** If a record exists, update it. If a record does not exist, do not create it.
  - **Create new records only:** If a record does not exist, create it. Do not update existing records.
  - **Update existing and create new:** If a record exists, update it. If a record does not exist, add it.
- c. To write additional fields to the contact history, click **Additional fields** to display the Contact history logging options dialog. Use the **Add, Remove, Match, Up1,** and **Down1** buttons to select and move fields from the **Candidate fields** list to the **Fields to log** list. Unmatched fields will not be updated.
- d. Click **OK**.
8. If you want to log to a destination other than, or in addition to, the contact history in the system tables, select the **Log into other destination** check box. This option allows you to write to an alternate table or file.
- a. Use the **Log to** list to specify whether the output should be written to a file or a new or existing table in the database:
- If you select **File**, use the **Specify output file** dialog to output to a **Flat file with data dictionary, Flat file based on existing data dictionary,** or a **Delimited file**.
- If you select **New table**, use the **New table definition: Select the table type** dialog to specify information about the new table to which you want to write the log output.
- b. To specify which fields to output to the log, select fields from the **Candidate fields** list and move them to the **Fields to output** list.
- If you do not see the fields that you want to select, expand the items in the Candidate fields list. You can also use derived fields for Candidate fields.
- c. You can automatically find matching fields by clicking **Match** . Fields with exact matches for the **Table field** names are automatically added to the **Field to log** list. If there are multiple matching fields, the first match is taken.

d. Select an option to specify how to handle updates to the output file or table:

- **Append to existing data:** Append the new contact information to the end of the table or file. If you select this option for a delimited file, labels will not be exported as the first row. This is the best practice for database tables.
- **Replace all records:** Remove any existing data from the table or file, and replace it with the new contact information.

9. (Optional) Click the **General** tab to assign a name and descriptive note to the process.

The **Process name** is used as the box label on the flowchart. It is also used in various dialogs and reports to identify the process. Use the **Note** field to explain the purpose or result of the process. The content of this field appears when you rest your cursor over the process box in a flowchart.

10. Click **OK**.

The process is now configured. You can test run the process to verify that it returns the results you expect.

# Chapter 17. About processes

Processes are the building blocks of flowcharts. You configure processes to perform specific tasks and connect the configured processes to build your flowchart. For example, you can use the Select process to select a set of prospects (IDs). You can use the Merge process to merge two distinct audience groups. And you can use the contact processes (Call List or Mail List) to write out the results of an entire campaign.


Typically, each process in a flowchart takes one or more cells as input, transforms the data, and produces one or more cells as output. A cell is a list of identifiers of marketing message recipients, such as customer or prospect IDs.

The Campaign processes are visible on the flowchart process palette. To create a flowchart, you move processes from the palette to the flowchart workspace. In the workspace, you configure and connect the processes to build your flowchart.

## Types of processes


Campaign processes are divided into three types by function, which are distinguished by color in the flowchart process palette.

- Data manipulation processes - blue
- Run processes - red
- Optimization processes - green, orange, or purple

 **Note:** Unica Interact, Unica Optimize, Unica Deliver, IBM SPSS Modeler Advantage Enterprise Marketing Management Edition, and IBM Engage provide additional processes for use in campaign flowcharts. For information about those processes, see the separate documentation for those products.

## Contact processes

The Mail List and Call List processes are called contact processes (in previous releases, these were called "contact-style processes" (CSPs)). These processes generate contact lists.

 **Note:** The Mail List and Call List processes are also run processes.

## Data manipulation processes

Use data manipulation processes to select contact IDs from your data sources and work with those IDs to create meaningful groups or target audiences.

Examples of the tasks that you can complete by using data manipulation processes follow.

- You can select potential contacts that meet the criteria that you define, such as repeat customers within a certain income range.
- You can merge lists to include or exclude contacts.
- You can segment customers into meaningful groups, for example by language or gender.
- You can set up test or control groups.
- You can change the target audience for your campaign, for example from Household to Individual.
- You can extract sets of data for additional processing to improve performance.

The following data manipulation processes are available:

- [The Select process \(on page 314\)](#)
- [The Merge process \(on page 289\)](#)
- [The Segment process \(on page 298\)](#)
- [The Sample process \(on page 292\)](#)
- [The Audience process \(on page 261\)](#)
- [The Extract process \(on page 277\)](#)

## Run processes

After you build your flowchart to select the audience that you want, you need to use a run process to output the results in a usable way. Run processes control the running of the flowchart and initiate actual customer contact.

Run processes control the actual execution of completed campaigns, which includes the management and output of contact lists, the treatment of target audiences, the tracking of responses and contacts, the logging of data, and the scheduling of campaign or session runs.

The run processes are:

- [The Snapshot process \(on page 351\)](#)
- [The Schedule process \(on page 344\)](#)
- [The Cube process \(on page 333\)](#)
- [The CreateSeg process \(on page 331\)](#)
- [The Mail list process \(on page 335\)](#) (also called a contact process)
- [The Call list process \(on page 321\)](#) (also called a contact process)
- Email, SMS, Push (see the Unica Campaign and Engage Integration Guide for IBM Marketing Cloud)

## Manipulating process boxes in flowcharts

Process boxes are the building blocks of flowcharts. The processes are visible on the flowchart process palette at the left of the workspace. Each marketing campaign consists of at least one flowchart, and each flowchart consists of processes that are configured and connected.

To create a campaign flowchart, you drag process boxes from the palette to the workspace. You then configure each process box to perform a specific operation, such as selecting customers to target for a mailing. By dragging connector lines from one box to another, you connect processes in the workspace in a logical flow to determine the order of events.

For example, use Select processes to choose customers to target in your campaign. Use a Merge process to combine the selections, and end with a Call List process, which generates a list of customers to contact by phone.

You can move and delete process boxes as you experiment with different flowchart scenarios. To confirm that your flowchart is progressing successfully, you can test run each process as you build your flowchart. Save your flowchart frequently as you work.

The following steps provide a high-level overview of how to build a flowchart by adding, configuring, and connecting processes.

1. Open a flowchart for editing.

2. Add a process to a flowchart by dragging it from the palette to the workspace.

For example, add a Select process.

3. Configure the process by double-clicking it in the palette.

For example, configure the Select process to select all high-value customers aged 25 - 34 ("Gold").

4. Add and configure the next process in your flowchart.

For example, add another Select process and configure it to select all medium-value customers aged 25 - 34 ("Silver").

5. Continue adding, configuring, and connecting processes in the flowchart to determine the logical flow of data.

For example:

- a. Connect both of the Select processes ("Gold" and "Silver" customers) to a Merge process.

- b. Configure the Merge process to merge the Gold and Silver customers into a single list.

- c. Connect the Merge process to a Mail List process.

- d. When you configure the Mail List process, you assign pre-defined offers.


For example, you can assign a 10% discount to Silver customers and a 20% discount to Gold customers.



6. Test run each process as you configure it to confirm that it produces the expected results.

## Adding processes to flowcharts

You can add a process to a flowchart by dragging a process box from the palette to the workspace.

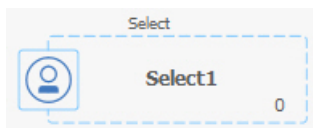
This procedure explains how to add processes by dragging them from the palette into your flowchart. Other ways to add processes are to copy an existing process (right-click, copy, then paste), or paste a template from the template library. Templates contain one or more configured processes and connections.

1. Open a flowchart for editing: Select **Campaign > Campaigns**, locate a campaign, click the **Edit a tab** icon  next to a campaign, then select a flowchart from the list. The flowchart window opens and the palette appears at the left of the workspace.

 **Note:** If you do not see the process palette, it means the flowchart is not in Edit mode: Click the pencil icon  in the flowchart toolbar.

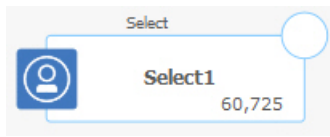
2. Drag a process box from the palette to the flowchart.

Newly added process boxes are transparent with a dashed border until they are configured.



Typically, the next step is to configure the process. To open the configuration dialog, double-click a process in the workspace or right-click a process and choose **Process configuration**.

Configured process boxes have a solid background and border. The round status icon is blank to indicate that the process has not yet run.



3. Click **Save and continue**  frequently to save your changes.

As you develop the flowchart, place each subsequent box in a logical position, such as left to right or top to bottom, and connect the boxes to indicate the flow of data. Some processes must be connected before they are configured because they require input from the source process.


For example, configure a Select process to select households in a specific earning bracket, then connect it to an Audience or Merge process. Finally, you test run the process or branch.

See the other available topics for information about configuring, connecting, and running processes.

## Copying processes within a flowchart

Copying a configured process can save time when you build campaign flowcharts. You can paste the process elsewhere in the workspace.

1. Within a campaign, open a flowchart for editing.
2. In the workspace, click the process that you want to copy.

 **Note:** To select multiple processes, you can **Ctrl+Click** the processes, drag a selection box around them, or use **Ctrl+A** to select all the processes in the flowchart.

3. Click the **Copy** icon .

You can also select **Copy** from the menu or press **Ctrl+C**.

4. Click the **Paste** icon .



You can also select **Paste** from the menu or press **Ctrl+V**.

A copy of the process appears in the workspace.


5. Click and drag the copied process to the desired location.

## To cut a process

1. Within a campaign, open a flowchart for editing.

You see the process palette and workspace.

2. From the processes that are already in the workspace, click the process that you want to cut.

 **Note:** To select multiple processes, you can **Ctrl+Click** the processes, drag a selection box around them, or use **Ctrl+A** to select all the processes in the flowchart.

3. Click the **Cut** icon on the Flowchart toolbar.

You can also click **Cut** from the menu, or press **Ctrl+X**.

The process is removed from the flowchart and saved on the clipboard. You can then paste this process back into the current flowchart or into another flowchart.

## Pasting processes from the template library

Templates contain one or more configured processes and connections. Using templates can save time when you build flowcharts because you can copy and then paste configured processes from one flowchart to another.

1. Within a campaign, open a flowchart for editing.

2. Click the **Options** icon  and select **Stored Templates**, or select **Paste from Template Library** from the right-click menu.

You see the **Stored Templates** window, which lists the available templates.

3. Select a template from the **Items List** and click **Paste Template**.

All of the processes are pasted from the template into the flowchart.

If one or more process boxes are pasted on top of existing process boxes in the flowchart workspace, click the top process box and move it to a new position.

## Moving processes in flowcharts

You can move any process in a flowchart by dragging the process to a different location in the workspace. Moving a process does not affect the workflow; it only affects the visual appearance of the flowchart.

You might want to move processes so that you can see the process boxes and connections more clearly. In general, it is best to avoid positioning processes on top of each other because it is harder to see the overall flow. If you have a large flowchart with many processes, you can move the processes and then use the zoom feature to see them all.

The position of processes in the flowchart workspace does not affect the logical flow of data. The connections between the processes determine data flow.

Follow the steps below to move process boxes in a flowchart.

1. Open a flowchart for editing.
2. In the flowchart workspace, drag a process to a new location.

Existing connections to and from the process remain, and are redrawn for the new location.

3. Click **Save**.

## Deleting processes from flowcharts

As you design and build flowcharts, you can delete processes if you decide that you no longer need them. If you delete a process that has an annotation, the annotation is also deleted.

This procedure assumes that you have a flowchart open for editing.

1. In the flowchart workspace, right-click the process that you want to delete, and select **Delete** from the menu.

You can select more than one process at the same time by holding down the **Ctrl** key.

2. Click **OK** to confirm the deletion.

The selected processes are removed from the workspace and all connections to and from the processes are deleted. Any annotations related to the processes are also deleted.

## Connecting processes in flowcharts

Connect processes in a flowchart to specify the direction of data flow and the order in which the processes run. When you move processes in the workspace, any existing connections between processes remain. Moving processes in a flowchart does not affect data flow. You affect data flow only by adding or deleting connections.

1. Open a campaign flowchart for editing.
2. Move your cursor over a process box until four arrows appear around the box.
3. Drag one of the arrows from the source process to the destination process.



When four arrows appear on the destination process, release the mouse button to complete the connection.

The processes are now connected. An arrow indicates the direction of data flow between the connected processes.




The source process will run before the destination process. Data that is output from the source process is then available as input to the destination process. For example, a Select process generates output, which can then serve as input to a Segment process.

Whether connection lines are solid or dotted depends on the process box relationships. When a destination process receives data from a source process, the connection line is solid. When a destination process depends on a source process but does not receive data from it, the connection line is dotted. A dotted line indicates that the destination process cannot run successfully until the source process completes. In this way, you can identify temporal processes, which are time-dependent on each other.

## Deleting a connection between two processes

If you no longer want two processes to be connected, or if you want to change the direction of the data flow between them, you can delete the connection.

1. Open a flowchart for editing.
2. Do one of the following:
  - Right-click a connection and select **Delete** from the context menu.
  - Click the connection that you want to delete, then press **Del** or **Ctrl+X** or use the **Cut** icon .
3. Confirm the deletion.

## Example: process connections

The way processes are connected in a flowchart determines the flow of data.

### Flowchart scheduled to run every night

When a destination process receives data from a source process, the connection is shown as a solid line. Temporal relationships are shown as dotted lines.

The following flowchart starts with a Schedule process that is configured to run automatically every night. The dotted lines from the Schedule process to the three Select processes indicate a temporal dependency, meaning the Select processes will not run until the Schedule process finishes running. However, no data is passed from the Schedule process to the Select processes.

The solid lines between the other processes show the flow of data. For example, the merged selections flow from the Merge process (labeled "Exclusions") into a Segment process ("SegByScore"). The segmented selections then flow into Mail List and Call List processes, so the offers can be delivered by different channels.



## Configuring processes

You must configure a process after adding it to your flowchart. By configuring a process, you provide Campaign with important information, such as the source of the data the process will use, which IDs to work with, and what to do with the output. For example, you

could configure a Select box to select all customers who made a purchase in the last six months.

A best practice is to place the processes in your flowchart in the order in which they will be used when the campaign is run. Some processes must be connected before they are configured because they require input from a source process.

To access a process configuration window

1. Within a campaign or session, open a flowchart for editing.

You see the process palette and workspace.

2. Double-click the process that you want to configure. You can also right-click the process and select **Process Configuration** from the menu.

You see the process configuration window for the process.

3. Enter information into the fields on each tab of the process configuration window. For assistance, click **Help**.

4. When you have finished entering the configuration details, click **OK**.

Correctly configured processes are displayed in color (the specific color reflects the type of process). A gray process with its name in italics has a configuration error. To find out more information about the error, hold your mouse over the process to display a descriptive error message.

## Running or testing a process


To ensure that your configuration is successful and the results are what you expect, test run each process after you configure and connect it.

 **Note:** When you run a process, any results from a previous run are lost.


1. Open a flowchart for editing.

2. Click the process that you want to run.


If the process requires data from a source process, be sure that the source process has already run successfully so that its data is available.

3. Open the **Run** menu  in the toolbar, or right-click the process box, and select an option:

- **Test Run Selected Process:** Use this option while you build your flowchart, so you can troubleshoot errors as they occur. Test runs do not output data or update any tables or files. (However, triggers run on completion of test runs, and global suppression is applied.)

 **Tip:** When you test run a data manipulation process (Select, Merge, Extract, Audience), you can limit the number of records that are selected for output. Use the **Limit output cell size** option on the Cell Size Limit tab in the process configuration dialog.

- **Save and Run Selected Process:** Do a production run. The contact processes, Mail List and Call List, write entries into Contact History. Each production run can generate contact history only one time. Contact processes that already ran for that production run can be rerun only if the contact history from the current run is first deleted. Triggers run on completion of the production run.


 **Note:** Running only a process or a branch of a flowchart does not increment the Run ID of a flowchart. When you run only a process or a branch, if contact history records exist, you are prompted to choose run history options before you can proceed. For details, see [Updating contact history by doing a production run \(on page 377\)](#).

4. When the process finishes running, click **OK**.

The process displays a green check mark after it runs successfully. If there are errors, the process displays a red X.

## Updating contact history by doing a production run

When you do a production run, you can update contact history for the current Run ID. Use the **Run history options** window to choose how the new contact history will be written to the contact history table.

1. On a flowchart page in **Edit** mode, click the process that you want to run.
2. Open the **Run** menu  and select **Save and run selected branch**.
3. If contact history records exist, you are prompted to choose run history options.

The **Run history options** dialog appears only when you run a branch or process that previously generated contact history for the current Run ID. You can either append information to contact history or replace existing contact history for the Run ID.

Option	Description
Create a new run instance	Rerun a specific branch or process of the flowchart using a new Run ID. Append the results, associated with the new Run ID, to the contact history table. Existing contact history remains intact.
Replace the contact history of the previous run	Reuse the previous Run ID and replace the contact history previously generated for that Run ID (only for the process or branch that is being run). Contact history records that were previously generated for other branches or processes of the flowchart remain intact.
Cancel	Cancel the branch or process run and do nothing to existing contact history. The flowchart remains open in Edit mode.



### Run History Options scenario

In this example, you have a flowchart with two branches and two contact processes, A and B, both configured to log to contact history.

You run the entire flowchart (from the top, by using the **Run Flowchart** command) once. This creates a new Run ID (for example, Run ID = 1) and generates contact history for this Run ID.

After this first successful run of the entire flowchart, you edit contact process A to give a follow-up offer to the same individuals who received the first offer. Therefore, you want to rerun contact process A. The current Run ID is "1" and contact history exists for process A and Run ID = 1. You want to retain the original contact history.

When you select contact process A and click **Run Process**, the **Run History Options** window opens. If you choose to leave the Run ID unchanged (Run ID = 1), you will replace the existing contact history, which is not what you want to do. Instead, you choose **Create a new run instance**. This option increments the Run ID to 2, retains the contact history associated with Run ID = 1, and appends new contact history to Run ID = 2. In this way, you will not lose the contact history that is associated with the first offer.

If you now edit and run contact process B, the **Run History Options** window does not open, because you are using a new Run ID (Run ID =2), which does not have any contact history associated with it. When you run only contact process B, you generate more contact history records for Run ID = 2.

### Run History Options window reference

The Run History Options window contains the following options.

**Table 31. Run History Options window options**

Option	Description
Create a new run instance	Rerun a specific branch or process of the flowchart using a new Run ID. Append the results, associated with the new Run ID, to the contact history table. Existing contact history remains intact.

Option	Description
Replace the contact history of the previous run	Reuse the previous Run ID and replace the contact history previously generated for that Run ID (only for the process or branch that is being run). Contact history records that were previously generated for other branches or processes of the flowchart remain intact.
Cancel	Cancel the branch or process run and do nothing to existing contact history. The flowchart remains open in Edit mode.

You cannot replace contact history if associated response history exists. Therefore, if you selected **Replace the contact history of the previous run** and associated response history records exist, you can choose one of two options:

- Click **OK** to clear the associated response history records as well as the contact history records. This is your only option if response history exists and you want to replace the contact history from the previous run.
- Click **Cancel** to cancel clearing the contact history records. You can choose **Create a new run instance** instead, to create a new run instance to run the current contact process.

## Data sources for processes

When you configure most processes in a flowchart, you must specify the source of the data that the process will act on. The data source for a process can be one or more incoming cells, segments, files, or tables. For example, the data source for a Select process might be a database table where your organization stores customer information such as Name, Address, Age, and Income.

The available tables depend on which data sources your administrator mapped. (Mapping tables is the process of making external customer tables accessible in Unica Campaign. Only tables that an administrator has mapped are available for selection.)

If multiple tables have been mapped, you can select more than one table as input to a process. For example, a Select process can take input from your company's "A" database and "B" database. The tables that you select must have the same audience level, such as Household or Customer.

It is common to use the output of one process as the input to a subsequent process. For example, you might connect a Select process to a Segment process. When you configure the Segment process, the output of the Select process would serve as the input to the Segment process.

If you select multiple cells as input, all cells must have the same audience level. For example, if two Select processes provide input to a Merge process, both Select processes must have the same audience level. You cannot mix Household and Customer, for example.

To specify the data source for a process, configure the process in a flowchart. In most cases, you use the **Input** field on the first tab of the process configuration dialog. The **Input** field displays all of the base tables that are currently mapped in the table catalog, along with their audience levels. The **Input** field also indicates any connected (upstream) processes.

If there is an incoming cell (for example, if a Select process is connected to a Segment process), then only tables with the same audience level as the cell are displayed.

For more information about selecting data sources, see the instructions for configuring each process.

## To select an incoming cell, segment, or table as the input to a process

On the first tab of the process configuration dialog, select the incoming cell, segment, or table from the Input drop-down list. The Input drop-down list displays all the base tables currently mapped in the table catalog, along with their audience levels. If there is an incoming cell, then only those tables with the same audience level as the cell are displayed.

## Selecting multiple tables as the input to a process

You can select more than one table as input to a process. When you select multiple tables, the tables must have the same audience level.

1. In the process configuration dialog box, select **Tables > Multiple Tables** from the **Input** drop-down list.


You can also click the ellipsis button. The **Select Tables to Use** window displays all the base tables in the campaign's table catalog.

2. Select the check box next to each table that you want to select.
3. Click **OK** to return to the process configuration dialog box. The **Input** field displays "Multiple Tables", which you can view by clicking the ellipsis button.

## To map a new table for selecting as a source

In the process configuration dialog, select **Tables > New Table** from the Input drop-down list.

The New Table Definition window preselects the Base Record Table type. You map a new base table in a process configuration dialog in the same way that you map a table from the Table Mappings dialog.

 **Note:** You must have the appropriate permissions to be able to map tables. For details about mapping tables, see the *Campaign Administrator's Guide*.

## Using queries to select data

When you configure a Select, Segment, or Extract process in a flowchart, you can use queries to identify contacts from your databases or flat files. There are several different query methods.

## How queries are evaluated in Campaign processes

Queries in Campaign processes are evaluated left to right using mathematical rules.

For example, the following statement:

```
[UserVar.1] < PDF < [UserVar.2]
```

is evaluated as:

```
([UserVar.1] < PDF) < [UserVar.2]
```

That is, the first part of the statement (**[UserVar.1] < PDF**) is evaluated as true or false (1 or 0), and the result is passed to the second statement:

```
[1 | 0 ] < [UserVar.2]
```

For the example to be evaluated as PDF greater than [UserVar.1] and less than [UserVar.2], you would need to construct the following query:

```
[UserVar.1] < PDF AND PDF < [UserVar.2]
```

This statement is equivalent to the following:

```
([UserVar.1] < PDF) AND (PDF < [UserVar.2])
```

## Creating queries with Point & Click


These instructions explain how to create a query using the default **Point & Click** method in a process configuration dialog. You can also follow these instructions to edit a query. Note that selecting a new item from the **Select based on** list removes the existing query.

1. Begin configuring a process that uses queries, such as Select, Segment, or Extract.
2. Access the query option for the process:
  - For a Select process, choose **Select <audience> IDs with** on the Source tab.
  - For a Segment process, choose **Segment by query** on the Segment tab. Then either create a new segment or edit an existing segment. In the **New segment** or **Edit segment** dialog, choose **Select IDs with**.
  - For an Extract process, choose **Select <audience> IDs with** on the Source tab.

The Point & Click query builder is displayed by default. (The button below the Expression field says **Text Builder**.)

3. Construct your query by creating an expression:

- a. To specify which field to query, click in the **Field name** cell. The **Available fields** list should appear. If the list does not appear, click in the **Field name** cell again. Expand the available fields until you see the one you want. Then select a field in the **Available fields** list by double-clicking it or highlighting it and clicking **Use**. When deciding which available field to use, you can highlight an available field and click **Profile** to see a list of field values.
- b. You can use the **Derived fields** button if you want to create or select an existing variable for querying.
- c. Click in the **Oper** cell, then double-click a comparison operator in the **Operators** list (such as =, <, >, Between).
- d. Click in the **Value** cell, then double-click a value. If no values appear, click **Profile** to see a list of field values. You can also double-click in the **Value** cell to edit the value directly.

 **Note:** If you do not see the expected list (**Available fields, Operators, Values, For selected expression**), try either single clicking or double clicking on a cell in the **Expressions** area.

You now have an expression that consists of a field name, operator, and value, such as **Status=Active**.

4. To add and combine multiple expressions, follow the guidelines below:

- a. To add another expression, click the **And/Or** cell, then double-click **AND** or **OR** in the **Values** list to indicate how to combine the expressions.
- b. Build your next expression, consisting of a field name, operator, and value.
- c. To add parentheses to control evaluation order, double-click the Field Name in any row to display the **For selected expression** list. In the list of expressions, double-

click **Add (...)** to add a set of parentheses, **Remove (...)** to remove a single set of parentheses, or **Clear all (...)** to remove all of the parentheses in the selected expression. Parentheses allow you to group expressions when defining complex queries. For example, (AcctType = 'Gold' AND Rank = 'A') OR NewCust = 'Yes' is different from AcctType = 'Gold' AND (Rank = 'A' OR NewCust = 'Yes').

- d. To reorder the selected expression, double-click **Move up** or **Move down**.
- e. To add a blank row below the selected expressions, double-click **Insert**.
- f. To delete the selected expression, double-click **Delete**.

5. If your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:


```
<table_name>.<field_name>.
```

6. Click **Check syntax** to confirm whether your query syntax is valid. Checking the syntax does not put any load on the database server.

Campaign indicates whether the syntax contains any errors.

7. (Optional) Use **Test query** to see how many IDs the query returns.

A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

 **Important:** Global suppressions and cell size limits are not applied in Test Query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

8. Click **OK**.


## Creating queries with Text Builder

These instructions explain how to create a query using the Text Builder feature in a process configuration dialog. To edit an existing query, edit the text of the query directly in the query text box, after clicking the **Text Builder** button.

1. Begin configuring a process that uses queries, such as Segment, Select, or Extract.
2. Access the query option for the process:
  - For a Select process, choose **Select <audience> IDs With**.
  - For a Segment process, choose **Segment by query**, then double-click a segment to edit it or click **New segment** to create a new segment. In the **New segment** or **Edit segment** dialog, choose **Select <audience> IDs with**, click **Text Builder**, then click **Advanced**.
  - For an Extract process, use **Select records With**.
3. Click **Text Builder** to change from the default Point & Click query method.

The Point & Click query columns are replaced by a query text box. Any existing queries are displayed in the text box.


4. Choose an **Input** data source, and a data source to query from the **Select Based On** list. Your selections determine which fields can be used to build your query:
5. Create your query by:
  - Selecting the field or table name(s) from the **Available Fields** list and double-clicking to enter them in the query text box. You can also click once then click **<- Use** to move it to the query text box.
  - Entering the required operators and values. To see the values of a selected field, you can click **Profile**.

 **Note:** Although you can enter field and table names directly in the query text box, selecting them from the list helps to avoid syntax errors. If your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax: <table\_name>.<field\_name>.

6. To check the syntax of the query, click **Check Syntax**. Checking the syntax does not put any load on the database server.
7. (Optional) Use **Test Query** to see how many IDs the query returns.



A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

 **Important:** Global suppressions and cell size limits are not applied in Test Query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

8. When you finish creating your query, click **OK**.

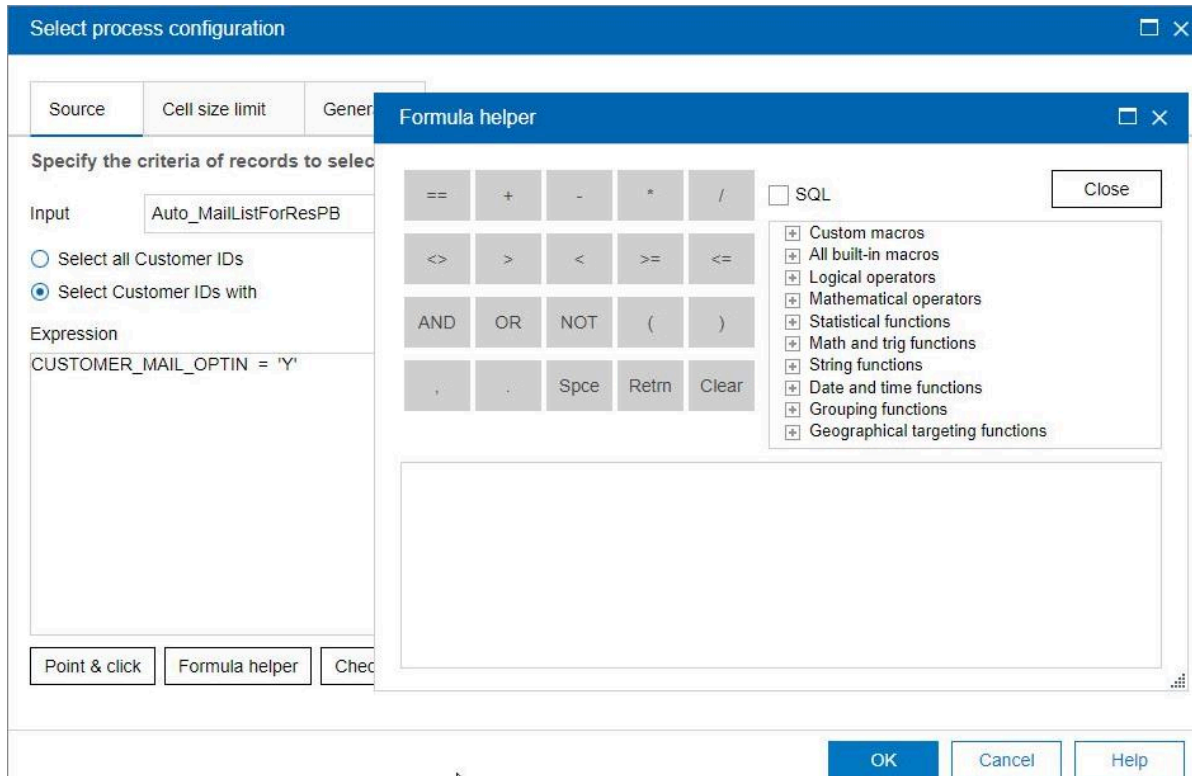
The process configuration box closes and you return to the flowchart page in **Edit** mode.

## Creating queries with Formula helper

When you create a query to select IDs in a Select, Segment, or Extract process, you can use the Formula helper to help build the query. The Formula helper is available from the process configuration dialog. The Formula helper contains a set of buttons for inserting commonly used operators and a list of macros, operators, and functions.

1. Begin configuring a process that uses queries, such as Segment, Select, or Extract.
2. Access the query option for the process:
  - For a Select process, choose **Select <audience> IDs with**.
  - For a Segment process, choose **Segment by query**, then either create a segment or double-click a segment to edit it. In the resulting dialog box, choose **Select IDs with**.
  - For an Extract process, choose **Select records with**.
3. Click the **Text Builder** button to change from the default query method. The button label changes to **Point & click**.
4. Click the **Formula helper** button.

The **Formula helper** dialog opens. It contains a set of buttons for inserting commonly used operators and a list of macros, operators, and functions.



5. (Optional) To restrict the list to only SQL operators and functions, check **SQL**.
6. As you build your query by selecting fields from the **Available fields** list, use the **Formula helper** window to help define the query:
  - a. Expand the list of macros, operators, or functions to locate the item that you want to use. Select an item to see a description and syntax example. Double-click an item to add it to the query text box.
 

**Note:** For custom macros, the description and syntax were created by the person who wrote the macro.
  - b. Use the Formula helper buttons to add operators and punctuation. The **Clear** button acts as a backspace (erase) key.
  - c. You can also edit the query directly. However, you can avoid syntax errors by selecting items, such as field and table names, from the lists provided.
  - d. Click **Close**.


7. Note that if your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:

`<table_name>.<field_name>.`

8. Use **Check syntax** in the process configuration dialog box to detect any errors. Checking the syntax does not put any load on the database server.

9. (Optional) Use **Test query** to see how many IDs the query returns.

A progress bar is displayed while the query is being tested. Close the progress window if you want to cancel the test. When testing is complete, Campaign indicates the number of rows the query returned.

 **Important:** Global suppressions and cell size limits are not applied in test query counts. Test queries might also return non-normalized data. To obtain an accurate result count, test run the process.

## Specification of pre- or post-processing SQL statements

If you are using a Select or Extract process, you can optionally include raw SQL statements to run before or after the process.


- **Pre-processing:** Enter raw SQL to be processed before the query runs.
- **Post-processing:** Enter raw SQL to be processed after the query runs.

Use this feature to include SQL procedures as part of the process run, which can be useful for ETL, routine data mart updates, performance tuning, and security. For example, you can use pre- and post-processing SQL statements to:

- Run stored procedures in the database
- Create, drop, and re-create tables and indexes
- Grant or change privileges to other users or groups
- Organize multistep database commands
- Run complex database routines without having to use external scripts to connect to the database

## Guidelines for using raw SQL queries

Writing raw SQL is an advanced operation; users are responsible for correct syntax and query results.

 **Note:** The **Use raw SQL** permission for user tables in Campaign determines who can use raw SQL. It is strongly recommended that administrators restrict the ability to use raw SQL to a user who has proper ACL privileges within the organization. For important information, read about administrative permissions in the *Campaign Administrator's Guide*.

Follow these guidelines when using raw SQL to construct queries in a process configuration:

- A SQL query must return a list of *only* the unique IDs as defined by the key on a base table.
- A SQL query must use the following syntax:

```
SELECT DISTINCT(<key1> [<key2>, ...]) FROM <table> WHERE <condition>
ORDERBY <unique_id>
```

This query instructs the database to perform sorting and data deduplication. If you omit the `DISTINCT` or `ORDERBY` clause, Campaign sorts and deduplicates the data on the application server, so you still receive the correct results, but performance will be slower.

- If in-database optimization is enabled and there is an input cell to the Select process, you must use the `<TempTable>` token to obtain the correct list of audience IDs.
- To significantly improve performance with large tables, use the `<TempTable>` token even when not using in-database optimization.
- If your database allows multiple commands to be passed, enter as many valid SQL commands as you need, with the following rules:
  - Separate commands with the appropriate delimiter
  - The last command must be a `select` command.
  - This `select` command must select all the relevant fields required in defining your audience level in the same order the audience level is defined.

- No other `select` statements are used
- Data filters do not apply to raw SQL queries or to custom macros that use raw SQL. To learn about data filters, see the Platform Administrator's Guide.

## Using the TempTable and OutputTempTable tokens in raw SQL queries

Temporary tables provide a workspace for intermediate results when processing or passing data. When the operation is finished, temp tables are discarded automatically.

- For best performance, use the `<TempTable>` token in raw SQL queries, especially when querying large tables.
- If you are using in-database optimization and you specify a raw SQL query in a Select process with an input cell, you must use the `<TempTable>` token to ensure correct behavior. See below for a full explanation.
- If you are using in-database optimization, also use the `<OutputTempTable>` token to prevent audience IDs from being unnecessarily copied from the database to the Campaign server.

When you use a raw SQL query in a Select process with an input cell, the processing behavior depends on whether you are using in-database optimization. (In-database optimization is controlled globally with the **Use In-DB Optimization** configuration setting. It is controlled for individual flowcharts with the **Use In-DB Optimization** during Flowchart Run option on the **Admin** menu.)

- When in-database optimization is off: The list of IDs from the raw SQL query is automatically matched against the ID list from the incoming cell. The resulting list of IDs is a subset of the cell, as expected.
- When in-database optimization is on: Campaign assumes that the ID list generated from the Select process is the final list. Campaign does not match this list against the ID list of any incoming cell. Therefore, the raw SQL query written for an intermediate Select process (a Select process with an input cell) must use the `<TempTable>` token to properly join against the incoming cell. Joining against the input cell ensures correct

results and improves performance by preventing extraneous processing for audience IDs that are not in the input cell.

In-database optimization is explained in the Campaign Administrator's Guide.

*Example: Using the TempTable and OutputTempTable tokens*

This example shows how to use TempTable and OutputTempTable tokens in a raw SQL query.

Assume that you have a Select1 process that selects 10,000 customers who are "Gold" customers (for example, Indiv.AcctType = 'Gold'). You then connect Select1 to a second Select process ("Select2") using a raw SQL query:

```
Select p.CustID from Indiv p, <TempTable> where p.CustID = <TempTable>.CustID
group by p.CustID having sum(p.PurchAmt) > 500
```

This example selects customers the sum of whose purchases exceeds \$500 and who are in the input cell (in other words, customers who have a "Gold" account type).

In contrast, a raw SQL query omitting the <TempTable> token and join:

```
Select p.CustID from Purchases p group by p.CustID having sum(p.PurchAmt) >
500
```

first calculates the sum of purchases for all customers in the Purchases table (which could be millions of customers) and then selects all customers the sum of whose purchases exceed \$500, regardless of whether they are "Gold" customers or not.

Therefore, for best performance, even if in-DB optimization is disabled, write your raw SQL queries using the <TempTable> token when there is an input cell.

For simplicity, this example does not use the <OutputTempTable> token, but to maintain in-DB optimization and prevent the audience IDs from being retrieved from the database back to the Campaign server, you must include the <OutputTempTable> token in your raw SQL query. For example:

```
Create table <OutputTempTable> as Select p.CustID from Purchases p,
<TempTable> where p.CustID = <TempTable>.CustID group by p.CustID having
sum(p.PurchAmt) > 500
```


## Referencing Extract tables in raw SQL queries

You can reference an Extract table in downstream processes via raw SQL using the `<Extract>` token. Use this token to specify subsets of data for subsequent processing, which can improve performance when working with large tables.

The following example queries an Extract table to select the customer IDs of all customers whose account balance exceeds \$1,000.

```
Select p.CUSTOMERID from USER_TABLE p, <Extract> where p.CUSTOMERID =
<Extract>.CUSTOMERID group by p.CUSTOMERID having sum(p.BALANCE) > 1000
```

For flowcharts containing multiple Extract processes, the `<Extract>` token always refers to the latest available Extract table.

 **Note:** After a Merge, the `<Extract>` token may or may not be valid. Test run the flowchart to determine if the token works as expected.

## Creating raw SQL queries

When you configure a Select, Segment, or Extract process in a flowchart, you can use queries to identify contacts from your databases or flat files. The Select, Segment, and Extract processes provide query builders to help you construct queries. Additionally, experienced SQL users can write their own SQL queries or copy and paste SQL queries from other applications. Writing raw SQL is an advanced operation; users are responsible for correct syntax and query results.

1. Begin configuring a Select, Segment, or Extract process.
2. For a Select process:
  - a. Choose **Select <audience> IDs with**.
  - b. The button under the Expression box must say **Point & click**. If it does not, click the **Text Builder** button so the label changes to **Point & click**.
  - c. Click **Advanced**.
  - d. In the **Advanced settings** dialog, check **Use raw SQL for record selection**. This option enables the use of raw SQL in the Text Builder when you specify your

selection criteria. If you do not select this option, you can only use HCL Unica expressions and custom macros.

- e. Use the **Database** list to select a data source to query. Select a target audience from the **Audience level** list.
  - f. If you want to run SQL commands before or after the **Select** process, you can specify raw SQL in the **Pre-processing** or **Post-processing** areas. See [Specifying pre- or post-processing SQL statements \(on page 394\)](#).
  - g. Click **OK** to close the Advanced Settings dialog.
  - h. Enter raw SQL in the Expression area. You can use the **Formula helper** to help construct the SQL. Check **SQL** in the Formula helper to restrict the list of operators and functions to SQL-specific options.
3. For a Segment process:
- a. On the Segment tab, choose **Segment by query**.
  - b. Click **New segment** to create a segment, or select an existing segment in the list and click **Edit**.
  - c. In the **New segment** or **Edit segment** dialog, choose **Select <audience> IDs with**, click **Text Builder**, then click **Advanced**.
  - d. In the Advanced settings dialog, check **Use raw SQL**, select a database, and click **OK**.
  - e. Enter raw SQL in the Expression area. Optionally, use the **Formula helper** to help construct the SQL. Check **SQL** in the Formula helper to restrict the list of operators and functions to SQL-specific options.
4. For an Extract process:
- a. Choose **Select <audience> IDs with**.
  - b. The button under the Expression box must say **Point & click**. If it does not, click the **Text Builder** button so the label changes to **Point & click**.
  - c. Enter raw SQL in the Expression area. You can use the **Formula helper** to help construct the SQL. Check **SQL** in the Formula helper to restrict the list of operators and functions to SQL-specific options.
5. Note that if your query includes a table field that has the same name as a Campaign generated field, you must qualify the field name. Use the following syntax:
- ```
<table_name>.<field_name>.
```



## To pass multiple commands in a raw SQL statement

You can pass multiple commands in a raw SQL statement.

If your database allows multiple commands to be passed, you can enter as many valid SQL commands as you need, with the following rules:

- Commands are separated with the appropriate delimiter;
- The last command must be a select command;
- This select command must select all the relevant fields required in defining your audience level in the same order the audience level is defined;
- No other select statements are used.

1. Enable the **Select records with** option in the Source tab of the Select process.

2. Click **Advanced**.

The Advanced Settings window appears.

3. Click to enable **Use Raw SQL**.

This activates raw SQL, a feature that passes your exact query syntax to the database.

4. Select the database to use and the desired audience level.

Click **OK**.

5. Enter your SQL commands in the **Select records with** text box.

Click **OK**.

## Specifying pre- or post-processing SQL statements


If you are using a Select or Extract process, you can optionally include raw SQL statements to run before or after the process.

You can include SQL procedures as part of the process run, which can be useful for ETL, routine data mart updates, performance tuning, and security. You can specify pre- or post-processing SQL:

- **Pre-processing:** Enter raw SQL to be processed before the query runs.
- **Post-processing:** Enter raw SQL to be processed after the query runs.

For example, you can use pre- and post-processing SQL statements to:

- Run stored procedures in the database
- Create, drop, and re-create tables and indexes
- Grant or change privileges to other users or groups
- Organize multistep database commands
- Run complex database routines without having to use external scripts to connect to the database

 **Note:** For important information, see [Guidelines for using raw SQL queries \(on page 389\)](#).

1. Begin configuring a Select or Extract process.

You can select all records or use a query to select specific IDs. For the Select process, you can apply pre or post processing regardless of the query type (standard query or **Use raw SQL for record selection**).

2. Click the **Advanced** button.

The Advanced Settings window appears.

3. Double-click in the **Pre-processing** area and enter a raw SQL statement to run before the process.

4. Click in the **Database** cell, and select the database on which you want to run this statement.


The **Database** list shows all available databases (those for which a data source category was configured on the Configuration page in Platform). If your database does

not appear in the list, contact your Campaign system administrator. You must enter a SQL statement before you can select a database.

The SQL statements are processed in the order in which they appear.

5. Follow the same procedure to enter any **Post-processing** SQL statements to run after the process.

The SQL statements are processed in the order in which they appear.

 **Note:** For information about the **Use raw SQL for record selection** option in the Advanced Settings dialog, see [Creating raw SQL queries \(on page 392\)](#).


## Previewing field values from your user data

You can use the **Profile** feature to preview field values when you configure a process in a flowchart. This feature allows you to see actual values from fields in your user data.

You can then select values to use in the current operation, for example to build a query for a Select process.

In addition to listing the values, the **Profile** feature also indicates each value's frequency of occurrence in the selected field. You can use this information to ensure that you are targeting the intended contacts.

You can profile any field that is available in any process where the **Profile** button appears. Examples include the **Segment by Field** list in the Segment process and the **Available Fields** or **Candidate Fields** lists in other process configuration dialogs. Only records in the current cell are included in the count, unless the counts were pre-computed.

 **Note:** You must have the appropriate permissions to profile fields. Ask your system administrator if you have questions about your access to this feature. Also note that your administrator can prevent fields from being profiled. Campaign generates a warning if you try to profile a field that is also an audience. Profiling an audience can return many records and potentially impact performance.

## Previewing field values from your user data

When you configure a process in a flowchart, you can use the **Profile** feature to preview field values. This feature lets you see actual values from fields in your user data. You can profile any field in a mapped data source. You can also profile derived fields.

You must have the appropriate permissions to profile fields. Ask your system administrator if you have questions about your access to this feature. Also note that your administrator can prevent fields from being profiled. You see a warning if you try to profile a field that is also an audience because profiling an audience can return many records and potentially impact performance.

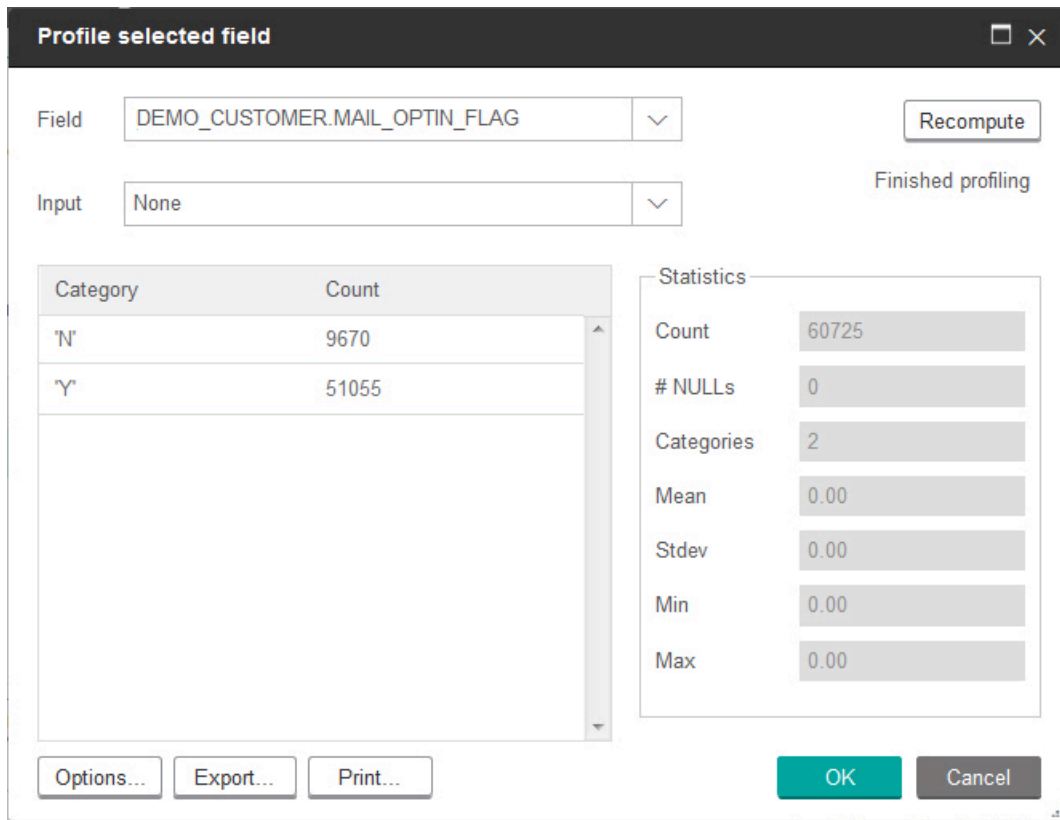
When you profile a field, you can view and select values to use in the current operation, for example to build a query for a Select process.

In addition to listing the values, the **Profile** feature indicates each value's frequency of occurrence in the selected field. You can use this information to ensure that you are targeting the intended contacts. Only records in the current cell are included in the count, unless the counts were pre-computed.

1. Open a flowchart for editing and begin to configure a process.
2. In the configuration dialog of a process that includes the **Profile** button, such as Select, Extract, or Segment, select the field that you want to profile.
3. Click **Profile**.


Campaign profiles the data in the selected field. The Category and frequency Count fields are updated as profiling progresses.

Wait until profiling is complete before using the results, to ensure that all categories are processed and counts are complete.



When profiling is complete, the **Profile selected field** dialog shows the following information:

- The list of values in the selected field, shown in the **Category** column, and the corresponding **Count** of IDs with that value. Campaign organizes values by category, grouping them to create approximately equal-sized segments. The default maximum number of categories (distinct bins of values) for display is 25. You can change the maximum number of categories.
- The **Statistics** pane shows the total count of IDs and other details about the data for that field, including:
  - The number of NULL values found.
  - The total number of categories, or values, for that field.
  - Statistical values for the data including the mean, standard deviation, minimum, and maximum values.

 **Note:** **Mean**, **Stdev**, **Min**, and **Max** are not available for ASCII fields. When you profile text fields, these values appear as all zeros.

## Restricting input for profiling

When Campaign profiles a field, it creates only the segments that are available in the input to the process where you are performing profiling.

For example, if you restrict input to the Segment process, and you profile a field based on the restricted input, the profile displays only the segments that were available in the restricted input.

Consider this example:

1. You configure a Select process that does a query that returns only 354 records.
2. You use that Select process as input to a Segment process.
3. In the Segment process configuration dialog, you use the **Profile** feature to see which values are available in various fields.
4. The selection that you make in the **Input** list of the **Profile selected field** dialog determines how many records are profiled. If you choose **None**, Campaign profiles all of the records. If you choose the incoming Select box as the **Input**, Campaign profiles only the records that were selected by that process. If the Select process query resulted in only 354 records, Campaign profiles only those records.

### **Note:**

- For the Extract process, you must select the input cell to which the extract table is associated to profile the extracted fields because the extracted fields are attached to the inbound cell. You can choose **None** only for single input cell. For multiple input cells, you must select the input cell to which the extract table is associated.
- In the right panel of the **Select Process Configuration** window, even if you select multiple condition values in the **value** field, only one value would be displayed in the grid. This is because, you may have to perform a double-click to complete the action

and double-click works only on a single value at a time. Hence multiple values will not be displayed in the grid.

## Disallowing profiling

Real-time profiling allows you to view and use characteristics of a selected field. It can affect performance, however, when working with large databases. For this reason, Campaign allows this option to be disabled.

When real-time profiling is disabled, and you click **Profile**, a message at the bottom of the **Profile selected field** dialog indicates that real-time profiling is disallowed.

If profiling is disallowed and the field is not configured to be pre-computed, the **Profile selected field** dialog indicates that no data is available, no counts or categories are displayed, and all **Statistics** counts are zero.

If pre-computed values are available for a field, the pre-computed values are displayed instead of live values when profiling is performed. The **Profile selected field** dialog indicates that the data source is "Imported," and shows the date and time that the values were last computed.

For more information about disallowing real-time profiling, see the Campaign Administrator's Guide.

## Setting profiling options

You can affect how the Profile feature performs by:

- [Restricting input for profiling \(on page 399\)](#)
- [Disallowing profiling \(on page 400\)](#)

In addition, you can set these options in the Profiling Options window:

- [Changing the maximum number of profile segments \(on page 401\)](#)
- [Profiling field values by meta type \(on page 402\)](#)

## To access the Profiling Options window

1. From any process configuration dialog in which the Profile option is available, select a field for profiling, or click **Profile**.

The Profile Selected Field window appears.

2. From the Profile Selected Field window, click Options.

The Profiling Options window appears.

## Changing the maximum number of profile segments

When you profile fields in flowchart process boxes, Campaign automatically creates up to a maximum number of 25 segments. You can change this value for the current flowchart session.

When you use the **Profile** option in a process configuration dialog, you can specify the maximum number of segments to generate when previewing field values. The new value is used by all process boxes in the current flowchart. However, the value applies only to the current flowchart and session. When you open another flowchart or close and then reopen the same flowchart, the value reverts to the default value of 25.

1. Open any process configuration dialog in which the Profile option is available.
2. Select a field for profiling and click **Profile**.
3. In the **Profile selected field** dialog, click **Options**.
4. In the **Profiling options** dialog, enter a new value in the **Number of segments** field to indicate the maximum number of segments into which you want the field values grouped.

The profile is recomputed with the new value. If the number of distinct values in the field exceeds the maximum allowed number of segments, the profile groups the values together into equal sized segments to avoid exceeding the maximum number of segments.



To set the maximum number of segments for profiling

1. On the Profile Selected Field window, click **Options**.

The Profiling Options window appears.

2. In the **Number of Segments** field, enter an integer to indicate the maximum number of segments into which you want the field values grouped. The default value is 25.

3. Click **OK**.

The profile is recomputed using the new maximum number of segments setting.

### Profiling field values by meta type

Profiling by meta type affects how data is sorted when you profile a field in a process configuration dialog. You can sort field values for data types such as dates, money, and other numeric data.

1. Open any process configuration dialog in which the Profile option is available.
2. Select a field for profiling or click **Profile**.
3. In the **Profile selected field** dialog, click **Options**.

The **Profiling options** dialog opens and **Profile by meta type** is enabled by default, so field values that represent dates, money, telephone numbers, and similar data types are correctly sorted and binned. For example, dates are sorted as dates, not as numeric values. If you disable this option, the values are sorted as ASCII text.

The following example shows how this setting affects a date field. Meta type profiling recognizes that the data type is Date and sorts the dates accordingly.

| <b>Profile by meta type enabled</b><br>(sorted by date) | <b>Profile by meta type disabled</b><br>(sorted numerically) |
|---------------------------------------------------------|--------------------------------------------------------------|
| 25-DEC-2014                                             | 20-FEB-2015                                                  |


| Profile by meta type enabled<br>(sorted by date) | Profile by meta type disabled<br>(sorted numerically) |
|--------------------------------------------------|-------------------------------------------------------|
| 20-FEB-2015                                      | 20-MAR-2015                                           |
| 20-MAR-2015                                      | 25-DEC-2014                                           |

## Refreshing profile counts

Refresh the profile count when something occurs that might change the results. For example, you can refresh the count when new values are added to a field or when a database table is updated.

Follow these steps to refresh the profile results for a field.

1. Open any process configuration dialog in which the Profile option is available.
2. Select a field and click **Profile**.
3. In the **Profile selected field** dialog, click **Recompute**.

 **Note:** When you first profile a field from a dimension table, Campaign returns counts that match the field in the dimension table. When you click **Recompute** to refresh the profile results, Campaign returns counts from the resulting join with the base table that is linked to the dimension table. If you want to profile a dimension table field without joining to a base table, map the dimension table as a base table.


## Inserting a profile category into a query

While you build a query expression in a process configuration dialog, you can insert a field value into your query expression.

1. While configuring a process, select a field and click the **Profile** button.

The **Profile selected field** dialog opens. Wait for the dialog to be populated.

2. When profiling is finished, double-click a category in the **Profile selected field** dialog to insert that value at the current cursor location in the query text box.

 **Note:** If you do not see the value that you want, it is possible that multiple values are being grouped together into a profile segment. If you set the maximum number of profile segments to a number greater than the number of categories (reported in the **Profile selected field** dialog), each field value will be listed as a separate category. This makes it possible to access all of the existing categories.

## Printing profile data

After you profile a field, you can print the profile data.

1. Click **Print** from the **Profile selected field** dialog.
2. Use the resulting dialog to specify the print options.

## Exporting profile data

After you profile a field, you can export the profile data to a comma-separated values (CSV) text file.

1. Profile a field while configuring a process in a flowchart.
2. In the **Profile selected field** dialog, click **Export**.

 **Note:** The **Export** button is available only when profiling is finished.

The **Export report data** dialog opens.

3. Enter a file name in the **File name** field or accept the default value. Do not specify a path or extension. The extension .csv will be used when the file is created.
4. (Optional) Select **Include column labels** if you want to include column headers in the file to identify each field.

5. Click **Export**. If this button is disabled, you must enter a file name first.
6. Use the resulting dialog box to open or save the .csv file.
7. If you save the file, you are prompted for a location. You can also change the file name at that time.

You can open the CSV file in any text editor. If you open the file in Microsoft Excel, your Excel settings determine how the data is displayed. For example, Excel might interpret a range value, such as "1-5", as a date (January 5).

## Logging contact history

Contact history can provide information about what offers were made, who they were made to, when, and by which channels. Contact history is stored in several tables in the Campaign system database. You can also log contact history to a file.


## Specifying an output file for contact logging

You can optionally output contact history to a flat file with a data dictionary or a delimited file.

1. Open a flowchart in **Edit** mode.
2. In the process configuration dialog box for a contact process, select **File** from the **Enable export to** or **Log to** list.  
The **File** option usually displays at the bottom of the list, after the list of mapped tables.  
The **Specify output file** dialog box opens.
3. Select an output file type:
  - **Flat file with data dictionary**: Create a fixed-width file and a new data dictionary file.
  - **Flat file based on existing data dictionary**: Create a fixed-width file and select an existing data dictionary file.

- **Delimited file:** Create a file in which field values are delimited by a tab, comma, or other character. If you select **Other**, enter the character to use as a delimiter. Check **Include labels in top row** if you want the first row of the file to contain a column header for each column of data.

4. Enter the complete path and file name in the **File name** field or use **Browse** to select an existing file.

 **Note:** You can include user variables in the output file name (**Options > User variables**). For example, if you specify `MyFile<UserVar.a>.txt` as the file name, and the value of `UserVar.a` is "ABC" at the time that the process is run, the output is written to `MyFileABC.txt`. You must set the **Initial value** and the **Current value** of the user variable before running the flowchart.

5. Campaign completes the **Data dictionary** field with a .dct file with the same name and location as the file that you entered.

If you want to use a different data dictionary, or to rename the data dictionary, enter the complete path and name of the data dictionary file in the **Data dictionary** field.

6. Click **OK**.

## Specifying a database table for contact logging


You can log contact information to a database when you configure a contact process.

1. In the process configuration dialog box, select **New mapped table** or **Database table** from the **Enable export to** or **Log to** list.

This option usually appears at the bottom of the list, after the list of mapped tables.

The **Specify database table** dialog box opens.

2. Specify the table name.

 **Note:** You can use user variables in the table name. For example, if you specify `MyTable<UserVar.a>` as the table name, and the value of `UserVar.a` is "ABC" at the time that the process is run, the output is written to a table named `MyTableABC`. You

must set the **Initial value** and the **Current value** of the user variable before you run the flowchart.

3. Select a database name from the list.

4. Click **OK**.

The **Specify database table** window closes. The **Export/log to** field in the process configuration dialog displays the name of the database table that you entered.

5. If a table of the name you specified exists, choose an option for writing the output data:

- **Append to existing data:** If you choose this option, the existing table must have a schema compatible with the output data. In other words, field names and field types must match, and field sizes must allow for the output data to be written.
- **Replace all records:** If you choose this option, existing rows in the table are replaced with the new output rows.

## Changing the seed for random selection

The random seed represents the starting point that Campaign uses to select records randomly. If you are selecting records randomly, you might want to change the random seed in situations such as the following:

- You have the same number of records in the same sequence, and using the same seed value each time you run this process results in records being created into the same samples.
- Your current random sample produces highly skewed results (for example, if all males in your data fall into one group and all females into another).

## Changing the random seed for record selection

The random seed represents the starting point that Campaign uses to select records randomly.

Some processes provide the ability to select a random set of records. If you decide to select random records, there are times when you might want to change the random seed. For example:


- Your random sample is producing highly skewed results (for example, if all males in your data fall into one group and all females into another).
- You have the same number of records in the same sequence, and using the same seed value each time that you run this process results in records being created into the same samples.

Follow the steps below to generate a different starting point for random record selection.

1. Click the **Cell size limit** tab of the Audience, Extract, Merge, Select, or Sample configuration dialog.
2. Perform one of the following operations:
  - Click the **Pick** button next to the **Random seed** field to randomly select a new seed value.

The same random set of records will be used for each subsequent run of the process (unless the input to the process changes). This is important if you intend to use the process results for modeling purposes, because different modeling algorithms must be compared across the same set of records to determine each model's effectiveness.


- If you do not intend to use the results for modeling, you can make the process select a different random set of records each time it runs. To do this, enter a zero (0) as the **Random seed**. A value of 0 ensures that a different random set of records will be selected each time the process runs.

 **Tip:** The Segment process does not include a **Random seed** control. To make the Segment process select a different random set of records each time it runs, set the **Random seed** to 0 in the upstream process that provides input to the Segment process.

## Skipping duplicate IDs in process output

The Extract, Call list, Mail list, and Snapshot processes allow you to specify how to treat duplicate IDs in the process output. The default is to allow duplicate IDs in the output.


Follow these steps to exclude records with duplicate IDs from the output.

 **Note:** This feature can impact performance because the application must download all data before it can de-duplicate the data. Best practice is to ensure that the data does not contain duplicates. You can use an ETL process to remove duplicates or choose columns in the audience key to make it unique.

1. From the configuration window of the process, click **More**.


You see the **Advanced Settings** window.

- a. Select **Skip records with duplicate IDs**, and specify the criteria to determine which record to retain if duplicate IDs are returned. For example, select **MaxOf** and **Household\_Income** to export only the ID with the highest household income.

 **Note:** This option only removes duplicates in the same input field. Your data can still contain duplicate IDs if the same ID appears in multiple fields. To remove all duplicate IDs, you must use a Merge or Segment process upstream of the Extract process to purge duplicate IDs or create mutually exclusive segments.

2. Click **OK** to close the Advanced Settings window.

Your duplicate ID settings are displayed in the configuration window.

 **Note:** In the Mail list or Call list process box, the **Skip records with duplicate IDs** option pertains only to the fulfillment table created by the process and not to records that are written to contact history. The contact history tables only handle unique IDs. The flowchart designer must ensure that the result set obtains the correct records before reaching the contact history tables. Use the Extract process to de-dupe the result set before the Mail list or Call list process box to ensure that the correct records are written to both the fulfillment table and contact history.




# Chapter 18. User variables

Campaign supports user variables, which can be used during process configuration when creating queries and expressions.


## Guidelines for using user variables

The following guidelines apply to user variables:

- User variables are local to the flowchart in which they are defined and used, but they have global scope within a flowchart run.
- User variables use the following syntax: `UserVar.UserVarName`
- User variables have **Initial Values**, which is the value assigned when a user variable is initially defined in the **User variables** variables dialog. The **Initial value** is only used to set the **Current value** before executing a flowchart run. It is the **Current value** that Campaign uses during a flowchart run.

 **Note:** If the **Current® value** for a user variable is not set and you execute a process run or a branch run, Campaign will not be able to resolve the user variable. Campaign only sets the **Current value** of a user variable to the **Initial value** before a flowchart run.

- You can change the **Current value** of a user variable in the Derived Field window of a Select process.
- User variables can be set to constants or to expressions, such as `UserVar.myVar = Avg(UserTable.Age)`.


 **Note:** If you use an expression that returns multiple values (such as `UserTable.Age + 3`, which will return one value for each record in the table), the user variable is set to the first value returned.

- When using user variables within SQL statements, do not enclose user variables in quotation marks, either single or double.
- If you pass object names to your database (for example, if you use a user variable that contains a flowchart name), you must ensure that the object name contains only characters supported by your particular database. Otherwise, you will receive a database error.

- The values of user variables can be passed in on process execution.
- User variables are supported in outbound triggers.
- User variables are supported for use in custom macros.
- You cannot rename a user variable in the following cases:
  - You created a derived field using the user variable in a flowchart process and saved or ran the flowchart or process.
  - You created the user variable in a flowchart process and published the flowchart to Collaborate.

## Creating user variables

You can define variables for use in the processes that you add to a flowchart.

1. Open a flowchart in **Edit** mode.
2. Click **Options**  and select **User variables**.

The **User variables** dialog opens.

3. In the **Variable name** column, enter a name for the new user variable: Click the **<Click here to add new item>** hotspot.
4. In the **Data type** column, select a data type from the list. If you do not select a data type, the application selects **None** when you click **OK**.

The **None** data type can produce unpredictable results, so it is best to specify the correct data type.


5. In the **Initial value** column, enter a starting value. You can also profile fields for available values by clicking the ellipsis button (...) that becomes available when you click inside the column.
6. In the **Current value** column, enter a current value for the user variable. You can also profile fields for available values by clicking the ellipsis button (...) that becomes available when you click inside the column.

7. Repeat these steps for each user variable that you want to create.

8. Click **OK**.

The application stores the new user variables. You can access them later when you configure processes.

After a flowchart runs, the **Current value** of each user variable displays in the **Current value** section for each user variable. If the current value is different from the initial value, you can restore the initial value by clicking **Restore defaults**.

 **Note:** If the **Current value** of a user variable is redefined in a Select process, resetting the **Current value** to the **Initial value** manually has no effect on the value of the user variable during a flowchart, branch, or process run.