Marketing Cloud Journeys and Automations

Salesforce, Winter ‘22
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Design and automate campaigns that guide customers through their journey with a brand. Execute simple or multi-step marketing and data management activities on an immediate, triggered, or scheduled basis.

Email Client Privacy and Non-Subscriber Activity in Marketing Cloud Email and Journeys
Some email client providers are making privacy changes that can impact open metrics and calculations. Trust is the #1 Value at Salesforce. Privacy and security continue to gain importance in our digital lives. Our top priority is to create the solutions that help you respond, act, and succeed in these new environments. Marketers traditionally create automations, campaign engagement strategies, and more based on email opens because opens can signal whether a customer or prospect is interested in your content. But the privacy options available to customers can make email opens less reliable as engagement signals.

Automation Studio
Learn how Automation Studio makes Marketing Cloud email sends, queries, imports, and more happen automatically.

Marketing Cloud Best Practices
Looking for best practices and use cases to help you get the most out of Marketing Cloud? You’re in the right place.

Journeys and Messages
Marketing Cloud’s Journey Builder is a campaign planning tool that enables you to design and automate campaigns that guide customers through their journey with a brand. Its foundation is the journey, which is the communication plan you design. Canvas activities tell Journey Builder how to communicate to and direct contacts in the journey. Contacts enter from an entry source. The journey then continually evaluates contacts to determine when to move them to the next activity.

Behavioral Triggers
Let Salesforce Marketing Cloud equip you to reach customers who abandon unpurchased items or services. Configure the flow of this behavioral data into the data extensions for email sends and journeys. Using behavioral triggers this way is called Behavioral Triggers.

Email Client Privacy and Non-Subscriber Activity in Marketing Cloud Email and Journeys
Some email client providers are making privacy changes that can impact open metrics and calculations. Trust is the #1 Value at Salesforce. Privacy and security continue to gain importance in our digital lives. Our top priority is to create the solutions that help you respond, act, and succeed in these new environments. Marketers traditionally create automations, campaign engagement strategies, and more based on email opens because opens can signal whether a customer or prospect is interested in your content. But the privacy options available to customers can make email opens less reliable as engagement signals.

In the Marketing Cloud Email and Journey experiences, these changes are to assist you in identifying the most valuable metrics for your campaigns.
**Marketing Cloud App**

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<td>Journey Builder</td>
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**SEE ALSO:**
- Marketing Cloud Einstein
- Clicks and Opens Behavior

**Automation Studio**

Learn how Automation Studio makes Marketing Cloud email sends, queries, imports, and more happen automatically.

Automation Studio is a Marketing Cloud application used to execute multi-step marketing and data management activities on an immediate, triggered, or scheduled basis. Use Automation Studio’s workflow canvas to build simple or multi-step automations.

Automation Studio includes an overview page to show each automation’s status. Error information appears in line with the corresponding automation to enable quick recovery. You can also use this page to run automations on an individual basis if necessary.

Build automations using automation activities such as Send Email, Import File, or SQL Query. Configure and manage automation activities on the Activities page. You can also use this page to run automation activities on an individual basis.

**Tip:** To avoid unexpected behavior such as pages not rendering or unintentional object modification, do not open multiple tabs in Automation Studio.
The Automation Studio Overview Page
When you access Automation Studio in Marketing Cloud, view up to 50 automations in your account, a snapshot of automation activities, run history, and folders. You can also run each automation once from the Overview page.

Define an Automation in Automation Studio
Build an automation in Marketing Cloud’s Automation Studio.

Schedule an Automation
In a Marketing Cloud automation that’s in draft mode or already running, set the schedule on the Workflow tab.

Use An Automation's Tabs
Gain a more detailed understanding of how a Marketing Cloud automation's tabs work in Automation Studio.

Automation Studio Activities
Easily understand and use the Automation Studio Activities tab in the Marketing Cloud.

Pause an Automation
Stop an automation’s schedule temporarily in Automation Studio. This action only pauses the automation’s schedule for future scheduled runs. An automation that is running when you click Pause continues to run even if the schedule is paused.

Skip an Automation
Indicate in Automation Studio that an automation’s next run will not occur without stopping the automation’s schedule.

Stop a Running Automation
When an automation is stopped in Automation Studio, activities in the step that is in progress complete, but subsequent steps do not start.
Copy an Automation
Create an exact copy of an automation to extend or modify it in Automation Studio.

Delete an Automation
Remove unneeded automations from Overview or the automation page in Automation Studio.

Automation Studio Errors
Use this page to find out what Automation Studio error messages mean, their implications, and how to resolve them.

Get Automation Studio Notifications
Add your email address so that you are notified when a Marketing Cloud automation's run is skipped, encounters an error, or completes in Automation Studio.

Find Activity Configuration and Error Details
To access configuration details and run history for an Automation Studio activity, view the activity's object detail page. Use this page to locate error information about the activity, too.

The Automation Studio Overview Page
When you access Automation Studio in Marketing Cloud, view up to 50 automations in your account, a snapshot of automation activities, run history, and folders. You can also run each automation once from the Overview page.

When you access Automation Studio, an Overview page appears showing this information:

- Up to 50 automations in your account
- A snapshot view of the included activities
- The automation's run history

Folders
The Folders pane contains folders you created. Create folders without leaving the page.
View Options

View your automations in two ways:

1. List View
2. Detail View

Sort these views by status as necessary.

List View displays a greater number of automations at once without activity-level detail.

Detail View shows fewer automations at once. However, this view includes an abbreviated view of the automation's design, including error information shown in red.

Hover over each activity to view its activity type, progress, and activity name. When a single automation step includes multiple activities, hovering over that step gives you the option to view the entire automation's setup.
Error Messages

A specific error message shows on the activity that errored, including an activity detail link that takes you to the activity to fix the error. When the automation step includes multiple activities, an indicator on the timeline references the point in the step where the error occurred.
Summary
The Summary displays your automations by day or by week, and by status. Filter results by status using the dropdown menu.

Tip: To filter results, click Update.

To view a daily summary, click Day. To view a weekly summary, Week.

Run an Automation from the Overview Page
Start an automation in Marketing Cloud directly from the Automation Studio Overview page with one click.

Delete an Automation from the Overview Page
Delete unneeded automations in Marketing Cloud without leaving the Automation Studio Overview page.

SEE ALSO:
Use Interactions from Automation Studio in Interaction Studio (Legacy)

Run an Automation from the Overview Page
Start an automation in Marketing Cloud directly from the Automation Studio Overview page with one click.

You can also start automations on each automation's individual page.

1. Hover over the name of the automation.
2. Click **Run Once**.

3. Click **Run**.

   **Tip:** To run a subset of activities only, use Advanced Run Once.

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**Delete an Automation from the Overview Page**

Delete unneeded automations in Marketing Cloud without leaving the Automation Studio Overview page.

1. Hover over the name of the automation.
2. Click **Delete**.

A confirmation message appears.

3. Click **Delete** to finalize this action.
Define an Automation in Automation Studio

Build an automation in Marketing Cloud’s Automation Studio.

Tip: For automations that run regularly, don’t use static file naming conventions (such as example.csv). To help in auditing purposes, use dynamic file names whenever possible. An example is example%%year%%Month%%Day.csv

Before setting up an automation, it’s important to understand which type of automation you need. How you plan to start the automation often answers this question and determines the automation’s starting source. There are two starting sources: Schedule and File Drop.

• Use schedule to start the automation when you want the data and messaging actions that the automation performs to occur at specific intervals.
• Use file drop if the automation is prompted to begin when a file is dropped into a designated Enhanced FTP folder.

Considerations

Note: File drop automations used to be called triggered automations.

• File drop automations don’t run on a schedule; they run automatically whenever the Enhanced FTP folder detects the addition of a new file.
• Changing a filename without modifying the file’s content doesn’t trigger an automation to begin.
• When No Filename Pattern is selected, a directory can only be assigned as a trigger for one automation at a time.

Note: Editing an automation stops the current progress and pauses the scheduled automation until all activities are defined and saved.

For more information, see these additional topics:

File Drop Automations
File drop automations begin automatically when a file is dropped into a designated Enhanced FTP folder rather than on a schedule.

Define a File Drop Automation
Set up an automation that starts when a file is dropped. Define a file drop location and other details in Automation Studio.

Define a Scheduled Automation
Build an automation in Automation Studio to perform Marketing Cloud activities on a scheduled basis.

Filename Patterns Reference
Review these guidelines for the design of a file naming pattern in Marketing Cloud’s Automation Studio.

Advanced Run Once
Automation Studio includes options to schedule an automation, run it automatically when a file is dropped, or run an automation once. Use Advanced Run Once to run only a portion of an automation.

Run a Subset of Activities
To run only the Marketing Cloud automation activities you select, click Run Once in Automation Studio, then select the activities to run.

File Drop Automations
File drop automations begin automatically when a file is dropped into a designated Enhanced FTP folder rather than on a schedule.
**Note:** You can’t use these files to initiate a file drop automation, formerly called triggered automation:

- .eml
- .jpg
- .jpeg
- .bmp
- .png
- .xml
- .pdf

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<th><strong>Scheduled Automations</strong></th>
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<td>...a file is dropped into a designated Enhanced FTP folder.</td>
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<tr>
<td>Notes</td>
<td>...prompted by the schedule you define.</td>
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<tr>
<td>Notes</td>
<td>Changing a filename without modifying file content does not trigger an automation.</td>
</tr>
<tr>
<td>Typical Use Case</td>
<td>Click <strong>Run Once</strong> to start a scheduled automation immediately.</td>
</tr>
<tr>
<td>Typical Use Case</td>
<td>You use other processes that update files in an FTP folder, and you want to create an automation that starts when activity occurs in that folder.</td>
</tr>
<tr>
<td>Typical Use Case</td>
<td>You import and refresh your birthday list daily, then send an email to all contacts whose birthday is today.</td>
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**Considerations**

- Before using file drop automations, configure your system to use Enhanced FTP.
- An Enhanced FTP folder works with only one file drop automation—except when a filename pattern is used. When a filename pattern, which lets a single FTP folder trigger multiple automations, is used, these statements do not apply.
  - Don’t use the import and export folders with file drop automations.
  - Any file placed in a folder triggers the automation associated with that folder.
  - Don’t use folders created for any other purpose, such as to upload images to a portfolio, for file drop automations.
  - Folders already used by another file drop automation are locked and display as **In Use**.
- All files dropped into the eFTP folder are queued and executed as fast as possible. If an automation stops due to error, each subsequent file is then processed until the queue is empty.
- In file drop automations, **Run Once** is replaced with the **Active** and **Inactive** control. This control defaults to **Inactive** until the trigger is configured and a configured activity is added to the canvas.
- Changing the name of a file on the FTP does not trigger the automation. The automation is triggered only when a file is uploaded to the FTP.
- Only one automation runs per file. Multiple automations can be associated with one FTP folder, but only one automation runs per file that is dropped.
- The automation engine doesn’t read file extensions. Any characters following the final dot [.] in a filename are automatically excised.
- When a file naming pattern is used, automations are not associated with the FTP folder, but to the pattern itself. The FTP folder can change, but the automations tied to it continue running as long as the filename pattern does not change.
Selecting a Directory

Trigger an automation by adding a file to a directory folder. Select the directory to add files to.

Note: Create directories used by file triggers inside the import directory.

File Queuing

Setting up a file drop automation includes the File Queuing option. Selecting Queue Triggers allows queuing when multiple files are dropped into an FTP folder that is configured with a file drop automation.

When file queuing is enabled, files are placed in a queue for processing. When the automation that is running completes, the next file in the queue starts the next automation.

Note: Files that meet the filename pattern are processed as Automation Studio parses them.

All files dropped into the folder are queued and executed as fast as possible. When an automation stops due to error, each subsequent file is processed until the queue is empty.

FTP and File Drop Automation Example

Review a Marketing Cloud use case that includes dropping a file in an FTP location to trigger an automation to start in Automation Studio.

SEE ALSO:
Filename Patterns Reference

FTP and File Drop Automation Example

Review a Marketing Cloud use case that includes dropping a file in an FTP location to trigger an automation to start in Automation Studio.

To create a directory under the Import directory on your enhanced FTP site and start uploading your file, _NEWDR.txt.pgp, to it. For this example, call the new directory _NEWDR.

First, create a file location for the _NEWDR directory.

1. Navigate to Email Studio.
2. Click Admin.
4. Click Create.
5. Use these example property values as a guide for creating the file location:
   - **Name**: NEWDR Directory
   - **External Key**: NEWDR Directory
   - **Description**: The file location for the NEWDR directory that Automation Studio is listening to.
   - **Location Type**: External FTP Site
   - **Url**: ftp1.exacttarget.com/Import/NEWDR
   - **Port**: 21
   - **Username**: NorthernTrail
   - **Password**: ******
• **Retype Password:** ******


7. Modify these file transfer activity properties:
   - **File Location:** NEWDR Directory
   - **File Naming Pattern:** `%%BASEFILENAME_FROM_TRIGGER%%`

   **Note:** Select **Manage File** as the Transfer Type and the file is moved to your FTP import folder.

8. Navigate to the import activity and modify these properties:
   - **File Naming Pattern:** `%%BASEFILENAME_FROM_TRIGGER%%.txt`
   - Do not modify the File Location property. The file transfer activity decrypting the file is also moving the file to the default Enhanced FTP directory.

9. Create a file drop automation.
   a. Select the NEWDR directory as the trigger.
   b. Add the file transfer activity to the first step.
   c. Add the import activity to the second step.
   d. Save and activate the automation.

**Define a File Drop Automation**

Set up an automation that starts when a file is dropped. Define a file drop location and other details in Automation Studio.

1. Click **New Automation**.
2. Select **File Drop**.
3. Click **Configure**.
   
   Drag automation activities onto the workflow canvas before or after starting source setup is complete.

4. Choose whether to use a filename pattern.
   a. If you choose to use a filename pattern, select an operator and provide text for the filename pattern.
   b. Do not include a file extension in the filename pattern.
   c. If you select **No Filename Pattern**, assign a directory as a trigger for one automation at a time.

   **Note:** When **Contains** is selected, Automation Studio reads all files dropped into the FTP folder. It then triggers the automation tied to the first file it parses with a filename meeting the **Contains** criteria.

5. To tell Automation Studio not to queue files, but instead stop any running automations and start a new automation when a matching file is detected, select **Disable Queuing**.
   - By default, when more than one matching file is dropped into the eFTP site, files queue for processing in the order in which they are dropped.
   - By default, Automation Studio is set to queue the file triggers it detects.

6. Select the directory for the system to watch. When a file is dropped in this folder, the automation starts.
7. Save.
8. Drag activities onto the canvas.
Note: Activities in the same step can't share a destination or target data extension. Move activities that share a destination data extension into a separate step.

9. To select an object for that activity, click Choose.

10. After you click Choose, all existing configured activities of that type appear.
   a. Search by keyword, name, or external key to find the exact activity you seek.
   b. Sort by columns.
   c. To see a summary, click an activity.
   d. Create an activity.

11. Select an activity or create one.
   a. To view or hide activity details, click the activity.

12. Add and configure more activities as needed. Click a configured activity to review, edit, or delete.

   Note: After setting up your trigger directory and at least one activity on the canvas, the Inactive control changes to Active.

13. Save and activate the automation.

   Tip: On the Activity tab under Notification Settings, enter an email address to receive notification of the success or failure of the automation.

Define a Scheduled Automation

Build an automation in Automation Studio to perform Marketing Cloud activities on a scheduled basis.

1. Click New Automation.
2. Select **Schedule**.

3. Drag activities onto the workflow canvas.

   **Note:** Activities in the same step can’t share a destination or target data extension. Move activities that share a destination data extension into a separate step.

4. To select an object for that activity, click **Choose**.

5. After you click **Choose**, all existing configured activities of that type appear.
   a. Search by keyword, name, or external key to find the exact activity you seek.
   b. Sort by columns.
   c. To see a summary, click an activity.
   d. Create an activity.

6. Select an activity or create one.
   a. To view or hide activity details, click the activity.

7. Add and configure more activities as needed. Click a configured activity to review, edit, or delete.

8. Save the automation.

9. Schedule the automation, or click **Run Once** to run the automation immediately.

   **Note:** Editing an automation stops the current progress and pauses the scheduled automation until you define and save all activities.

SEE ALSO:

*Define an Automation in Automation Studio*
Filename Patterns Reference

Review these guidelines for the design of a file naming pattern in Marketing Cloud’s Automation Studio.

You can use filename patterns to set up a file drop automation. These patterns let you designate a naming convention for files dropped into the Enhanced FTP folder tied to an automation. When you add a file to this folder, Automation Studio reads the filename and runs the corresponding automation.

When you set up a filename pattern, select an operator to dictate how Automation Studio parses the filename. The available operators are Contains, Begins With, and Ends With.

Note: Don’t include a file extension in the filename pattern.

Contains tells Automation Studio to look for files whose filename includes the filename pattern before the file extension.

Example: Filename pattern = AUG14
- Files named AUG14import.csv, Update_AUG14.txt, and NewContactsAUG14profileupdates.zip start this automation.
- Files named AUG 14data.csv, CustomerFiles.AUG14, and DailyJob-Aug-14.txt don’t trigger this automation.

Example: Filename pattern = AUG14
- Files named AUG14import.csv, aug14files.zip, and Aug14098786.txt trigger this automation.
- Files named 1AUG14data.csv, 120814_ AUG14.zip, and _ AUG14.txt don’t trigger this automation.

Use Begins With when Automation Studio is looking for files whose filename starts with the filename pattern.

Example: Filename pattern = AUG14
- Files named datapullAUG14_01.csv, listinfoAUG14.run.txt, and Aug14_.zip don’t trigger this automation.

Use Ends With when Automation Studio is looking for files whose filename ends with the filename pattern.

Advanced Run Once

Automation Studio includes options to schedule an automation, run it automatically when a file is dropped, or run an automation once.

Use Advanced Run Once to run only a portion of an automation.

Use Advanced Run Once to run only a portion of the automation, or to restart the automation from an activity that follows an errored activity. Or fix a single activity that errors and run that activity only. Select an entire step, individual activities, or any combination of steps and activities. Run a subset of activities you select by clicking Run Once in an automation, then selecting the activities to run.

Considerations

- Only scheduled automations support Advanced Run Once.
- The last run’s result appears in the right pane. Select the activities to run, then confirm the activities that you want to run before the automation’s run begins.
- Users can select an entire step, individual activities, or any combination of steps and activities.
- To run an entire automation once without selecting or deselecting activities, hover over the automation’s name on the Automation Overview page and click Run Once.
- Notification settings are carried over from the automation-level notification settings.
- Notification Settings are edited on an automation’s Activity tab, not in the Run Once Confirmation modal. Notification email addresses appear in the modal for reference only.
Note: The hierarchy of statuses is important. Not Selected is an option for Run Once automations only. So if a user sees Completed status, that could mean that only the selected activities in the step completed. Activities that were not selected did not complete, or run at all.

**Run a Subset of Activities**

To run only the Marketing Cloud automation activities you select, click **Run Once** in Automation Studio, then select the activities to run.

1. To run only the automation activities you select, click **Run Once**.

2. Select the activities to run.

   Tip: Click **Select All Activities**, then deselect the activities you want to exclude.

   Selected activities are shown at left.

3. Click **Run**.

4. Confirm that the activities you selected are slated to run and that the desired email addresses appear in Notification Settings.

5. Click **Run Now**.
Schedule an Automation

In a Marketing Cloud automation that’s in draft mode or already running, set the schedule on the Workflow tab. Setting a schedule is part of defining an automation and is included in new automation setup instructions, too.

1. Open an automation.
2. Click the Workflow tab.
3. If no schedule was set when creating the automation, drag Schedule into the first position on the canvas and click Configure.
4. If a schedule was set, click Edit.
5. After configuring a schedule, save the automation.

Note: After defining the schedule and saving, the automation is paused until you activate it. Run the automation at any time by clicking Run Once.

6. Click Active.
7. Click Activate.

Automation Duration

When you schedule automations in Marketing Cloud Automation Studio, make sure that the duration and schedule are in sync to prevent system stability issues.

To ensure system stability, automations that run longer than 24 hours stop when interrupted by the next scheduled occurrence. Check the expected duration before you schedule automations of this length.

Example:
- You schedule a daily automation to run for 36 hours. When the next instance starts, the previous automation stops and produces no more data.
- You schedule a weekly automation to run for 36 hours. Because it only runs new instances every 2 days, this automation isn’t stopped because there is enough time between occurrences.

Use An Automation’s Tabs

Gain a more detailed understanding of how a Marketing Cloud automation’s tabs work in Automation Studio.
An automation’s tabs display when you define or edit a new automation.

- Defining a new automation prompts the Workflow tab to show.
- Editing an existing automation prompts the Summary tab to display.
- Use the Schedule and Activity tabs to plan and monitor your automations.

Gain a more detailed understanding of an automation’s tabs.

- **Summary** - This tab shows you quick view of what information appears on the other three tabs. That view includes the automation’s scheduled status, if applicable, its activity sequence, and its recent activity. For new automations, click **Go to Workflow** to begin creating your automation.
- **Workflow** - Define your automation in this tab by dragging activities onto the Workflow canvas.
- **Schedule** - Use this tab to schedule your automation and to see your schedule summary.
- **Activity** - This tab shows you all the details of the automation’s activity, including the last run date and the progress or status of the activities in each run of the automation. If an error occurs in the automation’s run, this tab shows error details and a direct link to the activity details.

**Automation Studio Activities**

Easily understand and use the Automation Studio Activities tab in the Marketing Cloud.

In Automation Studio, activities perform specific actions like transferring or extracting data, or sending an email. Activities are the building blocks of an automation.
Reusability

Activities are reusable. When you define an activity, you provide information that the activity uses each time it runs. The Activities page shows all configured activities in one place, including activities used in multiple automations and activities that are not included in an automation.

Note: Enclose search terms in single quotation marks (') when the search term includes more than one word. For example, use the search term 'Commercial Seat Data' instead of the search term Commercial Seat Data for best results.

Options

Each activity includes a set of options in its row. The options available depend on the activity type.

Create folders inline. Child folders include more options.

Clicking an activity name opens an expanded view that includes properties and other details about the activity. Use this option to edit the activity, too.
For example, clicking an SQL Query activity shows the query itself, the activity properties, and the target data extension.

**Automation Studio Activities**

*Start an Automation Studio Activity*
Kick off an automation in Automation Studio using the Run Once option in Marketing Cloud.

*Send Email Activity*
Choose and configure an email message to be sent on its own or as part of one or more automations. You can put it in sequence with other Automation Studio activities and schedule it for a particular date and time.

*SQL Query Activity*
Retrieve data extension or data view information using Automation Studio’s SQL Query activity, then store it in a data extension.

*Import File Activity*
Use an outside file to update a subscriber list or data extension in Automation Studio. During the process, you also create an import definition, which establishes import file details and the import activity’s behavior while running. The activity uses this import definition each time it runs.

*How to Use the File Transfer Activity in Automation Studio*
In Marketing Cloud Automation Studio, you can unzip or decrypt a file found in the Marketing Cloud’s Enhanced FTP directory. With the File Transfer Activity, you can securely transfer files from the Marketing Cloud’s secure file transfer location, the Safehouse, to a selected FTP location.

*Script Activity*
A Server-Side JavaScript activity contains your Server-Side JavaScript and executes that script when started, either on its own or as part of an automation in Automation Studio. You provide the Server-Side JavaScript, a name, external key, and description to identify the activity within the application interface and for API calls.

*Filter Activity*
Apply the logic of a data filter you select to create a group or data extension in Automation Studio. Filtering subscribers or contacts makes targeting specific subscribers or contacts based on their attributes and other conditions easier.
Data Extract Activity
The Automation Studio data extract activity creates one or more zipped files for your use outside the Marketing Cloud application. It can also be used to convert an XML file into a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

Verification Activity
Avoid unintended outcomes by verifying the data used in an Automation Studio automation.

Automation Studio Activities Reference
Understand all activities available in Marketing Cloud Automation Studio at a glance.

Wait Activity
Wait activities in Automation Studio cause an automation to wait for a specific duration or until a specific time before performing the next step. You can include one or multiple wait activities in a single automation.

Start an Automation Studio Activity
Kick off an automation in Automation Studio using the Run Once option in Marketing Cloud.
Start or run an activity from the Activities page.

1. In the activity’s row, click the arrow to display options.
2. Click Run Once.

Note: This action could impact customers if the activity you start is included in a running automation.

Send Email Activity
Choose and configure an email message to be sent on its own or as part of one or more automations. You can put it in sequence with other Automation Studio activities and schedule it for a particular date and time.

Tip: Configuring the Send Email Activity creates a Send Definition that can be used in one or more automations.

Note: Send Email activities that were created with classic email editor inside an automation are no longer editable. To edit the activity, you must replace it. The send definition that each Send Email activity uses for sending is still valid.

1. Click Activities.
2. Click Create Activity.
3. Select Send Email.
4. Click Next.
5. Select a classic or Content Builder email. Use sorting options to change the order in which emails display.
6. Click **Next**.

7. Complete the define properties section:
   - **Activity Name** - Enter a name for this email send definition.
   - **External Key** - This unique key is for the API. If a unique key is not assigned, the system auto-assigns one.
   - **Folder** - Select a folder for in which the send definition resides.
   - **Description** - Enter a brief explanation of the email's content or purpose for your internal use.
   - **Subject** - The subject of the email message sent by this activity. Any changes made to the subject are only reflected in this send.
   - **Preheader** - The text displayed after the subject when an email is previewed.
   - **From Options**:
     - **Saved Send Classification** - Sets a send classification to use for this activity.
     - **Sender Profile** - Determines whether the send uses a different sender profile than indicated in the send classification.
     - **Overwrite Delivery Profile** - Determines whether the send uses a different delivery profile than indicated in the send classification.

8. Click **Next**.

9. Complete the select audience section. Audience folders are displayed in the left pane where the root folders represent different audience types. When you select a folder on the left, individual audience objects appear in the grid. From there, drag your audiences into the Targeted, Excluded, or Suppressed drop areas.

   **Note:** Test audiences for user-initiated emails are not supported in Automation Studio. Editing a user-initiated email with a test audience in Automation Studio automatically removes the test audience. This removal does not affect the content of the email. To perform a test send, navigate to Email Studio.

10. Click **Next**.
11. Complete the configure delivery section:
   - Delivery Window - Select a range of hours during which you want to send your email. A start and end time required.
   - Hourly Threshold - You can also specify how many emails you want to send per hour during that time.
   - Track Clicks
   - Suppress From Send Report
   - Multipart MME - The system sends both HTML and Text version (including the text version you have created). The version that the subscriber’s email client accepts is delivered.

12. Click Next.

13. From the Review and Send section, you see configurations made in the previous three tabs and confirm that all information is correct and ready to send.
   - To view more information, hover over any blue text.
   - To display all From Options information for that specific From Name, hover the From Name.
   - To display the full folder path for selected audiences, hover over those audiences.
   - Accept the message confirming all information is correctly configured and this email is ready to send.

14. Click Finish.

**Edit an Inline Email Activity**

You cannot edit Send Email activities that were created with classic email editor inside an automation, but you can replace them. After replacing the email send definition, you can edit it within an automation.

**Edit Emails in a Running Automation**

To edit the subject line or content of an email in a running automation in Marketing Cloud Automation Studio, perform one of these tasks to refresh the email send definition and reflect the edits.

SEE ALSO:

- Email Messages
- Select Audience
- Configure Delivery
- Review Send

**Edit an Inline Email Activity**

You cannot edit Send Email activities that were created with classic email editor inside an automation, but you can replace them. After replacing the email send definition, you can edit it within an automation.

Configuring the Send Email activity creates a send definition that can be used in one or more automations. To edit an email send definition that was created with the classic email editor, replace the email send definition.

**Note:** Email send definitions created with classic Email Studio within an automation continue to send as intended. To edit them, replace them using these steps.

1. Hover over the Send Email activity in an automation.
2. Click Replace.
3. Locate the same email by name or external key.
4. Open the Send Email activity and save it. This action updates the email send definition so it is editable.

5. To edit the email after replacing it, hover over the Send Email activity, then click **Edit**. The activity can be edited within an automation’s workflow.

SEE ALSO:
- Email Messages

**Edit Emails in a Running Automation**

To edit the subject line or content of an email in a running automation in Marketing Cloud Automation Studio, perform one of these tasks to refresh the email send definition and reflect the edits.

**Update the Email Send Activity**

1. After editing the email in Email Studio, navigate to the relevant Automation Studio automation and pause the automation. The automation is paused and the activity opens on the Activity Summary tab.

2. Edit the relevant Send Email Activity by selecting **Edit/View**.

3. Click **Select Message**.

4. Select a different email and click **Next**. A message appears asking if you want to replace your current Subject and Preheader with the following Subject and Preheader from your newly selected email.

5. Select **Keep Existing** and click **Back** to return to the list of emails.

6. Select the updated email and click **Next**. A message appears asking if you want to replace your current Subject and Preheader with the following Subject and Preheader from your newly selected email.

7. Select **Replace** and click **Next** until you reach the Activity Summary tab.

8. Confirm that the information is correct and click **Finish**.

9. Save and reactivate the automation.

**Recreate the Email Send Activity**

1. In Automation Studio, recreate the email send activity with the updated email.

2. Select the relevant email activity in the automatic and click **Replace**. The automation is paused.

3. Select the new email activity.

4. Save and reactivate the automation.

**SQL Query Activity**

Retrieve data extension or data view information using Automation Studio’s SQL Query activity, then store it in a data extension.

A query is an activity that retrieves data extension or data view information matching your criteria, then includes that information in a data extension. You use SQL to create the query you use in the query activity. You provide a name, external key, and description to
identify and describe the activity within the application interface and for API calls. A query activity executes your SQL statements for up to 30 minutes. Query activities exceeding this limit display an error status and don’t output results.

Considerations

When you create a query activity, you write the SQL statement that defines the query.

- Write the query against any data extension or the data views provided in the system.
- A Query Activity SQL statement is an isolated statement that can’t take input parameters from other activities or other processes.
- To ensure that queries are executed without blocking from other SQL updates, query activities use SET TRANSACTION ISOLATION LEVEL READ UNCOMMITTED. This syntax is equivalent to WITH (NOLOCK). Using the NOLOCK query hint is unnecessary.
- No more than 20 query activities are permitted in a single automation step.
- You can retrieve up to six months’ data from any table, but this action is rarely necessary and can result in poorly performing queries. Retrieving data for shorter periods results in faster, better performing queries. See the table layout for each data view you can query.

  Note: Some data views allow you to retrieve more than six months’ data. However, queries returning large data sets can take longer to process and can impact system performance. In accounts with data views that exceed ten million rows, write a query to pull data in segments rather than a full six-month period.

- The query activity interface provides a validation tool to check the syntax of your SQL.
- When selecting data extension fields, ensure that the field names match in the source and the target data extensions. The SQL query activity doesn’t raise an error for mismatched field names.
- Queries that include both a join and a SELECT * statement aren’t permitted. Instead, write a statement that specifies each column name, even when there are multiple columns.
- Don’t use open-ended comment designations such as ‘--’ to comment out a line. Instead, use multi-line comments (/**/).
- If your query activity includes a SubscriberKey column, set the data type to Text unless the SubscriberKey is an email address. In that case, set the data type to Email.
- To join data that pertains to sending, join on JobID, ListID, BatchID, and SubscriberID between the tables.
- Click to open so that tracking data displays in Central Standard Time, doesn’t observe Daylight Savings Time, and is rounded to the nearest second.
- Synchronized Data Sources in Contact Builder allows customers to explicitly provide access to direct queries of Enterprise account synchronized data extensions at the business unit level. You can access data sources that are synchronized in the Marketing Cloud Enterprise account using the ENT prefix.

  Note: Users who change the data source sharing setting can share only with business units they can access. If the user doesn’t have access to all business units and saves changes, the business units they don’t have access to no longer have sharing privileges.

- The Premier and Premier Plus Success Plans provides Developer Support to clients. For Marketing Cloud, this plan includes SQL assistance for queries that use a maximum of two joined tables. Support for queries that include more than two joined tables is available to Priority Support customers only. Consider using the Query Studio plug-in for iterative SQL Query development and testing.

If your account is a child account in an Enterprise, you can query shared data extensions in the parent account. First, ensure that the Sharing tab information in Contact Builder is set up. Prefix the data extension name in the query with ENT.

  Note: The child account’s permission restricts access to parent data extensions.
Example: In this example, email is the column name and customers is the data extension in the parent account.

Select email from ent.customers

Use the SQL Query Activity
Retrieve a data extension or data view information and include that information in a data extension. You use SQL to create the query used in this activity.

Data Views
Query data views using Automation Studio for up to six months of Marketing Cloud subscriber and journey information.

SQL Reference
Get SQL query information for Automation Studio’s SQL Query activity at a glance.

Optimize the Query Activity
A poorly running query can be split into component queries that execute cleanly in Automation Studio.

Use Intermediate Tables to Optimize a Query
Split large queries into smaller components to use with Automation Studio’s query activity.

Query: Opens in Last 30 Days
Write a query to find subscribers who opened emails sent from the Marketing Cloud in the previous 30 days.

Query: Find Subscriber Status
Write a query using Automation Studio’s query activity to retrieve subscribers’ statuses.

Query: Find Subscribers in a Publication or Suppression List
Write a query using Automation Studio’s query activity to find subscribers who have been placed on a Publication or Suppression List.

Query: Find Subscribers by Date or Time Frame
Write a query using Automation Studio’s query activity to find subscribers according to the date or time frame.

Query: Find Subscribers with No Opens or Clicks
Write a query using Automation Studio’s query activity to find subscribers who have no opened or clicked within a Marketing Cloud email.

Query: Find Top Bounces for a Job
Write a query using Automation Studio’s query activity to find the top bounces by percentage.

Query: Journey Builder Bounced Email Messages
Create a list of contacts to send a direct mailer to based on bounced email messages from Journey Builder.

Query: Journey Builder Sends by Email Across Versions
Create an aggregate of Journey Builder Email Sends across multiple versions of the same journey.

Query: Journey Builder Sends in Last 24 Hours
Find subscribers who were sent an email from a specified journey in Journey Builder within the last 24 hours.

Restart a Suspended SQL Query Activity
When a SQL Query activity fails repeatedly, each run of the activity taxes system resources. Overtaxing the system can negatively impact your automated processes. To safeguard system resources, Automation Studio suspends an SQL Query activity when it fails 24 consecutive times.
Use the SQL Query Activity

Retrieve a data extension or data view information and include that information in a data extension. You use SQL to create the query used in this activity.

Use this activity to retrieve a data extension or data view information that matches your criteria and include that information in a data extension. The query must provide name, external key, and description to identify and describe the activity.

**Note:** No more than 20 query activities are permitted in a single automation step.

1. Click Activities.
2. Click Create Activity.
3. Select SQL Query.
4. Add query properties like name, external key, and description.
5. Add an SQL query.
   - To see data extensions in your account that you can query against, click a folder.
   - To include all its fields, drag an entire data extension into the query, or double-click the data extension. Each column in the data extension is added.
   - To include a single field, drag or double-click the field.
   - Type or paste query syntax.

**Note:** Field names added by double-clicking appear at the cursor location within the query syntax.

**Note:** Dragging or double-clicking a column or an entire data extension automatically places a comma after the final column name. Remove this comma before validating syntax.

**Important:** The SQL Query activity does not detect a data extension column’s path by default. Navigating to or designating the explicit path is necessary. For example, an account includes a SubscriberKey column in two separate data extensions. Creating a query with the statement `Select * where SubscriberKey is not null` could return results from the first data extension when results from the second data extension were expected. For this reason, first click or navigate to the data extension that contains the column you seek. Then add the desired column, ensuring that the correct column’s value is included in results.

6. To test the query, click Validate Syntax.

**Note:** Queries that include both a join and a `Select *` statement are not permitted. Instead, write a statement that specifies each column name, even when there are multiple columns.

7. Choose the target data extension that stores the query results.

**Note:** Do not use a data extension included in the query as the target data extension.
8. Choose the data action the query activity performs.

<table>
<thead>
<tr>
<th>Data Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Append</td>
<td>Adds a row in the target for each row returned by the SQL query. Rows that exist in the target are not updated.</td>
</tr>
<tr>
<td>Update</td>
<td>Updates values in the target where field name matches field returned by SQL Query for rows whose Primary Key the SQL query returns. Rows returned by SQL Query whose Primary Key does not exist in the target are appended.</td>
</tr>
<tr>
<td>Overwrite</td>
<td>Removes all existing rows in the target and adds new rows from the result of SQL Query.</td>
</tr>
</tbody>
</table>

9. Save the activity.

10. Then start or run an activity from the Activities page or include it in an automation.

Query output is stored in the data extension you designate. View the results of each query’s run in the activity’s Action Log.

Data Views

Query data views using Automation Studio for up to six months of Marketing Cloud subscriber and journey information.

When you create an SQL Query activity, you write the SQL statement that defines the query. You can write the query against a data extension or the data views provided in the system. Click and open tracking data displays in Central Standard Time, does not observe Daylight Savings Time, and is rounded to the nearest second.
Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Note: If **Add subscribers to this list** is not selected for a triggered send, some data is not available at the enterprise level. Enterprise-level data views don’t include sends, opens, clicks, unsubscribes, Forward To A Friend data, and bounces. You can find this data by querying data views in the sender’s Marketing Cloud account.

Note: Some data views allow you to retrieve more than six months’ data. However, queries returning large data sets can take longer to process and can impact system performance.

**Data View: Bounce**
To view bounce data for emails from your Marketing Cloud account, query the _bounce data view in Automation Studio.

**Data View: BusinessUnitUnsubscribes**
To find subscribers in your account and their child business unit unsubscribe data, use the _BusinessUnitUnsubscribes data view in Marketing Cloud Automation Studio. You can only run the data view on the parent account only and not on child business units.

**Data View: Click**
Query this data view in Automation Studio to view click data for emails from your Marketing Cloud account.

**Data View: Complaint**
Query this data view in Automation Studio to view complaints data related to emails from your Marketing Cloud account.

**Data View: Coupon**
View data regarding coupons used in your Marketing Cloud account by querying the _Coupon data view in Automation Studio.

**Data View: EnterpriseAttribute**
Query this data view in Automation Studio to view subscribers in your Enterprise Marketing Cloud account and their profile attributes.

**Data View: FTAF**
Query this data view in Automation Studio to view behavioral information related to email messages from your Marketing Cloud account that were forwarded to friends.

**Data View: GroupConnect Contact Subscriptions**
To view active LINE followers and users who have blocked your brand, you can query GroupConnect data view in Automation Studio. With Contact Subscriptions, customers can view their current subscribers each day.

**Data View: GroupConnect MobileLineOrphanContactView**
If an import has multiple ContactKeys for the same LINE Address ID in GroupConnect Contact Import, the system keeps one ContactKey. The remaining ContactKeys are orphaned. To view orphaned contacts, you can query the MobileLineOrphanContactView data view in Automation Studio.

**Data View: Job**
Query this data view in Automation Studio to find data on Marketing Cloud email send jobs.

**Data View: Journey**
Find a journey’s status, created and last modified date, and other general journey information using this Journey Builder data view.

**Data View: Journey Activity**
Use this data view to join to the email tracking system data views. Also use it to identify the Triggered Send Definition associated to an email activity in a Marketing Cloud journey and more.

**Data View: ListSubscribers**
Query this data view in Automation Studio to find subscribers on lists in your Marketing Cloud account. This view includes subscribers found on the Triggered Send Managed List.
Data View: Open
Query this data view in Automation Studio to find email opens for your Marketing Cloud account.

Data View: Sent
Query this data view in Automation Studio to find the subscribers sent emails from your Marketing Cloud account.

Data View: SMSMessageTracking
Query this data view in Automation Studio to find message tracking information from Marketing Cloud MobileConnect SMS sends. This data view allows customers to view their send and receive history. Information from this query relates to the owner of a private short code or long code. Query information can also relate to a client using a shared short code to which the subscriber has opted in.

Data View: Social Network Impressions
Query this data view in Automation Studio to find data on content shared from your Marketing Cloud sends via Social Forward.

Data View: Social Network Tracking
Query this data view in Automation Studio to find tracking data on content shared from your Marketing Cloud sends via Social Forward.

Data View: Subscribers
Query this data view in Automation Studio to find subscribers in your Marketing Cloud account and their statuses.

Data View: SMSSubscriptionLog
Query this data view in Automation Studio to find subscription log information from Marketing Cloud MobileConnect SMS sends. For example, view a history of all mobile numbers subscribed to a keyword.

Data View: SurveyResponse
Query this data view in Automation Studio to find responses to surveys sent from your Marketing Cloud account.

Data View: Undeliverable SMS
Query this data view in Automation Studio to find failed message deliveries to Marketing Cloud MobileConnect subscribers.

Data View: Unsubscribe
Query this data view in Automation Studio to find unsubscribes from email lists in your Marketing Cloud account.

Data View: Bounce
To view bounce data for emails from your Marketing Cloud account, query the _bounce data view in Automation Studio.

View bounce data for emails from your account by querying the _bounce data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Note: Data returned for some fields exceeds their character limit. When querying nvarchar fields, use left() function to limit the number of characters to fit the field length in the target data extension.

Example: left(smtpbouncereason, 4000) left(smtpbouncereason, 4000)
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber. This serves as the primary key.</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>The date the bounce took place</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>IsUnique</td>
<td>Whether the event is unique or repeated</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the bounce occurred</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>BounceCategoryID</td>
<td>The ID number for the bounce category</td>
<td>smallint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BounceCategory</td>
<td>The category of the bounce</td>
<td>nvarchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>BounceSubcategoryID</td>
<td>The ID number for the bounce subcategory</td>
<td>smallint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>BounceSubcategory</td>
<td>The subcategory of the bounce</td>
<td>nvarchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>BounceTypeID</td>
<td>The ID number for the bounce type</td>
<td>smallint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BounceType</td>
<td>The type of bounce that occurred</td>
<td>nvarchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SMTPBounceReason</td>
<td>The reason for the bounce relayed by the mail system</td>
<td>nvarchar(max)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SMTPMessage</td>
<td>The message regarding the bounce from the mail system</td>
<td>nvarchar(max)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SMTPCode</td>
<td>The error code for the bounce from the mail system</td>
<td>smallint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>TriggererSendDefinitionObjectID</td>
<td>The object ID for the triggered send definition</td>
<td>varchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>
### Data View: BusinessUnitUnsubscribes

To find subscribers in your account and their child business unit unsubscribe data, use the `_BusinessUnitUnsubscribes` data view in Marketing Cloud Automation Studio. You can only run the data view on the parent account only and not on child business units.

Marketing Cloud stores the dates and times in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

**Columns**

SubscriberID and SubscriberKey columns are indexed.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>BusinessUnitID</td>
<td>The Account ID for the Business Unit (BU).</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>A potential alternate identifier for subscribers. Defaults to the value of Email Address.</td>
<td>varchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>UnsubDateUTC</td>
<td>The date the subscriber unsubscribed from messages sent by BU.</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>UnsubReason</td>
<td>The reason listed is a custom value configured by your administrator.</td>
<td>varchar(100)</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>

### Data View: Click

Query this data view in Automation Studio to view click data for emails from your Marketing Cloud account.

View clicks for links in emails sent from your account by querying the `_Click` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.
**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>The account ID number of the Marketing Cloud account.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your- Behalf (OYB) accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>The date the click took place</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the click occurred</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>URL</td>
<td>The URL for the link clicked. No AMPscript or variables are populated in this column, for example, <code>www.example.com?%%attribute%%</code></td>
<td>varchar(900)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>LinkName</td>
<td>The link name assigned in the email send</td>
<td>varchar(1024)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>LinkContent</td>
<td>The link content assigned in the email send. AMPscript and variables are populated in this column, such as <code>www.example.com?12345</code></td>
<td>varchar(max)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IsUnique</td>
<td>Whether the event is unique or repeated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The `IsUnique` value is true when any link is first clicked in a `JobID` by a subscriber. Any clicks afterwards are false even if different URLs.
### Data View: Complaint

Query this data view in Automation Studio to view complaints data related to emails from your Marketing Cloud account.

View data regarding spam complaints from subscribers about email sends from your account by querying the `_Complaint` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

- **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf (OYB) accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
</tbody>
</table>

### Columns

**SEE ALSO:**

- [External Link: Add Subscribers to an On-Your-Behalf Account](#)
- [Time Zone User Preferences](#)
### Data View: Coupon

View data regarding coupons used in your Marketing Cloud account by querying the `_Coupon` data view in Automation Studio.

**Note:** To use this data view, you must use live content in Content Builder Block SDK. Learn more in the Trailhead Module: Content Builder Block SDK.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
</tr>
<tr>
<td>EventDate</td>
<td>The date the complaint took place</td>
<td>datetime</td>
<td>Date</td>
</tr>
<tr>
<td>IsUnique</td>
<td>Whether the event is unique or repeated</td>
<td>bit</td>
<td>Boolean</td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the complaint occurred</td>
<td>varchar(128)</td>
<td>Text</td>
</tr>
</tbody>
</table>

### Data View: EnterpriseAttribute

Query this data view in Automation Studio to view subscribers in your Enterprise Marketing Cloud account and their profile attributes.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of your coupon</td>
<td>nvarchar(128)</td>
<td>Text</td>
</tr>
<tr>
<td>ExternalKey</td>
<td>The external key used to refer to your coupon via the API</td>
<td>nvarchar(36)</td>
<td>Text</td>
</tr>
<tr>
<td>Description</td>
<td>Description of your coupon</td>
<td>varchar</td>
<td>Text</td>
</tr>
<tr>
<td>BeginDate</td>
<td>The date the coupon becomes valid</td>
<td>datetime</td>
<td>Date</td>
</tr>
<tr>
<td>ExpirationDate</td>
<td>The date the coupon becomes invalid</td>
<td>datetime</td>
<td>Date</td>
</tr>
</tbody>
</table>
View subscribers in your Enterprise account and their profile attributes by querying the _EnterpriseAttribute data view.

Note: This data view is for Enterprise 2.0 clients only. When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Note: This data view is only available in the Parent account and cannot be used in a business unit.

Columns
The _subscriberID field is an indexed field.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>_subscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record stored.</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
</tbody>
</table>

Data View: FTAF
Query this data view in Automation Studio to view behavioral information related to email messages from your Marketing Cloud account that were forwarded to friends.

View behavioral information related to email messages from your account that were forwarded to friends (FTAF) by querying the _FTAF data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf accounts and applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>DataType</td>
<td>Data Extension Data Type</td>
<td>Nullable</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>TransactionTime</td>
<td>The date the forward took place</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the forward occurred</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>IsUnique</td>
<td>Whether the event is unique or repeated</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>TriggererSendDefinitionObjectID</td>
<td>The object ID for the triggered send definition</td>
<td>uniqueidentifier</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>TriggeredSendCustomerKey</td>
<td>The customer key for the triggered send</td>
<td>varchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>

**SEE ALSO:**
- Time Zone User Preferences
- Forward to a Friend

**Data View: GroupConnect Contact Subscriptions**

To view active LINE followers and users who have blocked your brand, you can query GroupConnect data view in Automation Studio. With Contact Subscriptions, customers can view their current subscribers each day.

**Prerequisites:** Enable the business rule SYSTEM_DATA_VIEWS on your account and set it to 1. Your account is checked upon load of the GroupConnect app, and if it doesn’t exist, it’s created. To access this view for the first time, a user or admin within the Business Unit must navigate to the GroupConnect channel app. This step triggers the creation of the view.

Follow these steps to view LINE follower information.

1. In Contact Builder, create a data extension with the fields in the data view and add a column of NowDate with type Date.
2. In Automation Studio, create an automation and add a SQL query.
3. Within the SQL Query activity, query the _MobileLineAddressContactSubscriptionView data view and select the target data extension you created in the first step. **Example:** `Select convert(varchar, getDate(), 20) as NowDate,* from _MobileLineAddressContactSubscriptionView`.

**Tip:** All times listed are Central Standard Time.

**Tip:** To track LINE followers who have blocked your channel, compare daily lists to look for users who are no longer listed.
Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChannelID</td>
<td>Channel ID of LINE account</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>ContactID</td>
<td>Marketing Cloud ContactId (system generated) linked to LINE UID</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ContactKey</td>
<td>Marketing Cloud contact key (system generated) linked to LINE UID</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>AddressID</td>
<td>LINE UID</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>IsActive</td>
<td>Active flag: (1 = true, 0 = false)</td>
<td>bit</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>CreatedDate</td>
<td>Date and time record created (CST). Date the customer started following LINE account.</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>ModifiedDate</td>
<td>Date and time record modified (CST)</td>
<td>datatype</td>
<td>Date</td>
<td>X</td>
</tr>
</tbody>
</table>

Data View: GroupConnect MobileLineOrphanContactView

If an import has multiple ContactKeys for the same LINE Address ID in GroupConnect Contact Import, the system keeps one ContactKey. The remaining ContactKeys are orphaned. To view orphaned contacts, you can query the MobileLineOrphanContactView data view in Automation Studio.

1. In Contact Builder, create a data extension with the fields in the data view and add a column of NowDate with type Date.
2. In Automation Studio, create an automation and add a SQL query.
3. Within the SQL Query activity, query the _MobileLineOrphanContactView data view and select the target data extension you created in the first step. Example: Select convert(varchar, getDate(), 20) as NowDate, * from _MobileLineOrphanContactView.

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ContactID</td>
<td>Marketing Cloud ContactId (system generated) linked to LINE UID</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ContactKey</td>
<td>ContactKey is either system-generated or provided by user during import. Linked to LINE UID</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>AddressID</td>
<td>LINE UID</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
</tbody>
</table>
### Data View: Job

Query this data view in Automation Studio to find data on Marketing Cloud email send jobs.

View email send jobs from your account by querying the _Job data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

- **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

- **Note:** The Job data view provides results for all email send jobs in the Enterprise. The data view doesn’t categorize the results by send method.

JobID is an indexed field.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CreatedDate</td>
<td>Date and time record created (CST). Date the customer started following LINE account.</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

#### JobID

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>EmailID</td>
<td>The email ID for the job</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>AccountID</td>
<td>The ID number for the account that performed the job</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>AccountUserID</td>
<td>The ID number for the account user that performed the job</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>FromName</td>
<td>The from name in the email send</td>
<td>nvarchar(130)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>FromEmail</td>
<td>The from email address in the email send</td>
<td>varchar(100)</td>
<td>Email</td>
<td>X</td>
</tr>
<tr>
<td>SchedTime</td>
<td>The time the job was scheduled</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>PickupTime</td>
<td>The time the Marketing Cloud application started the job</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>DeliveredTime</td>
<td>The time the email was delivered</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>EventID</td>
<td>The ID for the job event</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IsMultipart</td>
<td>Whether the job was sent as multipart MIME or not</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>DataType</td>
<td>Data Extension Data Type</td>
<td>Nullable</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------</td>
<td>----------------</td>
<td>--------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>JobType</td>
<td>The type of job</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>JobStatus</td>
<td>The status of the job</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ModifiedBy</td>
<td>If modified, the user who modified the job</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>ModifiedDate</td>
<td>The date the job was modified</td>
<td>datetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>EmailName</td>
<td>The name of the email sent by the job</td>
<td>char(100)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>EmailSubject</td>
<td>The subject of the email send</td>
<td>nchar(200)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IsWrapped</td>
<td>Whether the links in the email were wrapped for tracking</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>TestEmailAddr</td>
<td>The test email address used in the job</td>
<td>varchar(128)</td>
<td>Email</td>
<td>X</td>
</tr>
<tr>
<td>Category</td>
<td>The job category</td>
<td>varchar(100)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>BccEmail</td>
<td>Any email address send in the BCC field</td>
<td>varchar(100)</td>
<td>Email</td>
<td>X</td>
</tr>
<tr>
<td>OriginalSchedTime</td>
<td>The original scheduled time for the job</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>CreatedDate</td>
<td>The date the job was created</td>
<td>smalldatetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>CharacterSet</td>
<td>The character set used in the job</td>
<td>varchar(30)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IPAddress</td>
<td>This value is always null.</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SalesForceTotalSubscriberCount</td>
<td>The total number of Salesforce subscribers included in the job</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SalesForceErrorSubscriberCount</td>
<td>The total number of Salesforce subscribers included in the job that received errors</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SendType</td>
<td>The type of send used in the job</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>DynamicEmailSubject</td>
<td>The dynamic email subject included in the job</td>
<td>ntext</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SuppressTracking</td>
<td>If tracking information for this job was suppressed</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>SendClassificationType</td>
<td>The send classification type for the job</td>
<td>nvarchar(32)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SendClassification</td>
<td>The send classification for the job</td>
<td>nvarchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ResolveLinksWithCurrentData</td>
<td>If the job resolved links with current data</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>EmailSendDefinition</td>
<td>The email send definition used in the job</td>
<td>nvarchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>DeduplicateByEmail</td>
<td>Whether the email addresses in the job are used to deduplicate subscribers</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
</tbody>
</table>
### Data View: Journey

Find a journey’s status, created and last modified date, and other general journey information using this Journey Builder data view. View data about your Journey Builder journeys using the `__Journey System Data View`.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `__EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>VersionID</td>
<td>The unique identifier for the version of the journey</td>
<td>uniqueidentifier(36)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>JourneyID</td>
<td>The unique identifier for the journey. There are one or more VersionID’s associated to a JourneyID.</td>
<td>uniqueidentifier(36)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>JourneyName</td>
<td>The name of the journey</td>
<td>nvarchar(200)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>VersionNumber</td>
<td>The version number of the version of the journey</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>CreatedDate</td>
<td>The date that the version of the journey was created</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>LastPublishedDate</td>
<td>The date that the version of the journey was last published</td>
<td>datetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>ModifiedDate</td>
<td>The date that the version of the journey was last edited</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>
### Data View: Journey Activity

Use this data view to join to the email tracking system data views. Also use it to identify the Triggered Send Definition associated to an email activity in a Marketing Cloud journey and more.

View data about activities included in your Journey Builder journeys using the _JourneyActivity data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

#### Note:
- JourneyActivityObjectID corresponds to TriggererSendDefinitionObjectID in the _Sent, _Open, _Click, and _Bounce, data views.
- When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JourneyStatus</td>
<td>The current running mode of the journey. Possible values are Draft, Running, Finishing, and Stopped.</td>
<td>nvarchar(100)</td>
<td>Text</td>
</tr>
<tr>
<td>VersionID</td>
<td>The unique identifier for the version of the journey</td>
<td>uniqueidentifier(36)</td>
<td>Text</td>
</tr>
<tr>
<td>ActivityID</td>
<td>The unique identifier for the activity. There are one or more ActivityID’s associated to a VersionID.</td>
<td>uniqueidentifier(36)</td>
<td>Text</td>
</tr>
<tr>
<td>ActivityName</td>
<td>The name of the activity</td>
<td>nvarchar(200)</td>
<td>Text</td>
</tr>
<tr>
<td>ActivityExternalKey</td>
<td>The external key associated with the activity</td>
<td>nvarchar(200)</td>
<td>Text</td>
</tr>
<tr>
<td>JourneyActivityObjectID</td>
<td>Use this unique identifier to join to email tracking system data views to identify a journey email’s Triggered Send Definition.</td>
<td>uniqueidentifier(36)</td>
<td>Text</td>
</tr>
</tbody>
</table>
### Data View: ListSubscribers

Query this data view in Automation Studio to find subscribers on lists in your Marketing Cloud account. This view includes subscribers found on the Triggered Send Managed List.

View subscribers on lists in your account by querying the _ListSubscribers data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

ListID and SubscriberID are indexed fields.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddedBy</td>
<td>The ID of the user who ran the process that added the subscriber</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>AddMethod</td>
<td>The method by which the subscriber was added, including Unspecified, Webcollect, API, FTAF, Import, Move Copy, Application, Salesforce, Segmentation, Generic Extension, and Custom Object</td>
<td>varchar(17)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>CreatedDate</td>
<td>The date the subscriber was added to the list</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>DateUnsubscribed</td>
<td>The date the subscriber unsubscribed</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>The subscriber’s email address</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>ListName</td>
<td>The name of the list containing the subscribers</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>
### ListType
Shows whether the type is list or group
- Publication list
- Suppression list
- List
- Group
- FTAF list
- Unknown

### Status
The status of the subscriber

### SubscriberID
The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.

### SubscriberKey
The subscriber key for the affected subscriber

### SubscriberType
The type of subscriber

---

**SEE ALSO:**
- [Time Zone User Preferences](#)

**Data View: Open**
Query this data view in Automation Studio to find email opens for your Marketing Cloud account.

View email opens for your account by querying the _Open data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

---

### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension DataType</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ListType</td>
<td>Shows whether the type is list or group</td>
<td>varchar(16)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>The status of the subscriber</td>
<td>varchar(12)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberType</td>
<td>The type of subscriber</td>
<td>varchar(100)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
</tbody>
</table>
### Data View: Sent

Query this data view in Automation Studio to find the subscribers sent emails from your Marketing Cloud account.

View subscribers who were sent emails from your account by querying the _Sent data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.
Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>The date the send took place</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the send occurred</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>TriggererSendDefinitionObjectID</td>
<td>The object ID for the triggered send definition</td>
<td>varchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>TriggeredSendCustomerKey</td>
<td>The customer key for the triggered send</td>
<td>varchar(36)</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>

SEE ALSO:

Time Zone User Preferences

Data View: SMSMessageTracking

Query this data view in Automation Studio to find message tracking information from Marketing Cloud MobileConnect SMS sends. This data view allows customers to view their send and receive history. Information from this query relates to the owner of a private short code or long code. Query information can also relate to a client using a shared short code to which the subscriber has opted in.

View message tracking information about MobileConnect SMS sends in your business unit by querying the _smsmessagetracking data view.

Tip: Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.
Identify the name of the SMS message that you want to check on the MobileConnect Overview page.

1. To retrieve the MessageID, click the message name.
2. On the message Overview page, note the URL:
3. Copy the Base64 encoded text.
4. Use an online Base64 decoder to decode the Base64 encoded text.
5. The result appears in this format: 65:78:0 S. Based on this result, the MessageID for this message is 65.

**Example:** Sample URL: https://mc.s10.exacttarget.com/cloud/#app/MobileConnect/Mobile/%23!/message/view/NjU6Nzg6MA
Sample Base64 encoded text: NjU6Nzg6MA

**Note:** There are some cases where MobileConnect has no subscriber ID. For example, if a net new number texts STOP, a contact isn’t created, but a record is logged.

**Note:** For shared codes, the delivery statuses shown in this data view only confirms delivery to the aggregator via the status code of 2000. The shared codes delivery receipts are returned to the Marketing Cloud account that owns the code.

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MobileMessageTrackingID</td>
<td>Unique ID for tracking information related to the sent message</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Eid</td>
<td>Enterprise ID number for the sender</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>MID</td>
<td>Member ID</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>Mobile</td>
<td>Mobile number for the subscriber</td>
<td>varchar(15)</td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>MessageID</td>
<td>Mobile message ID</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>KeywordID</td>
<td>Unique identifier for the keyword</td>
<td>unique identifier</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>CodeID</td>
<td>Unique identifier for the SMS code</td>
<td>unique identifier</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ConversationID</td>
<td>Unique identifier for the SMS conversation</td>
<td>unique identifier</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>CampaignID</td>
<td>The SMS campaign tied to the record</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>Sent</td>
<td>If the message was sent (1 = true, 0 = false)</td>
<td>tinyint</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>Delivered</td>
<td>If the message was delivered (1 = true, 0 = false)</td>
<td>Boolean</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Data Type</td>
<td>Data Extension</td>
<td>Nullable</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>----------------</td>
<td>----------</td>
</tr>
<tr>
<td>Undelivered</td>
<td>Whether the message was delivered successfully or not (1 = true, 0 = false)</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>Unsub</td>
<td>If the subscriber unsubscribed (1 = true, 0 = false)</td>
<td>tinyint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>OptIn</td>
<td>Whether the subscriber has opted in to SMS messages (1 = true, 0 = false)</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>OptOut</td>
<td>Whether the subscriber has opted out of SMS messages (1 = true, 0 = false)</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>Outbound</td>
<td>If the message was outgoing (1 = true, 0 = false)</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>Inbound</td>
<td>If the message was incoming (1 = true, 0 = false)</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>CreateDateTime</td>
<td>The date and time the tracking record was created</td>
<td>smalldatetime</td>
<td>Date and time</td>
<td></td>
</tr>
<tr>
<td>ModifiedDateTime</td>
<td>The date and CST time the tracking record was modified</td>
<td>smalldatetime</td>
<td>Date and time</td>
<td></td>
</tr>
<tr>
<td>ActionDateTime</td>
<td>The actual date/time a deliver or non-delivery event was received by the Marketing Cloud.</td>
<td>smalldatetime</td>
<td>Date and Time</td>
<td></td>
</tr>
<tr>
<td>Note: Timestamps for delivery receipts aren’t indicative of when a message was received on a handset. The SMS industry doesn’t support read receipts, and the data returned in this view are based off of when a delivery receipt is returned to our system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MessageText</td>
<td>The text of the message</td>
<td>nvarchar(160)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IsTest</td>
<td>If the message was a test message</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>MobileMessageRecurrenceID</td>
<td>The ID of the recurrence schedule for the message. Can be used for troubleshooting send issues.</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>ResponseToMobileMessageTrackingID</td>
<td>The tracking ID of the response to the message</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>IsValid</td>
<td>If the message is valid</td>
<td>bit</td>
<td>Boolean</td>
<td>X</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Data Type</td>
<td>Data Extension Data Type</td>
<td>Nullable</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>InvalidationCode</td>
<td>Invalidation code for the message</td>
<td>smallint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendID</td>
<td>The send ID number for the SMS send</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendSplitID</td>
<td>If the message was split, the ID of the split</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendSegmentID</td>
<td>The ID of the segment tied to the message</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendJobID</td>
<td>The job ID for the SMS send</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendGroupID</td>
<td>The group ID for the SMS send</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SendPersonID</td>
<td>The sendperson ID for the SMS send</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record</td>
<td>bigint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SMSStandardStatusCodeID</td>
<td>SFMC delivery status code</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>Description</td>
<td>Detailed description of the status code</td>
<td>nvarchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>Name</td>
<td>The name of your message</td>
<td>nvarchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ShortCode</td>
<td>The short code or long code used to send your message</td>
<td>nvarchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>SharedKeyword</td>
<td>The keyword used in your message</td>
<td>nvarchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>Ordinal</td>
<td>Represents the parts in a multi-part message. Represented in ascending order starting at 0.</td>
<td>tinyint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>FromName</td>
<td>From Name that an individual message was deployed with. Maximum length: 11 characters</td>
<td>nvarchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>JBAcivityID</td>
<td>Unique identifier for the journey activity the message was deployed from</td>
<td>unique identifier</td>
<td>Text</td>
<td>X</td>
</tr>
</tbody>
</table>
### Data View: Social Network Impressions

Query this data view in Automation Studio to find data on content shared from your Marketing Cloud sends via Social Forward. View impression data on content shared from your sends via Social Forward by querying the _SocialNetworkImpressions data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
<th>Data Extension Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>RegionTitle</td>
<td>The title of the region shared via Social Forward</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>RegionDescription</td>
<td>The description of the region shared via Social Forward</td>
<td>varchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>RegionHTML</td>
<td>The HTML associated with the social forward region</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>ContentRegionID</td>
<td>The ID of the shared content region</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SocialSharingSiteID</td>
<td>The ID of the social network involved in the sharing of the content region</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Data Type</td>
<td>Data Extension Type</td>
<td>Nullable</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>----------</td>
</tr>
<tr>
<td>SiteName</td>
<td>The name of the social network involved in the sharing of the content region</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>CountryCode</td>
<td>The country code for the social network involved in the sharing of the content region</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>ReferringURL</td>
<td>The referring URL used in the Social Forward activity</td>
<td>varchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>IPAddress</td>
<td>The IP address for the URL from which the content region was shared.</td>
<td>varchar(50)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>TransactionTime</td>
<td>The time at which the content area was shared</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>PublishedSocialContentStatusID</td>
<td>The status ID for the published social content</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>ShortCode</td>
<td>The short code for the published social content status, which is Active, Inactive, or Deleted</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>PublishTime</td>
<td>The time the social content area was published</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

SEE ALSO:
- Time Zone User Preferences
- Social Forward

Data View: Social Network Tracking

Query this data view in Automation Studio to find tracking data on content shared from your Marketing Cloud sends via Social Forward. View tracking data on content shared from your sends via Social Forward by querying the _SocialNetworkTracking view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
<th>Data Extension Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Email</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SocialSharingSiteID</td>
<td>The ID of the social network used to share the content region</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SiteName</td>
<td>The name of the social network involved in the sharing of the content region</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>CountryCode</td>
<td>The country code for the social network involved in the sharing of the content region</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>PublishedSocialContentID</td>
<td>The ID number for the content area published via Social Forward</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>RegionTitle</td>
<td>The title of the region shared via Social Forward</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>RegionDescription</td>
<td>The description of the region shared via Social Forward</td>
<td>varchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>RegionHTML</td>
<td>The HTML associated with the social forward region</td>
<td>varchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>ContentRegionID</td>
<td>The ID of the shared content region</td>
<td>varchar</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>OYBMemberID</td>
<td>The ID number for any On-Your Behalf (OYB) account involved in the</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
</tbody>
</table>
### Name

<table>
<thead>
<tr>
<th>Description</th>
<th>Data Type</th>
<th>Data Extension Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>sharing of the content area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TransactionTime</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>IsUnique</td>
<td>bit</td>
<td>Boolean</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>PublishedSocialContentStatusID</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>ShortCode</td>
<td>varchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>PublishTime</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

### SEE ALSO:
- Time Zone User Preferences
- Social Forward

### Data View: Subscribers

Query this data view in Automation Studio to find subscribers in your Marketing Cloud account and their statuses.

View email subscribers in your account and their statuses by querying the _Subscribers data view. Subscriber attributes aren’t available. This data view only returns results at the Enterprise level, and not for business units.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

### Columns

The SubscriberID, EmailAddress, and SubscriberKey columns are indexed.
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>DateUndeliverable</td>
<td>The date an email for the subscriber was returned as undeliverable</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>DateJoined</td>
<td>The date the subscriber joined your list</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>DateUnsubscribed</td>
<td>The date the subscriber unsubscribed from your list</td>
<td>smalldatetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>Domain</td>
<td>The domain of the subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>The subscriber's email address</td>
<td>nvarchar(254)</td>
<td>Email</td>
<td></td>
</tr>
<tr>
<td>BounceCount</td>
<td>The total number of bounces accrued by the subscriber</td>
<td>smallint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>A potential alternate identifier for subscribers. Defaults to the value of Email Address.</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>SubscriberType</td>
<td>The subscriber type for the affected subscriber</td>
<td>varchar(100)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 0 = ExactTarget (Marketing Cloud), Salesforce Lead, Salesforce Contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 3 = Unknown External System (Triggered Send Hidden Manage List)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 4 = MS CRM Contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 5 = MS CRM Lead</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 6 = MS CRM Account</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>The status of the subscriber: active, held, unsubscribed, or bounced.</td>
<td>varchar(12)</td>
<td>Text</td>
<td>X</td>
</tr>
<tr>
<td>Locale</td>
<td>The locale code for the subscriber</td>
<td>int</td>
<td>Locale</td>
<td>X</td>
</tr>
</tbody>
</table>

SEE ALSO:

Time Zone User Preferences

Data View: SMSSubscriptionLog

Query this data view in Automation Studio to find subscription log information from Marketing Cloud MobileConnect SMS sends. For example, view a history of all mobile numbers subscribed to a keyword.
View subscription log information about SMS sends in MobileConnect by querying the _SMSSubscriptionLog data view. Information from this query relates to the owner of a private short code or long code or a client using a shared short code to which the subscriber has opted in. This data view shows more than 6 months of data.

**Tip:** Dates and times are stored in Central Standard Time. Daylight Savings Time isn’t observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Code and keyword values are currently represented as a static GUID.

There are some cases where MobileConnect won’t have a subscriber ID. For example, if a net new number texts STOP, a contact isn’t created, but a record is logged.

### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LogDate</td>
<td>The date the subscription is logged</td>
<td>datetime</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>MobileSubscriptionID</td>
<td>The unique ID of the subscription record</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriptionDefinitionID</td>
<td>The unique keyword ID</td>
<td>unique identifier</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>MobileNumber</td>
<td>Mobile number for the subscriber</td>
<td>nvarchar</td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>OptOutStatusID</td>
<td>Whether the subscriber has opted out of SMS messages. See key for values.</td>
<td>tinyint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>OptOutMethodID</td>
<td>Method the subscriber used to opt out of SMS messages. See key for values.</td>
<td>tinyint</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>OptOutDate</td>
<td>Date the subscriber opted out of SMS messages</td>
<td>date</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>OptInStatusID</td>
<td>Whether the subscriber has opted in to SMS message. See key for values.</td>
<td>tinyint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OptInMethodID</td>
<td>Method the subscriber used to opt in to SMS messages. See key for values.</td>
<td>bit</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>OptInDate</td>
<td>Date the subscriber opted in to SMS messages</td>
<td>date</td>
<td>Date</td>
<td>X</td>
</tr>
<tr>
<td>Source</td>
<td>The subscription source</td>
<td>tinyint</td>
<td>Number</td>
<td>X</td>
</tr>
</tbody>
</table>
### Name | Description | DataType | Data Extension Data Type | Nullable
--- | --- | --- | --- | ---
CreatedDate | Date the message was created | date | Date | Date
ModifiedDate | Date the message was modified | date | Date | Date

**Note:** The SubscriberKey field is populated if the MobileNumber matches a record in the All Contacts List in Contact Builder.

**OptOutStatusID Key**

NotOptedOut = 0  
OptedOut = 1  
DeletingNotOptedOut = 10  
DeletingOptedOut = 11

**OptOutMethodID Key**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unspecified</td>
</tr>
<tr>
<td>1</td>
<td>WebCollect</td>
</tr>
<tr>
<td>2</td>
<td>API</td>
</tr>
<tr>
<td>3</td>
<td>FTAF</td>
</tr>
<tr>
<td>4</td>
<td>Import</td>
</tr>
<tr>
<td>5</td>
<td>MoveCopy</td>
</tr>
<tr>
<td>6</td>
<td>Application</td>
</tr>
<tr>
<td>7</td>
<td>Salesforce</td>
</tr>
<tr>
<td>8</td>
<td>Segmentation</td>
</tr>
<tr>
<td>9</td>
<td>GenericExtension</td>
</tr>
<tr>
<td>10</td>
<td>CustomObject</td>
</tr>
<tr>
<td>11</td>
<td>RMM</td>
</tr>
<tr>
<td>13</td>
<td>ServiceFeedback</td>
</tr>
<tr>
<td>14</td>
<td>MobileOriginated (CustomStopKeyword)</td>
</tr>
<tr>
<td>15</td>
<td>ContactsSuppression</td>
</tr>
<tr>
<td>18</td>
<td>ContactsSuppression (GlobalStopKeyword)</td>
</tr>
</tbody>
</table>

**OptInStatusID Key**

NotOptedIn = 0  
OptInPending = 1  
OptedIn = 2
DeletingNotOptedIn = 10
DeletingOptInPending = 11
DeletingOptedIn = 12

**OptInMethodID Key**

0 = Unspecified
1 = WebCollect
2 = API
3 = FTAF
4 = Import
5 = MoveCopy
6 = Application
7 = Salesforce
8 = Segmentation
9 = GenericExtension
10 = CustomObject
11 = RMM
12 = Mobile Opt-In
13 = DeviceRegistration

**MobileAddressStatus Key**

UNSPECIFIED = 0
1 = Webcollect
2 = API
3 = FTAF
4 = Import
5 = MoveCopy
6 = Manual
7 = Salesforce
8 = Segmentation
9 = GenericExtension
10 = CustomObject
11 = FacebookAPI
12 = SmartCapture
13 = MobileOptIn

SEE ALSO:

- Time Zone User Preferences
- Review Undelivered Messages
Data View: SurveyResponse

Query this data view in Automation Studio to find responses to surveys sent from your Marketing Cloud account.

View responses to surveys sent from your account by querying the _SurveyResponse data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>X</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>The date the survey response took place</td>
<td>datetime</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>The domain at which the survey response occurred</td>
<td>varchar(128)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>SurveyID</td>
<td>The ID of the survey</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SurveyName</td>
<td>The name of the survey</td>
<td>varchar(100)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>IsUnique</td>
<td>Whether the response is unique or not</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>QuestionID</td>
<td>The ID of the survey question</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>QuestionName</td>
<td>The name of the survey question</td>
<td>varchar(50)</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>The survey question</td>
<td>varchar(4000)</td>
<td>Text</td>
<td></td>
</tr>
</tbody>
</table>
### Data View: Undeliverable SMS

Query this data view in Automation Studio to find failed message deliveries to Marketing Cloud MobileConnect subscribers.

View information about failed message deliveries to MobileConnect subscribers by querying the `_UndeliverableSms` data view. Information from this query relates to the owner of a private short code or long code, or a client using a shared short code to which the subscriber has opted in.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MobileNumber</td>
<td>Mobile number for the subscriber</td>
<td>varchar(15)</td>
<td>Phone</td>
</tr>
<tr>
<td>Undeliverable</td>
<td>Indicates whether the message delivered successfully or not</td>
<td>bit</td>
<td>Boolean</td>
</tr>
<tr>
<td>BounceCount</td>
<td>Number of bounced SMS messages for subscriber</td>
<td>smallint</td>
<td>Number</td>
</tr>
<tr>
<td>FirstBounceDate</td>
<td>The date when the first bounce occurred</td>
<td>datetime</td>
<td>Date</td>
</tr>
</tbody>
</table>
### Data View: Unsubscribe

Query this data view in Automation Studio to find unsubscribes from email lists in your Marketing Cloud account.

View unsubscribes from email lists in your account by querying the `_Unsubscribe` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

**Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>DataType</th>
<th>Data Extension Data Type</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountID</td>
<td>Your account ID number</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>OYBAccountID</td>
<td>The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.</td>
<td>int</td>
<td>Number</td>
<td>x</td>
</tr>
<tr>
<td>JobID</td>
<td>The job ID number for the email send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>The list ID number for the list used in the send</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>The batch ID number for any batches used in the send</td>
<td>bigint</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.</td>
<td>int</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>The subscriber key for the affected subscriber</td>
<td>nvarchar(254)</td>
<td>Text</td>
<td></td>
</tr>
</tbody>
</table>
### Name | Description | DataType | Data Extension Data Type | Nullable
--- | --- | --- | --- | ---
EventDate | The date the unsubscribe took place | datetime | Date | 
IsUnique | Whether the event is unique or repeated | bit | Boolean | 
Domain | The domain at which the unsubscribe occurred | varchar(128) | Text | 

**SEE ALSO:**
- Time Zone User Preferences
- Lists without Enhanced Subscriber Features in Marketing Cloud

### SQL Reference
Get SQL query information for Automation Studio’s SQL Query activity at a glance.

### Considerations
SQL support for the SQL Query Activity is based on, but doesn’t precisely correspond to, SQL Server 2016 capabilities.

- To ensure that queries are executed without blocking from other SQL updates, query activities use SET TRANSACTION ISOLATION LEVEL READ UNCOMMITTED. This is equal to WITH (NOLOCK). Using the NOLOCK query hint is unnecessary.
- Only SELECT statements to data extension or data views in an account or in the parent account
  - Nested Queries
  - UNION
  - JOIN
  - GROUP BY
- Conditional Statements
  - IF Constructs
  - CASE Statements
- Functions
  - Most functions, including MIN, MAX, and more are supported
  - CAST and CONVERT
- Unsupported elements
  - Variables
  - Cursors
  - User-Defined Functions
  - Transaction and Locking
  - GOTO
  - PRINT
  - Any `sp_*` stored procedure
Split data within a column into two rows using the Char function and its ASCII value. Use an ASCII approved character as a delimiter.

To query unicode, it isn’t necessary to append an N to the search string.

Performance Considerations

Queries have a 30-minute timeout. If a query is timing out, it’s possible to make the query perform faster with indexes applied. Queries that include both a join and a Select * statement aren’t permitted. Instead, write a statement that specifies each column name, even when there are multiple columns.

Known Issues

- Data Types
  - Decimal: If a data extension contains a decimal field and that field is used in a query, the output isn’t a decimal output

- Data Views and Enterprise 2.0 Business Units
  - Only data extensions are accessible for queries written at the Enterprise 2.0 business unit

Querying Data Extensions

- In an enterprise environment, add the ENT." prefix to get access to data extension in the enterprise parent account.
- Access a shared data extension in an Enterprise 2.0 account using the ENT. prefix.
- Use the data extension Name in SQL queries, not the External Key.

Querying Subscriber Data

Using the _Subscriber Data View

```sql
SELECT *
from _subscribers
```

Using the _EnterpriseAttribute Data View

```sql
SELECT *
from _EnterpriseAttribute
```

**Note:** This query can be used in Enterprise 2.0 edition accounts only. Core, Advanced, or Enterprise don’t support querying subscriber attributes.

Combining the _EnterpriseAttribute Data View and the _Subscriber Data View

```sql
SELECT
b.[first name],
b.[last name],
```
b.[age],
a.[Status] as 'Subscription Status',
a.[EmailAddress] as 'Email'
FROM
_subscribers a
INNER JOIN
_EnterpriseAttribute b
ON
a.subscriberID = b._subscriberID

This example assumes the [first name],[last name], and [age] attributes exist in the account.

**Sample Queries**

**Get a Send List Based on Aggregate Row Count**

Use Case: Generating a Sendable list from a detailed data set

```sql
select visitorid from [cart abandonment segment] group by visitorid having count(visitorid) > 1
```

**Random Sample of 33 Percent Exclusion**

Use Case: A/B split testing and general segmentation

```sql
Select top 33 percent
offerid,score,name,description,url
from Offers
inner join Offer_Ext1 a on a.offerid <> offers.offerid
order by newid()
```

**Random Sample of 33 Percent**

Use Case: A/B split testing and general segmentation

```sql
Select top 33 percent
offerid,score,name,description,url
from Offers
order by newid()
```

**Random Sample of 100**

Use Case: A/B split testing and general segmentation

```sql
Select top 100
offerid,score,name,description,url
```
from Offers
order by newid()

### Unique Values for a Data Set

**Use Case: Testing**

```sql
Select distinct
'109406145' as linkage_id,
'109406145' as ticket_id,
'28480048' as family_id,
'73334' as merchant_id,
'25.32' as Original_Transaction_Amt,
transaction_type_cd,
Max(TRANSACTION_DATE) as Transaction_Date,
TRANSACTION_STATUS,
MERCHANT_TYPE,
'0' as Group_Points,
'.00' as Group_Comp,
'.00' as Group_Credit,
'.00' as Group_Dues,
'0' as Group_Miles,
'.00' as Group_BonusComp,
'102' as Group_BonusMiles,
'0' as Group_BonusPoints,
'.00' as Group_BonusCrdt,
'.00' as Total_Comp_Earned,
'.00' as Total_Credit_Earned,
'10' as Total_Miles_Earned,
'103' as Total_Points_Earned,
MERCHANT_CATEGORY,
RA_SEQUENCE,
'FFAK' as fam_campaign_cd
FROM Subscriber_Activity
GROUP BY transaction_type_cd, TRANSACTION_STATUS, MERCHANT_TYPE, RA_SEQUENCE,
MERCHANT_CATEGORY
```

### Geo-Targeting

**Prerequisites: Zip Code Data Extension.** Search for current ZIP code data on the web. **Use Case:** Find all cities or zips, and therefore subscribers, within 15 kilometers of a ZIP code. -- 6378.137 earth circumference

```sql
SELECT
    city,
    zip,
    ROUND(6378.137 * ACOS(
        CASE
            WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * SIN(RADIANS(geo.Latitude)) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT longitude FROM [ZipCode] where zip = 46254))))) > 1 THEN 1
            WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * SIN(RADIANS(geo.Latitude)) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT longitude FROM [ZipCode] where zip = 46254))))) < -1 THEN -1
            ELSE (acos(1 - (sin(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * sin(RADIANS(geo.Latitude)) + (cos(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * cos(RADIANS(geo.Latitude)) * cos(RADIANS(geo.Longitude) - RADIANS((SELECT longitude FROM [ZipCode] where zip = 46254))))) * 180 / pi())
    FROM [ZipCode]
```
SIN(RADIANS(geo.Latitude))) * COS(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT longitude FROM [ZipCode] where zip = 46254)))) < -1 THEN -1 ELSE (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT longitude FROM [ZipCode] where zip = 46254)))) END),0) AS Distance
FROM [ZipCode] AS geo

Pulling Tracking Information for a Triggered Send

Use Case: Viewing available tracking information regarding a triggered send

SELECT *
FROM _Open
WHERE TriggeredSendCustomerKey = 'External Key of Triggered Send'

SEE ALSO:
ASCII Characters

Optimize the Query Activity

A poorly running query can be split into component queries that execute cleanly in Automation Studio.

Query activities time out after 30 minutes by default. Multiple factors can cause query timeouts: the length of the query, joins, complexity, and the volume of data. For these reasons, optimize each query you write.

Optimization Tips

• In a query activity that queries data extensions, use the primary key field in your select statement, or in any join as a predicate.
• If this query activity is part of an automation, do not add other activities on the same step of the automation. Remove other activities that occur on this step.
• Utilize indexing on data extensions used in the query activity when business-critical functions rely on them. Contact your account representative for more information.
• When you write a query, specify specific fields by spelling them out within the select clause instead of using the `Select *` option. Even when you use `Select *`, you must modify query activities after a data extension is modified. The query activity runs based on a snapshot of the data extension when it was initially saved.

• Define columns based on the maximum size of data to be stored in them. For example, if you always store a two-digit state code, limit the column length to two characters rather than the default of 50 characters.

• Define numeric columns using the Number data type. Don’t store numbers as text unless you plan to join to system tables.

  **Example:** `SubscriberKey` is stored in the Marketing Cloud as text in a column (nvarchar(254)). Even though a customer can use a numeric value for `SubscriberKey` in their system, setting up `SubscriberKey` as a numeric column in a data extension requires an implicit cast to join the data. This action is expensive for the database. Creating `SubscriberKey` as a text column makes this process less expensive for the database engine.

• When creating columns for joins between data extensions you’ve created, use the same data type for columns with like data.

• Keeping the total byte size of a table below 8,000 characters allows significant improvements in retrieval. Eight thousand characters is the sum of all column lengths in the data extension. So eight columns of 1,000 characters each reaches this limit, while 20 columns that each allow 100 characters does not.

**Intermediate Tables**

Use intermediate tables to divide a query that gathers data from multiple data extensions into smaller queries. Each smaller query writes results to a holding table. Once the smaller queries have run, a final query unites the results in usable form.

• Use intermediate tables to write efficient data view queries. Data views such as `_open` or `_click` do not have a primary key, nor can they be indexed. Query activities that use data views commonly take longer to complete. Although these data views do not have primary keys, the tables that populate them have indexes. To join data that pertains to sending, join on JobID, ListID, BatchID, and SubscriberID between these tables (`_bounce`, `_click`, `_complaint`, `_open`, `_sent`, `_status`, `_surveyresponse`, `_unsubscribe`) to improve your query execution times.

• If you are using many joins, use intermediate tables. Using intermediate tables with queries multiplies the timeout period. Instead of using one query activity with a 30-minute timeout period, use two query activities that each span 30 minutes. Using two queries increases the timeout period to 60 minutes.

  **Note:** Queries that include both a `join` and a `Select *` statement are not permitted. Instead, write a statement that specifies each column name, even when there are multiple columns.

**Use Intermediate Tables to Optimize a Query**

Split large queries into smaller components to use with Automation Studio’s query activity.

This page demonstrates how a single query can be divided into multiple more efficient queries. In the following example, a query designed to find Opens in the last 30 days based on an EmailID consistently times out.

  **Note:** The following code is an example of a poorly executing query. Do not copy and paste the following code to use in a query activity.

```sql
Select
  j.JobID,
  j.EmailName,
  j.DeliveredTime as SendTime,
  o.EventDate as OpenTime,
  s.EmailAddress,
  s.SubscriberKey
from [_Job] j
join [_Open] o
```

66
One likely reason this query times out is that it tries to retrieve data from multiple sources in one query. To ensure that this query consistently returns data in a timely manner, divide it into four smaller queries on separate, consecutive steps of your automation. Use these instructions to set up four data extensions and corresponding queries called Jobs, Opens, Subscriber and a Target Data Extension to unite and store the data retrieved by the preceding queries.

Create a Jobs Table Data Extension

1. Create a data extension.
2. Select standard data extension.

<table>
<thead>
<tr>
<th>Data Extension Name</th>
<th>JobTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>JobTable</td>
</tr>
</tbody>
</table>

**Fields**

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DeliveredTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create a Query Activity to Populate the Job Table

<table>
<thead>
<tr>
<th>Query Name</th>
<th>JobTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>JobTable</td>
</tr>
</tbody>
</table>

**Query Syntax**

```sql
on j.JobID = o.JobID
join [_Subscribers] s
on o.SubscriberID = s.SubscriberID
where
o.IsUnique = 1 and
j.EmailID = 123456
```

Target Data Extension Name | JobTable
Data Action               | Overwrite
Create an Opens Data Extension

1. Create a data extension.
2. Select standard data extension.

<table>
<thead>
<tr>
<th>Data Extension Name</th>
<th>OpenTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>OpenTable</td>
</tr>
</tbody>
</table>

Fields

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OpenTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create an Opens Query Activity

<table>
<thead>
<tr>
<th>Query Name</th>
<th>OpenTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>OpenTable</td>
</tr>
</tbody>
</table>

Query Syntax

```sql
o.JobID,
o.SubscriberID,
o.EventDate,
from [_Open] o
where
o.IsUnique = 1
and j.EmailID = 123456
```

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>OpenTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

Create a Subscriber Data Extension

1. Create a data extension.
2. Select standard data extension.

<table>
<thead>
<tr>
<th>Target Data Extension Name</th>
<th>SubscriberTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>SubscriberTable</td>
</tr>
</tbody>
</table>
Fields

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Set Up a Subscriber Query Activity

<table>
<thead>
<tr>
<th>Query Name</th>
<th>SubscriberTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>SubscriberTable</td>
</tr>
</tbody>
</table>

Query Syntax

```sql
s.SubscriberID, 
s.EmailAddress, 
s.SubscriberKey
from [__Subscribers] s
```

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>SubscriberTable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

Create a Data Extension to Store Opens Data

1. Create a data extension.
2. Select standard data extension.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>OpensIn30Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>OpensIn30Days</td>
</tr>
</tbody>
</table>

Fields

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OpenTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create a Query to Send Opens Data to Target Data Extension

Query Name: OpensIn30Days
External Key: OpensIn30Days

Query Syntax

```
Select
j.JobID, j.EmailName, j.DeliveredTime as SendTime,
o.EventDate as OpenTime,
s.EmailAddress, s.SubscriberKey
from [JobTable] j
join [OpenTable] o on j.JobID = o.JobID
join [SubscriberTable] s on o.SubscriberID = s.SubscriberID
```

Target Data Extension: OpensIn30Days
Update Type: Overwrite

Query: Opens in Last 30 Days

Write a query to find subscribers who opened emails sent from the Marketing Cloud in the previous 30 days.

This query finds subscribers who opened an email in the last 30 days, regardless of how many sending jobs used that EmailID. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension.

Create a Target Data Extension

Create a standard data extension with these properties. This data extension becomes the destination that stores your query’s data output.

Target Data Extension: OpensIn30Days
External Key: OpensIn30Days

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create an Opens Query

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Query Name</th>
<th>OpensIn30Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>OpensIn30Days</td>
</tr>
</tbody>
</table>

Query Syntax

Replace the `<EmailID>` on line 16 with the specific EmailID you seek.

```sql
Select
j.JobID,
j.EmailName,
j.DeliveredTime as SendTime,
o.EventDate as OpenTime,
s.EmailAddress,
s.SubscriberKey
from [_Job] j
join [_Open] o
on j.JobID = o.JobID
join [_Subscribers] s
on o.SubscriberID = s.SubscriberID
where
o.IsUnique = 1 and
o.EventDate > dateadd(d,-30,getdate()) and
j.EmailID = <EmailID>
```

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>OpensIn30Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

Considerations

- This query finds unique opens only.
- This query assumes that your account is not part of an Enterprise 2 account.
- Extending the date range beyond one month is not recommended.
Modifications

- To capture all opens, remove line 14.
- If the account is part of an Enterprise 2 account, alter line 11 to be:
  ```sql
  join ENT._Subscribers s on
  ```
- To capture clicks, bounces, complaints, or unsubscribes rather than opens, alter each location that includes `Open` to include the item you want to capture. For example, to capture clicks, name the data extension `ClicksIn30Days`, name the query `ClicksIn30Days`, and name the data extension field `ClickTime`. Change each instance of `Open` in the query to `Click`, such as lines 5 and 9.
  ```sql
  o.EventDate as ClickTime,
  join [_Click] o
  ```
- To pull a particular time frame, alter line 15. As an example, this captures activity from 30 to 60 days ago:
  ```sql
  o.EventDate between dateadd(d,-60,getdate()) and dateadd(d,-30,getdate())
  ```
- To capture a larger time frame, alter line 15 to include any time frame that is less than 180 days. Large volumes of data can result in long-running queries and failures due to timeout.
- To capture sends only, alter every location that says `open` to be `send`. Remove line 14.

SEE ALSO:
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

Query: Find Subscriber Status

Write a query using Automation Studio’s query activity to retrieve subscribers’ statuses.

Use this query to return subscribers in a data extension and their status for a specified list or the All Subscribers list. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension.

Create a Target Data Extension

Create a standard data extension with these properties.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>DataExtensionWithStatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Text</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ListName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create a Query Activity to Retrieve Status

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Query Name</th>
<th>DataExtensionWithStatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>DataExtensionWithStatus</td>
</tr>
</tbody>
</table>

Query Syntax

- Replace `<DE_Name>` on line 5 with the name of the specified data extension.
- Replace `<List Name>` on line 9 with the name of the specified list.

```
Select
l.ListName,
de.SubscriberKey,
l.[Status]
from [<DE_Name>] de
join [_listsubscribers] l
on de.SubscriberKey = l.SubscriberKey
where
l.ListName = '<List Name>'
```

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>DataExtensionWithStatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

Considerations

- This query assumes that your source data extension does not include duplicate entries. If the source data extension does include duplicate entries, deselect Primary Key for the SubscriberKey value.
- This query assumes that your source data extension includes a SubscriberKey field. If the source data extension does not include a SubscriberKey field, alter the query to use your primary key field. Alternative fields to use include EmailAddress, CustomerID, and others. Modify lines 3 and 7.
- This query assumes that you only want to return the items specified in the query. To include all possible items, review the Modifications section on this page.
- This query assumes that you previously attempted sends to subscribers in the data extension. This query does not find a status for contacts without a contact record. If you conducted a send to the specified subscribers, the system created a contact record with an Active status.
- Available status values include Active, Bounced, Held, and Unsubscribed.

Modifications

To return all fields from the source data extension, alter your target data extension to mimic all the fields in your source data extension. Alter the query to select those fields as well.
Example: If your data extension includes a HairColor field and you want that information in your destination data extension, add a field to it.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HairColor</td>
<td>Text</td>
<td>25</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Then, insert this line between lines 3 and 4:

```sql
3a de.HairColor,
```

To include only Active subscribers in your results, or to use another appropriate status, add this line to the example query:

```sql
and l.[status] = 'active'
```

SEE ALSO:
- Subscribers
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

**Query: Find Subscribers in a Publication or Suppression List**

Write a query using Automation Studio’s query activity to find subscribers who have been placed on a Publication or Suppression List.

Note: With the January 2019, new accounts receive Suppression List data when using this query. To enable this in your existing accounts, contact your Salesforce Marketing Cloud representative for more information.

This query finds all subscribers on any list, publication list, or suppression list, along with status. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension.

**Create a Target Data Extension**

Create a standard data extension with these properties.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>Publication_SuppressionListExport</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>Publication_SuppressionListExport</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ListName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ListType</td>
<td>Text</td>
<td>50</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Text</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create a Publication/ Suppression List Query Activity

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DateAdded</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DateUnsubscribed</td>
<td>Date</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Query Syntax

Replace `<List Name>` in line 10 with the name of the list you seek.

```sql
Select 
  l.SubscriberKey, 
  l.EmailAddress, 
  l.ListName, 
  l.ListType, 
  l. [Status], 
  l.CreatedDate as DateAdded, 
  l.DateUnsubscribed 
from [ListSubscribers] l 
where ListName = '<List Name>'
```

Considerations

- Use this query to pull statuses for any list or group.
- The available status values are “active”, “bounced”, “held”, and “unsubscribed.”

Modifications

If you want only active subscribers— or subscribers in any other status— in your results, add this line to the query, replacing the status as appropriate.

```
and [status] = 'active'
```

SEE ALSO:
- Subscribers
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud
Query: Find Subscribers by Date or Time Frame

Write a query using Automation Studio’s query activity to find subscribers according to the date or time frame.

This query pulls a list of Subscribers on a list and the date they were added, or that were added in a particular time frame. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension.

Create a Target Data Extension

Create a standard data extension with these properties.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>SubscribersByListByDate</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>SubscribersByListByDate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ListName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DateAdded</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create a Date and Time Query Activity

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Query Name</th>
<th>SubscribersByListByDate</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>SubscribersByListByDate</td>
</tr>
</tbody>
</table>

Query Syntax

- Replace <ListID> on line 9 with the name of the list you seek.
- Replace the CreateDate date range on Line 10 with the desired date range.

```sql
Select
  l.SubscriberKey,
  l.EmailAddress,
  l.ListID,
  l.ListName,
  l.CreatedDate as DateAdded
from [_ListSubscribers] l
where
  l.ListID = <ListID>
and CreateDate between '2015-11-01' and '2015-12-01'
```
**Modifications**

Pull a list of all additions to a list instead of additions to a specific list.

- To pull subscribers according to a time frame, include the time frame in Line 10.
- To pull subscribers created on a specific date, modify Line 10 using this example syntax as a model.

```sql
and CreatedDate between '2015-11-01' and '2015-12-01'
```

**SEE ALSO:**

- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

**Query: Find Subscribers with No Opens or Clicks**

Write a query using Automation Studio’s query activity to find subscribers who have no opened or clicked within a Marketing Cloud email.

This query’s results show all subscribers that were sent a job, but did not click or open the email tied to a particular JobID. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension.

**Create a Target Data Extension**

Create a standard data extension with these properties.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td>Primary Key</td>
<td>Null</td>
<td></td>
</tr>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td>Null</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Number</td>
<td></td>
<td></td>
<td>Null</td>
<td></td>
</tr>
<tr>
<td>SendDate</td>
<td>Date</td>
<td></td>
<td></td>
<td>Null</td>
<td></td>
</tr>
</tbody>
</table>

**Create a No Clicks or Opens Query Activity**

Create an SQL query activity with these properties.

| Query Name | JobNoClickNoOpen |
Query Syntax

Replace the JobID> on line 12 with the JobID you seek.

```sql
Select distinct s.SubscriberKey,
    s.JobID,
    s.BatchID,
    convert(char(19),s.EventDate,20) as SendDate
from [__sent] s
left join [__open] o
    on s.JobID = o.JobID and s.ListID = o.ListID and s.BatchID = o.BatchID and s.SubscriberID = o.SubscriberID and o.IsUnique = 1
left join [__click] c
    on s.JobID = c.JobID and s.ListID = c.ListID and s.BatchID = c.BatchID and s.SubscriberID = c.SubscriberID and c.IsUnique = 1
where s.JobID = JobID
    and (o.SubscriberID is NULL and c.SubscriberID is NULL)
```

Considerations

This query runs well for jobs under 500,000 subscribers. For larger jobs, consider using Intermediate Tables to ensure optimal query performance.

Modifications

- If you have multiple jobs that include less than 500,000 subscribers, adjust the query to include them all by replacing line 11:
  
  ```sql
  12 where s.JobID in (JobID1,JobID2)
  ```

- To find only customers that did not click, delete lines 7–8, and then alter line 13:
  
  ```sql
  13 and c.SubscriberID is NULL
  ```

- To find only customers that did not open, delete lines 9–10, and then alter line 13:
  
  ```sql
  13 and o.SubscriberID is NULL
  ```

- To also see all the subscribers, including subscribers that clicked or opened, add OpenDate and ClickDate fields to the Data Extension.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SendDate</td>
<td>Date</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>OpenDate</td>
<td>Date</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Delete line 12 and insert 2 lines after line 4:

4a convert(char(19),o.EventDate,20) as OpenDate,
4b convert(char(19),c.EventDate,20) as ClickDate,

SEE ALSO:
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

Query: Find Top Bounces for a Job

Write a query using Automation Studio’s query activity to find the top bounces by percentage.

This query shows the top 25 bounces, as a percentage, for a particular job. Setting up this query starts with creating a target data extension to store the query’s data output. Then, create the query, selecting the data extension you created as the target data extension. This complex query uses multiple queries and intermediate data extensions. This query runs optimally for jobs that include fewer than 5,000,000 subscribers.

Create a Send Domains Data Extension

Create a standard data extension with these properties. This data extension and query collect some of the raw Send Data to be used later.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendCount</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create a Query Activity to Collect Send Domain Data

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Query Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>SendingDomains</td>
</tr>
<tr>
<td>Domain</td>
<td>SendingDomains</td>
</tr>
</tbody>
</table>
Query Syntax
Replace the `<JobID>` on line 7 with the JobID you seek.

```sql
Select
s.JobID,
s.Domain,
count (s.SubscriberID) as SendCount
from [_Sent] s
where
s.JobID = <JobID>
group by s.JobID, s.Domain
```

Target Data Extension | SendingDomains
Update Type | Overwrite

Create a Data Extension to Store Bounce Data
Create a standard data extension with these properties. This data extension and query collect raw Bounce Data to be used later.

Target Data Extension | BouncingDomains
External Key | BouncingDomains

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendCount</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create a Query Activity to Collect Bounce Data
Create an SQL query activity with these properties.

Query Name | BouncingDomains
External Key | BouncingDomains

Query Syntax
Replace the `<JobID>` on line 7 with the JobID you seek. This JobID is the same JobID used in the first query activity.

```sql
Select
b.JobID,
b.Domain,
count (b.SubscriberID) as BounceCount
from [_Bounce] b
```
where
b.JobID = <JobID>
group by b.JobID, b.Domain

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>BouncingDomains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

**Create a Target Data Extension to Combine Bounce Data**

Create a standard data extension with these properties. This data extension and query combine the information collected previously to provide the top bouncing domains.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>TopBouncingDomains</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>TopBouncingDomains</td>
</tr>
</tbody>
</table>

**Table 2: Fields**

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Text</td>
<td>100</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SendCount</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BounceCount</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BouncePercent</td>
<td>Text</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Create a Query Activity to Combine Bounce Data**

Create an SQL query activity with these properties.

<table>
<thead>
<tr>
<th>Query Name</th>
<th>TopBouncingDomains</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>TopBouncingDomains</td>
</tr>
</tbody>
</table>

**Query Syntax**

```sql
Select
Top 25
s.JobID,
s.Domain,
s.SendCount,
b.BounceCount,
cast(round((b.BounceCount*100.0)/s.SendCount,2) as numeric(5,2)) as BouncePercent
from [SendingDomains] s
left join [BouncingDomains] b
```
on s.JobID = b.JobID and s.Domain = b.Domain
order by BouncePercent desc

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>TopBouncingDomains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Action</td>
<td>Overwrite</td>
</tr>
</tbody>
</table>

**Modifications**

- To skip domains with a send count lower than a particular number, insert this line before the current line 11:

  ```
  11 Where s.SendCount > 100
  ```

- To skip domains with a bounce count under a particular number, insert this line before the current line 11:

  ```
  11 Where b.BounceCount > 2
  ```

- To skip domains with send and bounce counts under a particular number, insert this line before the current line 11. This action is recommended. Otherwise, domains with only one bounce populate the majority of the list.

  ```
  11
  12 Where s.SendCount > 100 and b.BounceCount > 2
  ```

- To capture a specific quantity, alter line 2 to include the number you want to capture.

**SEE ALSO:**
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

**Query: Journey Builder Bounced Email Messages**

Create a list of contacts to send a direct mailer to based on bounced email messages from Journey Builder. Use this query to create a list of contacts based on bounced email messages.

**Scenario**

Cumulus Financial sends billing reminders via Journey Builder. Because they are in a regulated industry, they are required to send postal messages to customers whose email returns a bounce. Cumulus wants to generate a list of all customers who have bounced an email message related to a Journey after 72 hours has elapsed so they can send a postal message. This scenario includes sample data extensions to store contact data and a data extension to store the data that Cumulus’ direct mail provider can consume.

**Sample Profile Data Extension**

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>ContactProfileData</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>ContactProfileData</td>
</tr>
</tbody>
</table>

82
### Name: ContactKey
- **Data Type:** Text
- **Length:** 254
- **Primary Key:** X
- **Nullable:**
- **Default Value:**

### Name: EmailAddress
- **Data Type:** EmailAddress

### Name: Address Line 1
- **Data Type:** Text
- **Length:** 500
- **Primary Key:**
- **Nullable:** X

### Name: Address Line 2
- **Data Type:** Text
- **Length:** 500
- **Primary Key:**
- **Nullable:** X

### Name: City
- **Data Type:** Text
- **Length:** 100

### Name: State
- **Data Type:** Text
- **Length:** 2

### Name: Zip
- **Data Type:** Text
- **Length:** 10

### Name: HomePhone
- **Data Type:** Phone
- **Length:**
- **Primary Key:**
- **Nullable:** X

### Name: MobileNumber
- **Data Type:** Phone
- **Length:**
- **Primary Key:**
- **Nullable:** X

### Create a Journey Email Tracking Data Extension

This data extension becomes the destination that stores your query's data output.

1. Create a data extension.
2. Select a standard data extension.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JourneyName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VersionNumber</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BounceTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>254</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ContactKey</td>
<td>Text</td>
<td>254</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ContactID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Address Line 1</td>
<td>Text</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Data Type</td>
<td>Length</td>
<td>Primary Key</td>
<td>Nullable</td>
<td>Default Value</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
<td>----------</td>
<td>---------------</td>
</tr>
<tr>
<td>Address Line 2</td>
<td>Text</td>
<td>500</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Text</td>
<td>100</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Text</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zip</td>
<td>Text</td>
<td>10</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>HomePhone</td>
<td>Phone</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>MobilePhone</td>
<td>Phone</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Create a Journey Builder Bounces Query

<table>
<thead>
<tr>
<th>Query Name</th>
<th>EmailBouncesbyJourney</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>EmailBouncesbyJourney</td>
</tr>
</tbody>
</table>

Query Syntax

Replace `JourneyName` on line 35 with the name of the specific journey you seek.

```sql
select
  j.JourneyName,
  j.VersionNumber,
  ja.ActivityName as 'EmailName',
  s.EventDate as 'SendTime',
  b.EventDate as 'BounceTime',
  su.EmailAddress,
  su.SubscriberKey as 'ContactKey',
  su.SubscriberID as 'ContactID',
  s.JobID,
  s.ListID,
  s.BatchID,
  cpd.[Address Line 1],
  cpd.[Address Line 2],
  cpd.City,
  cpd.State,
  cpd.Zip,
  cpd.HomePhone,
  cpd.MobileNumber
from [Sent] s
join [JourneyActivity] ja
  on s.TriggererSendDefinitionObjectID = ja.JourneyActivityObjectID
join [Journey] j
  on ja.VersionID = j.VersionID
join [Bounce] b
  on s.JobID = b.JobID
  and s.ListID = b.ListID
  and s.BatchID = b.BatchID
  and s.SubscriberID = b.SubscriberID
```
join [ _Subscribers] su on s.SubscriberID = su.SubscriberID
join ContactProfileData cpd on s.SubscriberKey = cpd.ContactKey
where ja.ActivityType in ('EMAIL','EMAILV2')
and j.JourneyName = <JourneyName>
and s.EventDate < cast(cast(dateadd(hh,-72,getdate()) as date) as datetime)
and b.SubscriberID is not null

Considerations
• This query assumes that your account is not part of an Enterprise 2 account.
• Because bounce data is not finalized for 72 hours after a send, searching for bounces in a send before 72 hours have passed is not recommended.

Modifications
• To capture all journeys, remove line 35.
• If the account is part of an Enterprise 2 account, alter line 20 to be: join ENT.[ _Subscribers] s on
• If the data extension is a shared data extension, alter line 32 to be: join ENT.ContactProfileData cpd

SEE ALSO:
Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
Create a Data Extension in Marketing Cloud

Query: Journey Builder Sends by Email Across Versions
Create an aggregate of Journey Builder Email Sends across multiple versions of the same journey.
Use this query to create an aggregate of Journey Builder Email Sends across multiple versions of the same journey.

Create a Journey Email Tracking Data Extension
This data extension becomes the destination that stores your query's data output.
1. Create a data extension.
2. Select a standard data extension.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>EmailSendsbyJourney</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>EmailSendsbyJourney</td>
</tr>
</tbody>
</table>

Fields

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JourneyName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

85
Create a Journey Builder Sends Query

Query Name: EmailSendsbyJourney
External Key: EmailSendsbyJourney

Query Syntax

Replace JourneyName on line 14 with the name of the specific journey you seek.

```sql
select j.JourneyName, cast(s.EventDate as date) as [Date], ja.ActivityName as 'EmailName', ja.ActivityExternalKey, count(s.SubscriberID) as [Sends]
from [_Sent] s
join [_JourneyActivity] ja on s.TriggererSendDefinitionObjectID = ja.JourneyActivityObjectID
join [_Subscribers] su on s.SubscriberID = su.SubscriberID
where ja.ActivityType in ('EMAIL','EMAILV2')
and j.JourneyName = <JourneyName>
and s.EventDate > dateadd(dd,-7,getdate())
group by j.JourneyName, j.JourneyID, cast(s.EventDate as date), ja.ActivityName, ja.ActivityExternalKey
```

Considerations

- This query assumes that your account is not part of an Enterprise 2 account.
- Extending the date range beyond one month is not recommended.

Modifications

- To capture all journeys, remove line 14.
- If the account is part of an Enterprise 2 account, alter line 6 to be: `join ENT.[_Subscribers] s on`
- To capture opens, clicks, bounces, complaints, or unsubscribes rather than sends, alter each location that includes sent to include the item you want to capture. For example, to capture clicks, name the data extension EmailClicksByJourney and name the query EmailClicksByJourney. Change each instance of Sent in the query to Click, such as lines 5 and 6: `s.EventDate as 'ClickTime', join [_Click] s`
• To pull a particular time frame, alter line 15. As an example, this syntax captures all activity from yesterday:

```sql
and s.EventDate between dateadd(dd,-1,cast(cast(getdate() as date) as datetime) and cast(cast(getdate() as date) as datetime)
```

• To capture a larger time frame, alter line 15 to include any time frame that is less than 180 days. Large volumes of data can result in long-running queries and failures due to timeout.

SEE ALSO:
- Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
- Create a Data Extension in Marketing Cloud

Query: Journey Builder Sends in Last 24 Hours

Find subscribers who were sent an email from a specified journey in Journey Builder within the last 24 hours. Use this query to find subscribers who were sent an email from a specified journey within the last 24 hours.

Create a Journey Sends Data Extension

This data extension becomes the destination that stores your query's data output.

1. Create a data extension.
2. Select a standard data extension.

<table>
<thead>
<tr>
<th>Target Data Extension</th>
<th>JourneySends24Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>JourneySends24Hours</td>
</tr>
</tbody>
</table>

Fields

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Length</th>
<th>Primary Key</th>
<th>Nullable</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>JourneyName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VersionNumber</td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailName</td>
<td>Text</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendTime</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>EmailAddress</td>
<td>254</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ContactKey</td>
<td>Text</td>
<td>254</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ContactID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>JobID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Number</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Create a Journey Builder Sends Query

<table>
<thead>
<tr>
<th>Query Name</th>
<th>JourneySends24Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Key</td>
<td>JourneySends24Hours</td>
</tr>
</tbody>
</table>

Query Syntax

Replace the Journey Name on line 20 with the name of the specific journey you seek.

```sql
select j.JourneyName,
       j.VersionNumber,
       ja.ActivityName as 'EmailName',
       s.EventDate as 'SendTime',
       su.EmailAddress,
       su.SubscriberKey as 'ContactKey',
       s.SubscriberID as 'ContactID',
       s.JobID,
       s.ListID,
       s.BatchID
from [_Sent] s
  join [_JourneyActivity] ja
  on s.TriggererSendDefinitionObjectID = ja.JourneyActivityObjectID
  join [_Journey] j
  on ja.VersionID = j.VersionID
  join [_Subscribers] su
  on s.SubscriberID = su.SubscriberID
where ja.ActivityType in ('EMAIL','EMAILV2')
and j.JourneyName = <JourneyName>
and s.EventDate > dateadd(hh,-24,getdate())
```

Considerations

- This query assumes that your account is not part of an Enterprise 2 account.
- Extending the date range beyond one month is not recommended.

Modifications

- To capture all journeys, remove line 20.
- If the account is part of an Enterprise 2 account, alter line 17 to be:
  ```sql
  join ENT._Subscribers s on
  ```
- To capture opens, clicks, bounces, complaints, or unsubscribes rather than sends, alter each location that includes `sent` to include the item you want to capture. For example, to capture clicks, name the data extension `JourneyClicksIn24Hours`, name the query `JourneyClicksIn24Hours`, and name the data extension field `ClickTime`. Change each instance of `Sent` in the query to `Click`, such as lines 5 and 12.
- To pull a particular time frame, alter line 21. As an example, this syntax captures all activity from yesterday:
  ```sql
  and s.EventDate between dateadd(dd,-1,cast(cast(getdate() as date) as datetime))
  and cast(cast(getdate() as date) as datetime)
  ```
• To capture a larger time frame, alter line 21 to include any time frame that is less than 180 days. Large volumes of data can result in long-running queries and failures due to timeout.

SEE ALSO:

Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud
Create a Data Extension in Marketing Cloud

Restart a Suspended SQL Query Activity

When a SQL Query activity fails repeatedly, each run of the activity taxes system resources. Overtaxing the system can negatively impact your automated processes. To safeguard system resources, Automation Studio suspends an SQL Query activity when it fails 24 consecutive times.

Suspending the activity prompts Automation Studio to notify you that the activity or its associated automation stopped due to error. The notification provides error messaging for diagnosing and addressing the issue. Suspended query activities can’t be added to an automation.

Note: You can’t copy a suspended query or run it once.

1. When a query is suspended, investigate the reason for the error.

2. To fix the error, adjust the query.

Tip: Query syntax is validated during setup, so it’s unlikely to cause query suspension. Check the activity’s settings for issues or optimize the query using intermediate tables to prevent further errors.

3. Save to restart the query.

Import File Activity

Use an outside file to update a subscriber list or data extension in Automation Studio. During the process, you also create an import definition, which establishes import file details and the import activity’s behavior while running. The activity uses this import definition each time it runs.

Considerations

• If the file you are importing is encrypted or compressed, you can use a file transfer activity to prepare the file for import.
• Marketing Cloud Connect users can create an import activity to populate a data extension with object and report data from other clouds via Synchronized Data Sources.
• You can specify the character encoding your imports use by contacting your Salesforce admin. The encoding you enable applies to all imports in an account.
• Marketing Cloud assumes that the FTP server in the selected file transfer location reports time in UTC. UTC assumes no time zone offset. If the remote FTP server is not utilizing UTC, adjust limits specified on the Properties page, including System buffer, during activity setup to ensure the activity runs on the intended schedule.
• To access Salesforce Objects and Reports, navigate to Interactions in Email Studio.

**Update a List or Data Extension with an External File**

Use an external file with the Automation Studio import activity to update a list or data extension.

SEE ALSO:
- Marketing Cloud SFTP Guide
- File Locations
- Marketing Cloud Connect
- Synchronized Data Sources

**Update a List or Data Extension with an External File**

Use an external file with the Automation Studio import activity to update a list or data extension.

1. Click **Create Activity**.
2. Select **Import File**.
3. Add details about the import.

<table>
<thead>
<tr>
<th>Property</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Provide a unique name.</td>
</tr>
<tr>
<td>Description</td>
<td>Identify the activity so others using this account know what it is.</td>
</tr>
<tr>
<td></td>
<td>Customers cannot see the description.</td>
</tr>
<tr>
<td>External Key</td>
<td>Provide a value you choose that uniquely identifies the activity.</td>
</tr>
<tr>
<td></td>
<td>Use this value to identify the activity when using the API.</td>
</tr>
<tr>
<td>Notification Settings</td>
<td>Enter an email address to which the activity sends a notification email including the reason for the error.</td>
</tr>
</tbody>
</table>
4. Identify a file location, file naming pattern, and other details. When you select Enhanced FTP as file location, the FTP’s current state shows so you can confirm that the file you want to import is there. If the file isn’t there, it must be dropped into the file location to
begin the

**Note:** To access Salesforce Objects and Reports, navigate to Interactions in Email Studio.

<table>
<thead>
<tr>
<th>Property</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skip import if last import occurred...</td>
<td>Select to tell Automation Studio not to import the file when the last successful import occurred fewer than this number of hours ago.</td>
</tr>
<tr>
<td>Fail import if file is older...</td>
<td>Use when files are dropped frequently into your FTP location and you want to always import the most recent file.</td>
</tr>
<tr>
<td>System Buffer</td>
<td>Select to set a buffer of 1 or more hours between activities in an automation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>File Location</td>
<td>By default, this folder is your FTP account's import folder. If you can drop import files here, select <strong>Enhanced FTP</strong>, or choose a file location that you configured via Admin.</td>
</tr>
<tr>
<td>File Naming Pattern</td>
<td>Enter the name of the file to be imported. Type or configure substitution strings to create a dynamic file naming pattern based on date and timestamps.</td>
</tr>
</tbody>
</table>
**Property** | **Detail**
--- | ---
Date Format | When importing dates, the date format used in the file must match the format you select here.

Delimiter | Choose to import comma-delimited or tab-delimited files, or define your own delimiter. The system treats double quotes as a delimiter in the import file unless you deselect *Respect double quotes ('') as a text delimiter.*

Bad Data Behavior | Skip bad or invalid data in the file so that data imported is in the format you expect. This option is selected by default.

After setting your filename pattern, an example file name shows. Use the example file name to verify that the files you plan to import match your file naming pattern. A confirmation message tells you whether a file in your file location matches the filename pattern so you know if the import is likely to succeed or not.

5. Select a data extension or a subscriber list as a destination for data from the import.

6. Choose the data action the import performs.

**Data Action** | **Details**
--- | ---
Add Only | A record is created for each row in the file whose Primary Key or email address is not found in the data extension or subscriber list. Rows with Primary Keys found in the data extension or subscriber list are not updated.

Update Only | Rows in the file whose Primary Key exists in the data extension or subscriber list are updated. Rows whose Primary Key is not found in the data extension or subscriber list are ignored.
### Data Action

<table>
<thead>
<tr>
<th>Data Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add and Update</td>
<td>A record is created for each row in the file with a Primary Key or email address that does not exist in the subscriber list or data extension. Each record that matches a Primary Key or email address in the subscriber list or data extension is updated with data from the import file.</td>
</tr>
<tr>
<td>Overwrite (Data Extensions Only)</td>
<td>Replace all rows in the data extension with data from the import file.</td>
</tr>
</tbody>
</table>

**Note:** For data actions other than overwrite, the data extension must have at least one Primary Key column.

**Note:** Overwritten data cannot be recovered.

### Mapping Option

<table>
<thead>
<tr>
<th>Mapping Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map by Header Row</td>
<td>Each column header in the import file must match exactly the column name in the data extension or subscriber list.</td>
</tr>
</tbody>
</table>
| Map by Ordinal         | The first column in the subscriber list or data extension is updated with the first column in the import file. This pattern continues for each column in the import file until all columns have been parsed.  
  - When importing into a subscriber list, column numbers must start at zero.  
  - When importing into a data extension, column numbers must start at one. |
| Map Manually           | Each column header in the import file is mapped according to a sample file you find by clicking Browse. The activity uses this pattern to import each time. |
How to Use the File Transfer Activity in Automation Studio

In Marketing Cloud Automation Studio, you can unzip or decrypt a file found in the Marketing Cloud’s Enhanced FTP directory. With the File Transfer Activity, you can securely transfer files from the Marketing Cloud’s secure file transfer location, the Safehouse, to a selected FTP location.

- If you used a Marketing Cloud Public Key to encrypt a file in the Enhanced FTP directory, use Manage File, to unzip, or decrypt it. If you used Key Management for encryption, contact your account representative for other options.
- To move a file from the Marketing Cloud’s secure file transfer location to a designated FTP location, use Move a File From Safehouse, formerly the Upload option.

Considerations

Marketing Cloud assumes that the FTP Server in the selected File Transfer Location is reporting time in UTC (no time zone offset). If the remote FTP server is not using UTC, adjust the specified hour limit to account for the variance. If the activity is used in an automation, use system buffer.

Check out these other documentation pages for more information:

SEE ALSO:

- Marketing Cloud Connect
- Synchronized Data Sources
- Filename Patterns Reference
Create a File Transfer Activity in Automation Studio
In Marketing Cloud Automation Studio, to move, unzip, encrypt, or decrypt a file, create a file transfer activity.

Manage a File with the File Transfer Activity in Automation Studio
In Marketing Cloud Automation Studio, unzipped or decrypted files using file transfer are typically named according to a filename pattern. If the file you’re unzipping or decrypting resulted from a data extract activity, the file name pattern must match the data extract pattern.

Move a File with the File Transfer Activity in Automation Studio
In Marketing Cloud Automation Studio, files moved from the safehouse to an FTP location are typically named according to a file name pattern. If your moved file is from a data extract activity, the file name pattern must match the data extract that it was configured to produce.

Substitution Strings Example
Use substitution strings in a file transfer activity or import activity in Marketing Cloud Automation Studio.

SEE ALSO:
    Marketing Cloud SFTP Guide
    File Locations
    Key Management
    Filename Patterns Reference

Create a File Transfer Activity in Automation Studio
In Marketing Cloud Automation Studio, to move, unzip, encrypt, or decrypt a file, create a file transfer activity.

1. Select the **File Transfer** activity and drag to the automation canvas.
2. Click **Choose**.
3. Click **Create New File Transfer Activity**.
4. Provide the following details about the activity.
   a. **Name:** Provide a unique name.
   b. **Description (optional):** Identify the activity so others using the account know what it is.
   c. **External Key (optional):** Provide a value you choose that uniquely identifies the activity. Use this value to identify the activity when using the API.
5. Select a file action: **Manage File** or **Move a File From Safehouse**.

Manage a File with the File Transfer Activity in Automation Studio
In Marketing Cloud Automation Studio, unzipped or decrypted files using file transfer are typically named according to a filename pattern. If the file you’re unzipping or decrypting resulted from a data extract activity, the file name pattern must match the data extract pattern.

1. In Automation Studio, complete the fields on the Configuration page.
InfoBox

The name or naming pattern of the file. You can enter a static name or you can include placeholders for the date. Use these personalization strings for file naming.

- %%Year%%
- %%Month%%
- %%Day%%
- %%Hour%%
- %%Minute%%
- %%Second%%

**Important:** If you use the %%Second%% and %%Minute%% personalization strings, a File Not Found error can occur. In a larger file, it can result in a File Not Found error. The error is a result of the extended time required to process those strings.

Use local time zone setting

Select if you want the activity to match the date and time personalization strings to the same time zone of the activity creator. The activity compares the values to the current CST time by default. The timestamp for the resulting file isn’t updated, the checkbox only adjusts the time-frame the File Transfer looks for.

Source File Location

The location where the system can find the file.

**Tip:** Use these file types for each transfer activity:
- Unzip compressed file: .zip .gz .tar
- Decrypt file .pgp .gpg
- Move: No validation for filename extension.

2. Select unzip and decryption actions according to the storage method in the file.

   **Note:** This activity outputs the unzipped, decrypted version of the target file to the import folder.

3. Set qualifications to skip or fail a file.

   **Note:** Automation Studio examines the modified date of the file as reported by the FTP Server in the selected File Transfer Location. If the difference between the modified date and the current system time is greater than the specified hours, the file transfer activity errors.

4. Click **Next**.

**Move a File with the File Transfer Activity in Automation Studio**

In Marketing Cloud Automation Studio, files moved from the safehouse to an FTP location are typically named according to a file name pattern. If your moved file is from a data extract activity, the file name pattern must match the data extract that it was configured to produce.
1. In Automation Studio, identify the file name pattern that corresponds to the files to transfer and file location.

2. Choose a transfer setting.
   - To encrypt a file before it is transferred, select an encryption method.

3. If a public key has been configured in Setup, select it.
   - Choose the appropriate key and use it as part of the file encryption process. Whether you encrypt or decrypt a file, use the same public key for the file in each operation.

   **Important:** This file transfer activity doesn’t support encrypted files larger than 2 GB. Reduce the file size or use an external FTP site instead.

### Substitution Strings Example

Use substitution strings in a file transfer activity or import activity in Marketing Cloud Automation Studio. Place these substitution strings in the File Naming Pattern field of a file transfer activity or import activity. Use these strings to reuse the trigger file in a subsequent step of a file drop automation.

#### %%FILENAME_FROM_TRIGGER%%

This string returns the name of the file placed in the FTP folder. Prefixes, suffixes, and file extensions are not allowed. The automation engine doesn’t read file extensions, so any characters that follow the final dot [.] in a file name are excised.

<table>
<thead>
<tr>
<th>Substitution String</th>
<th>File Dropped</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>%%FILENAME_FROM_TRIGGER%%</td>
<td>Myfilename.txt.gpg.zip</td>
<td>Myfilename.txt.gpg.zip</td>
</tr>
<tr>
<td>%%FILENAME_FROM_TRIGGER%%</td>
<td>Myfilename.txt.gpg.zip.zip</td>
<td>Invalid – no suffix allowed</td>
</tr>
</tbody>
</table>

#### %%FILENAME_FROM_TRIGGER_BASE%%

This string returns the name of the file without the final file extension. Prefixes, suffixes, and extension substitutions are allowed.

<table>
<thead>
<tr>
<th>Substitution String</th>
<th>File Dropped</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>%%FILENAME_FROM_TRIGGER_BASE%%</td>
<td>Myfile.txt.zip.gpg</td>
<td>Myfile.txt.zip</td>
</tr>
<tr>
<td>%%FILENAME_FROM_TRIGGER_BASE%%</td>
<td>Myfile.txt.gpg</td>
<td>Myfile.gpg</td>
</tr>
</tbody>
</table>

#### %%BASEFILENAME_FROM_TRIGGER%%

This string returns the name of the file without any file extensions. Prefixes, suffixes, and extension substitutions are allowed.

<table>
<thead>
<tr>
<th>Substitution String</th>
<th>File Dropped</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%</td>
<td>Myfile.txt</td>
<td>Myfile</td>
</tr>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%</td>
<td>Myfile.txt.zip.gpg</td>
<td>Myfile</td>
</tr>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%</td>
<td>Myfile.txt.gpg.dat</td>
<td>Myfile.dat</td>
</tr>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%</td>
<td>Myfile_02_18.txt</td>
<td>Myfile_02_18.txt</td>
</tr>
</tbody>
</table>
### Substitution String

<table>
<thead>
<tr>
<th>Substitution String</th>
<th>File Dropped</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%.txt</td>
<td>Myfile.txt</td>
<td>02_18_Myfile.txt</td>
</tr>
<tr>
<td>%%BASEFILENAME_FROM_TRIGGER%%.txt</td>
<td>Myfile.02.08.txt</td>
<td>Myfile.txt</td>
</tr>
</tbody>
</table>

**SEE ALSO:**

- [Filename Patterns Reference](#)

## Script Activity

A Server-Side JavaScript activity contains your Server-Side JavaScript and executes that script when started, either on its own or as part of an automation in Automation Studio. You provide the Server-Side JavaScript, a name, external key, and description to identify the activity within the application interface and for API calls.

The Server-Side JavaScript activity includes Server-Side JavaScript scripts as part of a program that runs at a predetermined interval. Use Server-Side JavaScript activities to host and run resources for landing pages. Order these scripts within an automation to run in any sequence.

**Note:** The Marketing Cloud must enable this feature for your account. Contact your Marketing Cloud relationship manager for more information.

**Note:** The Server-Side JavaScript activity times out after 30 minutes.

**Example:** Use Server-Side JavaScript to perform these actions inside an automation:

- Create a data extension
- Import information into that data extension
- Filter out those subscribers with a birthday in the next week
- Send an email to those subscribers

### Create a Script Activity

Add your own Server-Side JavaScript using this Automation Studio activity to accomplish any task for which you would use Server-Side JavaScript in an email or landing page.

**Create a Script Activity**

Add your own Server-Side JavaScript using this Automation Studio activity to accomplish any task for which you would use Server-Side JavaScript in an email or landing page.

1. Click **Create Activity**.
2. Select **Script**.
3. Add all applicable details.
4. Enter your Server-Side JavaScript.
5. Click **Validate Syntax** to test your JavaScript. This step does not ensure that the script runs successfully, but it ensures that the Server-Side JavaScript uses valid syntax.
SEE ALSO:
Server-Side JavaScript Sample Code

Filter Activity

Apply the logic of a data filter you select to create a group or data extension in Automation Studio. Filtering subscribers or contacts makes targeting specific subscribers or contacts based on their attributes and other conditions easier.

Note: The filter activity always overwrites existing rows in the data extension.

Considerations

- Data filters are created in Email Studio. Create the data filter you plan to use in the filter activity before configuring the activity.
- If you select a filter that is based on profile attributes, select the list to segment with the filter. Provide a name for the group that contains the resulting segment.
- If you are filtering a data extension, a new data extension is created as a destination for filtered contact records. Select the data filter and provide a name for the data extension where the resulting segment is added. Selecting a data extension to filter is not necessary; selecting this data extension is required when creating a data filter.
Create a Filter Activity

Apply a data filter to create a group or data extension containing records that meet a set of criteria. For example, use a filter activity in Automation Studio to sort out subscribers from a larger subscriber list.

SEE ALSO:
Data Filters without Enhanced Subscriber Features in Marketing Cloud
Data Filters with Enhanced Subscriber Features in Marketing Cloud

Create a Filter Activity

Apply a data filter to create a group or data extension containing records that meet a set of criteria. For example, use a filter activity in Automation Studio to sort out subscribers from a larger subscriber list.

Note: Before using a filter activity, create a data filter in Email Studio.

1. Click Create Activity.
2. Select Filter.
3. Provide a name, folder location, external key, and description to identify and describe the activity.
4. Choose a filter definition to see its details. Check the Filter Type to confirm that the filter definition applies to the data source, list, or data extension you intend.

5. If your data filter is applied to profile attributes, select a source list created in Email Studio.

Note: If your data filter is applied to a data extension, selecting a source list is not necessary. The data extension selected when configuring the data filter is the source.
6. If your data filter is applied to profile attributes, name the group that is created when this filter activity runs and choose a group folder to store it.

7. If your data filter is applied to a data extension, a new data extension is created as a destination for filtered contact records. Provide a name, external key, and description of this data extension so you can identify it after the activity runs.

Data Extract Activity

The Automation Studio data extract activity creates one or more zipped files for your use outside the Marketing Cloud application. It can also be used to convert an XML file into a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

- **Note:** Extract types must be provisioned for your account. Contact your Marketing Cloud representative for more information.

- **Note:** As of May 25, 2018, email extracts that reference individual subscribers no longer include subscribers who were deleted using the legacy Email Studio delete functionality.

**Considerations**

- A File Transfer Location must be configured and specified in Account Settings before using the data extract activity.
- Use the file transfer activity to place extracted data in a file location you choose. Data extract files are supplied in .zip format.
- When using the data extract activity in an automation, include the file transfer activity in a separate step. This action prevents the file transfer activity from looking for the data extract file before the data extract is complete.
- The fields included in a data extract file vary according to the Extract Type you choose.
- You set Extract Range, or the period for which to extract tracking data. The Extract Range always ends at the time the data extract activity starts.
- Not all extract types utilize a date range.
• When selecting the Extract Multiple Data Extension List Data option using the standard tracking extract, run the extract at the Enterprise level.

• When you select the "Include" option for a data extract, one of the compressed files the activity produces contains the data you included.

• Click and open tracking data is rounded to the nearest second.

Note: When setting time zone for a tracking extract output file, select **Use Local TZ in Query**. When this option is not selected, the output file defaults to Central Standard Time and does not observe Daylight Savings Time. This option is not available for data extension extracts.

**Example**: If you create an extract that includes “Extract Clicks,” then select “Include Unique Clicks,” the unique clicks data appears in the Clicks file. The activity does not produce a separate file labeled “Unique Clicks.”

**Example**: If you choose an extract range of seven days, the activity extracts tracking information for the last seven days up to the minute the activity runs.

Create a Data Extract File

Create a file to use outside of the application with Automation Studio’s Data Extract activity. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account. Set up a file transfer activity to pull your data extract file from the Safehouse and drop it in your FTP location.

Configure a Tracking Extract

Tracking extracts can output several types of data related to an email send in Email Studio.

**Extract Types**

Refer to the topic that corresponds with the extract type you are using.

**Extract Outputs Reference**

This table describes the outputs available for the Tracking Extract extract type.

Create an Audit Trail Data Extract Activity

The extract activity extracts your audit data to prepare it for file transfer.

Create a Data Extract File

Create a file to use outside of the application with Automation Studio’s Data Extract activity. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account. Set up a file transfer activity to pull your data extract file from the Safehouse and drop it in your FTP location.

1. Click **Create Activity**.

2. Select **Data Extract**.

3. Add a name, external key, and description for the activity.

4. Enter a file naming pattern so that the activity knows what to name the file it creates. Use the following personalization strings in your filename: `%%Year%% %Month% %Day% %Hour% %Minute%`

   **Note**: Ensure that the filename patterns match in the Data Extract Activity and the File Transfer Activity.

   a. Use when you’ve set up a workflow to drop a file whose auto-generated filename matches a pattern into the file location.

   b. Enter a static name or include placeholders for the date, keeping in mind that they’re case-sensitive. If a filename includes personalization strings that are capitalized, capitalize them in the file naming pattern.

   c. Include a .zip extension for tracking extract and .csv to a data extension extract.
5. To determine the web analytics tools used to interpret the extracted file, select an extract type. The value you select determines the data you can include in the file.

-note: Extract types must be provisioned for your account. Contact your Salesforce Marketing Cloud representative for more information.

6. To determine the date range for information to include in the extract file, select an extract range. Choose 1 day, 7 days, or 30 days.

7. Select a type of file encoding to use.

8. Configure the extract by choosing the fields that appear in the data extract file.
   a. Select a field name to include it in the data extract file.
   b. If the data extract you choose includes the columnDelimiter field, insert the character you wish to use as a delimiter within the data extract.
   c. Valid choices include the following characters:
      • ,
      • tab
      • |

-note: When setting time zone for a tracking extract output file, select Use Local TZ in Query. When this option isn’t selected, the output file defaults to Central Standard Time and doesn’t observe Daylight Savings Time. This option isn’t available for data extension extracts.

Configure a Tracking Extract

Tracking extracts can output several types of data related to an email send in Email Studio.

Create a data extract activity.
1. In a data extract activity, select the **Tracking Extract** extract type.

2. Specify the range of time to include in the data extension extract.
   - Select **Rolling Range** and 1, 7, 30, 60, or 90 days to include data for this range every time you run the data extension extract.
   - Select **Specific Range** and enter the start and end dates. You can select up to 30 days.

3. Enter the accounts used to extract tracking information.
   - A blank field extracts information from the account running the extract.
   - An asterisk extracts information from all accounts and subaccounts in an Enterprise account.
   - A comma-delimited list of account ID numbers extracts information from only those accounts inside an Enterprise account.

4. Enter the accounts for which you want to include the Attributes file if ExtractAttributes is enabled for your account.
   - A blank field returns no attributes.
   - A comma-delimited list of attribute names returns attribute files for those accounts. If the attribute does not exist for an account or subaccount, this action returns no attributes.

5. Enter an email send definition external key to filter data from a specific send.

6. Select the outputs to include.
   - Attributes
   - Bounces
   - ClickImpressions
   - Clicks
   - Conversions
   - ListMembershipChanges
   - Lists
   - NotSent
   - Opens
   - SendJobImpressions
   - SendJobs
   - Sent
   - SentImpression
   - StatusChanges
   - Subscribers
   - SurveyResponses
   - Unsubs

7. Choose the extract range.
   - A blank field uses the date range associated with the tracking extract. Previous Month overrides any other information and creates the tracking extract from the previous month's data.

8. Enter the format in which you want the tracking extract to be created.
   - CSV returns a comma-delimited file. The tracking extract defaults to this value.
   - Tab returns a tab-delimited file.
   - XML returns an XML file where supported.
9. Select **IncludeAllListMembers** to include all list members in the tracking extract.  
To include only list members with activity during the specified period, do not select **IncludeAllListMembers**.

10. Select **IncludeAllSubscribers** to include all subscribers in the tracking extract’s Subscribers file.  
To include only subscribers with activity corresponding to the events included in the extract, do not select **IncludeAllSubscribers**.

11. Select **IncludeInferredOpens** to include inferred opens, which are clicks in an email without a recorded open.  
To include only opens where the email was clicked and rendered, do not select **IncludeInferredOpens**.

12. Select **Include User Agent Information** to include user agent data related to the open or click, such as operating system, email client, browser, or device.

13. Select **QuoteText** to surround text with double quotation marks.  
This process replaces existing double quotes in the tracking extract by two single quotation marks.

14. To filter the tracking extract, enter a comma-delimited list of SendIDs.  
If you specify the external key of an email send definition in the extract, the extract includes information from all SendIDs and the email send definition.

15. Enter a character to use as a text qualifier.  
The default value is a double quotation mark.

16. Select **UnicodeOutput** to save the extract in UTF-16 format instead of ASCII.

17. Save the activity.

Start the activity.

**Extract Types**

Refer to the topic that corresponds with the extract type you are using.

- **Convert XML**
  This data extract type converts XML files to delimited files for import into data extensions or lists. Use this extract for simple XML files only, as files with subnodes on attributes require a different process. Contact your Marketing Cloud account representative for additional information.

- **Data Extension Extract in Automation Studio**
  This Marketing Cloud Automation Studio data extract type extracts information from a data extension and places it in a delimited file.

- **GlobalUnsubImport**
  Use this data extract to import data into the global unsubscribe list for an Enterprise 1.0 account. Only Enterprise 1.0 accounts with the GlobalUnsub feature can use this data extract.

- **Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract**
  This data extract activity provides information on tracking data extracted from accounts using the Marketing Cloud for Microsoft Dynamics CRM integration. This data extract activity functions only with version 4.0 of the Marketing Cloud for Microsoft Dynamics CRM integration.
Tracking Extract
Tracking extracts provide granular tracking data for import from Email Studio into external systems. Use tracking extracts to export granular data regarding several different aspects of email send jobs, such as clicks, bounces, and survey data, from Marketing Cloud. Then, import that information into an automation or system.

Create a Zip Data Extract
The zip data extract type allows you to compress exported files to your FTP site. Use this activity in a file transfer activity contained within an automation or use as a one-time activity.

Contacts Without Channel Addresses
Find and manage your contacts that aren’t associated with any channels. Understand the source of your contacts and delete the ones you don’t want.

Convert XML
This data extract type converts XML files to delimited files for import into data extensions or lists. Use this extract for simple XML files only, as files with subnodes on attributes require a different process. Contact your Marketing Cloud account representative for additional information.

The Convert XML data extract requires this information:

- Name - name of the data extract
- External Key - optional value used to identify the extract in API calls
- Description - optional description for the extract
- File Naming Pattern - Name of the zipped file created by the extract process. You can include these wildcard specifiers:
  - %%Year%%
  - %%Month%%
  - %%Day%%
- CreateColumnHeaders checkbox - This checkbox indicates whether the XML file used in the conversion contains information used to create column headers. If the XML file does contain this information, you can map the resulting delimited file for import by column heading. If the XML file does not contain header information, map the delimited file by ordinal when you import the data.
- FileFormat - indicates the file type for the exported file:
  - csv - indicates a comma-delimited file
  - tab - indicates a tab-delimited file
  - Any other value in this field defaults to tab

  **Note:** If using CSV, the file has a name such as filename.csv.

- InputFileName - the XML file for the activity to convert. This activity requires files on your FTP server. The activity creates the output file in the same location on the FTP server.
- QuoteCharacter - defines the quote character used by the system to determine to differentiate attributes in the XML file from the element names
- The last field contains the name of the element for which the converting process creates a row.

  **Example:** This example XML file would use /subscribers/subscriber as the element for which to creates a row, since that element indicates when a new record starts:

  ```xml
  <subscribers>
  <subscriber>
  ```
Data Extension Extract in Automation Studio

This Marketing Cloud Automation Studio data extract type extracts information from a data extension and places it in a delimited file.

**Note:** Using a standard data extension extract doesn't guarantee that the extracted rows are in the same order they were inserted. To enforce a specific order, create a custom extract.

The Data Extension extract type requires this information in the fields section:

- The character you want to use to delimit each column. Marketing Cloud defaults to a comma, but you can enter tab for a tab-delimited file or | for a pipe-delimited file.
- The data extension’s external key in the DECustomerKey field
- HasColumnHeaders determines whether the extract file includes column headers
- TextQualified determines whether text within the data extension appears within double quotation marks
- UsesLineFeed determines whether a new line is generated based on the field selected in the data extension

Create a file transfer activity and select **Move a File From Safehouse** as the File Action. Add the name of the file from the data extension data extract in the File Naming Pattern field to move the extract to another file location.

**Note:** Make sure to use the same file naming pattern for the file transfer activity that you use when setting up the data extension extract using the data extract activity.

Save both the data extract and the file transfer activity. Then, create an automation that includes the data extract as the first step with the file transfer activity next. You can run the automation one time or set it to run at scheduled times. Use third-party FTP software to move the file from your chosen file location to your computer.

GlobalUnsubImport

Use this data extract to import data into the global unsubscribe list for an Enterprise 1.0 account. Only Enterprise 1.0 accounts with the GlobalUnsub feature can use this data extract.

 Provision the GlobalUnsubImport extract in the Enterprise parent account.

This data extract includes three options:

- DoMerge - Select this option to remove any emails addresses not included in the import file.
- GlobalUnsubCategory - Select the name of the global unsub category to use for email addresses added via the import. If the provided category does not exist, the process creates it.
- InputFileName - Provide the name of the file containing the email addresses.

Review the GlobalUnsub table in the customer database to validate the extract added the email addresses to the list.
**Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract**

This data extract activity provides information on tracking data extracted from accounts using the Marketing Cloud for Microsoft Dynamics CRM integration. This data extract activity functions only with version 4.0 of the Marketing Cloud for Microsoft Dynamics CRM integration. Contact your Marketing Cloud account representative to enable this feature.

This tracking data extract retrieves tracking information at a specified, preferably off-peak time, as opposed to real-time tracking data. Moving the retrieval process enhances the performance of large-volume sends while still providing the necessary tracking data. The data extract can consist of up to 6 files, including this information:

<table>
<thead>
<tr>
<th>JobSubscribers</th>
<th>SendLinks</th>
<th>SendResult</th>
<th>SubscriberLinkDetails</th>
<th>SubscriberSendResult</th>
<th>UnsubEvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>JobID</td>
<td>JobID</td>
<td>ID</td>
<td>JobID</td>
<td>JobID</td>
<td>UnsubEvent</td>
</tr>
<tr>
<td>EmailID</td>
<td>Alias</td>
<td>EmailName</td>
<td>SubscriberID</td>
<td>EmailID</td>
<td>EventDate</td>
</tr>
<tr>
<td>EmailName</td>
<td>Url</td>
<td>EmailSubject</td>
<td>SubscriberKey</td>
<td>EmailName</td>
<td>PartnerKey</td>
</tr>
<tr>
<td>EmailSubject</td>
<td>LastClicked</td>
<td>Subject</td>
<td>Alias</td>
<td>EmailSubject</td>
<td>Client.ID</td>
</tr>
<tr>
<td>FromName</td>
<td>TotalClicks</td>
<td>FromName</td>
<td>URL</td>
<td>FromName</td>
<td></td>
</tr>
<tr>
<td>FromEmailAddress</td>
<td>UniqueClicks</td>
<td>SentDate</td>
<td>LastClicked</td>
<td>FromEmailAddress</td>
<td></td>
</tr>
<tr>
<td>DeliveredTime</td>
<td>pkjoburlID</td>
<td>NumberSent</td>
<td>TotalClicks</td>
<td>DeliveredTime</td>
<td></td>
</tr>
<tr>
<td>OpenDate</td>
<td>PartnerKey</td>
<td>Delivered</td>
<td>pkjoburlID</td>
<td>OpenDate</td>
<td></td>
</tr>
<tr>
<td>ClickDate</td>
<td>NumberDelivered</td>
<td>PartnerType</td>
<td>ClickDate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UnsubscribeDate</td>
<td>OtherBounces</td>
<td>UnsubscribeDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LastOpenDate</td>
<td>SoftBounces</td>
<td>LastOpenDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LastClickDate</td>
<td>HardBounces</td>
<td>LastClickDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BounceDate</td>
<td>Clicks</td>
<td>BounceDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>UniqueClicks</td>
<td>EventDate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TotalClicks</td>
<td>UniqueOpens</td>
<td>TotalClicks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UniqueClicks</td>
<td>Unsubscribes</td>
<td>UniqueClicks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubscriberPartnerKey</td>
<td>OpenRate</td>
<td>OtherBounce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>DeliverabilityRate</td>
<td>SoftBounce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>UnsubRate</td>
<td>HardBounce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PartnerType</td>
<td>ClickThroughRate</td>
<td>SubscriberPartnerKey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SendPartnerKey</td>
<td>SendDate</td>
<td>SubscriberEmail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RltdObjectID</td>
<td>Client.ID</td>
<td>SubscriberID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MemberID</td>
<td>ExistingUndeliverables</td>
<td>SubscriberKey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PreviewURL</td>
<td>ExistingUnsubscribes</td>
<td>PartnerType</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duplicates</td>
<td>SendPartnerKey</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Configure the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract
Task information for configuring the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

Import the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into Your Dynamics CRM Instance
Task information for importing the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into your Dynamics CRM Instance.

Configure the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract
Task information for configuring the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

1. Specify the range of time to include in the data extension extract:
   - Rolling Range - Select Rolling Range and set the dropdown menu to 1, 7, 30, 60, or 90 days, depending on the time range to include every time you run the data extension extract.
   - Specific Range - Select Specific Range and enter the start and end dates in the calendar fields. Select up to 30 days in your range.

2. Select to include aggregate tracking data.
3. Select to include data from child accounts.
4. Select to include individual subscriber responses in your data.
5. Select to include job recipients in your data.
6. Select to include link details in your data.
7. Select to include send links in your data.

8. Create a file transfer activity set to Upload and the name of the file from the data extension data extract in the File Naming Pattern field.

Once you save the data extract and the file transfer activity, create an automation that includes the data extract as the first step and the file transfer activity as the second step. You can run the automation once or set it to run at scheduled times. Use third-party FTP software to move the file from your chosen file location to your computer.
Import the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into Your Dynamics CRM Instance

Task information for importing the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into your Dynamics CRM Instance.

1. On the Dynamics CRM server, click **Start**.
2. Select **All Programs**.
3. Select **ExactTarget**.
4. Select **ExactTarget Configuration Editor**.
5. Click **Data Extract Import**.
6. Select **Enabled**. Enter the data extract file name in the File Naming Pattern field.
7. Select your chosen schedule for the import.
8. Select **FTP** in the Extract Source field.
9. Enter the location where the file is saved on your server.
10. Enter the FTP server where the data extract file resides.
11. Enter `import/`.
12. Enter your FTP username.
13. Enter your FTP password.
14. Click **Import**.

Tracking Extract

Tracking extracts provide granular tracking data for import from Email Studio into external systems. Use tracking extracts to export granular data regarding several different aspects of email send jobs, such as clicks, bounces, and survey data, from Marketing Cloud. Then, import that information into an automation or system.

Tracking extracts retrieve data before sends execute. The data includes information on any subscriber listed as undeliverable or excluded by List Detective. You can also schedule tracking extracts via an automation. Tracking extracts also include column heading information.

Use a `.zip` file extension for the output file when creating a data extract. The application returns tracking extract data in a zip file. The size of that file can vary depending on the amount of activity, the accounts involved, and the types of data requested. The output file’s suffix must match.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SendID</td>
<td>Marketing Cloud identifier for the associated send. Found in Tracking as JobID.</td>
</tr>
<tr>
<td>ClientID</td>
<td>Marketing Cloud account identifier. Datasets contain multiple ClientID values when extracting multiple subaccounts.</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>Marketing Cloud internal subscriber identifier</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Marketing Cloud subscriber identifier, defaults to email address</td>
</tr>
<tr>
<td>Email Address</td>
<td>Default unique identifier for a standard account configuration</td>
</tr>
</tbody>
</table>

Primary Key Tables

- Attributes
• Lists
• ListMembership
• SendJobs
  – ClientID
  – SendID
  – SubscriberKey
  – EventDate
  – BatchID
• Sent
• Subscribers
  – SubscriberID
• StatusChange

Event Tables
• Soft Keys
  – ClientID
  – SendID
  – SubscriberKey
  – EventDate
  – BatchID
• Bounces
• Clicks
• Conversions
• Opens
• Surveys
• Unsubs

Note: Event tables sometimes include duplicate rows due to differences in time by seconds or larger.

Tracking Extract Configuration in Automation Studio
You can create a data extract activity in Marketing Cloud Automation Studio using the Extract Type dropdown. To specify the data you want to include, configure the tracking extract fields. See the example at the end of this section for a categorization of extraction objects. When you’ve configured it, start your activity to produce results.

Extract Data from Email Studio to Your SQL Database
You can store the data from your Marketing Cloud Campaigns and Subscriber activity by converting tracking data to your local SQL server.

API Data Extract Options
To better organize your extracted data from Marketing Cloud Email Studio, use this categorization of the extract API Data Extract options for your SQL database.
Tracking Extract Output

Tracking extracts output several types of Marketing Cloud data related to an email send.

Tracking Extract Configuration in Automation Studio

You can create a data extract activity in Marketing Cloud Automation Studio using the Extract Type dropdown. To specify the data you want to include, configure the tracking extract fields. See the example at the end of this section for a categorization of extraction objects. When you’ve configured it, start your activity to produce results.

---

**Note**: You must have the Tracking Extract feature provisioned for your account. Contact your Marketing Cloud representative for more information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling Range or Specific Range</td>
<td>Range of time to include in the tracking extract. All ranges are from 12 AM to 12 AM.</td>
</tr>
<tr>
<td></td>
<td>• For a Rolling Range, set the dropdown to 1, 7, 30, 60, or 90 days, to include every time you run the data extension extract.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>For a Specific Range</strong></td>
<td>enter the start and end dates in the calendar fields under the radio button. Select up to 30 days in your range.</td>
</tr>
<tr>
<td><strong>AccountIDs</strong></td>
<td>Accounts used to extract tracking information.</td>
</tr>
<tr>
<td></td>
<td>• A blank field extracts information from the account running the extract.</td>
</tr>
<tr>
<td></td>
<td>• An asterisk extracts information from all accounts and subaccounts in an Enterprise account.</td>
</tr>
<tr>
<td></td>
<td>• A comma-delimited list of account ID numbers extracts information from only those accounts inside an Enterprise account.</td>
</tr>
<tr>
<td><strong>Attributes</strong></td>
<td>Accounts for which you want to include the Attributes file. This section is only available if ExtractAttributes is enabled for your account.</td>
</tr>
<tr>
<td></td>
<td>• A blank field returns no attributes.</td>
</tr>
<tr>
<td></td>
<td>• A comma-delimited list of attribute names returns attribute files for those accounts. If the attribute doesn’t exist for an account or subaccount, this action returns no attributes.</td>
</tr>
<tr>
<td><strong>EmailSendDefinitionExternalKey</strong></td>
<td>Email send definition external key to filter data from a specific send.</td>
</tr>
<tr>
<td><strong>Output Checkboxes</strong></td>
<td>View one or more tracking extract outputs.</td>
</tr>
<tr>
<td></td>
<td>• Attributes</td>
</tr>
<tr>
<td></td>
<td>• Bounces</td>
</tr>
<tr>
<td></td>
<td>• ClickImpressions</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ExtractRange</td>
<td>Date range used to create the tracking extract.</td>
</tr>
<tr>
<td></td>
<td>• A blank field uses the date range associated with the tracking extract.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Previous Month</strong> overrides any other information and creates the tracking extract from the previous month’s data.</td>
</tr>
<tr>
<td>Format</td>
<td>Format in which you want the tracking extract to be created.</td>
</tr>
<tr>
<td></td>
<td>• <strong>csv</strong> returns a comma-delimited file. The tracking extract defaults to this value.</td>
</tr>
<tr>
<td></td>
<td>• <strong>tab</strong> returns a tab-delimited file.</td>
</tr>
<tr>
<td></td>
<td>• <strong>xml</strong> returns an XML file where supported. To determine if XML is a valid option, review Tracking Extract Output.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Don’t use txt to indicate a tab-delimited file. Although .txt is the file extension for a tab-delimited file, entering txt as the format causes an error.</td>
</tr>
<tr>
<td>IncludeAllListMembers</td>
<td>Includes all list members in the tracking extract. Leave this box unchecked to include only list members with activity during the specified time.</td>
</tr>
<tr>
<td>IncludeAllSubscribers</td>
<td>Includes all subscribers in the Subscribers file of the tracking extract. Leave this box unchecked to include only subscribers with activity corresponding to the events you select to include in the extract.</td>
</tr>
<tr>
<td>IncludeInferredOpens</td>
<td>Includes all inferred opens, or email clicks without a recorded open. Leave this box unchecked to include only specific opens where the email was clicked and rendered.</td>
</tr>
<tr>
<td>Include User Agent Information</td>
<td>Includes user agent data related to the open or click, such as operating system, email client, browser, or device.</td>
</tr>
<tr>
<td>QuoteText</td>
<td>Surrounds all text with double quotation marks. This process replaces existing double quotes in the tracking extract by two single quotation marks. To use a text qualifier, select this option and enter the text qualifier.</td>
</tr>
<tr>
<td>SendIDs or JobIDs</td>
<td>Enter a comma-delimited list of SendIDs to filter the tracking extract. Specify the external key of an email send definition in the extract as well to include information from all SendIDs and the email send definition. A blank field returns job details for the entire specified range.</td>
</tr>
<tr>
<td>TextQualifier</td>
<td>Select <strong>Quote Text</strong> to enable use of a text qualifier. Enter a character to use as a text qualifier. This value defaults to a double quotation mark.</td>
</tr>
</tbody>
</table>
SEE ALSO:
  Create an Audit Trail Data Extract Activity

Extract Data from Email Studio to Your SQL Database

You can store the data from your Marketing Cloud Campaigns and Subscriber activity by converting tracking data to your local SQL server.

1. In Email Studio, create a Tracking Data Extract.
2. Download the resulting .zip file from SFTP and import it to your SQL Server.

The result of the extracts is a ZIP file. The file is for the date range you've specified and contains individual files for each of the options, such as Sent.txt or SendJobs.txt.

Your server program that is processing these files must unzip to the files to a temporary directory and then import them to your SQL database.

See API Data Extract Options for a suggested categorization of API Data Extract Options you can use to organize your extracted data.

API Data Extract Options

To better organize your extracted data from Marketing Cloud Email Studio, use this categorization of the extract API Data Extract options for your SQL database.

**Output File Options**

- OutputFileName
- Format
- FileFormat
- QuoteText
- TextQualifier
- ColumnDelimiter
- FileTransferLocation
- UnicodeOutput
- CharacterEncoding

**Notifications**

- NotificationEmail

**Date Options**

- StartDate
- EndDate
- Timezone
- UseLocalTzInQuery
- IncludeMilliseconds
Qualifiers
- AccountIDs
- Attributes
- SendIDs
- EmailSendDefinitionExternalKey

Subscribers
- ExtractSubscribers
- IncludeAllSubscribers
- ExtractAttributes
- extractStatusChanges

Send Job
- ExtractSendJobs
- ExtractSendJobImpressions

Sent
- ExtractSent
- ExtractNotSent
- ExtractSendData
- ExtractSendImpressions
- IncludeTestSends
- IncludeCampaignID

Opens
- ExtractOpens
- IncludeUniqueOpens
- IncludeInferredOpens
- IncludeGEO
- IncludeUserAgentInformation

Clicks
- ExtractClicks
- ExtractClickImpressions
- IncludeUniqueClicks
- IncludeUniqueForURLClicks

Bounces
- ExtractBounces

Unsubscribes
- ExtractUnsubs
- IncludeUnsubReason
- ExtractSpamComplaints

Lists and Data Extensions
- extractListMembershipChanges
Conversions and Surveys

- ExtractConversions
- ExtractSurveyResponses

If you extract the data via API, you can specify whatever date range you need -- outside of the bounds of the interface. Generally, 6 months of engagement data is available for retrieval.

Tracking Extract Output

Tracking extracts output several types of Marketing Cloud data related to an email send.

**Attributes**
The attributes tracking extract output file contains the attributes associated with subscribers in an account.

**Bounces**
The bounce event extract file shows all the hard and soft bounces occurring within a specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

**ClickImpression**
The click event extract file shows all the instances of a clicked link in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list or related to a particular send.

**Clicks**
The click event extract file shows all instances of a clicked link in an email occurring within the specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

**Conversions**
The conversions file contains a row for each conversion event associated with a subscriber related to an email send job.

**ListMembershipChanges**
The ListMembershipChanges file includes rows that contain information on the subscriber, list, and status data change for every event.

**Lists**
The lists file contains rows including name, description, and other information for a unique list.

**NotSent**
This list contains information on send jobs and messages that didn’t send.

**Opens**
An Open event extract file shows open instances of an HTML email during the date range. The open events relate to all sends for subscribers on a list or to a particular send.

**SendImpression**
The SendImpression event extract file shows instances of an email send occurring during a specified date range. The file also includes the impression region name associated with the click event. The send events relate to all sends for subscribers on a list or to a particular send.
SendJobImpression
The SendJobImpression file represents all impression tracking information from sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

SendJobs
The SendJobs file represents all sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

Sent
The Sent event extract file shows instances of an email send occurring during a specified date range. The send events relate to all sends for subscribers on a list or to a particular send.

Spam Complaints
The Extract Spam Complaints extract file shows subscriber, list, and domain data, including sendID and date, for subscribers who received an email and reported it as spam.

StatusChanges
The StatusChanges file shows instances of change in a subscriber’s status.

Subscribers
The Subscribers file contains subscribers with a tracking event occurring during a specified data range.

Surveys
The Surveys file contains information on responses to surveys included in email sends.

Unsubs
The Unsubs file includes information on unsubscriptions that occurred during a specified data range. The unsubscribe events can be related to all sends for subscribers on a list or to a particular send.

Attributes
The attributes tracking extract output file contains the attributes associated with subscribers in an account.

This extract only outputs data for subscribers who received one of these events over the specified time:

- Bounce
- Click
- FTAF
- Open
- Send
- Survey
- Unsubscribe

For Enterprise and Enterprise 2.0 accounts, not all attributes specified in the Attributes extract property exist in a child account. In this case, the attribute value is left blank in the file.

Output Types

- CVS
- TAB

Columns
This file can include more columns depending on the attribute set specified in the Attributes extract property.
### Table 4: Attributes

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>

### Bounces

The bounce event extract file shows all the hard and soft bounces occurring within a specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

**Output Types**
- CVS
- TAB
- XML
- Columns

### Table 5: Attributes

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Possible Values</td>
<td>Data Type</td>
<td>Character Length</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>attribute set.</td>
<td>By default, the value is the same as EmailAddress.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier of the list ID associated with the subscriber in the send</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>Date the bounce event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifies event type</td>
<td>Bounce</td>
<td>String</td>
<td>6</td>
</tr>
<tr>
<td>BounceCategory</td>
<td>Identifies bounce type</td>
<td>String</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>SMTPCode</td>
<td>SMTP code related to the bounce</td>
<td>Numeric</td>
<td>Small integer</td>
<td></td>
</tr>
<tr>
<td>BounceReason</td>
<td>Detailed reason for bounce provided by external ISP or MTA</td>
<td>See Bounce Reason Table</td>
<td>String</td>
<td>8000</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values:</td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Table 6: Bounce Reason

<table>
<thead>
<tr>
<th>BounceSubcategoryText</th>
<th>BounceSubcategoryDescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication</td>
<td>Message lacks required authentication</td>
</tr>
<tr>
<td>Bad Address Syntax</td>
<td>Email address in invalid</td>
</tr>
<tr>
<td>Complaints</td>
<td>Your email is blocked due to complaints</td>
</tr>
<tr>
<td>Content</td>
<td>Message was filtered due to content</td>
</tr>
<tr>
<td>Data Format Error</td>
<td>Email is rejected due to formatting or line length errors</td>
</tr>
<tr>
<td>Domain Unknown</td>
<td>Recipient domain doesn’t exist</td>
</tr>
<tr>
<td>High Unknown Address Pct.</td>
<td>Email is blocked due to the high quantity or percentage of unknown or inactive addresses on your list</td>
</tr>
<tr>
<td>Inactive Account</td>
<td>Address is temporarily unavailable</td>
</tr>
<tr>
<td>Mailbox Full</td>
<td>Recipient’s mailbox is full or has exceeded storage allocation</td>
</tr>
<tr>
<td>Network Error</td>
<td>Connection lost or timed out during delivery</td>
</tr>
<tr>
<td>Other</td>
<td>Failed due to temporary failure or indecipherable bounce message</td>
</tr>
<tr>
<td>Other</td>
<td>This address does not accept mail</td>
</tr>
<tr>
<td>Other</td>
<td>This email is blocked by recipient</td>
</tr>
<tr>
<td>Other</td>
<td>Mailbox temporarily unavailable</td>
</tr>
<tr>
<td>Server Too Busy</td>
<td>Receiving email server is temporarily overwhelmed with delivery attempts, from you and other senders</td>
</tr>
<tr>
<td>Spamblocked</td>
<td>The remote mail server rejected this message due to characteristics of spam</td>
</tr>
<tr>
<td>Temporary Domain Failure</td>
<td>Receiving domain temporarily unavailable</td>
</tr>
<tr>
<td>Unknown</td>
<td>Response from email provider that does not match a BounceSubcategoryText value that Marketing Cloud recognizes.</td>
</tr>
</tbody>
</table>

**Note:** This response can contain non-alphanumeric characters.

URL Block                          | Emails containing your URLs are blocked                                                      |

User Unknown                       | Address is non-existent at the domain                                                        |
ClickImpression
The click event extract file shows all the instances of a clicked link in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list or related to a particular send.

Output Types
- CVS
- TAB
- XML

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td>String</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td>String</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date click event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>Click</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>SendURLID</td>
<td>Unique identifier for individual URL in send</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
</tbody>
</table>
Table 8: Clicks

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>URLID</td>
<td>Value used by applicable database to identify target URL of the link</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>URL</td>
<td>Target URL of the link</td>
<td></td>
<td>String</td>
<td>4000</td>
</tr>
<tr>
<td>Alias</td>
<td>Value in Alias attribute of the link</td>
<td></td>
<td>String</td>
<td>500</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values: 1234, 1/2/2009, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;Coupon&quot;, 1 1234, 1/2/2009, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;Coupon&quot;, 2 238, 1/10/2009, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;<a href="mailto:example@example.com">example@example.com</a>&quot;, &quot;Coupon&quot;, 1</td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>ImpressionRegionName</td>
<td>Name of impression region associated with the click impression event</td>
<td></td>
<td>String</td>
<td>60</td>
</tr>
</tbody>
</table>

**Clicks**

The click event extract file shows all instances of a clicked link in an email occurring within the specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

**Output Types**

- CSV
- TAB
- XML

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Possible Values</td>
<td>Data Type</td>
<td>Character Length</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date click event occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>Click</td>
<td>String</td>
<td>6</td>
</tr>
<tr>
<td>SendURLID</td>
<td>Unique identifier for individual URL in send</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>URLID</td>
<td>Value used by applicable database to identify target URL of the link</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>URL</td>
<td>Target URL of the link</td>
<td></td>
<td>String</td>
<td>4000</td>
</tr>
<tr>
<td>Alias</td>
<td>Value in Alias attribute of the link</td>
<td></td>
<td>String</td>
<td>500</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values:</td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 9: Conversions

The conversions file contains a row for each conversion event associated with a subscriber related to an email send job.

Output Types
- CSV
- TAB

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated with an email send</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default,</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Possible Values</td>
<td>Data Type</td>
<td>Character Length</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier of the list ID associated with the subscriber in the send</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date the bounce event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifies event type</td>
<td>Conversion</td>
<td>String</td>
<td>10</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values:</td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>ReferringURL</td>
<td>Referring URL used in the Social Forward activity</td>
<td>varchar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LinkAlias</td>
<td>Value in the Alias attribute of the link</td>
<td>String</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>ConversionData</td>
<td>Value used by the applicable database to identify the target URL of the link</td>
<td>Text</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>URLID</td>
<td></td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
</tbody>
</table>
**ListMembershipChanges**

The ListMembershipChanges file includes rows that contain information on the subscriber, list, and status data change for every event.

**Output Types**
- CSV
- TAB

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2(^{63}) (-9,223,372,036,854,775,808) to 2(^{63}-1) (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers fileSubscriberIDcolumn.</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListName</td>
<td>Name of list the job sent to</td>
<td></td>
<td>String</td>
<td>60</td>
</tr>
<tr>
<td>DateJoined</td>
<td>Date subscriber joined list</td>
<td></td>
<td>Datetime</td>
<td>Small</td>
</tr>
</tbody>
</table>
| JoinType     | Specifies how subscriber joined the list                                   | • API: Joined via the API  
• Application: Joined via wizard  
• CustomObject: Joined via a send to a data extension  
• FTAF: Forward to a Friend | String    | 20               |
### Lists
The lists file contains rows including name, description, and other information for a unique list.

#### Output Types
- CSV
- TAB

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>DateUnsubscribed</td>
<td>Date subscriber moved to unsub status</td>
<td>Date</td>
<td>Datetime</td>
<td>Small</td>
</tr>
<tr>
<td>UnsubscribeReason</td>
<td>Reason for unsubscribe</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

### Table 11: Lists

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for list the job sent to</td>
<td>Numeric</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>Name</td>
<td>Name of list</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Description of list</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>DateCreated</td>
<td>Date the application added the list</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Status of list</td>
<td>String</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Active: A list available in the account</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### ListType
Type of list
- Master: All Subscribers list
- Private: List that does not display in the default profile center
- Public: List that displays in the default profile center
- Group: A group based on a list
- Other: Triggered Send, Salesforce, or Microsoft Dynamics CRM hidden lists

**NotSent**
This list contains information on send jobs and messages that didn’t send.

**Note:** Only the most recent two months of data is available.

**Output Types**
- CSV
- TAB

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - large integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated with an email send</td>
<td></td>
<td>Number</td>
<td>Maximum length - large integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default,</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 12: NotSent**
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set</td>
<td>Number</td>
<td>Maximum length - large integer</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td>Number</td>
<td>Maximum length - large integer</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>Date event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>NotSent</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values: SendID, EventDate, SubscriberKey, EmailAddress, TriggeredSendExternalKey, BatchId</td>
<td>Number</td>
<td>Maximum length - large integer</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated with a triggered send definition if the bounce resulted from a triggered send request</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Reason</td>
<td>Detailed reason the email wasn’t sent</td>
<td>Text</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

**Opens**

An Open event extract file shows open instances of an HTML email during the date range. The open events relate to all sends for subscribers on a list or to a particular send.

**Output Types**

- CSV
- TAB
- XML

Columns
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>System account identifier associated with the attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated with an email send</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date event occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>Open</td>
<td>String</td>
<td>6</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values: 1234,1/2/2009,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;Coupon&quot;,1 1234,1/2/2009,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;Coupon&quot;,2 1238,1/10/2009,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;<a href="mailto:example@example.com">example@example.com</a>&quot;,&quot;Coupon&quot;,1</td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>
SendImpression
The SendImpression event extract file shows instances of an email send occurring during a specified date range. The file also includes
the impression region name associated with the click event. The send events relate to all sends for subscribers on a list or to a particular
send.

Output Types
• CSV
• TAB
• XML

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>System account identifier associated with the attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date click event occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>Sent</td>
<td>String</td>
<td>6</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email send</td>
<td>Sample values: Sample values:</td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
</tbody>
</table>
### SendJobImpression

The SendJobImpression file represents all impression tracking information from sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

**Output Types**
- CSV
- TAB

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ImpressionRegionID</td>
<td>ID of impression region associated with the send event</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>FixedContent</td>
<td>Defines whether content is fixed or now</td>
<td>0 or 1</td>
<td>Boolean</td>
<td>1</td>
</tr>
<tr>
<td>ImpressionRegionName</td>
<td>Name of impression region associated with the send event</td>
<td></td>
<td>String</td>
<td>60</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date sent event occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
</tbody>
</table>
**SendJobs**
The SendJobs file represents all sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

Once the tracking extract process creates a SendJobs table, the only column value that can change is JobStatus. All other data associated with the job is static. JobStatus only changes if the send processes during the extract and completes at a later date.

**Output Types**
- CSV
- TAB

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>FromName</td>
<td>From name associated with the send. For On-Your-Behalf sends, this value contains the ChannelMember personalization strings.</td>
<td></td>
<td>String</td>
<td>130</td>
</tr>
<tr>
<td>FromEmail</td>
<td>From email address associated with the send. For On-Your-Behalf sends, this value contains the ChannelMember personalization strings.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SchedTime</td>
<td>Schedule date and time of the send</td>
<td></td>
<td>Datetime</td>
<td>Small</td>
</tr>
<tr>
<td>SentTime</td>
<td>Message delivery date and time to Marketing Cloud</td>
<td></td>
<td>Datetime</td>
<td>Small</td>
</tr>
<tr>
<td>Subject</td>
<td>Subject line of email associated with the send</td>
<td></td>
<td>String</td>
<td>200, but can exceed this value depending on selected extract options</td>
</tr>
<tr>
<td>EmailName</td>
<td>Name of email associated with the send</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Possible Values</td>
<td>Data Type</td>
<td>Character Length</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>SendDefinitionExternalKey</td>
<td>External key associated to the user-initiated send definition that initiated send, as applicable</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>JobStatus</td>
<td>Current job status</td>
<td>• Scheduled&lt;br&gt;• Sending&lt;br&gt;• Completed&lt;br&gt;• Stopped&lt;br&gt;• Canceled&lt;br&gt;• Error&lt;br&gt;• Deleted&lt;br&gt;• PostSendCallout&lt;br&gt;• New</td>
<td>String</td>
<td>30</td>
</tr>
<tr>
<td>PreviewURL</td>
<td>Link to preview of email sent to subscriber. Preview does not incorporate personalization.</td>
<td></td>
<td>String</td>
<td>300</td>
</tr>
<tr>
<td>IsMultipart</td>
<td>Specifies if email sent in multipart MIME</td>
<td>• True&lt;br&gt;• False</td>
<td>Boolean</td>
<td>5</td>
</tr>
<tr>
<td>Additional</td>
<td>EventID entered at time of send</td>
<td></td>
<td>String</td>
<td>50</td>
</tr>
</tbody>
</table>

**Sent**

The Sent event extract file shows instances of an email send occurring during a specified date range. The send events relate to all sends for subscribers on a list or to a particular send.

**Output Types**
- CSV
- TAB
- XML

**Columns**
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID</td>
<td>Identifier associated to an email send</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>Date sent event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>Sent</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Spam Complaints

The Extract Spam Complaints extract file shows subscriber, list, and domain data, including sendID and date, for subscribers who received an email and reported it as spam.

Output Types

- .csv
- .txt
- .xml

Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified unique identifier for a subscriber associated with an attribute set. The default value is the same as EmailAddress.</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td>String</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated unique identifier for a subscriber associated with an attribute set. SubscriberID relates to the Subscribers file's SubscriberID column.</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
<tr>
<td>EventDate</td>
<td>Date the spam complaint event occurred</td>
<td>Datetime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td>SpamComplaint</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>BatchID</td>
<td>Unique identifier for individual URL in the send</td>
<td>Number</td>
<td>Maximum length - big integer</td>
<td></td>
</tr>
</tbody>
</table>
### TriggeredSendExternalKey
External key associated to a triggered send definition if the complaint resulted from a triggered send request

### Domain
Recipient’s email address domain

---

### StatusChanges
The StatusChanges file shows instances of change in a subscriber’s status.

#### Output Types
- CSV
- TAB

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>System account identifier associated with the attribute set</td>
<td>-2^63 to 2^63-1</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with the attribute set. By default, the value is the same as EmailAddress.</td>
<td>String</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with the attribute set</td>
<td>String</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with the attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td>Number</td>
<td></td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>OldStatus</td>
<td>Previous subscriber status</td>
<td>Normal, Held, Unsub</td>
<td>String</td>
<td>10</td>
</tr>
</tbody>
</table>
### Table 20: Subscribers

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewStatus</td>
<td>New status of subscriber</td>
<td>• Deleted&lt;br&gt;• Normal&lt;br&gt;• Held&lt;br&gt;• Unsub&lt;br&gt;• Deleted</td>
<td>String</td>
<td>10</td>
</tr>
<tr>
<td>DateChanged</td>
<td>Time and date that subscriber status change occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
</tbody>
</table>

**Subscribers**

The Subscribers file contains subscribers with a tracking event occurring during a specified data range.

**Output Types**

- CSV
- TAB

**Columns**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>Status</td>
<td>Status of subscriber</td>
<td>• Active: Normal</td>
<td>String</td>
<td>10</td>
</tr>
</tbody>
</table>
### Surveys

The Surveys file contains information on responses to surveys included in email sends.

#### Output Types
- CSV
- TAB

#### Columns

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>DateHeld</td>
<td>Date subscriber moved to Held status</td>
<td>Date</td>
<td>Datetime</td>
<td>Small</td>
</tr>
<tr>
<td>DateCreated</td>
<td>Date application added subscriber</td>
<td>Date</td>
<td>Datetime</td>
<td>Small</td>
</tr>
<tr>
<td>DateUnsubscribed</td>
<td>Date subscriber moved to unsubscribed status</td>
<td>Date</td>
<td>Datetime</td>
<td>Small</td>
</tr>
</tbody>
</table>

### Table 21: Surveys

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with an attribute set</td>
<td>-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>
### Unsubs

The Unsubs file includes information on unsubscriptions that occurred during a specified data range. The unsubscribe events can be related to all sends for subscribers on a list or to a particular send.

**Output Types**
- CSV
- TAB
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Possible Values</th>
<th>Data Type</th>
<th>Character Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>The system account identifier associated with attribute set</td>
<td>-2^63 to 2^63-1</td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SendID or JobID</td>
<td>Identifier associated to an email send</td>
<td></td>
<td>Numeric</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>EmailAddress</td>
<td>Subscriber email address identifier associated with attribute set</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
<tr>
<td>SubscriberID</td>
<td>System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers fileSubscriberIDcolumn.</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>ListID</td>
<td>Identifier for the list the job sent to</td>
<td></td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>EventDate</td>
<td>Date click event occurred</td>
<td></td>
<td>Datetime</td>
<td></td>
</tr>
<tr>
<td>EventType</td>
<td>Identifier for the event type</td>
<td></td>
<td>String</td>
<td>6</td>
</tr>
<tr>
<td>BatchID</td>
<td>Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send</td>
<td>Sample values:</td>
<td>Number</td>
<td>Maximum length - big integer</td>
</tr>
<tr>
<td>TriggeredSendExternalKey</td>
<td>External key associated to a triggered send definition if the bounce resulted from a triggered send request</td>
<td></td>
<td>String</td>
<td>100</td>
</tr>
</tbody>
</table>
Create a Zip Data Extract

The zip data extract type allows you to compress exported files to your FTP site. Use this activity in a file transfer activity contained within an automation or use as a one-time activity.

1. Create a data extract activity.
2. In the data extract activity, select Zip as the Extract Type. If Zip does not appear, contact your Marketing Cloud account representative for access.
3. Enter the Archive Folder location in this format: \Export\Archive\.
   If an archive folder does not exist at the specified location, the process creates one.
4. To delete the original file after the process creates the compressed ZIP file, leave DeleteFiles selected. Otherwise, deselect this option.
5. Enter the name of the file that is to be zipped.
   - Use the exact name of the file
   - Name the file using * as a wildcard, such as a*b.txt or Test_Send_Log*.csv
   - Name the file using date wildcard specifiers, such as etsendlog-%Month%-%Day%-%Year%.csv
6. Enter the filepath on the FTP site for the file to compress in the Import Folder field in this format: \Export\.
7. Enter the filepath on the FTP site for the resulting ZIP file in the Output Folder field.
8. Click Save.

SEE ALSO:
Extract Outputs Reference

Contacts Without Channel Addresses

Find and manage your contacts that aren’t associated with any channels. Understand the source of your contacts and delete the ones you don’t want.

Contacts Without Channel Addresses is an available extract type that doesn’t require support to activate the feature. Unlike other data extracts, this type outputs directly to a data extension. For more information, see Find Contacts Without Channel Addresses in Contact Builder.

Extract Outputs Reference

This table describes the outputs available for the Tracking Extract extract type.

<table>
<thead>
<tr>
<th>Tracking Extract Output</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extract Attributes</td>
<td>Contains the attributes associated with subscribers in an account. The system only outputs data for subscribers who received one of</td>
</tr>
<tr>
<td>Tracking Extract Output</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Extract Bounces</td>
<td>Shows all hard and soft bounces occurring within a specified date range. The events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Click Impressions</td>
<td>Shows all instances of link clicks in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Clicks</td>
<td>Shows all instances of a link in an email being clicked occurring within the specified date range. The events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Conversions</td>
<td>Contains a row for each conversion event associated to a subscriber related to an email send job.</td>
</tr>
<tr>
<td>Extract List Membership Changes</td>
<td>Includes rows that contain information on the subscriber, list, and status data change for every event.</td>
</tr>
<tr>
<td>Extract Lists</td>
<td>Contains rows including name, description, and other information for a unique list.</td>
</tr>
<tr>
<td>Extract Not Sent</td>
<td>Contains information on send jobs and messages that were not sent.</td>
</tr>
<tr>
<td>Extract Opens</td>
<td>Shows instances of an HTML email being opened that occurred during the date range. The open events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Send Job Impressions</td>
<td>Shows all impression tracking information from sends with logged activity for the extract timeframe. This list reflects only jobs that have already processed. Sends scheduled for the future do not appear in this list.</td>
</tr>
<tr>
<td>Extract Send Jobs</td>
<td>Shows all sends that have activity logged against them for the extract timeframe. Only jobs that have already processed are included. Sends scheduled for the future do not appear in this list.</td>
</tr>
<tr>
<td>Extract Sent</td>
<td>Shows instances of an email being sent occurring during a specified date range. The send events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Sent Impression</td>
<td>Shows instances of an email being sent occurring during a specified date range. The file also includes the impression region name associated with the click event. The send events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
<tr>
<td>Extract Spam Complaints</td>
<td>Shows subscriber, list, and domain data, including send ID and date, for subscribers who received an email and report it as spam.</td>
</tr>
</tbody>
</table>
### Tracking Extract Output

<table>
<thead>
<tr>
<th>Tracking Extract Output</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extract Status Changes</td>
<td>Shows instances of change in a subscriber’s status.</td>
</tr>
<tr>
<td>Extract Subscribers</td>
<td>Contains subscribers with a tracking event occurring during a specified data range.</td>
</tr>
<tr>
<td>Extract Survey Responses</td>
<td>Contains information on responses to surveys included in email sends.</td>
</tr>
<tr>
<td>Extract Unsubs</td>
<td>Includes information on unsubscriptions during a specified date range. The unsubscribe events in this report can relate to all sends for subscribers on a list, or to a particular send.</td>
</tr>
</tbody>
</table>

These tracking extract options are available in addition to each tracking extract’s output. Data extracts with Include options selected provide that data within one of the compressed files produced by the activity.

### "Includes" Option

<table>
<thead>
<tr>
<th>&quot;Includes&quot; Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include All Subscribers</td>
<td>Include all subscribers in the Subscribers file of the tracking extract. If unchecked, the extract only includes subscribers with activity corresponding to the events you select to include in the extract.</td>
</tr>
<tr>
<td>Include GEO</td>
<td>Include geolocation data</td>
</tr>
<tr>
<td>Note: If you purchased a Sender Authentication Package (SAP) through Salesforce, your Marketing Cloud org doesn’t populate geolocation data.</td>
<td></td>
</tr>
<tr>
<td>Include Milliseconds</td>
<td>Include timestamps that display time up to the millisecond</td>
</tr>
<tr>
<td>Include Unique Clicks</td>
<td>Includes a count of the first time a single subscriber clicks any link in an email. If the same subscriber returns to the email and clicks again, that does not count as a unique click. Include Unique Clicks measures how many people clicked within the email as opposed to how many total clicks occurred.</td>
</tr>
<tr>
<td>Include Unique Opens</td>
<td>Includes a count of the first time a single subscriber opens an email, measuring how many unique subscribers opened the email.</td>
</tr>
<tr>
<td>Include User Agent Information</td>
<td>Include user agent data related to the open or click to see, for example, Operating System, Email Client, Browser, or Device information.</td>
</tr>
<tr>
<td>Include All List Members</td>
<td>Include all list members in the tracking extract. If unselected, the extract only includes list members with activity during the specified time.</td>
</tr>
<tr>
<td>Include Campaign ID</td>
<td>Include the Campaign ID of the campaign each subscriber is part of.</td>
</tr>
<tr>
<td>Include Inferred Opens</td>
<td>Include all inferred opens, or clicks an email without a recorded open. If unselected, the extract only includes specific opens where the email was clicked and rendered.</td>
</tr>
</tbody>
</table>
### "Includes" Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include Test Sends</td>
<td>Include test sends in send totals.</td>
</tr>
<tr>
<td>Include Unique For URL Clicks</td>
<td>Include a count of the first time each link within an email is clicked. If there are three separate URLs included in the email, a single subscriber could have up to three separate unique clicks.</td>
</tr>
<tr>
<td>Include Unsub Reason</td>
<td>Include the user-specified Unsubscribe Reason, including custom Unsubscribe Reasons if applicable.</td>
</tr>
<tr>
<td>Quote Text</td>
<td>Surround all text with double quotation marks. This parameter replaces existing double quotes in the tracking extract with two single quotation marks.</td>
</tr>
<tr>
<td>Unicode Output</td>
<td>Save the extract in UTF-16 format instead of ASCII.</td>
</tr>
<tr>
<td>Use Local TZ in Query</td>
<td>Show timestamps in the output file in the local timezone.</td>
</tr>
</tbody>
</table>

**SEE ALSO:**

- Discover Reporting Tool

### Create an Audit Trail Data Extract Activity

The extract activity extracts your audit data to prepare it for file transfer.

See Data Extract Activity for more information about data extract activity configuration.

1. Navigate to Automation Studio in Marketing Cloud.
2. On the Activities tab, click **Create Activity**.
3. Select **Data Extract** and click **Next**.
4. Complete the Properties fields:
   - Enter a Name.
   - Enter a Description, if needed.
   - Enter an External Key, if needed.
   - Enter a File Naming Pattern and extension.
     
     **Note:** Record the file naming pattern because it’s required for the File Transfer activity configuration.

   - Select the Extract Type. Choose either **Audit Trail Activity Log** or **Audit Trail Access Log**.
     
     **Note:** Contact your Salesforce Marketing Cloud representative enable these extracts.

   - Click **Next**

5. Complete the Configuration fields:
   - Select **Rolling Range** or **Specific Range** and choose 30 days or 60 days. Basic Audit Trail allows 30 days of data and Advanced Audit Trail allows 60 days.
     
     **Important:** If you select 90 days from the dropdown, the extract is limited to the range of your edition.

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• Select the **Timezone**.
• Complete the remaining fields and click **Next**

6. Review the activity Summary and click **Finish** when done or **Back** to edit.

7. To create the other audit trail extract, repeat this task.

**Security Action Audit Log**
View the audit data from the Audit Trail security action extract available in Marketing Cloud Automation Studio.

**Audit Trail Access Log**
View the audit data from the Audit Trail security event extract available in Marketing Cloud Automation Studio.

SEE ALSO:

**Security Action Audit Log**

**Note:** Timezone settings for extract dates reflect the setting specified when the extract is created.

<table>
<thead>
<tr>
<th><strong>Column</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CreatedDate</td>
<td>Date and time of the security action.</td>
</tr>
<tr>
<td>EID</td>
<td>The Enterprise ID that represents the top-level account or business unit ID.</td>
</tr>
<tr>
<td>MID</td>
<td>The Member ID that represents the account or business unit ID.</td>
</tr>
<tr>
<td>UserID</td>
<td>The ID of the user performing the security action.</td>
</tr>
<tr>
<td>EmployeeID</td>
<td>The ID of the employee performing the security action.</td>
</tr>
<tr>
<td>EmployeeName</td>
<td>The name associated with the employee.</td>
</tr>
<tr>
<td>ObjectTypeID</td>
<td>The ID of the Marketing Cloud object.</td>
</tr>
<tr>
<td>ObjectTypeName</td>
<td>The name of the Marketing Cloud object associated with the ObjectTypeID.</td>
</tr>
<tr>
<td>OperationID</td>
<td>The ID of the Marketing Cloud operation being performed against the Marketing</td>
</tr>
<tr>
<td></td>
<td>Cloud object.</td>
</tr>
<tr>
<td>OperationName</td>
<td>The name of the Marketing Cloud operation being performed against the Marketing</td>
</tr>
<tr>
<td></td>
<td>Cloud object associated with the OperationID.</td>
</tr>
<tr>
<td>ObjectId</td>
<td>The specific ID of the object that is the subject of the security action.</td>
</tr>
<tr>
<td>ObjectName</td>
<td>The name of the object that is the subject of the security action associated</td>
</tr>
<tr>
<td></td>
<td>with the ObjectID.</td>
</tr>
<tr>
<td>TransactionID</td>
<td>An ID to represent related security actions.</td>
</tr>
</tbody>
</table>

**Audit Trail Access Log**
View the audit data from the Audit Trail security event extract available in Marketing Cloud Automation Studio.
### Column Description

<table>
<thead>
<tr>
<th>User</th>
<th>Name of the user.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UserName</td>
<td>Unique identifier for the user.</td>
</tr>
<tr>
<td>AccessDate</td>
<td>Date and time of access.</td>
</tr>
<tr>
<td>FromIP</td>
<td>Source IP address.</td>
</tr>
<tr>
<td>SecurityEventTypeID</td>
<td>Unique identifier for the event type.</td>
</tr>
<tr>
<td>SecurityEventType</td>
<td>Type of event.</td>
</tr>
<tr>
<td>LoginStatusID</td>
<td>Unique identifier for the login status.</td>
</tr>
<tr>
<td>LoginStatusName</td>
<td>Name of the login status.</td>
</tr>
<tr>
<td>Session ID</td>
<td>Unique identifier for the session.</td>
</tr>
<tr>
<td>UserAgent</td>
<td>Identifier for the user agent.</td>
</tr>
<tr>
<td>Event Source</td>
<td>Source of the event.</td>
</tr>
</tbody>
</table>

### Table 23: Security Events

<table>
<thead>
<tr>
<th>SecurityEventTypeID</th>
<th>SecurityEventType</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Login Attempted</td>
<td>Login Attempted</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong></td>
<td>Apparent duplicates can be caused by logins from different machines (not surfaced in the report) or the formatting in the CSV document is truncating milliseconds.</td>
</tr>
<tr>
<td>8</td>
<td>Logout</td>
<td>Logout</td>
</tr>
<tr>
<td>2</td>
<td>Security Question Answered</td>
<td>Security Question Answered</td>
</tr>
<tr>
<td>3</td>
<td>Password Changed</td>
<td>Password Changed</td>
</tr>
<tr>
<td>4</td>
<td>Administrator Access</td>
<td>Support person has impersonated into the user account.</td>
</tr>
<tr>
<td>5</td>
<td>Administrator Unlock</td>
<td>Logged when Administrator unlocks a user.</td>
</tr>
<tr>
<td>6</td>
<td>Redirect</td>
<td>Redirect for users provisioned with IMH Redirect flow, the user is redirected to CAS pages and they try to log in from Members.</td>
</tr>
<tr>
<td>7</td>
<td>Security Setting Changed Impersonation</td>
<td>Security Setting Changed Impersonation</td>
</tr>
</tbody>
</table>
### Security Event Types

<table>
<thead>
<tr>
<th>SecurityEventTypeId</th>
<th>SecurityEventType</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Request Authorization Code</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Request Token</td>
<td></td>
</tr>
</tbody>
</table>

### Login Status

<table>
<thead>
<tr>
<th>LoginStatusId</th>
<th>LoginStatusName</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Successful</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Logout</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>AccountDisabled</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Failed</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>MustChangePassword</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NotSet</td>
<td>Login status hasn’t been set.</td>
</tr>
<tr>
<td>5</td>
<td>UserAccountDisabled</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>InMaintenance</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>UsernamePasswordLock</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SecurityQuestionAnswerLock</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BusinessUnitDisabled</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>SystemDBUnavailable</td>
<td>MC Internal Error regarding DB Connectivity to verify users.</td>
</tr>
<tr>
<td>11</td>
<td>AccountLocked</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>FailedNotOnWhitelist</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>FailedInvalidActivationLink</td>
<td>Activation Link in user setup email is invalid or expired.</td>
</tr>
<tr>
<td>14</td>
<td>FailedDeviceNotActivated</td>
<td>Unable to activate device as part of 2 factor auth.</td>
</tr>
<tr>
<td>15</td>
<td>FailedDeviceNotActivatedNeedMobile</td>
<td>The login failed because the user’s device isn’t activated as required by the account’s security settings, and a mobile number is required for SMS verification.</td>
</tr>
<tr>
<td>16</td>
<td>FailedSsoOnlyLogin</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>SecurityActivationCodeLock</td>
<td>The user has been locked out from using their username or password, security question or answer, and activation code.</td>
</tr>
<tr>
<td>18</td>
<td>MustChangePasswordNoIDV</td>
<td>User must change password.</td>
</tr>
<tr>
<td>19</td>
<td>InvalidCasApplication</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>AppNotAuthorized</td>
<td>App not authorized as part of OAuth2 Authorize API.</td>
</tr>
</tbody>
</table>

SEE ALSO:

* Security Action Audit Log
Verification Activity

Avoid unintended outcomes by verifying the data used in an Automation Studio automation.

Use the Verification activity to avoid unintended automation outcomes. The activity lets you select a target data extension in your automation and evaluate the target data extension for conditions you set.

When the activity detects the conditions you set are met, the activity can stop the automation or send you an email notification or both, depending on the actions you define. If you choose to receive a notification when the conditions are met, you can opt to include a note in the email to provide more context for investigation or troubleshooting.

Hover over the Verification activity icon in the automation’s Run Log to view the latest run’s results. These results give greater confidence that data used in subsequent activities in the automation is what you intend.
Considerations

- The Verification activity can only be used in an automation and cannot be reused across multiple automations. Configuring the activity outside an automation is not supported.
- You can add multiple Verification activities in a single step. However, Verification activities cannot be placed in the same step as any other type of activity.
- The activity shows target data extensions of activities in the automation first by default, but you can use the activity to find and verify any data extension.

Verification Activity Example
This example shows how to verify the data your automation uses in Automation Studio.

Verify Automation Data
Verify the data your automation uses in Automation Studio.

Verification Activity Example
This example shows how to verify the data your automation uses in Automation Studio.

Use the verification activity to avoid unintended outcomes in an automation by monitoring a data extension used in the automation for an unexpected record count.

In this example, a marketer for Northern Trails Outfitters (NTO) has an automation that runs daily. The automation imports a file from NTO’s e-commerce system, queries the data imported to produce an audience segment, and then sends a message. Occasionally, the file provided from the e-commerce system is incomplete, resulting in an unexpectedly low audience segment and send count. The marketer uses a verification activity to catch these scenarios and course-correct before the segmentation and send occur.

To achieve this result, the marketer follows these steps.

1. A verification activity is dragged into the workflow between the step with the Import activity and the step with the SQL Query activity.
2. The marketer sets the verification activity to monitor the Import’s destination data extension. If the import into the data extension results in a record count that is less than 500, the activity stops the automation and sends the marketer an email notification.
3. When this unexpected scenario occurs, Marketing Cloud stops the automation before the segmentation occurs and prevents the message from sending to the incorrect audience. The marketer can promptly act to correct the file and rerun the automation as intended.

**Verify Automation Data**

Verify the data your automation uses in Automation Studio.

To verify that records in a data extension in an automation meet your expectation, set up a verification activity. The activity analyzes target data extensions populated by the automation’s activities or another source, then triggers actions based on user-defined conditions.

1. Drag the verification activity into an automation step.

   - **Note:** You can add more than one verification activity in a single step, but not in the same step as any other type of activity.

2. Click **Configure**.

3. Select the target data extension to verify. Data extensions populated by activities in the automation appear by default.

   - **a.** To select from a larger set, choose **All**.

   - **Tip:** If you do not see the data extension that you expect, save the automation and retry.

4. Click **Next**.

5. Set the conditions that the verification activity monitors.
6. Choose the action the automation takes when the target data extension meets the conditions you set.
   a. To receive an email when verification conditions are met, specify the email addresses that receive the notification.
   b. If necessary, add a note to explain the condition that was met, or any other information you want to include in the notification to aid in troubleshooting.

7. Complete activity setup.

The automation's Activity Run Log logs the verification activity's outcome.

Automation Studio Activities Reference

Understand all activities available in Marketing Cloud Automation Studio at a glance.

These activities are available for use in an automation. Click Create Automation to access activities listed on this page.

**Note:** The total number of filter activities and query activities to execute simultaneously in a Marketing Cloud account is limited to 40. Any activities beyond this limit aren’t processed until there are fewer than 40 activities of this type executing.

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refresh Group</td>
<td>Reapplies rules in a group definition to create a subset of subscribers in a list. Before you can use a group refresh activity, you must create a group definition in Email Studio.</td>
</tr>
<tr>
<td>Send Email</td>
<td>Choose and configure an email message to send on its own or in sequence according to a schedule. Configuring the Send Email Activity creates a Send Definition that can be used in other automations.</td>
</tr>
<tr>
<td>SQL Query</td>
<td>Retrieves data extension or data view information according to criteria you set, then includes that data in a data extension. Use SQL to create the query used in this activity.</td>
</tr>
</tbody>
</table>
## Automation Studio Activities

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import</td>
<td>Updates a subscriber list or data extension using an external file. You provide information to create an import definition, which gives import file details and the import activity’s behavior while running. To access Salesforce Objects and Reports, navigate to Interactions in Email Studio.</td>
</tr>
<tr>
<td>File Transfer</td>
<td>Unzips or decrypts a file found in the Marketing Cloud's Enhanced FTP directory or to securely transfer files from the Marketing Cloud’s secure file transfer location (Safehouse) to an FTP location.</td>
</tr>
<tr>
<td>Script</td>
<td>Executes your Server-Side JavaScript to accomplish tasks in an email or landing page.</td>
</tr>
<tr>
<td>Filter</td>
<td>Applies a data filter to create a group or data extension containing records that meet a set of criteria.</td>
</tr>
<tr>
<td>Data Extract</td>
<td>Creates a file to use outside of the application. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.</td>
</tr>
<tr>
<td>Wait</td>
<td>Sets an automation to wait for a specific duration, or until a specific time, before continuing.</td>
</tr>
<tr>
<td>Report Definition</td>
<td>Defines the parameters for running a report one time to be used every time the report is run using the activity. Create a report activity to run any available standard report in the application or custom reports in your account.</td>
</tr>
<tr>
<td>Refresh Mobile Filtered List</td>
<td>Ensures that your Contact lists are up to date according to the filters used to create the list.</td>
</tr>
<tr>
<td>SMS Activity</td>
<td>Initiates an SMS message.</td>
</tr>
<tr>
<td>Send GroupConnect</td>
<td>Initiates a GroupConnect message.</td>
</tr>
<tr>
<td>Verification</td>
<td>Helps avoid unintended automation outcomes by letting you set conditions for a data extension used in the automation, and notify you, stopping the automation, or both if the conditions are met. This activity also shows results of the latest run on hover and can be used for logging in an automation.</td>
</tr>
</tbody>
</table>

### More Activities

More provisioning is required to access these activities. Contact your Marketing Cloud representative for more information.

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Event</td>
<td>Signals that new contacts were added to a data extension used as the event source in a journey. The newly added data is then sent into journeys whose entry events are configured to detect changes in this data source.</td>
</tr>
</tbody>
</table>
**Activity Name** | **Description**  
---|---  
Journey Entry: Audience | Added to automations that populate audiences in Journey Builder. When a journey uses an audience as its entry source, this activity is added to the automation that updates the audience. Access a direct link to the journey populated by this activity by clicking the activity name.  
Send Salesforce Email | Initiates a send from a Sales or Service Cloud account.  

**Note:** Automation Studio audiences are evaluated and processed for entry according to the schedule of the source automation, which is set in Automation Studio. When the Journey Entry: Audience activity is included in an automation, contacts enter the journey according to the schedule set in that automation.  
**Note:** Organizations that use Marketing Cloud Connect can access the Send Salesforce Email Activity. Contact your Marketing Cloud representative for more information.  

**Custom**  
**Activity Name** | **Description**  
---|---  
{custom} | An activity fully configured by you  

**SEE ALSO:**  
- Use MobileConnect with Automation Studio  
- MobilePush and Automation Studio  
- Data Extension Extract in Automation Studio  
- Configure Interactions in Automation Studio  

**Wait Activity**  
Wait activities in Automation Studio cause an automation to wait for a specific duration or until a specific time before performing the next step. You can include one or multiple wait activities in a single automation.  
**Note:** An automation must finish its run completely before subsequent runs begin. When an automation is in the middle of a wait activity at the time when the next scheduled or file drop run occurs, Automation Studio skips that run.  

**Multiple Wait Activities - Considerations**  
- There is no limit on the number of wait activities an automation, but the combined wait time in an automation can’t exceed one year.  
- When you add more wait activities, wait times for previous wait activities are shown in the Wait Activity modal so that you can calculate total wait time in the automation.  
- When the duration of the first wait activity is specified, any wait activities occurring later in the automation’s workflow begin after this wait time ends.  
- When an automation is in the middle of a wait activity when the next scheduled or triggered run occurs, that run is skipped.
Scheduling Considerations

If your schedule creates overlapping times due to wait activities, those scheduled runs are skipped and represented in the Activity tab.

- Scheduled runs that are skipped due to overlap are logged as errors and shown under Health.
- Runs skipped due to running wait activities are shown in the Run Log.
- All wait activities included in an automation are shown to the left in the Wait Activities sidebar under the Schedule Summary.

- To change the duration or time for an activity on the timeline, click 🕒.
- To update a wait activity from the Overview page, click Edit.

Add a Wait Activity

Tell an automation how long to pause before proceeding to the next activity in Automation Studio.

Wait activities cause an automation to wait for a specific duration or until a specific time before performing the next step.

1. From the Overview page, select an automation to edit, or create an automation.
2. Click Wait and drag the activity into a drop zone on the canvas.
3. To tell Automation Studio to either wait for a duration of time or until a specific time, click Choose.

4. Save the activity’s settings.

Tip: You can set an automation to do both—to wait for a specified duration, but to not start before a specified time. Add a wait activity for the duration and save it. Then, in the next column, add a wait activity for the specified time.
Pause an Automation

Stop an automation’s schedule temporarily in Automation Studio. This action only pauses the automation’s schedule for future scheduled runs. An automation that is running when you click Pause continues to run even if the schedule is paused.

1. After opening the automation record, clickPaused in the Schedule Summary column.

The Paused Schedule dialog box appears.
2. To put the automation in a paused state, click **Pause**.

   📘 **Note:** To cancel this action and keep the automation active, click **Cancel**.

3. Resume the schedule by setting it to Active on the Schedule tab.

**Skip an Automation**

Indicate in Automation Studio that an automation’s next run will not occur without stopping the automation's schedule.

In an automation's Schedule tab, the Schedule Summary pane appears.

1. To skip an automation's next run without stopping the automation's schedule, click **Skip Next Occurrence**.
2. A confirmation message displays to verify that the automation’s next run will not occur.

Stop a Running Automation

When an automation is stopped in Automation Studio, activities in the step that is in progress complete, but subsequent steps do not start.

Use these instructions to stop a running automation. Cancel email sends in progress in the currently running step from the Tracking tab in Email Studio.

1. Click **Stop** on the Workflow canvas.

   A confirmation message appears.
2. To stop sends that could be occurring when the automation stops, click **Go to Tracking to cancel sends in progress**.

3. Select each job currently in progress on the Tracking page.

4. Click **Cancel Send**.

   ![Note](image)

   **Note:** To pause an automation’s schedule, click **Pause**.

---

### Copy an Automation

Create an exact copy of an automation to extend or modify it in Automation Studio.

Copying an automation doesn’t create activities to be edited. The activities are referenced to the original automation. Editing the activities in the copied automation also edits the activities from the original automation. After the new automation is copied, use the replace option for each activity and include new activity created.

1. ![Click](image)
2. Give the copy a unique name, description, and external key.

   a. Choose a different file location for the copy as appropriate.

**Delete an Automation**

Remove unneeded automations from Overview or the automation page in Automation Studio.

Delete an automation from the individual automation’s page.
1. Click .
   A message appears to confirm the deletion.

2. Click Delete.

**Automation Studio Errors**

Use this page to find out what Automation Studio error messages mean, their implications, and how to resolve them.

**SQL Query Activity Errors**

<table>
<thead>
<tr>
<th>Error Text</th>
<th>Meaning</th>
<th>Suggested Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Query definition doesn't exist.</td>
<td>Query was deleted.</td>
<td>Recreate the SQL Query activity.</td>
</tr>
<tr>
<td>Query failed during execution. Error: Violation of PRIMARY KEY constraint. Can't insert duplicate key in object '{[DE name]}'. The duplicate key value is (123456789).</td>
<td>The Query Source doesn't have a Primary Key, but the Destination does. Thus, the query results in a duplicate record.</td>
<td>Add a primary key field in the source or remove the primary key from the destination.</td>
</tr>
</tbody>
</table>
| Query failed: Timeout | Query took too long to resolve. | • If this timeout error doesn't typically occur, retry the activity or automation it's part of.  
• If this error recurs, see Optimize the Query Activity. |
| Query failed during execution. Error: Conversion failed when converting the nvarchar value '123ABC' to data type int. | Query Source has an alphanumeric field, but the Destination has a number field. | Update either the query source or the destination so the data type is identical for both. |
| Query failed during execution. Error: String or binary data would be truncated. | Query Source has a longer field length than the Destination field. | Increase the destination field length so that each allows the same number of characters. |
| Query failed during execution. Error: Invalid column name '{[column name]}'. | Either the Source or the Destination has a field that was renamed or deleted. | Confirm that columns and fields haven't been changed or deleted. |
| Query failed during execution. Error: Invalid object name 'QueryTest_100'. Error has occurred. | Either the Source or the Destination Data Extension has been deleted, renamed, or is otherwise unavailable. | Confirm that both the source and destination data extensions exist. |
| Query failed: Query not allowed | The configuration of your account doesn't allow queries. | Contact your account representative. |
| Query failed due to system error. | Internal system error | Retry. If this error persists, open a support case in Salesforce Help. |
# File Transfer Activity Errors

<table>
<thead>
<tr>
<th>Error Text</th>
<th>Meaning</th>
<th>Suggested Action</th>
</tr>
</thead>
</table>
| File not found matching the pattern: {{pattern}}                          | When using Manage File, the source file that the activity expected to find is missing. When using Move A File from Safehouse, no file matching the file naming pattern was found. | • Verify that the file naming pattern of the file matches the pattern configured for the activity exactly.  
• Verify that the file was dropped in the intended location, especially if an automated process drops the files. |
| Invalid File Age                                                          | The timestamp on the file is invalid, or a setting in the configuration of the activity prevents files of a specified age from being processed. | Ensure that the file isn’t older than the defined age limit setting or modify the age limit setting. |
| Authentication with the server failed                                     | Server authentication failed. Confirm that your FTP location is valid and retry. Server authentication failed.                                | • Confirm that your FTP location is valid.  
• Confirm that your external file location credentials are valid and that your session is active. Then, retry. |
| Invalid username or password reported by server.                          | Server authentication failed due to invalid username or password.                                                                          | • Confirm that your FTP location is valid.  
• Confirm that your external file location credentials are valid and that your session is active. Then, retry. |
| Server returned an error: Permission denied                               | Server authentication failed due to a permission error.                                                                                   | • Confirm that your FTP location is valid and configured correctly. Then, retry.  
• Confirm that the username provided in the file location definition has permission to the destination folder. |
| The process can’t access the file ‘{{filename}}’ because it’s being used by another process. | A file lock error occurred.                                                                                                             | • Retry the activity or the automation that it’s a part of if this error doesn’t typically occur.  
• If this error continues, ensure that the file isn’t being used by another process. |
| There was an error connecting to the target server.                       | Connected host has failed to respond.                                                                                                    | Verify that your FTP host entry is configured correctly and retry.                                    |
| Non-anonymous sessions must use encryption.                               | Non-anonymous sessions must use encryption. A non-anonymous session was initiated without encryption enabled.                           | Encryption required. Update encryption settings to proceed. Encryption is required. Update encryption settings to proceed. |
| The remote host forcibly closed an existing connection.                   | Remote host connection lost.                                                                                                             | Check destination server settings to re-enable the connection.                                       |
### Suggested Action

<table>
<thead>
<tr>
<th>Error Text</th>
<th>Meaning</th>
<th>Suggested Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle connection category</td>
<td>FTP you're trying to push the files into is having connectivity issue.</td>
<td>Check the FTP connection.</td>
</tr>
</tbody>
</table>

### Import File Activity Errors

<table>
<thead>
<tr>
<th>Error Text</th>
<th>Meaning</th>
<th>Suggested Action</th>
</tr>
</thead>
</table>
| Import failed: File {{filename}} not found | The source file that the activity expected to find is missing, or no file matching the file naming pattern was found. | • Verify that the file pattern of the file matches the pattern configured in the Import File activity.  
• Verify that the file was added to the import location as intended, especially if an automated process drops the files. |
| Import failed: Invalid file age      | The timestamp on the file is invalid or settings in the configuration of the activity prevent files of a specified age from being processed. | Ensure that the file isn’t older than the defined age limit setting or modify the age limit setting. |
| Import failed: Invalid file source   | File source is invalid.                                      | Enter a valid file source.                                                        |
| Import failed: File location invalid | File location is invalid.                                    | Enter a valid file location.                                                     |
| Import failed due to system error.   | Internal system error                                        | Retry. If this error persists, open a support case in Salesforce Help.           |

### See Also:
- Optimize the Query Activity
- Use Intermediate Tables to Optimize a Query

### Get Automation Studio Notifications

Add your email address so that you are notified when a Marketing Cloud automation’s run is skipped, encounters an error, or completes in Automation Studio.

**Note:** An automation is skipped when a scheduled run of the automation cannot begin because a prior run of the same automation is still in process. Avoid skipped runs by optimizing the automation’s schedule or using a file drop automation instead.

1. Open an automation.
2. Navigate to the automation’s Activity tab.
3. Add your email to one or both fields in Notification Settings.
4. Add a note as applicable. This note is included in the email message you receive upon skip, error, or success.
Find Activity Configuration and Error Details

To access configuration details and run history for an Automation Studio activity, view the activity’s object detail page. Use this page to locate error information about the activity, too.

1. On the Activities page, select an activity type from the left menu.
2. Click the name of the activity whose details you want to see.

This page also includes options to edit, copy, delete, or run the selected activity.

Configuration details are shown on the Configuration tab.
Note: Only Email, Import File, File Transfer, and SQL Query activities have object detail pages currently.

Run history, including error information, is shown on the Action Log tab.

Marketing Cloud Best Practices

Looking for best practices and use cases to help you get the most out of Marketing Cloud? You’re in the right place.

Journey Builder is a powerful campaign planning tool that lets you design and automate responsive campaigns. You can plan, personalize, and optimize event-driven life-cycle engagement programs based on contact attributes and behaviors. Learn more about Journey Builder on page 171.

Use Journey Builder when you’re ready to automate and build cross-channel customer journeys. After you set up the tool, you can start creating journeys. To set up the tool, learn more in Journey Builder Prerequisites.

Journey Builder orchestrates and automates marketing campaigns and message sequences by using selected content or audiences created in other Marketing Cloud Studios and Builders.

Journey Builder allows you to build a marketing journey by placing an entry source and activities on the canvas and creating paths for your customers. Entry Sources allow people, called contacts, to enter your journey and Canvas Activities are used to automate the path of those contacts. You can also create custom activities for Journey Builder. Learn more about Entry Sources and Canvas Activities.

Still Have Questions?

There are more resources available to ask questions of peers and experts, make product recommendations, or learn about the Marketing Cloud on our YouTube channel.

Salesforce Trailblazer Community: Talk to your peers, ask questions, and learn about Marketing Cloud with the Salesforce Trailblazer Community. You can join the Marketing Cloud Success Chatter Group to register for webinars and find office hours and a Marketing Cloud User Group in your area. Log in and select Collaboration to get started.


Marketing Cloud YouTube Channel: Check out the Marketing Cloud Basics videos for Journey Builder, Email, and more. You can also see customer stories, product demos, and Marketing Cloud keynote presentations. Be warned: some videos start to play automatically.

Data Management

This best practices guide covers topics related to data management in Marketing Cloud to help you understand and use information you collect about your customers for communication, segmentation, and personalization.
Data Management

This best practices guide covers topics related to data management in Marketing Cloud to help you understand and use information you collect about your customers for communication, segmentation, and personalization.

Most marketers are not database administrators, and most database administrators are not marketers. Most of the time, management and use of data in an enterprise platform like Marketing Cloud requires collaboration and communication between organizational functions, implementation partners, or Salesforce Services.

As a marketer, you can facilitate this collaboration by thinking about the data necessary to run and measure your marketing campaigns. Understanding how data works in the Marketing Cloud and how to frame your marketing needs in terms of data can help. The goal of this guide is to help you, as a marketer, understand and talk about data in a cognizant way as a first step toward managing and using data in Marketing Cloud.

Data Storage

Data can be stored in and sourced from different databases, cubes, or clouds. This situation is one of the reasons data is so hard for marketers, and organizations more generally. Data is stored all over the place, in different systems, and those systems don’t always talk to each other easily. In most databases, data is stored in a table with columns to define the data stored in rows. Think of this table like an Excel spreadsheet. In Marketing Cloud, a table is called a data extension. A column is an attribute, and a row of data is a record. Sales Cloud contains objects and fields to talk about tables and columns.

Data Relationships

Data tables can relate to other tables to create a relational database with nested data structures, but they don’t have to be. The phrase “flat file” refers to a single table holding a large amount of data, or even an organization’s entire customer file. You can consider most data extensions used by Email Studio for sending as flat files. These files generally hold all the information required for that specific audience and send needs.

Data Flows

We provide numerous ways to move data into and out of the Marketing Cloud. The method you choose depends on where your data is stored, how much data you need in Marketing Cloud, and how often you update it for your marketing campaigns. Common methods include imports, APIs, and Marketing Cloud Connect. Regardless of the method of bringing data into the system, create the storage elements with the Marketing Cloud to hold the data extensions. Bring in data as values for the attributes you want to use for marketing campaigns.

Understand Data Needs

Take a look at where your data, organization, and marketing programs stand. This assessment helps you determine the best way to manage the data in your Marketing Cloud account.

Data Storage

Data can be stored in and sourced from different databases, cubes, or clouds. This situation is one of the reasons data is so hard for marketers, and organizations more generally. Data is stored all over the place, in different systems, and those systems don’t always talk to each other easily. In most databases, data is stored in a table with columns to define the data stored in rows. Think of this table like an Excel spreadsheet. In Marketing Cloud, a table is called a data extension. A column is an attribute, and a row of data is a record. Sales Cloud contains objects and fields to talk about tables and columns.
Data Relationships

Data tables can relate to other tables to create a relational database with nested data structures, but they don’t have to be. The phrase “flat file” refers to a single table holding a large amount of data, or even an organization’s entire customer file. You can consider most data extensions used by Email Studio for sending as flat files. These files generally hold all the information required for that specific audience and send needs.

Contact Builder allows you to store data in relational tables. These tables present a more scalable solution for data storage. Use these tables to reduce the need to write SQL queries to pull data from multiple tables into a single file to create an audience.

Contact Builder is used in Mobile Studio and Journey Builder. We plan to extend the functionality to Email Studio for audience generation and sending. However, most of the underlying data elements, including data extensions, used in Email Studio can be used in Contact Builder and vice versa. Email Studio cannot use the data relationships and nested data structures created in Contact Builder, only the tables.

Data Flows

We provide numerous ways to move data into and out of the Marketing Cloud. The method you choose depends on where your data is stored, how much data you need in Marketing Cloud, and how often you update it for your marketing campaigns. Common methods include imports, APIs, and Marketing Cloud Connect. Regardless of the method of bringing data into the system, create the storage elements with the Marketing Cloud to hold the data extensions. Bring in data as values for the attributes you want to use for marketing campaigns.

SEE ALSO:

- Connect to Marketing Cloud
- Data Import

Understand Data Needs

Take a look at where your data, organization, and marketing programs stand. This assessment helps you determine the best way to manage the data in your Marketing Cloud account.

1. Available Data
   Start small and don’t underestimate the data you can use today. There’s always room to grow with data in Contact Builder. For example, if you regularly collect a customer’s mailing address, you can use the ZIP code to target customers by location. Behavioral data is another rich source of data you can use to target your customers. This information includes how customers browse on your website, open your emails, or purchase products.

2. Stored Data
   Most companies have data stored or sourced from many places, including back-end and partner systems, including Marketing Cloud. What is your system of record as a marketing organization? If Marketing Cloud is not your primary point of access and storage for data, think about what kinds of data you need to store or access for the campaigns and sends that you conduct in the Marketing Cloud.

3. Describe Your Customers
   In some organizations, there may be only one primary population of customers in Contact Builder. Some other organizations may use multiple populations. For example, a university might have students, alumni, and professors, or a ride-sharing service might have drivers and riders. These populations require different characteristics and data needs.
4. **Manage Customer Subscriptions**

Understand where you manage how customers subscribe to your different marketing and promotional campaigns. This system of engagement is where you manage the legal and logistical aspects of customer’s opting in and out to receive your communications. If Marketing Cloud doesn’t handle subscriptions, such as a custom profile or preference center, ensure subscriptions are handled between multiple systems.

5. **Segment Your Customers**

Marketing Cloud supports filtering or segmenting of customer populations to a specific target audience, as do other customer databases. If you use a different tool to create audiences that you bring into Marketing Cloud pre-filtered, then you might be able to be more strategic about the data you store and access in Marketing Cloud. If you perform some or all of your segmentation in Marketing Cloud, you need to store more data to target your audiences and sends.

6. **Use Data In Marketing Cloud**

If you don’t use data to segment populations in Contact Builder to create audiences, then think about the other uses where you need to access data. Common use cases include personalizing messages, dynamically presenting content to customers, guiding customers through an automated journey, or reporting on the results of marketing campaigns.

**Available Data**

Start small and don’t underestimate the data you can use today. There’s always room to grow with data in Contact Builder. For example, if you regularly collect a customer’s mailing address, you can use the ZIP code to target customers by location. Behavioral data is another rich source of data you can use to target your customers. This information includes how customers browse on your website, open your emails, or purchase products.

**Stored Data**

Most companies have data stored or sourced from many places, including back-end and partner systems, including Marketing Cloud. What is your system of record as a marketing organization? If Marketing Cloud is not your primary point of access and storage for data, think about what kinds of data you need to store or access for the campaigns and sends that you conduct in the Marketing Cloud.

**Describe Your Customers**

In some organizations, there may be only one primary population of customers in Contact Builder. Some other organizations may use multiple populations. For example, a university might have students, alumni, and professors, or a ride-sharing service might have drivers and riders. These populations require different characteristics and data needs.

**Manage Customer Subscriptions**

Understand where you manage how customers subscribe to your different marketing and promotional campaigns. This system of engagement is where you manage the legal and logistical aspects of customer’s opting in and out to receive your communications. If Marketing Cloud doesn’t handle subscriptions, such as a custom profile or preference center, ensure subscriptions are handled between multiple systems.

SEE ALSO:

- Preview the Marketing Cloud Profile Center
- Profile and Preference Attributes in Marketing Cloud
Segment Your Customers

Marketing Cloud supports filtering or segmenting of customer populations to a specific target audience, as do other customer databases. If you use a different tool to create audiences that you bring into Marketing Cloud pre-filtered, then you might be able to be more strategic about the data you store and access in Marketing Cloud. If you perform some or all of your segmentation in Marketing Cloud, you need to store more data to target your audiences and sends.

Use Data In Marketing Cloud

If you don’t use data to segment populations in Contact Builder to create audiences, then think about the other uses where you need to access data. Common use cases include personalizing messages, dynamically presenting content to customers, guiding customers through an automated journey, or reporting on the results of marketing campaigns.

Journeys and Messages

Marketing Cloud’s Journey Builder is a campaign planning tool that enables you to design and automate campaigns that guide customers through their journey with a brand. Its foundation is the journey, which is the communication plan you design. Canvas activities tell Journey Builder how to communicate to and direct contacts in the journey. Contacts enter from an entry source. The journey then continually evaluates contacts to determine when to move them to the next activity.

Journey Builder supports these Marketing Cloud editions.

<table>
<thead>
<tr>
<th>Edition</th>
<th>Compatibility</th>
<th>Known Issues</th>
<th>MC Connect Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core / Advanced</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Enterprise 1.0</td>
<td>Parent Account: No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Your Behalf (OYB) Accounts: No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lock &amp; Publish Accounts: Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sending from the top level of Enterprise 1.0 is not supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sending from OYB account is not supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise 2.0</td>
<td>Yes</td>
<td>Cannot copy journeys from parent business units to child business units</td>
<td></td>
</tr>
</tbody>
</table>

Journey Builder Prerequisites

Review these items before using Journey Builder in the Marketing Cloud whether you’re a marketer or administrator.

Permissions for Journey Builder

Marketing Cloud user permission settings supersede user permissions granted in the Journey Builder app. Review the list of Marketing Cloud permissions required to access these features in Journey Builder.
Optimize Journey Builder Performance
Journey Builder's processing rate varies based on the data model and filters used, journey configuration, activities used, and content complexity. Also, journeys share processing resources, so stagger the scheduled journey start times to reduce the demand and increase the processing speed of individual journeys. You can process up to 2 million email sends per hour per tenant by following these guidelines.

The Journeys Dashboard
The Journeys Dashboard provides an overview of all the journeys you create in Marketing Cloud’s Journey Builder. The overview includes journey type, status, and the last date changes were made. You can also see which version of a journey is accepting new contacts. In this dashboard, you can sort by journey, status, performance by entry total and goal attainment, or last modified date. You can also filter the list of journeys, open a journey, and access the journey creation workspace.

Manage Customer Journeys
Journey Builder’s enables you to efficiently create and track Single Send, Transactional Send, and Multi-Step customer journeys in Marketing Cloud from a unified workspace.

Journey Settings
Choose the settings that determine when the contact enters a Marketing Cloud journey and which address Journey Builder uses to message that contact.

Entry Sources
The entry source on the canvas tells Journey Builder where customers entering this journey come from. Each journey must include an entry source.

Marketing Cloud Mobile App Events Overview
Highly relevant and contextually aware interactions are the cornerstone of amazing customer experiences. Now, user behaviors on your mobile app can drive relevant and personalized touchpoints, powered by easy-to-configure listening rules in Journey Builder. Mobile App Events enable your brand to deliver mobile moments that matter by creating meaningful engagement, increasing brand loyalty, and generating a higher return on investment for your marketing campaigns.

Use Data in Journey Builder
Journey Builder’s essential functions depend on data. To maximize your journeys’ reach, explore how you can use data for filtering, personalization, and other Journey Builder tasks.

Goals in Journey Builder
In Journey Builder, a goal is a measurement of customer actions that you want to promote. Measure goals based on a goal target you set by creating a filter on contact data. After you activate a journey, Journey Builder evaluates contact data against the filter set as the goal target. When Journey Builder determines that a contact met the goal, that contact is counted in goal target statistics. Reaching the goal can also prompt the contact to exit, if applicable.

Activities Reference
Learn what each Journey Builder activity does.

Activity IDs in Journey Builder
Find any activity’s unique identifier in a draft, running, paused, or stopped journey after the journey is saved. This feature helps customers and Support agents locate the issue when troubleshooting an activity.

Message Activities
Messaging activities include email, SMS, LINE message, push notification, inbox message, in-app message, or any other form of content sent to contacts. To provide a mix of information about your brand or your product, vary the message content. Create message content before you build a journey.

Journey Builder Activities
Canvas activities include messages, decisions, updates, or a combination of these elements, dragged onto the Journey Builder canvas. In a Multi-Step journey, the activities you configure affect each contact until they reach a goal or the end of the journey.
Sales and Service Cloud Activities
Use Sales and Service Cloud canvas activities in Journey Builder to create or update Sales and Service Cloud object records for connected Marketing Cloud contacts. You can grant new users access to create or edit Sales and Service Cloud Activities, except users with the Marketing Cloud Administrator role.

Journey Builder Administration
Journey Builder includes an administrative interface that is accessed by clicking links in the top navigation.

Analytics and History
Journey Builder includes journey health, history, and dashboards.

Journey Builder Prerequisites
Review these items before using Journey Builder in the Marketing Cloud whether you're a marketer or administrator.

- A Marketing Cloud Services or Partner Services engagement is recommended for organizations using Journey Builder with integrations and complex use cases.
- Assistance from an IT administrator is often helpful while designing the Contact Builder contacts model and audience segmentation filters for Journey Builder.

Account Provisioning
Before you can create a journey, provision your Marketing Cloud account to support Journey Builder. Manage access to view and create Journey Builder journeys using Marketing Cloud Setup. Customize permissions for roles or individuals to deny access, allow limited access for viewing journeys, or allow complete access to create, edit, and publish journeys.

Contact your Salesforce Marketing Cloud representative if you have account provisioning questions.

For Marketers
Marketers commonly perform these tasks.

- Data Extensions
  One common way to admit contacts into a journey is to fire them into the journey from a sendable data extension. To admit contacts, create a sendable data extension and add or import contacts into it. There are multiple ways to create a data extension.
  After contacts are added to a sendable data extension, configure an entry source to detect data extension changes and determine Journey Builder’s action.

- Channel Content
  Before adding channel activities to a journey, create channel content, like email messages, SMS messages, or push notifications.

For Administrators
IT Administrators commonly perform these tasks.

- Contacts
  A contact represents a single instance of a person within the Marketing Cloud. A contact contains data derived from communications through multiple channels mapped back to a single person.
  Contact Builder defines a contact based on whether its ContactID is found in a population or by subscription to channels such as email or SMS.
Note: The term contact describes a data record in Marketing Cloud that stores data about a person your organization communicates with. The term customer describes the persons to whom communication is sent, about whom data is collected, and whose decisions affect Journey Builder behavior.

Some entry sources, audiences, and Sales or Service Cloud entry events, create a ContactKey automatically when no ID can be matched. All other entry sources require that an existing contact matches to an existing record, confirming a positive match. Entry sources that do not create a contact automatically must be a channel subscriber or part of a Population to enter a journey.

To avoid rejections when using an entry source that doesn’t create contacts, use Contact Builder to create contacts. Provide a ContactKey that Journey Builder uses to identify them.

- **Journey Entry Data Source**

Identify a data source, often a sendable data extension, as the source that contains contacts to admit to the journey. When you configure an entry source, you can select this data extension as the source of contacts in the journey.

  - Set up a data extension entry source to easily select a sendable data extension to start the journey.

SEE ALSO:

- Modify Marketing Cloud User Settings
- Journey Builder Roles
- Contact Builder in Marketing Cloud
- Content Builder
- Get Started in Marketing Cloud MobilePush
- Get Started in MobileConnect
- Distributed Marketing
- Marketing Cloud Feature Settings
- Email Deliverability

## Permissions for Journey Builder

Marketing Cloud user permission settings supersede user permissions granted in the Journey Builder app. Review the list of Marketing Cloud permissions required to access these features in Journey Builder.

<table>
<thead>
<tr>
<th>Features</th>
<th>Required Marketing Cloud Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision Split</td>
<td>• Email &gt; Subscribers &gt; Data Extension &gt; View</td>
</tr>
<tr>
<td></td>
<td>• Salesforce Marketing Cloud &gt; Contacts &gt; Read Contact Data</td>
</tr>
<tr>
<td>Wait by Attribute</td>
<td></td>
</tr>
<tr>
<td>Update Contact</td>
<td>• Email &gt; Subscribers &gt; Data Extension &gt; View</td>
</tr>
<tr>
<td></td>
<td>• Email &gt; Subscribers &gt; List &gt; View</td>
</tr>
<tr>
<td>Engagement Split</td>
<td>• Email &gt; Content &gt; Email &gt; View</td>
</tr>
<tr>
<td></td>
<td>• Content Builder &gt; Assets &gt; View</td>
</tr>
<tr>
<td>Entry Sources</td>
<td>• Email &gt; Subscribers &gt; Data Extension &gt; View</td>
</tr>
<tr>
<td>Data Extension</td>
<td>• Email &gt; Subscribers &gt; List &gt; View</td>
</tr>
</tbody>
</table>
### Marketing Cloud Journeys and Automations

#### Required Marketing Cloud Permission

<table>
<thead>
<tr>
<th>Features</th>
<th>Required Marketing Cloud Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>• API Event</td>
<td>• Salesforce Marketing Cloud &gt; Contacts &gt; Read Contact Data</td>
</tr>
<tr>
<td>• Transactional API Event</td>
<td></td>
</tr>
<tr>
<td>• Contact Event</td>
<td></td>
</tr>
<tr>
<td>• Goal</td>
<td>• Email &gt; Subscribers &gt; Data Extension &gt; View</td>
</tr>
<tr>
<td>• Exit Criteria</td>
<td>• Salesforce Marketing Cloud &gt; Contacts &gt; Read Contact Data</td>
</tr>
<tr>
<td>• Default Email</td>
<td></td>
</tr>
<tr>
<td>• Default Mobile Number</td>
<td></td>
</tr>
<tr>
<td>Test a Journey</td>
<td>Email &gt; Subscribers &gt; Data Extension &gt; View</td>
</tr>
<tr>
<td>Create Journey Templates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Content Builder &gt; Asset &gt; Create</td>
</tr>
</tbody>
</table>

For more details about the permissions granted with user roles in Journey Builder, see Journey Builder Roles and Marketing Cloud Roles.

### Optimize Journey Builder Performance

Journey Builder’s processing rate varies based on the data model and filters used, journey configuration, activities used, and content complexity. Also, journeys share processing resources, so stagger the scheduled journey start times to reduce the demand and increase the processing speed of individual journeys. You can process up to 2 million email sends per hour per tenant by following these guidelines.

**Tip:** Single-tenant deployments on dedicated databases produce a faster and more predictable processing speed than multi-tenant deployments on shared databases. To improve processing speeds after you implement these recommendations in a multi-tenant account, contact your account representative about single-tenancy and dedicated database deployment.

### Groom Data Before Creating a Journey

How you store and prepare data affects how quickly Journey Builder processes records. Here are some ways to maximize processing.

- Create a pre-filtered, sendable copy of the data extension for each journey instead of using the same data extension for multiple journeys. This step also prevents journeys from competing with other database activities such as imports, send-logging, reports, or extracts.
- Use an ETL tool such as Automation Studio for large-scale segmentation before admitting contacts into Journey Builder instead of filtering contacts within the entry source.
- Don’t use a filter in the entry source to filter more than 50% of your contacts when there are more than 500,000 total contacts. Doing this wastes critical compute resources and can lead to the system stopping your journey due to excessive resource usage. Instead, use an ETL tool such as Automation Studio to segment your data before using the data in Journey Builder.
- When data extensions are linked through a one-to-many or many-to-many relationship, a matching attribute value can appear in the journey entry source filters, wait activities, or decision splits multiple times.
- Include all data that you plan to use for decision splits in your entry source data extension. Use journey data for decision splits rather than contact data whenever possible.
- Only use the Update Contact activity to update any contact data except the Contact Key value.
- When you use the Update Contact activity to add a contact to a data extension, include all required field values or the contact isn’t added.
Limit the number of rows per contact to 1000 or less.

Use Efficient Filtering Logic

Journeys share resources for processing. When a journey includes an entry filter, the speed at which contacts are admitted in the journey is lower. Follow these guidelines to maximize hourly processing.

- If your filters use contact data, use the data model to determine the AttributeSets required to link the contact attribute to the contact. When any of these AttributeSets in the path contain a one-to-many relationship, processing speed slows proportionally to the amount of data associated with the contact. For example, if a decision split is based on LastOrderDate, the number of orders associated with the contact affects performance. Performance is slower for a contact with thousands of orders than for a contact with one order.
- If you use an entry filter, avoid ends with and contains operators for best filter performance. In data processing, these operators are more expensive than using the equals operator.
- Complicated entry source or decision split filters require more table joins to filter contacts, which slows performance.
- Filter complexity and performance are based on the number of distinct attributes used and the number links it takes to map to a contact.

Use Journey Activities Wisely

Journey Builder processes contacts in journey segments. A segment is the chain of activities from the journey’s start to the first wait, between two waits, or from a wait to the exit. The minimum processing speed of each activity in that segment determines the processing speed of contacts through a segment. Each activity type processes contacts at a different rate. Journey Builder processes contacts from multiple journeys and segments concurrently.

- Use wait activities sparingly. Don’t add a wait activity as a journey’s first step and avoid using wait activities that are less than 5 minutes long.
- To improve Journey Builder performance, a wait activity that is 1 minute or less at the end of a path is ignored. In most scenarios, these required wait activities at the end of a journey can be lowered to 1 minute without impacting the contact’s journey. Lowering these final wait activities reduces unnecessary system load and improves the predictable performance of your journeys.

Note: One-minute wait activities that aren’t at the end of a path aren’t ignored.

- Though you can add as many journey activities as you want, limit the number of activities to 150-200 in a journey to prevent slow load times.
- Avoid using more than 3 decision split activities at the start of the journey. Journey Builder processes contacts in batches, so using a series of Decision Split activities reduces the batch size. Build the decision split path that you expect the highest number of contacts to follow first.
- To ensure that custom activities don’t slow your journey, optimize the endpoints that custom activities use. Custom REST Activities hit external endpoints so their response time depends on each endpoint’s response time. For more information, see Custom Activity Configuration.
- If you add retry logic to an API event, the activity takes longer to process. Increasing the retry count increases the response time of the REST service from Journey Builder’s perspective.
Example: Consider a single journey running in a single-tenant, dedicated database deployment. Within this journey, there’s one segment from the entry to the random split, the decision split, the update contact activity, email activity, and a 1-day wait.

If the processing speed of the random split activity is 10 million contacts per hour, 9 million per hour for the decision split and update contact activity, and 2 million per hour for the email activity, the maximum processing speed for this segment is 2 million contacts per hour. Most journey activities process faster than message activities and usually don’t impede messaging activities in the segment.

Consider the Impact of Content Personalization

Journey Builder lets you personalize your messages by using the power of AMPscript. Marketing Cloud application handles all AMPscript calls at the end of the message-send, which affects the number of messages sent per hour. We observed the following effects on our internal benchmarking, which was performed in a controlled environment on a dedicated database.

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Content Includes</th>
<th>Email Messages Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static</td>
<td>Single HTML-based content with static personalization</td>
<td>100% (baseline)</td>
</tr>
<tr>
<td>Simple</td>
<td>Single HTML-based content</td>
<td>~100% (minimal impact)</td>
</tr>
<tr>
<td></td>
<td>Personalization by substitution with 9 substitutions</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>Content block-based HTML with 3 content block references</td>
<td>~95%</td>
</tr>
<tr>
<td></td>
<td>Personalization by substitution with 9 substitutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 dynamic substitutions by data extension lookup</td>
<td></td>
</tr>
</tbody>
</table>
Highly personalized message content that has advanced complexity can reduce send throughput by up to 25%. Personalization is a powerful tool to achieve targeted communication with your audience, but make sure to note how it affects your journey’s send throughput.

Note: The relative performance difference shown is only a directional guideline to assess the effects of content personalization. The actual performance difference with the same content in your environment can differ.

### Review Content Used to Benchmark Messaging Performance

Review this detailed information about the content used to benchmark the message-sending performance for email, SMS, and push.

See ALSO:

[Linked Data Extensions in Journey Builder](#)

### Review Content Used to Benchmark Messaging Performance

Review this detailed information about the content used to benchmark the message-sending performance for email, SMS, and push.

To benchmark email-sending performance, we used four different levels of content complexity: Static, Simple, Moderate, and Advanced. For the email content, we created a recommendations email for Northern Trail Outfitters to resonate with customers based on their attributes. The email is offered as complete HTML and modularized into multiple content sections as content blocks and uses two data extensions for personalization. The four different complexity-levels of content produce the same overall email but with varying degrees of personalization through AMPscript.

- **Static**: Single HTML-based content with static personalization
- **Simple**: Single HTML-based content and personalization by substitution with 9 substitutions
- **Moderate**: Content block-based HTML with 3 content block references, personalization with 9 substitutions, and 12 dynamic substitutions by data extension lookup in a for loop
- **Advanced**: Content block-based HTML with 5 content block references, personalization with 9 substitutions, 24 dynamic substitutions by data extension lookup in a for loop, and impressions regions

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Content Includes</th>
<th>Email Messages Per Hour</th>
</tr>
</thead>
</table>
| Advanced     | • Content block-based HTML with 5 content block references  
• Personalization by substitution with 9 substitutions  
• 24 dynamic substitutions by data extension lookup, and impressions regions | ~75%                    |
Compiled Emails

Review these files which include four levels of complexity. They include the source Content Builder code, including the HTML and AMPscript. You can copy and paste the static and simple code snippets into Content Builder. However, to use the moderate and advanced code snippets include the content-blocks referenced in the Static Content Block and AMPscript Content Block sections.

- Static: Static-Level1-10edc6e0-f56a-4f21-ab81-3913abe6b7a2.html (downloadable file)
- Simple: Simple-Level2-fe0e3f18-66d4-492c-8c8c-956259477e70.html (downloadable file)
- Moderate: Moderate-Level5-d353c4f8-3bfc-405d-8bd3-5dcd0d6bebaa.html (downloadable file)
Data Extensions

These data extensions provide the personalization data references used by the source email-code and content-blocks in our testing.

- **Master Demographics Data Extension** (downloadable file)
- **Product Recommendations Data Extension** (downloadable file)

HTML Content Blocks for Moderate Content

**Header**

```html
<style type="text/css">
  div,
  p,
  a,
  li,
  td {
    -webkit-text-size-adjust: none;
  }

  body {
    margin: 0;
    padding: 0;
  }

  td[class="headercell-phone"] {
    display: none;
  }

@media screen and (max-width: 480px) {
  table[class="tmp--container"] {
    width: 360px !important;
  }

  table[class="tmp--container-padding"] {
    width: 360px !important;
    padding: 20px !important;
  }

  table[class="tmp--container-padding-top"] {
    width: 360px !important;
    padding: 20px 0 0 0 !important;
  }

  table[class="tmp--container-padding-bottom"] {
    width: 360px !important;
    padding: 0 0 20px 0 !important;
  }

  table[class="hero"] {
    width: 100% !important;
  }

  table[class="tmp--full-width"] {
    width: 100% !important;
    float: left !important;
    padding: 0 !important;
  }
</style>
```
Optimize Journey Builder Performance Marketing Cloud Journeys and Automations
Optimize Journey Builder Performance Marketing Cloud Journeys and Automations

Wefound you something!

<a href="https://salesforce.com" target="_blank" style="color:#68CCF0; text-decoration:none; line-height:24px;" class="view_link" alias="Web Version">WEB VERSION</a>
Message

Hey %First Name%,

Check out some items from NTO that we love this week, and we think you might love them just as much as we do.<!-- end live text paragraph content area -->

Recommendations

<!-- Start Smart Block -->
Recommended Items</div> <span class="amp"></span> <!-- End Smart Block --> <table width="100%">
<tr>
<td>
<span class="amp"><a href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/1/jragsdale@salesforce.com"><img src="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/1/jragsdale@salesforce.com"></a> </span></td><td>
<span class="amp"><a href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/2/jragsdale@salesforce.com"><img src="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/2/jragsdale@salesforce.com"></a> </span></td><td>
<span class="amp"><a href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/3/jragsdale@salesforce.com"><img src="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/3/jragsdale@salesforce.com"></a> </span></td></tr></table><span class="amp"> </span><center>
</center><table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; " class="stylingblock-content-wrapper"></table><table cellpadding="0" cellspacing="0" width="100%" style="text-align: left; min-width: 100%; " class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper camarker-inner" align="left"><!-- banner image content area--><table align="center" border="0" cellpadding="0" cellspacing="0" class="tmp--container" width="600">
</table></td></tr></table>

Footer

<a alias="New Arrivals Hero" class="high_click" href="http://pages.s4.exacttarget.com/nto_home" target="_blank"><img class="photo" src="https://s3-us-west-2.amazonaws.com/rd-industry-emails/retail/nto/campaign-toolkits/banner-ads/NTO-banner-ad-store-location.jpg" style="display:block; padding: 20px 0 20px 0;" width="600"></a><!-- end hero image content area -->

<!-- end content area -->

<!-- footer -->
<table style="background-color:#ffffff;" class="tmp--container" width="600" align="center" border="0" cellspacing="0" cellpadding="0">
<tr>
<td class="tmp--full-width-center" width="100%" align="center" style="padding:25px 20px 0 20px;">
<img id="style-footer-logo" width="55" src="https://s3-us-west-2.amazonaws.com/rd-industry-emails/retail/nto/brand-assets/email-templates/branding-nito-secondary-logo-blue-2x.png"

</td>

</table>
AMPscript Content Blocks for Advanced Content

We recommend pasting this content as code snippet content block types to minimize formatting errors.

IF-THEN UPSERT Example

```ampscript
%%[
set @lookupvalue = AttributeValue("CategoryAffinity")
set @affinity = Lookup("ProductRecommendations", "Category", "Category", @lookupvalue)
set @gender = AttributeValue("Gender")
set @subkey = AttributeValue("SubscriberKey")
set @subAffinity = IIF(@affinity == "Shoes", "Yes", "No")
set @output = concat(@subAffinity, @gender)
set @imageID1 = "https://image.s4.sfmc-content.com/lib/fe2b11727664047c7d1d78/m/1/544683df-9f5f-4ece-a303-3af594388f6.jpg"
set @imageID2 = "https://image.s4.sfmc-content.com/lib/fe2b11727664047c7d1d78/m/1/137453a1-457e-4d68-ab08-568ab7624c65.jpg"
set @imageID3 = "https://image.s4.sfmc-content.com/lib/fe2b11727664047c7d1d78/m/1/ebd833d5-aa81-4b4c-9f21-49cd20a30f0.jpg"
set @updatedDate = Now(1) if (@output == "YesFemale") THEN set @ProductRec = @imageID1 elseif (@output == "NoFemale") THEN set @ProductRec = @imageID2 elseif (@output == "YesMale" OR @output == "NoMale") THEN set @ProductRec = @imageID3 endif
]%%
%%[UpsertDE("MasterDemographics",1,"SubscriberKey", @subkey, "DefaultImage", @ProductRec, "UpdatedDate", @updatedDate)]%%
```

Randomized Recommendations (2 FOR loops)

```html
<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%;"
class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper camarker-inner"><!-- Start Smart Block --><style type="text/css">
.amp {
  font-size:1px;
  color:#fff;
}</style><span class="amp"></span><style type="text/css">
.code_none{</style>
```


```plaintext
display:none;
</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color: #ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px; background-color: #6ccdf0;">
Recommended Items</div> <span class="amp"></span> <!-- End Smart Block -->
<table style="width: 100%;border-collapse: collapse;">
<tr>
%%[
set @rows = LookupRows("ProductRecommendations", "Category", "Shoes")
set @rowCount = rowcount(@rows)
set @rowCount2 = random(0,1)
if @rowCount2 > 0 then
set @num1 = 1
set @num2 = @rowCount

/*Change this to retrieve the number of reccos you want to show*/
for @i = 1 to 3 do
  /*Get a random row*/
  set @random = random(@num1, @num2)
  set @row = row(@rows, @random)
  set @title = field(@row,"Title")
  set @link = field(@row,"Link")
  set @imgURL = field(@row,"ImgURL")
  set @linkURL = field(@row,"LinkURL")
]
</td>

<b>%%=v(@title)=%%</b><br>
<img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
<a href='%%=v(@linkURL)=%%'>Buy Here</a></td>
%%[
next @i ]%%
</tr></table>
%%[ else ]%%
%%[
set @rows = LookupRows("ProductRecommendations2", "Category", "Shoes")
set @rowCount = rowcount(@rows)
set @num1 = 1
set @num2 = @rowCount

/*Change this to retrieve the number of reccos you want to show*/
for @i = 1 to 3 do
  /*Get a random row*/
  set @random = random(@num1, @num2)
  set @row = row(@rows, @random)
  set @title = field(@row,"Title")
  set @link = field(@row,"Link")
  set @imgURL = field(@row,"ImgURL")
]
</td>

</b>%%=v(@title)=%%</b><br>
<img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
<a href='%%=v(@linkURL)=%%'>Buy Here</a></td>
%%[
next @i ]%%
</tr></table>
%%[ else ]%%
%%[
```

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Marketing Cloud Journeys and Automations
Optimize Journey Builder Performance
```
set @linkURL = field(@row,"LinkURL")

<td>
<b>%%=v(@title)=%%</b><br>
<img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
<a href='%%=v(@linkURL)=%%'>Buy Here</a></td>

next @i ]%%
%%[ endif ]%%

ContentBlockBy Key for Footer

%%[var @footer set @footer = "8631b69b-2768-4c81-9362-7077803daef3"]%%
%%=ContentBlockByKey(@footer)=%%

ContentBlockBy Key for Text and Button

%%[var @body set @body = "07b4de4e-681c-47d7-b3af-5c98573c6389"]%%
%%=ContentBlockByKey(@body)=%%

ContentBlockBy Key for Text and Button

%%[var @header set @header = "65b60d01-27fb-48c1-81f5-0884bd06565f"]%%
%%=ContentBlockByKey(@header)=%%

Randomized Recommendations (1 For Loop)

<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; border-spacing: 0" width="100%" style="min-width: 100%;"
class="stylingblock-content-wrapper"
><tr><td class="stylingblock-content-wrapper
</td>

amp {
  font-size:1px;
  color:#fff;
}</amp><style type="text/css">
.code_none{
  display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color: #ffffff;
font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px;
background-color: #6ccdf0;"/>
Recommended Items</div> <span class="amp"></span></div> <span class="amp"></span></div>

Recommended Items</div> <span class="amp"></span></div> <span class="amp"></span></div></table>

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  <div></div>
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  <div></div>
if @rowCount > 0 then

    set @num1 = 1
    set @num2 = @rowCount

    /*Change this to retrieve the number of reccos you want to show*/
    for @i = 1 to 3 do
        /*Get a random row*/
        set @random = random(@num1, @num2)
        set @row = row(@rows, @random)
        set @title = field(@row,"Title")
        set @link = field(@row,"Link")
        set @imgURL = field(@row,"ImgURL")
        set @linkURL = field(@row,"LinkURL")
    ]%%
    <td>
        <b>%%=v(@title)=%%</b><br>
        <img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
        <a href='%%=v(@linkURL)=%%'>%%=v(@title)=%%</a></td>
    ]%%
    next @i ]%%
</tr></table>
%%[ else ]%%
No rows found
%%[ endif ]%%

Dynamic Impression Region Tracking
<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; " class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper camarker-inner"><!-- Start Smart Block --><style type="text/css">
.amp {
    font-size:1px;
    color:#fff;
}</style><span class="amp"/></span><style type="text/css">
.code_none{
    display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color: #ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px; background-color: #6ccdf0;">
More Recommended Items</div><span class="amp"></span> <!-- End Smart Block -->
</td></tr>

set @rows2 = LookupRows("ProductRecommendations2", "Category", "Shoes")
set @rowCount2 = rowcount(@rows2)

if @rowCount2 > 0 then

    set @num3 = 1
set @num4 = @rowCount2

/*Change this to retrieve the number of reccos you want to show*/
for @i = 1 to 3 do
  /*Get a random row*/
  set @random2 = random(@num3, @num4)
  set @row2 = row(@rows2, @random2)
  set @title2 = field(@row2,"Title")
  set @link2 = field(@row2,"Link")
  set @imgURL2 = field(@row2,"ImgURL")
  set @linkURL2 = field(@row2,"LinkURL")
  ]%%
  %=%=TreatAsContentArea(@title2,
  Concat('%','%=BeginImpressionRegion("','@title2','")=%','%'))=%%
  <td>
    <b>%%=v(@title2)=%%</b><br>
    <img style="width:150px;" src='%%=v(@imgURL2)=%%'><br>
    <a href='%%=v(@linkURL2)=%%'>%%=v(@title2)=%%</a></td>
  ]next @i 
</table>
%%[ else ]%%
No rows found
%%[ endif ]%%
%%=EndImpressionRegion(0)=%%

SEE ALSO:
  Optimize Journey Builder Performance

### The Journeys Dashboard

The Journeys Dashboard provides an overview of all the journeys you create in Marketing Cloud's Journey Builder. The overview includes journey type, status, and the last date changes were made. You can also see which version of a journey is accepting new contacts. In this dashboard, you can sort by journey, status, performance by entry total and goal attainment, or last modified date. You can also filter the list of journeys, open a journey, and access the journey creation workspace.

The All Journeys dashboard appears when you navigate to Journey Builder. To view details or edit a journey, click the journey title. To narrow the list of journeys shown, click the corresponding view.

Tip: To return to the dashboard from within the app, click **Journeys Dashboard**.

### All Journeys Dashboard View

This default Journey Builder dashboard shows available journeys in your Marketing Cloud account.

### Scheduled Single Sends Dashboard View

View the list of scheduled Single Send journeys in the Journeys Dashboard of Journey Builder.
Recent Single Sends Dashboard View
View metrics for sent Single Send journeys in the Recent Single Sends tab of the Journeys Dashboard in Journey Builder.

Transactional Send Dashboard View
View metrics for sent Transactional journeys in the Transactional tab of the Journeys Dashboard in Journey Builder.

All Journeys Dashboard View
This default Journey Builder dashboard shows available journeys in your Marketing Cloud account.

- Journey: The name of the journey
- Status: Possible journey statuses include:
  - Canceled - a Single Send journey was canceled before the scheduled send date and time
  - Deleted - the journey was deleted
  - Draft - the journey is ready for editing
  - Running - the journey is published and active
  - Scheduled - the Single Send journey is scheduled to send at the specified date and time
  - Sent - a Single Send journey started or sent a message on the specified send date and time
  - Stopped - the journey was stopped
- Performance: How the journey is performing according to the goals set for that journey
- Last Modified: When the journey’s most recent update occurred

Scheduled Single Sends Dashboard View
View the list of scheduled Single Send journeys in the Journeys Dashboard of Journey Builder.
In Journey Builder, go to the Journeys Dashboard and click Scheduled Single Sends. The list includes:

- Journey: The name of the journey
- Status: Shows that the journey is scheduled
- Channel: The type of message to send
- Send Date: The date the journey is scheduled to send

Recent Single Sends Dashboard View
View metrics for sent Single Send journeys in the Recent Single Sends tab of the Journeys Dashboard in Journey Builder.
In Journey Builder, go to the Journeys Dashboard, and click Recent Single Sends.

Note: There is a 1-hour delay for these metrics.

- Journey: The name of the journey
- Status: Shows that the journey is sent
- Channel: The type of message sent
- Sent Date: When the journey was sent

Each channel displays different metrics. Metrics not specified for a channel remain blank.
Email
- Delivery: The number and percentage of messages sent minus the number of bounces
- Opens: The number and percentage of unique opens, excluding duplicate opens for a single contact
- Clicks: The number and percentage of unique clicks, excluding duplicate clicks for a single contact
- Bounces: The number and percentage of messages that bounced
- Unsubscribes: The number and percentage of unsubscribes

Push
- Delivery: Number of messages sent to mobile devices
- Opens: Number of unique opens for the message, excluding duplicate opens for a single mobile device

SMS
- Delivery: Number of messages sent to mobile devices
- Clicks: The number and percentage of unique clicks, excluding duplicate clicks for a single contact

Transactional Send Dashboard View
View metrics for sent Transactional journeys in the Transactional tab of the Journeys Dashboard in Journey Builder.

Note: The values displayed for these metrics are fetched in real time whenever this page view is refreshed. Google Analytics 360 metrics aren’t available for transactional send journeys.

In Journey Builder, go to the Journeys Dashboard, and click Transactional. The list includes:
- Journey: The name of the journey
- Status: Shows that the journey is scheduled
- Channel: The type of message to send
- Last Modified: When the journey’s most recent update occurred
- Completed: Number of sends that completed in the past 24 hours
-Errored: Number of sends that failed to send in the past 24 hours
-Queued: Number of sends in the sending process
-Queue Age: Age of the oldest message in the queue

Tip: To review comprehensive engagement information, such as click activity, contacts, and email performance, click to open the journey, and select the Email Analytics view.

Manage Customer Journeys
Journey Builder’s enables you to efficiently create and track Single Send, Transactional Send, and Multi-Step customer journeys in Marketing Cloud from a unified workspace.

Single Send journeys: Automate a single batch message to a target audience.
Transactional journeys: Send personalized messages in response to a specific action taken by a contact.
Multi-Step journeys: Automate a responsive, customized series of customer interactions.
Follow these recommendations to get the most out of Journey Builder.
• Keep journeys discrete and focused on a single marketing objective, like welcoming new customers or thanking volunteers for signing up.
• Outline your journey and plan your data and content needs before you create the journey in Journey Builder.
• Start small and build on success. Expand from a single triggered email or message into a short series. Use the simple journey to test your approach and gather baseline metrics before you add complexity. For example, start with a welcome series that includes timed waits. Then when you feel comfortable, add Engagement or Decision Splits.
• Consider not just the length of the journey or time between activities, but also the timing of data activities. Time data updates and automations to avoid conflicts and to ensure that you have the right data when you need it.

Single Send Journeys
Single Send journeys enable you to create and manage simple, one-touch customer journeys within the same workspace used for Multi-Step journeys. Define the target audience for the entry source, add existing message content or create a message from scratch, and send or schedule the send for a later date and time. You can also get Einstein's help to send at the right time and monitor message engagement metrics all within Journey Builder.

Multi-Step Journeys
Journey Builder’s Multi-Step journeys enable you to create and manage customer journeys through a series of interactions with your brand. These journeys can include multiple channels and customized journey paths based on customer interactions or attributes.

Transactional Send Journeys
Transactional Send journeys enable you to create and manage transactional API messages in the same Journey Builder workspace used to manage Single Send and Multi-Step journeys. This journey type allows non-technical users to configure a Transactional API entry source without assistance from a developer. You can also monitor journey performance, such as error counts and queue depth, from the Journeys Dashboard.

Journey Templates
Journey Templates are pre-defined journeys created by Salesforce or other users. Use a template as-is, or modify it to meet your use case.

Journey Pause
Pause a running journey to temporarily halt processing contacts and sending messages through the journey. Resume a paused journey to restart processing contacts. Use this feature to temporarily halt sending messages for business reasons or to update content included in a journey. You can also pause a journey to allow a higher priority campaign to run instead, and then resume the journey after that campaign ends.

Single Send Journeys
Single Send journeys enable you to create and manage simple, one-touch customer journeys within the same workspace used for Multi-Step journeys. Define the target audience for the entry source, add existing message content or create a message from scratch, and send or schedule the send for a later date and time. You can also get Einstein’s help to send at the right time and monitor message engagement metrics all within Journey Builder.

Single Send journeys enable you to automate sending when the customer journey only requires one message without subsequent follow-up. Here are two examples:

Example: Use Case: Retail
Paul manages digital marketing for a national retail company. Each season, the retailer has a flash sale that is open to customers who reached the gold level. He can schedule an email to send them that announces the availability of flash sale prices on the day the sale begins. Or he can include the Einstein STO activity before the message, set the activity’s time frame for sending to 24 hours, and begin the journey at least 24 hours before the sale begins.
Example: **Use Case: Nonprofit**

Jacinda is the engagement officer for a regional nonprofit. There’s an urgent need for hands-on volunteers due to a recent natural disaster. She can create and send the email that outlines the need and includes a call to action to volunteers who opted in to receive these messages.

**Create a Single Send Journey**

Use the Single Send feature in Journey Builder to create a single-message journey for a batch audience. You can schedule Single Send journeys to send immediately or at a future date and time. And you can use Einstein activities to send at the optimal time and frequency for each contact.

1. In Journey Builder, click **Create New Journey**.
2. Navigate to Single Send Journey, and select the type of message to create.
   
   Some message types don’t support Einstein features.
   
   - Email
   - Push
   - SMS

3. To use Einstein STO to send the message to each contact at the best time for them, add the Send Time Optimization activity.
   
   a. To remove the Einstein STO activity, click **Delete**.
   
   b. When you use both the Einstein STO and the Engagement Frequency activities in the journey, the Engagement Frequency activity always appears before the STO activity.

   **Note:** The Einstein STO and Einstein Engagement Frequency activities don’t support sending via the SMS activity.

4. To use Einstein Engagement Frequency to segment each contact by the frequency of messages that they’re likely to engage with, add the Engagement Frequency activity.
   
   a. The Undersaturated path is added by default, but you can choose a different path.
   
   b. To remove the Engagement Frequency activity, click **Delete**.

5. Click **Done**.
6. Click the Entry Source on the canvas. For email sends, select the data extension that contains the target audience. For push sends, select the audience.
7. Click **Summary**.
8. Click **Done**.
9. Click the message activity on the canvas.
10. Click **Select Message** or **New Message**.
    
    Follow the steps to create an email, push message, or SMS message in Journey Builder.

11. Click **Summary**.
12. Click Done.

13. Click the Schedule activity, and select **On Activation** or **At specific date and time**.
   a. If applicable, enter the date and time.

14. Click Done.

15. Click Save.

16. Click Validate and, if needed, follow the instructions to correct any errors found.

17. Click Send or Schedule.

**Note:** If you selected **On Activation**, the send begins immediately after you click Send. If you selected **At specific date and time**, after you click Schedule, the send begins at the future date and time you configured.

**Tip:** To cancel a scheduled Single Send journey, open the journey canvas, and click Cancel. Then click Cancel Schedule.

### Multi-Step Journeys

Journey Builder’s Multi-Step journeys enable you to create and manage customer journeys through a series of interactions with your brand. These journeys can include multiple channels and customized journey paths based on customer interactions or attributes.

Keep journeys discrete and focused on a single marketing objective, like welcoming new customers or thanking volunteers for signing up. Here are two examples.

**Tip:** Start small with a single triggered message and build on success by creating a short series. Use the simple journey to test your approach and gather baseline metrics before you add complexity. For example, start with a welcome series that includes timed waits. Then when you feel comfortable, add Engagement or Decision Splits.

**Example:** **Use Case: Financial Services**

Michael manages new customer engagement for a financial institution. He creates a journey to tell customers about account features, like the mobile app, funds transfers, and the free bill pay.

**Example:** **Use Case: Retail**

Angela is the marketing manager for a large online retailer. She creates a customer journey to re-engage with customers who add items to their cart, but don’t make a purchase. This journey includes a reminder, followed two days later by a discount offer for customers who still haven’t completed the purchase.

Create a Multi-Step Journey in Journey Builder

Use the Multi-Step feature in Journey Builder to create automated, customized, multiple-touch customer journeys in Marketing Cloud.

**Tip:** Before you start, outline your journey and plan your data and content needs. Consider not just the length of the journey or time between activities, but also the timing of data activities. Time data updates and automations to avoid conflicts and to ensure that you have the right data when you need it.

1. Click **Create New Journey**.

2. To create a Multi-Step journey from scratch, click **Build**.
3. To configure the Journey Settings, click.

4. To set a Goal, click.

5. To set the Exit Criteria, click.

6. Drag an Entry Source onto the canvas and click to configure.

7. Follow the steps to configure the entry source.
   For more details, see Entry Sources.

8. Drag an activity onto the canvas and click to configure.
   Tip: Do not begin a journey with a Wait activity.

9. Follow the steps to configure the activity.
   For more details, see Journey Builder Activities.

10. For each planned activity, repeat steps 8 and 9.
    Tip: To copy a journey activity, click. To edit an activity, click to open it. To delete a journey activity, hover over the activity, click , and click Delete. To rename a journey activity, click.

11. Click Save.

12. Click Validate.

13. If applicable, correct any errors that occur.

14. Click Test.

15. Click Activate.

Welcome Campaigns
Welcome email campaigns are a good way to greet new customers when they sign up or opt in for marketing communications. You can use Journey Builder to improve the customer experience by expanding from a single email to a series of messages.

Retail Campaigns
Retailers use marketing campaigns built in Journey Builder to promote a sale, announce a new product, or invite customers to a special event. The goal for these campaigns is to increase conversion and drive sales.

Anniversary Campaigns
Even a simple reminder campaign in Journey Builder can help build a relationship with your clients and increase brand engagement. Typical anniversary campaigns focus on a special date for a customer, like a birthday or sign-up date. These yearly messages can be part of a renewal strategy. You can also celebrate your company's milestones or send a reminder to customers who haven't purchased in a while.
Welcome Campaigns

Welcome email campaigns are a good way to greet new customers when they sign up or opt in for marketing communications. You can use Journey Builder to improve the customer experience by expanding from a single email to a series of messages.

A welcome series is your chance to create a great first impression for your new client. A welcome series:

- Keeps you from trying to do too much in a single email.
- Emphasizes different aspects of your company or products in a series of messages.
- Sets expectations about the content, quality, and cadence of communications with your company.
- Customizes the messages and delivery based on customer interactions with your messages, or actions customers take on your website.

Here are examples of when and how to use a welcome series:

**Example:** A customer purchases a device and receives a thank you email with a link to set up alerts and notifications. A second email encourages them to finish filling out their profile. A third email asks them to follow the company’s social media feeds.

**Example:** A customer creates a financial account and receives a welcome email with a link to download a mobile app. A second email asks if they know how to transfer money between accounts and includes a how-to video. A third email informs the customer about the company’s free bill pay service.

**Example:** A teacher downloads a white paper about how to create a fundraising campaign and receives a welcome email to the website. A second email promotes getting started by inviting the teacher to fill out a user profile. A third email features an example of a fundraising campaign with a link that says “Start your fundraising campaign today!”

Welcome Journey

Use a Data Extension entry source and timed waits to introduce yourself and your brand to a new customer. If you are new to Journey Builder, you can use this template to get started quickly and establish baseline engagement metrics. This Welcome Series template uses a data extension entry source to start the journey and create a timed sequence of emails to promote features or services.

New Purchase: Beginner Welcome Series Example

A retailer updates new customer data through a daily import to the Marketing Cloud from a web shopping cart. This data is stored in the New Customers data extension, which is used as the entry source for the New Purchase Journey. After the import, new customers in the data extension receive an email that congratulates them on their purchase and prompts them to complete their online profile. After a set amount of time, customers receive a second email that showcases product features or products related to the customer's purchase. Following another wait, customers receive a third email that promotes extra features or services. Once the sequence is complete, the customer exits the New Purchase Journey.

Entry Source

This Welcome Series template uses a Data Extension entry source. Before you create the data extension, confirm that the customer data used for personalization or dynamic content is stored in Marketing Cloud. The target audience is selected through the entry source configuration wizard in Journey Builder.
Message Sequence and Content

For the Welcome Series with timed waits, we recommend three emails.

<table>
<thead>
<tr>
<th>Email 1</th>
<th>Confirm subscription, introduce your brand, and set expectations for future content and cadence.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email 2</td>
<td>Provide an offer or coupon as a thank you, or showcase a feature or service such as loyalty club membership or social media programs.</td>
</tr>
<tr>
<td>Email 3</td>
<td>Follow up on the offer or coupon with a reminder or showcase more features or services.</td>
</tr>
</tbody>
</table>

Welcome Journey with Engagement Splits

Step up your game by incorporating Engagement Splits into your Welcome Series. Using an automation to populate your data extension allows you to place contacts into the journey more frequently. Engagement Splits allow you to customize the journey based on customer engagement (opens, bounces, or clicks) with your emails.

The Intermediate Welcome Series uses a data extension as the entry source to add customers who meet the criteria more frequently. Flow control elements like Engagement Splits and Decision Splits allow you to customize the journey for your customers. For example, you include more emails to re-engage with customers who don’t respond to your welcome series. Goals let you track customers’ progress toward the journey’s objective.

New Purchase: Example

To update New Customer data frequently, use Automation Studio to import customers into the data extension and admit contacts to the Welcome Journey throughout the day. Use splits to identify customers who don’t open their emails or download the mobile app. Then, send follow-up emails to those customers to promote the message from the first email.

If a customer engages with the email, send a sequence of messages as outlined in the Basic Welcome Series. You can set a journey goal to measure engagement against your marketing objective. For example, create a goal for the percentage of customers who open emails or download the app.
Message Sequence and Content

For the Welcome Series with timed waits, we recommend three emails. The following suggestions show how messages can vary in content and focus.

<table>
<thead>
<tr>
<th>Email</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email 1</td>
<td>Confirm subscription, introduce your brand, and set expectations for future content and cadence.</td>
</tr>
<tr>
<td>Email 1a</td>
<td>If the customer does not engage with your first message, consider personalizing subject lines, offer a discount or coupon, or highlight specific brand offerings.</td>
</tr>
<tr>
<td>Email 1b</td>
<td>This email could be your last chance to engage with the customer. Try altering the placement of your call to action or consider emphasizing your brand with logos and pictures instead of text-based content.</td>
</tr>
<tr>
<td>Email 2</td>
<td>Provide an offer or coupon as a thank you, or showcase a feature or service such as loyalty club membership or social media programs.</td>
</tr>
<tr>
<td>Email 3</td>
<td>Follow up on the offer or coupon with a reminder, or showcase more features or services.</td>
</tr>
</tbody>
</table>

Retail Campaigns

Retailers use marketing campaigns built in Journey Builder to promote a sale, announce a new product, or invite customers to a special event. The goal for these campaigns is to increase conversion and drive sales.

Here are examples of retail marketing campaigns:

- **Example:** A customer selects several items and places them into their cart but does not purchase them. Use a targeted retail campaign to remind the customer of the items and urge them to complete the purchase.

- **Example:** A customer bought a product two years ago, and a new version of the product is released. Send an email with details about the new features and improvements and a link to purchase the new product.

Abandoned Cart

Re-engage customers who left without a purchase. Abandoned cart campaigns include a sequence of reminder messages.
The difficulty is in deciding the timing and content of the messages, and the availability of real-time data from your website. The data enables you to place customers into the journey in a timely manner or remove them when they make a purchase or clear their cart.

Think about why your customers leave items in their cart. Are they trying to determine the total price for comparison? Are they scared off by the shipping cost or the extra step of creating an account to make the purchase?

If you find customers leaving after they see the shipping cost, consider including a free shipping coupon in your abandoned cart campaign. If the items have a low purchase price, send your first email more quickly. Perhaps the customer needs a reminder to complete the order.

Entry Source

Timing is important for an abandoned cart campaign. You want to remind the customer in a timely manner, generally around an hour after the customer has left the cart. You can break this rule for big-ticket items or items that customers often spend time researching, like computers or mattresses.

Contacts can enter a journey from an API event tied to the shopping cart technology on your website. That way, the timing of the journey is based on customer behavior, and not on their inclusion in an audience segment or population.

If they abandon another cart in the future, contacts can reenter the journey. In other words, if customers add products to a cart, they don’t reenter the journey until they complete the campaign sequence.

Message Sequence and Content

You can send two or three emails as part of an abandoned cart campaign, but the first two are the most important and effective. Remind customers of the items in the cart and provide a clear call to action in the first email. Pictures of the products are best, and the call to action can take the customer to their cart.

Incorporate coupons into any email in the sequence. Some retailers hold off sending a coupon until the second or third email as an extra incentive, while others send a coupon immediately. Knowing your customer’s buying preferences can help you decide when and how to offer incentives.

<table>
<thead>
<tr>
<th>Email 1</th>
<th>Remind customers of their abandoned items and provide a clear call to action to return customers to their cart.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email 2</td>
<td>Provide a coupon or another incentive to lower total cost and prompt customers to revisit their abandoned cart.</td>
</tr>
</tbody>
</table>

Journey Path

To track the effectiveness of the abandoned cart emails, incorporate a Random Split in the path. To measure overall effectiveness, track and compare conversions between customers who see the reminder emails and customers who don’t. Or, to test different creative subject lines, add a branch. If you prefer to have all of your customers complete the journey, simply delete the random split.

Waits are important to time the delivery of messages. In most abandoned cart campaigns, you want to remind customers quickly so they don’t lose interest or buy from another site. Typically, the first wait is set between 1 hour and 1 day, depending on your knowledge of your customer’s buying behavior. The best practice is to send the first email 1 or 2 hours after the customer abandons the cart.

Set the second wait time to anywhere from 24 to 72 hours. We recommend a 1-day wait before sending a second email. Remember to set a Goal or use a Decision Split to remove customers from the journey if they complete a purchase or clear their cart.

Abandoned Cart for Big Ticket Items

Support customers who left large-ticket items in their cart or who have abandoned a funnel by helping them make an informed choice.
Abandoned cart or funnel campaigns are a sequence of reminder messages, so the journey is fairly simple. The difficulty is in deciding the timing and content of the messages, and the availability of real-time data from your website. The data enables you to place customers into the journey in a timely manner or remove them when they make a purchase or clear their cart.

Think about why your customers don’t complete a purchase. If you sell products that customers research extensively before a purchase, such as auto insurance or electronics, you want to help customers make an informed choice. You can give customers more time and provide details, such as ratings or links to more information, to help them decide.

Entry Source
Timing is important for an abandoned cart or funnel campaign. You want to remind the customer in a timely manner without rushing them through a decision about a big-ticket purchase.

Contacts can enter a journey from an API event tied to the shopping cart or purchase funnel on your website. That way, the delivery of the messages is based on customer behavior, not on their inclusion in an audience segment or population.

Configure the journey to allow customers who abandon another cart in the future, to reenter. This setting enables customers to add products to a cart or review a saved quote, without reentering the journey until they complete the entire campaign sequence.

Message Sequence and Content
For a longer buying cycle, three emails are often sent to support customers as they go through their decision-making. The first message reminds the customer of what they abandoned and provides a clear call to action to return and complete the purchase.

The second email can incorporate customer ratings, reviews, or more details about the products or services. The third email is generally your last chance and can include a harder sell than the previous messages. If not used previously, you could also include an incentive here.

<table>
<thead>
<tr>
<th>Email 1</th>
<th>Remind customers of their abandoned products or services and provide a clear call to action to allow customers to complete a purchase.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email 2</td>
<td>Include more details, such as customer ratings or reviews, to help customers make an informed purchasing decision.</td>
</tr>
<tr>
<td>Email 3</td>
<td>Include new incentives or a stronger sales pitch.</td>
</tr>
</tbody>
</table>

Journey Path
Waits are important to time the delivery of messages. In most abandoned cart campaigns, you want to remind customers quickly so they don’t lose interest or buy from another site. But if you expect customers to need extra time to research or decide on their purchase, make your waits longer.

Set the second wait time to anywhere from 24 to 72 hours. We recommend a 1-day wait before sending a second email. The final wait can also be from 24 to 72 hours from the previous email, depending on what you know about the customer’s buying behavior.

If contacts complete a purchase or clear their cart, use Decision Splits and Goals Decision Split to remove them from the journey.
Anniversary Campaigns

Even a simple reminder campaign in Journey Builder can help build a relationship with your clients and increase brand engagement. Typical anniversary campaigns focus on a special date for a customer, like a birthday or sign-up date. These yearly messages can be part of a renewal strategy. You can also celebrate your company’s milestones or send a reminder to customers who haven’t purchased in a while.

Here are examples of when you could use an anniversary campaign:

- **Example:** A customer has a yearly subscription to an online fitness website, and they need a reminder before the expiration date to renew.
- **Example:** A customer entered birthday information as part of signing up for your newsletter so they can receive a special offer on their birthday.
- **Example:** Your company, or a company you do business with, has been in business for five years and you want to send congratulations to employees.

Simple Anniversary Email

Send a single email to a customer on a specific date on a regular cadence. A simple reminder campaign can help build a relationship with your clients and increase brand engagement.

Typical anniversary campaigns focus on a special date for customers, like their birthday or sign-up date. In this single-message journey, you send a message to your customers triggered by a specific date. The goals of a simple anniversary campaign are:

- Strengthen relationship with your customers.
- Encourage engagement with your brand.
- Drive renewal or repeat purchases.

Entry Source

Depending on how you set up your anniversary campaign, you can use a date-based event or a data extension entry source. For example, if you want to use a client’s birthday or service anniversary, you can use a date-based event. You can create a data extension that includes contacts who haven’t purchased anything in the last 60 days or are due for renewal.

If you use a date-based event, make sure that you have the data you need, like a client’s birthday, in your Contact Builder data model. Also, consider timing. You can set the journey start before or after the date. Think about the best time for your clients to get the information: on the specific date, like a birthday message, or a month before the renewal date.

Message Sequence and Content

In this simple campaign, you send a single message.
Communicate the message clearly and succinctly (birthday or renewal). Provide necessary details and calls to action, like a link to your website or timing of renewal.

Journey Path

The nice thing about this simple journey is that you can build on it later by copying or versioning the journey and adding more messages or splits. By starting with a simple journey, you learn the steps for setting up an automated campaign and get some baseline engagement statistics. When you’re comfortable, you can add complexity to your campaigns.

For example, you can add engagement splits to send reminders based on opens or clicks. Or, add timed waits and explain the benefits of renewal through a series of messages.

Birthday Journey

Make your customers feel special with a birthday coupon. Celebrating birthdays is a great way to engage with your customers and let them know how much you appreciate their business.

The journey is personalized, using the information you know about the contact, and can remind them of your brand and products or services on a regular cadence. A birthday journey can:

- Delight your customers by wishing them a Happy Birthday.
- Send them a coupon or redeemable discount to drive conversions.
- Link them to your website, reminding them of your product and services.
- Provide a gift guide and the ability to make a shopping list for family and friends.

Entry Source

Use a date-based event to place contacts into a journey based on data stored in Contact Builder. For birthday journey campaigns, we recommend that you send the first message a few days before the birth date. This plan allows time for them to redeem the coupon.

Select the attribute in the Contact model where the birthday is stored. If contact demographic data is stored in multiple places, be sure to select the attribute, from the correct data location. Set the re-entry to Yearly.
Message Sequence and Content

The first email in an anniversary campaign series sends your happy thoughts about the customer's important day and reestablishes your brand. For coupon redemption, provide the coupon or link to the website and any details that are important, like expiration and limitations. Ensure that you have a way to capture coupon redemption so you can send reminder emails only if necessary. Personalize subject lines and provide a clear call to action within the email.

<table>
<thead>
<tr>
<th>Email 1</th>
<th>Send well wishes for the customer’s happy day and any offer or celebration coupon, including any information about expiration or limitations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email 1a</td>
<td>If the customer has not redeemed their coupon, remind them about the coupon and emphasize their special day.</td>
</tr>
<tr>
<td>Email 1b</td>
<td>If after the customer receives the first reminder, they still haven’t redeemed their coupon, send them a second reminder and emphasize the expiration date.</td>
</tr>
<tr>
<td>Email 2</td>
<td>Re-emphasize your customer’s special day and thank them for their continued engagement with your brand.</td>
</tr>
</tbody>
</table>

Journey Path

To increase the odds of coupon redemption, you can use decision splits to provide timely reminders. Using a decision split, you can check to see if a customer redeemed their coupon before sending a reminder, eliminating unnecessary customer contact. You must be able to import customer data from your point of sale into Marketing Cloud and Contact Builder in a timely manner. That way, the decision split uses the most recent data.

Waits are important to time the delivery of messages. Send the birthday message and coupon to your customers anywhere from a few days to a week or two before their birthday. You want to give them enough time to redeem the coupon before the first decision split and send the reminders before the offer or coupon expires.

To set up the waits and decision splits, start with the contact’s birthday or coupon expiration date, and work backward to figure out your timing. Don’t forget to schedule the data import or update to Contact Builder as part of this planning.

Transactional Send Journeys

Transactional Send journeys enable you to create and manage transactional API messages in the same Journey Builder workspace used to manage Single Send and Multi-Step journeys. This journey type allows non-technical users to configure a Transactional API entry source without assistance from a developer. You can also monitor journey performance, such as error counts and queue depth, from the Journeys Dashboard.

Use a Transactional Send journey to trigger a single message to contacts when they take a specific action. Here are two examples. For more information, see Get Started with Transactional Messaging API.

Example: Use Case: Services

Renee is the membership renewal manager for a curated beauty products subscription box. She creates a Journey for password resets collaborating with the login development team.

Example: Use Case: Retail

Chris is the customer service manager for a large online retailer. They create a journey that sends a confirmation of purchase when a customer places an order. Because they have Event Notification Service enabled, they receive a notification if a message bounces.
Create a Transactional Send Journey
Use the Transactional Send feature in Journey Builder to create messages triggered by the Transactional Send API

Clear a Transactional Send Journey Queue
You can clear a Transactional Send Journey queue when messages in a paused or errored journey are outdated and no longer eligible for delivery.

Update an Email Activity in a Transactional Send Journey
Follow these steps to update an email message in a Transactional Send Journey.

SEE ALSO:
Event Notification Service

Create a Transactional Send Journey
Use the Transactional Send feature in Journey Builder to create messages triggered by the Transactional Send API

1. In Journey Builder, click Create New Journey.
2. Navigate to Transactional Send Journey, and click Email.
3. Enter a journey name. The name can’t be changed after the journey is activated.
   If you don’t enter a name, the system generates one.
4. Click the Transactional API Event on the canvas.
   **Important:** To send messages, use the messaging/v1/(channel)/messages API
5. Enter an Event Definition Key.
6. Click Select a Data Extension.
7. Select the data extension to use.
8. Click Done.
9. Click the message activity on the canvas.
10. Click Select Message or New Message.
    Follow the steps to create an email in Journey Builder.
11. Click Delivery Options.
12. Choose the subscribers to include and click Select.
13. Select to track clicks, if desired.
14. Click Advanced Options and add carbon copy and blind copy addresses, if desired.
15. Click Summary.
16. Click Done.
17. Click Save.
18. Click Activate.
19. Review the validation results and, if necessary, correct errors.
Clear a Transactional Send Journey Queue

You can clear a Transactional Send Journey queue when messages in a paused or errored journey are outdated and no longer eligible for delivery.

1. If the journey is Active, select Pause.
2. Click , and select Clear Message Queue.
3. Click Clear Queue.
   Any queued messages are terminated and set to a Not Sent.
4. To confirm deletion, click the message activity, and review the Not Sent records or the Errored count in the Transactional view on the Journey Dashboard.

Update an Email Activity in a Transactional Send Journey

Follow these steps to update an email message in a Transactional Send Journey.

1. In a running journey, click the email activity to edit.
2. Select Activity Summary.
3. Click Edit and make your changes.
4. Click Done.
   Changes are applied immediately.

Journey Templates

Journey Templates are pre-defined journeys created by Salesforce or other users. Use a template as-is, or modify it to meet your use case.

Find a template in Journey Builder via one of these methods.

- Select a template from the gallery on the homepage after you log in to Marketing Cloud.
- In Journey Builder, click the Templates tab.
- In Journey Builder, click Create New Journey, and then click journey template.

Note: To see templates that don’t appear on the first page of results, click View More Templates.

Salesforce Templates

Each pre-designed Salesforce Template includes best practice guidance. Click outside the guide on the canvas, or click X to turn off best practice guidance.

Note: To disable template guidance for all journeys in your account, including journeys created from a different template, close the guidance three times using the X. To manually disable or re-enable best practice guidance, click .

Choose a template from these available options.

- Abandoned Cart - Everyday Purchase
- Abandoned Cart - Significant Purchase
- Anniversary Send
• Birthday Journey with Coupon
• Event Follow-up
• Welcome Journey
• Welcome Journey with Engagement
• Behavioral Targeting with Audience Studio
• Re-engagement

Shared Templates
Shared templates help you efficiently replicate journeys that address common use cases across your business unit. Users with the Journey Builder Create/Edit permission for the business unit where the template was created can edit and delete shared templates.

Note: To enable users to share templates at the enterprise level, select Enable Enterprise Level Sharing in the Marketing Cloud Setup app.

Create a Journey from a Template
To create a journey using a journey template, select a template from the Marketing Cloud home page or in Journey Builder. Alternately, select a template from the template gallery, which includes both, Salesforce and shared templates. Users with the Journey Builder Create/Edit permission in the business unit where the template was created can edit and delete shared templates.

Create a Shared Template
Follow these steps to create a shared template from a journey you create in Marketing Cloud’s Journey Builder.

Create a Journey from a Template
To create a journey using a journey template, select a template from the Marketing Cloud home page or in Journey Builder. Alternately, select a template from the template gallery, which includes both, Salesforce and shared templates. Users with the Journey Builder Create/Edit permission in the business unit where the template was created can edit and delete shared templates.

Note: Configure the schedule each time you create a journey from a shared template.

1. Select a template
   
   Tip: Access journey templates from the Marketing Cloud home page or the Journey Builder Templates gallery.

2. Click Get Started.

3. To configure the journey settings, click .

4. To set a goal, click .

5. To set an exit criteria, click .

6. Configure the entry source.
   
   When you access a shared template, the entry source is not configured, but it matches the entry source type used in the template. You can copy the data extension in a template to use it as the entry source or you can choose a different data extension. When you choose to copy the data extension, you must rename it. If a data extension is deleted after it’s included in a template, template users must choose a different data extension.
7. If applicable, configure each canvas activity.

   **Note:** In a shared template, random split, decision split, and wait activities maintain the configuration that the template’s creator set. However, you must reconfigure any other activities for the new journey. Decision splits in a journey created from a template that originated in a different business unit maintain only the number of paths and path names. Decision splits in a journey created from a template in the same business unit that contain only Contact Data attributes maintain an identical configuration.

8. Click **Save**.
9. Click **Validate**.
10. Click **Test**.
11. Click **Activate**.

### Create a Shared Template

Follow these steps to create a shared template from a journey you create in Marketing Cloud’s Journey Builder.

   **Note:** This feature is not supported in Single Send journeys.

   **Tip:** When you share a template, wait and random split activities are configured when the template user opens the template. Entry sources and some activities aren’t configured when others use this template.

To allow sharing, ask your admin to enable the Across Enterprise Sharing admin setting for your business unit.

1. Open the journey in edit mode and click 📊.
2. Click **Save as Template**.
3. Click **Define Template Info**.
4. Enter a name and description. You can include instructions for other users.
5. To share the template with all business units in your enterprise, click and enable **Sharing**.
6. Click **Summary**.
7. Click **Create Template**.

### Share a Template

Users with Create/Edit permission in Journey Builder can share the template when they create or edit it.

### Edit a Shared Template

Users with Create/Edit permission in Journey Builder can edit a shared template. Existing journeys created from the template are not affected.

### Delete a Shared Template

Users with Create/Edit permission in Journey Builder can delete shared templates from a business unit. When you delete a shared template, it is no longer available to any business unit. Existing journeys created from the template are not affected.

### Share a Template

Users with Create/Edit permission in Journey Builder can share the template when they create or edit it.

When you turn off sharing for a template, others in your org can no longer access it in the My Templates gallery. Existing journeys created from the template are not affected.
**Tip:** To share a template as you create it, turn on **Share Across Business Units**.

Follow these steps to share an existing template.

1. Click ✍️.
2. In the Sharing section, click **Edit**.
3. Turn on **Share Across Business Units**.

### Edit a Shared Template

Users with Create/Edit permission in Journey Builder can edit a shared template. Existing journeys created from the template are not affected.

**Note:** Salesforce templates are not editable.

1. Click **Templates**.
2. Click **My Templates**.
3. Click ✍️.
4. Click **Edit** in a template section or click **Edit Workflow**.
5. Make your changes then click **Save Template**.

**Note:** Clicking the template card anywhere but ✍️ opens the template in journey mode. If you accidentally open the template in journey mode, click **Change Template**, then click ✍️.

### Delete a Shared Template

Users with Create/Edit permission in Journey Builder can delete shared templates from a business unit. When you delete a shared template, it is no longer available to any business unit. Existing journeys created from the template are not affected.

1. Click **Templates**.
2. Click **My Templates**.
3. Click ✍️.

**Note:** Clicking the template card anywhere but ✍️ opens the template in journey mode. If you accidentally open the template in journey mode, click **Change Template**, then click ✍️.

4. Click **Get Started**.
5. Click ✎.
6. Click **Delete Template**.
7. Click **Delete**.
Journey Pause

Pause a running journey to temporarily halt processing contacts and sending messages through the journey. Resume a paused journey to restart processing contacts. Use this feature to temporarily halt sending messages for business reasons or to update content included in a journey. You can also pause a journey to allow a higher priority campaign to run instead, and then resume the journey after that campaign ends.

Paused Journey Behavior

You can pause a particular version or all versions of a journey to halt processing contacts. After a journey is paused, Journey Builder doesn’t create new sends. Contacts processed by Journey Builder and queued for sending aren’t paused.

Journeys can be paused for up to 14 days in 1-day increments. Each day is a 24-hour period starting from when the journey is paused. While pausing a journey, you can configure it to resume or stop at the end of the pause duration. You can manually resume a paused journey anytime during the pause duration.

You can extend or not extend the wait time of all Wait by Duration activities on that journey by the duration of the journey’s pause. If you don’t extend the wait time and the wait expires during a pause, the contact is processed after the journey resumes. Your selection for this option applies to all Wait by Duration activities on the paused journey (or all versions of the journey). This configuration option is only available for Wait by Duration activities. The wait time for Wait by Attribute and Wait for Date isn’t extended by default.

The system processes Wait Until activities, but the contact doesn’t go to the next activity until the journey resumes.

While pausing a journey, you can queue any contacts entering a paused journey and process them after the journey resumes. You can also drop the contacts trying to enter a paused journey. This configuration option isn’t available if Evaluate All Records is selected with the Data Extension Entry source. In that scenario, contacts entering a paused journey aren’t queued and dropped by default.

**Note**: If an In-App Message is sent but not yet displayed, pausing the journey doesn’t cancel the message display.

Resume a Paused Journey

When a paused journey resumes, all contacts with expired wait periods are evaluated against any goal criteria. If the option for contacts to exit upon meeting the goal is selected, then all contacts with expired wait periods are evaluated against goal criteria. Contacts that meet the criteria are processed for exiting the journey.

Some contacts use a send time determined by the Einstein Send Time Optimization (STO) activity. If that time arrives when the journey is paused, then those contacts are processed for sending only after the journey resumes.

The Path Optimizer activity performs a test to calculate a winning path. The test continues after a journey is paused. Because no contacts are processed for sending messages when a journey is paused, the pause can hinder the activity’s ability to determine the winning path.

Automations tied to paused journeys continue to run when the journeys are paused. The paused journey doesn’t affect Other journeys that use the same automation as a paused journey.

**Pause and Resume a Multi-Step Journey**

Follow these steps to pause a Multi-Step journey in Marketing Cloud Journey Builder.

**Pause and Resume a Transactional Send Journey**

Follow these steps to pause and resume a Transactional Send journey in Marketing Cloud Journey Builder.

**Pause and Resume a Multi-Step Journey**

Follow these steps to pause a Multi-Step journey in Marketing Cloud Journey Builder.
**Note:** Enable the Activate/Stop/Pause/Resume/Send/Schedule permission to the user’s Journey Builder Role to use this feature. For more details about the permissions granted with user roles in Journey Builder, see Journey Builder Roles and Marketing Cloud Roles.

1. Navigate to and click the running journey.
2. Click **Pause**.
3. Choose whether to pause the current version of the journey or all running versions.
4. Select whether to extend the duration of any Wait By Duration activities by the amount of time you pause the journey.
5. Select the number of days for the pause.
6. Select the action that occurs when the pause expires.
7. Select whether the journey queues contacts at the entry source for processing after the pause expires.

If you don’t queue the contacts, contacts that enter a paused journey are ignored and not processed. This option is available if you select **Evaluate New Records Only** for the Data Extension entry source. By default, this option does not queue contacts. You cannot change this setting while the journey is paused.

**Pause and Resume a Transactional Send Journey**

Follow these steps to pause and resume a Transactional Send journey in Marketing Cloud Journey Builder.

**Note:** Enable the Activate/Stop/Pause/Resume/Send/Schedule permission to the user’s Journey Builder Role to use this feature. For more details about the permissions granted with user roles in Journey Builder, see Journey Builder Roles and Marketing Cloud Roles.

1. Navigate to and click the running journey.
2. Click **Pause**, then click **Pause** again.

   **Tip:** To view the age of the oldest message in the queue, hover over the number in the queue in the Transactional dashboard.

3. Fix or update the message content or activity settings
4. Click **Resume**.

   To confirm that the journey resumed, return to the Journeys Dashboard, locate the journey, and check the queue.

   **Note:** Messages queued longer than three days aren’t delivered after the journey resumes. Contacts queued longer than three days are set to Not Sent.

**Journey Settings**

Choose the settings that determine when the contact enters a Marketing Cloud journey and which address Journey Builder uses to message that contact.

Use Journey Settings to select the contact entry mode for a journey and designate a primary email address for contacts entering the journey. Contact entry mode dictates when a contact is eligible to enter a journey. To access settings, click , then **Journey Settings**.
Contact Entry

Contact entry mode dictates when the contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey. To learn more, see Choose a Contact Entry Mode on page 213.

- Select **No re-entry** if contacts can’t enter the journey again after a previous entry. For example, in a Welcome Journey, set your entry to **No re-entry** because you want your customers to be introduced to your brand only one time. This setting applies across all versions of a journey. After you activate the journey, you can’t change this option.

  Note: Test Mode doesn’t support this setting. When testing a journey, use **Re-entry at any time** or **Re-entry only after exiting**. Then, select **No re-entry** after testing if necessary.

- Select **Re-entry at any time** if contacts can enter the journey multiple times before exiting. This setting admits the contact into the journey each time that contact meets filter criteria. For example, if you use a journey for a post-purchase engagement, you can allow contacts to enter the journey whenever they make a purchase. After you select this option and activate the journey, you can change the option to **Re-entry only after exiting** after creating another version.

- Select **Re-entry only after exiting** if a contact must exit the journey before reentering it. This setting admits the contact into the journey when that contact meets filter criteria, if applicable. But the system doesn’t readmit that contact into the journey until after that contact exits the journey. After a contact exits the journey, the contact can enter again after meeting the filter criteria. For example, contacts can go through a journey multiple times but not concurrently, such as for a seasonal promotion or a yearly membership renewal. After you select this option and activate the journey, you can change the setting to **Re-entry at any time** by creating another version.

The system applies the Contact Entry setting at the journey level for each version of a journey.

Note: The contact entry setting isn’t configurable for Single Send journeys.

Consider timing and how you want customers to enter the journey. Choose the best cadence for putting users into the journey, and consider re-entry criteria. For example, in a Welcome Journey, set your entry to **No re-entry** because you want your customers to be introduced to your brand only one time. Sometimes, contacts can go through a journey multiple times but not concurrently such as a seasonal promotion or a yearly membership renewal. In this case, use **Re-entry only after exiting**. **Re-entry anytime** allows the contact to enter the journey multiple times simultaneously. For example, if you use a journey for a post-purchase engagement, you can allow contacts to enter the journey whenever they make a purchase.

Default Email Address and Mobile Number

Define a default email address and mobile number for each contact before sending messages in a journey. Often, Marketing Cloud stores more than one email address or mobile number for a single contact. Use this feature to designate which address or number receives the message.

Before you set a default email address, configure the journey’s entry source. Setting up the entry source populates the entry source email attribute option.

Do you want your journey to always send to the email address associated with each contact, or can that email address change during the journey? If the email address can change, choose to identify and use an email attribute from Contacts.

- Select **Use email attribute from Contacts**. If the email address can change, as in a journey with a long duration, choose to use the email attribute associated with Contacts.

- Select **Use email attribute from Entry Source**. If a contact’s email address is unlikely to change or a journey doesn’t allow re-entry, use the email for the contact at entry.

The same principles apply to the mobile number you select as default.
Considerations

- Many entry source data extensions include a single column with the EmailAddress data type. In this case, that column is identified as containing each contact’s default primary email address. You can change this setting.
- If more than one entry source data extension column has EmailAddress as its data type, Journey Builder prompts you to select one.
- When journey data from the entry source includes the email address that is used as default, set that email address as default by selecting Use email attribute from Entry Source.
- The email fields displayed when you choose Use email attribute from Contacts include only the fields present in a data extension marked as a Population or Synchronized Data Extension.
- If a default email address exists for contacts entering the journey, select Use email attribute from Contacts.
- To set the default mobile number to the priority 1 number stored in the contact record, select Use mobile attribute from Contacts.

Note: The default address set here overrides the current default email address setting for each contact.

Note: Fields configured with the EmailAddress data type are available only after an entry source is fully configured.

Transaction Key

To identify a contact entering a journey as unique, create a transaction key.

Note: Transaction Key is available with Custom Events only. Add the Transaction Key setting to the config.json file for the journey’s entry event to make it available in Journey Settings.

Transaction keys combine an ID value that Journey Builder generates with a unique contact attribute value to create a wholly unique identifier. All contact filters in the journey observe this unique identifier, including filters in the entry event and decision split activities. This identifier prevents contacts from following the unintended path when their ContactID still matches current entry or decision split criteria due to a previous transaction. The contact attributes available for creating a transaction key are ContactID and ContactKey. Transaction keys are commonly used when a journey’s entry event is initiated via API.

Google Analytics Integration

The Google Analytics 360 or Google Analytics Free integration tracks links in your journey emails and can track links by domain. If enabled for your account, Google Analytics tracking is available by default in all journeys.

Note: To narrow results, add specific domains to track. By including one or more domains, you see only links pointing to these domains in journey metrics.

Choose a Contact Entry Mode

Journey Builder observes Contact Entry mode at the journey level and it persists for each version of a journey in Marketing Cloud. Contact entry mode dictates when a contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey.
Enable or Disable Google Analytics
The Google Analytics Free integration allows marketers with Journey Builder to apply automated tracking on email and SMS messages. Google Analytics users can also see reporting within Journey Builder that provides insights into how their customers are engaging with their messaging and web-based marketing. Marketing Cloud customers with the GA360 integration can also act on these insights by creating audiences in Google Analytics, then sending them to Marketing Cloud to use for remarketing.

SEE ALSO:
Transaction Key

Choose a Contact Entry Mode
Journey Builder observes Contact Entry mode at the journey level and it persists for each version of a journey in Marketing Cloud. Contact entry mode dictates when a contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey.

1. Create a journey.
2. Click
3. Select No re-entry, Re-entry at any time, or Re-entry only after exiting.
   
   Note: Journey Builder verifies that a contact is unique by checking its contact key.
4. Click Done.

Enable or Disable Google Analytics
The Google Analytics Free integration allows marketers with Journey Builder to apply automated tracking on email and SMS messages. Google Analytics users can also see reporting within Journey Builder that provides insights into how their customers are engaging with their messaging and web-based marketing. Marketing Cloud customers with the GA360 integration can also act on these insights by creating audiences in Google Analytics, then sending them to Marketing Cloud to use for remarketing.

To access Google Analytics in Journey Settings, enable the Google Analytics integration.

The Google Analytics integration tracks links in your journey emails and can track links by domain. If enabled for your Marketing Cloud account, Google Analytics tracking is available by default in all journeys.

1. Click
2. To disable tracking for the journey, deselect Track links for all emails in this journey.
3. To disable one or more domains, click X next to each domain. If you don’t deselect Track links for all emails in this journey, links in journey emails that point to any domain are tracked.

SEE ALSO:
Configure the Google Analytics Integration for Marketing Cloud
Create and manage goals
Conversions reports
Entry Sources

The entry source on the canvas tells Journey Builder where customers entering this journey come from. Each journey must include an entry source.

**Important:** Don’t modify a data extension that is used as the entry source in an active journey. When activated, the journey uses a snapshot of the entry source data extension. Fields added after activation aren’t detected by the running journey. If you must add a new field to the entry source data extension, create a new version of the journey to include the updated data extension. For example, you can add a field to allow you to use personalization in messages within the journey.

**Note:** In an upcoming release, Contact Data Events won’t be supported. Events and journeys created before this change continue to run without interruption. Use the Data Extension entry source to admit contacts instead.

**Entry Source Administration**

An entry event is the action that prompts one or more contacts to enter a journey. Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or reusable.

**Edit an Entry Source**

After you configure an entry source, you can edit it or review its configuration before activation. After activation, you can review the entry source configuration, but you can’t edit it. To edit an active entry source, create another version of the journey and edit it there.

**Data Extension Entry Source**

The data extension entry source lets you choose a sendable data extension, then admit contacts in that data extension into a journey in a batch. You can configure a filter to control which contacts enter or admit all contacts in the data extension. You can also use Automation Studio to create and refresh the data extension, or you can use an SMS list created in MobileConnect.

**The Audience Entry Source**

Use an audience to admit a list of contacts into a journey. Select from the push, SMS, and published Audience Builder audiences available in your account. To create or edit audiences, use Contact Builder.

**Inbound Chat Message**

You can use the Inbound Chat entry source in Journey Builder to admit contacts who send one of the keywords that you selected to your app channel.

**The Contact Event Entry Source**

An entry event uses data about customer behavior to put contacts into a journey. Entry events generally require a change in data about the customer that triggers an evaluation of that contact for admission in the journey. The records Journey Builder evaluates for events are stored in a data source, which Journey Builder monitors on a schedule that you set.

**Admit Contacts Via API**

The API event in Journey Builder connects the journey canvas to an API used to admit contacts into a journey. When the API fires an event, the contacts entering the journey are stored in a Marketing Cloud data extension you choose. You can set a filter using Marketing Cloud data attributes to ensure that only intended customers enter the journey.

**Audience Studio**

Admit audiences from your Audience Studio account into Marketing Cloud. The Audience Studio entry source in Journey Builder lets you choose an audience from your Audience Studio account, then admit contacts from that audience into a journey in a batch. Configure the filter to control which contacts enter, or admit all contacts in the audience.

**The Google Analytics 360 Entry Source**

Admit audiences from your Google Analytics 360 account into Marketing Cloud Journey Builder. The Google Analytics 360 entry source lets you choose an audience from your Google Analytics 360 account, then admit a batch of contacts from that audience into a journey. Configure a filter to control which contacts enter the journey, or admit all contacts in the audience.
The Salesforce Data Event
A Salesforce Data Event is an action in Sales Cloud or Service Cloud, such as creating or updating an object record, that injects a contact into a journey. When the primary object meets rule criteria and reference object filtering criteria, Salesforce Flows initiate a Journey Builder event.

Use CloudPages to Admit Contacts into Journey Builder
Use a CloudPages Smart Capture form and Journey Builder to admit Marketing Cloud contacts into a journey using the CloudPages Form Submit Event.

SEE ALSO:
- Marketing Cloud Connect
- Journey Builder API

Entry Source Administration
An entry event is the action that prompts one or more contacts to enter a journey. Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or reusable.

To find existing reusable events, use the Search field or sort by clicking column headers.

The Reusable Entry Sources page displays this information.

| Name and Description | The name of the event and a summary of its purpose  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Click an event’s name to edit.</td>
</tr>
<tr>
<td>Last Modified timestamp</td>
<td>The most recent date and time the event configuration was changed</td>
</tr>
<tr>
<td>Usage</td>
<td>The number of journeys that currently use the event</td>
</tr>
</tbody>
</table>
| Availability | The status of an event for inclusion in a journey  
|            | Administrators can enable or disable event availability or place an event in Test Mode. |
| Event Performance | The results of testing the event |
| Actions | Administrator options include copy or delete |

Note: You can't delete events that are used by at least one journey.

Note: Salesforce entry sources, including the Salesforce Data, Campaign, and Experience entry sources, are only editable when no other journey or version uses them. You can't edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

You can configure Journey Builder to begin a journey based on any event configured within your Marketing Cloud instance.
Event Availability

The dropdown menu at the top of the page lets you view events according to their availability. Make events on this page unavailable by clicking the link in the Availability column, if necessary, so they aren’t visible to marketers in a journey.

SEE ALSO:
Email Studio
Create a Data Extension in Contact Builder

Edit an Entry Source

After you configure an entry source, you can edit it or review its configuration before activation. After activation, you can review the entry source configuration, but you can’t edit it. To edit an active entry source, create another version of the journey and edit it there.

**Important:** Don’t modify a data extension that is used as the entry source in an active journey. When activated, the journey uses a snapshot of the entry source data extension. Fields added after activation aren’t detected by the running journey. If you must add a new field to the entry source data extension, create a new version of the journey to include the updated data extension. For example, you can add a field to allow you to use personalization in messages within the journey.

If a Journey Builder Audience (Email Studio, Automation Studio, or MobileConnect) was created before January 2018, it now appears on the canvas as a data extension entry source. Click the entry source icon in a running journey to view its previous configuration. Its icon matches its previous configuration, so journeys with Email Audiences appear with the same icon, but their label reads Data Extension.

**Note:** You can’t edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce Data, Campaign, or Experience entry source, delete, and recreate the entry source.

1. In a draft journey, hover over the entry source or its schedule.
2. Click the entry source or schedule.
3. To reach the step you want to edit or view, click **Back**.
4. Save the edited entry source and journey, if necessary.

Data Extension Entry Source

The data extension entry source lets you choose a sendable data extension, then admit contacts in that data extension into a journey in a batch. You can configure a filter to control which contacts enter or admit all contacts in the data extension. You can also use Automation Studio to create and refresh the data extension, or you can use an SMS list created in MobileConnect.

After a data extension entry source is configured, you can set a schedule to determine when Journey Builder admits contacts from the data extension. The schedule also controls whether the data extension is used once or reevaluated to admit more contacts. Scheduling options include Run Once, Recurring, and Automation.

The Record Count on the Data Extension entry source tile represents the number of records currently present in the data extension. If the number of records in the data extension changes after the journey is scheduled, this count doesn’t equal the number of records evaluated for injection. To view the number of records that were evaluated and entered the Journey in the last 30 days, click **View Event Results**.

- Use **Run Once** to admit contacts to the journey one time. Contacts are admitted when you activate the journey or on the date and time you specify.
- Use **Recurring** to admit contacts as often as you specify. Choose whether to evaluate all records in the data extension each time the schedule recurs, or to evaluate only new records. Evaluating only new records generally results in better performance.
Use **Automation** to admit contacts based on the schedule of the automation in Automation Studio. The automation must contain an import, filter, or query activity that directly modifies the data extension used for entry. Contacts are evaluated for entry according to the automation’s schedule. Choose whether to evaluate all records in the data extension each time the schedule recurs or only new records. Evaluating only new records generally results in better performance.

**Note:** Automation is available when the automation built-in Automation Studio modifies the selected data extension.

Use the Audience entry source to admit MobileConnect lists. Create an Audience entry source to modify the entry filter or schedule for a MobileConnect Audience.

**Note:** MobileConnect Audiences created before the January 2018 release aren’t editable, but continue to process new entries. You can edit Email Studio Audiences and Automation Studio Audiences created before the January 2018 release if no active versions of the journey use the audience. These audiences are included as Data Extension entry sources and follow an updated configuration flow.

### Data Extension Entry Source Use Cases

Read about how Northern Trail Outfitters (NTO) used the data extension entry source to hold a raffle, sell winter accessories, and support disaster relief.

**Select a Data Extension for Entry**

Consider these recommendations when you select a sendable data extension as an entry source.

**Configure the Data Extension Entry Source**

To admit Marketing Cloud contacts from a sendable data extension in Journey Builder, use the data extension entry source.

**Schedule a Data Extension Entry Source**

To define how often Marketing Cloud Journey Builder admits contacts from a data extension entry source, set a schedule. You can schedule how often you want to check the data extension for updates, from hourly to yearly. You can also choose how long you want the entry source schedule to run for some entry events. After you configure a data extension entry source, a schedule tile appears.

**Choose How to Process Entry Source Data**

Configure your Journey Builder entry source so it promotes efficient processing. When an entry source includes a repeating schedule, choosing a processing option is necessary. Processing options tell Journey Builder how to evaluate contacts in a data extension or list.

### Data Extension Entry Source Use Cases

Read about how Northern Trail Outfitters (NTO) used the data extension entry source to hold a raffle, sell winter accessories, and support disaster relief.

**Monthly Customer Raffle**

NTO collects purchase information about customers who buy its outdoor lifestyle goods in a data extension called NTO Customer Raffle. On the first Monday of each month, NTO holds a customer appreciation contest. As part of the contest, an email is sent to customers who purchased something the previous month. A gift card is awarded to one customer who opens the email.

A marketer at NTO creates a journey to facilitate the contest by clicking **Create Journey from Scratch**. The marketer drags the data extension entry source onto the canvas and clicks the entry source to configure it. Then, NTO selects the Customers data extension, which is linked 1: many to the NTO Customer Raffle data extension in Contact Builder.

The marketer then creates a filter to admit customers whose most recent purchase happened within the past month. The marketer drags the PurchaseDate attribute into the filter and sets the PurchaseDate to on or before today and PurchaseDate is after Today Minus 30 days.
The marketer then sets the journey’s schedule by clicking Schedule and selecting Recurring. The marketer sets the recurrence to happen once on the first Monday of every month. Because customers can make purchases at any time during the month to be eligible for the contest, the marketer selects Evaluate all records.

**Winter Accessories Journey**

NTO’s marketer creates a journey to market winter hats and gloves to North American customers. To reach only customers in cold-weather climates, the marketer drags the data extension into the journey and chooses the Customers data extension. The marketer then configures a filter that includes only customers in colder areas, for example, Region equals Northeast or Region equals Midwest or Country equals Canada.

To set the journey’s schedule, the marketer clicks Schedule. To end the journey before warm weather arrives, the marketer chooses Recurring with an end date in April. The marketer then sets the schedule to repeat every Monday.

Because new contacts are continually added to the Customers data extension, the marketer selects Evaluate new records only.

**Disaster Relief Campaign**

After a natural disaster hits a western U.S. state, NTO creates a journey to solicit disaster relief donations from its most active and loyal customers. To automate this work, NTO’s marketer creates a journey that runs only once on activation.

To set up the journey, the marketer configures the data extension entry source to admit contacts from the Loyalty_Members data extension. NTO wants to solicit donations only from customers in the same country where the disaster occurred, so the filter is set to Country equals United States.

After configuring the entry source, the journey schedule. The intent of this journey is to send a single series of messages related to the disaster relief effort, the marketer selects Run Once as the schedule type.

**Select a Data Extension for Entry**

Consider these recommendations when you select a sendable data extension as an entry source.

- Include fields needed for personalization or dynamic content in the data extension.
- If the data for the journey is stored in multiple data extensions, create a single entry source data extension using a query. Create queries in Automation Studio using the SQL Query Activity.
- If possible, pre-filter your audience data extension to speed processing.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Builder</td>
<td>Sendable data extensions created or managed in Contact Builder are the recommended data source for journeys that use Marketing Cloud data.</td>
</tr>
</tbody>
</table>
| Salesforce Data Extensions    | Salesforce data extensions are no longer selectable as entry sources within Journey Builder. To use a Salesforce data extension as an entry source, use an automation to move its data into a supported format for entry.  
1. Create a data extension that you can populate with data from a Salesforce data extension.  
2. To populate the new data extension with data from a Salesforce data extension, create an automation with a query activity.  |
Use synchronized data extensions to populate an entry source data extension in journeys that use Sales Cloud or Service Cloud data and Marketing Cloud data.

To use a synchronized data source’s data to populate an entry source data extension, follow these steps.

- Use a query activity or another process to target specific data in the data extension that results from your synchronized data source.
- Then segment the data into a sendable data extension that you can use as an entry source.

**Configure the Data Extension Entry Source**

To admit Marketing Cloud contacts from a sendable data extension in Journey Builder, use the data extension entry source.

1. Drag Data Extension onto the canvas.
2. Click Data Extension.
3. Select a sendable data extension.
4. To refine your audience, click Filter Contacts and configure a filter.
5. Click Summary, and review setup details.
6. Click Done.

Set a schedule for admitting contacts from the data extension into the journey.

**Tip:** To use an automation’s schedule to control when the journey admits contacts, select a data extension that an automation updates or modifies. Or set up an automation to modify the data extension you selected before setting the journey schedule.

**Schedule a Data Extension Entry Source**

To define how often Marketing Cloud Journey Builder admits contacts from a data extension entry source, set a schedule. You can schedule how often you want to check the data extension for updates, from hourly to yearly. You can also choose how long you want the entry source schedule to run for some entry events. After you configure a data extension entry source, a schedule tile appears.

**Note:** The Recurring and Automation options are not supported in Single Send journeys.

If the automation regularly modifies or updates the data extension that you selected, you can use the Automation schedule type. The journey admits eligible contacts when the automation runs.

**Note:** Schedule dates must fall between 1/1/1900 12:00:00 AM and 6/6/2079 11:59:59 PM.

1. Click Schedule.
2. To determine when and how often the journey admits contacts, select a schedule type.
3. Click Select.

4. Choose when contacts from the data extension enter the journey.
   - When you select Run Once, Journey Builder evaluates contacts on activation or at the specified date and time.
   - When you select Recurring, enter a start date when contacts enter the journey, how frequently contacts are evaluated for admission, and how many times they're evaluated.
   - When you select Automation, the journey evaluates contact records when your chosen automation completes.

   **Note:** When a file drop automation updates the source data extension, all records in the source data extension are evaluated each time.

5. If the contacts enter on a repeating basis, choose the recordset that Journey Builder evaluates each time the schedule repeats.

6. Click Summary.

7. Click Done.

Activate the journey to start the schedule.

**Note:** If contact records are being evaluated when the next run is scheduled to begin, the run is skipped. Records are processed in the next run.

### Choose How to Process Entry Source Data

Configure your Journey Builder entry source so it promotes efficient processing. When an entry source includes a repeating schedule, choosing a processing option is necessary. Processing options tell Journey Builder how to evaluate contacts in a data extension or list. Choosing how Journey Builder evaluates an entry source to determine which contacts enter the journey also ensures that records are processed efficiently. You can set up the entry of contacts into a journey in two ways.

- **Enter the journey once when it is activated.**
- **If the entry source data is continually updated, set a schedule to occur once or continually.**

When you set a schedule that repeats, you select a processing option.

- **To evaluate only new contacts added since the previous run for journey entry, select Evaluate new records only.** For the journey’s first scheduled run, choose whether to evaluate all data extension records on only the first run or records added after activation. This evaluation option is typically used when a process exists to add new rows to the source data extension without deleting or overwriting existing rows. For example, the automation with an import activity appends records to a data extension. Using this option typically results in faster, more efficient processing.
- **To evaluate all records in a data extension each time according to the entry source’s schedule, select Evaluate all records.** Use this option only when records in the data extension are continually updated. Using this option typically results in slower processing.

To improve performance and ensure that all eligible contacts in the entry source enter the journey without slowing the admission process, select the applicable processing option.

### SEE ALSO:

- [Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud](#)

### The Audience Entry Source

Use an audience to admit a list of contacts into a journey. Select from the push, SMS, and published Audience Builder audiences available in your account. To create or edit audiences, use Contact Builder.
Audiences are available in accounts provisioned for both Journey Builder and Contact Builder.

The Audiences entry source features new functionality. Audiences created before the January 2018 release continue to function, but cannot be edited. Use the data extension entry source to access functionality previously found in Journey Builder Audiences.

Create an Audience from Contacts
To admit contacts in Journey Builder, create and schedule an audience.

Schedule an Audience
To determine how often Journey Builder admits contacts from an audience, set a schedule. To prompt the schedule tile to appear, configure an entry source.

Use Salesforce CDP in Journey Builder
Salesforce CDP is optimized for messaging using Journey Builder. You can also use Salesforce CDP to select an audience in Email Studio and MobileConnect. Audiences can include enriched unified individual records and new records. It's important to consider consent management when sending.

Create an Audience from Contacts
To admit contacts in Journey Builder, create and schedule an audience.

1. Create an audience in Contact Builder.
2. Drag Audience onto the canvas.
3. Click Audience.
4. Select a filtered list.

Schedule an Audience
To determine how often Journey Builder admits contacts from an audience, set a schedule. To prompt the schedule tile to appear, configure an entry source.

The schedule does not start until the journey is activated. If contact records are being evaluated when the next scheduled run begins, that run is skipped. Remaining records are processed in the next run.

1. Click Schedule.
2. To determine when and how often the journey admits contacts, select a schedule type.
3. Choose when MobileConnect contacts enter the journey.
   a. When you select Run Once, choose to evaluate contacts once at activation or at a specific date and time.
   b. When you select Recurring, specify a start date when contacts enter the journey, how frequently contacts are evaluated for admission, and how many times they’re evaluated.

Use Salesforce CDP in Journey Builder
Salesforce CDP is optimized for messaging using Journey Builder. You can also use Salesforce CDP to select an audience in Email Studio and MobileConnect. Audiences can include enriched unified individual records and new records. It’s important to consider consent management when sending.
When you create a journey, you select your audience in the Data Extension Entry Source in Journey Builder. To choose Salesforce CDP audience, choose your audience from the Salesforce CDP Segments folder in the Shared Data Extensions folder.

Managing Consent
We recommend that you employ the following practices to help manage consent when you use unified Salesforce CDP audiences in Journey Builder.

• Consider applying Filter Contacts criteria to limit who is included in the audience when you create the Entry Source. If it filters out many audience members, performance can be degraded on page 175

  Note: if the SMS Activity appears later in the journey, you can use a Decision Split instead of filtering criteria for consent to Salesforce CDP for entry source configuration.

• When you configure an email activity to use a Salesforce CDP audience, consider assigning a Publication or Suppression list for more consent management options

Email Activities
You can configure email activities in Journey Builder that use Salesforce CDP audiences as either multi-step or single send journeys.

SMS Activities
When you configure an SMS activity in Journey Builder to use a Salesforce CDP audience, selectSend only to contacts who are subscribed currently in the Delivery Options configuration step. This selection helps prevent sending to individuals who didn’t opt in to receive the communication.

Push Messaging Activities
For push messaging using Salesforce CDP audiences, use a multi-step journey. You can configure either a Push Notification, Inbox, or In-App Message activity to activate a MobilePush send. Consent for push messaging is managed in the MobilePush SDK.

Inbound Chat Message
You can use the Inbound Chat entry source in Journey Builder to admit contacts who send one of the keywords that you selected to your app channel.

Important: To use this entry source, create a chat integration business account through the chat messaging setup app.

You can use the same keyword as an entry source and a valid chat response. If a contact sends the keyword while they are in a Wait Until Chat Response activity, the contact advances to the next activity in that journey. The keyword is ignored by any other journey listening for that keyword as a source of entry.

Configure the Inbound Chat Entry Source
Follow these steps to configure the Inbound Chat entry source in Journey Builder.

1. Drag the Inbound Chat activity onto the canvas and click to open.
2. To configure the app channel, click Edit.
3. Select the app channel to use from the dropdown.
4. Click the Keywords tab.
5. Create up to 10 keywords. You can use the same keyword in multiple Wait Until Chat Response activities and entry sources.
6. Click **Summary**, and review setup details.
7. Click **Done**.

**The Contact Event Entry Source**

An entry event uses data about customer behavior to put contacts into a journey. Entry events generally require a change in data about the customer that triggers an evaluation of that contact for admission in the journey. The records Journey Builder evaluates for events are stored in a data source, which Journey Builder monitors on a schedule that you set.

For a Welcome Series journey, for example, the action or behavior is typically a customer opting into a marketing campaign. For an Abandoned Cart journey, a contact is put into a journey when they leave items in their web shopping cart. Other events include, but are not limited to:

- The contact purchases a product.
- A contact signs up for a conference.
- A customer publishes a restaurant review.
- Marketing Cloud customers using CloudPages or Mobile Studio create profile centers or use the email subscription template to opt users into mobile or email communications.
- User changes to an object’s data stored in Sales or Service Cloud to place a contact into a journey.
- Using a point of sale system in a retail store or on a website, a customer elects to sign up for promotional emails and coupons.

Date-based events use data stored in Contact Builder. Use a date-based event if you want to send a promotion to your customers to celebrate their birthday or a reminder for an appointment.

If you use a date-based event, make sure that you have the data you need, such as a client’s birthday, in your Contact Builder data model. Consider timing in your journey. You can set the journey start either before or after the date, so think about the best time for your clients to get the information: on the specific date, like for a birthday message? Or a month before a renewal date?

**Note:** In an upcoming release, Contact Data Events will not be supported. Events and journeys created before this change continues to run without interruption. Use Data Extension or Audiences to admit contacts instead. Some examples of ways entry events place contacts into a journey are:

- Events can be journey-specific or shared between journeys.
- Configure journey-specific events within a journey for use only in that journey.
- Create shared events in Entry Source Administration for use in multiple journeys.

**Select a Reusable Entry Source**

Select a reusable entry source in Journey Builder when the event you want to use was already created in another Marketing Cloud journey or on the Entry Sources page.

**Create a Journey-Specific Event**

A journey-specific event in Marketing Cloud’s Journey Builder is configured within a single journey. Only that journey can use the event.
Create a Date-Based Event Entry
You can use the Date-Based Events in Journey Builder to use a date-based attribute from Contact Builder to determine when contacts enter the journey. Common use cases include birthday and anniversary campaigns. Other typical cases are journeys based on subscription dates or the last time a contact opened or used an app. If a contact does not have a contact record in Marketing Cloud, they are not admitted into the journey.

Create a Shared Entry Event
An Entry Event is an action that prompts one or more contacts to enter a journey in Journey Builder. This topic contains information for IT administrators to set up shared entry events for marketer use.

Events and Data Extensions
When a journey’s entry source is configured in Journey Builder, the data source from which contacts are admitted is usually a data extension.

Entry Results
Use this page to understand and gauge the flow of contacts into a journey in Journey Builder. This page also shows the journeys that use this entry source under Journey Usage. View a list of contacts that were not accepted and an explanation by clicking View Rejected Contacts.

Test an Entry Event
Test your entry event in Journey Builder to ensure that it admits contacts as intended without contacts entering a live journey and receiving messages.

Prioritization Example: Update Entry Event
In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

View Rejected Contacts
Follow these steps in Journey Builder to view a list of contacts that were not accepted into a journey.

Fire an Event
Entry events prompt Journey Builder to evaluate Marketing Cloud contacts for journey entry. An entry event occurs when records in a journey’s entry event data source, often a data extension, are added, updated, or overwritten. Firing an event lets you kick off a journey using an API or an automation created in Automation Studio.

SEE ALSO:
Linked Data Extensions in Journey Builder

Select a Reusable Entry Source
Select a reusable entry source in Journey Builder when the event you want to use was already created in another Marketing Cloud journey or on the Entry Sources page.

Note: In an upcoming release, Contact Data Events will not be supported. Events and journeys created prior to this change will continue to run without interruption. Use Data Extension or Audiences to admit contacts instead.

1. In a new journey, drag Event onto the canvas.
2. Click Event.
3. Select an event from Existing Entry Sources.
4. If the event is unconfigured, create a filter on the next page of the wizard.
Create a Journey-Specific Event

A journey-specific event in Marketing Cloud's Journey Builder is configured within a single journey. Only that journey can use the event.

Note: In an upcoming release, Contact Data Events will not be supported. Events and journeys created before this change continues to run without interruption. Use Data Extension or Audiences to admit contacts instead.

1. Drag Event onto the canvas and click it.
2. Choose an entry source from New Entry Sources.
3. Choose a data source whose contacts enter the journey. Journey Builder evaluates the records in this data extension or file when the journey is activated.
   Note: If no contact record exists in Marketing Cloud for a person entering this journey, the journey does not admit that person.
4. Optionally, set a filter against contact or journey data attributes to add criteria for entering the journey.
5. Set a schedule to dictate when Journey Builder fires this event or evaluates new rows in the data extension to find contacts that meet entry criteria. The Repeat setting defaults to None, which means the event runs only on the scheduled date and time. This schedule dictates when Journey Builder checks the event source for new records.
   Note: When contacts enter a journey via API call, use the API Event to connect the API to the Journey Builder canvas.

Create a Date-Based Event Entry

You can use the Date-Based Events in Journey Builder to use a date-based attribute from Contact Builder to determine when contacts enter the journey. Common use cases include birthday and anniversary campaigns. Other typical cases are journeys based on subscription dates or the last time a contact opened or used an app. If a contact does not have a contact record in Marketing Cloud, they are not admitted into the journey.

Important: Journey data is not available for messaging personalization or decision split criteria when you use the Date-Based Event entry.

Note: Only sendable data extensions are available to use.

1. Drag Event onto the canvas.
2. Click Event.
3. Click Date Based Event.
4. Click Next.
5. Configure these settings.
   - Choose a Date type attribute. Data type is set in Contact Builder when adding attributes.
   - Choose how often this event fires for all contacts found in the data model in Contact Builder:
     - Yearly: Allows the event to fire a maximum of one time per year for each contact. This setting is used in birthday and anniversary scenarios.
     - Monthly: Allows the event to fire at most one time each month for each contact. This setting works well for monthly notices based on a billing date, for example.
     - None (run once): This event fires once for each contact. This setting is used for subscription reminders.
   Note: Contacts are reevaluated for inclusion each time they are added to the event source data extension.
• Determine the number of days, weeks, or months before or after the date of the event.
• To configure the event by typing a number and using the menus, click **Custom**.
• Set the time of day of the event and time zone.

6. Complete configuration and click **Next**.

**SEE ALSO:**
- Get Started with Contact Builder

### Create a Shared Entry Event

An Entry Event is an action that prompts one or more contacts to enter a journey in Journey Builder. This topic contains information for IT administrators to set up shared entry events for marketer use.

Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or shared by more than one journey. Set event availability to give marketers in your organization access to entry events.

1. Click **New Event**.

2. Choose an event type. Usually, marketers choose a Contact Data event.

   **Note:** Event types don’t dictate the data source that contacts enter a journey from. Choose the data source in a subsequent step.

3. Add a name, description, event definition key, and icon. The event definition key is used when calling an event via API. If you don’t have one, Journey Builder provides it automatically.

4. Select a sendable data extension, the data source where customer actions and data is recorded, and tell Journey Builder when and how often to check it. When Journey Builder finds new customer records, it automatically tries to enter them into the journey. If they meet the filter criteria set on the next step, Journey Builder admits them.

   Journeys that include the email activity must use an event source data extension that includes these fields:

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>EmailAddress</td>
<td>Email Address</td>
</tr>
<tr>
<td>SubscriberKey</td>
<td>Text</td>
</tr>
</tbody>
</table>

   If one or both fields aren’t in this format, Journey Builder creates them and appends them to the event source data extension.

   **Note:** To prevent errors, ensure that no other fields in the data extension contain the following:
   - A field named SubscriberKey, with a data type other than Text
   - A field named EmailAddress, with a data type other than Email Address

   When the event source is modified, added to, or overwritten, this action constitutes an entry event. A single entry event can be used to kick off multiple journeys.

5. If necessary, create a filter using contact attributes so the journey only admits contact records that meet the filter criteria set on this step.

   An entry event’s configuration details appear on the journey canvas. Determine when and how often Journey Builder checks the event source for new records to enter the journey.

6. If contacts enter the journey via API or using Automation Studio, select **Not Applicable**. Setting an entry schedule here isn’t necessary.
7. To have contacts enter the journey according to a schedule, select **Run using the following schedule**.

8. Set the date, time zone, and repetition schedule. The default repeat setting is None, which means the entry event runs only on the scheduled date and time.

   The schedule dictates when Journey Builder checks the event source for new records. The schedule set here doesn’t admit contacts into the journey unless the journey is activated. In cases where the schedule set begins before journey activation, Journey Builder only admits contacts that are added to the event source following activation.

SEE ALSO:

- **Data Extensions in Contact Builder**
- **Create a Data Extension in Contact Builder**

**Events and Data Extensions**

When a journey’s entry source is configured in Journey Builder, the data source from which contacts are admitted is usually a data extension.

When an event fires, Journey Builder admits the contacts stored in the entry source data extension that meet entry criteria. Specifically, Journey Builder evaluates the data extension from its first row and continues until all existing rows are evaluated.

The next time the event fires, the entry source begins evaluating rows from the point where it stopped. This factor prevents contacts that are already in the journey from entering the same journey again if their contact record is unchanged.

**Single Event Source for Multiple Events**

Multiple entry sources can use the same data extension.

Three methods exist for admitting contacts into a journey:

- API
- Automation Studio’s Fire Event activity
- The Schedule feature found within Journey Builder’s event setup process

Ensure that the desired contacts enter each journey as intended. Use one of these three methods to admit contacts from an event source data extension.

Journey Builder now evaluates the event source data extension separately for each individual event.

**Events and Shared Data Extensions**

A shared data extension can be used as the entry source data extension in more than one business unit. Journey Builder separates the processing of the data extension for each business unit. Events that run against a data extension in Business Unit A evaluate records starting at the last row that was evaluated previously. But when an entry source uses this data extension in Business Unit B for the first time, it begins at the first row.

SEE ALSO:

- **Create a Data Extension in Contact Builder**
- **Business Units in Marketing Cloud**
Entry Results
Use this page to understand and gauge the flow of contacts into a journey in Journey Builder. This page also shows the journeys that use this entry source under Journey Usage. View a list of contacts that were not accepted and an explanation by clicking View Rejected Contacts.

After a journey is activated, click View Event Results to access the journey’s entry results over the previous 30 days. You can view these results on the page:

<table>
<thead>
<tr>
<th>Subheading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Source Evaluation</td>
<td>Pending Evaluation</td>
</tr>
<tr>
<td></td>
<td>These contact records are waiting to enter the queue for evaluation against</td>
</tr>
<tr>
<td></td>
<td>the entry source filter (if the entry source includes a filter).</td>
</tr>
<tr>
<td></td>
<td>Note: This section is only visible when contacts are pending.</td>
</tr>
<tr>
<td>Entry Results for the last 30 days</td>
<td>Contacts Evaluated</td>
</tr>
<tr>
<td></td>
<td>Total number of contacts evaluated for journey entry which includes both</td>
</tr>
<tr>
<td></td>
<td>accepted and rejected contacts.</td>
</tr>
<tr>
<td></td>
<td>Contacts Accepted</td>
</tr>
<tr>
<td></td>
<td>The number of contacts that met entry criteria and were admitted to the</td>
</tr>
<tr>
<td></td>
<td>journey.</td>
</tr>
</tbody>
</table>

Test an Entry Event
Test your entry event in Journey Builder to ensure that it admits contacts as intended without contacts entering a live journey and receiving messages.

⚠️ Important: Test Mode doesn’t support the Salesforce Data and Campaign events. Date-Based Events aren’t compatible with Test Mode. Events and journeys created before this change continue to run without interruption. Use Audiences to admit contacts instead.

🔍 Note: Only entry events that weren’t used in a journey are testable. We recommend that you test an event immediately after you create it.

1. Create or find the entry event on the Entry Sources page.
2. In the Availability column, click the link in your Event’s row.
3. Select Test Mode.
4. Save your changes.
5. Fire an event using Automation Studio or the API.
6. Return to the Entry Sources page.
7. Click View Results.

Total Contacts shows how many contacts were evaluated from the data source and matches the total number of contacts in the event source data extension.

Accepted Contacts shows how many contacts met applicable filter criteria applied and entered the journey.

Journey usage lists journeys that include this entry event. To view a journey, click the journey’s name.
8. To see how the event handled each accepted contact, click **Contacts Accepted**.

9. To see how the event handled rejected contact, click **Contacts Rejected**.

SEE ALSO:

*Fire an Event via API*

**Prioritization Example: Update Entry Event**

In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for a post-purchase confirmation and follow-up journey.

1. In Journey Builder, open the journey named Post Purchase Confirmation and Follow-Up.
2. In the running version, click **New Draft**.
3. Click **Event**.
4. Click **Back**.
5. Under Data Extensions, select **Journey Builder Prioritization**, then click **Next**.
6. In the Attributes pane, navigate to Journey Builder Prioritization.
7. Find the PostPurchase attribute.
8. Confirm that the expression reads PostPurchase is True, then click **Next**.
9. Schedule the event, then click **Next**.
10. Review the configuration settings and click **Done**.
11. Save your changes.
12. Click **Activate**.

**View Rejected Contacts**

Follow these steps in Journey Builder to view a list of contacts that were not accepted into a journey.

1. In a running or stopped journey, click **View Event Results** in the entry source column.
2. On the entry results page, click **View Rejected Contacts**.

   🔄 **Note:** The View Rejected Contacts link does not appear when all contacts are accepted into the journey.

On the Journey History page, view the list of contacts that did not enter the journey, including the reasons they didn’t enter.

**Fire an Event**

Entry events prompt Journey Builder to evaluate Marketing Cloud contacts for journey entry. An entry event occurs when records in a journey’s entry event data source, often a data extension, are added, updated, or overwritten. Firing an event lets you kick off a journey using an API or an automation created in Automation Studio.

1. **Create a Journey**
   
   Use a Contact Data entry event to fire events in Journey Builder using a Marketing Cloud automation or an API entry event.
2. **Define the Automation**
   Define a Marketing Cloud automation using the Fire Event activity to fire an event prompting Journey Builder to detect updates. When you set up the Fire Event Activity, select the same data extension used in the entry event you set up in your journey. Automations used for journeys can be set up in advance using Scheduled or File Drop Automations.

3. **Run the Automation**
   Prompt Journey Builder to filter contacts into journeys configured to use this entry event.

4. **Confirm Journey Entry**
   Check Journey Builder Analytics.

**SEE ALSO:**
- Fire an Event via API
- Create a Journey

### Create a Journey

Use a Contact Data entry event to fire events in Journey Builder using a Marketing Cloud automation or an API entry event.

- **Note:** Firing an event affects all journeys with an entry event that uses this event source data extension.

1. Drag **Event** onto the canvas and click it.
2. Select the Contact Data Event Type.
3. Click **Next**.
4. Click **Choose Data Extension** and select a sendable data extension. Use the same sendable data extension in the automation you define to fire the event.
5. Configure the entry event as needed.
6. Save the entry event.

Follow the steps to create a journey.

### Define the Automation

Define a Marketing Cloud automation using the Fire Event activity to fire an event prompting Journey Builder to detect updates. When you set up the Fire Event Activity, select the same data extension used in the entry event you set up in your journey. Automations used for journeys can be set up in advance using Scheduled or File Drop Automations.

Follow the steps to define an automation.

- **Note:** In an upcoming release, Contact Data Events will not be supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead.

The only activity the automation must include is the Fire Event activity. Run the automation whenever new data is added to the data extension, or schedule it to run on a repeating basis.

1. Drag the Fire Event activity into a step of the automation.
2. Click **Choose...** to select the data extension you chose in the entry event you created.
3. Click **Save**.
Follow the steps to Configure your API.

SEE ALSO:
  Define an Automation in Automation Studio

**Run the Automation**

Prompt Journey Builder to filter contacts into journeys configured to use this entry event.

Complete the steps to Confirm Journey Entry

**Important:** In an upcoming release, Contact Data Events will not be supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead. Learn More.

After setting up your journey, return to your automation to run it. If you are using a Triggered Automation, this process works only when a new file has been dropped in the specified file location.

1. Click Run Once to start the Fire Event activity, prompting Journey Builder to evaluate contacts for entry. After the automation runs the first time, only new contact records are admitted on subsequent runs, depending on Journey Settings.
2. Click Run Once again to fire an event each time new data is added to the data extension.

Complete the steps to Define the Automation.

SEE ALSO:
  Run an Automation from the Overview Page

**Confirm Journey Entry**

Check Journey Builder Analytics.

Complete the steps to Run the Automation.

**Important:** In an upcoming release, Contact Data Events will not be supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead. Learn More.

1. Navigate to Journey Builder after running your automation.
   - When contacts are admitted, the counts on the Entry Results page increase
   - To track individual contacts through a journey, see **View a Contact's History In a Journey** to track individual contacts through a journey

SEE ALSO:
  Entry Results
  View a Contact's Journey History in a Journey
  View Rejected Contacts

**Admit Contacts Via API**

The API event in Journey Builder connects the journey canvas to an API used to admit contacts into a journey. When the API fires an event, the contacts entering the journey are stored in a Marketing Cloud data extension you choose. You can set a filter using Marketing Cloud data attributes to ensure that only intended customers enter the journey.
This event type requires some development work to configure an API. If needed, seek technical help to set up and use an API to put customers into journeys. Here are some items to consider as you work with an IT resource.

- Note where you capture opt-ins and customer data.
- Review the information you already gather about your customers, such as demographic data, web browsing data, purchase data, and where it is stored.
- Determine data needs, such as customer data used to target or personalize messages or customer interactions, that drive your marketing program.
- Determine which customer behaviors you want to act on, and how. Consider timing and targeting.

Create a data extension to store contacts fired via API if you don’t want to use an existing data extension for this purpose.

1. Drag **API Event** onto the canvas. Use the Event Definition Key to connect this journey to your API.
   
   **Warning:** Don’t include a period in the Event Definition Key.

2. Click **API Event**

3. Choose an API event, or click create an event.
   
   **Tip:** Events shown in the API Event Summary were created on the Entry Sources page.

4. If you create an API event, choose the data extension to populate.

5. Click **Filter Contacts** and create a filter, if necessary.
   
   **Tip:** Use the final step to find the Event Definition Key.

6. If contacts meet filter and entry mode criteria, the journey admits the contacts in response to an API request.
   
   For reference, find the Event Definition Key on the Summary tile on the canvas.

**API Event Entry Source Use Case**

A marketer at Northern Trails Outfitters (NTO) works with a developer to set up an API that admits customers into a Marketing Cloud journey every day. In this example, the marketer and developer work to set up the API Event and API request, then test sending a single contact into a journey. The API is intended to send a single contact at a time. It admits contacts when they’re ready to enter the journey rather than queuing or batching them.

SEE ALSO:

- Journey Builder API
- Get Started with Contact Builder

**API Event Entry Source Use Case**

A marketer at Northern Trails Outfitters (NTO) works with a developer to set up an API that admits customers into a Marketing Cloud journey every day. In this example, the marketer and developer work to set up the API Event and API request, then test sending a single contact into a journey. The API is intended to send a single contact at a time. It admits contacts when they’re ready to enter the journey rather than queuing or batching them.

1. Create a journey from scratch.

2. Add the API Event onto the journey canvas as the journey’s entry source.

3. Click to open the entry source.
4. Copy the Event Definition Key and provide it to the developer.
5. Configure the journey activities. Then save and activate the journey.
6. With the Event Definition Key in hand, the developer uses the instructions here to create the API request to fire the entry event.
7. The developer gets a sample ContactKey that is linked to All Contacts in Contact Builder to put into the API request. This key corresponds to the contact that enters the journey when the request is fired. The developer then uses an API client to send the test request.

The request includes the Event Definition Key generated when the marketer sets up the API Event entry source. When the API request is sent, the contact whose ContactKey is included in the request enters the journey.

SEE ALSO:
   Fire an Entry Event

Audience Studio
Admit audiences from your Audience Studio account into Marketing Cloud. The Audience Studio entry source in Journey Builder lets you choose an audience from your Audience Studio account, then admit contacts from that audience into a journey in a batch. Configure the filter to control which contacts enter, or admit all contacts in the audience.

1. Drag the Audience Studio entry source tile onto the canvas.
2. Click the tile.
3. Click Select an Audience.
4. Click Select next to the audience to admit.
5. To further refine your audience, configure any necessary filters and complete setup.
6. Click Summary.
7. Click Done.
8. Complete the rest of your journey, then validate and activate it.

   Note: Even after filtering, the entry source displays the total number of contacts within the audience.

Audience Studio Use Case
An NTO marketer wants to promote a new line of fitness apparel. The goal is to send highly targeted, cross-channel messaging that is optimized through data-driven insights using email, advertising, and NTO’s ecommerce site. The marketer creates a journey in Marketing Cloud Journey Builder using data from Salesforce Audience Studio.

SEE ALSO:
   Audience Studio

Audience Studio Use Case
An NTO marketer wants to promote a new line of fitness apparel. The goal is to send highly targeted, cross-channel messaging that is optimized through data-driven insights using email, advertising, and NTO’s ecommerce site. The marketer creates a journey in Marketing Cloud Journey Builder using data from Salesforce Audience Studio.
NTO’s marketing team uses Salesforce Audience Studio to aggregate consumer data across its website, mobile apps, email interactions, and offline transaction data. These insights help NTO create a segment of users who interacted with campaign awareness display and search ads or opened the initial campaign email. NTO plans to exclude customers who made a purchase within the last 30 days.

The segment is saved as NTO Promotional Campaign. NTO activates the segment across various demand-side platforms for search and display activity. NTO activates the segment to Marketing Cloud for direct communications that reinforce the indirect advertising experience.

NTO’s marketer then creates a Marketing Cloud journey for the campaign and drags the Salesforce Audience Studio entry source onto the canvas. After clicking the activity, the marketer clicks **Select an Audience** and chooses the NTO Promotional Campaign audience. The marketer finishes configuring the entry source. When the journey is activated, members of the NTO Promotional Campaign audience who meet filter criteria are admitted to the journey.

### The Google Analytics 360 Entry Source

Admit audiences from your Google Analytics 360 account into Marketing Cloud Journey Builder. The Google Analytics 360 entry source lets you choose an audience from your Google Analytics 360 account, then admit a batch of contacts from that audience into a journey. Configure a filter to control which contacts enter the journey, or admit all contacts in the audience.

To make audiences available to select here, configure your Google Audiences in your Google Analytics account. You can’t configure or manage Google Audiences in the Marketing Cloud.

1. Drag the Google Analytics 360 entry source tile onto the canvas.
2. Click the tile.
3. Click **Select an Audience**.
4. Click **Select** next to the audience to admit.
5. To further refine your audience, configure any necessary filters and complete setup.
6. Click **Summary**.
7. Click **Done**.
8. Complete the rest of your journey, then validate and activate it.

**Note:** Even after filtering, the entry source displays the total number of contacts within the audience.

### Honor Opt-Out Requests for Personalized Ads

Google Analytics supports a consumer opt-out for personalized ads. Observe your customers’ requests to opt out of personalized online ads as recorded in Google Analytics. Place a decision split after the Google Analytics 360 entry source in Salesforce Marketing Cloud. Use a field in the Google Analytics audience data extension to prevent your audiences’ contacts from receiving personalized ads.

**GA360 Use Case**

An NTO marketer wants to compel past purchasers to review the item or service they purchased. The marketer creates a journey in Marketing Cloud Journey Builder using data from their company’s Google Analytics 360 account.

**SEE ALSO:**

- Google Analytics Integration for Marketing Cloud
- Create a Google Analytics Audience
Honor Opt-Out Requests for Personalized Ads

Google Analytics supports a consumer opt-out for personalized ads. Observe your customers' requests to opt out of personalized online ads as recorded in Google Analytics. Place a decision split after the Google Analytics 360 entry source in Salesforce Marketing Cloud. Use a field in the Google Analytics audience data extension to prevent your audiences' contacts from receiving personalized ads.

Google integration partners can display personalized ads to your customers. If you use Google Analytics to manage your customers' requests to opt out of personalized ad targeting, use these steps to observe those requests in Salesforce Marketing Cloud. First, add the Google Analytics 360 entry source, and select your audience. Then, add a decision split to send customers who opted out on a separate path.

1. In a journey, drag the Google Analytics 360 entry source tile onto the canvas.
2. Click the tile.
3. Click Select an Audience.
4. Click Select next to the GA360 audience to admit.
5. Click Summary.
6. Click Done.
7. Drag a decision split activity onto the canvas.
8. Click the activity.
9. To configure the first path contacts can follow, click Edit.
10. In Journey Data, locate the audience you selected when configuring the Google Analytics 360 entry source.
11. Drag AllowPersonalizedAds into the filter, and select False.

Note: Salesforce customers are responsible for ensuring the accuracy of any consumer consent settings managed by external platforms such as Google Analytics. See Marketing Cloud Data Protection and Privacy Tools for more information on the privacy compliance tools available in Salesforce Marketing Cloud.

GA360 Use Case

An NTO marketer wants to compel past purchasers to review the item or service they purchased. The marketer creates a journey in Marketing Cloud Journey Builder using data from their company's Google Analytics 360 account.

NTO Creates a Potential Reviewers Journey

To encourage reviews, an NTO marketer creates a journey that admits customers from the GA360 audience and creates a segment of customers who made a purchase without leaving a review, called Potential Reviewers. To admit customers to this journey, the marketer sets up the GA360 entry source to admit members of the Potential Reviewers audience.

In Journey Builder, the marketer drags the Google Analytics 360 entry source tile into the journey. After clicking the activity to access configuration, the marketer clicks Select an Audience and chooses the Potential Reviewers audience.

NTO wants to exclude customers who left a review after being added to the Potential Reviewers audience, but before journey activation. So after choosing the Potential Reviewers audience, the marketer creates a filter using an attribute called Reviews. The marketer configures the filter so that audience members enter the journey when the attribute value is null. The marketer adds another line, drags the Reviews and ReviewDate attributes into it, and configures the filter so that Reviews is not null and ReviewDate is less than today.

The marketer finishes configuring the entry source. When the journey is activated, members of the Potential Reviewers audience that meet filter criteria are admitted to the journey.
The Salesforce Data Event

A Salesforce Data Event is an action in Sales Cloud or Service Cloud, such as creating or updating an object record, that injects a contact into a journey. When the primary object meets rule criteria and reference object filtering criteria, Salesforce Flows initiate a Journey Builder event.

**Note:** You can grant users access to create or edit Salesforce events, except users with the Marketing Cloud Administrator role.

Consider these items when you configure the event:

- Use the Sales Cloud or Service Cloud object as the source of the entry event
- Who enters the journey, such as users, leads, or contacts
- When the user, lead, or contact enters the journey, such as when a record is created or updated
- Select attributes from object data to filter who enters the journey
- Select fields from related objects and the entry object to use for journey data

**Note:** Limit selection to 250 fields or less. Limit journeys per object to 80 or less.

Each record includes the ID for the user, lead, or contact entering the journey, their email address, and the email opt-out flag status. After the entry source is configured, you can’t edit the object it uses or who enters the journey. To choose a different object, delete and recreate the entry source. You can edit the entry criteria, filters, and event data for a configured entry source before it’s published. You can copy journeys that contain Salesforce entry sources and entry sources are reusable.

**Note:** Salesforce entry sources are only editable when no other running journey or version uses them.

After you save the entry source, Marketing Cloud creates a data extension that uses event data as columns and the contact ID as the Subscriber ID. Records that meet the entry source criteria are imported into this data extension when the journey is published. A row is created in the data extension every time a record meets the criteria, but existing rows aren’t updated. You can have the same record in the data extension multiple times when it enters the journey more than one time. For more details, see Journey Settings.

**Note:** The Test Mode feature in Journey Builder doesn’t support Salesforce Entry Sources.

The integration between Marketing Cloud and Sales Cloud uses Salesforce Flows, Process Builder, Apex, Platform Events, and SOAP APIs. Therefore, Salesforce Data Events are subject to all APEX Governor Limits. Adding Journey Builder events or your own processes or flows into the save order of an object can expose or exceed limits within your org. When an integrated journey is activated, the Sales Cloud Flow Metadata API launches the flow for the object with the conditions specified in the entry configuration. These tools allow your business to run behind the scenes. Here’s an example that illustrates how the objects are used and how they work from end to end.

**APEX Governor Limits**

Salesforce Data Events are subject to all APEX limits, or governors, and process limits within the platform. Introducing Journey Builder Events or Process Builder and Flows into the save order of an object can expose or exceed limits within your org.

- **50 Future invocations:** Before the 5.496 Marketing Cloud Connect package, Journey Builder made direct callouts using the future annotation. This action causes an error on any transaction exceeding 50 records, meeting the Journey Builder Event criteria. To avoid this error, use Marketing Cloud Connect package 5.496 or above.

- **Transactions with more than 2,000 records:** A save transaction is limited to less than 2,000 flow invocations. This limit allows up to 2,000 records to enter a flow within a transaction. If multiple flows are triggered or your org has custom logic generating transactions with more than 2,000 records, the flow invocation fails. To interact with a smaller number of objects, modify transactions.

- **Maximum CPU Time:** The event adds steps to the target objects save order transaction, which uses a small portion of the allocated CPU for a transaction. To avoid exceeding this limit, monitor the addition of processes.
• 50 System.enqueueJob limit: Each Journey Builder callout is queued as an invocable method. Each transaction can enqueue up to 50 invocable methods and can process up to 200 records. If objects meet the criteria for multiple events, this limit can be reached with 50 unique events on a single object. This limit is shared with non-Journey Builder triggers and flows.

Associated Sales or Service Org Changes
If the Sales or Service Cloud org connected to the Marketing Cloud account changes, delete all associated journeys and events. Journeys can reference objects or fields that don’t exist in the new org and cause publishing to fail. Create journeys and events to reference the new org.

Known Issues
• Platform Events Apex Job runs before update transaction is complete
• Journey Builder Salesforce Integration Events will not always fire if another Process Builder finishes later in the same transaction
• If one contact in the batched API call to the Marketing Cloud fails, the entire batch fails to inject.

Configure the Salesforce Data Event
Using this Journey Builder event, contacts enter the journey when a Sales Cloud record is created or updated.

Create a Salesforce Campaign Event
The Salesforce Campaign event in Journey Builder adds contacts to a Marketing Cloud journey when they are added to a Sales Cloud campaign. You can also use this event to send Salesforce object data into the data extension created upon entry.

Salesforce Experience Cloud
The Salesforce Experience Cloud entry source in Journey Builder starts activities in a journey when new members are added to your Experience Cloud site. Use the Salesforce Data Event for activities that aren’t related to adding new members.

Person Accounts and Salesforce Data Events
A person account is a type of account that stores information about individual consumers. By default, Salesforce accounts are business accounts, but administrators can choose to set up person accounts. Person accounts facilitate business-to-consumer functionality within Sales and Service Clouds. Use the Salesforce Data Event to tell Journey Builder to perform one of these actions:

Configure the Salesforce Data Event
Using this Journey Builder event, contacts enter the journey when a Sales Cloud record is created or updated.

1. Drag Salesforce Data onto the canvas.
2. Click Salesforce Data.
3. Choose Salesforce Data Event.
4. Select a primary object as the event source.
5. Choose to detect records that are created, updated, or both to send contacts into the journey.
6. Choose who enters the journey.
   Note: When configuring the event, select who enters a journey, such as leads, contacts, person accounts, or users.
7. Create a filter for the primary object.
8. Add more filtering criteria based on any reference objects, which includes any object cross-referenced from the primary object.
9. Choose journey data based on primary or reference objects. The event sends data from the selected fields to Journey Builder. Each record automatically includes the ID related to the person entering the journey, that person’s email address, and the email opt-out flag status as applicable.

10. Configure the remainder of the journey by adding and configuring activities.

11. When journey setup is complete, click **Activate** to start the journey. This action creates a Flow in the Sales Cloud.

   - **Note:** Salesforce entry sources, including the Salesforce Data, Campaign, and Community entry sources, are only editable when no other journey or version uses them. You can’t edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

### Create a Salesforce Campaign Event

The Salesforce Campaign event in Journey Builder adds contacts to a Marketing Cloud journey when they are added to a Sales Cloud campaign. You can also use this event to send Salesforce object data into the data extension created upon entry.

   - **Note:** New users must be explicitly granted access to create or edit Salesforce events, except users with the Marketing Cloud Administrator role.

The Salesforce Campaign event adds contacts to a journey when they are added to a Sales Cloud campaign.

1. Drag **Salesforce Data** onto the canvas.

2. Click **Salesforce Data**.

3. Select **Salesforce Campaign Event**.

4. Select one or more campaigns whose members are added to the journey when they are added to the campaign.

5. Select whether the Contact or Lead record enters when campaign members enter the journey.

6. On the next page, select **Salesforce object data** to include in the journey for use in decision splits, and other activities.

7. To select an object field, click it.

   - **Note:** If no contact record exists in the Marketing Cloud for a person entering this journey, Journey Builder creates one.

   - **Note:** Salesforce Campaign events are not editable.

### Salesforce Experience Cloud

The Salesforce Experience Cloud entry source in Journey Builder starts activities in a journey when new members are added to your Experience Cloud site. Use the Salesforce Data Event for activities that aren’t related to adding new members.

   - **Note:** New users must be explicitly granted access to create or edit Salesforce events, except users with the Marketing Cloud Administrator role.

   - **Note:** Salesforce entry sources are only editable when no other journey or version uses them. You can’t edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

1. Drag **Salesforce Data** onto the canvas.

2. Click **Salesforce Data**.

3. Select **Salesforce Community**.

4. Select a community from your list of connected, active communities and click **Next**.
5. Select fields for use in the journey decision splits and other activities.

6. Click **Next**.

7. Review the entry source definition summary and click **Done**.

**Person Accounts and Salesforce Data Events**

A person account is a type of account that stores information about individual consumers. By default, Salesforce accounts are business accounts, but administrators can choose to set up person accounts. Person accounts facilitate business-to-consumer functionality within Sales and Service Clouds. Use the Salesforce Data Event to tell Journey Builder to perform one of these actions:

- Create a Person Account, not a Business Account, for each Marketing Cloud contact who enters the journey.
- Fire the event when an object associated with a business account is created or updated.
- Fire the event when an object associated with a person account is created or updated.

**Configure Events for Person Accounts**

Create a person account for each Marketing Cloud contact who enters the journey. When a person account is created, an identical contact record is created in Sales or Service Clouds.

**Configure Events for Business Accounts**

Follow these steps in Journey Builder to configure the event to fire when an object associated with a business account is created or updated.

**Configure Events for Person Account Related Objects**

Follow these steps to fire the Journey Builder event when an object associated to a Person Account is created or updated.

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**Configure Events for Person Accounts**

Create a person account for each Marketing Cloud contact who enters the journey. When a person account is created, an identical contact record is created in Sales or Service Clouds.

The event processes Person Account records only. Journey Builder does not process Business Accounts.

1. Drag **Salesforce Data** onto the canvas.

2. Click **Salesforce Data**.

3. Select a primary object to be the event source.

4. Select the account object to be the source of this entry event.

5. Select to fire the event when records are created, updated, or both.

6. Select **Person Contact ID (Contact)** under **Who do you want to inject?**

7. Create a filter for the account object.
   a. Under **Attributes**, drag primary object fields into the filter pane.

8. Add more filter criteria using the primary object’s related objects if necessary.

9. Select journey data by expanding account fields. This data enters the journey with each contact.

10. To update the Person Account record during your journey, make sure that the field Account ID from the account object is added to Journey Data.

11. Select data from related objects listed below account if necessary.

12. These fields are added to journey data automatically.
• The Person Contact ID found in the account record. Use this field to link the data extension to an attribute group. For example, link Contact Key to Account: PersonContactID.
• The Contact record email address, which is added automatically to Default Channel Addresses
• The Contact record email opt-out flag

Configure Events for Business Accounts
Follow these steps in Journey Builder to configure the event to fire when an object associated with a business account is created or updated.

1. Drag Salesforce Data onto the canvas.
2. Click Salesforce Data.
3. Choose Salesforce Data Event.
4. Select the account object to be the source of this entry event.
5. Select to fire the event when records are created, updated, or both.
6. Select an ID under Who do you want to inject?
   
   Note: For business accounts, select only list items followed by the label (User).
7. Create a filter for the account object. Under Attributes, drag primary object fields into the filter pane.
   
   Note: Do not use Person Account fields. Use the IsPersonAccount field to define event rules to admit only Business Accounts or Person Accounts. To admit only Business Accounts, set filter criteria so IsPersonAccount = false. To admit only Person Accounts, set filter criteria so IsPersonAccount = true.
8. Select data from related objects listed below account if necessary.
9. Select journey data by expanding account fields. These fields bring data into the journey for each contact who enters. The data can be used later in the journey.

These fields are added to journey data automatically:
• The email address of the record for the person entering the journey. This information is added automatically to Default Channel Addresses.
• The email opt-out flag for the person entering the journey.

Configure Events for Person Account Related Objects
Follow these steps to fire the Journey Builder event when an object associated to a Person Account is created or updated.

1. Drag Salesforce Data onto the canvas.
2. Click Salesforce Data.
3. Select Salesforce Data Event.
4. Select an object that is related to a Person Account as the source of this entry event.
5. Select to fire the event when records are created, updated, or when either action occurs.
6. Select an ID under Who do you want to inject?
   
   a. To admit the Person account, select Account ID (PersonAccount).
   
   b. To admit a different type of user, select a different ID such as Contact ID, Lead ID, or Owner ID.
7. Create a filter for the object. Under Attributes, drag primary object fields into the filter pane.

8. Select data from related objects listed below the account, if necessary.

9. Expand the account fields to bring data into the journey for the contact that enters or for related objects.

Note: When a Person Account is created, an identical Contact record is created in the Sales and Service Cloud.

These fields are added to journey data automatically:

- The ID of the person entering the journey - if it is a Person Account, the Person Contact ID of the Account record is added. This ID must be used to link the data extension to an attribute group.
- The contact record email address, which is added automatically to Default Channel Addresses
- The contact record email opt-out flag

Use CloudPages to Admit Contacts into Journey Builder

Use a CloudPages Smart Capture form and Journey Builder to admit Marketing Cloud contacts into a journey using the CloudPages Form Submit Event.

Create at least one Smart Capture form in CloudPages before you use this entry source.

1. Drag CloudPages onto the canvas.

2. Click CloudPages.

3. Choose a Smart Capture form and click Next.

   When a customer submits the Smart Capture form, that customer is automatically added to a data extension and queued to enter this journey.

4. Build the rest of the journey, and click Activate to begin admitting contacts who submit the designated Smart Capture form.

SEE ALSO:

CloudPages
Use a Smart Capture Form as a Journey Builder Entry Event

Marketing Cloud Mobile App Events Overview

Highly relevant and contextually aware interactions are the cornerstone of amazing customer experiences. Now, user behaviors on your mobile app can drive relevant and personalized touchpoints, powered by easy-to-configure listening rules in Journey Builder. Mobile App Events enable your brand to deliver mobile moments that matter by creating meaningful engagement, increasing brand loyalty, and generating a higher return on investment for your marketing campaigns.

What Is an App Event?

A Mobile App Event is a direct action taken by the user within your mobile app. Mobile App Events are tracked by the MobilePush SDK and then submitted to Journey Builder for actioning.

Use Cases

You can use Mobile App Events to enter a user into a journey, trigger the display of an in-app message, and connect with your customers in several ways.

Some examples include:

- Request permission to send push notifications.
Get Started with Mobile App Events
Before events can be used to trigger the display of in-app messages, they must first be defined in Marketing Cloud and then implemented in the MobilePush SDK.

Important: The name of both the event and the attributes defined within Marketing Cloud must exactly match the name tracked by the MobilePush SDK. This naming allows Journey Builder to react to app events.

Prerequisites
1. As a marketing team, define the campaigns that use mobile app events. For some inspiration, check out examples and best practices.
2. Work with your mobile app development team to define the app events that are required to power these campaigns.
3. Upload your .csv schema file for the mobile app events that you want to use within Journey Builder.
   
   Note: Journey Builder isn’t intended to act as a dedicated analytics or segmentation platform. Prioritize events to use directly within a campaign. Marketing Cloud allows a maximum of 20 defined event names per MobilePush app.
4. Have your mobile development team track events with the MobilePush SDK (minimum v 8.0.0), exactly as defined in the .csv schema file that you uploaded to Journey Builder.
5. Use your mobile app events within Journey Builder’s Mobile App Event Entry Source and in-app messages.

SEE ALSO:
- MobilePush and Journey Builder for Apps SDKs
- In-App Messages
- In-App Messaging FAQs
- Configure an Existing Content Builder In-App Message in Journey Builder
- Campaign Planning for Mobile App Events

Define Your Mobile App Event Schema

An app event requires a name and can optionally contain many attributes. Depending on your app and desired use cases, you can capture events or attributes that are more descriptive than others.

**Important:** The name of both the event and the attributes defined within Marketing Cloud must exactly match the name tracked by the MobilePush SDK. This naming allows Journey Builder to react to app events.

**Event and Attribute Naming Conventions**

- Use only alphanumeric characters and underscores and spaces.
  - Acceptable: Added_to_Cart or Added To Cart
  - Acceptable: product_ID or product ID
  - Unacceptable: Added-to-Cart or Added to [emoji]

- Unicode and double-byte characters, such as emoji and kanji, aren’t supported.

- Leading and trailing whitespaces in names are automatically trimmed.

- Names aren’t case-sensitive.
  - MyEvent is equal to myevent
  - ViewScreen is equal to viewscreen
  - View Screen ! is equal to ViewScreen

**Event and Attribute Naming Conventions**

Ensure that your organization uses a consistent event and attribute naming convention across your app. This action keeps your account’s data clean while avoiding the confusion that can result in triggering the wrong campaign based on a misunderstood event. We recommend starting by brainstorming the most important high-level actions that users perform in your app.

Mobile App Events track user actions and aren’t objects. As a result, we recommend applying a verb-first naming convention for your events.

**Example:** User made a purchase: Purchase_event

**Example:** User registered for an account: Registered_event

For events with more than two words, we recommend using spaces or underscores.

**Example:** User viewed a specific screen: Viewed Screen Event

**Example:** User added a product to a cart: Added_to_cart_event
Example: User added a new feature: Added [X] feature

When considering your event names, make them generic instead of specific. Then use attributes to capture the specific details or metadata about the event.

Sometimes, more detailed event names are required. For example, specific campaigns, such as onboarding or first-time user action.

Example: First Order Completed

Example: First App Open

Example: First time Used Feature [X]

.csv Schema File

Use the example template to collaborate with your development team and define the event schema that you want to track with the MobilePush SDK and use throughout Journey Builder. Then create a .csv and upload the file through the App Event Management screen in Journey Builder.

Important Notes:

- Values must be text, number, or boolean.
- Template fields are mapped by ordinal.
- Values aren’t case-sensitive.
- Event Description is needed only once.

Note: Event Description limit is 250 characters.

- The description is pulled from the first row where the event name occurs.
- Attribute Data Type is a required field for every Attribute Name.
- If not defined, Attribute Required is an optional field that defaults to FALSE.
- Assigned Data Type is required: text, number, or boolean.
- Value length is either blank or a number.

Note: If you don’t specify a maximum length, the default is 50. Maximum allowed value is 100 characters.

- Marketing Cloud currently allows a maximum of 20 unique Event Names to be defined per MobilePush app and up to 10 Event Attributes per Event.

Table 25: Example .csv

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Event Description</th>
<th>Attribute Name</th>
<th>Attribute Required</th>
<th>Attribute Data Type</th>
<th>Attribute Value Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed App</td>
<td>User installs the app</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viewed Screen</td>
<td>User views a specific screen in the app</td>
<td>Screen Name</td>
<td>Text</td>
<td>TRUE</td>
<td>50</td>
</tr>
<tr>
<td>Signed Up</td>
<td>User registers for an account</td>
<td>Username</td>
<td>Text</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Favorited</td>
<td>User adds item to their list of favorites</td>
<td>Item Name</td>
<td>Text</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>
## Upload Mobile App Events in Journey Builder

Before you can use events within Marketing Cloud, you must define the event schema for your applications. When you complete your .csv template, you can upload your file into Journey Builder.

1. In the Journey Builder dashboard, click **Events**.
2. From the dropdown, select **Mobile App Events**.
3. Click **Upload Events**.

4. To select the apps that you want to use, click **Edit**.

5. Select your apps, and click **Summary**.

6. To upload your event definitions, click **Edit**.

7. Select whether you want to add and update to your app event schema or overwrite and replace your app’s event schema.

8. Click **Upload File**, or drag your .csv file.

9. Click **Upload Events**.

10. If your file contains errors, correct them, and then upload the file again.

11. Click **Summary**.

**Note:** Take caution when updating events that are being used in running journeys. If the newly defined event doesn’t match the inbound data coming from the MobilePush SDK, changing the names or data types of these events can result in errors.
Note: If you want to edit existing events, upload an updated .csv file, and then select the option to **Add and update events for your selected apps**. If you want to delete existing events, upload an updated .csv file with the removed event, and then select the option to **overwrite and replace existing events for your selected apps**.

Use Mobile App Events in Journey Builder

After you upload your .csv file, you can use Journey Builder to start sending.

1. Click **Create New Journey**.
2. Under Multi-Step Journey, click **Build**.
3. Drag the Mobile App Event entry source onto the canvas.
4. Click **Select Event**.
5. Click **Summary**.
6. Drag the **In-App Message** activity onto the canvas.
7. To configure your message, click it.
8. Add an activity name and description.
9. Click **Select Message**.
10. Click **Summary**.
11. Next to Message Configuration, click **Edit**.
12. From the dropdown, select the app channel that you want to use.
13. Click **Display Trigger**, and configure the event criteria to display messages.
14. Click **Summary**.
15. Click **Done**.
16. Configure the rest of your journey, and click **Activate**.

Use Data in Journey Builder

Journey Builder’s essential functions depend on data. To maximize your journeys’ reach, explore how you can use data for filtering, personalization, and other Journey Builder tasks.

**View Your Contact and Journey Data**

Access your contact data and see your Journey and Contact Data attributes in the Journey History dashboard. Journey Data is data from the data extension of your configured entry source, which is only visible after you configured your entry source. Contact Data consists of attributes linked to your contact model in Contact Builder.

**Create a Filter**

Make sure that the intended Marketing Cloud contact enters your journey, follows a split activity path, or reaches the goal by building a filter in Journey Builder. Use contact data and journey data attributes in a filter as needed.

**Journey and Contact Data**

Journey data preserves the state of a contact’s data at the moment an entry event fires, facilitating the use of that data throughout a journey. Contact data captures the data values in the event source data extension at the time when Journey Builder evaluates it. Both are uniquely useful in journey creation.
Linked Data Extensions in Journey Builder
Your data setup affects how Marketing Cloud evaluates the contact attributes used in journey entry source filters, wait activities, or decision splits. Review how Marketing Cloud evaluates attributes when a contact attribute is stored in a data extension that is linked to one or more other data extensions.

Specify an Explicit Attribute Path
The filter used in Journey Builder entry sources, decision splits, and goals was updated in the August 2017 Marketing Cloud release.

Attribute to Attribute Comparison
Compare an attribute value to another attribute in entry events and decision splits in Journey Builder.

Personalization in the Journey Builder Email Activity
Personalize email content sent by Journey Builder using the Marketing Cloud’s email personalization features.

Email Personalization Use Case
In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. This feature means that each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey. Using journey data to substitute personalization strings for data values ensures that emails are not sent with blank or unintended data values.

Journey and Contact Data in Decision Splits
Use journey and contact data in Journey Builder decision splits to direct contacts down a path based on changes to an attribute value during a journey. This step is useful when you want to promote to a specific event, even if that event happened before the contact is admitted to the journey.

View Your Contact and Journey Data
Access your contact data and see your Journey and Contact Data attributes in the Journey History dashboard. Journey Data is data from the data extension of your configured entry source, which is only visible after you configured your entry source. Contact Data consists of attributes linked to your contact model in Contact Builder.

1. Reference attributes to eliminate the need to switch from Journey Builder to Contact Builder when configuring email personalization or other activities.
2. Verify the data extension that you selected includes the attributes you want.
3. Verify that attribute data types are correct to allow filter comparisons to work as intended.

Create a Filter
Make sure that the intended Marketing Cloud contact enters your journey, follows a split activity path, or reaches the goal by building a filter in Journey Builder. Use contact data and journey data attributes in a filter as needed.

In entry sources, decision split activities, and other Journey Builder components, marketers can create a filter to admit contacts based on attribute values. Contacts that meet filter conditions are admitted. Filters consist of an expression, an attribute, an operator like equals or begins with, and a default or restricted value you choose. Create multiple expressions, and tell Journey Builder how they work together. Alternately, a filter can include attribute-to-attribute comparison. Compare contact and journey data attributes as needed.

1. To find attributes to use in the filter, click Contact Data.

**Note:** Because journey data attributes are based on a snapshot of contact data, the attribute sets that appear after clicking Contact Data or Journey Data. Because journey data occurs after a journey is activated, you can’t use it to filter an entry source filter.

- Click Journey Data for attributes in the state they were in when the contact entered the journey.
- Click Contact Data for attributes in the state they’re in when evaluation occurs after the event occurs.
2. Find the attribute group you want, then the data extension and attribute.
   
   Note: Encrypted fields and attributes that allow null values can’t be used in attribute-to-attribute comparison.

3. Drag the attribute into the filter expression.
   
   a. When comparing attributes, drag another attribute to the right of the first attribute.
   
   b. If you’re using multiple attributes in the filter expression, drag another attribute under the first attribute.

4. Select an operator.

5. Add a default text value or choose from a list of preconfigured values.
   
   • When using more than one attribute, group filter statements using And and Or operators.
   
   • If using more than two attributes in the filter, create subgroups by clicking between the attribute and the And and Or operators.

SEE ALSO:

- Profile and Preference Attributes in Marketing Cloud
- Use Restricted Values

Journey and Contact Data

Journey data preserves the state of a contact’s data at the moment an entry event fires, facilitating the use of that data throughout a journey. Contact data captures the data values in the event source data extension at the time when Journey Builder evaluates it. Both are uniquely useful in journey creation.

<table>
<thead>
<tr>
<th>Journey Data</th>
<th>Contact Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial data value about a customer.</td>
<td>Current data value about a customer.</td>
</tr>
<tr>
<td>Provides attributes in the state they were in when the contact entered the journey.</td>
<td>Provides attributes in the state they are in when evaluation occurs after the entry event has fired.</td>
</tr>
<tr>
<td>Comprised of event data and activity data.</td>
<td>Use for comparison when a data value is expected to change.</td>
</tr>
<tr>
<td>Use when a contact is likely to exist in a journey more than once simultaneously.</td>
<td></td>
</tr>
</tbody>
</table>

For some customer journeys, it's useful to filter against the initial data about a customer. That data value often qualifies the customer to enter the journey, even if it later changes. For example, the journey data about a customer shows that the first purchase was decaffeinated coffee. Even if the customer does not purchase that coffee again, you can use that data as a filter in a journey to market a new coffee.

For other journeys, it is necessary to filter against the most recent customer data. For example, the contact data about a customer shows a purchase of a new regular coffee flavor. This information is useful to filter against in a journey to market a sale on that flavor.

Journey data is the information about a contact that is brought in when the contact enters a journey. It’s like a snapshot of the contact’s attribute data at the moment the contact is added to the journey. Contact data is updated as the journey goes on, but journey data is not. Use the different types of data to present before- and after-data points in personalization strings or to detect changes in an attribute. You can use both journey data and contact data when filtering in entry events as well as decision splits and message personalization.
Events can either be journey-specific or shared. Create a shared event in Entry Source Administration and use it in one or more journeys. The journey-specific event must be used in the journey within which it is configured.

SEE ALSO:
- Link Data Extensions in Contact Builder
- Attribute Group Creation in Contact Builder

Linked Data Extensions in Journey Builder

Your data setup affects how Marketing Cloud evaluates the contact attributes used in journey entry source filters, wait activities, or decision splits. Review how Marketing Cloud evaluates attributes when a contact attribute is stored in a data extension that is linked to one or more other data extensions.

In Marketing Cloud's Contact Builder, Data Designer permits linking data extensions to the contact record or to other data extensions. When you create the relationships between data extensions, you can specify the cardinality for the relationship:

- One-to-One Relationship
- Population
- One-to-Many Relationship
- Many-to-Many Relationship

Tip: Limit the number of rows per contact to 100 or less. Any contact beyond the 100th row isn’t used for evaluation.

Cardinality refers to how the data extensions relate to each other based on the attribute links between the two data extensions. Marketing Cloud evaluates contact attributes in activities, entry sources, goals, and exit criteria when a filter is used, so cardinality of the data extensions is important. If a data extension includes a one-to-many or many-to-many relationship to other data extensions, a matching attribute value can appear more than one time.

To ensure that Marketing Cloud evaluates the attribute value you intend, use attribute-to-attribute comparison in decision splits and event entry sources. This feature allows you to compare two attribute values. You can compare an attribute value from journey data to an attribute value in a linked contact data extension to identify the specific record to evaluate. These examples demonstrate how data extension linking can affect journeys when a filter is used.

Note: We don’t recommend using data extensions with many-to-many relationships in journey entry sources and activities. When you must use a data extension with a many-to-many relationship, use an intermediate data extension.

Example: A marketer links a data extension called Customers, which has information about customers, to a data extension called Purchases, which has purchase records. The data extensions are linked on the Contact Key attribute. The Customers data extension has only one record per customer. The Contact key is a primary key in Customers. The Purchases data extension allows more than one record per contact key because a customer can purchase items more than one time. So the marketer links the Customers data extension to the Purchases data extension in a one-to-many relationship. This approach means that a contact key can appear in the Customers data extension one time, but can appear in the Purchases data extension many times.

Example: Decision SplitA marketer creates a journey to follow up with survey respondents. The journey sends a follow-up email based on whether the response indicates positive or negative sentiment as tracked in a Survey Respondents data extension. Because customers can respond to multiple surveys, customers can be represented in the data extension more than one time. So the marketer adds a decision split and uses attribute-to-attribute comparison to ensure that the journey evaluates a response sentiment that is specific to each response. The marketer configures the first decision split path as follows:

Sentiment (from Survey Respondents data extension linked in Contact Builder) = Positive AND SurveyID (from Journey Data) = SurveyID (from Survey Respondents data extension)
Example: **Event Entry Source** A marketer sets up a journey to follow up with customers who leave their website with unpurchased items in their cart. The marketer configures the Event entry source to admit a contact 1 hour after customers abandon their cart when the cart value is greater than $50. The marketer sets up the filter using the CartValue attribute from contact data. The filter is configured as follows:

CartValue is greater than or equal to $50 AND CartID (contact data) = CartID (journey data)

This filter ensures that the journey doesn’t admit a contact who abandoned a $10 cart, but does admit a contact who abandoned a $200 cart.

Example: **Goals** A marketer creates a journey to incentivize customers to make purchases that are greater than $100. Customer purchases are tracked in the Purchases data extension, which is linked to the Customers data extension in a one-to-many relationship. Customers can make multiple purchases. The marketer sets a journey goal that each customer makes a purchase totaling over $100. The journey counts a contact as meeting goal when they make any purchase over $100. To set up the goal, the marketer configures the goal filter as PurchaseAmount is greater than 100. Marketing Cloud evaluates the first matching value it finds, even if there are multiple matching values in the data extension. Contact data attributes can’t be compared to journey data attributes in goals.

Example: **Wait by Attribute** A marketer sets up a journey that emails customers after a purchase. The marketer uses the wait by attribute activity and selects the PurchaseDate attribute from the Purchases data extension. The Purchases data extension is linked to the Customers data extension in a one-to-many relationship. Because of this relationship, a contact can have more than one record matching its contact key in the Purchases data extension. When Marketing Cloud evaluates the Purchases data extension, it uses the first value that matches the contact key. Attributes aren’t compared in the wait by attribute activity, so Marketing Cloud evaluates the first matching value it finds.

**Specify an Explicit Attribute Path**

The filter used in Journey Builder entry sources, decision splits, and goals was updated in the August 2017 Marketing Cloud release. This update only affects customers whose Contact Builder data model links one attribute set to multiple attribute sets within the same attribute group. This setup is common for Salesforce Sales & Service Cloud connected customers, who have multiple paths from All Contacts to the desired attribute.

Where multiple paths to an attribute exist, some filters have an ambiguous path in the filter expression. For instance, the filter could use an attribute other than the one you intended to determine which path a contact takes. If your filter’s configuration resulted in an ambiguous path, use these instructions to make the path explicit.

These activities do not support setting explicit paths.

- Wait By Attribute Activities
- Sales Cloud Activities
- Attribute to Attribute Comparison Activities using Contact Builder attributes on the right side of the comparison
- Custom Activities and Update Contact Activities based on Contact Builder attributes

**SEE ALSO:**

- Attribute to Attribute Comparison
- Data Designer in Contact Builder
- Link Data Extensions in Contact Builder
These activities default to using the shortest path to an attribute, even if that path isn’t the path you selected when configuring the activity. We recommend that you create a single data extension with the necessary attributes for your journey that ensures the shortest path to your data.

1. Open a journey that includes a decision split activity with a filter. Activities that contain an ambiguous path argument display a warning symbol in the upper right of the activity icon on the canvas.

2. Create a draft of the journey.

3. Click each of the affected activities, then click the warning symbol next to the ambiguous argument.

4. From the Path dropdown at the top of the filter expression, select the desired attribute path.

5. Click Done

6. Save the journey.

7. Activate the new version of the journey. Stop previously running versions of the journey if necessary.

   **Note:** If your filter’s configuration resulted in an ambiguous path, the existing filter still works. Following the August 2017 release, you can edit or confirm the filter path to ensure that they work as intended.

   **Example:** This example shows two paths to the Products attribute set within the same attribute group. The Product SKU is linked to a SKU in both the Abandoned Cart and the Order Details attribute sets. Both of those sets link back to All Contacts via the Contact Key.

Attribute to Attribute Comparison

Compare an attribute value to another attribute in entry events and decision splits in Journey Builder.

Use filters to ensure that the intended contacts enter their journeys, follow the intended branch after a decision split, or reach the journey’s goal. Many journeys use a simple filter to admit any contact with the specified value in a data field on its contact record. Use attribute to attribute comparison to compare the contact’s values in two data fields to determine whether to admit the contact.

   **Note:** Attribute to Attribute Comparison can only be applied to the WhoID or the Primary Object ID from the Salesforce Data Entry Event.

Attribute to attribute comparison is useful when a single contact can enter a journey more than once. Or, you can compare a journey data attribute to a contact data attribute to determine if a change occurred between time of entry and current time. To perform the comparison, drag the contact data attribute into the filter.

For example, in a Multiple Entry journey, customers enter the journey each time they make a purchase. The journey includes multiple paths that are each setup for purchasers of a different product. Each customer has a fixed contactID and is assigned a unique purchaseID for each purchase. The same contactID exists in the journey multiple times, each time with a unique purchaseID.

To confirm that the customer sees messaging for the right purchase, set the purchaseID from Contact Data to equal the purchaseID from Journey Data. This expression confirms that journey sends messaging for the correct purchase by confirming that the purchaseID values are the same.

Considerations

- Compare only attributes of the same data type.
- Attributes that allow null values cannot be used in attribute-to-attribute comparison.
- Encrypted fields are not supported.
Personalization in the Journey Builder Email Activity

Personalize email content sent by Journey Builder using the Marketing Cloud's email personalization features.

Considerations

- In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. Each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey.
- Dynamic content also uses journey data, similar to personalization.
- To prompt Journey Builder to use contact data attribute values instead of journey data attribute values, use AMPScript. Personalization that calls contact data by default instead of journey data applies only to running journeys created before January 27, 2017.
- If you use Send Logging with custom Send Log attributes and expect contact attributes to be updated during the journey, your Send Log records could be incorrect. To resolve this issue, open a support case through Salesforce Help.

How Personalization Works

To personalize an email, include personalization strings in your email content. Personalization strings are made up of percent signs combined with an attribute's column name, such as %%FirstName%%. When the email is sent, it is validated and each personalization string is rendered, showing the intended attribute value by calling it from journey data. Journey data differs from contact data because it preserves the state of a contact's data at the moment an entry event fires. The journey uses that initial data throughout a journey.

If you are more experienced, use AMPScript for personalization. Use the %%%=Lookup()%% function to personalize an email with data not found in journey data, or contact data that has changed since the journey started.

Personalization strings operate on a hierarchy for matching field names:

- If the field name exists in the entry data, Journey Builder uses the associated value.
- If the field's value is null in the entry source, but there is a field with the same name in Profile Attributes for the All Subscribers list, Journey Builder uses the Profile Attributes field for personalization.
- If the value isn't found in Profile Attributes, Journey Builder does not insert a value.

When you use a date-based event, there is no entry source data extension associated to the journey. There is no entry data to check. If there is a match Profile Attributes, Journey Builder uses that value. If there isn't an attribute matching Profile Attribute for an email sent from a journey that is configured with a date-based entry event, the email doesn't pass validation and the journey doesn't activate. To use a value from any data extension when using a journey in this scenario, use AMPScript.

Example: A Northern Trail Outfitters (NTO) marketer creates a journey that sends different versions of emails to NTO customers. The marketer stores contact data about NTO's customers. Contact data includes data that is not likely to change, such as FirstName, LastName, and DateOfBirth, and data that is expected to change often. One contact data attribute that changes often is VersionCode, which determines the email version customers receive.

The email activity calls journey data to render personalization strings. Since journey data does not change throughout the journey, use simple personalization strings to reference attributes that are not expected to change. The NTO marketer uses %%FirstName%%, %%%LastName%%, and %%DateOfBirth%% strings in the email.

However, the marketer knows the VersionCode attribute to change after contacts enter the journey because the journey includes an Update Contact activity. This activity is configured to update the VersionCode attribute from 'Version_1' to 'Version_2' between the first and second email activities. The second email uses 'Version_2' email content. Since the email activity only calls journey data, which has 'Version_1' as the VersionCode value, the marketer must reference contact data directly. Referencing contact data ensures that 'Version_2' is correctly used in the second activity. So the marketer uses the AMPScript Lookup() function to call the VersionCode attribute.
Consider learning and using AMPscript to personalize emails using contact data attributes to capture the up-to-date attribute value.

**Note:** To reference the `_CustomObjectKey` field on a data extension, which is hidden by default, use an AMPscript lookup, as you would with contact data personalization.

**SEE ALSO:**
- Personalization Strings in Marketing Cloud
- Introduction to Programmatic Marketing Content
- Format

**Email Personalization Use Case**

In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. This feature means that each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey. Using journey data to substitute personalization strings for data values ensures that emails are not sent with blank or unintended data values.

**Tip:** For a running journey created before January 27, 2017, use, AMPscript to direct Journey Builder to call contact data attribute values by default instead of journey data attribute values.

For example, a credit monitoring service, Cirrus, launches an email campaign to engage customers whose scores fall below 500 points. This campaign sends emails encouraging customers to increase their credit scores. Also, emails sent by the service include the low credit score as an incentive and a reminder.

Assuming Cirrus continually updates a data extension with updated customer credit scores, the service follows this procedure to set up its journey:

- Cirrus creates a journey called Low Credit Score Email Series.
- Cirrus creates an entry event using Contact Data as the Event Type.
- Cirrus selects the Credit Scores data extension as the event source.
- Using contact data, Cirrus drags the Score attribute into the filter expression.
- To admit all customers whose credit score is below 500, Cirrus uses the is less than operator and types "500" to create its filter.
- To create its first email send, Cirrus drags an email activity onto the journey canvas.
- Cirrus selects an email with messaging that informs recipients their credit score is below 500. The email includes a personalization string that looks at the journey data Score attribute to locate each customer’s low credit score.
- Cirrus adds a 30-day wait period following this email.
- Cirrus drags a decision split onto the canvas, configuring its first path to include contacts whose credit score is now greater than 500. The marketer configures the second path to include contacts whose credit score is lower than 500.
- In each path following the decision split, the marketer drags an email activity.
• In the first path, the marketer selects an email to congratulate customers who have raised their credit score. The marketer uses a personalization string to find each customer’s previous credit score in journey data, and AMPScript to find their current score in contact data. The email includes both scores.

• In the second path, the marketer selects an email to encourage customers who have not yet raised their credit score. The marketer uses a personalization string to find each customer’s previous credit score in journey data, and AMPScript to find their current score in contact data. The email includes both scores.

SEE ALSO:

Personalization in the Journey Builder Email Activity

Journey and Contact Data in Decision Splits

Use journey and contact data in Journey Builder decision splits to direct contacts down a path based on changes to an attribute value during a journey. This step is useful when you want to promote to a specific event, even if that event happened before the contact is admitted to the journey.

For example, Northern Trail Outfitters sets up a journey to send messaging to customers who buy shoes from their company. Every time a customer purchases a pair of shoes from NTO, NTO’s Purchases data extension is updated. NTO wants to send messaging that reaches 1) all shoe buyers, and 2) buyers of particular styles of shoe, like hiking boots or sandals. NTO configures the journey’s entry event to admit all customers who purchase shoes.

NTO imports customer purchase data into the Purchases data extension, so they create an entry event that uses Purchases as its Event Source.

• NTO names the new journey Shoe Sales Email Series.
• NTO creates an event using Contact Data as the Event Type.
• NTO uses the Purchases data extension as the event source.
• To set up a filter using at-the-moment data, NTO uses contact attributes. They access contact attributes by clicking Contact Data.
• NTO drags the PurchaseDate contact attribute into the filter expression, uses the equals operator, and selects Today, then finishes creating the event.

Note: If you use a scheduled automation to update the entry source data extension, use the operator is on or before.

• NTO drags the email activity onto the canvas to configure a Welcome email to all shoe purchasers.
• NTO configures a waiting period of 3 days.
• NTO wants to begin a campaign tailored to customers according to the type of shoes they purchase. NTO drags a decision split onto the canvas.
• NTO clicks Create Filter Expression to configure the first path to include customers who purchased hiking boots, even if they purchased a different kind of shoe more recently. NTO uses the journey data PurchaseItem attribute.
• NTO configures the decision path by setting the filter as follows:
  – PurchaseItem equals hiking boots
• NTO follows the same procedure to configure the three more decision split paths:
  – PurchaseItem equals casual shoes
  – PurchaseItem equals running shoes
  – PurchaseItem equals sandals
• In the next decision split path, NTO sets a filter to segment customers who bought hiking boots, casual shoes, running shoes, or sandals during the journey. This filter enables them to target messaging to customers even when they didn’t enter the journey because they bought a specific style of shoe.

NTO clicks contact data to use contact attributes when configuring these paths:

– PurchaseItem equals hiking boots
– PurchaseItem equals casual shoes
– PurchaseItem equals running shoes
– PurchaseItem equals sandals

• NTO leaves the remainder path unconfigured. Contacts who do not follow any of the configured paths follow the remainder path. These contacts receive different targeted messaging.

NTO now adds an email with specialized content to each path knowing that each customer is receiving email targeted to the purchase.

Goals in Journey Builder

In Journey Builder, a goal is a measurement of customer actions that you want to promote. Measure goals based on a goal target you set by creating a filter on contact data. After you activate a journey, Journey Builder evaluates contact data against the filter set as the goal target. When Journey Builder determines that a contact met the goal, that contact is counted in goal target statistics. Reaching the goal can also prompt the contact to exit, if applicable.

Goals are optional, but goal target statistics show you how each journey performs. You can set a target for the total number of people or as a percentage of people reaching the marketing objective. When the option is selected for contacts to exit upon meeting the goal, Journey Builder evaluates each contact against the goal target at the end of each wait activity. If Exit Option isn’t selected, the goal isn’t evaluated while the contact is in the wait. The contact doesn’t exit the wait queue early, and they aren’t ejected from the journey when they meet the goal. Contacts are evaluated every 24 hours.

Note: This feature isn’t supported for Single Send journeys.

Goals as Exit Criteria

Goals can act as exit criteria, but aren’t required. You can configure a goal to prompt contacts to exit before the end of a journey when they meet the criteria you set. If Exit Option is selected and the contact met the goal, the contact exits the wait queue early. Then the contact is evaluated against the goal again. If the contact didn’t meet the goal, the contact continues through the journey. If the contact met the goal, the contact is ejected from the journey. For example, if you set coupon redemption as a journey’s goal, the customer exits the journey after they redeem the coupon. They don’t receive subsequent messages in the journey.

You can use exit criteria to remove a contact from a journey before completing the full journey path. Goals and exit criteria can be configured using data attributes, and each can remove a contact. Exit criteria simply removes the contact. If a contact exits using the goal functionality, the contact is tracked and measured against goal performance.

Set a Goal in Journey Builder

Follow these steps to define a journey’s goal in Journey Builder. Goal attainment is measured by whether a contact meets the goal criteria you set.

Exit Criteria

Create a simple or complex contact filter in Journey Builder to remove contacts from a journey.

Define Exit Criteria

Set exit criteria in Journey Builder to remove Marketing Cloud contacts that the journey is no longer relevant to.
Set a Goal in Journey Builder

Follow these steps to define a journey's goal in Journey Builder. Goal attainment is measured by whether a contact meets the goal criteria you set.

1. Click Set a Goal.

2. To set goal criteria, create a filter. Set a complex filter if desired, but only one goal can be created per journey.

3. Set a goal target by entering a number, then electing whether the goal target is measured as a percentage or a total.

4. Select Exit Option if each contact that reaches the goal leaves the journey.

SEE ALSO:
Goals in Journey Builder

Exit Criteria

Create a simple or complex contact filter in Journey Builder to remove contacts from a journey.

Exit criteria can remove customers who no longer fit the journey’s purpose or for whom the journey’s content is no longer relevant. The goal is your journey’s destination. Marketers use goals to define the journey’s purpose and measure how many customers meet the milestone. Marketers use exit criteria to remove customers who don’t fit the journey’s purpose anymore. In this way, using goals with exit criteria makes all statistics more meaningful. Use goals to track achievement metrics rather than to remove contacts from a journey, and use exit criteria to remove contacts.

Exit Scenarios

Here are three ways you can configure a welcome series with three messages and a call to action to encourage customers to download your mobile app.

- Set a Goal that removes a contact after they download the mobile app regardless of where they are in the journey. These contacts are counted as achieving the goal.
- Contacts can receive all the messages and complete the journey but never download the mobile app. They would exit the journey in the time allotted with the Exit activity on the journey canvas and wouldn’t be counted as achieving the goal.
- Exit Criteria could use subscription data to remove a contact from the journey when they unsubscribe from your email marketing program.

For an abandoned cart campaign with a single email and 72-hour wait after the message, you could configure exits in this way.

- The goal would track if customers bought an item out of their cart and exit them from the journey.
- If customers don’t buy an item within the 72-hour window, they exit the journey and aren’t counted as part of goal achievement.
- Exit criteria could be used to exit customers from the journey when they remove the items from their cart.

Considerations

- Contacts that are removed via exit criteria are logged, and the count of contacts removed from the current version is visible. All contacts removed from a journey are visible in the Health Stats panel on a running journey.
- Exit criteria can be defined differently for each version of a journey.
- Journey Builder evaluates exit criteria for each contact in the journey when their time in each wait activity expires.
Define Exit Criteria

Set exit criteria in Journey Builder to remove Marketing Cloud contacts that the journey is no longer relevant to.

1. Click .
2. Name and, if necessary, describe the exit criteria.
3. To define which contacts exit the journey, apply a filter on contact data attributes.
   - **Tip:** Use fewer than 20 filter criteria for optimal journey performance.
4. To view your filter criteria in a text string form for simple validation, click Filter Text.
5. Finish and save the exit criteria.
   - To remove currently defined exit criteria, click Remove this Exit Criteria when the journey is in Draft mode.
6. Activate your journey.
   - **Note:** Contacts are removed based on the first filter criteria matched, even if they meet multiple filters.

When a contact meets any of the exit filter criteria upon leaving a wait activity, the contact is removed from the journey.

Activities Reference

Learn what each Journey Builder activity does.

Messages

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Sends any email created in Email Studio or Journey Builder to contacts that reach this activity</td>
</tr>
<tr>
<td>SMS</td>
<td>Sends SMS messages configured in MobileConnect to contacts that reach this activity</td>
</tr>
<tr>
<td>Push Notification</td>
<td>Sends push notifications to contacts that reach this activity</td>
</tr>
<tr>
<td>Inbox</td>
<td>Sends a message to the app inbox of contacts that reach this activity</td>
</tr>
<tr>
<td>LINE Carousel Message</td>
<td>Sends a full-page, modal, or banner message to contacts that reach this activity</td>
</tr>
<tr>
<td></td>
<td>Sends a LINE carousel or multi-content message to contacts that reach this activity</td>
</tr>
</tbody>
</table>
### Advertising

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Audiences</td>
<td>Creates an Advertising Audience from available social networks</td>
</tr>
<tr>
<td>Advertising Campaign</td>
<td>Creates an Advertising Audience and a simple Facebook advertising campaign</td>
</tr>
</tbody>
</table>

### Flow Control

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision Split</td>
<td>Divides contacts based on a change in data associated with a contact. When you add a Decision Split activity, the journey evaluates contact data to decide path to send each contact on.</td>
</tr>
<tr>
<td>Random Split</td>
<td>Divides the group of contacts in the journey into random groups in a configurable number of branches.</td>
</tr>
<tr>
<td>Engagement Split</td>
<td>Divides contacts based on a customer behavior. You configure the customer action that Journey Builder evaluates to determine which path to send contacts down.</td>
</tr>
<tr>
<td>Join</td>
<td>Directs contacts from one branch into another branch. Marketers split contacts into two or more branches; then reunite the contacts on the same branch so they flow toward the same endpoint.</td>
</tr>
<tr>
<td>Wait By Duration</td>
<td>Keeps contacts from reaching the next activity for the time period set by a marketer.</td>
</tr>
<tr>
<td>Wait By Attribute</td>
<td>Keeps contacts from reaching the next activity until the day and time stored in a date-based attribute for that contact.</td>
</tr>
<tr>
<td>Wait Until Date</td>
<td>Keeps contacts from reaching the next activity until the specified end day and time.</td>
</tr>
<tr>
<td>Custom Split</td>
<td>Enables marketers and their organizations to customize a split activity to meet company-specific needs.</td>
</tr>
</tbody>
</table>

### Customer Updates

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Contact</td>
<td>Automatically updates a contact’s data in a data extension. Marketers select a data extension where the activity updates data and choose the Attribute or Value that the activity is to update. Updating an Attribute or Value overwrites a value in an existing row. The existing value does not increase incrementally and new rows are not added.</td>
</tr>
<tr>
<td>Activity Name</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Note</strong>: If no rows for the associated Contact Key exist, they system adds a new row. If there are one or more existing rows for the associated Contact Key, the system updates existing rows and does not add new rows.</td>
<td></td>
</tr>
</tbody>
</table>

### Sales & Service Cloud

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Object Activity</strong></td>
<td>Creates or updates a Sales or Service Cloud record in an object when a contact in the journey reaches it. Use this activity when a journey creates or updates a custom object</td>
</tr>
<tr>
<td><strong>Contact</strong></td>
<td>Creates or updates a contact in the Sales and Service Cloud for each Marketing Cloud contact that reaches this activity</td>
</tr>
<tr>
<td><strong>Opportunity</strong></td>
<td>Creates an opportunity record in Sales and Service Cloud. Marketing Cloud contact attributes can be used to populate fields on the opportunity record</td>
</tr>
<tr>
<td><strong>Convert Lead</strong></td>
<td>Converts qualified leads from Sales and Service Cloud</td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td>Creates or updates a task in Sales and Service Cloud for each Marketing Cloud contact that reaches this activity</td>
</tr>
<tr>
<td><strong>Update Campaign Member</strong></td>
<td>Updates a Campaign record in Sales and Service Cloud</td>
</tr>
<tr>
<td><strong>Add Member to Campaign</strong></td>
<td>Looks up Campaigns in Sales and Service Cloud and adds Marketing Cloud contacts to them</td>
</tr>
<tr>
<td><strong>Account</strong></td>
<td>Creates or updates an account in Sales and Service Cloud for each contact that reaches this activity</td>
</tr>
<tr>
<td><strong>Choose Object</strong></td>
<td>Creates or updates any type of object record in Sales and Service Cloud. Select the object to update; then select the fields to update with Marketing Cloud attribute data</td>
</tr>
<tr>
<td><strong>Lead</strong></td>
<td>Creates or updates a lead record in Sales and Service Cloud for each contact that reaches the activity</td>
</tr>
<tr>
<td><strong>Case</strong></td>
<td>Creates a case and associates it to Sales and Service Cloud contact that matches the Marketing Cloud contact’s ID</td>
</tr>
</tbody>
</table>
Custom

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>{Custom}</td>
<td>An activity fully configured by the marketer</td>
</tr>
</tbody>
</table>

SEE ALSO:
- MobileConnect and Journey Builder
- MobilePush and Journey Builder
- Create Custom Activities
- Configure the Journey Builder Activity in Interaction Studio (Legacy)

Activity IDs in Journey Builder

Find any activity’s unique identifier in a draft, running, paused, or stopped journey after the journey is saved. This feature helps customers and Support agents locate the issue when troubleshooting an activity.

You can also use the ActivityID in SQL query activities using the Journey Activity Data View.

⚠️ Note: ActivityIDs can change when you create a journey version.

1. Open the journey canvas then press Shift + Alt and click the activity.
2. Click Copy.

SEE ALSO:
- Data View: Journey Activity

Message Activities

Messaging activities include email, SMS, LINE message, push notification, inbox message, in-app message, or any other form of content sent to contacts. To provide a mix of information about your brand or your product, vary the message content. Create message content before you build a journey.

You can use any data stored in Marketing Cloud, including journey data, for personalization strings. Make sure that the attribute names used in personalization strings and dynamic content match the attribute names in the data extension exactly. Define a default value for every attribute so that the personalization string is never blank. If you insert a personalization string and the subscriber attribute isn’t populated, the string is blank in the email. For example, set the First Name field default to Customer so that Dear Customer appears in the message if that field is blank in the data extension.

⚠️ Tip: Make sure to map attributes for personalization or dynamic content to the appropriate data source. If you use journey data and contact data, the values in the journey data are static, while contact data can change.

Email Activity in Journey Builder

The Journey Builder email activity uses the power of Email Studio to send to Marketing Cloud contacts in a journey. Configure and review statistics without leaving Journey Builder.
Mobile Activities in Journey Builder


Email Activity in Journey Builder

The Journey Builder email activity uses the power of Email Studio to send to Marketing Cloud contacts in a journey. Configure and review statistics without leaving Journey Builder.

Considerations

- Each journey version has its own triggered send for each email activity. A new triggered send is created when a new journey version is activated.
- Triggered send validation compares the email’s personalization strings to event data from the journey entry source. Entry source event data contains the field names and corresponding data types in the journey’s entry source data extension.
- Update email properties, such as Send Classifications or Publication Lists, by editing the email activity.
- Update images, content, and other Email Studio-related components by pausing, publishing changes, and restarting the triggered send.
  - Dynamic subject rules
  - Send classifications
  - Sender profiles
  - Delivery profiles

Journey Builder email activities that use the email do not automatically receive these updates. Implement changes to emails by updating each email activity while in draft mode, then reactivating the journey. Alternately, update the send on the classic Journey Builder Sends page.

- When validation errors occur, make sure the email’s personalization strings are calling data values included in the entry source data extension. If the email personalization includes a field that is not in the entry source data extension, email validation can fail.
- Emails using AMPScript can use the Data Extension Lookup() function to interact with data extensions in your account.
- Emails using AMPscript for personalization are not required to call data values found in the event source data extension.

Configure the Email Activity

Use an email activity to power Journey Builder email sends to Marketing Cloud contacts in a journey.

Managing Contacts in a Journey Builder Email Activity

To manage contacts in a Journey Builder email activity, use Marketing Cloud’s advanced sending options.

Update an Email Activity in a Journey

Follow these steps to edit an email in a running journey.

Things to Know About Journey Builder Triggered Send

When you create a Journey Builder email, a triggered send is created automatically. Activating the journey creates the triggered send definition that the journey’s email activity uses.

Marketing Cloud Journey Email Activity Tracking

Find tracking information for each Marketing Cloud journey email on your running journey’s canvas. More Journey Builder email tracking is available in Email Studio.
View Email Activity Statistics
In Marketing Cloud, see the results of each email activity send on the Journey Builder canvas.

View Google Analytics 360 Email Activity Metrics
Email activity-level metrics measure the impact of your journey email message activities on your customers’ behavior. You can track each email activity’s performance in your journeys against the Analytics 360 goals you define. Revenue and transaction tracking is included, too.

SEE ALSO:
Send Classifications for Marketing Cloud Email
Send Logging in Email Studio
Triggered Emails in Email Studio
Marketing Cloud Connect

Configure the Email Activity
Use an email activity to power Journey Builder email sends to Marketing Cloud contacts in a journey.

1. Drag the Email activity onto the canvas.
2. Click the activity.
3. Enter a name and description.
   
   Note: The email’s name becomes the title of the activity unless you provide a custom title. If you don’t provide a description, the system-generated description is provided.

4. Click Select Message.
   
   Tip: For details on creating an email, see Create a Content Builder Email.

5. Click Message Configuration and complete the configurations.
   
   • Saved Send Classification: Sets a send classification to use for this activity.
   • Sender Profile: Determines whether the send uses a different sender profile than indicated in the send classification.
   • Delivery Profile: Determines whether the send uses a different delivery profile than indicated in the send classification.
   • Subject Line: Subject line of the email message sent by this activity. To send a dynamic subject email, select the Insert Dynamic Content icon next to the subject line. To add personalization to the subject line, select the Insert Personalization icon.
     
     Important: When you edit the subject line, you must save the draft again to apply the change to this send.
   • Preheader: Text displayed after the subject line when you preview an email. To send a dynamic subject email, select the Insert Dynamic Content icon next to the subject line.
     
     Important: When you edit the preheader, you must save the draft again to apply the change to this send.

6. Click Delivery Options, and complete the options.
   
   • Publication List: Adds subscribers to the send. The email activity checks this list for each contact to determine whether to send the email.
   • Suppression List: Select a list of subscribers to suppression from the send. By selecting a suppression list that you want the system excludes any email addresses on the list from the send.
Note: Contacts often don’t proceed in the journey when they’re excluded from a send. Journey Builder excludes contacts from a send due to factors such as domain exclusion, List Detective, presence on a suppression list, or opt-out list exclusion.

- Domain Exclusions: Select a data extension that contains a list of email domains to exclude from the send. By selecting your domain exclusion list, the system excludes any email addresses that use that domain.
- Exclusion Script: To exclude subscribers from the send, enter AMPscript logic. Use the exclusion AMPscript function.
- Send Throttling: To set a maximum quantity of emails that can be sent each hour, select and set a delivery window and an hourly threshold. This setting requires both values to perform correctly when the journey is activated.

Note: Contacts that remain in the queue longer 72 hours exceed the Triggered Send Expiration Policy and don’t receive the message.

- Track Clicks: Determines whether the system collects tracking information on the links in an email.
- Suppress From Send Report—Determines whether sends with this activity are included in reports. If selected, sends from this journey are excluded from reports.
- Retain Send Log Data: Determines if send data is saved to the SendLog data extension.
- Send Tracking Results to Sales Cloud: Automatically send tracking results to the Sales Cloud. Accounts that use Marketing Cloud Connect see this option. To send tracking data to Sales Cloud, the contact ID must be related to All Subscribers on Subscriber Key in the event source data extension. The Contact ID must be the 18-digit Contact ID value created by Sales Cloud and Service Cloud. The 15-digit version isn’t supported.

Note: This condition is automatically met when using the Salesforce Data Event to admit contacts. Send Tracking Results to Sales Cloud isn’t available for Transactional Send journeys.

- Campaign Association: Associate a message with a campaign.
  a. Click Add...
  b. Select a campaign.
  c. Click Save & Continue.

7. Complete the advanced options section.

Note: To enable any of these features, contact your Marketing Cloud account executive for more information.

- Triggered Send Name: When you create a Journey Builder email, a triggered send is created. Activating the journey creates the triggered send definition that the journey’s email activity uses. Triggered Send Name is a system-generated value and can’t be modified.
- Message Priority: Enables your account to choose the priority of triggered sends. For information about configuring your account to observe priority, see the Triggered Emails Guide.
- Add a Keyword: A piece of text metadata that is passed through with the email for use in Analytics and tracking.
- Multipart MIME: Determines whether the system sends the message using multi-part MIME. Multi-part MIME provides an HTML version of the message content to inboxes that can display it and a text-only version to inboxes that can’t render HTML.
- Disable API calls after error threshold reached: An error threshold is a configurable limit that stops a send job when a designated number of errors occur. This option helps prevent a single error from stopping the entire job. For more information, contact your Marketing Cloud account executive.
- CC: Sends a copy of the email to the addresses entered in this field. Email addresses in this field are visible to all recipients of the email.
- BCC: Sends a copy of the email to the addresses entered in this field. Email addresses in this field aren’t visible to recipients of the email.
8. Click **Summary**, and complete configuration.
Configure and validate each activity on the canvas before journey activation.

SEE ALSO:
- Managing Contacts in a Journey Builder Email Activity

**Managing Contacts in a Journey Builder Email Activity**

To manage contacts in a Journey Builder email activity, use Marketing Cloud's advanced sending options.
Publication lists allow email contacts to opt into and out of a single communication, without opting out of all communications at once. Before sending an email, Journey Builder checks publication lists associated with the email to see if a contact is subscribed. If subscribed, Journey Builder sends the message to that contact. If the contact is unsubscribed or received emails that bounced too many times, Journey Builder doesn’t send the email.

**Note:** Publication list is a required field. If no publication list is selected, the email activity uses the All Subscribers list. When the message’s CAN-SPAM classification is transactional, Journey Builder sends an email regardless of subscription status.

Domain exclusions exclude a single domain’s email addresses from a Journey Builder send. For example, use domain exclusions when a list Journey Builder sends to include employee email addresses from a competitor’s company. By adding the domain in this field, all email addresses with this domain are excluded from the send, ensuring competitors don’t receive the email.

**Note:** If your account has subscriber key enabled, the system excludes recipients using the subscriber key value. If your account doesn’t have subscriber key enabled, the system excludes recipients using email address.

**Update an Email Activity in a Journey**

Follow these steps to edit an email in a running journey.

**Note:** To update AMPscript in an email that is part of a running journey, pause and republish its associated triggered send.

1. Open the journey canvas.
2. Click the email activity.
3. Select **Activity Summary** from the Email Analytics dropdown menu.
4. Select **Edit Message** from the Preview & Test dropdown menu.
   - You can click **Edit** in the corresponding sections to change message configuration, delivery options, or advanced options.
   - **Important:** When you edit the subject line, you must save the draft again to apply the change to this send.
5. Make your changes, and click **Save and Exit** from the Save dropdown menu.
   - If you edit the message configuration, delivery options, or advanced options, click **Summary** when you’re done.
6. Click **Done**.
7. Click **Resume**.

SEE ALSO:
- Things to Know About Journey Builder Triggered Send
Things to Know About Journey Builder Triggered Send

When you create a Journey Builder email, a triggered send is created automatically. Activating the journey creates the triggered send definition that the journey’s email activity uses.

When you create a journey version, the previous triggered send continues to run. Activating a new version defines a new triggered send. Also, you can stop the triggered send that is associated to a Journey Builder email activity. You can modify the email’s content, then restart the triggered send to re-enable sending within the journey. The triggered send name is a system-generated value and cannot be modified. If an external key is not provided at the time of creation, the system adds a key.

SEE ALSO:
Update an Email Activity in a Journey

Marketing Cloud Journey Email Activity Tracking

Find tracking information for each Marketing Cloud journey email on your running journey’s canvas. More Journey Builder email tracking is available in Email Studio.

Note: Users with standard Marketing Cloud roles can access expanded email activity metrics by default. Users with custom roles or permission granted at the user level sometimes don’t have access. To gain access, enable the View permission for Reporting in the Analytics application for your account. Contact your Marketing Cloud administrator for more information.

In a Sent, Running, or Stopped journey, access an email message’s performance metrics by clicking the email activity in the journey. To access the Email Performance tile, click View Details.

Click the Contacts tab to review contact-level data for the send, including opens, clicks, bounces, and unsubscribes. Identify individual contacts by their Contact Key value.

SEE ALSO:
Tracking in Email Studio
Clicks and Opens Behavior
Tracking in Email Studio
Single Send Journeys
Multi-Step Journeys

View Email Activity Statistics

In Marketing Cloud, see the results of each email activity send on the Journey Builder canvas.

Note: Users with standard Marketing Cloud roles can access expanded email activity metrics by default. Users with custom roles or permissions may not have access. To gain access, enable the View permission for Reporting in the Analytics application for your account. Contact your Marketing Cloud administrator for more information.

1. Click an email activity in a running or stopped journey.
The Send Email Analytics pane displays the Email Performance tile. Detailed email performance analytics appear, including a configurable date range.

2. For a breakdown of email activity statistics, click View Details.

SEE ALSO:
Tracking in Email Studio

View Google Analytics 360 Email Activity Metrics
Email activity-level metrics measure the impact of your journey email message activities on your customers' behavior. You can track each email activity's performance in your journeys against the Analytics 360 goals you define. Revenue and transaction tracking is included, too.

1. In Journey Builder, open an active journey, and click an email activity. The Email Analytics drawer opens.

2. To access more analytics, click View Details.

Mobile Activities in Journey Builder
Create the Carousel LINE Activity in Journey Builder
Use a carousel message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative.

Configure an Existing Content Builder Carousel Message in Journey Builder
Use a carousel message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative. You can add carousel messages you created in Content Builder to a Journey Builder LINE activity.

Create the In-App Message Activity in Journey Builder
Use the in-app message activity to power Journey Builder sends to Marketing Cloud contacts in a journey. An in-app message is a full-page, modal, or banner message that is sent to users of your mobile app. The message appears when the user opens the app. Use in-app messages to announce offers, invite users to take a survey, or encourage them to turn on push notifications or location settings for your app.

Configure an Existing Content Builder In-App Message in Journey Builder
Use the in-app message activity to power Journey Builder sends to Marketing Cloud contacts in a journey. An in-app message is a full-page, modal, or banner message that is sent to users of your mobile app. The message displays when the user opens the app. You can use in-app messages to announce an offer for a new product or content within your app, invite the user to take a survey, or gently encourage the user to turn on push notifications or location settings for your app. You can add in-app messages you created in Content Builder to a Journey Builder Push activity.

Configure the Inbox Activity in Journey Builder
Use the inbox activity to power Journey Builder MobilePush Inbox message sends to Marketing Cloud contacts in a journey.

Create the Multi-Content Message LINE Activity in Journey Builder
Use a multi-content message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message.

Configure an Existing Content Builder Multi-Content Message in Journey Builder
Use a multi-content message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message. You can add multi-content messages you created in Content Builder to a Journey Builder LINE activity.

Create the Push Notification Activity in Journey Builder
Use the push notification activity to power Marketing Cloud Journey Builder push notification sends to Marketing Cloud contacts in a journey.

Configure an Existing Content Builder Push Notification in Journey Builder
Use the push notification activity to power Marketing Cloud Journey Builder push notification sends to Marketing Cloud contacts in a journey. You can add push notifications you created in Content Builder to a Journey Builder Push activity.

Create the SMS Activity in Journey Builder
Use the SMS activity to power Marketing Cloud Journey Builder SMS sends to Marketing Cloud contacts in a journey.

Configure an Existing Content Builder SMS in Journey Builder
Use the SMS activity to power Marketing Cloud Journey Builder SMS sends to Marketing Cloud contacts in a journey. You can add SMS messages you created in Content Builder to a Journey Builder SMS activity.
Marketing Cloud WhatsApp Chat Messaging
Use Marketing Cloud WhatsApp Chat Messaging to expand your omnichannel engagement. Use Contact Builder to manage your audience. Use Content Builder for content generation, preview, and personalization. Use Journey Builder to send your customers messages as part of a customer journey.

View SMS Analytics in Journey Builder
SMS activity-level metrics measure the impact of Journey Builder SMS message activities on your customers’ behavior. You can track each SMS activity’s performance in your journeys against the Analytics 360 goals you define. SMS activity-level metrics aggregate usage data for all versions of a journey.

View Google Analytics 360 SMS Activity Metrics
SMS activity-level metrics measure the impact of your journey SMS message activities on your customers’ behavior. You can track each SMS activity’s performance in your journeys against the Analytics 360 goals you define.

Mobile Activity Tracking
Find tracking information for each mobile message activity on your running journey’s canvas. Click a mobile message activity to access statistics. Select a timeframe for your analytics from the date field. Access more Journey Builder mobile message tracking in Mobile Studio.

Create the Carousel LINE Activity in Journey Builder
Use a carousel message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative.

Important: To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber ID. Ensure that selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities are not supported.

1. In Journey Builder, drag the LINE Message activity to the canvas.
2. Click the LINE Message activity, and add a name and description.
3. Click New Message.
4. Click the Carousel template and click Select.
   Important: You can add up to 10 messages within one carousel, but all messages in a carousel must have the same number of images, buttons, and fields.
5. To add an image, click Browse or add a URL.
   Note: Use a JPEG or PNG image with a maximum 1024-px width. The image URL maximum is 1,000 characters.
6. Add a title to your message. The maximum character count for the title is 40.
7. Enter your message. The maximum character count for messages is 60 characters.
   Note: AMPscript can be used in all message fields and does not count toward the character limit.
   Note: If the height limitation is exceeded, the lower part of the text display area gets cut off. For this reason, depending on the character width, the message text may not be fully displayed even when it is within the character limits.
8. Add buttons to your message. Buttons can take users to a specified URL. Each message must have one button and can have a maximum of three buttons.
   a. Add labels for each button. Button label maximum is 20 characters.
   b. Add a behavior for each button.
   c. In the Button Action field, add the URL you want the button to take users to when they click. The Button Action URL maximum is 1,000 characters.

9. To select your background color for each message, click the **Design** tab and choose your color from the dropdown. You can also enter a hex code.

10. Click the **Message Configuration** tab.

11. Select the LINE channel you want to use from the dropdown.

12. Click **Save Message and Return**.

13. Click **Summary**.

14. For a subscriber-level preview of your message, click **Subscriber Preview**.

15. Repeat these steps for each message in your carousel. Click + if you want to add more than 3 messages.

16. Click **Save Message and Return**.

SEE ALSO:
   - Preview Mobile Subscriber Details
   - Create LINE Carousel Messages in Content Builder

**Configure an Existing Content Builder Carousel Message in Journey Builder**

Use a carousel message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative. You can add carousel messages you created in Content Builder to a Journey Builder LINE activity.

**Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber ID. Ensure that selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities are not supported.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.

2. Click the **LINE Message** activity, and add a name and description.

3. To access an existing message, click **Select Message**, and select your message from Content Builder Messages.

4. Click **Summary**.

5. Next to Message Configuration, click **Edit**.

6. Select your LINE channel from the dropdown.

7. Click **Save Message and Return**.

8. Click **Summary**.

9. To view a detailed version of your message, click **Detail View**.

10. To get a subscriber-level preview for your message, click **Subscriber Preview**.
Create the In-App Message Activity in Journey Builder

Use the in-app message activity to power Journey Builder sends to Marketing Cloud contacts in a journey. An in-app message is a full-page, modal, or banner message that’s sent to users of your mobile app. The message appears when the user opens the app. Use in-app messages to announce offers, invite users to take a survey, or encourage them to turn on push notifications or location settings for your app.

Note: By default, only one in-app message is shown per app session. You can update this setting in MobilePush Administration. To see another in-app message, the user has to background or close the app.

1. In Journey Builder, drag the In-App Message activity to the canvas.
2. Click the In-App Message activity, and add a name and description.
   
   Note: If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.
3. Click New Message.
4. Follow the directions to configure your in-app message.
5. Next to Message Configuration, click Edit.
6. Select the app that you want to send to.
7. Select the Active Message Timeframe.
   - To send the message whenever the contact reaches the activity, select Always Active.
   - To send the message only when the contact reaches the activity during a specified timeframe, select Custom Timeframe. Then select the start and end dates, times, and time zone.
   - To send and display the message when the user reaches the activity, select Dynamic Timeframe. Then define how long to wait before a message appears.
8. To configure the criteria to display your message, click Display Trigger.
9. To set the priority and message delay for the message, click Delivery Options.
10. To preview your message, click Summary. Use the device and view dropdowns to see how your message renders.
11. Click Summary.
12. For a subscriber-level preview for your message, click Subscriber Preview.
13. Click Done.

SEE ALSO:
- iOS SDK for In-App Messaging
- Android SDK for In-App Messaging
- Configure an Existing Content Builder In-App Message in Journey Builder
Configure an Existing Content Builder In-App Message in Journey Builder

Use the in-app message activity to power Journey Builder sends to Marketing Cloud contacts in a journey. An in-app message is a full-page, modal, or banner message that is sent to users of your mobile app. The message displays when the user opens the app. You can use in-app messages to announce an offer for a new product or content within your app, invite the user to take a survey, or gently encourage the user to turn on push notifications or location settings for your app. You can add in-app messages you created in Content Builder to a Journey Builder Push activity.

1. In Journey Builder, drag the In-App Message activity to the canvas.
2. Click the In-App Message activity, and add a name and description.
   - **Note:** If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.
3. Click New Message.
4. Follow the directions to configure your in-app message.
5. Next to Message Configuration, click Edit.
6. Select the app that you want to send to.
7. Select the Active Message Timeframe.
   - To send the message whenever the contact reaches the activity, select Always Active.
   - To send the message only when the contact reaches the activity during a specified timeframe, select Custom Timeframe. Then select the start and end dates, times, and time zone.
   - To send and display the message when the user reaches the activity, select Dynamic Timeframe. Then define how long to wait before a message appears.
8. To configure the criteria to display your message, click Display Trigger.
9. To set the priority and message delay for the message, click Delivery Options.
10. To preview your message, click Summary. Use the device and view dropdowns to see how your message renders.
11. Click Summary.
12. For a subscriber-level preview for your message, click Subscriber Preview.
13. Click Done.

Configure the Inbox Activity in Journey Builder

Use the inbox activity to power Journey Builder MobilePush Inbox message sends to Marketing Cloud contacts in a journey.

- **Note:** When you use a data extension as an entry source in Journey Builder, you can add personalization strings in the subject line or CloudPage.
- **Warning:** If you copy an existing Inbox message, be sure to update the End Date to reflect your desired message parameters.

1. Create your inbox message in MobilePush.
2. Navigate to Journey Builder.
3. Drag the Inbox activity onto the canvas.
4. Click the Inbox activity.
5. Select your inbox message from the list.
6. Click Done.
Create the Multi-Content Message LINE Activity in Journey Builder

Use a multi-content message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message.

**Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber ID. Ensure that selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities are not supported.

**Note:** To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.
3. Click **New Message**.
4. Click the **Multi-Content Message** template and click **Select**.
5. Click **Add Content** and choose the element you want to add. You can add up to 5 elements to your message.
   - **Note:** If you use AMPscript in media URL fields, verify in Subscriber Preview that it renders a URL.
     - To add a text message, click **Text** and insert your message.
       - **Note:** The maximum character count for messages is 2,000 characters.
     - To add an image, click **Browse** or add a URL and enter alt text for your image.
       - **Note:** Use a JPEG image with a maximum 1024-px width. The image URL maximum is 1,000 characters.
     - To add a video, click **Browse** or add a URL. Do the same for the Preview field.
       - **Note:** A wide or tall video may be cropped when played in some environments. It is a best practice to keep your video files under 1 minute or 10 megabytes and to use a URL if the file is over 3 megabytes.
     - To add an audio file, click **Browse** or add a URL, and enter the required duration of your audio file.
       - **Note:** It is a best practice to keep your audio files under 1 minute or 10 megabytes and to use a URL if the file is over 3 megabytes.
     - To add an Imagemap, select a layout and add a URL and behavior for each section of your layout.
       - **Note:** Image must be 1040 x 1040 px.
     - To add a Sticker, select from sticker packages in the top row, and then select the individual sticker.
6. When you are done entering the elements of your message, click **Save Message**.
7. Click the **Message Configuration** tab.
8. Select the LINE channel you want to use from the dropdown.
9. Click **Summary**.
10. For a subscriber-level preview for your message, click **Subscriber Preview**.
11. Click **Summary**.
12. Click Done.

SEE ALSO:
- Preview Mobile Subscriber Details

Configure an Existing Content Builder Multi-Content Message in Journey Builder

Use a multi-content message in a LINE Message activity to power Marketing Cloud Journey Builder sends to Marketing Cloud contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message. You can add multi-content messages you created in Content Builder to a Journey Builder LINE activity.

**Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber ID. Ensure that selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities are not supported.

**Note:** To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud account representative.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.
3. To access an existing message, click **Select Message**, and select your message from Content Builder Messages.
4. Click **Summary**.
5. Next to Message Configuration, click **Edit**.
6. Select your LINE channel from the dropdown.
7. Click **Summary**.
8. To view a detailed version of your message, click **Detail View**.
9. To get a subscriber-level preview for your message, click **Subscriber Preview**.
10. Click **Done**.

Create the Push Notification Activity in Journey Builder

Use the push notification activity to power Marketing Cloud Journey Builder push notification sends to Marketing Cloud contacts in a journey.

**Important:** If Custom Key functionality is enabled for the MobilePush, navigate to the Advanced Options section to input Custom Key values.

1. In Journey Builder, drag the **Push Notification** activity to the canvas.
2. Click the **Push Notification** activity, and add a name and description.
   - **Note:** If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.
3. Click **New Message**.
4. Add a title and subtitle to your message, if applicable. Use the personalization and emoji dropdowns as needed.
5. Choose whether to show or hide the title and subtitle in the message preview.
6. Enter the message.
To personalize the content of your message, click inside the Message field, and select contact attributes from the personalization dropdown menu. Optionally, add media to your message.

- Insert a URL or AMPscript, or select media from the Content Builder library.
- Choose whether to show or hide the media.
- Enter alternate text.
- Select whether to use different media for Android, if applicable.

Select an open behavior.

- Open the App: Opens the app when the user taps the message.
- Go to App URL: Insert a URL in the field that goes to a specific page in your app.
- Go to Web URL: Insert a URL in the field that goes to a web page.
- Go to CloudPage: Takes the user to a CloudPage.

Preview your message. Use the device and view dropdowns to see how your message renders. Click Save. Next to Message Configuration, click Edit. Select the app you want to use.

Click Delivery Options.

- If you enabled Custom Sound for your app, select which sound to play when a push message arrives.
- Select whether to update the number of unread messages displayed on the iOS icon for this app when you send the message.
- To associate this message with a campaign, click Add Campaign Association and select the campaign.

Click Summary. For a subscriber-level preview for your message, click Subscriber Preview. Click Done.

SEE ALSO:
- Create a Push Notification in Content Builder
- Preview Mobile Subscriber Details

**Configure an Existing Content Builder Push Notification in Journey Builder**

Use the push notification activity to power Marketing Cloud Journey Builder push notification sends to Marketing Cloud contacts in a journey. You can add push notifications you created in Content Builder to a Journey Builder Push activity.

1. In Journey Builder, drag the Push Notification activity to the canvas.
2. Click the Push Notification activity, and add a name and description.
3. Click Select Message, and select the type of message: Content Builder or MobilePush Messages.
MobilePush Messages are the legacy messages of Journey Builder push notifications that were created in the MobilePush app. Push notifications are now created in Content Builder and can be selected from the Content Builder tab in the push notification activity in Journey Builder.

4. Select the message to send.
5. Click Message Configuration.
6. Select the app you want to use.
7. Click Summary.
8. For a subscriber-level preview for your message, click Subscriber Preview.
9. Click Done.

Note: Referencing other Content Builder content in blocks returns table and HTML wrappers instead of text. To reference this content, use code snippets. See ContentBlockbyID.

Create the SMS Activity in Journey Builder

Use the SMS activity to power Marketing Cloud Journey Builder SMS sends to Marketing Cloud contacts in a journey.

Note: To send SMS from a journey, the normalized phone number (country code + phone number with no dashes or parentheses) is required in your data extension. Locale field isn’t required to send an SMS from Journey Builder. The field type must be Phone.

1. In Journey Builder, drag the SMS activity to the canvas.
2. Click the SMS activity.
3. Click New Message.
4. Enter the message.
   - To find hidden non-GSM characters like unicode straight quotes that can be included when pasting text from another source, select Highlight Non-GSM.
   - To combine messages beyond 160 characters into one, check Concatenate Message.
     Note: Message concatenation isn't available in all markets, including the United States. The concatenate option only displays when you select a short or long code for a location that allows concatenation. Click here for more information about message concatenation.
   - To shorten a URL, click Shorten URL, paste your URL, and click Apply. If you use Google UTM parameters to track links, UTM parameters are applied when you shorten a URL.
5. Preview the code type, if applicable.
6. Click Save.
7. If applicable, name your activity. Otherwise, your content name serves as your Activity Name and is visible in all reports.
8. Click Message Configuration.
9. Select the code you’re sending the message from.
10. Select a From Name, if applicable.
    Note: A From Name sends the message to a customer’s mobile device as if your business is one of the customer’s contacts. Recipients can’t directly respond to a message from a From Name.
11. Click Delivery Options.
Note: If a contact doesn’t have a valid mobile number, MobileConnect attempts to deploy the send to the priority one number stored on a given contact record.

12. To acknowledge that you allow your customers to opt out, read and agree to the Opt-Out Availability Policy.

13. If you choose to subscribe all contacts to a keyword, confirm subscriber opt-in.
   If users are already unsubscribed from a keyword, this action doesn’t resubscribe them.

14. Set a send blockout window, if applicable.
15. To associate this message with a campaign, click Add Campaign.
   
   Note: If you don’t set a campaign name in Delivery Options, campaign names aren’t included in tracking.

16. Click Advanced Options to review your Next Keyword, if applicable.
17. Click Summary.
18. For a subscriber-level preview for your message, click Subscriber Preview.
19. Click Done.

   Note: If you use Google Analytics 360, the UTM parameters you applied are appended when you activate the journey. Tracking results include any last-minute changes you make.

SEE ALSO:
   Preview Mobile Subscriber Details
   Create an SMS Message in Content Builder

Configure an Existing Content Builder SMS in Journey Builder

Use the SMS activity to power Marketing Cloud Journey Builder SMS sends to Marketing Cloud contacts in a journey. You can add SMS messages you created in Content Builder to a Journey Builder SMS activity.

   Note: To send SMS from a journey, the normalized phone number (country code + phone number with no dashes or parentheses) is required in your data extension. Locale field isn’t required to send an SMS from Journey Builder.

1. In Journey Builder, drag the SMS activity to the canvas.
2. Click the SMS activity, and add a name and description.
3. To access an existing message, click Select Message, and select the type of message: Content Builder or SMS Messages.
4. Select the message to send and click Edit Selected Message.
5. Configure the SMS activity.
6. Click Save Message and Return.
7. For a subscriber-level preview for your message, click Subscriber Preview.
8. Click Done.

   Note: Referencing other Content Builder content in blocks returns table and HTML wrappers instead of text. To reference this content, use code snippets. See ContentBlockbyID.
Marketing Cloud WhatsApp Chat Messaging

Use Marketing Cloud WhatsApp Chat Messaging to expand your omnichannel engagement. Use Contact Builder to manage your audience. Use Content Builder for content generation, preview, and personalization. Use Journey Builder to send your customers messages as part of a customer journey.

WhatsApp encourages its customers to work with an official solution provider to use WhatsApp Business API. Marketing Cloud partners with Sinch, an official WhatsApp partner, to help you with WhatsApp account and channel creation and template message approvals. Sinch’s Chat Messaging Setup app is integrated into Marketing Cloud AppExchange.

We recommend getting familiar with Sinch’s policies and other requirements.

- WhatsApp Opt-in Policies
- API Capacity and Rate Limits

Prerequisites and Important Information for WhatsApp Users

Customer Opt-In: WhatsApp requires that your brand has explicit opt-in from customers to send template messages. And to be able to send WhatsApp messages to opted-in users, brands must store and manage their opt-in information.

If customers feel like they didn’t opt in to receive messages, they can block or report a business. User feedback signals like these are inputs into a business’ quality score. WhatsApp limits businesses when their quality score is low for a sustained period. To flag policy violations, WhatsApp can also reactively evaluate a business’ opt-in flows, including user feedback.

WhatsApp Message Types and Use Cases
You can send two types of WhatsApp messages: Template and Session.

Get Started with WhatsApp Chat Messaging
Follow these steps to start chatting with your customers.

Create Your WhatsApp Business Account
To send WhatsApp messages, you need a WhatsApp Business Account. To view the available and in-use stock-keeping units (SKUs) for your account, check the right side of the AppExchange screen.

Create Your WhatsApp Channels
After your WhatsApp Business account is approved, you see your account in the Onboarded Accounts section. Now, you’re ready to create your WhatsApp channels.

Create Your WhatsApp Template Messages for Approval
After your channel is approved, you can start creating templates for WhatsApp transactional messages. Template messages must be approved before you can start sending. You can send session messages while waiting for template message approval.

Create Your WhatsApp Audiences
Build your audience for WhatsApp Chat Messages in Contact Builder.

Personalize Your WhatsApp Template Messages
After your template message is approved, you can personalize your messages using Content Builder.

Send WhatsApp Template Messages in Journey Builder
After you personalize your template messages, use Journey Builder to start sending.

Create Default WhatsApp Session Messages
In WhatsApp Administration, you can create a default Session message to respond to your users. As a best practice, send users messages with support contact details.

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Personalize Your WhatsApp Session Messages
Use Content Builder to create session messages to respond to user-initiated conversations. When a user sends a message to your WhatsApp channel, you can respond to them without using a template. Session messages are free-form messages and don't need approval.

Send WhatsApp Session Messages in Journey Builder
After you personalize your session messages, use Journey Builder to start sending.

WhatsApp Chat Message Analytics
After you activate your journey, you can view your WhatsApp Chat Message performance.

Create a Chat Messaging Data Extract
Use Automation Studio and Contact Builder to create Chat Messaging Data Extracts and learn more about your message metrics.

WhatsApp Status Errors
Review WhatsApp status errors. These status errors are generated by WhatsApp and are subject to change.

WhatsApp Message Types and Use Cases
You can send two types of WhatsApp messages: Template and Session.

Template messages are transactional. Some examples of template messages include:

- Shipment notifications
- Order confirmations
- Booking or event reminders
- Abandoned cart reminders
- Loyalty program information
- Finance account and balance details
- Reservation and ticket updates
- Transportation updates

WhatsApp must approve all templates to ensure that they don't contain promotional content. The WhatsApp Template message creation and approval flow is managed in the Chat Messaging Setup app. Approved templates appear in Marketing Cloud Content Builder.

Examples of approved templates:

- Welcome {{1}}. What company do you work for?
- Your {{1}} appointment is coming up on {{2}}.
- Your {{1}} appointment is coming up on {{2}}. Reply with {{3}} or {{4}}.
- Unfortunately your pending booking didn't go through. No charges were made to your bank account. You can try to rebook the hotel again. We sincerely apologize for the inconvenience.

Examples of rejected and improved templates:

- Rejected: Reminder: {{1}}.
- Rejected: {{1}} was added {{1}}, {{2}}!
- Rejected: Ready! Thank you for your purchase of {{1}}. You can find your receipt at {{3}}. Download the App and get a $10 credit {{4}}.
  - Revised and approved: Thank you for your purchase of {{1}}. You can find your receipt at {{2}}.
- Rejected: Hi {{1}}! Not sure how to activate your Prepaid Card? It's quick and easy! Get your new Prepaid Card in your pocket and start to enjoy all the advantages! Access at {{2}}.
Revised and approved: Hi! Our records show that your new Prepaid Card is delivered. Reply “ACTIVATE” to activate your card now.

- Rejected: “...trying to touch base with you over text as I couldn’t connect with you either by phone or email...”
- Rejected: Thank you for your booking. Now refer your friends and earn credits. Ask your friends to book with code {{1}}.

**Note:** {{1}}, {{2}} are personalization fields. WhatsApp only checks the remaining content. After the template is approved, you can edit these fields with personalization strings in Content Builder.

**Session Messages**

Session messages are responses to user-initiated conversations. When a user sends a message to your WhatsApp channel, you can respond to them without using a template. Session messages are free-form messages and don’t need approval. Session messages have many different uses. Brands can auto-reply to users with welcome messages, ask them their preferences to capture personalization details, navigate them to a product, or send questions about a product.

**Get Started with WhatsApp Chat Messaging**

Follow these steps to start chatting with your customers.

In Journey Builder, check for a **WhatsApp Message** activity in the list. If you don’t see this activity, contact your Marketing Cloud Account Executive.

1. To purchase the SKUs, click the WhatsApp Message activity.
2. Download the package from the Salesforce AppExchange.
3. Log in to the Marketing Cloud account where you want to install this package.
   - **Note:** If you’re already logged into your Marketing Cloud account, log out, and then log back in to see the updates.
4. After you authenticate your account, your screen looks like this.
5. Click **Install**.
6. Agree to the Salesforce Terms & Conditions.
7. In the Access tab, select which user for this package.
8. Log out of your Marketing Cloud account. Then log back in.
9. Ensure that you see Chat Messaging Setup in the App Exchange dropdown.

Next, create your WhatsApp Business Accounts.

**Create Your WhatsApp Business Account**

To send WhatsApp messages, you need a WhatsApp Business Account. To view the available and in-use stock-keeping units (SKUs) for your account, check the right side of the AppExchange screen.

1. Click **Chat Messaging Setup** in the AppExchange dropdown.
2. In the left navigation, click **Accounts**.
   
   **Note:** This screen lists your provisioned and pending accounts. This screen is empty the first time you see it.

3. Click **New Account**.
4. Enter your account name.
5. Enter the legal name of your company.
6. Enter your Facebook Business Manager ID.

**Note:** Your Facebook Business Manager ID must align with your channel names. For example, if you have a Facebook Business Manager named NTO Taiwan, you can’t create channels named NTO HK or NTO Singapore. Using a more generic name, such as NTO, lets you use all types of channel names with that ID.

7. Click **Submit**.

8. The system sends a verification notification to Facebook Business Manager. To validate your account, click this message in Facebook Business Settings Requests.

9. Verify your account in Facebook Business Manager. **Facebook Business Manager ID** is required. If you have a Business Manager account, locate your ID Business Settings Business Info in the Facebook Business Manager Console.

   a. Click **Business Settings**.
   b. Click **Security Center**.
   c. Click **Start Verification**.

   **Note:** If you haven’t properly validated your account, the Start Verification button is disabled.

Next, create your WhatsApp channels.

**Create Your WhatsApp Channels**

After your WhatsApp Business account is approved, you see your account in the Onboarded Accounts section. Now, you’re ready to create your WhatsApp channels.

1. Click **Channels** in the left navigation.

   **Note:** This screen lists your provisioned and pending accounts. This screen is empty the first time you see it.

2. Click **New Channel**.

3. Add details for your channel.

   a. Name: Maximum of 64 characters

      **Note:** If you want to change your channel name after initial creation, contact support@sinch.com to request a change.

   b. Logo: Maximum of 5 MB, 640x640 pixels PNG or JPG
   c. Description: Maximum of 256 characters
   d. Phone number associated with your WhatsApp business account

      **Tip:** You can use your own phone number for the channel if it’s not associated with another WhatsApp account. Or, you can have Sinch supply a phone number. Sinch number provisioning varies by country and is subject to change. See the table in this topic for details.

   e. Address: Maximum of 256 characters
   f. About: Maximum of 256 characters
   g. Email: Maximum of 128 characters
   h. Vertical: Maximum of 128 characters
   i. Website: Maximum of two websites, 256 characters each
4. Within 10 minutes, enter the two-factor authentication that you received via text or call.

5. Click Submit Request.

If your country isn't listed, contact your account executive.

<table>
<thead>
<tr>
<th>Country</th>
<th>Sinch Number Provisioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Yes</td>
</tr>
<tr>
<td>Brazil</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Yes</td>
</tr>
<tr>
<td>Colombia</td>
<td>No</td>
</tr>
<tr>
<td>France</td>
<td>Yes</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Yes</td>
</tr>
<tr>
<td>India</td>
<td>No</td>
</tr>
<tr>
<td>Indonesia</td>
<td>No</td>
</tr>
<tr>
<td>Israel</td>
<td>Yes</td>
</tr>
<tr>
<td>Italy</td>
<td>Yes</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Yes</td>
</tr>
<tr>
<td>Malaysia</td>
<td>No</td>
</tr>
<tr>
<td>Mexico</td>
<td>Yes</td>
</tr>
<tr>
<td>Peru</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>No</td>
</tr>
<tr>
<td>Poland</td>
<td>Yes</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yes</td>
</tr>
<tr>
<td>Russia</td>
<td>Yes</td>
</tr>
<tr>
<td>Singapore</td>
<td>Yes</td>
</tr>
<tr>
<td>Spain</td>
<td>Yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>No</td>
</tr>
<tr>
<td>Thailand</td>
<td>Yes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Yes</td>
</tr>
</tbody>
</table>

After your channel is approved, you can start creating template or session messages.
Create Your WhatsApp Template Messages for Approval

After your channel is approved, you can start creating templates for WhatsApp transactional messages. Template messages must be approved before you can start sending. You can send session messages while waiting for template message approval.

Note: After a template is approved, you can’t edit it. Instead, submit a new template message for approval. You can share an approved template across WhatsApp channels but not across business units.

1. In the left navigation, click Message Templates.
2. Click New Template.
3. Select a registered account from the dropdown.
4. Name your template.
5. Select a Template Category from the dropdown.
6. Select the language from the dropdown.
7. Complete the Message Content section.
   a. Add an optional header.
   b. Complete the Message Body section.
   c. Add an optional footer.
   d. Add optional buttons.
8. Click Submit Request.

Tip: If you include a URL in your template message, ensure that your URL has a valid landing page and belongs to your business. Templates with invalid URLs are rejected.

You can view the status of your submitted templates in the Message Templates screen, and then create your audience to send your WhatsApp messages to.

Create Your WhatsApp Audiences

Build your audience for WhatsApp Chat Messages in Contact Builder.

When opting in customers, consider these best practices.

- If you skip importing contacts, your messages don’t send.
- Flag opted-out contacts so that Journey Builder doesn’t send messages to them.
- Use Journey Builder to send emails or SMS messages to ask customers to opt in, and then collect the subscribers in a data extension.
- Customers have to opt in only to your WhatsApp channel and not every template message that you use.

1. In Contact Builder, create a contacts import definition.
2. Create an audience for WhatsApp.

Now that your audience is available for use in Journey Builder, personalize your template and session messages to start sending.

Personalize Your WhatsApp Template Messages

After your template message is approved, you can personalize your messages using Content Builder.

1. In Content Builder, click Create.
2. In the dropdown, select Chat Messaging, and then select WhatsApp Template Message.
3. To see your approved templates, click Browse.
4. Select the language you want to use, and click Next.

5. Select the variables to use in your message.
   
   **Note:** After approval, you can add only variables to templates. You can’t edit the rest of the message.
   
   a. Complete the header using personalization tags or AMPscript.
   b. Complete the message body using personalization tags or AMPscript.
   
   **Note:** Though templates and headers are approved through WhatsApp, ensure that any personalization or variables don’t exceed the 60-character limit for headers and the 1,024-character limit for messages. Facebook rejects messages that exceed limits.
   
   c. Add button text up to 20 characters.

6. Save your changes.

Now your template messages are ready to send in Journey Builder.

**Send WhatsApp Template Messages in Journey Builder**

After you personalize your template messages, use Journey Builder to start sending.

**Note:** You can’t use Journey Builder Engagement Splits and Campaigns with WhatsApp messages.

1. Click **Create New Journey**.
2. Click **Build** under **Multi-Step Journey**.
3. Drag your entry source onto the canvas. You can use **Data Extension** or **API Event**.
4. To configure your entry source, click it.
5. Click **Summary**.
6. Click **Done**.
7. Drag the **WhatsApp Message** activity onto the canvas.
8. To configure your message, click it.
9. Add an activity name and description.
10. Click **Select Message**.
11. In the Content Builder Messages screen, select the template message you want to use.
12. Click **Summary**.
13. Next to Message Configuration, click **Edit**.
14. Select the App Channel that you want to use from the dropdown.
15. Click **Summary**.
16. Click **Done**.
17. Configure the rest of your journey, and click **Activate**.

**Create Default WhatsApp Session Messages**

In WhatsApp Administration, you can create a default Session message to respond to your users. As a best practice, send users messages with support contact details.
1. In the app switcher, hover over your name, and click **Setup**.
2. Search for **WhatsApp**.
3. Next to the default message, click **Edit**.
4. Complete the message body.
   - **Note**: Session messages are limited to 4,096 characters, including personalization and emojis. Facebook rejects messages that exceed these limits.
5. To use an image, upload a JPEG or PNG file that's 100 MB or less.
6. Save your changes.

When you create a journey with Inbound Chat keywords, the system checks to see if the user message has one of those keywords. If not, the default message is sent.

**Personalize Your WhatsApp Session Messages**

Use Content Builder to create session messages to respond to user-initiated conversations. When a user sends a message to your WhatsApp channel, you can respond to them without using a template. Session messages are free-form messages and don't need approval.

- **Tip**: Keep your session messages simple. Offer support or product information based on keywords that you configure in Journey Builder.

   1. In Content Builder, click **Create**.
   2. In the dropdown, select **Chat Messaging**, and then select **WhatsApp Session Message**.
   3. Select the Message Type from the dropdown.
   4. Complete the message body using AMPscript or personalization tags.
      - **Note**: Session messages are limited to 4,096 characters, including personalization and emojis. Facebook rejects messages that exceed these limits.
   5. To use an image, upload a JPEG or PNG file that's 100 MB or less.
   6. Save your changes.

Now your session messages are ready to send in Journey Builder.

**Send WhatsApp Session Messages in Journey Builder**

After you personalize your session messages, use Journey Builder to start sending.

- **Note**: You can't use Journey Builder Engagement Splits and Campaigns with WhatsApp messages.

   1. Click **Create New Journey**.
   2. Click **Build** under **Multi-Step Journey**.
   3. Drag the **Inbound Chat** entry source onto the canvas.
   4. Configure your **Inbound Chat** entry source.
      - a. Click the entry source, and then click **Edit** next to App Channel.
      - b. Select the App Channel that you want to use from the dropdown.
      - c. To configure your Keywords, click **Keywords**.
5. Click **Summary**.
6. Click **Done**.
7. Drag the **WhatsApp Message** activity onto the canvas.
8. Add an activity name and description.
9. Click **Select Message**.
10. In the Content Builder Messages screen, select the session message you want to use.
11. Click **Summary**.
12. Next to Message Configuration, click **Edit**.
13. Select the App Channel channel you want to use from the dropdown.
14. Click **Summary**.
15. Click **Done**.
16. Configure the rest of your journey, and click **Activate**.

**Note:** If you create a draft version of this journey while the previous version is still running, the Inbound Chat entry source is in a read-only state. To edit the entry source, stop the first journey. Alternatively, you can delete the Inbound Chat entry source in the draft version and replace it with a new Inbound Chat Entry Source.

**WhatsApp Chat Message Analytics**

After you activate your journey, you can view your WhatsApp Chat Message performance.

WhatsApp doesn’t give opt-out information back to brands. Brands can discern opt-out rates by evaluating their message bounces. This analysis also shows users who are offline and bounced messages.

**Note:** Sends, deliveries, read, and failed statuses are aggregated and reported via the Salesforce platform.

1. In the Journeys Dashboard, click the journey you want to view.
2. Click the **WhatsApp Activity**.
3. Select the timeframe that you want analytics for.
4. View the message delivery and open rates.

To view more detailed message data, you can create a data extract on page 287.

**Create a Chat Messaging Data Extract**

Use Automation Studio and Contact Builder to create Chat Messaging Data Extracts and learn more about your message metrics.

1. Navigate to Automation Studio.
2. Click **New Automation**.
3. Drag the **Data Extract** activity to the Automation canvas.
4. Click **Choose**.
5. Click Create New Data Extract. Follow the directions [here](#).
   a. Select extract type **ChatMessagingDetailExtract**.

**Note:** If using wild cards in your file name, only use trailing ones. For example, `test_mo_log_**Year****Month****Day**.zip`
b. Channel ID: The phone number for your WhatsApp channel. Use the country code and phone number with no symbols.

c. Channel Type: WHATSAPP

d. Include MOLog: Provides a raw data file with inbound messages from customers.

e. Include Tracking Detail: Provides detail disposition for Sends and the corresponding Inbound Tracking. If you choose to not include tracking detail, some delivery receipts aren’t included if they’re near the end of the set sending time period. If you use a rolling range, you get a complete data set.

f. Include Potential Bounces: WhatsApp doesn’t provide unsubscribe information. If a user hasn’t received a message three times in the last 30 days, they’re counted as bounced users. It’s possible bounced users opted out and blocked the brand’s WhatsApp channel.

6. Create a File Transfer Activity.

a. When you run the data extract, the file is stored in a Salesforce Safehouse. The file transfer activity moves the file to a configure file location.

   Note: Use the same file naming pattern you used when you created the Data Extract Activity.

7. Retrieve your files from the FTP.

   • Tracking file name: chat_{filename}_tracking.csv.
   • Inbound messages file name: chat_{filename}_inboundmessagelogs.csv
   • Potential unsubscribes file name: chat_{filename}_potentialunsubs.csv
   • If you wanted to add a date to any of the logs, an example would be: chat_test_mo_log%Year%Month%Day%tracking.csv

8. Import your information into a data extract.

a. Create a data extension in Contact Builder.

b. Create an import definition in Contact Builder.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>TrackingType</td>
<td>Send disposition in Marketing Cloud. Is either</td>
<td>string</td>
</tr>
<tr>
<td></td>
<td>DeliveryReport or SEND</td>
<td></td>
</tr>
<tr>
<td>MID</td>
<td>Member ID for the sender</td>
<td>bigint</td>
</tr>
<tr>
<td>EID</td>
<td>Enterprise ID number for the sender</td>
<td>bigint</td>
</tr>
<tr>
<td>ContactKey</td>
<td>Contact key of the receiver</td>
<td>string</td>
</tr>
<tr>
<td>MobileNumber</td>
<td>Phone number of receiver</td>
<td>string</td>
</tr>
<tr>
<td>EventDateUTC</td>
<td>UTC date and time of the event.</td>
<td>datetime</td>
</tr>
<tr>
<td>AppID</td>
<td>Application ID of the provider</td>
<td>string</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Data Type</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ChannelID</td>
<td>Phone number of the registered channel</td>
<td>string</td>
</tr>
<tr>
<td>ChannelType</td>
<td>Channel platform (WhatsApp)</td>
<td>string</td>
</tr>
<tr>
<td>ChannelName</td>
<td>Name of channel used</td>
<td>string</td>
</tr>
<tr>
<td>Status</td>
<td>Send status provided by sender or Marketing Cloud</td>
<td>string</td>
</tr>
<tr>
<td>Reason</td>
<td>If Status is negative, this field provides further details.</td>
<td>string</td>
</tr>
<tr>
<td>JBDefinitionID</td>
<td>Unique identifier for the journey a message was deployed from</td>
<td>unique identifier</td>
</tr>
<tr>
<td>SendIdentifier</td>
<td>Internal Marketing Cloud identifier for a send.</td>
<td>unique identifier</td>
</tr>
<tr>
<td>AssetID</td>
<td>Asset ID associated with the Send. Available on Send type only.</td>
<td>bigint</td>
</tr>
<tr>
<td>MessageTypeID</td>
<td>Internal send type ID.</td>
<td>int</td>
</tr>
</tbody>
</table>

**Important:** This identifier associates a unique SEND with the corresponding DeliveryReport information. Order or date can't be verified when sending to the same contact many times. This field is your source of truth for data association of send and delivery reports.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatMessagingMOLogID</td>
<td>Unique database identifier in sequential order</td>
<td>bigint</td>
</tr>
<tr>
<td>ChannelID</td>
<td>Phone number of the registered channel</td>
<td>string</td>
</tr>
<tr>
<td>ChannelType</td>
<td>Channel platform (WhatsApp)</td>
<td>string</td>
</tr>
<tr>
<td>MobileNumber</td>
<td>Phone number of contact who responded the channel</td>
<td>string</td>
</tr>
<tr>
<td>MessageData</td>
<td>JSON-formatted data from our partner. The Text field displays inbound text.</td>
<td>string</td>
</tr>
<tr>
<td>DateCreatedUTC</td>
<td>UTC date and time the inbound message was received in the Marketing Cloud</td>
<td>datetime</td>
</tr>
</tbody>
</table>

**Table 28: Inbound Message Details**
Table 29: Potential Unsubscribe Details

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID</td>
<td>Member ID for the sender</td>
<td>bigint</td>
</tr>
<tr>
<td>EID</td>
<td>Enterprise ID number for the sender</td>
<td>bigint</td>
</tr>
<tr>
<td>ContactKey</td>
<td>Contact key of the receiver</td>
<td>string</td>
</tr>
<tr>
<td>MobileNumber</td>
<td>Phone number of receiver</td>
<td>string</td>
</tr>
<tr>
<td>ChannelID</td>
<td>Phone number of the registered channel</td>
<td>string</td>
</tr>
<tr>
<td>ChannelType</td>
<td>Channel platform (WhatsApp)</td>
<td>string</td>
</tr>
<tr>
<td>ChannelName</td>
<td>Name of channel provided by customer</td>
<td>string</td>
</tr>
<tr>
<td>FirstDateUTC</td>
<td>UTC date and time of first send without delivery tracking</td>
<td>datetime</td>
</tr>
<tr>
<td>LastDateUTC</td>
<td>UTC date and time of last send without delivery tracking</td>
<td>datetime</td>
</tr>
</tbody>
</table>

WhatsApp Status Errors

Review WhatsApp status errors. These status errors are generated by WhatsApp and are subject to change.

<table>
<thead>
<tr>
<th>Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDIA_TOO_LARGE</td>
<td>The media used in the message is above the 5-MB limit specified by WhatsApp.</td>
</tr>
<tr>
<td>MEDIA_TYPE_UNSUPPORTED</td>
<td>The media used in your message is an unsupported type. Upload a JPEG or PNG.</td>
</tr>
<tr>
<td>BAD_REQUEST</td>
<td>One of these descriptions:</td>
</tr>
<tr>
<td></td>
<td>• Message length exceeds 4,096 characters.</td>
</tr>
<tr>
<td></td>
<td>• A required parameter is missing.</td>
</tr>
<tr>
<td></td>
<td>• The value entered for a parameter is of the wrong type or other problem.</td>
</tr>
<tr>
<td></td>
<td>• Message contains a parameter that isn’t required.</td>
</tr>
<tr>
<td></td>
<td>• The request isn’t valid.</td>
</tr>
<tr>
<td></td>
<td>• Parameter length is too long.</td>
</tr>
<tr>
<td></td>
<td>• Translated text is too long.</td>
</tr>
<tr>
<td></td>
<td>• Whitespace policy is violated.</td>
</tr>
<tr>
<td></td>
<td>• Format character policy is violated.</td>
</tr>
<tr>
<td></td>
<td>• The template media format used isn’t supported.</td>
</tr>
<tr>
<td></td>
<td>• A required component in the template is missing.</td>
</tr>
<tr>
<td></td>
<td>• URL in button component is invalid.</td>
</tr>
<tr>
<td></td>
<td>• Phone number in button component is invalid.</td>
</tr>
<tr>
<td>Error</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MEDIA_NOT_REACHABLE</td>
<td>Failed to download the media from the sender.</td>
</tr>
<tr>
<td>CHANNEL_BAD_CONFIGURATION</td>
<td>Channel rejected the given channel credentials.</td>
</tr>
<tr>
<td>DELIVERY_TIMED_OUT</td>
<td>One of these descriptions:</td>
</tr>
<tr>
<td></td>
<td>• Message failed to send because it was pending for too long. Resend the message.</td>
</tr>
<tr>
<td></td>
<td>• Message failed to send during its Time To Live (TTL) duration.</td>
</tr>
<tr>
<td>DELIVERY_REJECTED_DUE_TO_POLICY</td>
<td>Message failed to send because there are restrictions on how many messages can be sent from this phone number. This failure can occur if too many messages were blocked or flagged as spam.</td>
</tr>
<tr>
<td>RECIPIENT_INVALID_CHANNEL_IDENTITY</td>
<td>One of these descriptions:</td>
</tr>
<tr>
<td></td>
<td>• Failed to send the message because this user’s phone number is part of an experiment. Skip sending messages to this user.</td>
</tr>
<tr>
<td></td>
<td>• Message failed to send since the user with this phone number has potentially changed.</td>
</tr>
<tr>
<td></td>
<td>• User isn’t valid.</td>
</tr>
<tr>
<td></td>
<td>• You can’t send messages to yourself.</td>
</tr>
<tr>
<td>TEMPLATE_INSUFFICIENT_PARAMETERS</td>
<td>Number of parameters provided doesn’t match the expected number of parameters.</td>
</tr>
<tr>
<td>RECIPIENT_NOT_REACHABLE</td>
<td>Given channel identity not reachable on this WhatsApp channel.</td>
</tr>
</tbody>
</table>

**View SMS Analytics in Journey Builder**

SMS activity-level metrics measure the impact of Journey Builder SMS message activities on your customers’ behavior. You can track each SMS activity’s performance in your journeys against the Analytics 360 goals you define. SMS activity-level metrics aggregate usage data for all versions of a journey.

The Journey Analytics dashboard appears when you click an SMS activity in a running journey.

1. In Journey Builder, open an active journey and click an SMS activity.
   The SMS Performance drawer opens.

2. To open the analytics tile, click **SMS Performance**.

SEE ALSO:
- Review Undelivered Messages
View Google Analytics 360 SMS Activity Metrics

SMS activity-level metrics measure the impact of your journey SMS message activities on your customers' behavior. You can track each SMS activity's performance in your journeys against the Analytics 360 goals you define.

The Journey Analytics dashboard appears when you click an SMS activity in a running journey.

⚠️ **Important:** Campaign Source, Campaign Medium, Campaign Name, sfmc_activityID, and Campaign ID parameters are tracked for SMS activities. Campaign Term, Campaign Content, and Subscriber ID are not tracked.

1. In Journey Builder, open an active journey, and click an SMS activity. The SMS Activity drawer opens.
2. To open the analytics tile, click **Analytics 360 Goals Summary**.
3. Click **View Details**.

Mobile Activity Tracking

Find tracking information for each mobile message activity on your running journey's canvas. Click a mobile message activity to access statistics. Select a timeframe for your analytics from the date field. Access more Journey Builder mobile message tracking in Mobile Studio.

⏰ **Note:** Analytics aren't available for Inbox activities.

To access mobile message performance metrics in a running journey, click a configured mobile activity.

To view configuration details, click a mobile activity in a running journey and select **Summary** from the dropdown.

⚠️ **Note:** Mobile activities in a running journey can't be edited. To edit a mobile activity in a running journey, create another version of the journey.

Tracking for SMS, LINE message, in-app message, and push notification activities is also available on the MobileConnect, GroupConnect, and MobilePush Overview screens.

SEE ALSO:
- Review Specific Message Activity
- Journey Versions
- Account, App, and List Statistics

Journey Builder Activities

Canvas activities include messages, decisions, updates, or a combination of these elements, dragged onto the Journey Builder canvas. In a Multi-Step journey, the activities you configure affect each contact until they reach a goal or the end of the journey.

Activities appear in the builder panel according to their headings: Messages, Advertising, Flow Control, Customer Updates, Sales & Service Cloud, and Custom.

⏰ **Note:** Single Send journey activities are auto-populated on the canvas. The builder panel is not shown.

Split Activities

Split activities divide contacts into separate cohorts that follow different paths. The split allows each cohort to receive a different set of subsequent activities. For example, you want to separate the contacts in a journey into two groups by age: contacts who are older than
35 and contacts who are younger than 35. Place a decision split after the entry event, or any activity in a journey, to prompt Journey Builder to evaluate each contact’s data. In this example, Journey Builder sorts contacts by age. It funnels contacts who are older than 35 into one branch of the split and contacts who are younger into the other branch.

**Note:** Custom split activities that use a data decision can allow a True or False (Boolean) decision, or a multiple-answer decision. Multiple-answer decisions send contacts down more than two decision branches. In other words, a custom activity can segment the audience into two or more paths based on the purpose of the activity.

### Customer Update Activities

Customer update activities prompt the Marketing Cloud system to automatically update a contact’s data in a data extension. You select a data extension where the activity updates existing data and choose the attribute or value that the activity is to update. Updating an attribute or value overwrites the value in an existing row; the existing value does not increase and new rows are not added.

**Note:** If no rows for the associated contact key exist, a new row is added. If there are one or more existing rows for the associated contact key, existing rows are updated. New rows are not added.

**Note:** Only sendable data extensions can be used with this activity.

### Sales & Service Cloud Activities

Use Sales & Service Cloud activities to interact with the Salesforce Sales & Service Cloud. These activities are available in accounts with the Marketing Cloud Connector installed.

### Custom Activities

The marketer or the marketer’s organization fully configures custom activities. Examples of custom activities include custom messaging through uncommon channels or custom data update activities such as an evaluation of only specified data fields on contact records. For more details about developing custom activities, see Journey Builder API.

### Find Out More

Find specific information about Journey Builder activities on each activity’s help page.

- **Activity Type Reference**
  
  This table identifies and explains Activity Type messages displayed on the Contacts page in Journey Builder.

- **Undo or Redo a Canvas Action**
  
  Before you save or activate a journey, you can undo or redo up to 50 consecutive actions, one at a time, in Journey Builder.

- **Reuse a Journey Builder Activity**
  
  Make building a Marketing Cloud journey faster and easier by copying activities or groups of activities. Copied activities, with a few exceptions, don’t have to be configured again after you paste them on the Journey Builder canvas.

- **Path Optimizer Test Activity in Journey Builder**
  
  The Path Optimizer activity enables you to test up to 10 variations of a journey path to determine which path performs best. Use a sample from your contacts to test multiple versions of messages, wait times, channels, and message frequencies during an active journey. You can let Journey Builder pick the winner automatically based on email metrics such as opens, clicks, or unsubscribes. Or you can manually choose a winner at any time based on metrics tracked inside or outside Marketing Cloud. The remaining contacts take the winning journey path.

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Wait Activities in Journey Builder
To manage the timing of messages in Journey Builder, add wait activities. A wait activity holds customers between activities for a specified amount of time before they move to the next activity. During wait activities, Journey Builder evaluates customers to see if they met a goal, reached criteria for a decision split, or engaged with a message.

Journey Builder Split and Join Activities
Journey Builder’s split activities allow you to customize a contact’s path through a journey. The join activity allows you to bring contacts from two or more paths into a single path.

Use the Ad Audience Activity
Use the Ad Audience activity to build an audience in Journey Builder. To use this activity, set up Facebook, Twitter, Google Adwords, or LinkedIn as destinations in Marketing Cloud Advertising Audiences Administration. This activity is available only in accounts provisioned to use Advertising Audiences.

The Advertising Campaign Activity
Create an Advertising Audience and a simple Facebook advertising campaign without leaving Journey Builder. Extend the reach of your email marketing and keep your brand top of mind by targeting your email subscribers with Facebook advertisements.

Update a Contact
Update or modify a Marketing Cloud contact record in Journey Builder using the update contact activity.

Configure the Sitecore Connect for SFMC Activity
Use the Sitecore Connect for SFMC activity to send contact status from Marketing Cloud to Sitecore as a contact moves through a journey.

SEE ALSO:
MobileConnect and Journey Builder
MobilePush and Journey Builder
Marketing Cloud Connect
Configure the Journey Builder Activity in Interaction Studio (Legacy)

Activity Type Reference
This table identifies and explains Activity Type messages displayed on the Contacts page in Journey Builder.

Use Activity Type with the value shown in the Status column to understand exactly where a contact is at a given moment.

Note: The Join activity isn’t shown as an Activity Type. Instead, when a Join activity sends a contact from one path to another, the next activity in that path is shown. Check the journey to see a contact’s path after a Join activity and confirm the contact’s route.

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMAIL</td>
<td>The contact reached an Email activity.</td>
</tr>
<tr>
<td></td>
<td>The contact receives an email unless goal criteria was met at this step.</td>
</tr>
<tr>
<td>WaitActivity</td>
<td>The contact is in or has left a wait period.</td>
</tr>
<tr>
<td></td>
<td>The value shown in the Status column indicates whether the contact is in a wait period, or has recently left a wait period.</td>
</tr>
<tr>
<td>Activity Type</td>
<td>Meaning</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• When the Status value is Waiting, the contact is in a wait period.</td>
</tr>
<tr>
<td></td>
<td>• When the Status value is Complete, the wait period expired. The contact continued to the next activity.</td>
</tr>
<tr>
<td></td>
<td>CONTACTDECISION</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>StartInteractionActivity</td>
</tr>
<tr>
<td></td>
<td>Trigger</td>
</tr>
<tr>
<td></td>
<td>undefined</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>StopInteractionActivity</td>
</tr>
<tr>
<td></td>
<td>RANDOMSPLIT</td>
</tr>
<tr>
<td></td>
<td>REST</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>DATAEXTENSIONUPDATE</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GoalCriteriaActivity</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Undo or Redo a Canvas Action**

Before you save or activate a journey, you can undo or redo up to 50 consecutive actions, one at a time, in Journey Builder. When you activate or navigate away from the journey, the journey action history is erased.

- **Note:** This feature is not supported in Single Send journeys.

1. Navigate to the journey menu and click ![undo](image) to undo or ![redo](image) to redo.
2. If needed, repeat step 1 to undo or redo up to the last 50 actions you took to configure the journey.

**Reuse a Journey Builder Activity**

Make building a Marketing Cloud journey faster and easier by copying activities or groups of activities. Copied activities, with a few exceptions, don’t have to be configured again after you paste them on the Journey Builder canvas.

- **Tip:** To copy a group of activities, select activities that adjoin one another on the canvas.

1. To select one or more activities to copy, click ![copy](image).
2. Click one or more adjoining activities to copy.
3. Click **Copy Selection**.
4. Drag the copied activity or group of activities from the Copied Activities Clipboard onto the canvas.

- **Note:** Some activities require reconfiguration after pasting.
- **Note:** The Copied Activities Clipboard is not saved when you navigate away from the journey.

**Path Optimizer Test Activity in Journey Builder**

The Path Optimizer activity enables you to test up to 10 variations of a journey path to determine which path performs best. Use a sample from your contacts to test multiple versions of messages, wait times, channels, and message frequencies during an active journey. You can let Journey Builder pick the winner automatically based on email metrics such as opens, clicks, or unsubscribes. Or you can manually choose a winner at any time based on metrics tracked inside or outside Marketing Cloud. The remaining contacts take the winning journey path.

- **Example:** Nonprofit Organization

  A museum has an existing journey used to drive engagement and membership renewals. The museum’s membership relationship manager decides to test three aspects of the journey. In the first Path Optimizer test, they set up a two-path test for its first email to determine which email subject line drives the highest numbers of clicks on the member benefits link. For the second email, they include another Path Optimizer test that breaks the audience into three paths. They use this test to test which cadence and message content result in the highest open rate. The final Path Optimizer test divides the journey into two paths, with one path adding in an SMS message reminder to Renew Membership Now. They manually select the winner based on which path results in the most renewals.

**Configure a Path Optimizer Test Activity**

Follow these steps to configure the Path Optimizer Test activity in Journey Builder.
Configure a Path Optimizer Test Activity

Follow these steps to configure the Path Optimizer Test activity in Journey Builder.

1. Drag the Path Optimizer activity onto the canvas.
2. Add activities to the paths between the start and finish points of the Path Optimizer.
   The activity defaults to two paths, but you can add up to 10 paths for testing.
3. Click the Path Optimizer activity.
4. Click Configure Winner Evaluation.
   - To pick a winner automatically based on email metrics, click Email Engagement. Then choose the metric and evaluation period. The evaluation period is how long the system waits after contacts pass through the longest path before picking the winner. You can configure the evaluation period in hours or days with a minimum of 1 hour and a maximum of 99 days.
   - To review your data and manually pick a winner, select Manual Engagement. If you don’t select a winner within 7 days of activation, the test expires and contacts in Holdback are automatically ejected from the journey.
5. Click Split.
6. Select the percentage of contacts to send on each path.
   To include more paths in your testing, click Add Path.
7. Click Holdback.
   - Important: The Holdback feature is only available when you use a Data Extension entry source set to Run Once.
8. Select the percentage of contacts to include in the test. The rest of the contacts wait in the Holdback group until a winner is selected, then enter the journey on the winning path.
   - Tip: To allow the system time to track engagement for all preceding messages, add a wait activity after the last message included in the test.
9. Click Done.
10. Activate your journey.
11. Click the Path Optimizer activity.
12. Review Test Summary.
13. For Email Engagement tests, review the results of your running test. These results include all email metrics, which path is in the lead, and elapsed time of the test. To end the test early, click Select Winning Path. Select the winning path, and click Select Winner.
   - Note: The test duration is the sum of the evaluation period you select and the length of the longest path including wait activities.
14. For Manual Engagement tests, click Select Winning Path. Select the winning path, and click Select Winner.
15. Click the Analytics dropdown, and select Summary to view the activity configuration.

After the test is complete, the activity shows Test Summary metrics that are snapshots of test stats at the time the winner was selected. Also, Post-Test Performance stats show elapsed time, how many contacts passed through, and engagement metrics after the winner was selected. This information allows you to compare performance for ongoing optimization of your journey.
Note: If you copy a journey with a Path Optimizer activity and you select a winning path, only that winning path remains in the copied journey. If you didn’t select a winner, all potential paths copy into the new journey.

SEE ALSO:
Data Extension Entry Source

Wait Activities in Journey Builder

To manage the timing of messages in Journey Builder, add wait activities. A wait activity holds customers between activities for a specified amount of time before they move to the next activity. During wait activities, Journey Builder evaluates customers to see if they met a goal, reached criteria for a decision split, or engaged with a message.

Here are some things to keep in mind when you use wait activities.

- Plan the timing of waits based on your content and the message cadence expectations that you want to set.
- Determine the best time of day to reach your customers and an optimal wait duration.
- Avoid waits that are shorter than an hour, except when testing a journey.
- Avoid unnecessary waits, especially short waits at the beginning of a journey.
- You can’t place two wait activities side by side on the canvas.

Wait by Duration

Use the Wait by Duration activity to provide a consistent experience for all contacts processing through a journey. A wait ends after a specified amount of time elapses with the default duration of 1 day. To customize duration, you can add an expiration time and a time zone. When a contact reaches the activity, the expiration date and time of the wait duration begins at the time they entered. A contact who reaches this activity after the specified end time remains in the activity until the following day at the configured end time.

Wait Until Date

Use the Wait Until Date activity to hold contacts until the day and time that you configure. After the wait expires, the contact immediately proceeds to the next activity. If the contact reaches the activity after the date, the contact immediately proceeds to the next activity.

Wait by Attribute

Use the Wait by Attribute activity to hold contacts until the day and time value stored in a contact’s date-based attribute that you select. If the specified day and time passes before the contact reaches the wait activity, or if the attribute value is missing, the contact immediately proceeds to the next activity.

Wait Until Chat Response

Use the Wait Until Chat Response activity to hold contacts until they respond to an outbound message or the maximum wait time you configure expires. If contacts don’t respond with a keyword before the maximum wait time expires, they exit the wait activity and continue along the no response journey path.

Wait Until API Event

Use the Wait Until API Event activity to allow an external event to trigger an action mid-journey. Configure the activity to hold contacts until an event, such as a purchase, occurs before moving to the next activity in a journey. You can also create customized experiences for contacts who don’t take the specified action within a defined timeframe.
Evaluate Goal and Exit Criteria during Wait Activities

If you configure a goal for the journey, Journey Builder evaluates each contact daily while they're held by the wait activity. If the contact meets the goal while in the wait, and the exit option is selected for the goal, the contact exits the journey. If the goal’s exit option isn’t selected, the contact proceeds to the next activity when the wait expires. When you configure a goal and exit criteria, contacts are evaluated against both criteria when the wait expires. If a contact meets the goal and the exit criteria, the goal is evaluated first. This order of operations ensures that if the contact met the goal during the wait, the journey records goal statistics accurately.

Configure a Wait by Duration Activity
Follow these steps to configure a Wait by Duration Activity in Journey Builder.

Configure a Wait Until Date Activity
Follow these steps to configure a Wait Until Date activity in Journey Builder.

Configure a Wait by Attribute Activity
Follow these steps to configure a Wait by Attribute activity in Journey Builder.

Configure a Wait Until Chat Response Activity
Follow these steps to configure a Wait Until Chat Response activity in Journey Builder.

Configure a Wait Until Event Activity
Follow these steps to configure a Wait Until API Event activity in Journey Builder. This feature uses the same API events configured for journey entry events.

Configure a Wait Until Push Engagement Activity
Orchestrate a journey and react in real time based on whether the contact opens a push notification within a certain time frame. If the engagement doesn’t occur within the predefined time frame, you can send the contact on an alternate path.

Configure a Wait by Duration Activity
Follow these steps to configure a Wait by Duration Activity in Journey Builder.

Note: By default, one Wait by Duration activity is on the canvas and configured to a duration of 1 day.

1. If necessary, drag the Wait by Duration activity onto the canvas.
2. Click the activity.
3. Set the duration.
   
   Note: The maximum duration is 5 years.

4. To specify an end time, select Extend wait duration until specific time. Then choose the time and time zone.
5. Click Done.

Example: Northern Trail Outfitters (NTO) previously set up a journey to send messages to customers who buy shoes from their company. Every time a customer purchases a pair of shoes online, NTO sends them a confirmation message. Then NTO sends another message to follow up on the order and ask the customer to complete a review 3 days later. In the journey’s second version, NTO wants to ensure that the product review message is sent after 9:00 AM.

After creating another version of the Shoe Sales Email Series journey, the marketer edits the Wait By Duration activity that follows the Purchase Confirmation email. Then the marketer adds an end time of 9:00 AM and sets the time zone to (GMT-05:00) Eastern Time (US and Canada). Then the marketer configures the rest of the journey and clicks Activate.
• In scenario one, a customer enters the Wait By Duration activity on Monday at 8:00 AM. The wait duration is observed, which equates to Thursday at 8:00 AM. The wait then ends on the next instance of 9:00 AM, which is Thursday at 9:00 AM, at which point the contact proceeds to the next activity.

• In scenario two, a customer enters the Wait By Duration activity on Monday at 9:30 AM. The wait duration is observed, which equates to Thursday at 9:30 AM. The wait then ends on the next instance of 9:00 AM, which is Friday at 9:00 AM, at which point the contact proceeds to the next activity.

SEE ALSO:
Configure a Wait Until Date Activity
Configure a Wait by Attribute Activity

Configure a Wait Until Date Activity
Follow these steps to configure a Wait Until Date activity in Journey Builder.

1. Drag the Wait Until Date activity onto the canvas.
2. Click the activity.
3. To select a date for the wait to end, click the calendar.
   
   Note: You can’t select the current date. To set a wait time for the current date, use the Wait by Duration activity.

4. Select the time from the dropdown.
5. Select a time zone from the dropdown.
6. Click Done.

SEE ALSO:
Configure a Wait by Duration Activity

Configure a Wait by Attribute Activity
Follow these steps to configure a Wait by Attribute activity in Journey Builder.

Note: If the attribute is part of contact data, it can be continually updated and appended. Depending on the journey’s entry settings, contacts sometimes continue in the journey when new data is added to the data extension. When new data is added, the wait activity’s duration doesn’t change based on the new data. The wait time is determined at the moment the contact reaches the wait activity. To allow contacts to proceed based only on the attribute’s value when the contact entered the journey, use the attribute in journey data.

1. Drag the Wait By Attribute activity onto the canvas.
2. Click the activity.
3. Click Select Attribute.
4. To select the attribute, use the search box, or manually navigate to it in the attribute library.
5. Click Summary.
6. To set the wait interval, click Edit.
7. Set the duration and time zone.
8. To specify an end time, select **Extend wait duration until specific time.** Then choose the time and time zone. The time zone set in User Preferences for the user configuring the activity becomes the default time zone.

9. Click **Summary.**

10. Click **Done.**

**Example:** Northern Trail Outfitters is hosting in-store fishing seminars for new anglers. The seminars happen three times per week. A customer can sign up for a seminar up to 5 days in advance. NTO wants to send a confirmation message at the time of registration, then wait until 3 days before the event to send a reminder.

NTO’s marketer adds a Wait By Attribute activity to the journey. To select the attribute from the contact as they’re admitted into the journey, the marketer goes to Journey Data | Entry: Fishing Seminars and selects SeminarDate. In Wait Interval, the marketer configures the wait to 3 days before. To ensure that messages are sent at a specific time, the marketer sets the end time to 9:00 AM and the time zone to (GMT-05:00) Eastern Time (US & Canada).

**SEE ALSO:**
- Configure a Wait by Duration Activity
- Configure a Wait Until Date Activity

**Configure a Wait Until Chat Response Activity**

Follow these steps to configure a Wait Until Chat Response activity in Journey Builder.

**Note:** A chat message activity must appear in the journey immediately before this wait activity.

1. Drag the Wait Until Date activity onto the canvas.

2. Click the activity.

3. Click **Select.**

4. Choose the channel to use from the dropdown.

**Important:** Use the same channel used in the chat message activity.

5. Click the Keywords tab.

6. Choose up to 10 keywords.

**Note:** You can use the same keyword in multiple Wait Until Chat Response activities. A contact can be in multiple Wait Until Chat Response activities that are listening for the same keyword. In this case, if the contact responds with the keyword, the contact moves into the next activity following the wait most recently entered. The contact takes the No Response path for any other Wait Until Chat Response activity.

7. Click the Maximum Duration tab.

8. Set the maximum wait length in the number of days, weeks, or months.

9. Click **Summary.**

10. Click **Done.**

**SEE ALSO:**
- Wait Activities in Journey Builder
- Marketing Cloud WhatsApp Chat Messaging
Configure a Wait Until Event Activity

Follow these steps to configure a Wait Until API Event activity in Journey Builder. This feature uses the same API events configured for journey entry events.

1. Drag the Wait Until API Event activity onto the canvas.
   
   Note: The system adds a no-event path to the canvas for contacts who don’t respond.

2. Click to open the wait activity.

3. Select an API event or create one.

4. Click the Filter Criteria tab and set the filter criteria.

   Note: You can use Contact data or journey event data for the filter. Journey event data is the data related to the API event you chose rather than the journey’s entry source.

5. Click Done.

6. Click the Maximum Wait Duration tab and set the maximum number of hours or days contacts are held in this activity before taking the no-event path.

7. Click Summary and review your settings.

8. Click Done.

   Tip: Don’t forget to configure the no-event path. You can re-engage customers or have them exit the journey.

SEE ALSO:

Create a Filter
Journey and Contact Data
Admit Contacts Via API
API Event Entry Source Use Case

Configure a Wait Until Push Engagement Activity

Orchestrate a journey and react in real time based on whether the contact opens a push notification within a certain time frame. If the engagement doesn’t occur within the predefined time frame, you can send the contact on an alternate path.

1. Create a push notification in Journey Builder, or configure an existing Content Builder push notification.

2. Drag the Wait Until Push Engagement Event activity onto the journey canvas immediately after your configured Push Notification activity.

3. Click the Wait Until Push Engagement Event activity.

4. Click Edit in the Maximum Wait Duration tab.

5. Select your duration.

   Note: Select a wait duration of up to 7 days or 168 hours. If the engagement event doesn’t occur within this time frame, the contact follows the No Event path.

6. To review your configuration, click Summary.

7. Click Done.

8. Configure the rest of your journey, and then click Activate.
Journey Builder Split and Join Activities

Journey Builder’s split activities allow you to customize a contact’s path through a journey. The join activity allows you to bring contacts from two or more paths into a single path.

Engagement Split: Determines a contact’s journey path based on their interaction with your message, such as opens or clicks.

**Example:** A marketer at Northern Trust Outfitters (NTO) wants to send a holiday coupon offer message to NTO customers. The marketer intends to send an email message when customers enter the journey and measure engagement. Then the marketer wants to send another email to customers who don’t open the first one. To ensure that all customers in the journey get the message, the marketer uses an engagement split activity.

Decision Split: Determines a contact’s journey path based on their data attributes. For instance, to customize the experience for silver, gold, and platinum-level customers, you can use a decision split.

**Example:** A marketer for a healthcare provider prepares a journey for its patients in three different US states. The healthcare provider sends different messages to patients depending on their state of residence. The healthcare provider uses a data extension that contains user information for all users in the tri-state area as its entry source. The marketer creates a separate data extension called StateOfResidence that includes only contact ID and state of residence for each contact.

Random Split: Selects the journey path for each contact randomly. You determine the percentage of contacts assigned to each path.

**Example:** A regional grocer wants to encourage more customers to subscribe to their weekly specials email messages. As an incentive, their marketer creates a campaign to send $10 off certificates to 20% of new subscribers during the month of June. They create two versions of their subscription confirmation message; one with the certificate and one without. Then they create a journey that includes a random split. They configure the split so that 80% of contacts receive the confirmation messages without a certificate and 20% receive the certificate.

Einstein Scoring Split: Customize contact’s journey based on specific engagement levels or personas. For more information, see the Einstein Engagement Scoring Personas help page.

Einstein Frequency Split: Segments contacts automatically, then sends each contact on a split path based on the engagement frequency that’s individualized for them.

Join Activity: Merge contacts from two or more paths into a single path.

**Configure an Engagement Split**
Journey Builder’s Engagement Split activity sends contacts down a Yes or No path based on whether they open or click a link in an email or the email bounces.

**Configure a Decision Split**
Journey Builder’s Decision Split activity evaluates contact journey data, then sends each contact down a path based on the filter criteria you set. The paths in a decision split are evaluated in succession from top to bottom. Contacts who meet more than one set of criteria for a path follow the path they qualify for first. Contacts that don’t meet conditions to follow one of the paths you configure follow the Remainder path.

**Configure a Random Split**
Journey Builder’s Random Split activity divides contacts in the journey into random groups. Contacts are grouped in up to 10 configurable paths that you create. As each contact reaches the activity, the contact is assigned a path at random based on the distribution that you select.

**Configure Einstein Scoring Splits**
Use the Einstein Scoring Split activity in Journey Builder to segment customers into logical split paths according to prebuilt Einstein personas. Each persona is built on engagement score segments.
Configure a Join Activity
Use Journey Builder’s Join activity to bring contacts from two or more paths into a single path.

Configure a Frequency Split
Journey Builder’s Frequency Split activity sends each contact down a path based on their individual engagement frequency. Real-time engagement analysis enables Einstein to automatically segment contacts, even in a running journey.

SEE ALSO:
Einstein Engagement Scoring Personas

Configure an Engagement Split
Journey Builder’s Engagement Split activity sends contacts down a Yes or No path based on whether they open or click a link in an email or the email bounces.

To use an Engagement Split, enable the tracking feature for your email message. At least one message activity must occur before an Engagement Split. To allow the system time to track engagement for all preceding messages, a wait activity must occur between the last message and the Engagement Split.

**Note:** Mailto links aren’t supported. When you track clicks, all message links, engagement results include clicks that unsubscribe or update profile links.

1. Drag the engagement split activity onto the canvas.
   At least one email activity must precede the split.
2. Click the activity.
3. To configure the engagement split, select an email message to monitor.
   Journey Builder lists all applicable messages in activities that come before the engagement split in the journey.
4. Click **Message Metrics**
5. To send contacts down the Yes branch, choose the criteria.
   Choosing the criteria enables you to track opens and clicks for the first email. This action also enables email tracking at multiples places in a journey and where contacts can reenter a journey.
6. Click **Summary**.
7. Click **Done**.
8. To view Yes and No paths, hover over the path beneath the configured activity.
   **Tip:** After configuration, you can hover over the activity to view details.

SEE ALSO:
Get Started with Content Builder

Configure a Decision Split
Journey Builder’s Decision Split activity evaluates contact journey data, then sends each contact down a path based on the filter criteria you set. The paths in a decision split are evaluated in succession from top to bottom. Contacts who meet more than one set of criteria for a path follow the path they qualify for first. Contacts that don’t meet conditions to follow one of the paths you configure follow the Remainder path.
You can use either a sendable or non-sendable data extension in a Decision Split activity. For more information, see Connect the Data Extension for a Decision Split.

Tip: To help you decide where and how to store data to use in decision splits, see Journey and Contact Data.

1. Drag the Decision Split activity onto the canvas.

2. To enter a name, click .
   
   Tip: We recommend that you use a name that describes its purpose.

3. Click the activity.

4. To configure the first path, click Edit.

5. Select Contact Data or Journey Data.

6. To configure a filter, click to narrow the attribute selection.

7. Drag the attributes to use into the filter.

8. To set the filter criteria, click next to an attribute.

9. Click Done.

10. After you set all filter criteria, click Summary.

11. To configure more paths, click Add Path, and repeat steps 4 through 10.

   Note: You can create up to 20 paths.

12. Click Done.

13. Configure the remaining activities for each path.

Example: A marketer sets up a decision split to divide Active Subscribers, Lapsed Subscribers, and Subscribers with an Abandoned Cart Transaction. The goal of the split is to separate customers and subscribers who are actively engaged with the brand from the customers who aren’t. Apart from these two cohorts, the marketer wants to send messages to any customer with an Abandoned Cart transaction. This setup evaluates each contact for active subscribers first, lapsed subscribers second, and then for any subscriber who abandoned a purchase.

Connect a Data Extension for Decision Splits
To use data that isn’t in the entry source or that changes in a Decision Split in Journey Builder, follow these steps to link a data extension in Contact Builder.

Use Restricted Values
To control the values available to select in the filter expression, an admin can use restricted values. Users who build the filter expression can choose from designated values only, not a default or blank value. In practice, restricted values are created in Contact Builder. Then when a user creates a journey, the dropdown menu used to set the attribute value displays a list of preselected values only.

Copy a Decision Split Path
To save time, you can copy decision split paths in Journey Builder. After you make a copy, edit the attribute values to make it distinct from other paths. You can’t activate a journey when two decision split paths are configured identically.
Reorder Decision Split Paths
Journey Builder evaluates contacts that reach a Decision Split activity against the split’s filter criteria in succession from top to bottom on the canvas. You can change the order of the paths.

SEE ALSO:
- Linked Data Extensions in Journey Builder
- Journey and Contact Data
- Connect a Data Extension for Decision Splits

Connect a Data Extension for Decision Splits
To use data that isn't in the entry source or that changes in a Decision Split in Journey Builder, follow these steps to link a data extension in Contact Builder.

To learn more about how and when to use contact or journey data in a Decision Split, see Journey and Contact Data in Decision Splits.

1. Navigate to Contact Builder.
2. On the Data Designer tab, click Create Attribute Group.
3. Name the group Prioritization.
4. Click Create.
5. Click Link Data Extensions.
6. In the Select Data Extension section, navigate to Journey Builder Contacts.
7. Click Journey Builder Contacts.
8. Set the data relationship to match your data requirements.
   For more information, see Use Linked Data Extensions in Journey Builder.
9. Deselect Use as root.
10. In the Customer Data section, click Contact Key.
11. In the Journey Builder Contacts section, click SubscriberKey.
12. Save your changes.
13. Click the link tab next to the new attribute set.
14. In the Select Data Extension section, navigate to Journey Builder Prioritization.
15. Click Journey Builder Prioritization.
16. In the Journey Builder Contacts section, click SubscriberKey.
17. In the Journey Builder Prioritization section, click SubscriberKey.
18. Save your work.

Prioritization Example: Update Entry Event
In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

Prioritization Example: Update the Abandoned Cart Journey
In this decision split prioritization example, Journey Builder updates the entry events for an abandoned cart journey.
Prioritization Example: Update the Reengagement Journey
In this decision split prioritization example, Journey Builder updates the entry events for a re-engagement journey.

SEE ALSO:
- Journey and Contact Data
- Configure a Decision Split

Prioritization Example: Update Entry Event
In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for a post-purchase confirmation and follow-up journey.

1. In Journey Builder, open the journey named Post Purchase Confirmation and Follow-Up.
2. In the running version, click New Draft.
3. Click Event.
4. Click Back.
5. Under Data Extensions, select Journey Builder Prioritization, then click Next.
6. In the Attributes pane, navigate to Journey Builder Prioritization.
7. Find the PostPurchase attribute.
8. Confirm that the expression reads PostPurchase is True, then click Next.
9. Schedule the event, then click Next.
10. Review the configuration settings and click Done.
11. Save your changes.
12. Click Activate.

Prioritization Example: Update the Abandoned Cart Journey
In this decision split prioritization example, Journey Builder updates the entry events for an abandoned cart journey.

The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for an abandoned cart journey.

1. In Journey Builder, open the journey named Abandoned Cart.
2. In the running version, click New Draft.
3. Hover over the entry event.
4. Click Remove Entry.
5. Click Delete.
6. Click Configure Event.
7. Click New Event.
8. Select Contact Event then click Next.
9. Under Data Extensions, select Journey Builder Prioritization, then click Next.
10. In the Attributes pane, navigate to Journey Builder Prioritization.
11. Find the AbandonedCart attribute.
12. Confirm that the expression reads AbandonedCart is True and click **Next**.
13. Schedule the event, then click **Next**.
14. Review the configuration settings.
15. Click **Done**, then Save your changes.
16. Click **Activate**.

Prioritization Example: Update the Reengagement Journey

In this decision split prioritization example, Journey Builder updates the entry events for a re-engagement journey.

The marketing manager at Northern Trails Outfitters follows these steps to configure a prioritized entry event for a re-engagement journey.

1. In Journey Builder, open the journey named Re-Engagement.
2. In the running version, click **New Draft**.
3. Hover over the entry event.
4. Click **Remove Entry**.
5. Click **Delete**.
6. Click **Configure Event**.
7. Click **Event**.
8. Select **Contact Event**, then click **Next**.
9. Under Data Extensions, select Journey Builder Prioritization, then click **Next**.
10. In the Attributes pane, navigate to Journey Builder Prioritization.
11. Find the Re-engagement attribute.
12. Configure the expression to read Re-engagement is True, then click **Next**.
13. Schedule the event as desired, then click **Next**.
14. Review the configuration settings, then click **Done**.
15. Save your changes.
16. Click **Activate**.

Use Restricted Values

To control the values available to select in the filter expression, an admin can use restricted values. Users who build the filter expression can choose from designated values only, not a default or blank value. In practice, restricted values are created in Contact Builder. Then when a user creates a journey, the dropdown menu used to set the attribute value displays a list of preselected values only.
Note: Contact Builder doesn't limit data that is accepted into data extensions according to data type. Not all records in a data extension meet a data value condition set when setting restricted values. Contacts that don't meet restricted values conditions are sent down the Remainder path.

SEE ALSO:
- Get Started with Contact Builder
- Data Designer in Contact Builder
- Create an Attribute

Copy a Decision Split Path
To save time, you can copy decision split paths in Journey Builder. After you make a copy, edit the attribute values to make it distinct from other paths. You can’t activate a journey when two decision split paths are configured identically.

1. Click the activity on the canvas.
2. Click Edit.
3. To copy a path, click Copy.
4. To make it distinct from other paths, change the configuration of the path’s activities.
5. Click Done.

Note: The Done button is disabled until all paths in the split are unique.

Example: A marketer wants to send targeted communications to military service members based on their branch affiliation. The marketer uses a data extension that includes a contact attribute that contains each branch of the military. When configuring the split, the marketer drags the Military Branches attribute into the filter expression. In this example, the marketer standardized the list of values available in the dropdown menu by configuring restricted values. So the marketer selects Army and configures the rest of the path. After configuring the first path, the marketer follows the steps to make a copy and configure it for the Navy. Then the marketer repeats the process to configure paths for the other branches of the military.

Reorder Decision Split Paths
Journey Builder evaluates contacts that reach a Decision Split activity against the split’s filter criteria in succession from top to bottom on the canvas. You can change the order of the paths.

1. Click the split activity.
2. Click Edit.
3. To change the order of a Decision Split’s paths, click a path, and drag it into the desired position in the succession.

Note: If the path you moved was named, it keeps its name. If the path you moved wasn’t named, it takes the name of the path it replaced.

Example: After configuring a Decision Split, a marketer realizes that subscribers who abandoned a purchase could also meet the criteria for Active Subscribers or Lapsed Subscribers. The current configuration would separate these subscribers regardless of whether they meet the criteria for Abandoned Cart. The marketer decides to move the Abandoned Cart path to the first position in the split. The marketer follows these steps to reorganize the split. As a result, contacts are evaluated according to the value in the Abandoned Cart attribute first, then for Active Subscriber and Lapsed Subscriber attribute values. This evaluation lets the marketer send targeted communication to subscribers who abandoned a purchase regardless of the subscribers’ status.
Configure a Random Split

Journey Builder’s Random Split activity divides contacts in the journey into random groups. Contacts are grouped in up to 10 configurable paths that you create. As each contact reaches the activity, the contact is assigned a path at random based on the distribution that you select.

Each path is populated randomly, so its distribution of contacts often doesn’t match the configured percentage exactly. As contacts proceed through the activity, each path’s population gradually comes closer to its configured distribution percentage.

1. Drag the random split activity onto the journey canvas.
2. Add up to 10 paths.
   By default, the activity shows two paths.
3. Use the slider to set the contact distribution percentage for each path.
   To ensure that the sum of all paths equals 100, Journey Builder adjusts the values that you enter.
4. Click Done.

Example: To test new creative content in Northern Trail Outfitters’ (NTO) email messaging, a marketer adds a random split activity with three paths to a journey. The marketer sets up two paths to use as test groups and sets distribution for the first path at 20%. This path includes an email activity with the new creative content. The remaining 80% of contacts follow the second path, which includes an email activity with existing content.

When a contact reaches the random split activity, that contact has a 20% chance of being assigned to one of the 10% paths. The same contact has an 80% chance of following the remainder path. After numerous contacts enter the journey, the marketer uses journey analytics to understand which path contains creative content that drives greater sales.

Configure Einstein Scoring Splits

Use the Einstein Scoring Split activity in Journey Builder to segment customers into logical split paths according to prebuilt Einstein personas. Each persona is built on engagement score segments.

When you choose not to add all paths, Journey Builder adds a remainder path for contacts that don’t belong in the split paths you add. Rename the activity and change the path types as desired.

1. Drag the Scoring Split activity onto the canvas.
2. Click the activity.
3. Select a channel according to the type of message activity that you plan to use.
4. Select a split option.
5. Click Next.
6. Click Add Path for each segment you want to include as a path in the journey. To remove a path that you added, click Delete.

Configure a Join Activity

Use Journey Builder’s Join activity to bring contacts from two or more paths into a single path.

1. Drag the activity endpoint to the point on the destination path where contacts join it.
   To indicate where path contacts come from and which path they’re joining, the join activity is represented by its original path and destination path.

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Note: Multiple join activity endpoints can be dragged to the same point on a destination path. Or drag the join activity endpoint to a different point on this or another destination path according to the journey’s purpose.

2. To name the activity, hover over it, and enter a name.

3. To remove a single join activity from a destination path, hover over the activity on its original path, and click ✏.

4. Hover over the point on the destination path where multiple join activities meet to remove multiple joins.

5. Select the paths you want to disconnect and confirm.

6. Hover over the point on the destination path where multiple joins meet. Then click Delete.

Configure a Frequency Split

Journey Builder's Frequency Split activity sends each contact down a path based on their individual engagement frequency. Real-time engagement analysis enables Einstein to automatically segment contacts, even in a running journey.

When a contact lacks enough engagement history for Einstein’s model, the contact follows the On Target path. A remainder path is included if you don’t add all paths. When you add the On Target, Undersaturated, and Saturated paths, there’s no remainder path. When you add all paths, there’s no remainder path.

1. Drag the Frequency Split activity to a place on the canvas where you want Einstein to segment your audience.

2. Click the activity.

3. Select the channel you’re sending from.
   a. When you select a mobile channel, select the app that you’re sending from.

4. To configure the split, click Add Path next to each of the segment paths to include.
   a. When you add the Almost Saturated path, select the appropriate saturation limit that indicates which contacts on this path reached saturation.

5. Click Done.

To view your configured paths, hover over the split activity or any path. To update the activity's configuration, stop the journey, then add or remove a path. When you remove a path, all activities on the path are removed, too.

View Frequency Split Analytics

Einstein Engagement Frequency’s activity-level analytics in Journey Builder show how many contacts were evaluated after reaching the activity, and which paths those contacts took in the journey.

SEE ALSO:

Einstein Engagement Frequency
The Einstein Engagement Frequency Dashboard

View Frequency Split Analytics

Einstein Engagement Frequency’s activity-level analytics in Journey Builder show how many contacts were evaluated after reaching the activity, and which paths those contacts took in the journey.

When one or more contacts have insufficient data for Einstein to assign a frequency score, Einstein assigns the score according to global model data. When a contact is assigned a score according to global model data, a No appears in the Personalized column. In this case, activity-level analytics sometimes don’t match analytics on the Einstein Engagement Frequency dashboard.
When the Frequency Split is used in a Single Send Journey, only two paths appear.

1. In Journey Builder, open an active journey, and click a Frequency Split activity.
   The analytics drawer opens.

2. To see a list of all contacts that reached the activity, when, and which contacts were assigned a personalized path, click View Details.

3. To access a summary view, select Activity Summary.

SEE ALSO:
- The Einstein Engagement Frequency Dashboard

**Einstein Send Time Optimization for Journey Builder**

Marketing Cloud Einstein Send Time Optimization (STO) uses machine learning and 90 days of email or push notification engagement data to determine the best time within the next 24 hours to send a message to each contact. Include the Einstein STO activity in a journey immediately before an email or push notification activity to reach contacts when they’re most likely to engage. Or preview Einstein’s optimal send times for a data extension before you send.

Einstein Send Time Optimization helps marketers increase engagement with email or mobile messages. The Einstein STO Journey Builder activity can send email or push notifications to each contact at the time when that contact is most likely to engage with the message.

**How Send Time Optimization Works**

Einstein gathers data for approximately 20 factors. Factors include engagement metrics such as the number of messages sent to and opened by a contact and the day of the week the message is opened. Then, using machine learning, Einstein assigns a weight to each factor according to that factor’s influence on predicting future engagement behavior. Einstein analyzes this data and assigns a likelihood score to each of the 168 hours in a week for each contact. Send Time Optimization uses this information to recommend the send times that lead to increased engagement.

With Einstein Send Time Optimization you can preview the best send times for a data extension that you plan to use for sending. Einstein analyzes a sample of the total number of contacts to identify the best send times for those contacts. Navigate to the Einstein Overview to preview send times for a data extension.

This feature is available to customers with Marketing Cloud Einstein terms for Corporate, Enterprise, or Pro edition accounts with the Journey Builder add-on. To use this activity, activate Einstein Send Time Optimization for your business unit.

SEE ALSO:
- Activate Einstein Send Time Optimization
- The Einstein Send Time Optimization Dashboard

**Einstein Send Time Optimization Use Cases**

Focus on increasing overall engagement, measure the impact of send time optimization, and optimize send times when there’s a wait activity between messages.

**Optimize the Send Time of Each Message in a Journey**

To increase overall engagement for a journey, add the Einstein Send Time Optimization (STO) activity before each email and push notification activity. The STO activity assigns the best hour to send based on individualized analysis. Each message is sent to each contact in the journey at the hour within the next 24 hours that when the contact is most likely to engage with it.
For example, a marketer named Alex sets up a journey with one email message containing a coupon offer for new customers. When customers make an online purchase and opt in to receive offers from Alex’s company, completing the transaction enters each customer in Alex’s journey.

The first customer enters the journey Monday evening at 8:34 PM after purchasing and opting in. Einstein Send Time Optimization’s analysis determines that the customer is most likely to engage with email messages from 4:00–4:59 PM. So, the journey sends this customer Alex’s coupon offer email at 4:00 PM on Tuesday, the day after the customer opted in.

A second customer enters the journey at 10:07 PM on Monday night. Einstein STO determines that the customer is most likely to engage with email messages from 10:00–10:59 PM. Because the customer reached the activity during the same hour Einstein identifies as best for sending, Einstein chooses the next best hour to send to this customer. STO analysis shows the next best hour as 7:00 AM. Thus, the journey sends the coupon to this customer at 7:00 AM on Tuesday morning.

A third customer enters the journey at 10:12 PM on Monday night. Einstein STO analysis shows that this customer is most likely to engage with push notifications from 11:00–11:59 PM. So, the journey sends the coupon offer to this customer via push message at 11:00 PM the same night. Einstein doesn’t send the message at 11:12 PM—exactly one hour after the contact entered the journey—because Einstein STO sends always occur at the beginning of the best scoring hour for each customer.

Add a Random Split Activity to Measure Impact

To measure the impact of send time optimization, add the Einstein Send Time Optimization (STO) activity after a random split activity in a journey. Send more contacts down the Einstein-optimized path in your next journey, or in a subsequent version of this journey. For example, the split in a marketer’s journey directs half the contacts in the journey to a path where a wait activity precedes an email activity. The split directs the other half to a branch where the Einstein STO activity precedes an email activity. The marketer later checks the engagement rate for each email activity and compares them.

Combine with a Wait Activity

To optimize send times when there’s a minimum one-day wait between email messages in a customer journey, combine a wait activity and the Einstein STO activity.

Northern Trails Outfitters (NTO) marketing manager, Lisa, wants to optimize customer engagement for a welcome campaign. After customers subscribe to the NTO newsletter, they receive a series of three emails that set expectations and highlight the benefits of subscribing. Before the second and third messages, Lisa has included a wait activity that instructs the system to wait two days before sending the next message. To ensure that an email is sent to each subscriber when that subscriber is most likely to engage with it, Lisa adds the Einstein STO activity between the wait activity and email activity for the second and third messages.

A customer named Alice and a customer named Bjorn both subscribe to the newsletter on a Tuesday. They each receive the initial welcome message within a few minutes. Remember, the journey doesn’t include an Einstein STO activity before this message. So the message sends when Alice and Bjorn reach the first email activity in the journey. The second message is scheduled to send on Thursday. Based on Alice’s individual subscriber engagement behavior over the past 90 days, the journey sends the second message to Alice at 11:00 AM. Based on Bjorn’s engagement history, the journey sends the message to Bjorn at 7:00 PM.

Use the Einstein Send Time Optimization Activity

Add the Einstein Send Time Optimization (STO) activity immediately before an email or push notification activity in a customer journey to maximize the chance that recipients engage with your message. When a contact reaches the activity, Einstein finds the best upcoming hour to send, starting at the beginning of the next hour.

Tip: Add an Einstein Send Time Optimization activity before each email or push notification activity.

1. Drag the Einstein STO activity to a position immediately before the email or push notification activity you want to optimize.
2. Click the activity.
3. Select the period that Einstein optimizes send times for.
   a. To use a custom time frame, first click **Next 12 hours**, **Next 24 hours**, **Next 48 hours**, **Next 72 hours**, or **Next 7 days**.
   b. Click **Custom**.
   c. Drag the slider to set the custom time frame, which is shown on the right end of the slider.

   Note: When a contact reaches the activity, the contact is eligible to be sent your message beginning in the first minute of the next full hour. Messages are sent only at the beginning of the best hour to send, even if a contact reaches the Einstein Send Time Optimization activity later during the hour.

4. To include a control path to test your send time optimization against, use the Random Send Option.

5. Click **Done**.

**Create a Control Path with Random Send**

Find out how Einstein Send Time Optimization (STO) performs when you compare the engagement rates of random sends to optimized sends. Use the Random Send option to send to some contacts at randomized times. To use Random Send, enable Einstein STO first.

1. Drag the Einstein STO activity to a position directly before the message activity you want to optimize.

   Note: The Einstein STO activity doesn’t support the SMS activity.

2. Click the activity.

3. After configuring the sending time frame, select Randomize send times for contacts on this path.

**View Einstein STO Activity Analytics**

Get deeper insight into which Marketing Cloud contacts have exited and which contacts are waiting to exit, including their send time personalization status. Einstein Send Time Optimization (STO) activity-level analytics show how many contacts have entered, are waiting in, or have exited the activity in close to real time.

1. In Journey Builder, open an active journey, and click an Einstein STO activity. The analytics drawer opens.

2. To see a list of all contacts who have entered, are waiting in, or have exited that you can filter, click **View Details**.

3. To access a summary view you can filter, select **Activity Summary**.

SEE ALSO:
- [The Einstein Send Time Optimization Dashboard](#)
- [The Einstein Send Time Optimization Dashboard](#)

**Use the Ad Audience Activity**

Use the Ad Audience activity to build an audience in Journey Builder. To use this activity, set up Facebook Twitter, Google Adwords, or LinkedIn as destinations in Marketing Cloud Advertising Audiences Administration. This activity is available only in accounts provisioned to use Advertising Audiences.

Journeys that use the Ad Audience activity must include email addresses as the attribute in the Entry Event. Contacts in a journey that don’t include an email address can’t populate an Advertising Audience. Refresh Rate determines how often the ad audience pulls in data from Journey Builder. Refresh Rate is set to refresh as soon as possible according to how your account is provisioned.

1. Drag the Ad Audience activity onto the canvas.
2. Enter a name and description.

3. Select an advertising network and account to target.

   Tip: Use this advertising account only with the advertising network that you select here.

SEE ALSO:
   - Get Started with Advertising Audiences
   - Add Audience Activity to Journeys

The Advertising Campaign Activity

Create an Advertising Audience and a simple Facebook advertising campaign without leaving Journey Builder. Extend the reach of your email marketing and keep your brand top of mind by targeting your email subscribers with Facebook advertisements.

The Advertising Campaign activity creates an advertising campaign and posts your advertising content on social media. You configure the creative elements of your advertisement and set campaign specifications, including total and daily advertising spend settings, within Journey Builder. When you activate the journey, it creates an advertising campaign, too. As the journey continues, customers populate the advertising campaign and see your advertisement.

The activity includes a setup assistant to help you link Advertising Studio to Journey Builder. You can also set a Retention Period for campaign members to prevent oversaturating their social media feeds with your advertisement.

Note: The Advertising Campaigns activity supports Facebook only. The Advertising Audience activity supports multiple social networks.

Considerations

- To access this activity, enable Advertising Studio and Journey Builder in your Marketing Cloud account. Contact your account representative if your account does not include access to this feature.
- How often your advertisement displays on social media sites depends on many factors, such as your campaign budget and the size of your audience.
- Campaigns built using this activity optimize toward daily unique reach.
- Edit the activity any time before journey activation. The campaign does not begin until the journey is active.
- To edit the activity while a journey is in progress, create a new journey version. You can adjust settings such as campaign name and budget, but you can’t modify campaign creative in Journey Builder.
- To increase reach for smaller audiences, a larger advertising spend can be necessary. When there are more people in an audience, there is a greater chance that the advertisement is delivered to audience members in their newsfeeds.

SEE ALSO:
   - Create a Journey Builder Advertising Campaign
   - Add Audience Activity to Journeys

Update a Contact

Update or modify a Marketing Cloud contact record in Journey Builder using the update contact activity.
Use the update contact activity to modify a contact attribute value when a contact reaches this activity in a journey. You choose a sendable data extension and set a static value that overwrites this value for each contact that reaches the activity. Date attributes provide the option to use the current time in Central Standard Time.

**Note:** This activity does not observe Daylight Savings Time.

**Note:** If no rows for the associated Contact Key exist, a new row is added. If there are one or more existing rows for the associated Contact Key, existing rows are updated and no new rows are added.

1. Drag the activity onto the canvas.
2. Click the activity.
3. Click Select Data Extension.
   
   **Note:** Selecting the same data extension that the journey's entry source uses is not recommended.

4. Select the data extension that contains the attribute that the journey modifies.
5. Click Attribute Value.
6. Select the attribute to modify.
   
   The data extension’s attributes are prepopulated in the dropdown menu.

   **Note:** When a data extension has only a single field that is used as the primary key, you can’t modify it.

7. Add the static value or select the date if the attribute is date-based.
   
   a. To apply a timestamp at the time each contact reaches the activity, select Use current time for date-based attributes.

      **Note:** This activity does not observe Daylight Savings Time. Selecting Use current time adds the current time in Central Standard Time.

8. Add up to five attributes to update.
9. Click Summary.
10. Click Done.

**Update Contact Activity Use Cases**
Review two common use cases for the Update Contact activity in Journey Builder.

**NTO Loyalty Level Updates**
NTO wants to reward customers who stick with them through the years. To set up a rewards program, NTO gives each customer a loyalty level: bronze, silver, or gold. After each customer’s first purchase, their loyalty level attribute is empty. Customers who remain in NTO’s rewards program for one year without opting out are automatically upgraded to bronze status using the update contact activity.
To update each customer’s loyalty program level, NTO configures their customer journey by placing an update contact activity after a Wait Until Attribute activity. NTO sets the Wait Until Attribute activity to use a Date-Based Attribute and selects the JoinDate attribute. NTO then sets the wait interval as 12 months after each contact’s join date.

After setting up the Wait Until Attribute activity, NTO selects the CustomerLoyalty data extension in the update contact activity. NTO selects the Loyalty attribute from the CustomerLoyalty data extension and types in Bronze as the value to add. The Loyalty attribute is thus updated one year after a customer makes a purchase.

Vaccination Status Updates

A healthcare provider tracks each patient’s vaccine status for each year. Patients enter a new care journey each year, which kicks off when their first appointment ends. When a patient has their first appointment of the year, the provider typically vaccinates the patient.

As the healthcare provider’s marketer builds the annual journey, they choose a data extension that includes information about each patient as their entry source. This data extension is linked to an Appointments data extension that includes a LastAppointment attribute and a VaccinationDate attribute. Patients are admitted to the journey each year. The healthcare provider wants to update the Appointments data extension with vaccination status when each patient’s LastAppointment attribute value equals today’s date.

To ensure that each patient’s vaccination status is kept up to date, the marketer places an update contact activity first in the journey. In the activity, the marketer selects the entry source data extension, then chooses the VaccinationDate attribute. The marketer then sets the value by selecting Use current time. As configured, this journey keeps each patient’s vaccination status up to date.

Configure the Sitecore Connect for SFMC Activity

Use the Sitecore Connect for SFMC activity to send contact status from Marketing Cloud to Sitecore as a contact moves through a journey.

1. In the Messages section of a journey sidebar, drag the Sitecore activity onto the canvas.
2. Click the activity.
3. In the Contact State field, enter a state name.
4. If the state is an exit state, check the Contact is exiting the journey box.
5. Click Save.
6. To activate the journey, click Activate.

Sales and Service Cloud Activities

Use Sales and Service Cloud canvas activities in Journey Builder to create or update Sales and Service Cloud object records for connected Marketing Cloud contacts. You can grant new users access to create or edit Sales and Service Cloud Activities, except users with the Marketing Cloud Administrator role.

Sales Cloud activities use the Salesforce SOAP API to Create, Lookup, and Update. There are three options when you configure an activity: Create, Simple Update, and Find and Update. A successful create or update stores the generated record ID as output data for the activity that you can access through Journey Data.

The activities use the same version of the Salesforce SOAP API as the Marketing Cloud Connector.

Note: Complete the steps to configure a Sales and Service Cloud activity when you copy them on the Journey Builder canvas.

Use activities to perform these actions:

- Create a lead when a Marketing Cloud contact enters a journey.
- Update a lead based on engagement within a journey.
- Create a CRM contact record when a Marketing Cloud contact reaches the activity.
- Update a CRM contact record with Marketing Cloud contact data.
- Update a custom object based on engagement within a journey.
- Create a task when another object, such as a lead or contact, enters a journey.
- Associate a case or task to an account.
- Update a task based on a contact or lead’s response in a journey.
- Update a person or business account.

### Sales and Service Cloud Activity Types

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object activity</td>
<td>Creates or updates a standard Salesforce object record, such as a lead, task, or custom object, when a contact in the journey reaches this activity. Use this activity to create or update a standard Salesforce object record, such as a lead or task, or a custom object record.</td>
</tr>
<tr>
<td>Campaign Member activity</td>
<td>Creates a connection between campaigns, contacts, and leads, which helps define a relationship to the status within a campaign. Use this activity to track important moments of engagement throughout the journey.</td>
</tr>
<tr>
<td>Convert Lead activity</td>
<td>Converts qualified leads from the Sales and Service Cloud into a contact or account. This activity schedules important actions, such as assigning a lead owner, creating an opportunity or task, and changing the lead’s conversion status.</td>
</tr>
<tr>
<td>Task activity</td>
<td>Create a task in Sales and Service Cloud for each Marketing Cloud contact that reaches this activity. For more information, see Marketing Cloud Connect.</td>
</tr>
<tr>
<td>Account Activity</td>
<td>Creates or updates an account in Sales and Service Cloud for each contact that reaches this activity. If you have a Person Account, you can create or update both Business and Person Account activities. To learn more about how to configure activities with Person Accounts, see Use Person Accounts with Sales and Service Cloud Activities.</td>
</tr>
<tr>
<td>Contact Activity</td>
<td>Creates or updates a contact from Sales or Service Cloud using Sales or Service Cloud data brought into a journey or Marketing Cloud contact data.</td>
</tr>
<tr>
<td>Case Activity</td>
<td>Creates a case and associates it to the Sales and Service Cloud contact that matches the Marketing Cloud contact’s ID. Or create a Sales and Service Cloud contact to associate to the case.</td>
</tr>
<tr>
<td>Lead Activity</td>
<td>Creates or updates a lead from Sales or Service Cloud using Sales or Service Cloud data brought into a journey or Marketing Cloud contact data.</td>
</tr>
<tr>
<td>Opportunity Activity</td>
<td>Creates an opportunity record in Sales and Service Cloud. Use Marketing Cloud contact attributes to populate the fields in the</td>
</tr>
</tbody>
</table>
opportunity record, or populate each record with fixed values you choose.

Legacy Activities

These Sales and Service Cloud canvas activities appear in old journeys but are no longer available to use in new journeys.

Account Activity in Journey Builder

Use the Account activity in the Marketing Cloud Journey Builder app to create or update an account in Sales and Service Cloud based on attribute relationships. Populate Sales and Service Cloud account fields with Marketing Cloud attributes or other values from the journey, or with fixed values you designate.

Campaign Member Activity in Journey Builder

The Campaign Member activity in Journey Builder provides a connection between campaigns, contacts, and leads. This connection helps define a relationship between the contact or lead and the status within a campaign. Use the Campaign Member activity to track important moments of engagement throughout the journey.

Contact Activity in Journey Builder

Use the Contact Activity in Marketing Cloud’s Journey Builder app to create or update a Sales and Service Cloud contact based on attribute relationships. Or populate Sales and Service Cloud contacts with values from Marketing Cloud attributes.

Convert Lead Activity

Use the Convert Lead activity in Marketing Cloud’s Journey Builder to convert qualified leads from Sales and Service Cloud into a contact or an account. Assign a lead owner and notify that person via email. Create an opportunity and task.

Object Activity in Journey Builder

Use the Object activity in Journey Builder to create or update a Sales or Service Cloud record in an object. You can also use this activity to create or update a custom object.

Task Activity

Use the Task activity to create a Sales or Service Cloud task with pre-populated field values. Connect Journey Builder and contacts, leads, and tasks. Create or update a Sales or Service Cloud task for a contact or lead that reaches this journey activity. The activity assigns tasks to the contact or lead owner, Salesforce System user, or a custom-defined user.

Sales and Service Cloud Legacy Activities in Journey Builder

These Sales and Service Cloud canvas activities appear in old journeys but are no longer available as options for new journey activities.

Best Practices for Integration Activity Fields

Sales and Service Cloud activities follow a similar configuration workflow. Consider these tips during configuration.

Sales and Service Cloud Activity Field Validation and Error Handling

Review the requirements for Sales and Service Cloud activity field values. Incorrect field values can cause activity errors in Marketing Cloud’s Journey Builder.

SEE ALSO:

Marketing Cloud Connect

Account Activity in Journey Builder

Use the Account activity in the Marketing Cloud Journey Builder app to create or update an account in Sales and Service Cloud based on attribute relationships. Populate Sales and Service Cloud account fields with Marketing Cloud attributes or other values from the journey, or with fixed values you designate.
Create an Account Activity in Journey Builder
Follow these steps to create a Sales and Service Cloud account activity in Marketing Cloud’s Journey Builder app.

1. Drag the Object activity onto the canvas and click Configure.
2. Select Create New.
3. Select fields from the Account object and assign them values. Use a static value, Marketing Cloud attributes, or fields from other Sales or Service Cloud objects in the journey.
4. Enter a name and save.

Update an Account Activity in Journey Builder
Follow these steps to update a Sales and Service Cloud account through a Journey Builder activity in Marketing Cloud.

1. Select the object to update.
2. Click Find and Update, or click Simple Update when journey data includes the object record you are updating.
   Find and Update requires that you have an Account ID in your journey or a Marketing Cloud attribute. You can also choose what happens when multiple matching records are found or when no records are found. You can use Simple Update option when there already is an Account object in the journey.
3. Map fields using a static value, Marketing Cloud attributes, or fields from other Sales or Service Cloud objects in the journey.
4. If desired, enter a name, and then save.

Campaign Member Activity in Journey Builder
The Campaign Member activity in Journey Builder provides a connection between campaigns, contacts, and leads. This connection helps define a relationship between the contact or lead and the status within a campaign. Use the Campaign Member activity to track important moments of engagement throughout the journey.

For example, a welcome campaign for a new customer uses the Campaign Member activity to update status on the contact record based on engagement splits. These splits include whether the contact clicked certain links or made a purchase.

Create a Campaign Member Activity in Journey Builder
Follow these steps to configure a campaign member activity in Marketing Cloud’s Journey Builder app.

1. Drag the Campaign Member activity onto the canvas.
2. Click Create New.
3. Select and configure the Marketing Cloud attributes or Sales or Service Cloud fields to update.
4. Enter a name and save.

**Note:** When mapping fields, you cannot edit the optional Status field until you select a Campaign ID because different campaigns can have different statuses.

Contact Activity in Journey Builder

Use the Contact Activity in Marketing Cloud’s Journey Builder app to create or update a Sales and Service Cloud contact based on attribute relationships. Or populate Sales and Service Cloud contacts with values from Marketing Cloud attributes.

**Create a Contact Activity in Journey Builder**

Create a Sales or Service Cloud contact through the Contact Activity in Marketing Cloud’s Journey Builder.

**Update a Contact Activity in Journey Builder**

Follow these steps to modify a Sales and Service Cloud Contact activity in Marketing Cloud’s Journey Builder app.

**Create a Contact Activity in Journey Builder**

Create a Sales or Service Cloud contact through the Contact Activity in Marketing Cloud’s Journey Builder.

1. Drag the Contact activity onto the canvas and click Configure.
2. Click **Create New**.
3. Map the contact object fields using a static value, Marketing Cloud attributes, or fields from other Sales or Service Cloud objects in the journey.

**Note:** Some fields are required.

4. Optionally, enter a name, and then save.

**Update a Contact Activity in Journey Builder**

Follow these steps to modify a Sales and Service Cloud Contact activity in Marketing Cloud’s Journey Builder app. Make contact information available to Marketing Cloud or the current journey so you can update it. You can then use that information in the Account Activity to find the proper object and make updates to it.

1. Open the journey and select the contact.
2. Click **Find and Update**, or click **Simple Update** when journey data includes the object record to update.
   
   Find and Update requires that you have an Account ID in your journey or a Marketing Cloud attribute. You can also choose what happens when multiple matching records are found or when no records are found. You can use Simple Update option when there is already an Account object in the journey.

3. Map the object fields using a static value, Marketing Cloud attributes, or fields from other Sales and Service Cloud objects in the journey.
4. Optionally, enter a name, and then save.

**Convert Lead Activity**

Use the Convert Lead activity in Marketing Cloud’s Journey Builder to convert qualified leads from Sales and Service Cloud into a contact or an account. Assign a lead owner and notify that person via email. Create an opportunity and task.
Note: Use this activity to convert only qualified leads. Journey Builder does not verify that leads are qualified before conversion.

Create a Convert Lead Activity
Follow these steps to configure a convert lead activity in Journey Builder.

SEE ALSO:
- Lead Conversion Field Mapping
- Considerations for Converting Leads

Create a Convert Lead Activity
Follow these steps to configure a convert lead activity in Journey Builder.

1. Drag the Convert Lead activity onto the canvas.
2. Hover over the activity and click Configure.

Note: When a Marketing Cloud contact enters the journey, Journey Builder searches the Sales and Service Cloud to find a matching lead ID. When no lead ID is found, the lead does not convert.

3. Select the owner of this lead record. To tell Journey Builder where to find the record owner, select Map user. Use the mapper to locate the user.

4. Enter an Opportunity Name.
5. Set the converted status of each lead record that Journey Builder converts.

Note: Use this activity to convert only qualified leads. Journey Builder does not verify that leads are qualified before conversion.

6. To create an account for each converted lead, choose Always Create a New Account. The Lead Company Name becomes the new account name.

7. To associate the lead to an existing account, choose Use an Existing Account.
   - When selecting Look Up By Lead Company Name, choose how Journey Builder handles multiple Lead records with the same Lead Company Name. If no records with the same Lead Company Name are found, Journey Builder creates an account.
When you select Look Up By Account ID, drag a Marketing Cloud attribute onto the Sales and Service Cloud field with a matching value in an account record field. This mapping is used to identify the correct record.

8. Click Next.

9. When you set up a task, populate only the fields that contain the same data value for each task created.

10. When populating the Subject field, use variables to create the subject dynamically. Click the Subject field to access variables.
11. Click Next and complete configuration.

Object Activity in Journey Builder

Use the Object activity in Journey Builder to create or update a Sales or Service Cloud record in an object. You can also use this activity to create or update a custom object.

For example, use the Object activity to create and update a custom policy record indicating that a customer has received the email confirmation.

Note: Make sure that custom objects are workflow-enabled so you can create or modify them with Object activity.

Considerations for Mapping Fields

- Some objects include options based on the type of field selected. For example, fields that support a user or a group include an icon that allows you to choose one of these options.
- To update the record of the person who entered the journey, choose Assign to the Person in the Journey. For example, this activity is useful when the object record type changes after journey activation, such as leads converting to contacts after entering.
- To use the output of event objects or objects created automatically, select an ID from the journey data to select from a list of these objects.
- To update the record with a Marketing Cloud attribute value, search for the attribute or locate the Marketing Cloud attribute field containing that value.
- To map a Sales Cloud Number field to a Marketing Cloud field, set up and save the Marketing Cloud Number field as a Decimal field. Or set the data type of both fields to Text.
- If you use Assignment Rules to define conditions for processing Sales or Service Cloud cases, map the Owner ID when you configure a Case Activity.

Create an Object Record

Use the Object activity in Journey Builder to create Sales and Service Cloud object records during a journey.

Update an Object Activity

Use the Object activity in Journey Builder to update Sales and Service Cloud object records that are created or updated by the journey or included in journey data.

SEE ALSO:

Set Up Assignment Rules

Create an Object Record

Use the Object activity in Journey Builder to create Sales and Service Cloud object records during a journey.

1. Drag the Object activity onto the canvas and click Configure.
2. Click Create New.
3. Select an object record field.
4. Map each object field using a Sales and Service Cloud field or Marketing Cloud attribute.

Note: Object field options vary by type.
5. Save the value for each object field.
6. Optionally, enter a name.

**Update an Object Activity**

Use the Object activity in Journey Builder to update Sales and Service Cloud object records that are created or updated by the journey or included in journey data.

1. Drag the Object activity onto the canvas and click **Configure**.
2. Select an object to update a record for in the journey.
3. Click **Find and Update**, or click **Simple Update** when journey data includes the object record you are updating.
4. Choose the lookup field used to find the specified object.
   - **Tip**: Use lookup fields only when journey data does not include the object you want to update or if the journey’s entry event creates or updates the object. The lookup field must correspond to a Marketing Cloud attribute value. If you use Simple Update, select the ID from Journey Event Data to identify the object record field.
5. Select an option for when multiple records are found or no records are identified.
6. Select an object record field to update with Marketing Cloud data.
7. Configure fields by selecting a Sales and Service Cloud field or Marketing Cloud attribute. Enter at least three letters to see a list of objects to select from or an 18-character ID to map the value manually. Some objects include options based on the type of field selected.
8. Save the value and repeat for each object field you want to populate.
9. If you don’t want to use the default activity name, enter a new name.

**Task Activity**

Use the Task activity to create a Sales or Service Cloud task with pre-populated field values. Connect Journey Builder and contacts, leads, and tasks. Create or update a Sales or Service Cloud task for a contact or lead that reaches this journey activity. The activity assigns tasks to the contact or lead owner, Salesforce System user, or a custom-defined user.

**Create a Task Activity in Journey Builder**

Configure a Sales and Service Cloud activity in Marketing Cloud’s Journey Builder app.

<table>
<thead>
<tr>
<th>Field</th>
<th>Required, Recommended, or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>Required</td>
<td>This Task field must be assigned when creating a record.</td>
</tr>
</tbody>
</table>
### Field | Required, Recommended, or Optional | Description
--- | --- | ---
Status | Required | This Task field must be assigned when creating a record.
Assigned to ID | Recommended | This field designates who to assign the task to. Selecting System User assigns the task to the Salesforce System user that is set up during the Marketing Cloud Connect integration. To map to the owner of a specific task, use the Owner ID from the event. If this field is not mapped, it defaults to the System User.
Name ID | Recommended | This field associates a task with a contact or lead. Map to the Lead ID or Contact ID to select the correct record. Map to Person in the Journey for a quick configuration.
Related to ID | Optional | This field associates a task with numerous object records such as case, account, order, or campaign.
Subject | Recommended | This field describes the task.

3. Optionally, enter a name, and then save.

### Sales and Service Cloud Legacy Activities in Journey Builder

These Sales and Service Cloud canvas activities appear in old journeys but are no longer available as options for new journey activities.

**Choose Object**

Use the Choose Object activity to create or update any type of object record in the Sales and Service Cloud. Select the object to update, then select the fields to update with Marketing Cloud attribute data.

**Add to Campaign**

Use the Add to Campaign activity to look up Campaigns in the Sales and Service Cloud and add Marketing Cloud contacts to them.

**Update the Campaign Member Activity in Journey Builder**

Use the Update Campaign activity to update a Campaign record in the Sales and Service Cloud. Also populate campaign member record fields using the campaign activity with Marketing Cloud contact attributes. You can’t use this legacy activity for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

**Contact**

Use the Contact activity to create or update a contact in the Sales and Service Cloud for each Marketing Cloud contact that reaches this activity.

**Lead**

Use the Lead activity to create or update a lead record in the Sales and Service Cloud for each contact that reaches the activity.
Case
Create a case and associate it to the Sales and Service Cloud contact that matches the Marketing Cloud contact’s ID. Or create a Sales and Service Cloud contact to associate the case to.

Task
Use the Task activity to create a new task in the Sales and Service Cloud for each Marketing Cloud contact that reaches this activity. See Marketing Cloud Connect for information about using the Sales and Service Cloud.

Opportunity
Use the Opportunity activity to create an opportunity record in the Sales and Service Cloud. Marketing Cloud contact attributes can be used to populate fields on the opportunity record. Or populate each record with fixed values you choose.

Account
Use the Account activity to create a new or update an existing account in the Sales and Service Cloud for each contact that reaches this activity.

Use Person Accounts with Sales and Service Cloud Activities
This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Choose Object
Use the Choose Object activity to create or update any type of object record in the Sales and Service Cloud. Select the object to update, then select the fields to update with Marketing Cloud attribute data.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use this activity to do the following:
- Create a Sales and Service Cloud object of any type
- Update an existing Sales and Service Cloud object
- Populate fields on the new or updated object using values from Marketing Cloud attributes
- Choose when to update Sales and Service Cloud field values

1. Drag the Choose Object activity from the canvas activities pane onto the canvas.
2. Hover over the Choose Object activity icon on the canvas.
3. To rename the activity, click Choose Object.
4. Click Configure.
5. Select an object from the dropdown. This selection is the type of object the activity creates.
   a. Use Create or Update to create a Sales and Service Cloud object if no existing Sales and Service Cloud object can be identified using Marketing Cloud attributes.
      When a Sales and Service Cloud object is identified using the Marketing Cloud attribute you designate, that Sales and Service Cloud object record is updated.
6. Use Create Only to create a Sales and Service Cloud object record for each Marketing Cloud object that reaches the activity.
7. When choosing Create or Update, select the Marketing Cloud attribute that is used to identify a Sales and Service Cloud object so the object’s record is updated.
   If a Sales and Service Cloud object record is not found, a new record is created.
8. To find the Marketing Cloud attribute to use to identify the desired Sales and Service Cloud object to update, type a value in the Search field if necessary.
9. Alternately, scroll through the attribute groups shown if necessary. Click the attribute group that contains the desired value, then scroll down to locate the value.

10. Drag the Marketing Cloud attribute whose value matches a value on your existing Sales and Service Cloud object record field and can be used to identify the correct record. Only one Marketing Cloud attribute can be mapped to a Sales and Service Cloud object record field.

11. To select the type of object record field desired, use the dropdown menu next to the Sales and Service Cloud search field.

12. Scroll down to designate what happens if more than one matching object record is found.

13. Click **Next**.

14. To locate a specific attribute, click an attribute group in the Marketing Cloud column.

15. To view the path, hover over the name of the data extension.

16. Drag a Marketing Cloud attribute to the Sales and Service Cloud account value it populates.

17. To select account record field type, use the dropdown menu next to the Sales and Service Cloud search field if necessary.

18. Use **Hide Defined Fields** to show only fields that have not been matched to a Marketing Cloud attribute if necessary.

19. Use **Set Fixed Values** when the same value is to be added to each Sales and Service Cloud account record when an object this activity creates.

   **Tip:** This mapping is visible when mapped fields are displayed—by clicking **Map Fields**—as well.

20. Choose how to update the fields mapped on the previous step.

   a. Make a selection for each mapped field.

21. Click **Next**.

22. Click **Done**.

### Add to Campaign

Use the Add to Campaign activity to look up Campaigns in the Sales and Service Cloud and add Marketing Cloud contacts to them.

Add to a Campaign is a legacy activity included in some old journeys but is no longer available as an option for new journey activities.

Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use this activity to do the following:

- Select a campaign to associate a member to
- Set the status for new campaign members

1. Drag the Add to Campaign activity from the canvas activities pane onto the canvas.

2. Hover over the Add to Campaign activity icon on the canvas.

3. To rename the activity, click **Add to Campaign**.

4. Click **Configure**.

5. Select a campaign.

   a. If the campaign is not shown, leave the campaign field blank and identify it using Campaign ID on Step 2.

6. To determine each new member’s status, choose a value from the Campaign Member Status dropdown menu.

7. If Journey Builder can’t match a contact entering the journey to a Salesforce contact, identify where a lead or contact ID is stored.
Use the first option to search within the Marketing Cloud with an ID value you already know. Type this value in the search field, or navigate through attribute groups.

Use the second option if you know which Marketing Cloud attribute contains a key value that matches a value in the Sales Cloud. Use the key value to match the contact added to the campaign with a data record in the Sales Cloud. To make this association, drag an attribute from the Marketing Cloud pane onto the Sales Cloud lookup field.

Use both options to look up an ID. Then provide an attribute field where that ID value is found when looking it up is unsuccessful.

8. Select an option under **If more than one record is found:**

9. Click **Next**.

10. To locate a specific attribute, click an attribute group in the Marketing Cloud column.

11. To view its path, hover over the name of the data extension.

12. Drag a Marketing Cloud attribute that identifies the campaign to the corresponding Sales and Service Cloud campaign value.

13. Use **Set Fixed Values** when the same value is used to identify the campaign each time.

   **Tip:** This mapping is visible when mapped fields are displayed— by clicking **Map Fields**— as well.

14. Click **Next**.

15. Click **Done**.

**Update the Campaign Member Activity in Journey Builder**

Use the Update Campaign activity to update a Campaign record in the Sales and Service Cloud. Also populate campaign member record fields using the campaign activity with Marketing Cloud contact attributes. You can’t use this legacy activity for new journey activities.

Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

1. Drag the Update Campaign activity onto the canvas.

2. Hover over the Update Campaign activity.

3. To rename the activity, click **Update Campaign** and click **Configure**.

4. If the campaign is found in the Sales and Service Cloud, select **Look Up Campaign member**.
   a. Select a campaign.
   b. To determine each new campaign member’s status, choose a value from the Campaign Member Status dropdown menu.
   c. Click **Next**.

5. If the campaign isn’t found here, select **Look Up Campaign member**.

6. Map a Marketing Cloud field that contains an ID value to the Campaign ID field in the Sales and Service Cloud then click **Next**.

7. If the campaign member is found in the Marketing Cloud, select **Use Campaign Member**.
   a. Select the attribute group that contains the desired value, then scroll down to locate the value.
   b. Click the Marketing Cloud attribute whose value matches a value on your existing Sales and Service Cloud contact record field then click **Next**.

8. Drag a Marketing Cloud attribute to the Sales and Service Cloud campaign member record value it populates.

9. To select the type of campaign member record field, use the All Types dropdown menu.

10. To show only fields not matched to a Marketing Cloud attribute, use **Hide Defined Fields**.

11. Use **Set Fixed Values** when the same value is added to each Sales and Service Cloud campaign member record.
Tip: This mapping is visible when mapped fields are displayed—by clicking Map Fields—as well.

12. Click Next and click Done.

Contact
Use the Contact activity to create or update a contact in the Sales and Service Cloud for each Marketing Cloud contact that reaches this activity.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use this activity to do the following:

• Update existing Sales and Service Cloud contacts based on Marketing Cloud attribute relationships
• Create a new Sales and Service Cloud contact for Marketing Cloud contacts that reach this activity.
• Populate Sales and Service Cloud contacts with Marketing Cloud attributes

1. Drag the Contact activity from the canvas activities pane onto the canvas.
2. Hover over the Contact activity icon on the canvas.
3. Click Contact to rename the activity.
4. Click Configure.
5. Identify and update a Sales and Service Cloud contact or create a new one.
   a. To create a new Sales and Service Cloud contact if no existing Sales and Service Cloud contact is found using Marketing Cloud attributes, use Create or Update. When a Sales and Service Cloud contact is identified using the Marketing Cloud attribute you designate, that Sales and Service Cloud contact record is updated.
   b. Use Create Only to create a Sales and Service Cloud contact record for each Marketing Cloud contact that reaches the activity.
   c. Use Update Only to update the Sales and Service Cloud contact record that is identified.
6. When choosing Update or Create or Update, the mapper works as follows. If this Marketing Cloud contact is linked to a Sales and Service Cloud contact, Journey Builder associates the opportunity to that contact. If not, Journey Builder searches the Sales and Service Cloud using the key defined here. The opportunity is associated to the contact that is found. If a Sales and Service Cloud contact record is not found, a record is created. Choose the Marketing Cloud attribute(s) that should be used to identify a Sales and Service Cloud contact.
   a. Type a value in the Search field to find the Marketing Cloud attribute to use to identify a Sales and Service Cloud contact to update.
   b. Alternately, scroll through the attribute groups shown. Click the attribute group that contains an identifying value, then scroll down to locate the value.
   c. Drag the Marketing Cloud attribute whose value identifies an existing Sales and Service Cloud contact record to the field it populates.
   d. Only one Marketing Cloud attribute can be mapped to a Sales and Service Cloud contact record field.
   e. Use the dropdown menu next to the Sales and Service Cloud search field to select the type of contact record field desired.
7. Scroll down to designate what should happen if more than one contact match is found.
   Note: If more than one Sales and Service Cloud record that matches the Marketing Cloud key is found, the selection made here dictates whether Journey Builder creates a completely new Sales and Service Cloud record or not.
8. Click Next.
9. Click Map Fields to map Marketing Cloud attributes to an existing Sales and Service Cloud field when this record is updated. Or click Set Fixed Values to select or enter values to an existing Sales and Service Cloud field that is created when this record is updated.
10. Use Map Fields to map the Marketing Cloud attribute fields that should be used to update the Sales and Service Cloud contact record with the values they contain.

   Note: A Marketing Cloud attribute must be mapped to Sales and Service Cloud record fields in the Required section.

   a. Click an attribute group in the Marketing Cloud column to locate a specific attribute.
   b. Hover over the name of the data extension to view the path.
   c. Drag a Marketing Cloud attribute to the Sales and Service Cloud contact value it populates.

11. Use the drop-down menu next to the Sales and Service Cloud search field to select the type of field desired.
12. Use Hide Defined Fields to show only fields not matched to a Marketing Cloud attribute.
13. Use Set Fixed Values if an identical fixed value should be added to each Sales and Service Cloud contact record when this activity updates or creates a contact. This mapping is visible when mapped fields are displayed by clicking Map Fields. Set identical values on each contact record.
14. Click Next.
15. Use the Set Update Options screen to choose how to update the fields mapped on the previous step.
   a. Make a selection for each mapped field.
16. Click Next.
17. Click Done.

Lead

Use the Lead activity to create or update a lead record in the Sales and Service Cloud for each contact that reaches the activity.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use this activity to do the following:

- Create a lead record
- Update an existing lead record
- Update fields on a lead record with Marketing Cloud attribute values
- Choose when to update a lead record

1. Drag the lead activity from the canvas activities pane onto the canvas.
2. Hover over the lead activity icon on the canvas.
3. To rename the activity, click Lead.
4. Click Configure.
5. Choose Create or Update, Create Only, or Update Only.

   Create or Update directs Journey Builder to search the Sales and Service Cloud for an existing lead ID that matches the contact ID for the Marketing Cloud contact. If no match is found, Journey Builder searches based on the value you supply using the mapper on this page.
   a. Map the Marketing Cloud attribute field that contains an ID that can identify existing leads in the Sales and Service Cloud.
If a Sales and Service Cloud account record is not found, a new record is created.

6. When choosing Create Only, set Assignment Rules to dictate who the lead is assigned to.

7. Update Only directs Journey Builder to search the Sales and Service Cloud for an existing lead ID that matches the contact ID for the Marketing Cloud contact. If no match is found, Journey Builder searches based on the value you supply using the mapper on this page.
   a. Map the Marketing Cloud attribute field that contains an ID that can identify existing leads in the Sales and Service Cloud. If a match still is not found, no lead is created or updated.

8. When choosing Create or Update or Update Only, scroll down to select an option for when more than one record matches the contact ID or key provided.
   Note: Create a new record is not available when using Update Only.

9. With each option, set Assignment Rules to dictate whom the lead is assigned to.

10. Click Next.

11. To locate a specific attribute, click an attribute group.
   a. To view its path, hover over the name of the data extension.

12. Drag a Marketing Cloud attribute to the Sales and Service Cloud lead value it populates.

13. Select the type of lead field desired.

14. Use Hide Defined Fields to show only fields that have not been matched to a Marketing Cloud attribute.

15. Use Set Fixed Values when the same value is added to each Sales and Service Cloud lead record when this activity creates a lead.
   Tip: This mapping is visible when mapped fields are displayed—by clicking Map Fields—as well.

16. Click Next.

17. Select all fields or, to set update options individually, select individual fields.
   a. Choose how to update the fields mapped on the previous step.
   b. Make a selection for each mapped field.

18. Click Next.

19. Click Done.

Case
Create a case and associate it to the Sales and Service Cloud contact that matches the Marketing Cloud contact’s ID. Or create a Sales and Service Cloud contact to associate the case to.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use the Case activity to do the following:
• Create a case and associate it to the Sales and Service Cloud contact that matches the Marketing Cloud contact’s ID.
• Create a Sales and Service Cloud contact to associate the case to.
• Create a case without associating it to a contact.
• Update case fields with Marketing Cloud attribute values.
• Assign new or updated cases using assignment rules.

1. Use **Create Only** to create or identify a contact to associate with the case this activity creates. Alternately, use **Update Only** to locate cases to update.

2. Choose when contacts are created, updated, or associated to a case.

3. When updating, provide a key for Journey Builder to use to identify cases to update.

4. Select Assignment Rules.

   ![Note: Assignment Rules determine how cases are assigned to users or put into queues as they are created.]

5. Click **Next**.

6. Use **Map Fields** to map Marketing Cloud attribute fields that update the Sales and Service Cloud case record with their values.

7. To map attribute values to the case record, click **Case** in the left pane.

8. To map Marketing Cloud attribute fields whose values populate the Sales and Service Cloud contact, click **Contacts** if necessary.
   a. To map fields, click an attribute group in the Marketing Cloud column to locate a specific attribute.
   b. To view its path, hover over the name of the data extension.
   c. Drag a Marketing Cloud attribute to the Sales and Service Cloud case value it populates.
   d. To select the desired field type, use the dropdown menu next to the Sales and Service Cloud search field.
   e. To show fields not matched to a Marketing Cloud attribute, select **Hide Defined Fields**.

9. Use **Set Fixed Values** when the same value is added to each Sales and Service Cloud case record when this activity creates a case.

10. To display mapped fields, click **Map Fields**.

11. Click **Next**.

12. Click **Done**.

**Task**

Use the Task activity to create a new task in the Sales and Service Cloud for each Marketing Cloud contact that reaches this activity. See Marketing Cloud Connect for information about using the Sales and Service Cloud.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use this activity to do the following:

• Create a new Sales and Service Cloud task with pre-populated field values you designate
• Associate the new task to a Sales and Service Cloud Contact or Lead
• Associate related objects, like an account or a campaign, to the new Task
• Automatically assign new tasks to the Contact/Lead owner, Salesforce System User, or a custom-defined user

   ![Note: To update an existing task, use the Choose Object activity in the journey and select Task.]

1. Drag the Task activity from the canvas activities pane onto the canvas.

2. Hover over the Task activity icon on the canvas.

3. Click **Task** to rename the activity.

4. Click **Configure**.
5. On the Configure Task page, populate fields that should contain the same value for each new task, like Subject and Reminder Day/Time. Populate only those fields that should contain the same data value for each task created.
   a. When populating the Subject field, use variables to create the subject dynamically. Click the Subject field to access variables.

6. Scroll down to designate whether new tasks should be associated to the Marketing Cloud contact who reaches this activity, a Contact or a Lead within the Sales and Service Cloud, or no one.
   a. When selecting the first option, Journey Builder searches for a Sales and Service Cloud contact or lead that matches the Marketing Cloud contact in the Interaction. If no matching Sales and Service Cloud contact or lead is found, the task is not associated to a contact or lead. To associate the task to a Contact or a Lead within the Sales and Service Cloud, use the mapper. Drag a Marketing Cloud attribute onto the Sales and Service Cloud field that contains a value that matches a value in a Sales and Service Cloud Contact or Lead record field. This mapping is used to identify the correct record. Use the search field to locate a field whose name you know. Use the drop-down menu next to the Sales and Service Cloud search field to select the type of Contact or Lead field desired.

7. Scroll down to designate who to assign the task to: the owner of the associated Contact or Lead, the Salesforce System User, or a user you map to on a subsequent step.

8. Select an option.

9. Click Next.

10. Select a mapping option: Additional Fields or Related Objects.
    a. Select Additional Fields to map Marketing Cloud attributes to task record fields.
    b. Select Related Objects to map a Marketing Cloud attribute that identifies a Sales and Service Cloud object that is related to the task record.

   💡 Note: Only one related Sales and Service Cloud object can be associated to a task using this activity.

11. When mapping Additional fields, click an attribute group in the Marketing Cloud column to locate a specific attribute.

12. Map the Marketing Cloud attribute fields whose values should be mapped from the Marketing Cloud to the new task record. Use this step to configure fixed values that should be identical on each task record.

13. Hover over the name of the data extension to view the path.

14. Click Map Fields to map Marketing Cloud attributes to an existing Sales and Service Cloud field when this record is created.

15. Click Set Fixed Values to map values to an existing Sales and Service Cloud field.

16. Click Next.

17. Click Done.

Example: A marketer intends to associate a case to a task using this activity. The marketer clicks Related Objects. The marketer then clicks an attribute group called Sales and Service Cloud Objects. The marketer clicks through the attribute group to reach the Cases data extension. The marketer locates a data attribute called CaseNumber. Dragging this attribute into the Sales and Service Cloud column of the mapper, the marketer associates the case in the Cases data extension whose ID matches a case in the Sales and Service Cloud. When a new task is created, this case is associated to it.

Opportunity

Use the Opportunity activity to create an opportunity record in the Sales and Service Cloud. Marketing Cloud contact attributes can be used to populate fields on the opportunity record. Or populate each record with fixed values you choose.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

Use this activity for the following:
Create an opportunity
Tell Journey Builder who should be in the opportunity contact role
 Associate the opportunity to a contact or lead Identify the campaign that is the source of the opportunity

1. Drag the Opportunity activity from the canvas activities pane onto the canvas.
2. Hover over the Opportunity activity icon on the canvas.
3. Click the Opportunity to rename the activity.
4. Click Configure.
5. Use the Add Details page to populate fields that should contain identical values on each record. The fields shown correspond to fields in a Sales and Service Cloud opportunity record.

Use this step to add details each opportunity should have in common. Each option populates a field on the opportunity record in the Sales and Service Cloud. Additionally, choose whether an Opportunity Contact Role should be created for the Marketing Cloud contacts that reach this activity on this step.

For example, if the Opportunity created for each Marketing Cloud contact that reaches this activity should be in the Prospecting stage, set that value using the Stage dropdown menu.

Note: Variables based on Marketing Cloud attributes can be used in the Opportunity Name. The attribute value is then filled in when the opportunity is created.

6. Click Format Text to add Marketing Cloud attributes in the Opportunity Name.
7. Click Done.

If no fields in the new opportunity record should be populated with these values—or if all values on each record should be distinct, or mapped on the next step—skip the steps above.

8. Select Create an Opportunity Contact Role if the Marketing Cloud contact reaching this activity should become the Opportunity Contact. If no match is found in the Sales and Service Cloud for the contact ID, the Opportunity Contact Role is not populated.

9. Use the campaign mapper to search for and select the campaign that is the source of the opportunity.

10. Select a mapping option: Additional Fields or Opportunity Contact Role.

   a. Select Additional Fields to map Marketing Cloud attributes to populate opportunity record fields

   b. Select Opportunity Contact Role to find the Marketing Cloud attribute field that contains a value that can be used to populate fields in this role. Alternately, click Set Fixed Values to set a value that is the same in each opportunity record created.

      For example, if each Opportunity Contact should be placed in the Influencer role, click Set Fixed Values and select Influencer in the Role field.

   c. Click Apply.

11. When mapping Additional fields, click an attribute group in the Marketing Cloud column to locate a specific attribute. Hover over the name of the data extension to view the path.

12. After locating the attribute, drag it onto the Sales and Service Cloud field it should populate. Sales and Service Cloud fields that are already populated by options selected on Step 1 are shown on Step 2.

13. Alternately, click Set Fixed Values to apply the same attribute values to each new opportunity record that is created. Click a field shown on this page to type in a value.

14. Click Next.

15. Click Done.
Account

Use the Account activity to create a new or update an existing account in the Sales and Service Cloud for each contact that reaches this activity.

This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

The Account activity does the following:

- Creates an account for each Marketing Cloud contact or updates an existing account using its account ID or a Marketing Cloud attribute corresponding to that field
- Populates Sales and Service Cloud account fields with Marketing Cloud attributes
- Populates Sales and Service Cloud account fields with fixed values you designate

1. Drag the account activity from the canvas activities pane onto the canvas.
2. Hover over the account activity icon on the canvas.
3. Click **Account** to rename the activity.
4. Click **Configure**.
   - Use Create or Update to choose to create a new Sales and Service Cloud account if no existing Sales and Service Cloud account can be identified using Marketing Cloud attributes. When a Sales and Service Cloud account is identified using the Marketing Cloud attribute you designate, that Sales and Service Cloud account record is updated.
   - Use Create Only to create a new Sales and Service Cloud account record for each Marketing Cloud contact that reaches the activity.
5. In the Account Management section, follow these instructions.
   - **a.** Type a value in the Search field to find the Marketing Cloud attribute to use to identify the desired Sales and Service Cloud account to update.
   - **b.** Alternately, scroll through the attribute groups shown. Click the attribute group that contains the desired value, then scroll down to locate the value.
   - **c.** Drag the Marketing Cloud attribute whose value matches a value on your existing Sales and Service Cloud account record field and can be used to identify the correct record.
   - **d.** Only one Marketing Cloud attribute can be mapped to a Sales and Service Cloud account record field.
   - **e.** Use the dropdown menu next to the Sales and Service Cloud search field to select the type of account record field desired.
6. Scroll down to designate what should happen if more than one account match is found.
7. Select Assignment Rules if the active assignment rule should be observed.
8. Click **Next**.
9. Click an attribute group in the Marketing Cloud column to locate a specific attribute. Hover over the name of the data extension to view the path.
10. Drag a Marketing Cloud attribute to the Sales and Service Cloud account value it populates.
11. Use the dropdown menu next to the Sales and Service Cloud search field to select the type of account record field desired.
12. Use **Hide Defined Fields** to show only fields that have not been matched to a Marketing Cloud attribute.
13. Use the Set Fixed Values option when the same value should be added to each Sales and Service Cloud account record when a account is created by this activity. Click **Map Fields** to display mapped fields.
14. Click **Next**.
15. Use the Set Update Options screen to choose how to update the fields mapped on the previous step. Make a selection for each mapped field.
   These update options are available:
   • Always Overwrite
   • Overwrite (Existing Value Present)
   • Overwrite (Existing Value Not Present)

16. Click Next.

17. Click Back to amend the selections made on Steps 1-3.

18. Click Done.

Use Person Accounts with Sales and Service Cloud Activities
This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use the Account, Task, and Case activities to update Person Accounts.

**Update Person Accounts**
Journey Builder updates person accounts using the Account activity.

**Update Business Accounts**
Journey Builder updates business accounts using the Account activity.

**Associate Cases and Tasks to Person Accounts**
Journey Builder associates cases and tasks to person accounts using the corresponding activities.

**Update Person Accounts**
Journey Builder updates person accounts using the Account activity.

**Note:** This legacy activity may appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating new journeys.

1. Drag the Account activity onto the Journey Builder canvas.

2. Click Configure.

3. Using the Create or Update option, follow steps 1–3 at Account. Journey Builder attempts to retrieve the Person Contact ID of the Account record and uses the mapper under Account Management to look up the field if it is not found in the Marketing Cloud.

4. Select an option to designate what should happen if more than one account match is found.
   Multiple matching accounts can be found when the Account record’s external ID is not unique.

5. Select Assignment Rules to observe the active assignment rule.

6. Click Next.

Follow the remaining steps at Account to complete activity configuration.

**Update Business Accounts**
Journey Builder updates business accounts using the Account activity.

1. Drag the Account activity onto the Journey Builder canvas.
2. Click **Configure**.

3. Using the Create or Update option, follow steps 1–3 at Account. Journey Builder attempts to retrieve the Sales and Service Cloud Account ID of the Account record. It then uses the mapper under Account Management to look up the field if it is not found in the Marketing Cloud.

4. Select an option to designate what happens if more than one account match is found. Multiple matches can occur when the external ID used on the Account record is not unique.

5. Select Assignment Rules if the journey should observe the active assignment rule.

6. Click **Next**.

Follow the remaining steps at Account to complete activity configuration.

**Associate Cases and Tasks to Person Accounts**

Journey Builder associates cases and tasks to person accounts using the corresponding activities.

1. Drag a Case or Task activity onto the Journey Builder canvas.

2. Click **Configure**.

3. Follow the steps listed on Task or Case.
   - For Tasks: Under **How do you want to associate a Contact or Lead?**, select **Associate the task to the Marketing Cloud contact in this journey**.
   - For Cases: Under **How do you want to associate a Contact or Lead?**, select **Associate the task to a mapped contact or lead**.
   - Map the Case to a Marketing Cloud contact ID.

**Best Practices for Integration Activity Fields**

Sales and Service Cloud activities follow a similar configuration workflow. Consider these tips during configuration.

- Some objects include more options based on the type of field selected. For example, fields that support a user or a group include an icon that allows you to choose one of these options.
- To use the output of event objects or records created in the journey, select an ID from journey data. Then, select from a list of these objects.
- To update the field with a Marketing Cloud attribute value, search for the attribute or locate the Marketing Cloud attribute field containing that value.
- You can use Marketing Cloud Contact or Journey Data attribute values, including the object record ID, to update any field. For text fields, you can combine static text and dynamic content.

**Example**: For example, to create a task to follow up with a customer, use a static instruction with a dynamic field, like Full Name. When you map the field, the subject line reads `{{Contact_Attribute."Event Data"."Full Name"}}` for a customer who is interested in services.

- You can use Assignment Rules to define conditions for how Sales or Service Cloud cases are processed. If you do, map the Owner ID when configuring a Case Activity to ensure that the journey observes assignment rules.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign to Person in the Journey</td>
<td>Select this field to update the record of the person who entered the journey. This option is useful when the record type changes after journey activation, such as when leads convert to contacts after entering the journey.</td>
</tr>
</tbody>
</table>
When mapping an object activity in a journey to update or create a Sales or Service Cloud object record, select a specific date. Or select **Date Contact Enters Activity** and enter a date adjustment. For example, set a task due date for three days after an activity in the journey.

**IDs**

ID fields associate a user with the activity, such as Assigned to ID, Name ID, or Related To ID. When mapping any ID field, enter digits or letters to find a field or enter %%% for a list of options. Some activities include assignment options:

- Assign to the system user.
- When mapping Contact ID, use an extra option to assign to the person in the journey. This option helps when a record originates as a Marketing Cloud Subscriber Key and a corresponding Sales Cloud record is created. If you use synchronized data extensions, this process detects if a lead is converted to a contact. It then ensures that the task is associated to the correct record.
- Select an ID from journey data. This ID is assigned to the user who created or last modified the campaign member.

Some ID fields have a dropdown to select Contact or Lead and enter the name to select the Contact or Lead field.

**Picklist**

Select from a list of fields or map Marketing Cloud attributes. This list can contain up to 100 values. After the list exceeds 100 values, enter your value into a text field.

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**Sales and Service Cloud Activity Field Validation and Error Handling**

Review the requirements for Sales and Service Cloud activity field values. Incorrect field values can cause activity errors in Marketing Cloud’s Journey Builder.

**Field Validation**

Text fields don’t have a specific format, but picklist and boolean fields only allow you to choose from a list. Other field types require a specific format. Here are the field types with built-in validation requirements that prevent configuration of the activity until they are resolved.

**Email**

The email field value must follow the common format, name@domain.com.

**Date**

The date field is based on your account’s time zone. There are four valid date formats.

<table>
<thead>
<tr>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>YYYY-MM-DD</td>
<td>2019-05-31</td>
</tr>
</tbody>
</table>
### DateTime

The DateTime is based on your account’s time zone. There are three valid formats.

<table>
<thead>
<tr>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>YYYY-MM-DD hh:mm:ss</td>
<td>2019-05-31 15:00:00</td>
</tr>
<tr>
<td>YYYY-MM-DDTh:mm:ssZ</td>
<td>2019-05-31T15:00:00Z</td>
</tr>
<tr>
<td>YYYY-MM-DDTh:mm:ss.sssZ</td>
<td>2019-05-31T15:00:00.123Z</td>
</tr>
</tbody>
</table>

### Currency

The currency field accepts numbers only and a maximum of one decimal point. A maximum of two digits can follow the decimal point. Do not include any digit group separators.

<table>
<thead>
<tr>
<th>Example Valid Value</th>
<th>Example Invalid Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>$200</td>
</tr>
<tr>
<td>1520.99</td>
<td>1520.990</td>
</tr>
<tr>
<td>14000.1</td>
<td>14,000</td>
</tr>
</tbody>
</table>

### Integer

The integer accepts only numbers. Do not include decimal points or digit group separators.

<table>
<thead>
<tr>
<th>Example Valid Value</th>
<th>Example Invalid Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>1523810</td>
<td>1,523,810</td>
</tr>
</tbody>
</table>

### Double

The double field accepts only numbers and a maximum of one decimal point. Do not include digit group separators.

<table>
<thead>
<tr>
<th>Example Valid Value</th>
<th>Example Invalid Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1340.15</td>
<td>1,340.15</td>
</tr>
<tr>
<td>56320.00</td>
<td>56,320</td>
</tr>
</tbody>
</table>
Errors
Review the common errors that occur for Sales and Service Cloud activities.

Design-Time Errors
Here are some of the common errors that can result from incorrect activity configuration.

- An invalid or broken integration: Cross-cloud activities require complete and functioning integration with the Sales and Service Clouds. Some common integration issues can be found here.
- Incorrect permissions: There are permissions in place that allow a user to create integration activities. If those permissions are not set correctly, the user cannot configure a new activity.

Runtime Errors
Runtime errors occur when a contact enters an activity in a running journey. In some situations, these contacts aren’t processed correctly. It is difficult to detect these errors because Sales and Service Cloud activities in Journey Builder use soft errors. A soft error does not stop the contact from continuing through the journey. Here are some common runtime errors.

- Missing or deleted objects: When an object referenced in the activity is no longer available after the journey is activated, the activity cannot complete its function.
- Row-locking: Some objects, especially CampaignMember, can time out when a contact record locks and the operation stalls.
- Failed Lookups: Sales and Service Cloud activities include options for how to proceed when a lookup fails to find a contact record. However, it is possible that the lookup request can fail during processing. When the request fails, the activity errors, but the contact continues in the journey.
- Required Fields: If the selected attribute for a required field is empty, the activity errors.

Journey Builder Administration
Journey Builder includes an administrative interface that is accessed by clicking links in the top navigation.

- Use Entry Sources to view performance and analytics data for entry sources and to create and configure Shared Entry Events.
- Use Contacts to track individual contacts by their ContactKey, Journey, Event, and more.

Note: Permissions are required to access to the Entry Sources and Contacts links.

Journey Testing
Use Journey Builder’s test feature to confirm that a Marketing Cloud journey behaves as expected. When you use a data extension as the entry source, you can configure a test to simulate a journey with real contacts. But the classic test mode is available with any entry source.

Organize Your Journeys
Organize your journeys in folders so they’re easy to access. You can add a journey to a folder when you create and save it. Or drag one or more journeys from the dashboard into a folder.

Copy a Marketing Cloud Journey
Use Journey Builder’s journey copy feature to duplicate a journey. Copies are created in draft mode and don’t include statistics from the original journey version, but include the original entry source, goal, and activity flow.

Delete a Marketing Cloud Journey
Remove drafts and journeys you no longer need from Journey Builder. If a journey is running or finishing, stop it before you delete it.

Journey Tags
Use journey tags to organize your journeys in Journey Builder and make them easily searchable.
Show and Hide Journey Builder Tips
You can show or hide Journey Builder’s in-app user tips in Marketing Cloud. Tips are available for new and returning users and are on by default.

Validate Your Journey
To gain confidence that your journey is error free, use validation in Journey Builder.

Journey Versions
Manage multiple versions of customer journeys in Marketing Cloud’s Journey Builder. Configure a new journey version to change journey activities without affecting contacts in the current journey version.

Journey Testing
Use Journey Builder’s test feature to confirm that a Marketing Cloud journey behaves as expected. When you use a data extension as the entry source, you can configure a test to simulate a journey with real contacts. But the classic test mode is available with any entry source.

Journey Builder requires you to validate and save the journey before you test it. Validation ensures that all elements of the journey’s design are complete and ready to test. Journey Testing isn’t available for Single Send journeys.

Journey Testing with a Data Extension
If your entry source is a data extension, you can configure a journey test using real Marketing Cloud contacts. This test mode allows you to view their simulated paths through the journey without sending messages to them or affecting tracking or reporting. Test mode simulates random and decision split activities, but ignores wait times and contact entry settings. You get an accurate view of how a journey works without the wait.

After the test is complete, the journey canvas shows each contact’s expected path. To confirm that the contact progresses through the journey as intended, click through each contact’s path. Edit the journey as needed. If you edit the entry source or any of the canvas activities after testing, be sure to save, validate, and test the journey again.

Classic Test Mode
Classic test mode simulates random and decision split activities without sending messages but ignores wait times and contact entry settings. When you use classic test mode, you must fire the entry event. When the test is complete, the results appear in the workspace. To begin, click Test. Then fire a contact via API, use the Fire Event activity in Automation Studio, or use another method based on the journey’s entry source.

When the test is complete, the results appear in the workspace. From there, you can edit the journey if needed.

Configure a Journey Test with a Data Extension
Follow these steps to configure a test that simulates the journey of real contacts in your Marketing Cloud data extension.

1. Click Test
2. Click Choose Contacts
3. Select up to 10 contacts from your data extension.
4. Click the **Send Type** tab.

5. To send a test message, click **Send Only Test Messages** and enter an email address.

    ![Note](image)
    The test is set to **Do Not Send Messages** by default.

6. To review the test settings, click **Summary**.

    ![Tip](image)
    You can also review your test settings on the **Test Behavior** tab.

7. Click **Start Test**

### Organize Your Journeys

Organize your journeys in folders so they’re easy to access. You can add a journey to a folder when you create and save it. Or drag one or more journeys from the dashboard into a folder.

You can create and rename folders from the Folders pane. An icon appears when you hover over the root folder, which is called My Journeys. Click the icon to create, rename, move, and delete folders.

1. After saving a journey, click **Organize**.

    ![a.](image)
    To access folder options, click next to a folder.
    If the journey is already in a folder, a warning appears that identifies that folder.

2. From the Journeys dashboard, select one or more journeys.

    ![Note](image)
    You can drag your journeys into a subfolder. Selected folders open to show their subfolders when you drag the journeys near the folder.

3. Drag the selected journeys into a folder.

### Manage Journey Folders

Use journey folders to organize your journeys in Journey Builder. You can create, rename, move, or delete folders as needed.

1. Click the **Journeys** tab.

2. Click **Folders**.

3. Locate the folder and click .

4. Click **Create New**, **Rename**, **Move**, or **Delete**.

To create a new or rename an existing folder, enter a name in the field and click away. To move a folder, select the new location and click **Move**. To delete a folder, click **Delete** to confirm.
Copy a Marketing Cloud Journey

Use Journey Builder’s journey copy feature to duplicate a journey. Copies are created in draft mode and don’t include statistics from the original journey version, but include the original entry source, goal, and activity flow.

You can’t copy a journey from another business unit. Copying a journey creates an entry source for the copied journey. This action breaks existing relationships in journey activities with Journey Data. If you reference Journey Data in activities for your copied journey, those activities appear unconfigured on the canvas. Open each activity that references Journey Data and reselect the appropriate attributes from Journey Data, then save your changes.

Salesforce entry sources in copied journeys are only editable if no other journey or version uses them. To choose a different object, delete and recreate the entry source.

⚠️ Important: If the journey includes an automated schedule, create a draft, remove the schedule, and save the journey before you make a copy. Also, if the journey includes a Path Optimizer activity where a winner is selected, only that winning path is copied.

1. Open the journey, and click 🗡️.
2. Click Copy Journey.
3. Enter a name and description.
4. Click Copy.

Delete a Marketing Cloud Journey

Remove drafts and journeys you no longer need from Journey Builder. If a journey is running or finishing, stop it before you delete it.

⚠️ Note: Enable the Delete permission to the user’s Journey Builder role to use this feature.

For more details about the permissions granted with user roles in Journey Builder, see Journey Builder Roles and Marketing Cloud Roles.

⚠️ Important: You can’t recover a deleted journey.

1. To delete a journey, open the journey, and click 🗡️.
2. Click Delete this Version or Delete Journey.
3. Click Delete.

Journey Tags

Use journey tags to organize your journeys in Journey Builder and make them easily searchable.

Journey tags allow you to:
- Search and filter by tag. Filter by one tag at a time.
- Associate multiple tags to a single journey and multiple journeys to a single tag.
- Select up to 100 journeys and relate them to up to 100 tags at a time. Relate as many journeys to as many tags as desired.

⚠️ Note: To edit or delete tags, you need admin permission. Request access from your Marketing Cloud administrator.
1. **Create a Tag**
   Create a tag from the journeys dashboard in Journey Builder.

2. **Tag a Journey**
   Apply tags to journeys in Journey Builder so they're easy to filter.

**SEE ALSO:**
Tags

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### Create a Tag

Create a tag from the journeys dashboard in Journey Builder.

**Note:** To edit or delete tags, you need admin permission. Request access from your Marketing Cloud administrator.

1. Select one or more journeys to tag.
2. Click 
3. Click + New.
4. Type the tag name.
5. Click Create. The new tag is selected by default.
   a. To apply the new tag to the selected journeys, click Apply.
   b. To continue without tagging a journey, deselect the new tag and close the dialog box.

---

### Tag a Journey

Apply tags to journeys in Journey Builder so they're easy to filter.

**Note:** To edit or delete tags, you need admin permission. Request access from your Marketing Cloud administrator.

1. Select the journeys to tag.
2. Click 

   **Note:** When you select multiple journeys and at least one is already tagged, but not all selected journeys share this tag, the tag shows a multi-state indicator.
   • To apply the tag to all selected journeys, click the multi-state indicator.
   • Click again to deselect the tag and remove it from all selected journeys.
   • Click one more time to return to the multi-state indicator and apply it to the originally tagged journeys.

3. Select the tag to apply.
4. Click Apply.

---

### Show and Hide Journey Builder Tips

You can show or hide Journey Builder's in-app user tips in Marketing Cloud. Tips are available for new and returning users and are on by default.
1. In Marketing Cloud, hover over your name.

2. To show tips, click **Show Tips** in the dropdown menu.

3. Or, to hide tips, click **Hide Tips** in the dropdown menu or click **Remove Tips**.

**Validate Your Journey**

To gain confidence that your journey is error free, use validation in Journey Builder. When you create or edit a journey, use validation to fine-tune the journey. Validation confirms that the journey’s components are configured correctly and work as planned. Components checked include:

- Entry Source
- Entry Schedule
- Decision Splits
- Wait Activities
- Update Contact Activities
- Email Engagement Splits
- Journey Settings
- Journey Goals and Exit Criteria

**Note:** Messaging, cross-cloud, and custom activities aren’t checked when you click **Validate**. Journey Builder checks for errors or configuration issues in these activities when you activate the journey. If the email activity’s personalization strings don’t match the entry source attributes, include inline validation of those personalization strings. Personalization errors must be resolved for successful activation.

1. After you design the journey, click **Validate**.
   a. To validate a Transactional Send journey, configure the activities and click **Activate**.
      - Errors and configuration issues appear in the results drawer.
      - Multiple errors for the same activity appear in the same error tile.
      - Activities that require attention are highlighted on the canvas.

2. To fix an error, click **Edit**.
   a. To update an activity that doesn’t include the Edit button, click the activity.

3. Correct an error and click **Done**.
4. Repeat step 3 as needed.
5. Click **Revalidate** again after fixing configuration errors.

After you validate a journey and resolve any issues, the Test button is enabled. To simulate a journey’s flow, test it before you activate it.

**Journey Versions**

Manage multiple versions of customer journeys in Marketing Cloud’s Journey Builder. Configure a new journey version to change journey activities without affecting contacts in the current journey version.

**Note:** This feature isn’t supported in Single Send journeys.

Only one draft version of a journey can exist at a time. You aren’t required to activate new draft versions immediately. Unfinished drafts are saved in the versions pane. To edit a draft, click an unfinished draft in the versions pane. After a version is activated, it becomes the
current version. New contacts aren’t admitted into previous versions. Upon activation, this version begins detecting the journey’s entry event and admitting contacts who qualify. A journey’s Contact Entry and Journey settings persist across all versions.

The previous version of the journey continues to process contacts until all contacts present when the new version was activated have exited. Then the previous version becomes inactive. You can create drafts from inactive versions, but you can’t relaunch an inactive version.

You can’t reactivate a stopped version. To activate a new version based on a stopped version, navigate to the stopped version, click **New Draft**, then click **Activate**. Contacts that previously exited the journey aren’t admitted into the new version.

**Create a Journey Version**
To add, remove, reconfigure, or change the order of activities on the Journey Builder canvas, create a draft version of a Marketing Cloud journey. To prompt contacts to enter the new version, activate the draft.

**Stop a Journey**
Stop a customer journey in Journey Builder.

**Delete Drafts and Inactive Journeys**
You can delete draft and inactive Marketing Cloud journeys in Journey Builder. When you delete an inactive version, all its goal and performance data is permanently removed. The journey’s cumulative totals still include the goal and performance data tied to it.

SEE ALSO:
- Update an Email Activity in a Journey

**Create a Journey Version**
To add, remove, reconfigure, or change the order of activities on the Journey Builder canvas, create a draft version of a Marketing Cloud journey. To prompt contacts to enter the new version, activate the draft.

**Note:** A journey’s Contact Entry settings persist across all versions. If the previous version is set to readmit a contact only after they exit the journey, contacts in the journey aren’t admitted into the new version. If you configure a previous journey version to not readmit contacts, contacts aren’t admitted to the new version.

1. Open the journey and click **New Version**.
   An editable view of the current journey appears on the canvas.

2. Make your changes to the journey activities.

3. Save your changes.

4. Click **Activate**.

**Important:** When a draft is activated, that draft becomes the current version. The version that was current becomes a previous version.

**Stop a Journey**
Stop a customer journey in Journey Builder.

When you stop a journey the flow of activities ends and ejects all contacts. Ejected contacts can’t be readmitted into the journey at the point where the journey stopped. Add ejected contacts to the Event Source data extension again to enter a new version.

**Note:** If an In-App Message is sent but not yet displayed, stopping the journey isn’t guaranteed to cancel message display. On the next app open, Marketing Cloud syncs with the MobilePush SDK and tells it to forget the message. If the message is set to display immediately upon app open, the user sees the message if the sync hasn’t completed.
1. Open the journey.

2. Click **Stop**.

Delete Drafts and Inactive Journeys

You can delete draft and inactive Marketing Cloud journeys in Journey Builder. When you delete an inactive version, all its goal and performance data is permanently removed. The journey’s cumulative totals still include the goal and performance data tied to it.

**Important:** You can’t recover deleted drafts.

1. Open the draft or inactive journey version to delete.

2. Click ![Delete](image).

3. Click **Delete this Version** or **Delete Journey**.

4. Click **Delete**.

Analytics and History

Journey Builder includes journey health, history, and dashboards.

**Journey Analytics Dashboard**

Access unified cross-channel performance data in Journey Builder, and easily track your marketing campaign’s effectiveness. Journey Analytics, powered by Google Analytics, unites Marketing Cloud SMS, push messaging, and email capabilities with Analytics behavioral data in a single dashboard. You can compare how goals configured in Google Analytics perform over time, and you can see ecommerce, messaging performance, and site usage data.

**Use the Journey Analytics Dashboard**

To see robust data on Journey Builder emails, push messages, and SMS messages, access the Journey Analytics dashboard in your Google Analytics-enabled Marketing Cloud account. When the Analytics integration is enabled, any user in your account can access the dashboard in a journey.

**Journey Health**

The Health panel in Journey Builder shows goal and journey population data for a running or stopped multi-step journey. The statistics in the Health panel are shown for the version of the journey you are in currently.

**View Journey Health Data**

Use the Journey Health panel in Journey Builder to view goal and journey population data for a running or stopped journey.

**The Versions Dashboard**

The Versions page in Journey Builder provides an overview of all journeys and their performance. Use this page to view all versions of a journey. You can also copy a version or create a version of the journey.

**Journey History**

Use Journey Builder’s Journey History feature to view information about a specific contact, journey, or journey version. You can also view the activity and status history of a contact, journey, or journey version. This view displays the last 30 days of activity by default. It includes the total number of contacts across all journeys in your account.
Journey Analytics Dashboard

Access unified cross-channel performance data in Journey Builder, and easily track your marketing campaign’s effectiveness. Journey Analytics, powered by Google Analytics, unites Marketing Cloud SMS, push messaging, and email capabilities with Analytics behavioral data in a single dashboard. You can compare how goals configured in Google Analytics perform over time, and you can see ecommerce, messaging performance, and site usage data.

Track your marketing campaign’s effectiveness across views in your account for the date range you select. View and compare how goals configured in Google Analytics perform, and compare data over different periods.

To use Google Analytics in a journey, link your Salesforce and Google Analytics accounts, and follow Google’s login process.

Considerations

- Any user in your account can access the Journey Analytics dashboard in a journey.
- When Google Analytics is enabled for your account, tracking is available by default in all journeys.
- When you create another version of a journey, it includes tracking even if Google Analytics was disabled when the journey was created.
- The Journey Analytics data shown on the dashboard pertains to all versions of the journey and isn’t separated by journey version.
- Delivery rate is calculated by subtracting bounces from the number of total sends, and then dividing total sends by that number. When there are no bounces, delivery rate is 100%.

The Goals component in Journey Analytics isn’t linked or related to Journey Builder goals or exit criteria. For more information on goals, see Google Analytics help.

SEE ALSO:
- Configure Default Google Analytics Tracking Parameters
- Configure the Google Analytics Integration for Marketing Cloud
- Enable or Disable Google Analytics
- Google Analytics Help Center

Use the Journey Analytics Dashboard

To see robust data on Journey Builder emails, push messages, and SMS messages, access the Journey Analytics dashboard in your Google Analytics-enabled Marketing Cloud account. When the Analytics integration is enabled, any user in your account can access the dashboard in a journey.

To use Analytics in a journey, link your Salesforce and Analytics accounts, and follow Google’s login process. Then enable Analytics Tracking in Journey Settings, and add the domains whose UTM parameters you want to track. If you don’t add a domain, Analytics tracks all domains that the journey’s links point to.

Note: The Goals component in Journey Analytics isn’t linked or related to Journey Builder goals or exit criteria.

1. To open the Journey Analytics dashboard, open a journey, and click  
2. Select the view to use.
3. To select a range of up to 30 days, click the date range. The date range must begin on or after the first day the journey is active.
   You can also select another date range to compare to. The date ranges can’t overlap. The date range must begin on or after the first day the journey is active. The maximum date range is 30 days. However, you can query the data for three years.
   When you select a date range and compare it with a different date range, the rate of change appears in each dashboard tile.
4. Click 🎯.
5. To add or remove a view, click View.
6. To select up to five goals, click Goals.
7. To select accounts and properties, click GA4 Property.
8. Click Done.
9. To select data streams, click Data Streams.
10. Click Done.

Note: Changes made to components and their display order persist after you leave the journey.

11. To select email or mobile message metrics, click Filters.
12. Choose whether to show channel performance in aggregate or segregated by channel.

To change the components' display order, drag each component to the desired position.

Tip: When SMS activities generate Google Analytics metrics, reporting doesn't appear in the Content section. SMS messages don't include content assets or blocks.

SEE ALSO:
- Google Analytics Solutions
- Google Analytics Help Center
- Create and manage goals
- Conversions reports

Journey Health

The Health panel in Journey Builder shows goal and journey population data for a running or stopped multi-step journey. The statistics in the Health panel are shown for the version of the journey you are in currently.

Contact Path

Use the contact key to search for a contact and view their path through the journey during the last 30 days. From here you can remove a contact from the journey or gain insight into why a contact exited a journey prematurely.

Goal

The Goal section states the goal in plain language. It also shows the percentage or number of contacts in the journey that reached the goal under Goal Attainment.

Journey Builder measures goal attainment by comparing the number of contacts who reached the journey goal to the goal target set during goal configuration.

Note: If you didn't set a goal target, goal attainment is shown as null (→).

Journey Counts

Under Current Population, view the number of contacts that are currently in the journey. This number represents contacts in a wait activity at the current time.
Alerts

This section shows the total number of contacts in a wait activity at least 60 minutes past its scheduled expiration. This total is the number of contacts who haven’t resumed their progress through the journey workflow.

When a wait activity is configured, you choose its duration. To determine when a contact leaves a wait activity, the system adds the duration you set to the date and time the contact enters the wait activity. After a contact reaches their scheduled end date, they continue through the workflow of the journey.

Under some conditions, delays occur when Journey Builder processes a contact continuing from a wait activity into the rest of the journey. The Contacts Past Due in Wait alert displays the number of contacts remaining in a wait activity 60 minutes without continuing in the journey. This wait alert indicates that processing capability has slowed.

Note: Due to system limitations, the Alerts section refreshes every 60 minutes. This threshold isn't editable.

Tip: To see entry results and goal data for all versions of a journey, click the version label in the canvas header.

SEE ALSO:

View a Contact Path in a Journey

View Journey Health Data

Use the Journey Health panel in Journey Builder to view goal and journey population data for a running or stopped journey.

1. Navigate to the Journeys Dashboard, and locate the journey to view.
2. Click the journey.
3. To access the journey health panel, click .
4. Review the health of the journey, then click to collapse the panel.

SEE ALSO:

Set a Goal in Journey Builder
Entry Results

The Versions Dashboard

The Versions page in Journey Builder provides an overview of all journeys and their performance. Use this page to view all versions of a journey. You can also copy a version or create a version of the journey.

Access the Versions page by clicking a journey from the Journeys page.

Tip: Journey Builder measures goal attainment by comparing the number of contacts who reached the goal in a journey to the goal target set during goal configuration.

Note: If no goal target is set, goal attainment is shown as null (—).
Journey History

Use Journey Builder’s Journey History feature to view information about a specific contact, journey, or journey version. You can also view the activity and status history of a contact, journey, or journey version. This view displays the last 30 days of activity by default. It includes the total number of contacts across all journeys in your account.

To narrow the journeys included in the history view, set filters for date range, activity, status, and journey. The filter options you select persist after the filter pane closes. To remove filters, click **Clear**.

⚠️ **Note:** Deleted journeys and journeys in draft mode aren’t included in this historical view.

### Journey History

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Key</td>
<td>The ID associated with a contact record. This field is set in the contacts data model using the Contact Builder tool.</td>
</tr>
<tr>
<td>Journey</td>
<td>The name of the journey that the contact entered.</td>
</tr>
<tr>
<td>Activity Type</td>
<td>The Activity Type message of a contact. Activity Type can be used with the value in the Status Detail column to diagnose where a contact is at a given moment.</td>
</tr>
<tr>
<td>Activity Name</td>
<td>The Journey Builder activities that the contact reached. Activity names come from the activity’s Name field, which is editable. If no name is provided, the field is populated with the name of the triggered send created when a message is sent.</td>
</tr>
<tr>
<td>Status</td>
<td>The reason the contact entered or didn’t enter the journey, or why another action occurred. Failed status includes what caused the failure.</td>
</tr>
<tr>
<td>Status Detail</td>
<td>The description, if applicable, of what caused the record’s status.</td>
</tr>
<tr>
<td>Time</td>
<td>The timestamp identifying when the activity occurred. Information is shown for the last 30 days only. Your computer’s timezone setting determines the time zone the timestamp appears in.</td>
</tr>
<tr>
<td>Success Rate</td>
<td>The percentage of successes out of all the table records from the selected journeys.</td>
</tr>
<tr>
<td>History Events</td>
<td>The time series graph displaying the number of records occurring over time.</td>
</tr>
</tbody>
</table>

**Status Key Reference**

Understand the status messages shown on the Contacts page in Journey Builder.

**View a Contact Path in a Journey**

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.
View a Contact Path on the Journey History Dashboard
Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

View a Contact’s Journey History in a Journey
You can view a contact’s journey history on the journey canvas. Results are shown for the previous 30 days by default.

View a Contact’s History on the Journey History Dashboard
You can view a contact’s journey history on the Journey History dashboard. Results are shown for the previous 30 days by default.

View Recent Contacts by Activity
View up to 30 days of contacts processed in any non-wait activity in any active, stopped, or paused journey in Journey Builder. Expand for a detailed view to identify trends in contact success and error rates to troubleshoot and resolve issues more quickly.

Error Message Troubleshooting
Review possible solutions to common contact journey errors in Journey Builder. These errors can cause a contact to exit a journey earlier than expected.

SEE ALSO:
Get Started with Contact Builder

Status Key Reference
Understand the status messages shown on the Contacts page in Journey Builder.

Typical Journey Status Messages
These statuses are part of a contact’s typical path into and through a journey.

Use the Status value with the Activity Type value to understand where a contact is in a journey and the path that contact took.

The schedule for when a contact is evaluated differs depending upon whether a goal is set to remove them from the journey. Journey Builder evaluates each contact against a journey’s goal criteria at these times:

- Each time a wait period expires
- If the exit option is set on the goal, the goal is evaluated every day at midnight, US Central Standard time

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>The activity shown in the Activity Name column finished.</td>
</tr>
<tr>
<td>Waiting</td>
<td>The contact entered the journey and is in a Wait Period. Journeys typically include multiple wait periods.</td>
</tr>
<tr>
<td>MetCriteria</td>
<td>The contact met filter criteria. This status does not refer to goal criteria. Unless the contact met the goal before entering the journey, the contact proceeds into the journey.</td>
</tr>
<tr>
<td>GoalCriteriaNotMet</td>
<td>The contact did not meet goal criteria before this activity or any previous activity in the journey.</td>
</tr>
<tr>
<td>GoalCriteriaMet</td>
<td>The contact met the goal criteria for this journey on this step. If goal criteria is also exit criteria, the journey ejects the contact. This result is reflected in the next status update shown for the contact.</td>
</tr>
</tbody>
</table>
### Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoalCriteriaAlreadyMet</td>
<td>The contact met the journey’s goal criteria before reaching this activity. To find the activity where the contact met goal criteria, review the journey by sorting by Interaction Name. The status GoalCriteriaMet is shown on the step where the goal criteria was met.</td>
</tr>
<tr>
<td>DidNotMeetEntryCriteria</td>
<td>The contact did not meet contact filter criteria for journey entry. Marketers typically create contact filters, though not in every case.</td>
</tr>
<tr>
<td>ContactAttempted</td>
<td>An event was detected, but not yet processed. If an active journey uses the event, Journey Builder queues the contacts to enter the journey. If no active journey uses the event, this terminal status shows for this instance of the event.</td>
</tr>
<tr>
<td>InteractionEventHandled</td>
<td>An Event fired and Journey Builder detected it. This status is typically followed by the EventQueuedForProcessing status. If the status is shown and a contact fails to enter a journey, report this status message in any cases you open on our Help and Training portal.</td>
</tr>
<tr>
<td>EventQueuedForProcessing</td>
<td>An Event fired and is waiting to be handled. System traffic effects processing speed, but usually processing begins immediately. You can verify that there is a delay occurring when there have been no additional entries on the Contact Administration page for 30 minutes or more.</td>
</tr>
<tr>
<td>GoalCriteriaMetInWait</td>
<td>Journey Builder admitted this contact. The contact then met the journey’s goal criteria while in a wait period. If goal criteria is also exit criteria, the contact is no longer in the journey.</td>
</tr>
<tr>
<td>CurrentlyWaitingInSameInteraction</td>
<td>The contact already entered this journey and is in a wait period. The Contact Entry setting does not allow a single contact to exist within the journey more than once.</td>
</tr>
<tr>
<td>ContactAlreadyInteraction</td>
<td>The contact already entered the journey, but has not yet exited. The Contact Entry setting does not allow a single contact to exist within the journey more than once.</td>
</tr>
</tbody>
</table>

### Special Journey Status Messages

These status messages are not part of a contact’s typical path through a journey. Use these descriptions to diagnose issues with a contact or journey.

Include your status messages in any cases you open on our Help and Training portal.

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ErrorProcessingWaitActivity</td>
<td>An error occurred while this contact was in a wait period. Open the journey to view specific error information.</td>
</tr>
<tr>
<td>ErrorValidatingContact</td>
<td>An error occurred while validating this contact against the entry event contact filter. Fire the event again to inject this contact.</td>
</tr>
<tr>
<td>Status</td>
<td>Meaning</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MeaningStatus</td>
<td>Include only this contact in the event if necessary. Report this status message and ContactKey in any cases you open on our Help and Training portal.</td>
</tr>
<tr>
<td>InvalidInteractionId</td>
<td>The journey was deleted from the system. If the deletion is unintended, report this status message in any cases you open on our Help and Training portal.</td>
</tr>
<tr>
<td>InteractionNotPublished</td>
<td>The journey has not been activated. Activate this journey, then fire the entry event again to inject this contact.</td>
</tr>
<tr>
<td>ContactNotFound</td>
<td>ContactKey not found when fetching data from contacts. Go to Contact Builder to ensure that a contact with this ContactKey exists.</td>
</tr>
<tr>
<td>ContactObjectNull</td>
<td>No contact exists for this ContactKey. Go to Contact Builder to ensure that a contact with this ContactKey exists.</td>
</tr>
<tr>
<td>NotEvaluatingEntryCriteria</td>
<td>The journey’s entry event or filter is not working properly. Modify the entry event and its contact filter in the journey, then create a new version. Or, in a shared entry event, modify the event in Event Administration. To admit contacts, fire the event again after modifying the filter.</td>
</tr>
<tr>
<td>ErrorDeterminingInitialActivity</td>
<td>An error occurred in the first activity in this journey. Open the journey’s first activity to view specific error information.</td>
</tr>
<tr>
<td>Deactivated</td>
<td>The journey has been deactivated and no longer detects events. Activate this journey, then fire the event again to admit contacts.</td>
</tr>
</tbody>
</table>

**View a Contact Path in a Journey**

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

Use Contact Builder to find the contact’s Contact Key value.

**Tip:** To remove the contact from a journey, click **Remove from journey**. To allow the user to remove a contact add the Activate/Stop/Pause/Resume/Send/Schedule permission to the user’s Journey Builder Role.

From the Journey canvas:

1. Locate the running or stopped journey, and click it.

2. ![Click](image)

3. Enter the contact’s Contact Key value in the search box, and click ![Search](image).

   **Note:** This field doesn’t accept special characters.

4. If the contact entered the journey multiple times within the last 30 days, click to select the instance to view.

   The contact’s path, last known location, and status in the journey is highlighted on the journey canvas.
View a Contact Path on the Journey History Dashboard

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

From the Journey History dashboard:

1. Click the History tab.
2. On the right side of the record, click the arrow of the contact path that you want to see.
3. Select Open in Journey Health from the dropdown.

A Journey Health tab opens. You can view the contact’s path, last known location, and status.

View a Contact’s Journey History in a Journey

You can view a contact’s journey history on the journey canvas. Results are shown for the previous 30 days by default.

Use Contact Builder to find the contact’s Contact Key value.

From the journey canvas:

1. Click the History tab in Journey Builder.
2. Enter the contact’s Contact Key value in the search box, and click .

Tip: To narrow search results, add a filter to select by journey name, activity, status, or date range. Click to expand the filter criteria, then select the filter value to use.

View a Contact’s History on the Journey History Dashboard

You can view a contact’s history on the Journey History dashboard. Results are shown for the previous 30 days by default.

From the Journey History dashboard:

1. Click the History tab.
2. On the right side of the record, click the arrow of the contact path that you want to see.
3. Select Filter by contact key from the dropdown.

The Contact Key is displayed in the Filters panel. The history page is refreshed and shows Contact Key records.

View Recent Contacts by Activity

View up to 30 days of contacts processed in any non-wait activity in any active, stopped, or paused journey in Journey Builder. Expand for a detailed view to identify trends in contact success and error rates to troubleshoot and resolve issues more quickly.

1. To view a summary of contacts processed in a non-wait activity, click the contact count below the activity.
2. To open the detail view drawer, click View Contact Details.
3. To see the list of individual contacts, click View Details.

SEE ALSO:
View a Contact’s Journey History in a Journey
Error Message Troubleshooting
## Error Message Troubleshooting

Review possible solutions to common contact journey errors in Journey Builder. These errors can cause a contact to exit a journey earlier than expected.

<table>
<thead>
<tr>
<th><strong>Error Message</strong></th>
<th><strong>Issue or Possible Solution</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Email Activities</strong></td>
<td></td>
</tr>
<tr>
<td>This contact opted out of all Marketing Cloud emails.</td>
<td>--</td>
</tr>
<tr>
<td>This contact is missing a required attribute.</td>
<td>Update record to include the required attribute value.</td>
</tr>
<tr>
<td>We can’t find this contact in the All Subscribers list.</td>
<td>--</td>
</tr>
<tr>
<td>We can’t find a matching subscriber key for this contact.</td>
<td>--</td>
</tr>
<tr>
<td>This contact is on an exclusion list.</td>
<td>--</td>
</tr>
<tr>
<td>List Detective removed this contact.</td>
<td>--</td>
</tr>
<tr>
<td>This contact is on a suppression list.</td>
<td>--</td>
</tr>
<tr>
<td>This contact opted out.</td>
<td>--</td>
</tr>
<tr>
<td>This contact was permanently deleted.</td>
<td>--</td>
</tr>
<tr>
<td>This contact has an invalid email address.</td>
<td>Confirm and update the email address in the data extension.</td>
</tr>
<tr>
<td><strong>Data Binding</strong></td>
<td></td>
</tr>
<tr>
<td>Required email address not found.</td>
<td>Add a valid email address to the contact record in the data extension.</td>
</tr>
<tr>
<td><strong>Unexpected Error</strong></td>
<td></td>
</tr>
<tr>
<td>Something went wrong.</td>
<td>--</td>
</tr>
<tr>
<td><strong>Sales Cloud Activity</strong></td>
<td></td>
</tr>
<tr>
<td>Duplicate field values found.</td>
<td>Delete the duplicate value.</td>
</tr>
<tr>
<td>Specify a required field.</td>
<td>Choose a required field.</td>
</tr>
<tr>
<td>Doesn’t meet validation criteria.</td>
<td>Confirm each required field has a value provided and matches the specified data type.</td>
</tr>
<tr>
<td>Maximum string value exceeded.</td>
<td>Confirm each field provided doesn’t exceed the max length.</td>
</tr>
<tr>
<td>Invalid ID string value found.</td>
<td>Confirm and update the ID value in the data extension.</td>
</tr>
<tr>
<td>Invalid relationship field value type.</td>
<td>Confirm the ID is valid for the field being modified.</td>
</tr>
<tr>
<td>Duplicate records found.</td>
<td>Delete the duplicate contact record.</td>
</tr>
<tr>
<td>Can’t update a converted lead.</td>
<td>The Lead record was converted to a Contact. After it’s converted, the Lead record can’t be updated</td>
</tr>
<tr>
<td>Can’t reference a deleted object.</td>
<td>--</td>
</tr>
<tr>
<td>Error Message</td>
<td>Issue or Possible Solution</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Can’t combine a person account record type change with any other field update.</td>
<td>--</td>
</tr>
<tr>
<td>Org’s storage limit exceeded.</td>
<td>Contact Salesforce Support to increase your data storage, or delete unneeded data.</td>
</tr>
<tr>
<td>Invalid value found for a restricted picklist.</td>
<td>Confirm if the value provided matches a valid restricted picklist value.</td>
</tr>
<tr>
<td><strong>Custom Activity</strong></td>
<td></td>
</tr>
<tr>
<td>The REST response does not contain a required outArgument {{argumentName}}.</td>
<td>Verify the response being returned from the execute endpoint contains the required outArgument.</td>
</tr>
<tr>
<td>Increase request time or add activity retries.</td>
<td>Increase request time or add activity retries. See Custom Activity Configuration for details.</td>
</tr>
<tr>
<td>Request failed due to: (issue)</td>
<td>Add activity retry if applicable.</td>
</tr>
<tr>
<td>Can’t complete the REST API call. Confirm the configuration for Execute is valid JSON and conforms to Journey Builder workflow document.</td>
<td>Confirm the configuration for Execute is valid JSON and conforms to Journey Builder workflow document.</td>
</tr>
<tr>
<td>Can’t parse returned data required for the REST activity.</td>
<td>Verify the response being returned from the execute endpoint is valid JSON.</td>
</tr>
<tr>
<td>Can’t parse the payload. Confirm JSON conforms to Journey Builder workflow document.</td>
<td>Confirm config.json is valid JSON and conforms to Journey Builder workflow document.</td>
</tr>
<tr>
<td>Validation failed for (URI). Use https:// for POST</td>
<td>Verify execute endpoint uses https and has a valid SSL certificate.</td>
</tr>
<tr>
<td>REST response outArgument doesn’t match specified data type {{argumentName}}.</td>
<td>Verify the outArgument provided in the response body matches the data type specified in the config.json.</td>
</tr>
<tr>
<td><strong>Update Contact</strong></td>
<td></td>
</tr>
<tr>
<td>Missing required fields.</td>
<td>Add required data to the activity configuration.</td>
</tr>
<tr>
<td>Target data extension was deleted.</td>
<td>Reconfigure activity to use an active data extension.</td>
</tr>
<tr>
<td>Primary Key violated on insert.</td>
<td>Contact Data exists for the specified data extension for contact.</td>
</tr>
<tr>
<td>Activity timed out.</td>
<td>--</td>
</tr>
</tbody>
</table>

**Behavioral Triggers**

Let Salesforce Marketing Cloud equip you to reach customers who abandon unpurchased items or services. Configure the flow of this behavioral data into the data extensions for email sends and journeys. Using behavioral triggers this way is called Behavioral Triggers. Salesforce Services isn’t required for basic abandoned cart, browse, and wishlist use cases. Your customers and their partners can set them up. Behavioral Triggers is free for Pro, Corporate, and Enterprise Editions and uses Amazon Web Services. Behavioral data extensions store the data for 30 days. To configure the Journeys or Automations, contact Marketing Cloud support. The level of support varies on each customer’s data model.
If you already paid for an Abandoned Cart audience file, you can still use audience files until a customer requests that they’re turned off. Customers can’t use both legacy audience files and Behavioral Triggers for the same use case. A customer using an abandoned cart audience file can’t enable an abandoned card trigger in Behavioral Triggers.

To get started, select **Behavioral Triggers** from the Journey Builder nav menu.

**Behavioral Triggers Prerequisites**
To implement Behavioral Triggers, first install Collect Tracking Code and upload a product catalog.

**Create a Behavioral Trigger**
Set up a behavioral trigger to map data to a target data extension when a user takes a particular action, such as abandoning a cart or browser session. The target data extension name displays on the Behavioral Triggers dashboard after you create the trigger.

**Edit a Behavioral Trigger**
Update a behavioral trigger to include a different suppression period or suppression rule time frame.

**Pause a Behavioral Trigger**
To stop a behavioral trigger from directing engagement data to your target data extension, pause the trigger.

**Resume a Behavioral Trigger**
To restart a behavioral trigger so it begins directing engagement data to your target data extension, resume a paused trigger.

**Set Behavioral Trigger Session Timeout Limit**
Configure the Behavioral Triggers app to observe a session timeout limit that you set. This timeout limit dictates how long a customer’s session lasts before it is considered abandoned.

**Create a Behavior Trigger Email**
After you create a Behavioral Trigger in Marketing Cloud Content Builder, you can create an email based on that trigger.

**Behavioral Triggers Optional Features**
Marketing Cloud (Einstein)

SEE ALSO:
Solution Kit: Turn Abandoned Carts into Completed Sales

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**Behavioral Triggers Prerequisites**
To implement Behavioral Triggers, first install Collect Tracking Code and upload a product catalog.

**Behavioral Triggers Requirements**
- A catalog of assets used to sync with user behavioral data and determine which recommendations to show.
- Collect Tracking Code used to monitor key variables and events on your website at the user level.

You can import one file for each catalog type.
Create a Behavioral Trigger

Set up a behavioral trigger to map data to a target data extension when a user takes a particular action, such as abandoning a cart or browser session. The target data extension name displays on the Behavioral Triggers dashboard after you create the trigger.

1. In the Behavioral Triggers app, click New Trigger.
2. Choose the customer action that is logged in the target data extension when the action occurs.
3. Click Next.
4. Set the suppression period and suppression rule.
5. Click Next.
6. Review and save your settings.

   The trigger appears on the Behavioral Triggers dashboard. Note the data extension name so you can select it to power a journey or email send.

Edit a Behavioral Trigger

Update a behavioral trigger to include a different suppression period or suppression rule time frame.

1. In the Behavioral Triggers app, click ▼ next to a trigger.
2. Click Edit.
3. Update the suppression period or suppression rule time frame.
4. Click Save.

Pause a Behavioral Trigger

To stop a behavioral trigger from directing engagement data to your target data extension, pause the trigger.

1. In the Behavioral Triggers app, click ▼ next to a trigger.
2. Click Pause.

   The trigger’s status updates.

Resume a Behavioral Trigger

To restart a behavioral trigger so it begins directing engagement data to your target data extension, resume a paused trigger.
1. In the Behavioral Triggers app, click next to a paused trigger.

2. Click Resume.
   The trigger’s status updates.

Set Behavioral Trigger Session Timeout Limit

Configure the Behavioral Triggers app to observe a session timeout limit that you set. This timeout limit dictates how long a customer’s session lasts before it is considered abandoned.

Note: Custom session timeout limits are not supported.

1. In the Behavioral Triggers app, click .
2. Select a timeout limit.
3. Click Save.

Create a Behavior Trigger Email

After you create a Behavioral Trigger in Marketing Cloud Content Builder, you can create an email based on that trigger. Incorporate the data from the Behavioral Trigger data extension (DE) for the Behavioral Trigger Content Block to work. Using other audiences generates an error.

1. Create the email.
2. To dynamically add abandoned items into the body of the email, drag the items over the Behavioral Trigger Content Block.
   Email recipients get a personalized message. Two schedules factor in: the session timeout and the automation schedule. Session timeout is the period of inactivity that means a session is abandoned. Marketers can configure this period in the Behavioral Triggers application, and it can be as short as 15 minutes.
   After the session times out, a Behavioral Trigger writes the event to a data extension in near real time. Then, the next time your Behavioral Trigger Journey or automation runs, the Behavioral Trigger processes this record. For example, with a session timeout of 30 minutes and an hourly automation schedule, a subscriber gets their Behavioral Trigger message 31–91 minutes after their last click.
3. To include items in the email, set the maximum number of items, and 10 is the default.
   Tip:
   If the customer browsed 50 things, don’t show all 50 in the email.
4. For the marketer to select the most relevant items to show, select the DE column.
   The Max columns increment dynamically and collapse.
5. To show items in the email such as image name or price, choose the fields.
   On the Styling tab, when a field is added, the Behavioral Trigger dynamically adds a class in the Styling tab for the sales price. Marketers can add standard CSS to change that.

The HTML tab shows a sample markup that the user can’t edit because the data is added dynamically. Behavioral Triggers shows the HTML so that the user can see how to style the email.
Behavioral Triggers Optional Features

Marketing Cloud (Einstein)

Use Behavioral Triggers to reach customers who abandon unpurchased items or services in their cart.

Horizontal vs Vertical Layout

To display product information to your customers, you can use either a horizontal or a vertical view.

Horizontal:

In a horizontal layout, images and text are side by side. The picture of the selected item is on the left, and the text describing the item is on the right.

Vertical:

In a vertical layout, images are above the text.
Use Current Cart Feature

This feature reflects the cart at the time the message is sent. If the user edits the cart, the message remains in its original state and isn’t updated.

If the check box isn’t selected, the message reflects the items that were originally abandoned.

Rating Stars Feature

Select the rating field in the catalog so that your customers can use the rating stars feature. Customers can rate products on a scale of four to ten. And they can view the products sorted by their ratings from lowest to highest or highest to lowest. Marketers an show a product’s average rating. The product catalog must contain this information. To build the rating visualization, indicate the maximum rating value.

Styling Tab

• Customers can change the color of the actual stars from the specified class.

How to Use Reference Data

AMPscript variables contain data about items in the original cart initialized for example item_<field_name>_<index>

If the user has an updated cart, the updated cart is stored in the field, for example @cart_<field_name>_<index>
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