Salesforce Query Wizard

Creating a Salesforce Query Operation

This page described how to create a Salesforce Query operation using the Jitterbit Connect Salesforce Query Wizard.

The wizard follows these steps:

- Salesforce Login
- Select the Salesforce Object
- Build Your Salesforce Query
- Define the Target
- Schedule and Options
- Summary Screen
- Transformation Mapping
- Completed Salesforce Query
- Deploy the Project and Run the Operation

> ⓘ **NOTE:** Harmony Agent and Design Studio versions 10.11 and higher support Salesforce API version 47 from the Salesforce Winter '20 release. Salesforce API version 47 uses Salesforce Bulk API version 2.0.
>
> When opening an existing project that uses a previous Salesforce API version, depending on the agent and Design Studio version currently in use, you will be prompted to upgrade to the latest supported Salesforce API version. (An upgrade to a higher version implicitly includes all the features and objects of prior versions.)
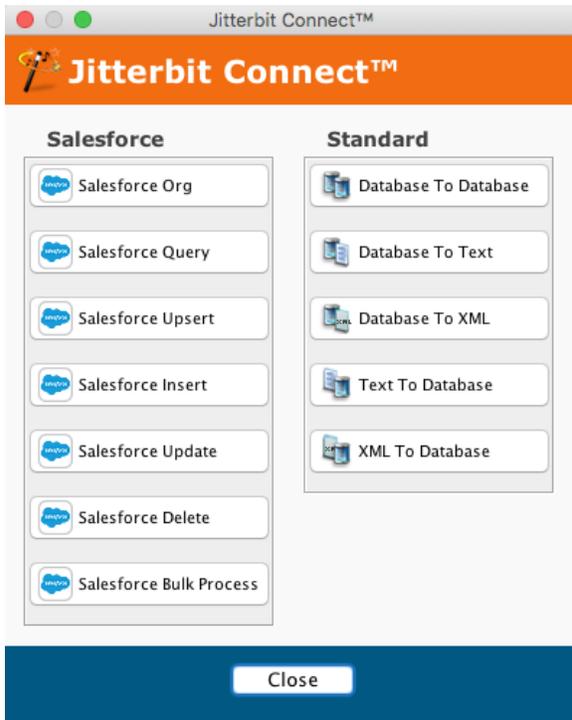
Start the Wizard

- Click the [icon] icon at the top of the screen to display the Jitterbit Connect dialog window:

- To start the wizard, click the **Salesforce Query** button in the Jitterbit Connect Wizard menu, which opens the wizard.
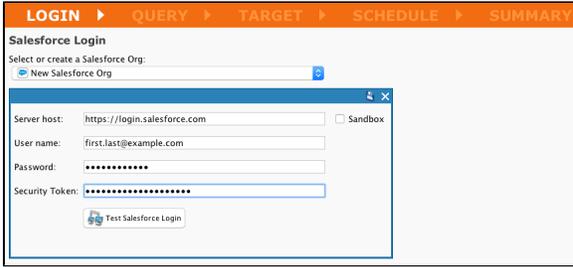
Salesforce Login

- If you have already created a Salesforce Org login, connection details will appear in the Query wizard. You may wish to click the **Test Salesforce Login** button to check the connection.

- If you have not yet created a Salesforce login, or you need to use different credentials, select **Create New…** from the dropdown menu below **Select or create a Salesforce Org**.
- Note that any changes you make in this page of the wizard will be automatically saved to the Salesforce Org shown on the page. See the Salesforce Org page for details.
- On the Salesforce Login screen, click **Next** to move to the next screen. (If required, you can click the **Back** button to return to the previous screen in any of these screens.)

Select the Salesforce Object

- On the **Object** screen you specify the **Salesforce Object** that the operation will use.
- Simplify your view by typing the first few letters of an object's name in the **Filter** text entry box, or click the **Objects to show** dropdown menu and select from either **Standard Common Objects**, **All Custom Objects**, or **All Objects.**
- Select the desired **Salesforce Object**. In this example, *acc* has been entered in the **Filter** box and *Account* selected.
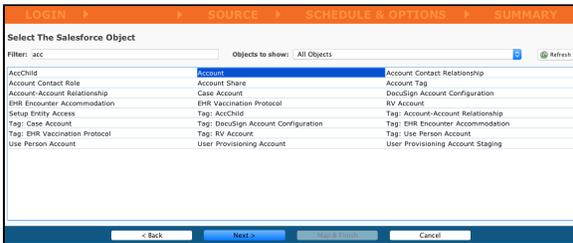
- Click **Next** to move to the **Source** screen.

Build Your Salesforce Query

- On this screen, you begin building the query. You can create either a **Simple** or **Relationship Query**:
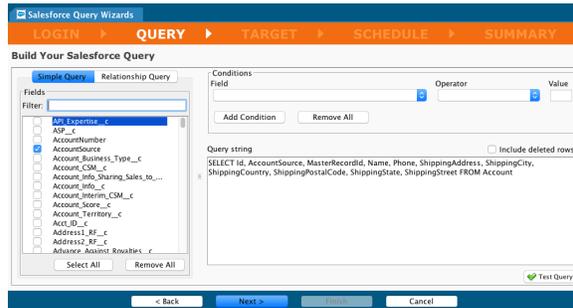
- For a simple query (all references in a single table), use the **Simple Query** pane on the left and check the **Items** to be included in your query. As you do so, they will be added to the **Query string** in the right pane. Using the **Filter** text entry box, the **Select All,** and **Remove All** buttons can help you quickly specify each field.

- For a relationship query (which includes references to other tables, either parents or children of the current object), click the **Relationship Query** tab on the left. Lists for **Parent** and **Child relationships** appear at the bottom of the left pane:
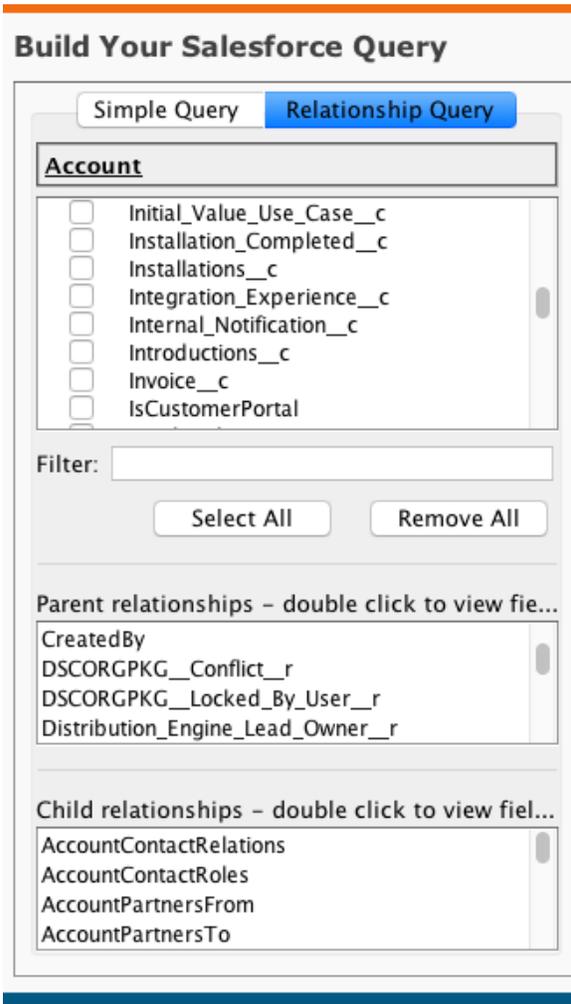
- Select an object from the **Child relationships** list and double-click it to view its **Fields** in the object. You can add them, as shown in this example, where fields from *Contacts* have been added (*LastName*, *Department*, *Email*, etc.):
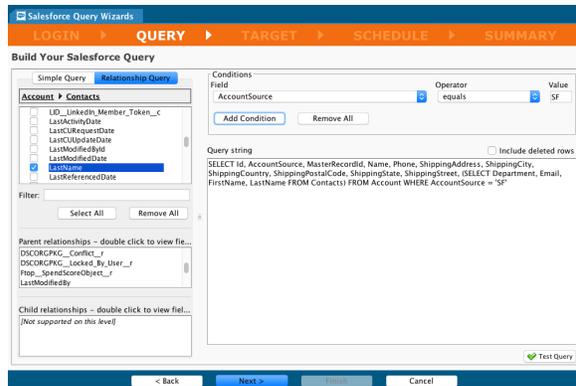
- Check a field in the child table to add them to your query string. Again, you can use the **Filter** text entry box to quickly find desired items.
- To move back to an earlier table (such as *Account*, as shown in the above example), click on the table name in the breadcrumbs of the wizard.
- You can add conditions to the query using the **Field**, **Operator,** and **Value** controls under **Conditions**; for example, *AccountSource = 'SF'*. When you have completed the entries in these controls, click **Add Condition** and the condition will be added to the query string:

- You can click the **Test Query** button on the lower right to validate the query.
- After completing the query, click **Next** to move to the **Target** screen.

Define the Target

Select Where You Want To Put Your Data

The target is the destination of the data retrieved from the Salesforce Query. Select one of:

- An existing target type from the dropdown menu, such as Local File, FTP Site, File Share, Temporary Storage, Database, HTTP, or LDAP
- Click the **Select or Create New** button to either select an existing target or to create a new Target of the currently selected type.

For details on the different targets, see the documentation on Targets.

Local File Targets

> ⚠️ **NOTE:** If you are creating a local file target for the first time, you must first enable local file locations in each Jitterbit Private Agent configuration. (A Local File can be used only with Private Agents.)

In the case of a Location File Target, you can directly give a filename of where you want the data stored.

- Specifying a **Local File** as a target and giving its location:

- Clicking **Next** will take you to the **Select A File Format** screen, where you specify either to create a file format based on the fields in the query (optionally with the field names as the first line of the file), to select an existing file format, or to create a new file format:

- Specifying a **Local File** as a target, and selecting the using of an existing Local File target:
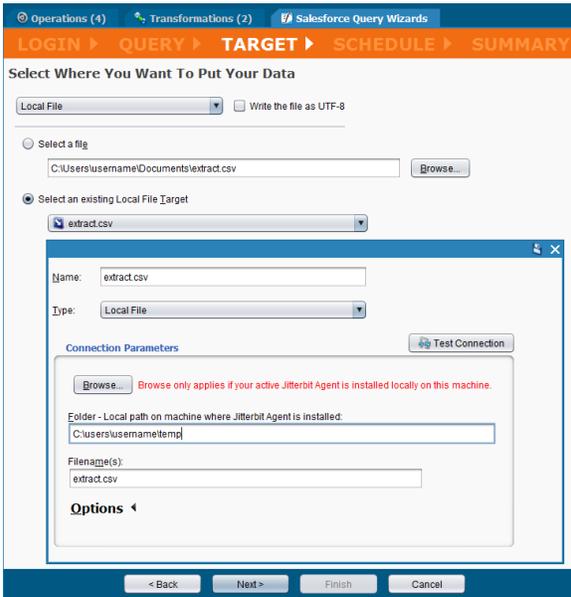
- When you have completed your entries for the target, click **Next** to move to the next screen.

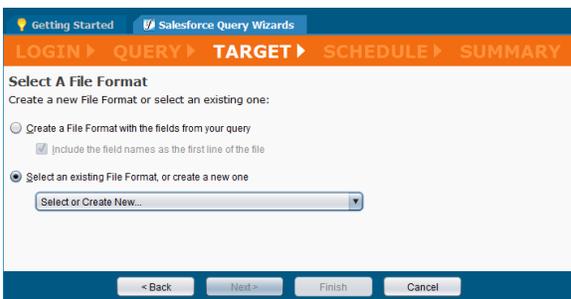## Select A File Format

- Once you have specified the target, you will need to specify the Target File Format. If you have selected a database target instead of a file target, see Using a Database as a Target.

- Select a **Radio** button to either create a file format from the fields in your query, select an existing File Format, or create a new file format.
- If you use either an existing File Format or create a new one, you will be prompted at the end of the wizard to **Select or Create New** in the dropdown**.**

- Click **Next**.

Schedule and Options

- Creating or setting a schedule is both optional and can be done at a later time. For more details on scheduling, see Creating a Schedule.
- You can edit an existing schedule by opening it in the Schedules folder of the Project Items panel and making any desired adjustments.
- You can use this wizard screen to either add scheduling to an unscheduled operation or open the operation under the Project Items Panel and make the appropriate adjustments.
- Set the **Occurrence**, **Daily Frequency** (hours or minutes) and **Duration** of the operation.
- When setting **Duration**, be aware that **Starting at** and **Ending at** dates in a schedule are *inclusive*.
- To display these options, open the disclosure triangles besides **Occurrence**, **Daily Frequency**, and **Duration.**
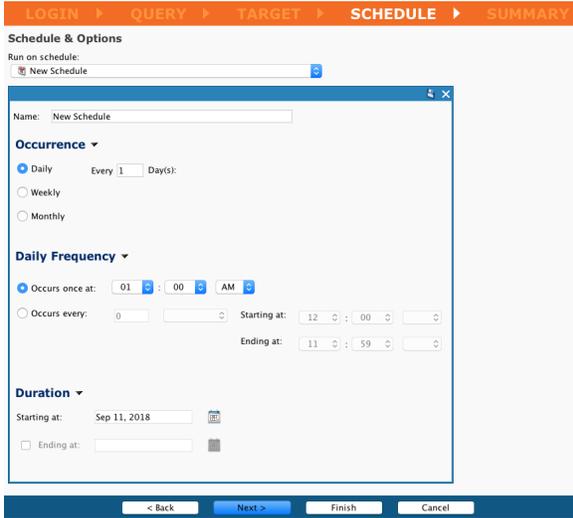
- When finished, click **Next** to move to the **Summary** screen.

Summary Screen

On the **Summary**, you can edit the **Name** given to the wizard and specify whether to use the wizard's Automapper to map the data:
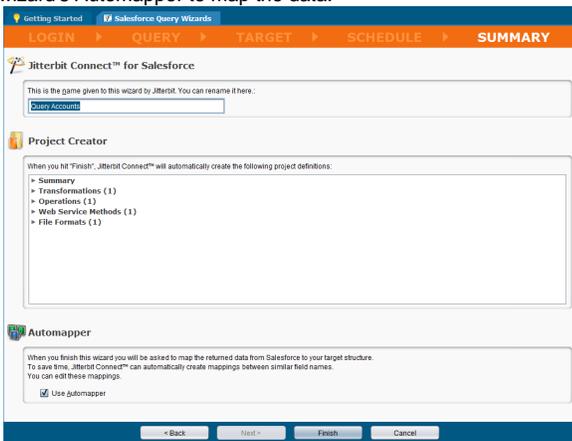
- Click **Finish** to complete the wizard.
- If you need to create or approve a transformation mapping, you will be taken to that screen.
- Otherwise, the design items for your operation will be created and become visible in the Project Items panel on the left side of the screen and you will be taken to the operation's Salesforce Query page.

Transformation Mapping

If you chose **Select an existing File Format** (or created a new one) in the Target screen of the wizard, the transformation mapping appears in your work area:
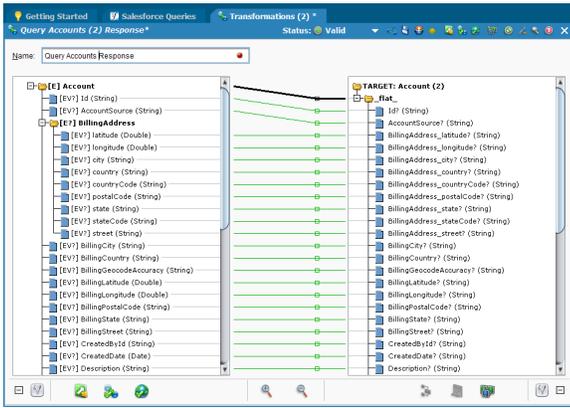
- If you specified the **Use Automapper** checkbox, most or all of the field mapping may be completed. Complete any manual mapping as appropriate.
- A mapping is shown as a line between items in the **Source** (left) and **Target** (right) columns.
- A green line indicates a valid mapping and is further indicated by the presence of a blue square next to each validly mapped item name.

- A red line indicates an invalid mapping.

- A yellow line indicates that a mapping is of questionable validity; however, the operation will attempt the transformation with that mapping.

- You can complete the mapping on the Transformation tab by dragging and dropping from the Source on the left to the Target on the right. When you do so, and a valid mapping is the result, a blue square will appear to the left of both the Source and Target items.

- To save your transformation, click the down arrow on the Status ribbon and select **Save**.

Complete the mapping as required and click **Finish** to complete the wizard and the creation of the design items.

Completed Salesforce Query

- Once completed, you will be taken to the summary screen for the new Salesforce Query.
- You can return to this summary page by finding its operation name under Jitterbit Connect in the Project Items panel.
- You can modify any of the design items in your project such as **Salesforce Login**, **Salesforce Query**, **Mappings**, **Write data to**, **Operation,** and **Run on Schedule** by clicking their adjacent **Edit** button.
- The **Run Query**, **Test Query**, and **Delete** button functions are described below in Deploy the Project and Run the Operation.
- **Advanced Options** include operation options such as chunking and field truncation. They are covered below in Advanced Options.
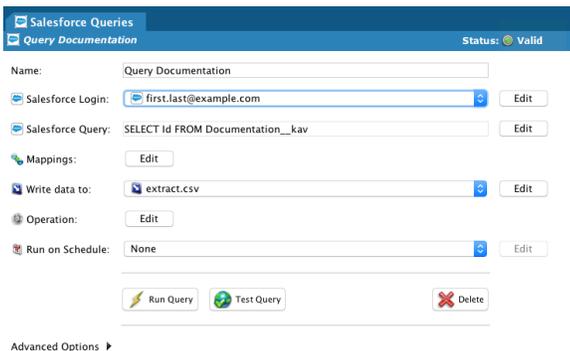
Advanced Options

These advanced options are available for a Salesforce Query:

File Options

- **Write as UTF-8:** Select to write the target file as UTF-8 character encoding.
- **Target header:** Select from one of **No Header**, **Salesforce Field Names**, or **File Format Field Names.**

Operation Options

- **Include deleted rows:** Select to included deleted rows in the output of the query.
- **Batch size:** By default, this is set to 2000 records.
- **Retry Policy:** Displays a dialog to set the retry policies. See the Salesforce Advanced page.
- **Chunking:** By default, chunking is not enabled for Salesforce Queries. It can be enabled in the operations options, as described on the Salesforce Advanced page.

Additional operation options for chunking and writing success and failure records are described on the Salesforce Advanced page.

Deploy the Project and Run the Operation

Deploy the Project

Deploying a project before running is not required as it will automatically be deployed if needed.

To deploy the project, either:

- Click the **Deploy** icon on the toolbar; or

- On the Project Items panel right-click on the **Name** of the project just created, and then left-click **Deploy** on the resulting dropdown menu; or

- Right-click **Operations** at the top of the Project Items panel and then left-click **Deploy** on the resulting dropdown menu.

The project deploy process begins sending the project to Jitterbit Harmony, and a progress message appears.

- To run the progress message in the background, click **Run in Background.**
- To cancel the deploy process, click **Cancel**, which returns you to the previous screen.

The operation is now complete and deployed.

Run the Operation

This image shows the buttons available on the Salesforce Wizard summary pages. The labels (such as *Run Query* or *Run Insert*) will vary depending on the wizard that you are using. The **Result History** button is not available on the *Salesforce Queries* summary page and the **Test…** button is not available on the *Salesforce Bulk Processes* summary page.
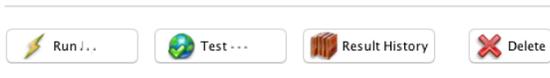

- Press the appropriate **Run…** button to place the operation in the queue for execution.
    - If the project has not already been deployed, or has been changed since the last deploy, it will automatically be deployed. See Operations for additional information on creating, deploying, and running operations.
    - The Operation Monitor displays at the bottom of the screen tracking the status, time received, time started, and the time the operation completed processing.
    - When the operation completes processing, the **Result** popup displays the time of completion, the status, the number of records that successfully processed, and the number of records that failed to process. The **View success file** and **View failure file** buttons are described below.

- Press the **Test…** button to test the operation. This option is intended to test the operation **only** in an environment that is connected to a **Salesforce Sandbox** and should not be used in a production environment. Selecting *Test Insert* on the *Salesforce Inserts* summary page, for example, processes and inserts the first 200 records into the Salesforce Sandbox. **Note:** The *Test…* button is not available on the *Salesforce Bulk Processes* summary page.
- Press the **Result History** button to display a popup list of recent activity including the time completed, status, the number of records processed successfully, and the number of records that failed to process. Select a result in the list to enable the **View success file** and **View failure file** buttons, which are described below. **Note:** The *Result History* button is not available on the *Salesforce Queries* summary page.
- Press the **Delete** button to delete the operation from the project.
    - The **Confirm delete** popup window displays. Click **Delete** to confirm and delete the operation.
    - The **Delete Wizard Items?** popup displays the associated operation components.
        - Select **Yes** to delete the associated wizard objects in addition to the insert operation.
        - If you select **No,** the wizard objects remain available within the project. **NOTE:** Only the insert operation is deleted.
        - Selecting **Cancel** cancels the deletion of the insert operation and the associated wizard objects.

See Operations for additional information on creating, deploying, and running operations.

Viewing Success and Failure Files

Viewing success and failure files is available if you are running operations on a Private Agent. The buttons **View Success file** and **View failure file** are available after you press the **Run...** button or the **Result History** button as described above and then select one of the results. This is an example of the **Result History** popup window, showing the buttons and a selected result:
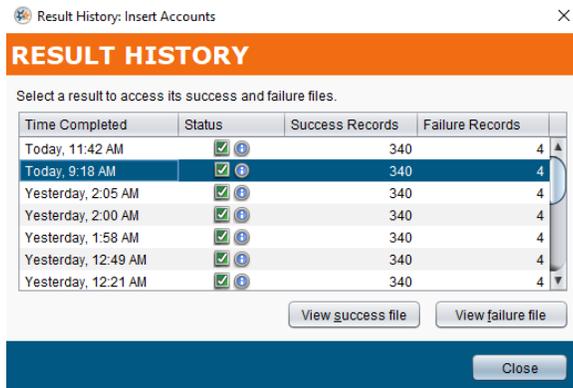
- **View success file:** If you are running the operation on a Private Agent, selecting the **View success file** button displays the first 100 records that successfully processed within a popup window.
- **View failure file:** If you are running the operation on a Private Agent, selecting the **View failure file** button displays the first 100 records that failed to process within a popup window.
- In this example, three records are shown:
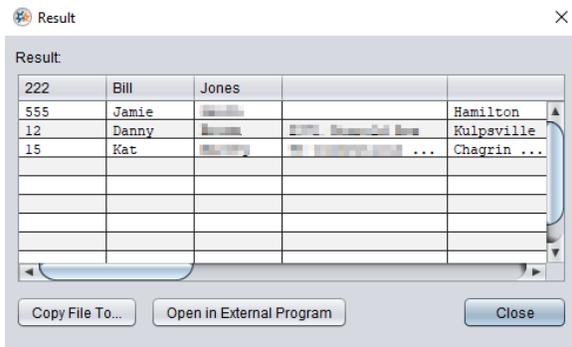
- **Copy File To...:** This button saves the success or failure records to a CSV file. The default file name is `salesforce.csv`.
- **Open External Program:** This option is currently not available.

ⓘ **NOTE:** The success and failure files are available for viewing from the Private Agent for 14 days by default. The files are automatically deleted from the Private Agent after 14 days by

the Jitterbit File Cleanup Service. The number of days the files are saved can be changed by editing the `jitterbit.conf file` in the `[ResultFiles]` section (see Editing the Configuration File). You can also change the success and failure file rules by Editing the Jitterbit File Cleanup Service Rules for Private Agents.