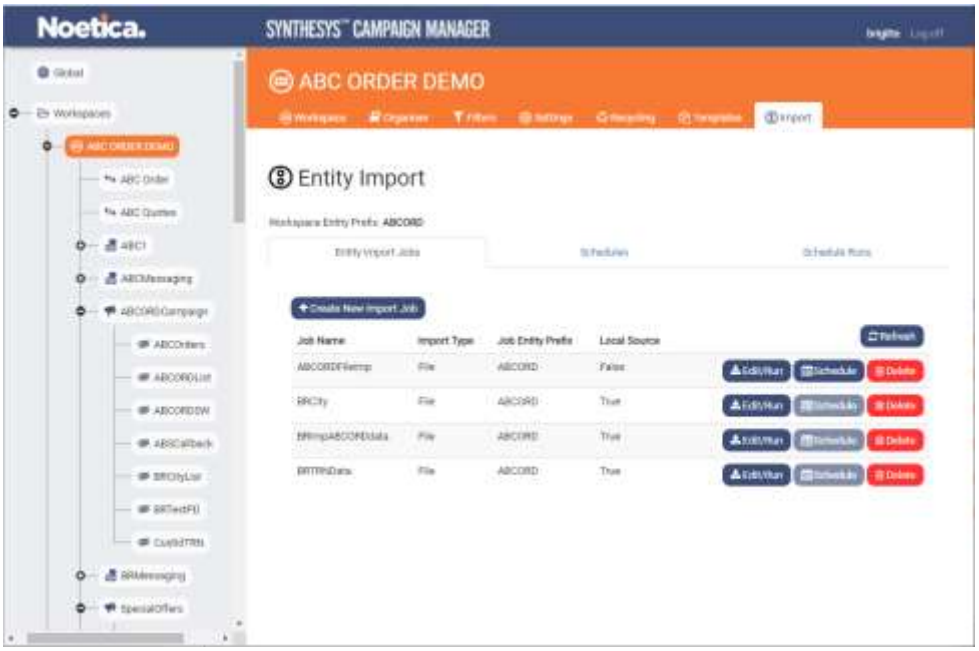
ENTITY DATA IMPORT



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The information contained in this document may change. We may issue revisions from time to time to advice of changes or additions. We operate a policy of constantly improving and enhancing our application software. There is a possibility therefore that the format of a screen display and printed output shown in this documentation may differ slightly from that provided in the software. It is our policy to update this documentation whenever a major release of software takes place.

Synthesys™ Entity Data Import

Last updated July 2021

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CREATING ENTITY IMPORTS

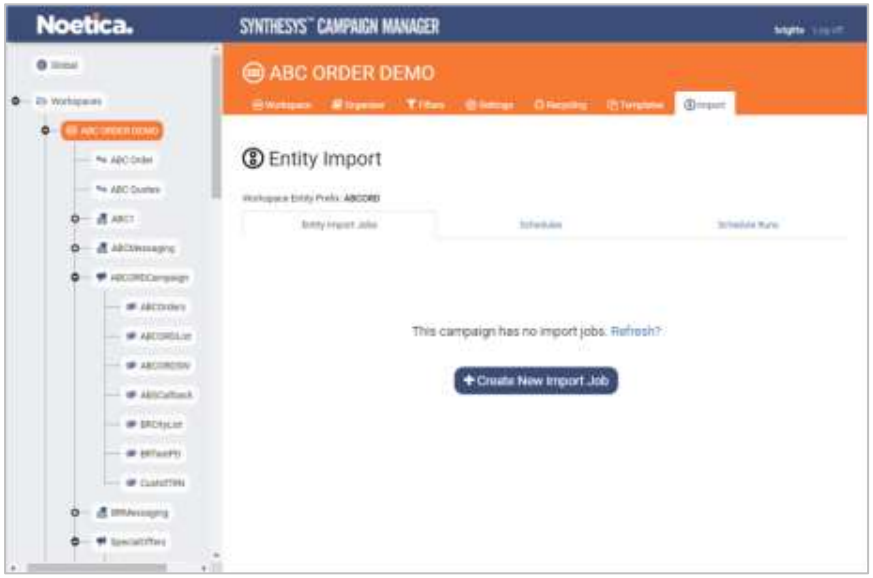
The Entity Import option allows contact centre administrators with the relevant user permissions to import customer records from a file or database into a CRM Entity table.

The Entity Import can be configured and executed at Global or at Workspace level.

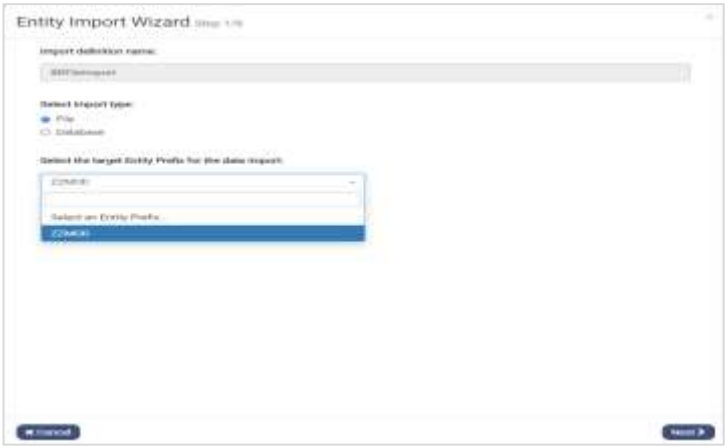
When launching the **Entity Import** at **Global level**, you will be able to select any Entity prefix without needing to associate the Import with a particular workspace.

When launching the **Entity Import** at **Workspace level**, you will only be presented with the primary Entity and any sub Entities assigned to the selected workspace.

- Select the **Import** (Entity Import) tab at Global or at Workspace level.
- Click the **Create New Import Job** button, to open the Entity Import Wizard.



- Enter a name for your data import into the **Import Definition Name** field.
- Next, select the **Import type**, File or Database, and the target **Entity Prefix.**



- Click **Next >** to move to the next page of the wizard.

The next section **File Data Import** describes the steps to be taken when importing data from a file. The section **Database Import** describes how to import data from a database.

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FILE DATA IMPORT

Defining Import Details

When importing data from a file, you can upload the file from your local machine, a server or from an FTP/ SFTP site, providing that the data file is accessible from the Synthesys™ application server.

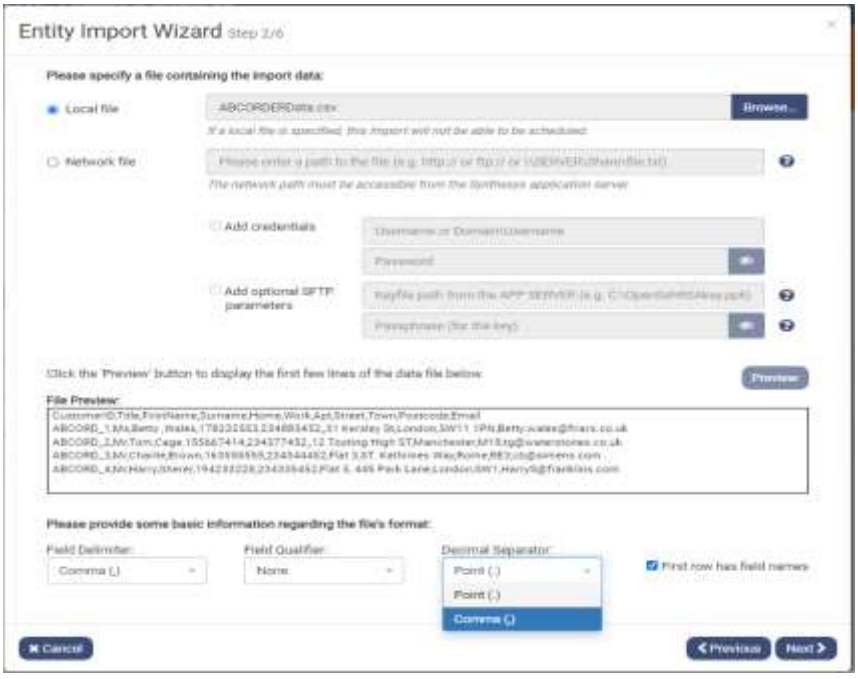
If the file is located on your desktop and you wish to run a one-off instant import, you can use the **Local file** import option. To schedule the data import to run at predefined intervals, you need to use the **Network file** option.

For Network File imports, please see the next page, or use the help prompts next to the Network file and Add optional SFTP parameters fields.

Local File Import

To create a new Entity import using a local file:

- Select **Local file** and use the **Browse** button to locate and pick up the data file.
- Next, click the **Preview** button to display the first few records of the file in the *File Preview* section.



- To specify the file format, select the **Field Delimiter** that separate your fields, i.e., Comma (,), Vertical bar (I), Tab () Colon (:) or Semicolon (;).
- Select a **Field Qualifier**, None, Single Quotes (') or Double Quotes (“), as required.
- Select a **Decimal Separator,** Point(.) or Comma (,) to allow the import of decimal numbers using a comma or decimal point.
- If column headings are used in the first row of the file, tick the **First row contains field names** check box**.**

If you wish to set up a schedule for your data import, you need to create a **Network file** import, as described on the next page.

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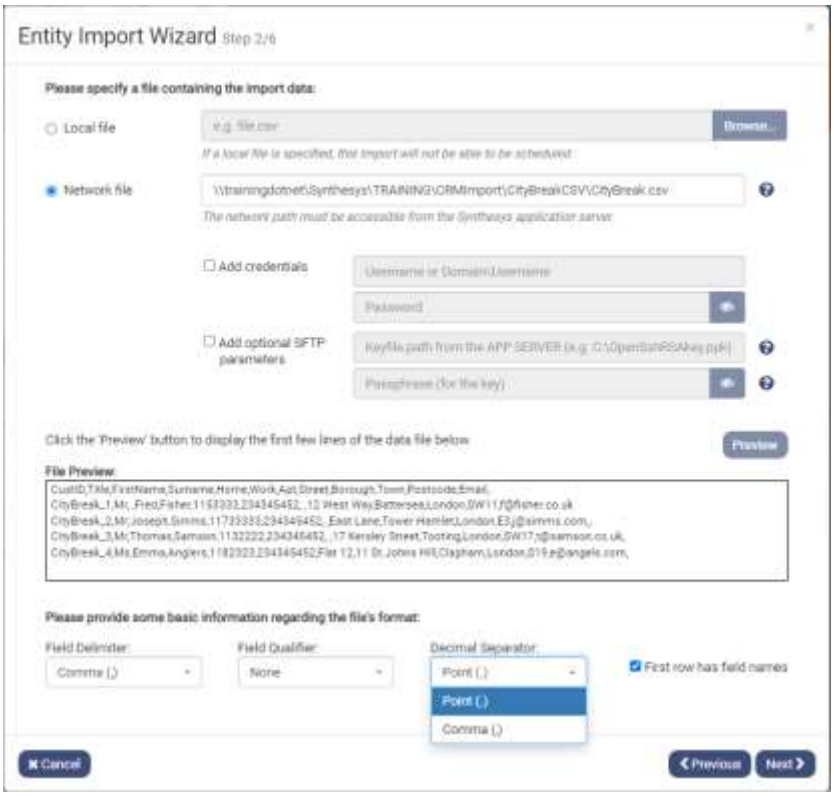
Network File Import

To upload the data file from a server or an FTP/ SFTP site for a scheduled Entity import

- Select **Network file.**
- Enter the network path into the associated field, using the full UNC path containing \\MachineName\Drive\….
- Tick the **Add credentials** box and enter your user credentials and password, as provided to you by your system administrator.
- Use the help prompts for more information about the required Network file path and optional SFTP parameters.



- Click the **Preview** button, to confirm that the selected file is accessible from the application server and to display the first few records of the file in the *File Preview* section.
- To specify the file format, select the **Field Delimiter** that separate your fields, i.e., 'Comma (,)', Vertical bar (I)', 'Tab ()' or 'Colon (:)'.
- Select a **Field Qualifier**, None, Single Quotes (') or Double Quotes ("), as required.
- Select a **Decimal Separator**, Point(.) or Comma (,) to allow the import of decimal numbers using a comma or decimal point.
- If column headings are used in the first row of the file, tick the **First row contains field names** check box**.**

To move back to the previous page**, c**lick **< Previous,** to move to the next page of the File Import wizard to upload the data file to the application server click **Next >**.

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Uploading Data File

When uploading the data file, clicking the **Upload File** button, a check will be performed to ensure that the file is readable, that all records have the same number of fields and that the delimiters and qualifiers are consistent, showing the following details:

- File successfully copied to application server.
- File check has errors (if errors are found, showing a brief description of the most common error).

A summary shows the **Total Records** uploaded, with the number and percentage of good and bad records found.

Downloading Error Log

If the system has found bad records when checking the data file, you can download and view the error log.

- Click the **Download** button to download a copy of the error log.
- Check the records displayed for errors.

- Next, either **Cancel** the import and correct the data before importing the file again, or
- **Continue** with the data import excluding the bad records.

Each time the file is changed and picked up again for the import, the process of checking and displaying the first few records will be repeated.

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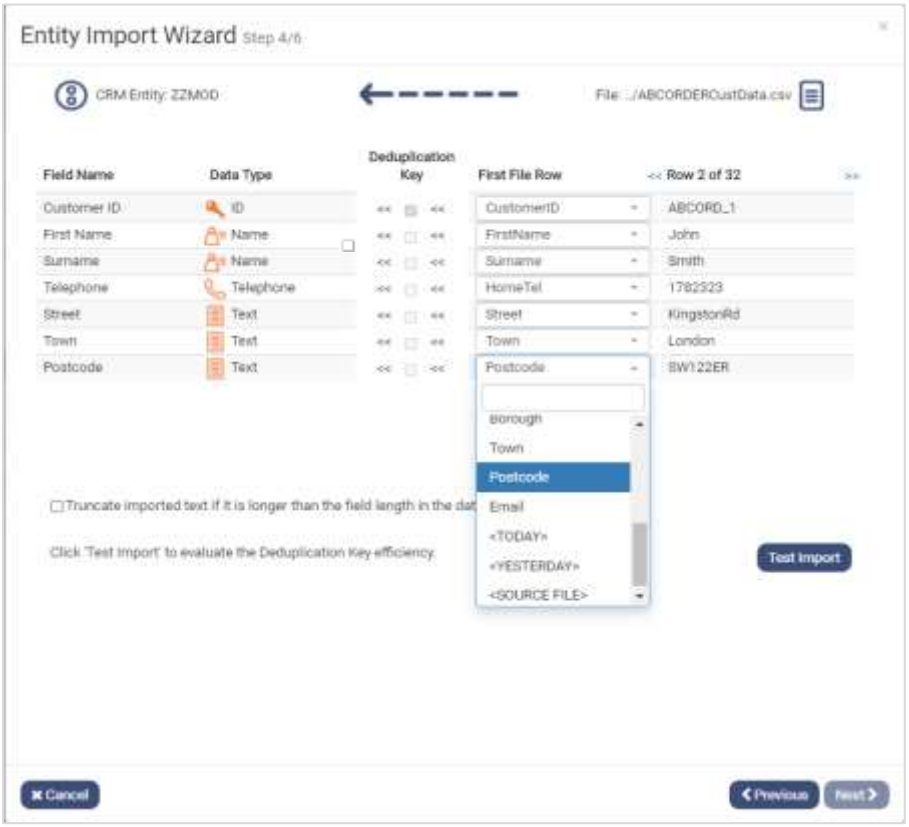
Mapping File Data to Entity Fields

You now need to map the fields from the import file to the fields of the selected CRM Entity.

- The columns on the left of the dialog show the **Field Name** and associated **Data Type** of the Entity fields.
- The middle column **Deduplication Key** is used for performing duplicate checks.
- The columns, **First File Row** and **Row 2 of** on the right, show the field headings and data of the import file. You can use the << >> arrows to scroll through the file to view the content of fields that may not be populated at the very beginning of the file.

If you have ticked **First row contains field names** in the previous page, some of the field headings may already be displayed in the **First File Row** column, with the data mapped.



- Check that the import file and Entity fields already mapped are matched correctly.
- Use the drop-down lists in the **First File Row** column to assign (or reassign) the source fields to the associated Entity fields.
- If required, you can also use the drop-down lists to type in an immediate value (with type checking against the corresponding CRM property) or select useful variables (such as ‘today’s date’, ‘source filename’, etc.) from a list.

Please have a look at the next page, **Mapping Data to Sub Entity Fields**, before moving to the **Duplication Key Test** section.

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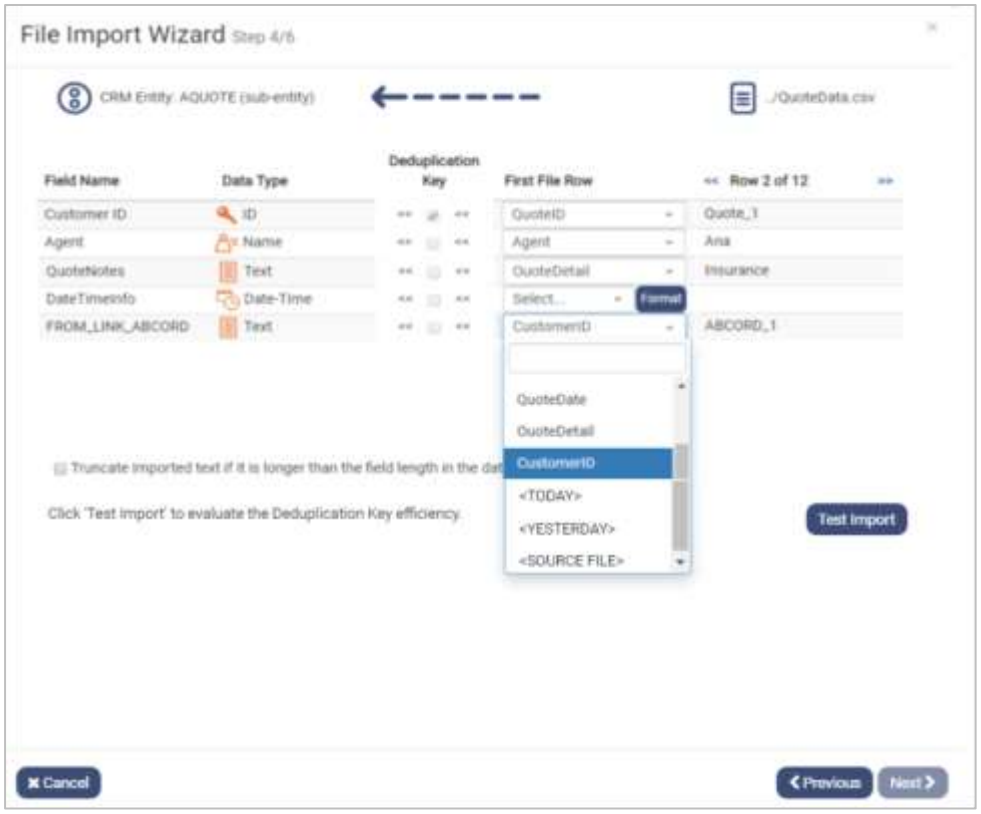
Mapping File Data to Sub Entity Fields

If you are importing data into a Sub Entity and want to create a one-to-many relationship, for example, between the Parent Entity (ABCORD) customer table and the Sub Entity (Quote) table, so that every customer can be associated with multiple quotes:

- Map the Customer ID field to the unique id field of your Sub Entity, which in our example is the QuoteID.
- Map the FROM_LINK_ABCORD to the Customer ID field of your Parent Entity.
- Ensure that the rest of the Import file and Entity fields already matched correctly.



When importing data into a sub-entity, i.e. an entity that has one or more parents as indicated by properties with names starting in 'FROM_LINK…', it is important that all the FROM_LINK …' fields are populated from the file.

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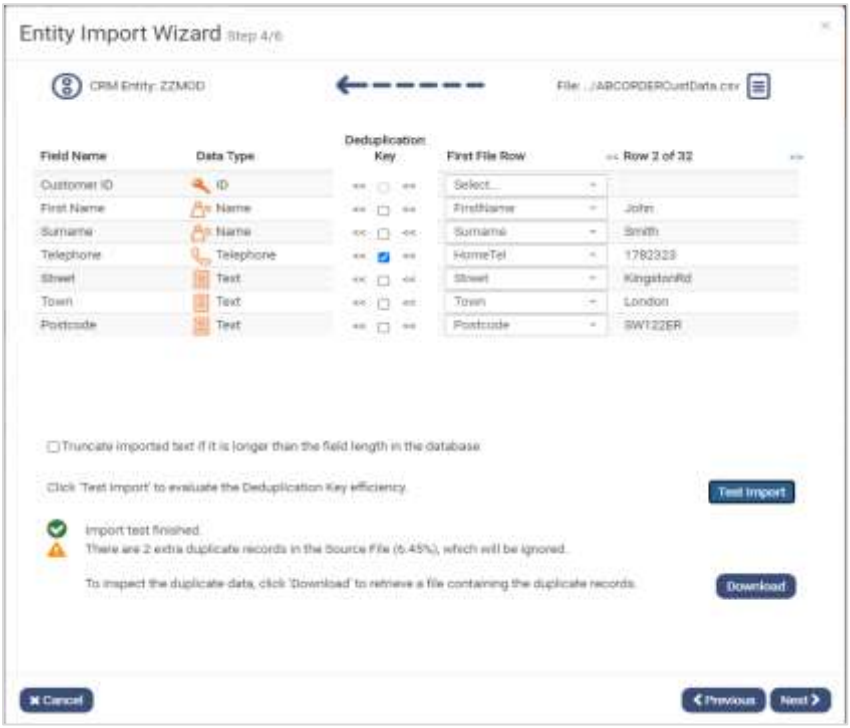
Deduplication Key Test

When mapping the **Customer ID field**, the associated **Deduplication Key** is ticked automatically to enable a duplicate check against the Customer ID.

- To base your deduplicate check on other fields, do not populate the Customer ID field. This will allow you to tick other **Deduplication Key** boxes, as required and the system will automatically generate the Customer IDs based on the Entity prefix.
- Tick the **Truncate** box, to adjust imported text to fit the field length in the database.



Checking Duplicate Records

- To run the deduplication key test, click the **Test Import** button to display the number and percentage of duplicate records found in the source file.

If the file contains more than 10% of duplicated data, you will be blocked from moving to the next page. To proceed, refine the Deduplication Key or edit and re-import the file.

Viewing Duplicate Records

If you wish to inspect the duplicate data that was found during the import check

- Click the **Download** button to retrieve the file containing the duplicate records.

Move to the **Next >** page of the Entity Import wizard, to define the import runs.

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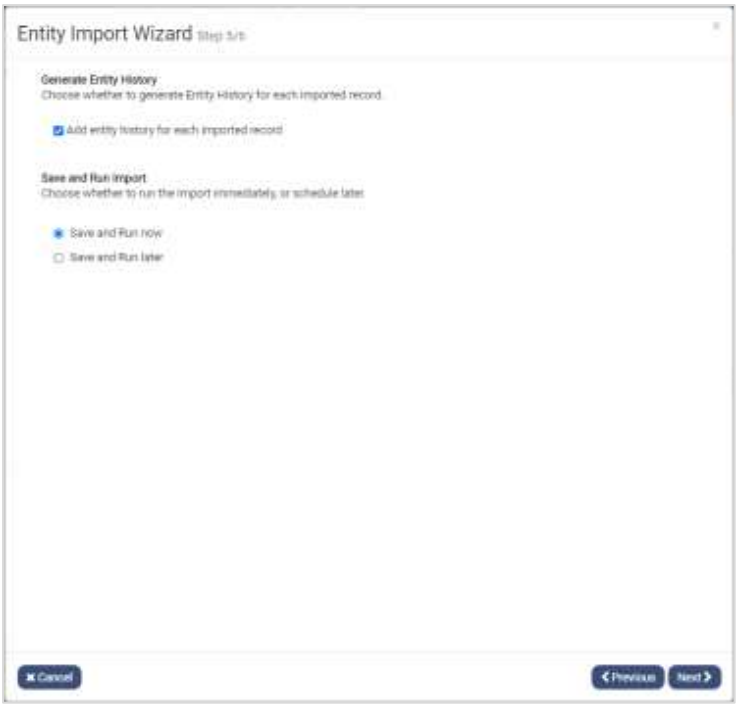
Defining Import Runs

Generating Entity History Events

If you want to create a history event every time an Entity/ CRM record is imported

- Place a tick into the **Add entity History for each imported record** checkbox.

Please note that creating an Entity history event for each record that you import can generate load and space wastage on the SQL database in environments which run frequent updates.



Generating Instant or Scheduled Data Imports

You now have the option to import the records into your CRM Entity immediately or to schedule the import at a later stage.

- Select **Save and Run now,** to import the data immediately.
- Select **Save and Run later**, to create an import schedule for a Network file import.

Please see the next page for more information.

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Instant Data Imports

If you have selected **Save and Run now** in the previous page, import details are saved and the records from your file will be imported into the selected Entity instantly.

You can view details of the data load, including the total number and percentage of records imported and a breakdown of inserted, updated and rejected records.

Downloading Rejected Log and Data Files

- Click the **Download** button next to **View the Rejected log file,** to view the reason for rejecting a record. Click the **Download** button next to **View the Rejected data,** to view the records that were rejected.
- Click Finish to complete the process and close the Import wizard.

Scheduled Data Imports

If you have selected **Save and Run later** in the previous page, a message will confirm that the Import Definition has been saved successfully.

You can use the details later, when creating the import schedule.

Click **Finish** to close the Entity Import Wizard.

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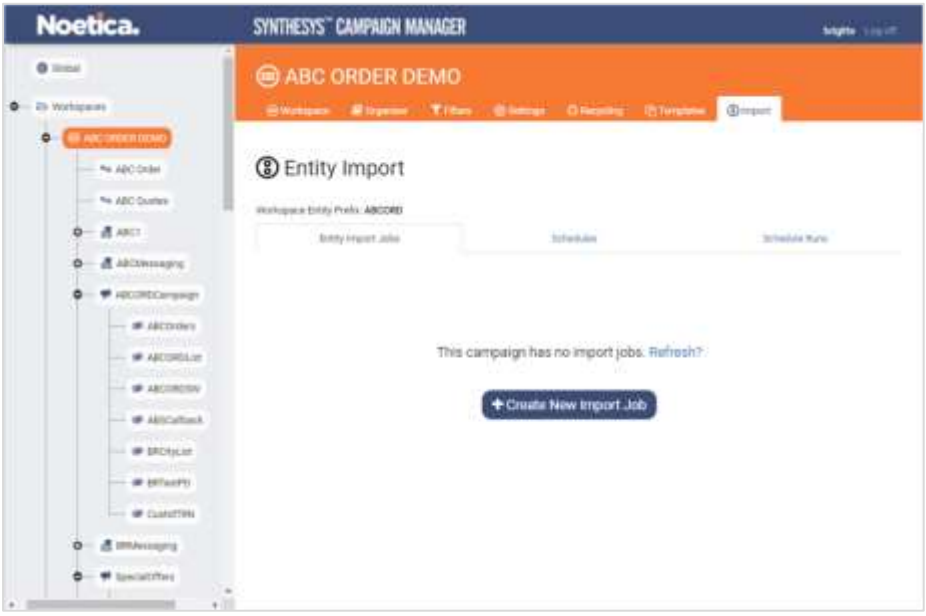
DATABASE DATA IMPORT

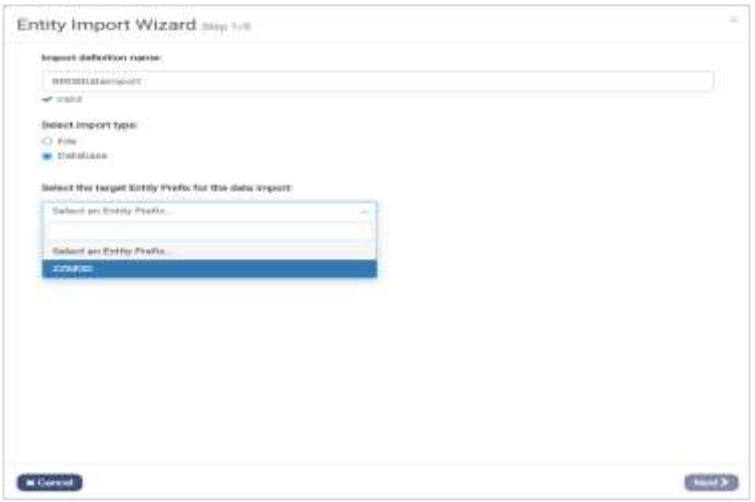
Using the **Database** import option, you can import customer records from an external database and determine which columns in a specific table from that data source you want to be use for the import.

- Launch the Entity Import wizard in the Campaign Manager, at Workspace level.
- Select the **Import** (Entity Import) tab in the screen on the right.
- Click the **Create New Import Job** button, to open the Entity Import Wizard.



To set up a database import

- Enter a name for your data import into the **Import Definition Name** field.
- Next, select **Database** as the Import type, and then the target **Entity Prefix.**



- If the CRM Entity has related entities, you can pick up the (sub- entity) prefix that you wish to use for the import from the ambiguity list displayed.

Move to the **Next >** page of the wizard, to select the data source for the import.

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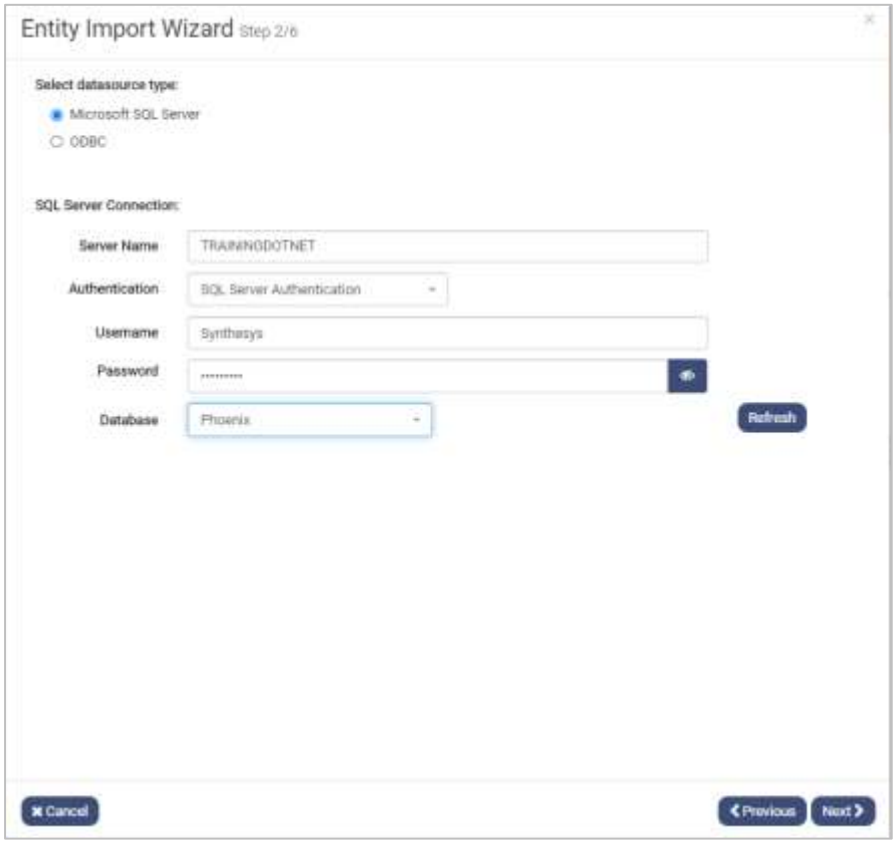
Defining Import Details

Having selected **Database** as the Import type**,** step two of the Entity Import wizard will prompt you to select the data source type and to establish the server connection.

Selecting the Data Source

In our example, we are using Microsoft SQL Server as the data source, but you could also select ODBC, and then enter the connection string, as provided by your Synthesys™ system administrator.

- Select **Microsoft SQL Server** as the data source.



Establishing Server Connection

To connect to the server and access the relevant database

- Add the name of the server into the **Server Name** field.
- Select SQL Server Authentication (or Windows Authentication) from the drop-down menu and enter the associated username and password.
- Next, select the **Database** that contains the table with the data to be imported.
- Click the **Refresh** button, to update the details.

Move to the **Next >** page of the Entity Import wizard.

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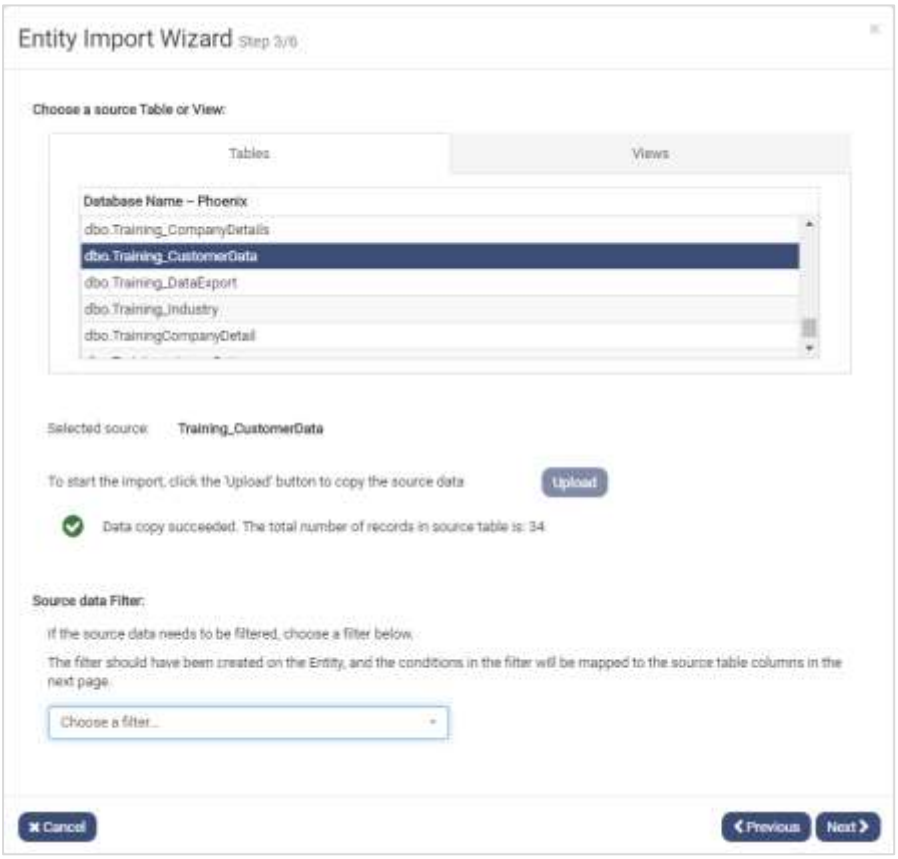
Choose Source Table

You now will select the table that holds the import data and upload the relevant records.

*If you wish to upload and import selected entity data only, go to the **Filters** tab at Workspace level first, to create your filters, as required, specifying the conditions for the import job in the Filter Designer.*

- Select the Tables tab and locate the database table with the data to be imported.
- Click the **Upload** button, to copy the source data.
- A message will inform you that the data was copied successfully and show the total number of records in the source table.



Applying a Data Filter

If you wish to import selected records only, you can use an existing filter, previously created for the selected Entity.

- Select the relevant filter from the **Source data Filter** drop-down menu.

Move to the **Next >** page of the Entity Import wizard.

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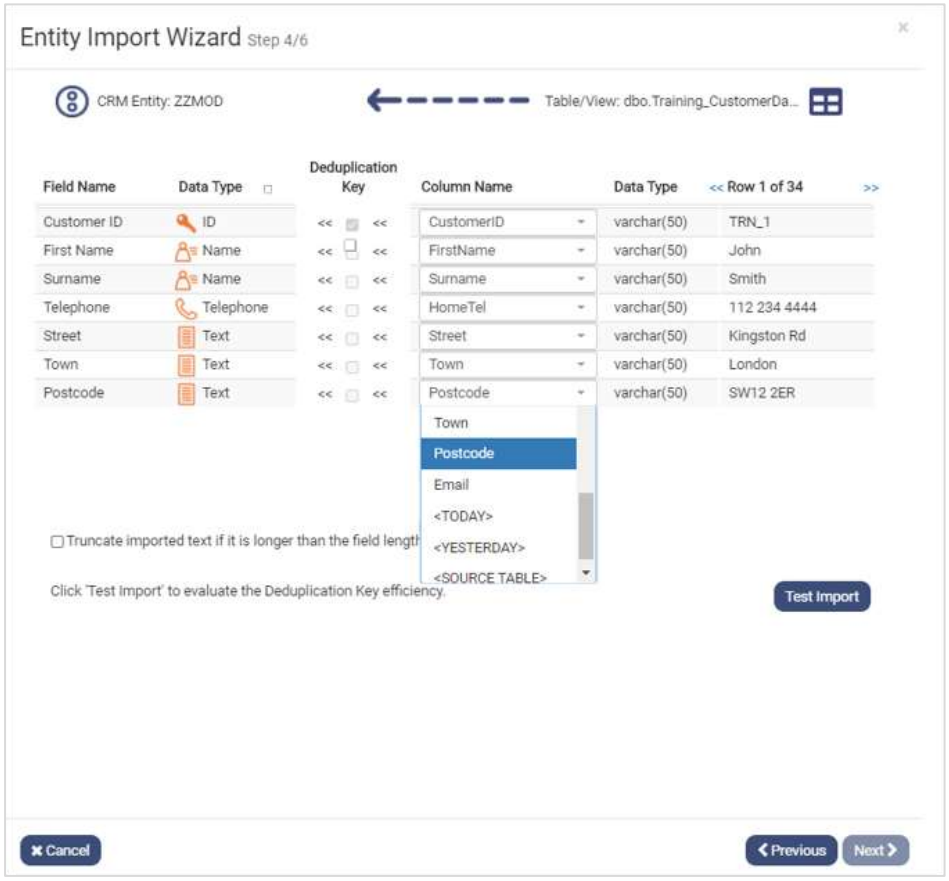
Mapping Source Data to Entity Fields

Next, map the fields from the source table to the fields of the selected CRM Entity.

- The columns on the left of the dialog show the **Field Name** and associated **Data Type** of the Entity fields.
- The middle column **Deduplication Key** is used for performing duplicate checks.
- The columns, **Column Name**, **Data Type** and **Row 1 of** on the right, show the field headings and data of the import table. You can use the << >> arrows to scroll through the records to view data that may not be populated in the first few rows.



- Check that any data fields already mapped to the Entity fields are matched correctly.
- Use the dropdown lists in the **Column Name** column to assign (or reassign) the other fields to the associated Entity fields.
- If required, you can also use the dropdown lists to type in an immediate value (with type checking against the corresponding CRM property) or select useful variables (such as ‘today’s date’, ‘source filename’, etc.) from a list.

Please have a look at the next page, **Mapping Data to Sub Entity Fields**, before moving to the **Duplication Key Test** section.

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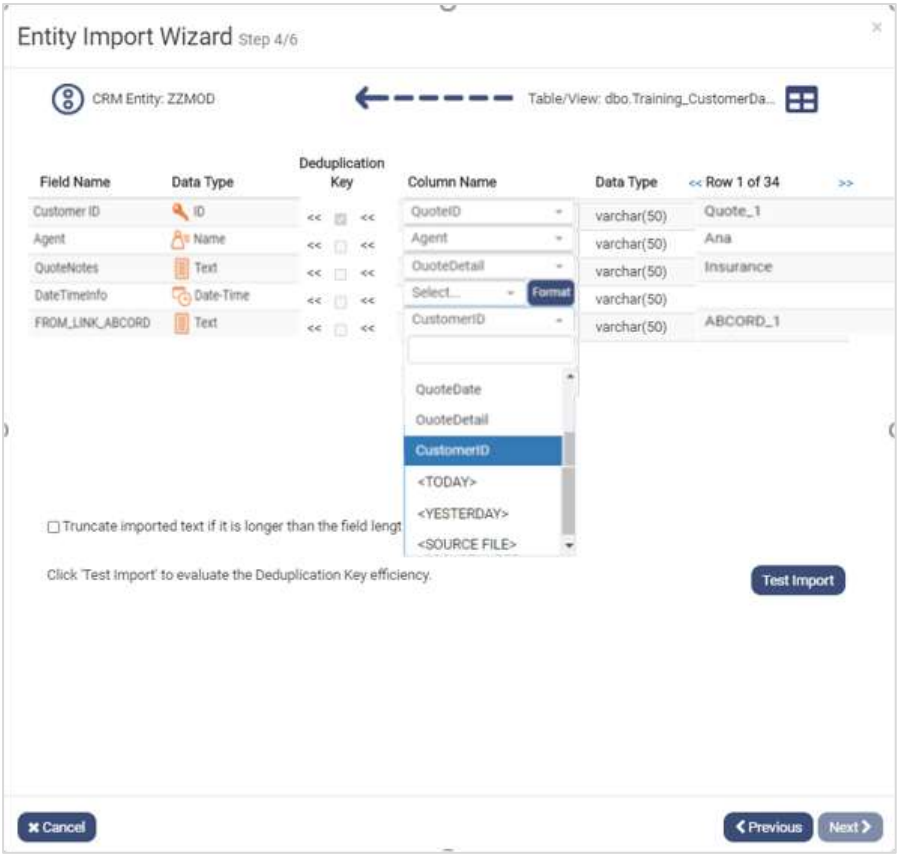
Mapping Source Data to Sub Entity Fields

If you are importing data into a Sub Entity and want to create a one-to-many relationship, for example, between the Parent Entity (ABCORD) customer table and the Sub Entity (Quote) table, so that every customer can be associated with multiple quotes:

- Map the Customer ID field to the unique id field of your Sub Entity, which in our example is the QuoteID.
- Map the FROM_LINK_ABCORD to the Customer ID field of your Parent Entity.
- Ensure that the rest of the source data and Entity fields already matched correctly.



When importing data into a sub-entity, i.e. an entity that has one or more parents as indicated by properties with names starting in 'FROM_LINK…', it is important that all the FROM_LINK …' fields are populated from the table/view.

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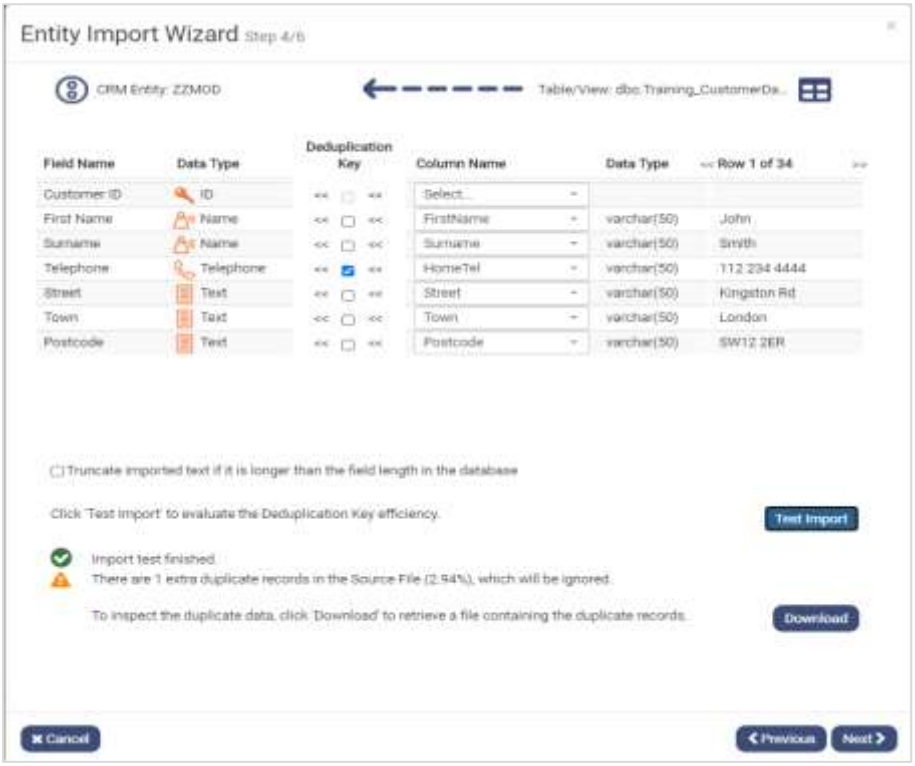
Deduplication Key Test

When mapping the **Customer ID field**, the associated **Deduplication Key** is ticked automatically to enable a duplicate check against the Customer ID.

- To base your deduplicate check on other fields, do not populate the Customer ID field. This will allow you to tick other **Deduplication Key** boxes, as required and the system will automatically generate the Customer IDs based on the Entity prefix.
- Tick the **Truncate** box, to adjust imported text to fit the field length in the database.



Checking Duplicate Records

- To run the deduplication key test, click the **Test Import** button to display the number and percentage of duplicate records found in the source table.

If the source table contains more than 10% of duplicated data, you will be blocked from moving to the next page. To proceed, refine the Deduplication Key or edit and re-import the data.

Viewing Duplicate Records

If you wish to inspect the duplicate data that was found during the import check

- Click the **Download** button to retrieve the file containing the duplicate records.

- Click **Next >** to continue to the next page of the Entity Import wizard.

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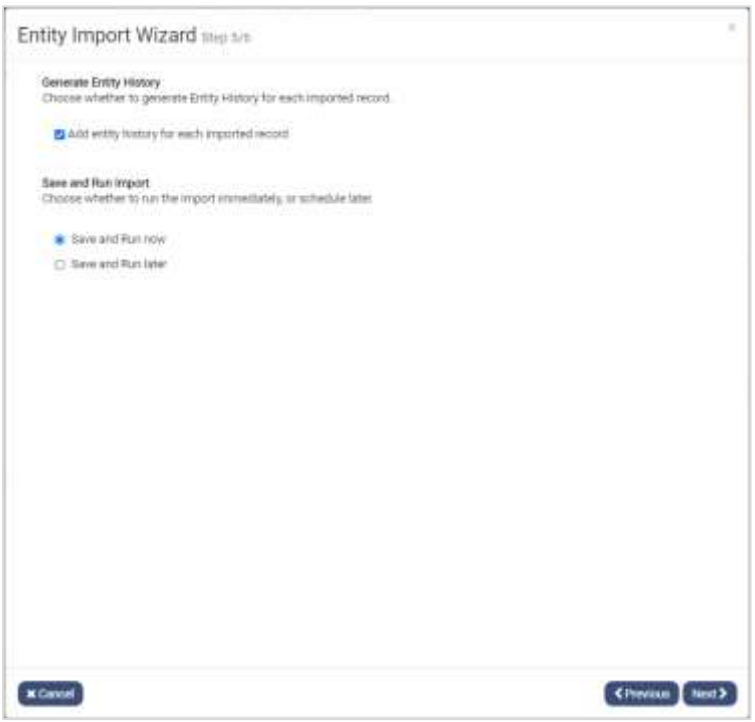
Defining Import Runs

Generating Entity History Events

If you want to create a history event every time an Entity/ CRM record is imported

- Place a tick into the **Add entity History for each imported record** checkbox.

Please note that creating an Entity history event for each record that you import can generate load and space wastage on the SQL database in environments which run frequent updates.



Generating Instant or Scheduled Data Imports

You now have the option to import the records into your Entity/ CRM immediately or to schedule the import at a later stage.

- Select **Save and Run now,** to import the data immediately.
- Select **Save and Run later**, to run a scheduled data import later.

Please see the next page for more information.

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Instant Data Imports

If you have selected **Save and Run now** in the previous page, the import details are saved and the records from your data source will be imported into the selected Entity instantly.

You can view details of the data load, including a summary of the total number and percentage of records imported and a breakdown of inserted, updated and rejected records.

Downloading Rejected Log and Data Files

- Click the **Download** button next to **View the Rejected log file,** to view the reason for rejecting a record. Click the **Download** button next to **View the Rejected data,** to view the records that were rejected.
- Click Finish to complete the process and close the Import wizard.

Scheduled Data Imports

If you have selected **Save and Run later** in the previous page, a message will confirm that the Import Definition has been saved successfully.

You can use the details later, when creating the import schedule.

Click **Finish** to close the Entity Import Wizard.

The next sections provide information about editing and scheduling data imports.

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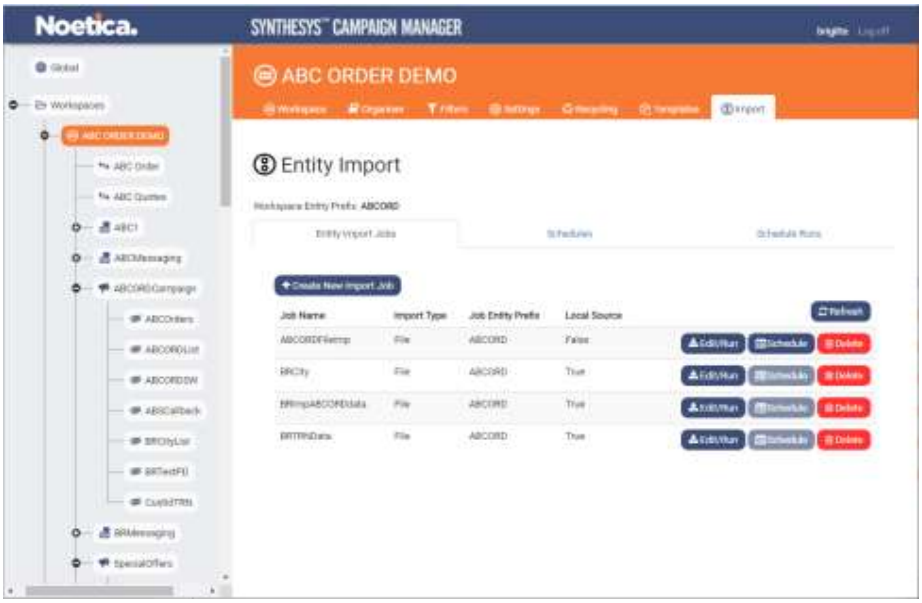
EDITING ENTITY IMPORT JOBS

The Entity Import Jobs that you have created are displayed in the **Entity Import** dialog at Workspace level, displaying the type of import that was created, Database or File, in the **Import Type** column.

***Database** imports can be edited and run instantly, or they can be scheduled.*
***Network File** imports (with an entry of **False** in the **Local Source** column**)** can be edited and run instantly, or you can create a scheduled to run the import later.*
***Local File** imports (with the **Local Source** being **True),** can be edited and run, but not scheduled.*



Editing Database Imports

- To edit or re-run an existing database import, select the **Job Name** in the Entity Import dialog and click the **Edit/ Run** button.
- The first two pages of the Import wizard will show the name of the import, the Entity prefix used, and the data source that was selected for the import.

- In page three of the wizard, you need to **Upload** the database table again and apply a filter, if required, before moving through the Import wizard to verify the data mapping and deduplicate checks, and to confirm the import run.

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Editing Local File Imports

To edit or re-run an existing local file import:

- Select the **Job Name** in the Entity Import dialog and click the **Edit/ Run** button.
- The Import wizard will show the name of the import and the selected Entity prefix.

- In the next page of the wizard, re-select and **Preview** the import file, and then proceed through all steps of the Import Wizard, to upload and check the file, verify the data mapping and deduplicate checks, and to confirm the import run.

Editing Network File Imports

To edit or re-run an existing Network file import:

- Select the **Job Name** in the Entity Import dialog and click the **Edit/ Run** button.
- The first two pages of the Import wizard will show the name of the import, the Entity prefix used and the path of the selected **Network file.**

- Click the **Preview** button to confirm credentials and data format, and then move through the Import wizard, to upload and check the file, verify the data mapping and deduplicate checks, and to confirm the import run.

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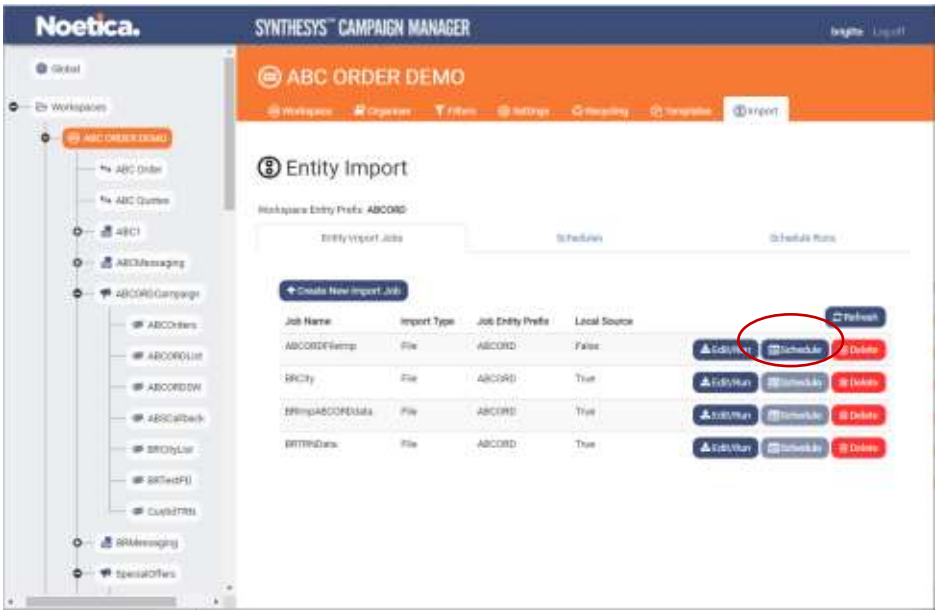
SCHEDULING DATABASE AND FILE IMPORTS

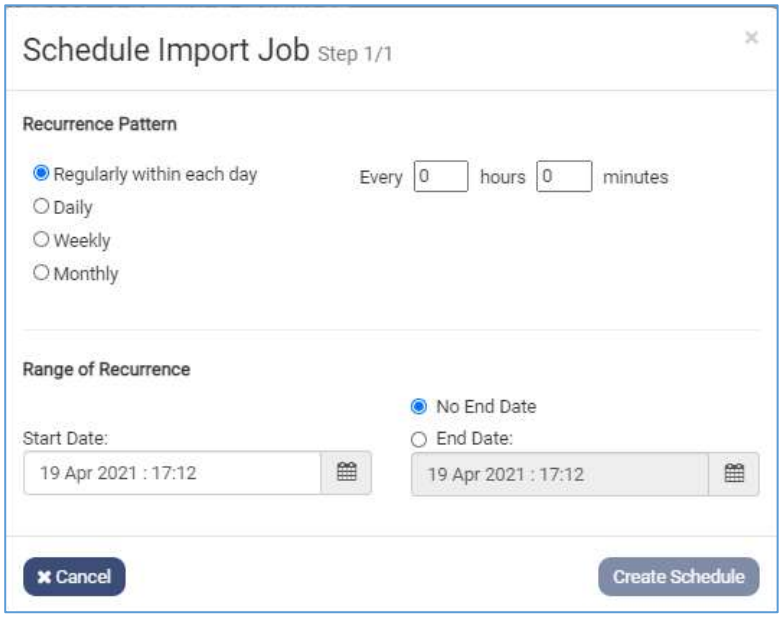
Entity Import jobs that have been created using either the **Database** or **Network File** option, can be scheduled to run at specified intervals.

- At Workspace level, in the Entity Import dialog, select the relevant **Job Name,** and click the **Schedule** button.

The schedule option is not available for instant local file imports, i.e. if the **Local Source** is True.



In the **Schedule Import Job** dialog now displayed, you can define details for the scheduled data import.



Pleas see next page for more information.

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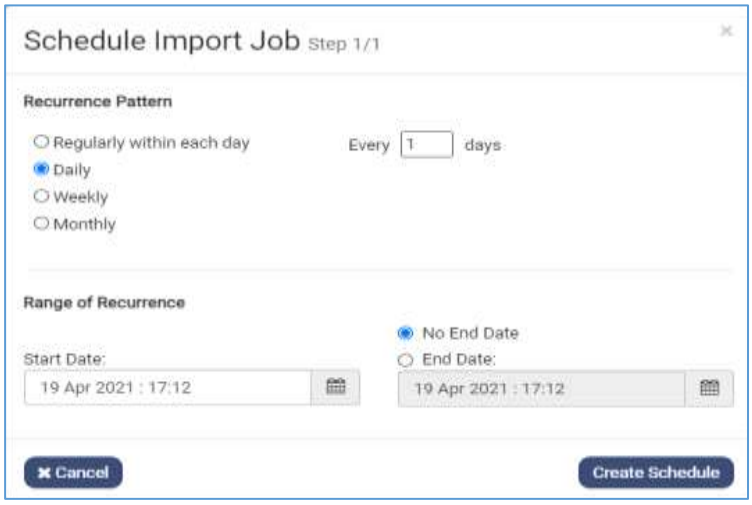
Adding Schedule Frequency

When scheduling data import jobs, you can define the frequency for the import process and set a start and end date.

- In the **Recurrence Pattern** section, select either Hourly, Daily, Weekly or Monthly.
- Depending on your selection you can specify further details as described in the frequency table below.



- In the **Range of Recurrence** section, select a **start date** for the schedule.
- You can run your schedule indefinitely (*No End Date*) or specify an **End Date** to stop the schedule run, as required.

Frequency Options for Schedule Runs

Frequency	Description
Recurrence Pattern	
Hourly	To run your import job every hour, or at the specified frequency, i.e. every 2 hours, or every 5 hours.
Daily	To run your import job daily, or at the specified frequency, for example every 2 or 3 days.
Weekly	To run your import job at specific days of the week, e.g. every Monday, Wednesday and Friday, or every Saturday.
Monthly	Allows you to select certain patterns for monthly import jobs, for example,the first day of every month, or the last Friday of every month.
Range of Recurrence	
Start Date	Select a start date for your import job.
End Date	Select an end date for your import job, if required.
No End Date	Select to run your import job indefinitely

Click the **Create Schedule** button to schedule your import job, to place records either into an existing or a new call list, as required.

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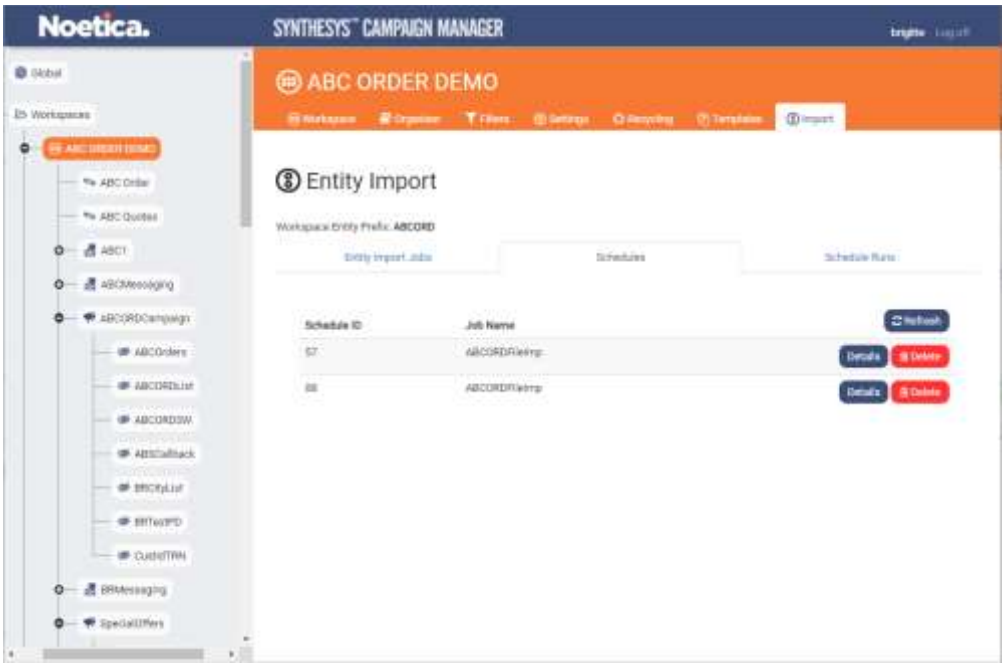
Viewing Schedule Details

To view details of existing import schedules

- Select the Workspace that contains the import schedules that you wish to view.
- Click the **Import** (Entity Import) tab at the top right of the dialog and select **Schedules**.



- Click the **Details** button in the Schedules dialog to view a summary of the selected schedule in the **Schedule Details** page.

Deleting existing Import Schedules

To delete existing import schedules

- Move your mouse pointer over the **Schedule** that you wish to delete and click the **Delete** button.

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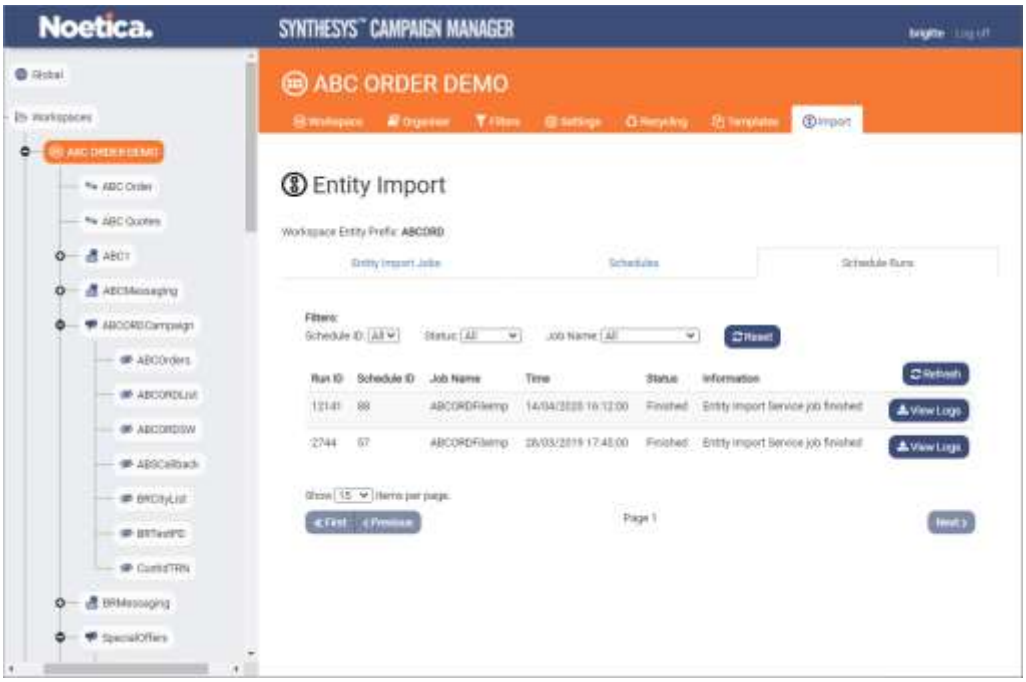
Viewing Schedule Runs

To check details of existing import schedule runs

- Select the Workspace that contains the schedules that you wish to view.
- Click the **Import** (Entity Import) tab at the top right of the dialog and select **Schedule Runs**.



You can display and view all schedule runs, or you can use the **Filters** option to display selected schedules only.

- To display a specific schedule ID, select the relevant ID from the **Schedule ID** drop down menu.
- Use the **Status** option, to show schedules with a specific outcome.
- Use the **Job Name** drop down menu, to view schedules associated with specific import jobs.

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