Confirmit Horizons v2020

This is revision 1 of the Confirmit Horizons v2020 Data Processing User Guide published in March 2020. The information herein describes Confirmit Horizons Data Processing and its features as of Build nr. 2020.3.128. New features may be introduced into the product after this date. Go to www.confirmit.com or check “News” on the Customer Extranet for the latest updates.

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What's New in this Revision?

Note: Only the latest changes to this documentation are listed here. Changes made to earlier revisions are listed in the "Changes to the User Documentation" document which can be downloaded from the Confirmit Extranet at https://extranet.confirmit.com.

The following changes have been made in this revision:

- The Combining the Data... section is added to the Data Processing Menu chapter (see Combining the Data from a Large Number of Surveys on page 104 for more information).
- The Available Functions section is divided into sub-sections to improve readability (see Available Functions on page 105 for more information).

Note: The general layout and language in this document is continually being corrected, adjusted and improved to ensure the user has the best possible source of information. Only NEW information and details of functionality that has changed since the previous issue are listed here - minor corrections to the text and document layout are not listed.

Important
We need your feedback so we can improve this document and provide you with the information you require. If you have any comments or constructive criticism concerning the content or layout of this documentation, please send an email to documentation@confirmit.com. Please include in your email the section number and/or heading text of the section to which your comment applies.

1. The Data Processing Module

The Data Processing module provides processing functionality to improve data imports, data cleaning (recoding and transformation) and data exports. The module uses Rules, set up by the user, to direct the flow of information, and the system handles data much faster than "standard" import and export functionality. Note that the module functions are not associated with any particular project - you do not enter a project first - so you can work with multiple projects.

Important
The Template functionality is intended for importing and exporting data unrestricted by project ownership. The user permission for this functionality is therefore "company-wide"; i.e. all users attached to a company will have full read and editing access to all templates, rules and rule lists associated with that company. Be therefore extremely careful when editing templates and rules - if you change a rule that is being used by another user, valuable project data may be lost when that user runs the changed rule.

Note that if a user attempts to run a rule that is attached to a project to which the user does not have access, then the rule will abort with an error message.

Access the module functionality via the **Data Processing** menu command.

1.1. Introduction

The Data Processing module is built on the SQL Server Integration Services (SSIS) architecture. The module consists of:

- Data Sources.
- Action Script (Data cleaning / recoding / transformation).
- Data Targets (destinations).

The module uses the Triple-S Survey Data Interchange standard (see What is Triple-S? on page 2 for more information).

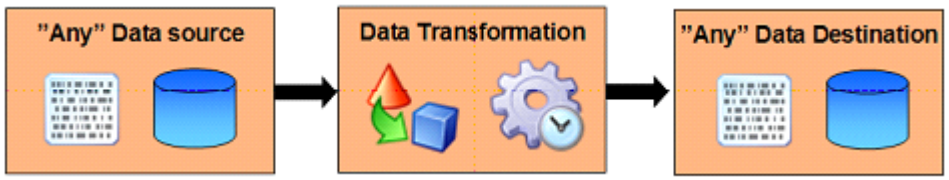


Figure 1 The basic data processing flow

Data Processing supports the following sources and targets:

Sources:

- Text File (comma, and tab delimited)
- Triple-S XML (version 1.1, 1.2, 2.0)
- Confirmit Survey (one or multiple surveys)
- Excel file

Targets (destinations)

- Text File (comma, and tab delimited)
- Triple-S XML (version 1.1, 1.2, 2.0)
- Confirmit Survey (one survey only)

- Excel file
- SPSS
- Quantum
- SAS
- Fixed width file

Action Script (data transformation)

- JScript.NET

  The action script allows you to modify the values of the columns provided by the source. This means that the columns read by the source can be altered by the action script, and passed into the destination.

Note: The action script cannot introduce new columns into the database.

1.2. What is Triple-S?

Triple-S is a public Survey Data Interchange standard, designed and published by the Triple-S Group.

Triple-S is a language for describing survey metadata - that is, data about the survey data: the question and response texts, the location of individual data items within the record, valid ranges for responses, and so on. The Triple-S standard defines a means by which both survey data and variables may be transferred between different survey programs running on different software and hardware platforms. If one program can translate into Triple-S format, and another program can translate from Triple-S format, then the survey metadata can be translated from one language program to the other automatically, without the need for a programmer to do the job manually.

A Triple-S survey is described in two text files. One, the Metadata File, contains version and general information about the survey together with definitions of the survey variables. This is used to interpret the contents of the Data File. The Metadata File will normally have the file extension of ‘xml’ (or 'sss' for compatibility with previous versions of the standard) and the corresponding Data File will have the same name but with the extension 'asc'.

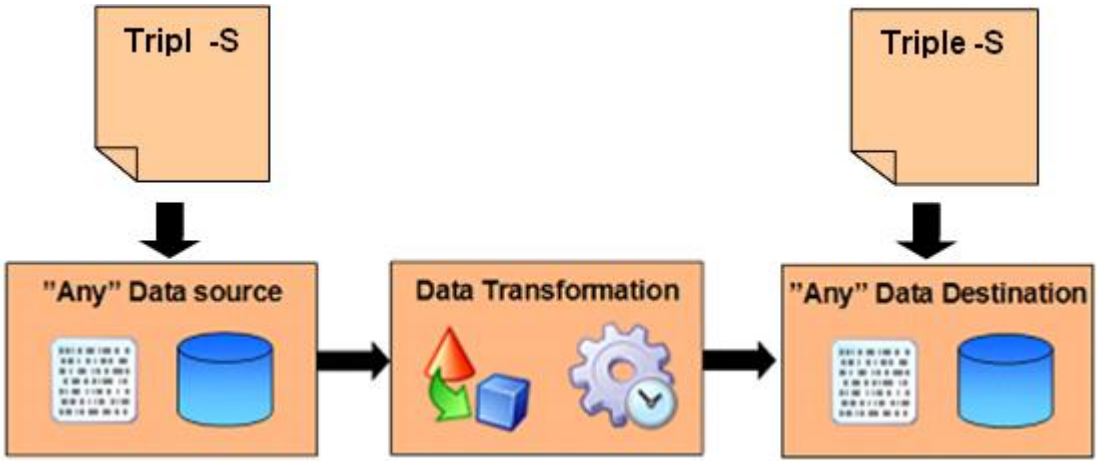


Figure 2 The processing flow

The Triple-S format is used consistently in Confirmit Data Processing to define templates (schemas) for sources and destinations.

For further detailed information about the Triple-S format, refer to the website www.triple-s.org.

1.3. The Triple-S Versions

The Triple-S XML standard currently has three versions as follows:

- Triple-S XML 1.1 - Hierarchies and comma-separated variable files are not supported.
- Triple-S XML 1.2 - Hierarchies and comma-separated variable files are not supported.
- Triple-S XML 2.0 - Supports comma-separated variables (CSV). Supports hierarchy for loops (separate files). Note that for projects with loops, hierarchy is supported for both import and export.

For further details on the formats and functionality available in the three versions, go to the Triple-S website at www.triple-s.org.

1.4. Template Types

Three types of template are available:

- Simple Delimited (see The Simple Template on page 3 for more information).
- Fixed Width (see The Fixed Width Template on page 3 for more information).
- Quantum (see The Quantum Template on page 4 for more information).

These are described in the following sections.

1.4.1. The Simple Template

A Simple (delimited) template allows you to specify which variable(s) should be included or excluded and in which order. This template can be created based on variables from one or several projects. A Simple template does not allow you to control the specific column positions of the variables, only the order in which they are to be exported.

The template schema editing functions include:

- Adding variables to the Template.
- Editing variables.
- Duplicating variables.
- Moving variables within the Template.
- Deleting variables from the Template.
- Importing variables from any project.

Simple templates are ideal for exports to Excel, Delimited Text File, Fixed Width file and SPSS formats.

1.4.2. The Fixed Width Template

A Fixed Width template allows you to specify which variable(s) should be included or excluded and in which order. This template can be created based on variables from one or several projects. In addition, the Fixed Width template allows column positions to be specified by assigning Start and Finishing columns or specifying the column Length. You will also have access to additional functions in the Template editor that allow you to change variable properties. For example: you can set Bitstring or Spread to one or a group of multi variables (see Changing a Multi Variable on page 34 for more information), and you can change the length of columns for one or a group of variables (for multi/ single/quantity/character only).

The template schema editing functions include:

- Adding variables to the Template.
- Editing variables.
- Duplicating variables.
- Moving variables within the Template.
- Deleting variables from the Template.
- Importing variables from any project.
- Assigning Start and Finish columns.

- Assigning the length of the variable.
- Setting Spread or BitString.
- Fixing the column positions.
- Splitting multi functionality, which will generate logical variables from each category of a selected multiple variable.

This type of template is suitable for the following exports:

- Triple-S.
- SAS.
- SPSS.
- Fixed Width File.
- Quantum.

Note: If you use this template type for Quantum exports and the project contains loops, a Multi Trailer Card data set will be generated; otherwise it will be a Single Card data set. If you wish to generate a Single Card data set for projects with loops, you must first flatten the project.

1.4.3. The Quantum Template

The Quantum template allows you to specify which variable(s) should be included or excluded and in which order. This template can be created based on variables from one or several projects. In addition, a Quantum template will give you two additional columns in the editor. These represent the Start and Finish Card. These are editable.

The Quantum template schema editing functions include:

- Adding variables to the Template.
- Editing variables.
- Duplicating variables.
- Moving variables within the Template.
- Deleting variables from the Template.
- Importing variables from any project.
- Set Spread or BitString.
- Assign Start and Finish columns.
- Assign the length of the variable.
- Fix the column positions.
- Two columns are available that enable you to assign cards.
- Split multi functionality, which will generate logical variables from each category of a selected multiple variable.

If the project contains loops, a Multi Trailer data set will be generated; otherwise a Multi Card data set will be generated.

2. The Data Processing Menu

The Data Processing menu appears in the main menu bar. This has two methods of access:

- Click on the menu command to go to the orange sub-menu bar.
- Click on the down-arrow beside the command to open the drop-down menu, as shown below.

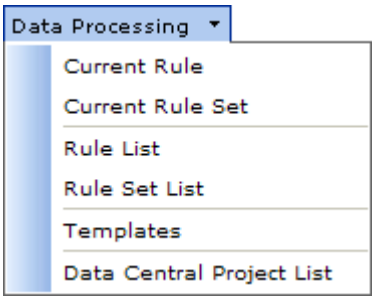


Figure 3 The Data Processing menu

2.1. The Template List

A Survey Data Template is a definition of meta-data connected to a data file. The template defines what data is included, where the data is, the type of questions, the question texts and the answer lists.

The Template List lists the templates currently available to you, which will depend on your access permission (see Template Permissions on page 15 for more information). When you select this menu command, the page opens as shown below.

Note: If when you enter Confirmit you go 'directly' to the Templates List, all templates to which you have access will be listed. If you have already selected a project and then go to the Templates List, only those templates used by that project will initially be listed. In this case, the Template Source selection box will be available, where you can select the option of viewing all templates.

Note: Templates are not locked to particular surveys, so all templates that you have access to can be listed. When importing or exporting, you must select an appropriate template that includes the questions you wish to work with.

Figure 4 Example of the Template List

On this page you can create new templates (see How to Create a New Template on page 6 for more information), import templates that have been created in other projects/servers (see How to Import a Template on page 13 for more information), edit the templates (see The Template Editor on page 17 for more information), export templates (see How to Export a Template on page 13 for more information) and change the project to which a template is linked (see How to Link a Template to a Different Project on page 15 for more information).

Move the mouse pointer over a Template Name link in the list to show a drop-down button - click on the button to open a drop-down menu. The items in this menu enable you to edit, duplicate, export or replace the selected template, and allocate to other users access permissions to the template (see Template Permissions on page 15 for more information).

2.1.1. How to Create a New Template

Note: You can start the Template Creation wizard from two places; "Survey Data > Templates" and "Data Processing > Templates". When you start the wizard from Survey Data a project is preselected, so the Project Schema Type selection step is unnecessary. The procedures for the two wizards are therefore slightly different. The procedure described below starts from Survey Data > Templates menu.

Note: When creating a new template you can save the settings as default. The next time you click New Template, the template will then be created with the default settings you have saved. To save a template as default, check the Save Current Options As Default box in the Advanced Options dialog. See below.

1. When in the Survey Data Template list, click **New Template**.

   The template Name page opens as shown below.

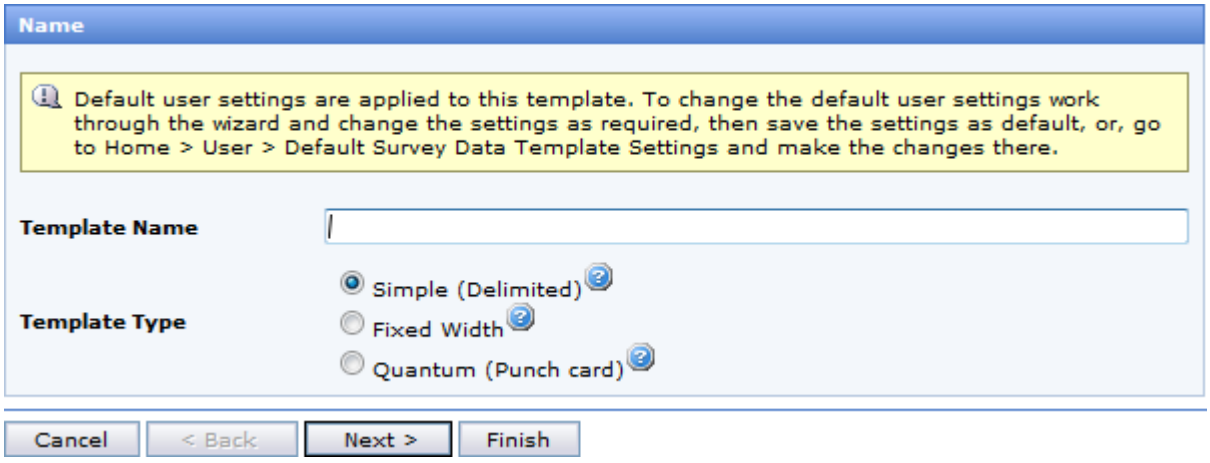


Figure 5 The template Name page

2. Type a name for your new template into the Template Name field.
3. Select the type of template you wish to use.

   The types are:

   - **Simple -** allows you to define a template specifying which variable(s) should be included or excluded and in which order. This template can be created based on variables from one or several projects. A simple template does not allow you to control the specific column positions of the variables, only the order in which they are to be exported. Simple templates are ideal for exports to Excel, Delimited Text File and SPSS formats, but could equally be used for Triple-S, SAS, Fixed Width File and Quantum exports.

- **Fixed Width -** in addition to the capabilities of the Simple (Delimited) Template, the Fixed Width template allows column positions to be specified by assigning Start and Finishing columns or specifying the column Length. You will have access to more additional functions in the Template editor, which will allow you to change variable properties. For example: you will be able to set Bitstring or Spread to one or a group of multi variables, and you will be able to change the length of columns for one or a group of variables (for multi/ single/quantity/character only). These templates are suitable for the following exports: Triple-S, SAS, Fixed Width File and Quantum. If you use this template type for Quantum exports and the project contains loops, a Multi Trailer Card data set will be generated; otherwise a Single Card data set. If you wish to generate a Single Card data set for projects with loops, you must first flatten the project.
- **Quantum -** in addition to the functions available in Fixed Width templates, a Quantum template will give you two additional columns in the editor. These represent the Start and Finish Card. These are editable. If the project contains loops, a Multi Trailer data set will be generated; otherwise a Multi Card data set will be generated.

4. Click **Next**.

   This next step is only valid if you have selected Quantum. In this case the Punch Card Details dialog opens. If you have selected Simple or Fixed Width, go directly to step 7 in this procedure.

Note: If you have started from the Data Processing > Templates menu, the Project Selection page now opens. Select the project on which the template is to be based, then click Next.

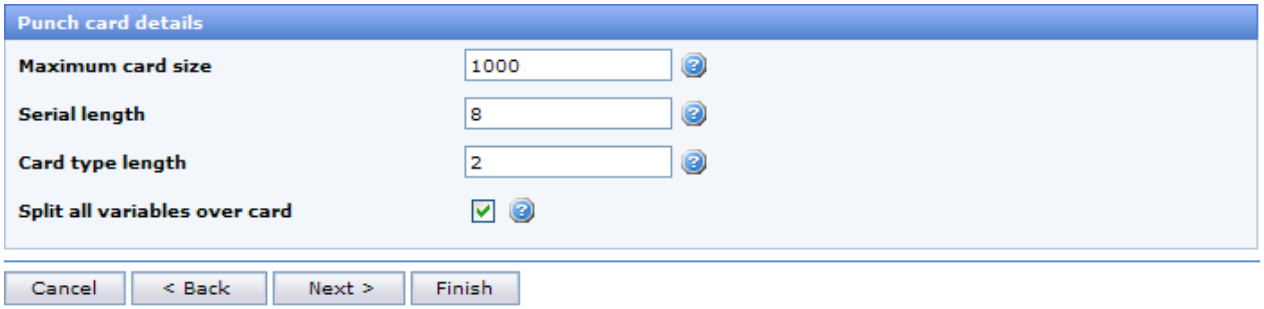


Figure 6 The Punch Card Details dialog

The options/properties here are:

- **Maximum card size** - specify the total number of columns on each card. The default value is 1000 (the limit for Quantum).
- **Serial length** - allows you to specify the number of columns required for the serial field. This field is not visible in the template, and will be used for reserving space for the storage of serial values. The default value is 8.
- **Card type length** - allows you to specify the columns required for the card number field. The card number is stored on every card. The maximum allowed value is 27. The default is 2.
- **Split all variables over card** - when the category list of a variable exceeds the defined card size, the remaining categories will be written on the next card. The variable can therefore be split over several cards. This is the default behavior. By un-checking this option, the following happens: the template will be generated and an error will be displayed in the Error column in the template editor. This will allow you to either delete the variable or decrease the length of the variable by assigning spread (when this variable is a multi). Alternatively you can generate a new template and increase the number for the Maximum card size option.

6. Make the desired selections and click **Next**.
7. Select the project you wish to use (if the list is extensive you can use the search facility to find the desired project) and click **Next**.

   The Advanced Options dialog opens.

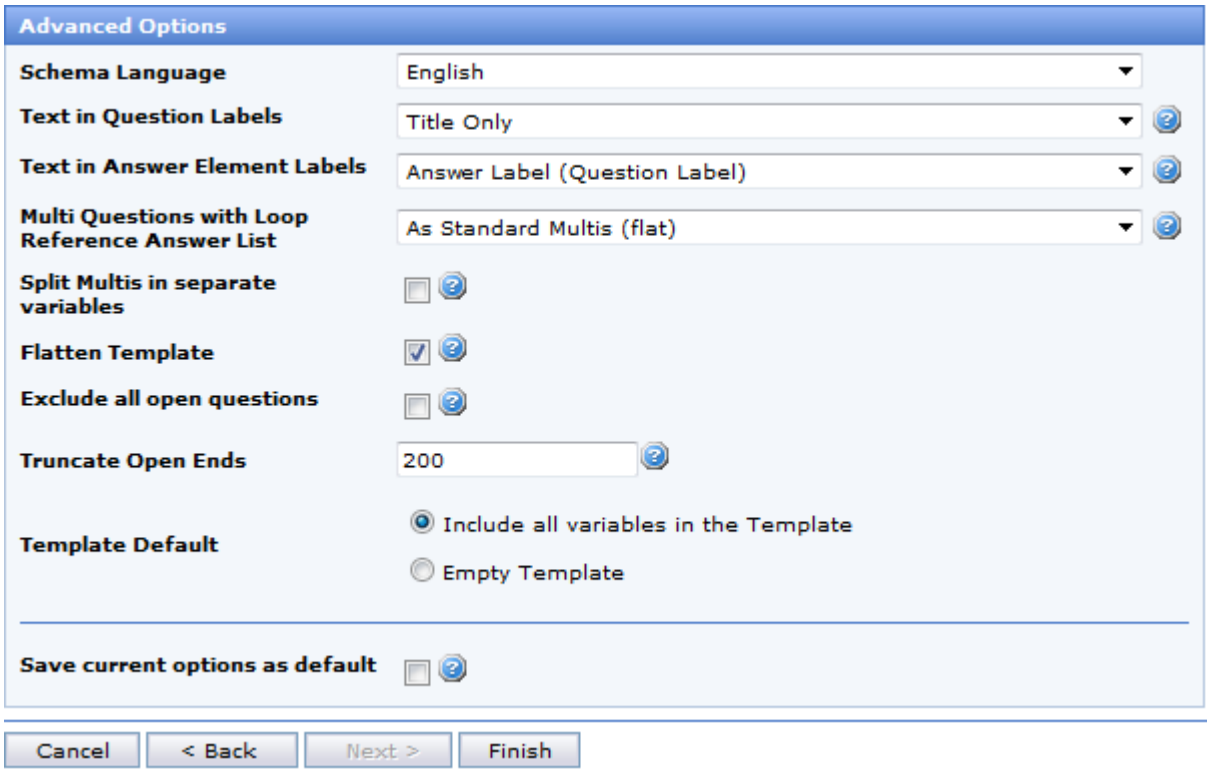


Figure 7 The Advanced Template Options dialog

The properties and options available for Simple templates are:

- **Schema Language -** this drop-down will list all the languages available in the project you have selected above. Select the language you wish to use for the template.
- **Text in Question Labels -** select the type of question labels you wish to use. The options are:
  - **Text Only -** the label element will contain only the text of the question.
  - **Title Only -** the label element will contain only the title of the question.
  - **Title and Text -** the label element will contain the question title followed by the question text.
  - **Question ID -** the label element will contain the question id.
- **Text in Answer Element Labels -** allows you to specify whether the Answer element of a Grid / Open Text List / Numeric List Question is to be positioned in front of the Question label, after the Question label or without the Question label when exporting survey data or when generating a Survey Data Template which can be used for a survey data export. The content of the Question label depends on the Text in Question Labels setting, which allows you to specify whether you want the Question ID, Question text, Question title or Question text and Title exported. Select the text you wish to be included as the answer labels. The options are:
  - **Answer (Question label)** - the question label is placed after the answer element.
  - **Question label (Answer) -** the question label is placed before the answer element.
  - **Answer label -** the answer element is placed without the question label.
- **Exclude Hierarchy/Table Lookup Labels -** if a question in the survey to which the template is linked is set to Hierarchy or Table Lookup, then this option becomes available. As the list of labels for hierarchy or table lookup questions in the schema file could potentially be a very long, you can check this option to exclude the list of labels from the schema file.

- **Multi Questions with Loop Reference Answer List -** This option is only relevant for surveys stored in optimized database format. With this setting you can specify how Multi questions using loop references are to be stored in the Template, and thereby the data structure in the survey data export.

  Example: A survey contains a Multi question q1 using a loop reference which contains a list with 2 answers (1, 2). For further information about how to link questions to a loop, refer to Linking a Question to a Loop in the Confirmit Authoring User Guide.

  - If you select "As Standard Multis (flat)", the Multi question will be stored on the responseid level. If in addition you select “Split Multis in separate variables”, two logical variables will be generated (q1_1 and q1_2). Without this setting a standard Multi question will be generated. This is the same behavior pattern as for a Multi question that does not use a loop reference.

Note: Survey data that was exported using a Template generated with this option cannot be imported back into the survey.

  - If you select Within Loop, the Multi questions will be stored as Single questions in the loop that is used as reference.

- **Multiple Format** - Fixed Width and Quantum templates have this additional option. Use this to define whether you wish to use BitString or Spread:

  - **Bitstring -** select this option to generate a Triple-S XML template for which data is recorded with one character per category of the corresponding variable. A character "1" is used to signify that a category has been selected; a character "0" signifies that a category is not selected. The category value refers to the relative position of the 0/1 code in the data field. Therefore a category value of 9 will always refer to the code in the 9th location of the data field even if some of the lower category values have not been defined. The data field length is defined by the highest category value. This means that with nine category values, nine fields in the data will be used. Using this storage type, Multi variables with long category lists will require a large data field length. In these cases you are recommended to use Spread instead. This can be selected as Multiple format when generating the template, or assigned to one particular variable or a group of variables in the Template Editor.

  - **Spread -** select this option to generate a Triple-S XML template for which data is recorded as a series of sub-fields, each containing one category value of the variable. The data sub-field length is the minimum number of characters required to represent the largest category value in the Values block. Thus variables with category values up to 9 have a data sub-field one character long; variables with category values up to 99 have a data sub-field length of 2, etc. With this storage type it is possible to reduce the field size for multi questions, so it is recommended particularly for variables with long lists of category values. You can change this property for Multi variables in the Template Editor anytime.

- **Recode Multis -** [only for Fixed Width templates] Check this box to recode value codes for non-sequential multi variables. For example, a multi variable with the answer codes 1, 2, and 99 will normally use 99 positions in the export, although only three are actually required. With this setting, the variable will then use only three positions. If you have many multi variables with non sequential codes, selecting Recode Multis will greatly reduce the size of the exported file. The option selected here will be stored with the template so it can be reused when adding multis from the pool or from the project.

- **Split Multis in separate variables -** logical variables will be generated from each category for all Multi variables of format "BitString" in the template. For example, a Multi question q5 with 3 categories (1, 2, 99) will result in 3 logical variables (q5_1, q5_2, q5_99). These generated logical variables can be positioned in the generated survey template by moving them or by allocating specific columns.

- **Flatten Template -** with the flattening process, a survey template that includes loops will be simplified such that the loops are converted to a number of 'standard' variables. This means that loop data will be expanded, and variables will be created to represent each iteration of each question.

- **Exclude all open questions** - check this box to exclude the following question types from the generated template: Open Text, Open Text List, 'Other-specify' from answer lists, Multi questions with Open Text property selected.

- **Truncate Open Ends -** for Open Ends (Open Text questions with no field width specified), it is recommended to truncate texts to improve performance. If a number of characters is specified, texts longer than this limit will automatically be truncated.

- **Template Default** - either include all the available variables in the template or create an empty template.

- **Save current options as default -** saves the current settings as the default template (see Creating a Default Template on page 11 for more information), which will be created when you click the **New Template** button.

8. Choose the desired options.
9. Click **Finish**.

   The Variable Selection page opens as shown below. Here you select the variables that are to be included in the template. Note that there is a maximum limit to the number of variables you can select. This limit is set in the server, so for On-Premise users it can be adjusted by the server administrator.

   You can select the columns that are displayed in the Available and Selected Variables lists; click the appropriate **Columns** button and select the columns you wish to see. The columns selected will be remembered by the system and will be presented in future sessions.

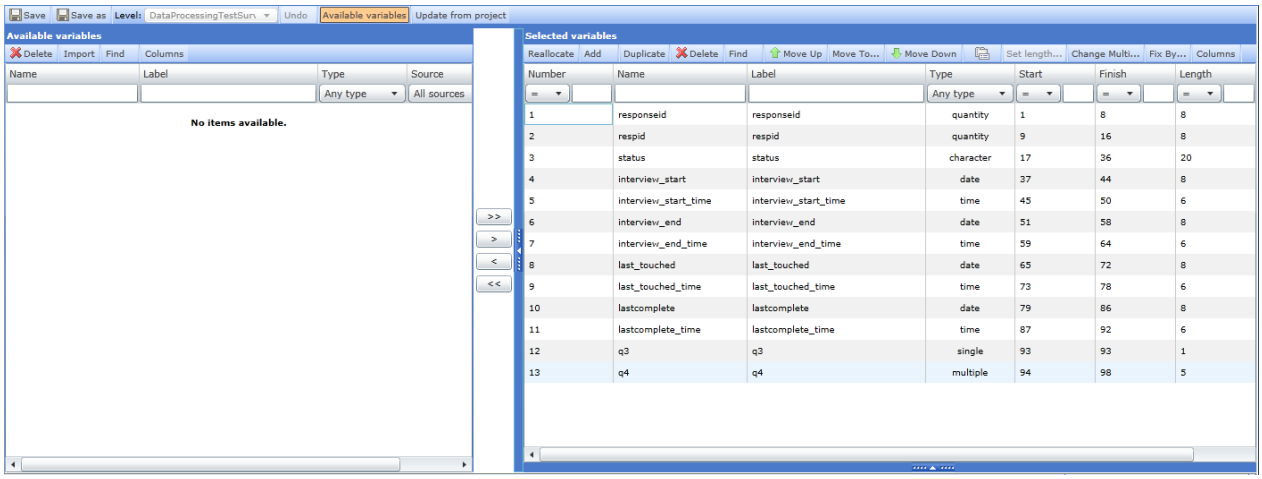


Figure 8 Example of the Choose Questions page for a Delimited template

When generating a Survey Data Template for a project which contains loops, the loops will be represented as levels in the drop-down menu. Each level can be selected individually for editing tasks.

Note: When the Template is flattened (see How to Flatten a Template on page 38 for more information), this drop-down menu will be grayed out.

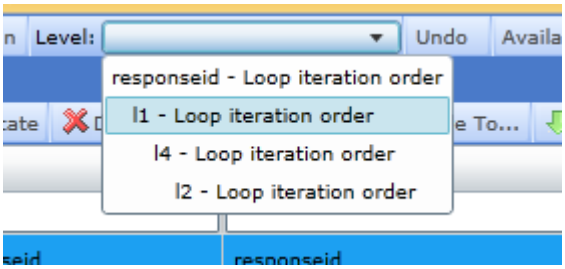


Figure 9 Example of the loop level drop-down

10. In the Available Variables list, use standard Windows selection techniques to select the questions you wish to include in the template, then click the **>>** button to move the selected questions to the Selected Variables column.
11. When you have selected the variables you require, click **Save** to save the changes.

The new template is added to the list, its location depending on how the list is currently sorted. Note that if you make changes in the editor and attempt to leave before you have saved, a confirmation message dialog will be presented.

2.1.2. Creating a Default Template

If you use one type of template fairly regularly, you may wish to create a default template so you avoid having to repeat the same setup time and again. When a default template is defined, whenever you create a new template then the default settings will be applied; you can then change the settings as necessary before saving the new template.

Note that if you have System Administrator permission you can set up a default template for your company (go to the **Home > Company > Default Survey Data Template Settings** menu item). This default template's settings will then be applied initially to any template created by the users in your company. The users will be able edit the new template and save it, but will not be able to change the default.

To create a default template as a user:

1. Go to **Home > User > Default Survey Data Template Settings**.

   The Default User Template Settings page opens. Here you setup the default template generation settings that will be used during template generation. Note that the properties and options for all the tabs are described in the How to Create a New Template section (see How to Create a New Template on page 6 for more information).

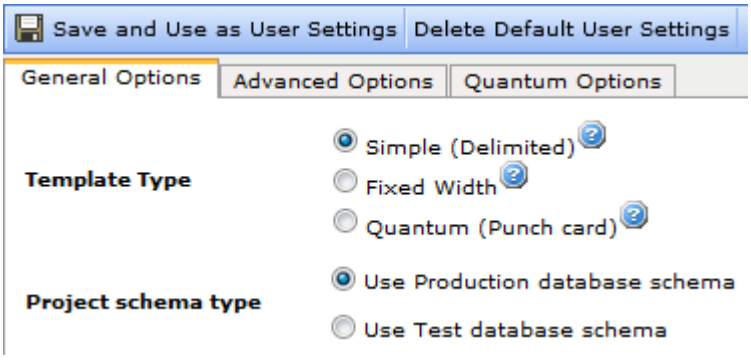


Figure 10 The Default User Template Settings page - General Options tab

2. Select the required template and project schema types, then go to the Advanced Options tab.

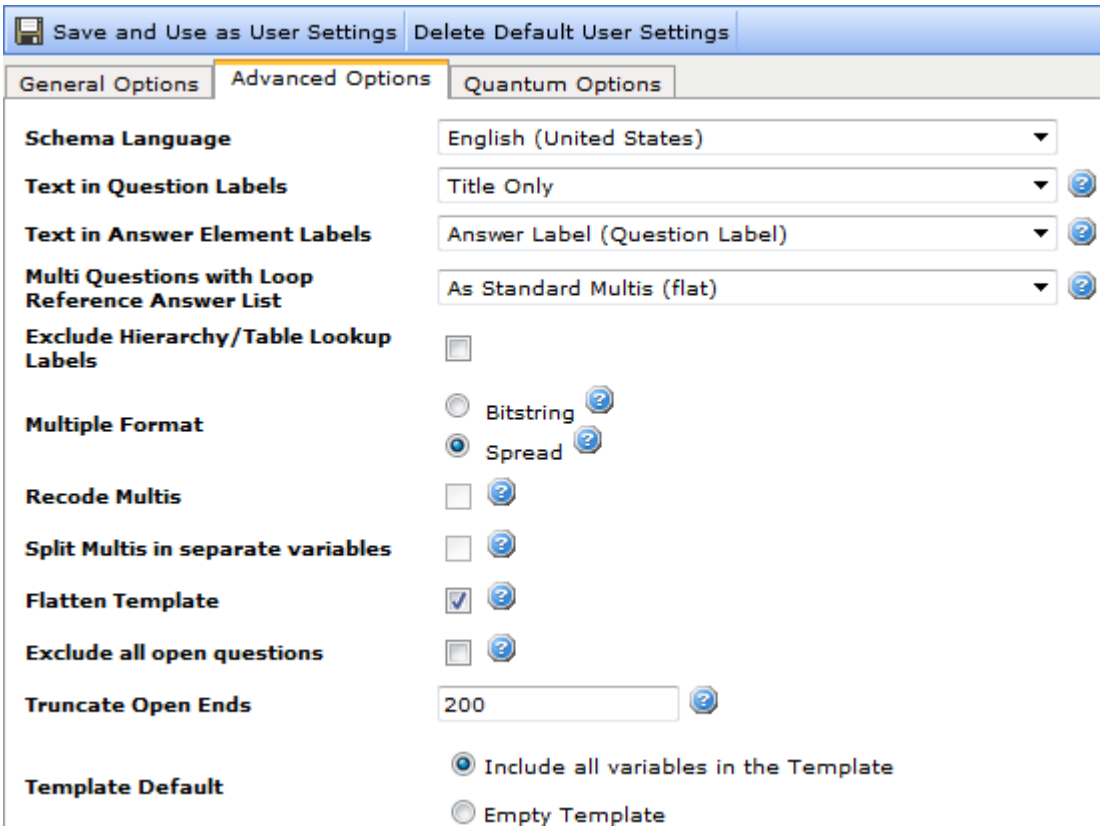


Figure 11 The Default User Template Settings page - Advanced Options tab

3. Again, make the settings as required, then go to the Quantum Options tab if necessary.

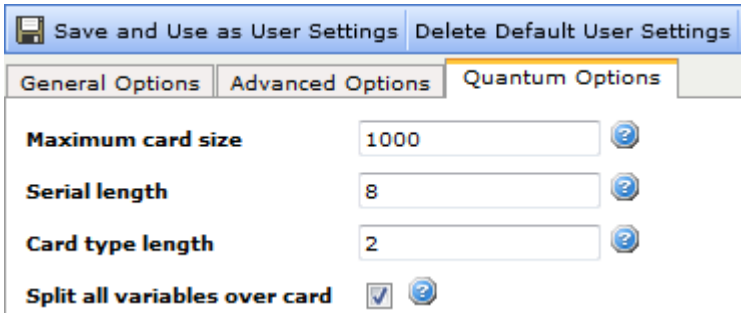


Figure 12 The Default User Template Settings page - Quantum Options tab

4. Make the settings as required.
5. Click **Save and Use as User Settings**.

   The settings you have made here will now be saved as default, and will be applied whenever you click the **New Template** button (see How to Create a New Template on page 6 for more information).

Note: The User default setting has higher priority than the Company default setting. So if a user has saved User Default settings (see above) and the company also has Company Default settings, the template wizard will use the User settings as default. If the user deletes his own settings (clicks the Delete Default User Settings button), then the template generation wizard will use the company level default settings if a company default template is created. If no company default settings have been saved, then the default system settings (which cannot be changed by the user) will be used.

User level settings can also be saved from the last step of the template generation wizard; to do this click in the **Save current options as default** check-box (see How to Create a New Template on page 6 for more information).

2.1.3. How to Import a Template

If a Template has been exported from a server and sent to you (by email), you can import that template into your current server. To do so:

1. Open the email and save the attached .zip file into a suitable folder on your network.
2. In the Confirmit Template List page, click the **Import Template** button located towards the right end of the page toolbar.

   The Import Survey Data Template dialog opens.

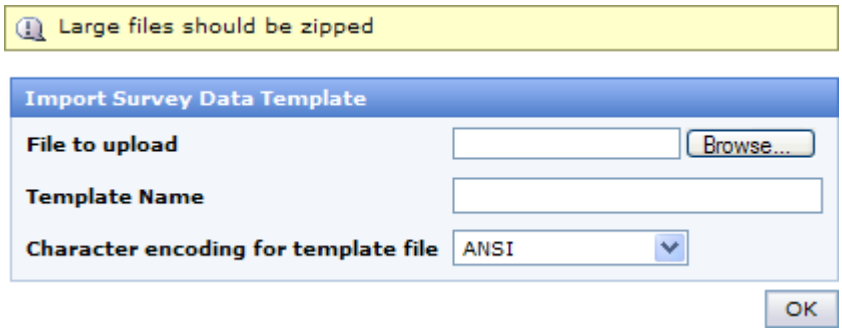


Figure 13 The Import Survey Data Template dialog

3. Click on the **Browse** button to open a standard File Select window, and find and select the template file you wish to import.
4. Type into the Template Name field the name you wish to give to the template you are importing.
5. Select the appropriate character encoding for the imported template file.
6. Click **OK**.

   A Task page opens with a progress bar, a list of the processes and the current status. When the import task is completed, click **OK** to close the task page and return to the template list. The imported template is now included in the list, its location depending on how the list is sorted. You can now use the template when importing and exporting survey data.

When a template is imported, all variables in the template will be assigned the current project ID. You can change the project (see How to Link a Template to a Different Project on page 15 for more information).

2.1.4. How to Export a Template

1. In the Template List page, click in the Template Name field for the template you wish to export (not on the link as this opens the template) and then select **Export** from the pop-up menu that opens.

   The Export Survey Data Template dialog opens.

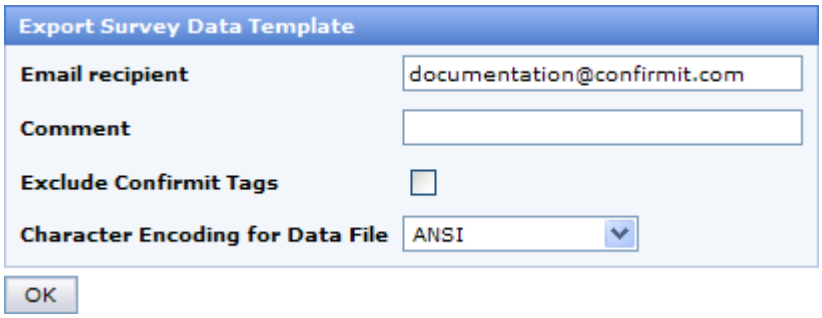


Figure 14 The Export Template dialog

2. Check / edit the email address to which the rule is to be sent, and add a comment, as necessary.
3. Check the Exclude Confirmit Tags box if required (see Confirmit Tags on page 124 for more information).
4. Select the appropriate character encoding for the exported template file.
5. Click **OK** to commence the export task.

   A Task page opens with a progress bar, a list of the processes and the current status. An email is sent to the specified address with the zipped template file attached. This template file must now be imported into the destination server (see How to Import a Template on page 13 for more information).

   Click **OK** to close the Task page and return to the Template List.

2.1.5. How to Replace a Template

You can import a template, over-writing an existing template in the process. This may be useful for example if you are to make changes to a template that is in use and wish to check that the changed template functions correctly before making it available to the users. In this case you can export the template to yourself in the normal manner, edit it off-line, then re-import it using the Replace procedure. Proceed as follows:

1. Have the "new" template available on your network.
2. In the Template List, click on the template you wish to replace, and select **Replace** from the drop-down menu.

   The Replace Survey Data Template dialog opens.

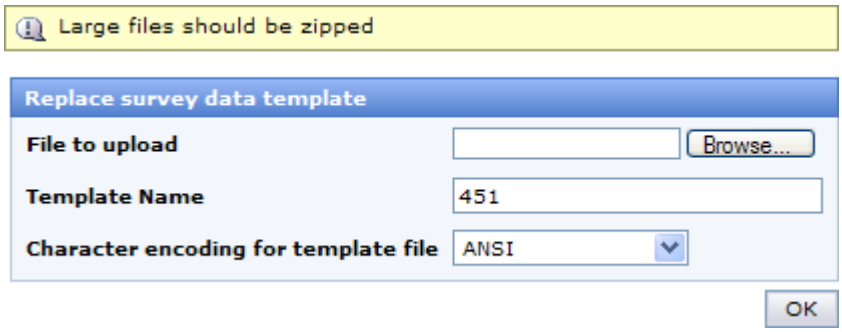


Figure 15 The Replace Survey Data Template dialog

3. Browse to and select the template you wish to import.
4. If you wish to change the name of the template, type the new name into the Template Name field.
5. Select the appropriate character encoding for the template file.
6. Click **OK**.

   A Task page opens, showing the progress of the import task.

7. When the task has completed, click **OK** to close the window.

   The template you selected to be replaced is updated.

2.1.6. How to Duplicate a Template

If you need to create a template that is very similar to an existing one, you can achieve this easily by duplicating the original template and then editing the new version. To duplicate a template:

1. In the Template List, move the mouse pointer over the Template Name field of the template you wish to duplicate, then click the down-arrow that appears to the right end of the field.

   A drop-down menu appears.

2. Click **Duplicate**.

   The Duplicate Template dialog appears.

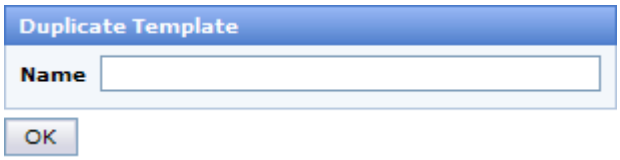


Figure 16 The Duplicate Template dialog

3. Type a name for your new template into the Name field, then click **OK**.

   A Task page opens allowing you to track the progress of the duplication operation.

4. On completion, click **OK** to return to the Task List, where your duplicate template will be listed.

   You can now edit your new template as required.

2.1.7. How to Link a Template to a Different Project

A template that was created for one project can be linked to a different project. Also, when a template is imported, all variables in the template will be assigned the current project ID. It may then be useful to be able to change the project to which the template is linked. For example, if you want to reuse a template for a similar project; you will then only need to update the template with the changes from the new project. To change the project:

Note: If the template is not currently linked to a project (the Project ID field is empty), then click Change to link the template to a project.

1. Go to the **Survey Data > Templates** menu command.

   The Template List opens.

2. Find the template you wish to change the project for.
3. In the Project ID column, click the **Change** link for that template.

   A Project List dialog opens, listing all the projects on the current server to which you have access.

4. Select the project to which you wish to link the template.
5. Click **OK**.

   The template is moved to the selected project and the details in the Template List are updated.

2.1.8. Template Permissions

The user who creates a template has full administrator rights to that template. All other users have no rights; they cannot even see the template in their template list, until the creator has allocated the appropriate rights to them.

If a template is linked to a project, you can set that the template permissions are to be inherited from that project. Then if the user has for example Read access to the project, the user will also have Read access to the template.

However, the templates a user has implicit access to will only be listed when the user filters on a specific project, for example when accessing through **Survey Data > Templates** or using the Template Source = "Current Project" filter. When the user is viewing the entire Template List, only those templates that he/she has direct access to will be listed.

To set a user's permission for a template, click the down-arrow in the Permission Type column and select the appropriate permission. On completion, save the changes. The template permissions are:

- Inherit from project - the user has the same access to the template as to the project (Read, Write or Delete. Note that Administrate is not inherited).
- None - the user has no access to the template irrespective of the user's access to the project.
- Read, Write, Delete, Administrate - these are direct accesses. Any permission the may user have to the project is ignored in this case.

Note: Inherit from project is the default when generating a new template.

2.1.9. How to Include Multiple Languages in a Template

If you have created a survey with several languages, you may wish to create export templates for more than one of the languages. Confirmit allows you to create a template for one language and then change only the language of the labels – you do not have to create new templates for each language. For this example, assume you have a survey using two languages; English and French, and your original template is to be in English.

1. Create a fixed-width template (Template1) in English, and make any changes required to the column positions in that template so that it matches your export order.

   You now wish to generate a template with the same column positions but with the labels in French. Proceed as follows:

2. Duplicate Template1 and rename the duplicate to for example Template2.

   Template2 now needs to be edited as follows:

3. In the template editor, fix the positions of the existing variables. To do this:
   - Use **Fix by > Position**.
   - Select **Change All**.
   - Click **Save**.
4. Click the **Import** button in the blue bar above the 'Available Variables' (left) pane of the template editor.

   A Confirmation box opens.

5. Click **Yes** to confirm the operation.
6. Go through the import process selecting the test/production database and the appropriate project.
7. On the Advanced Template Options screen, change the Schema Language to **French**. Do not change the other options (bitstring/spread, truncate open ends etc).
8. Click **Finish**.

   The template generator task runs and a Confirmation box appears.

9. Click **Replace** so that existing variables are replaced by the variables in the newly generated template.

   On the next screen you can go through the variables that will be replaced individually by using the **Yes/No** buttons, or select **Replace All**.

If there are any new variables or answer categories then you will also have to follow the procedure for adding these to the template (go to Creating a New Template by Duplicating and Editing an Existing for more information). If you merely wish to update the language then:

10. Click **Save**.

Template2 now contain French labels.

2.1.10. The Template Editor

The Template Editor is the screen you use when viewing and editing schemas within a selected Template (see How to Create a New Template on page 6 for more information).

Note: Microsoft Silverlight® is freely available and must be installed on your computer prior to running the Template Editor. In the event Microsoft Silverlight® is not installed then a blank window with the download link is displayed instead of the Template Editor window. Click on the link to install the application.

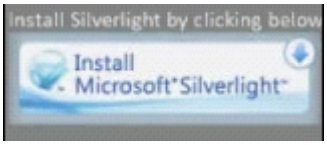


Figure 17 The download link for Microsoft Silverlight®

Note: Silverlight is not supported by Internet Explorer 64 bit. If you install Silverlight and attempt to use it a Microsoft error message will be displayed. The error message is misleading as it says that you do not have Silverlight installed, but if you return to the MS site it will confirm that you have the latest version installed.

Three types of template are available:

- Simple Delimited (see The Simple Template on page 3 for more information).
- Fixed Width (see The Fixed Width Template on page 3 for more information).
- Quantum (see The Quantum Template on page 4 for more information).

To open the Template Editor page:

1. In the **Data Processing** menu, select **Templates**.

   The Template List opens as shown below.

Figure 18 Example of the Template list

   The Type column allows you to identify the template type; Delimited, Fixed Width or Quantum.

2. Click on the name of the required template in the Template List, or move your mouse pointer into the Template Name cell of the template row, click on the drop-down menu arrow and choose **Edit**.

The message "Please wait while schemas are downloading from server" is displayed. On completion, the Template Editor page opens.

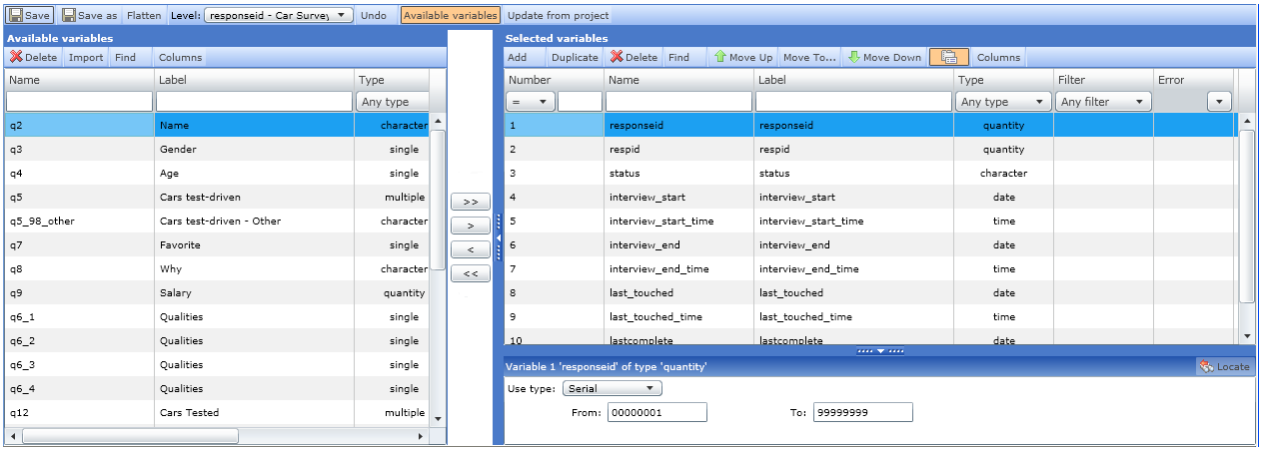


Figure 19 Example of the Template Editor page

This page is organized into three panels:

- The Available Variables panel contains a list of the available variables that are not currently selected for the template. You can select which columns are displayed in the list, and the order in which they are displayed (see How to Show and Hide List Columns on page 38 for more information). Imported variables will be loaded into the Available Variables panel.
- The Selected Variables panel lists the variables that are selected for inclusion in the template. You can select which columns are displayed in the list, and the order in which they are displayed (see How to Show and Hide List Columns on page 38 for more information).
- The Variable Details panel displays the details of the variable currently selected in the Selected variables panel. The properties displayed depend on the type of the variable. If you need more space on the screen, you can open and close this frame by clicking on the **Pane Open/Close** button in the border, or resize it by clicking on the blue frame and dragging it up or down.

In this page you can navigate through the available variables, change the way variables are displayed, change the template-related properties of the variables (see How to Add Variables to the Template on page 29 for more information), and update the template from the project (see How to Update the Template from the Project on page 39 for more information). You can 'flatten' a template (see How to Flatten a Template on page 38 for more information), you can save an existing template under a different name (click **Save As**), and you can undo changes (click **Undo**). You can also filter the displayed variables, sort them by their properties, and search for variables (see How to Navigate through Variables in the Template on page 27 for more information). Note that when searching, you can use the ***** and **?** characters as wildcards in the column search fields.

For all template types, the toolbar in the Selected Variables panel allows you to:

- Add variables to the Template (see How to Add Variables to the Template on page 29 for more information).
- Duplicate variables (see How to Duplicate Variables on page 35 for more information).
- Delete variables from the Template (see How to Delete Variables from the Template on page 37 for more information).
- Move variables within the Template (see How to Move Variables within the Template on page 36 for more information).
- Customize the template view.

For Fixed Width and Quantum templates:

- Modify Assign Start, Finish Length values (see How to Assign new Range Values to a Variable on page 35 for more information).
- Set Spread (see The Spread Format on page 123 for more information) or BitString (see The Bitstring Format on page 122 for more information).
- Set Length - The column length can be changed using "Change length To" or "Change length By".
- Change Multi - Multi variables can be changed in several ways (see Changing a Multi Variable on page 34 for more information).

For Quantum templates:

- Start Card and Start Position allow you to change the cards.

Important
After you have made changes to the Template, click Save to save the modifications. If you do not do this, any changes you have made will be lost.

2.1.10.1. Variable Types

The available variable types are as follows (see Mapping Confirmit Variables on page 40 for more information):

System Variables		
Confirmit variable name	**Description**	**Triple-S**
respid, responseid	ID of respondent and response respectively. • **respid -** a system-generated sequential number, given to each respondent when the respondent data is uploaded to the survey. • **responseid -** a system-generated sequential number, given to each respondent when responses are added, either by surveys/interviews or by data processing. The relation between respid and responseid is handled in a system table (response_control). **Note: respid is allocated according to the order in which the respondents are added to the survey, whilst responseid is allocated according to the order in which the various respondents access the survey to reply to it or the response data is added by data processing. Any apparent correlation between the two values is therefore entirely coincidental unless you have a clean, open survey. Then respid and responseid are both added as the survey is accessed so will be in sync.**	quantity.
rowguid	used for matching rows when writing data from data sources.	character.
status	status of the interview.	character.
interview_start, interview_end, last_touched, lastcomplete	date and time of corresponding events.	will be split into pairs of date + time variables, e.g. interview_start (for date) and interview_start_time (for time).
linkvar<variable_name>	linking variable that appears in both child and parent levels of Templates with hierarchies.	character.

Common Variables		
Confirmit variable type	**Description**	**Triple-S**
single	categorical with one response allowed.	single.
multi	categorical with any number of responses.	multiple.
open text	character value.	character.
open text numeric	numeric value (integer or real).	quantity.
grid		will be split into a set of single variables, one for each element in the answer list.
loop	loop variable.	single.
multi open text	character value.	will be split into a set of character variables, one for each element in the answer list.
multi numeric	numeric value (integer or real).	will be split into a set of quantity variables, one for each element in the answer list.
multi ranking	numeric value (integer or real).	will be split into a set of quantity variables, one for each element in the answer list.
other, specify fields	character value.	character.

Go also to http://www.triple-s.org/ for details.

2.1.10.2. Variable Properties

Variables within the templates have two kinds of properties:

- Common properties, which are displayed for all variables as a table in the upper right panel of the Template Editor page.
- Type-specific properties, which are displayed for the currently selected variable in the lower right panel of the Template Editor page.

All properties can be changed, either by typing a new value into the field or by choosing a value from the associated drop-down list. If a non-legal value is specified, then a message displaying a description of the error appears.

Note: The name of the variable cannot be changed.

The common properties displayed in the upper panel are as follows:

- **Number** - indicates the position of the variable within the template, and the order in which variables are displayed within the variable list. You cannot change the ID directly but you can do it by moving variables within the template.
- **Name** - the name of the variable, representing the Question ID in Confirmit. This cannot be changed.
- **Label** - label of the variable (see Mapping Confirmit Variables on page 40 for more information). The label of the variable represents the Question Title in Confirmit. You can change the label of a variable by double-clicking on the **Label** cell of the variable and typing the new label in the text field.
- **Type** - type of the variable. Available types are as follows: character, date, logical, multiple, quantity, single, time (see Variable Types on page 19 for more information). You can change the type by clicking on the **Type** cell of the variable and selecting the type from the drop-down list.

Important
When you change the type of a variable, any properties that are common for the old type and the new type remain, in addition to their values. Properties that are available for the old type only are deleted. New properties that become available for the new type are given default values.
When you click on the Type field and select a new type for a variable, a notification dialog displays prompting you to confirm the type changing operation. Click OK to confirm or Cancel to cancel execution of the operation.

In the examples shown below, the type of the variable is changed from 'multiple' to 'single'. Properties such as Category Number, Code and Value, along with their values, remain unchanged. However the Use Spread property is deleted, and properties such as Format and Score are created.

Figure 20 Example of the variable type being changed from Multiple to Single, before the change

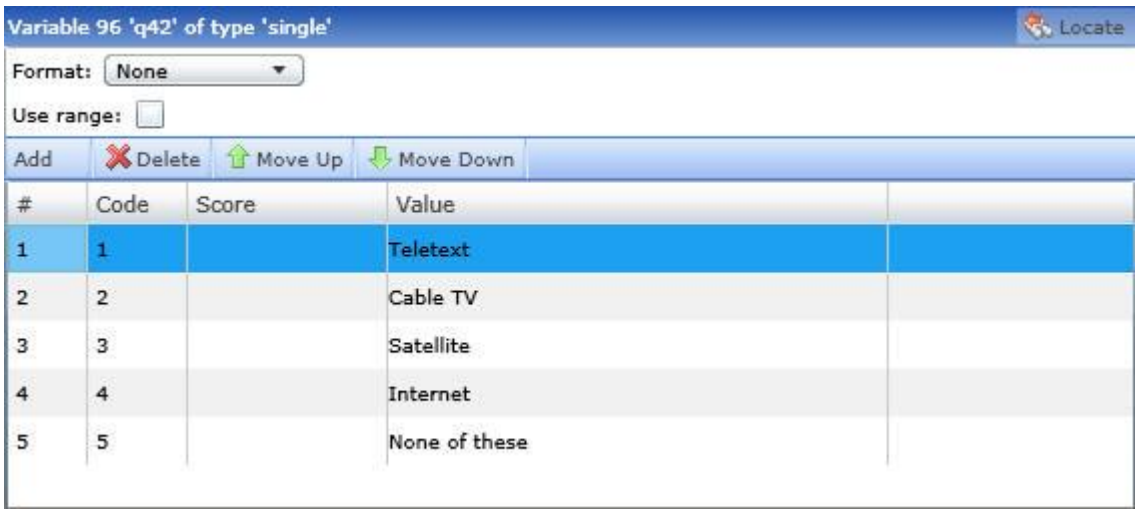


Figure 21 Example of the variable type being changed from Multiple to Single, after the change

The following properties are related to the range which a variable occupies within the template. The range determines the location and the size of a variable within the template. Note that these properties are only available in Fixed Width and Quantum templates.

- **Start** - specifies the start column of the variable. You can change the range start value by double-clicking on the **Start** cell of the variable and typing the new value in the input field.
- **Finish** - specifies the end column of the variable. You change the range start value of a variable by double-clicking on the **Finish** cell of the variable and typing the new value in the input field.

Note: Ranges of different variables must not overlap. When the start and/or finish values of one variable are changed in such a way that the range overlaps the range of another variable, a Range Overlap error is generated. In this case, the Errors fields of the variables with overlapping ranges display the error message and the variable rows are highlighted in red.

- Quantum templates have two additional columns: **Start Card** and **Finish Card** - these represent where the card containing the data is stored.
- **Length** - specifies the length of the variable, which is determined by the start and finish values. You can change the range length value of a variable by double-clicking on the **Length** cell of the variable and typing the new value in the input field.

Note: The minimal length requirement must be kept for every variable. When the length of a variable is less than the allowed minimal length, then the insufficient range length error occurs. In this case, the Errors field of the variable with insufficient length indicates the error message and the variable row is highlighted in red.

The minimum length requirements differ depending on the variable type:

- **Character** - the minimum length is the same as the numeric size value specified in the **Size** field of the lower right panel.

Figure 22 Properties of a Character variable

- **Date** - the minimum length is 8, which corresponds to the date format YYYYMMDD.

Figure 23 Properties of a Date variable

- **Logical** - the minimum length is 1, which corresponds to the size of the possible values TRUE/ FALSE.
- **Multiple** - the minimum length is the same as the numeric value specified in the **To** field of the lower right panel unless the **Use Spread** option is checked (see The Spread Format on page 123 for more information). If the option is checked, then the minimum length equals the product of the numeric value specified in the **Subfields number** by the numeric value specified in the **Subfields width** (in the example below, 2 * 12 = 24).

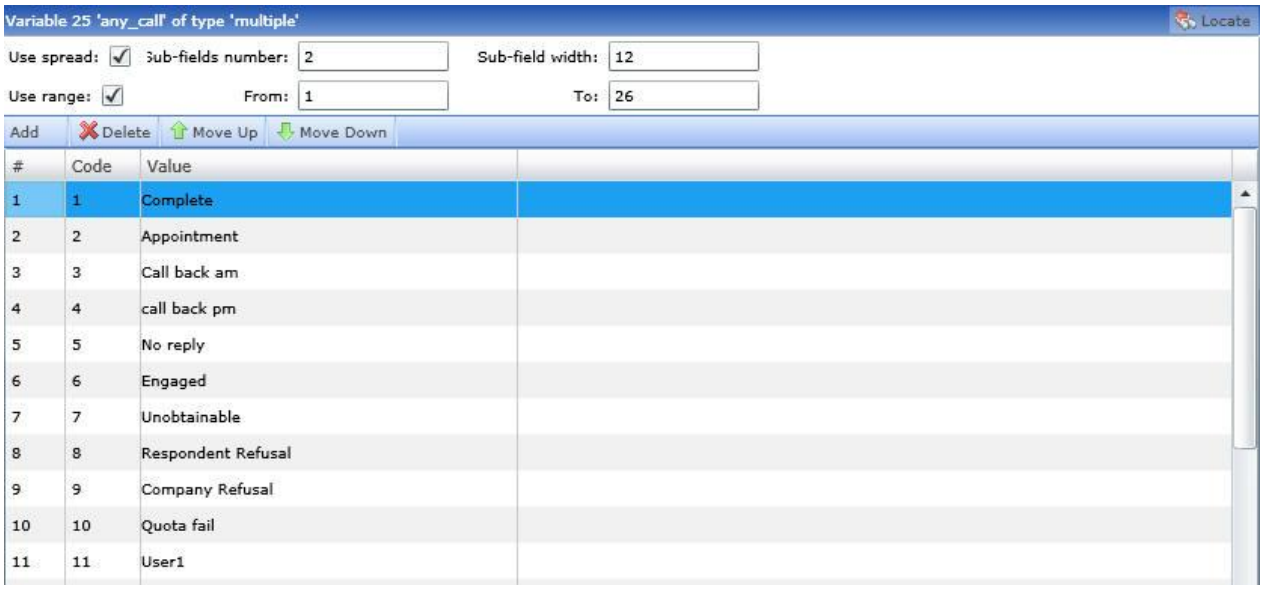


Figure 24 Properties of a Multiple variable

- **Quantity -** the minimum length equals the number of digits of the numeric value specified in the **To** field of the lower-right panel.

Figure 25 Properties of a Quantity variable

- **Single -** the minimum length is 2 unless the Use Range option is checked. If the option is checked, then the minimum length equals the number of digits of the numeric value specified in the To field of the lower-right panel.

Figure 26 Properties of a Single variable

o **Time** - the minimum length is 6, which corresponds to the time format HHMMSS.

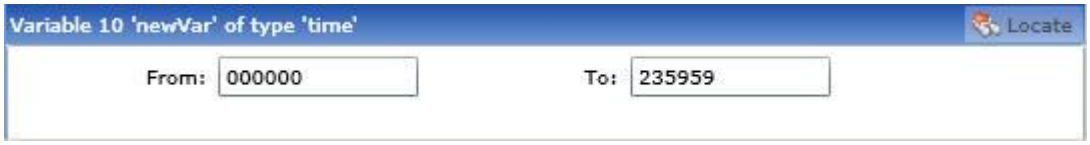


Figure 27 Properties of a Time variable

Note: Click Reallocate in the upper left corner on the toolbar to automatically allocate variables by their range values and IDs in ascending order. Note that the range values of the variables may be changed in accordance to the set Fix by rule (see below for detailed information). Reallocation may also change the ID of the variables. The Reallocate button is not available in Simple templates.

- **Filter** - indicates whether the variable has a filter assigned to it. A filter is a logical variable that filters the variables that you can see in the Template Editor (it does not affect the export or anything else). This can be achieved by generating a logical filter first, then this variable can be used to "flag" a particular variable or group of variables. Any variable except the logical one can be assigned a filter by clicking on its **Filter** cell and selecting a logical variable from the drop-down menu.

Note: The ID value of the logical variable assigned as a filter must be lower than the ID value of the variable to which it is assigned, i.e. the filter variable must be placed before the variable to which it is being assigned. This can be done by moving the logical variable (see How to Move Variables within the Template on page 36 for more information).

Figure 28 Example of applying a Logical variable as a filter

- **Errors** - indicates whether the variable has errors related to range overlaps or insufficient length (see above for details). When a variable has an error, its row is highlighted in red, and the Errors cell contains a brief error description and recommended solution. When you point the cursor over an Error cell containing the error description, a floating text appears displaying the same error description so you do not have to resize the column to read it. When a variable that has no errors is selected, it is highlighted in blue.
- **Fix by** - specifies which range parameter of the variable remains unchanged when reallocation of variables is applied (see Reallocating Variables on page 37 for more information). or Update from Project is executed (see How to Update the Template from the Project on page 39 for more information). To change the Fix by parameter for a variable, click on the variable's Fix by cell and choose the desired value from the drop-down list.

  Available values are:

  - **None** - the start range value of the variable in question becomes higher than the range end value of the previous variable by 1, i.e. no gaps are left between the range start of the variable in question and the range end of the previous variable. The length is set to the minimal length value, which depends on the type of the variable (see above for details). Thus all range values of the variable (start, finish and length) are changed. In the example, displaying the range values of a quantity variable 'resp' before reallocation, you can see that its range start value is 12 whereas the range end value of the previous variable 'responseid' is 10. This makes a gap of 2 units between the variables' ranges. The range length of variable 'resp' is 12, whereas the default minimal length for a quantity variable is 8.

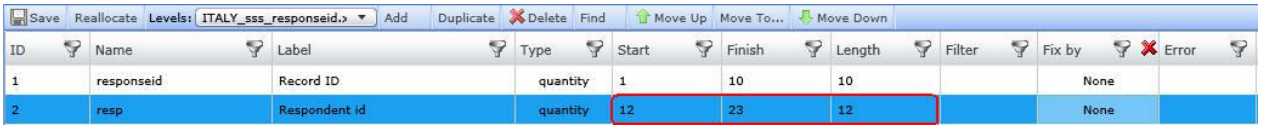


Figure 29 Example of Range values before reallocation, with None selected as the Fix By rule

When you apply **Reallocate** you will encounter the following changes: the range start value will be set to 11, and the range length value will be set to the default value for this type, in this case 8. The range end value will be changed to 18.

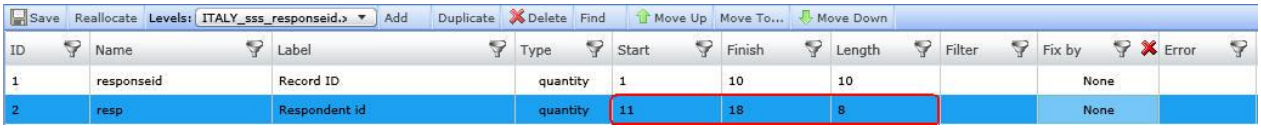


Figure 30 Example of Range values after reallocation, with None selected as the Fix By rule

  - **Position** - the range values of the variable are not changed so its position is not changed. In this example, the variable `resp` is Fix By position. When you apply Reallocate, the Start and Finish values will remain unchanged

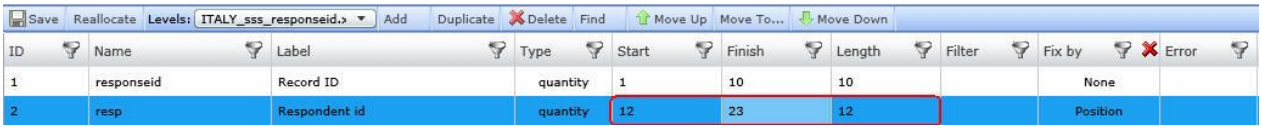


Figure 31 Example of Range values after reallocation with Position selected as the Fix By rule

  - **Length** - the range start value of the variable becomes greater than the range end value of the previous variable by 1. I.e. no gaps are left between the range start of the variable in question and the range end of the previous variable. However, the length of the reallocated variable remains unchanged so only the start and end values may change. In the example below, as a result of reallocation, the range start value is set to 11 and the range length value is left unchanged. The range end value is changed to 22

Figure 32 Example of Range values after reallocation with Length selected as the Fix By rule

When you click the **Fix by** button in the Selected Variables page toolbar, the Fix by... overlay opens.

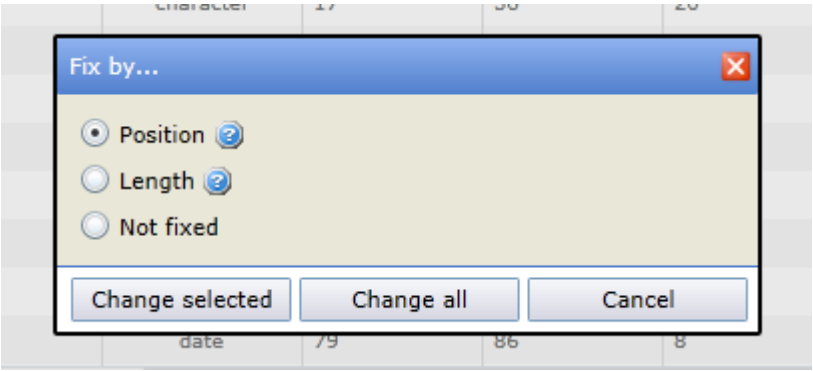


Figure 33 The Fix by... overlay

This overlay allows you to apply the selected parameter to all variables or just those you have already selected. The options are:

- **Position -** The column positions specified in the Start and Finish columns will be fixed. Use this function to maintain the column positions when updating the Template with the changes in the project running the “Update from project” process, and to maintain the column positions when exporting Survey data.
- **Length -** The variable length specified in the Length column will be fixed. Use this function to maintain the variable length when updating the Template with the changes in the project running the “Update from project” process, and to maintain the length when exporting Survey data.
- **Not fixed -** changes the selected variables or all variables to **Fix by = None**. This means the variables are not fixed by positions or length.

The type-specific properties (see Variable Types on page 19 for more information) displayed in the lower panel are as follows:

- **Use type** - describes the role of this variable in the survey. This property is available for quantity variables. Available values are:
  - **None -** means that the variable does not contain weight or serial number (default value).
  - **Serial** - means that the variable contains the serial number (or other identification field) for the case.
  - **Weight** - means that this variable contains a case weight.
- **From** - defines the minimal numeric limit of the variable's value. This property is available for date, time, quantity, single and multiple variables.
- **To** - defines the maximal numeric limit of the variable's value. This property is available for date, time, quantity, single and multiple variables.
- **Serial** - this check-box defines whether the variable contains the serial number (or other identification field) for the case. This property is available for character variables. For example, the responseid would have set use type=serial.
- **Size** - defines the maximal length of the value string. This property is available for character variables.

- **Format** - is used to declare the format of the codes for the variable. This property is available only for single variables. Available values are:
  - **None** - means that all the codes for the variable are to be treated as numbers (default value);
  - **Numeric** - means that all the codes for the variable are to be treated as numbers;
  - **Character** - means that all the codes for the variable are to be treated as characters rather than numbers. Character codes are case-sensitive (so “a” and “A” are different).
- **Use range** - this check-box defines if a limited range is used for the variable's value. If this option is checked, then the **From/To** fields appear (see above for more information).
- **Use spread** - indicates that the data values are coded as a series of category values in consecutive subfields rather than the default multiple format of a series of 0/1 characters (see The Spread Format on page 123 for more information). This property is available for multiple variables. If this option is checked, then two additional fields for two corresponding properties appear:
  - **Subfield number** - defines the number of subfields within the overall field. The value must be a positive integer.
  - **Subfield width** - defines the width of each subfield. The value must be a positive integer.

Note: There can be at most one serial variable, which may be a character variable or a positive integer quantity variable, and one weight variable, which must be a positive integer quantity variable. The data values must be unique and should not be missing. When you duplicate the serial or the weight variable, the duplicated variable will not be serial or weight, respectively. If you assign the weight or serial property to a variable when the weight or the serial variable already exists, then the dialog window appears prompting you to disable the serial or weight property for the current serial or weight variable, respectively, and to assign the property to the variable being edited.

Single (see The Spread Format on page 123 for more information) and multiple variables also have several additional properties, which are related to categories within these variable types. These properties are as follows:

- **Code** - denotes the code of the variable's category. This property is available for multiple and single variables.

  For single variables, if this attribute is not present or the **Format** property (see above for detailed information) is set to "numeric" then the code values must all be positive integers or the value zero. However when the **Format** property is set to "character" then all code values (even those that look like numbers) are treated as case-sensitive characters.

  For multiple variables, the code values must be positive integers.
- **Score** - allows score values to be assigned to the individual code values to be used for computing statistics such as Mean, Standard Deviation etc. This property is available only for single variables. The value must be a number, with or without a decimal point and decimal places. The omission of a score implies that records having that value code should be omitted from the base for any statistical computation for that variable.
- **Value** - defines the set of legal values and optional text labels for values (e.g. categorical codes).

You can manage categories of single and multiple variables by means of the buttons of the toolbar in the lower panel, which are as follows:

- **Add** - click this button to add a new category to the variable.
- **Delete** - click this button to delete the variable's categories selected in the category list.
- **Move Up** - moves the variable's categories selected in the category list one position up.
- **Move Down** - moves the variable's categories selected in the category list one position down.

Note: Ensure you have checked the validation settings (see Validation Rules on page 121 for more information) before manipulating the template by managing the variable categories (see Source Type > Survey Database on page Error! Bookmark not defined. **for more information).**

2.1.10.3. How to Navigate through Variables in the Template

You can navigate through variables and view their properties, sort variables by their properties, filter the variables to be displayed, and search for variables by their name, label and values.

Templates generated from Confirmit projects with loops (refer to the Authoring User Guide for more information) contain hierarchies where questions within loops represent child levels. Every hierarchical level in these templates is a separate file. These files are edited separately from each other. You can select a particular level in the template by clicking the drop-down menu in the **Levels** field.

Important
To maintain the required look and functionality of Projects based on templates that contain hierarchies, it is recommended that you DO NOT DELETE system variables (see Variable Types on page 19 for more information).

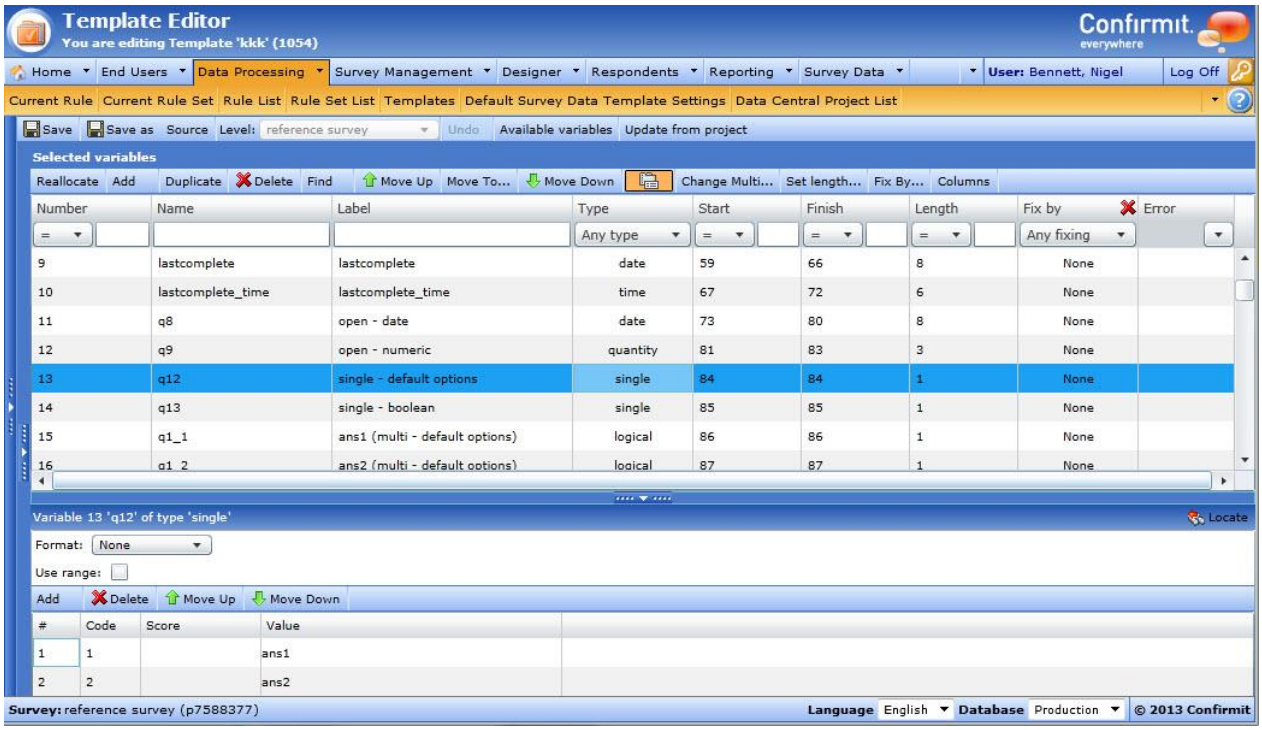


Figure 34 Example of a template with hierarchical levels

Variables are displayed in the upper panel of the Triple-S Template Editor page as a table, which also displays the common properties of the variables. When you select a variable in this upper panel, the lower panel displays the type-specific properties of this variable (see Variable Properties on page 20 for more information).

Variables can be sorted by all common properties. To sort variables:

1. Click the header cell of the column displaying the property by whose value you want to sort variables.

   Variables will be sorted by the value of the property in ascending order.

2. Click the header cell once again to sort variables in descending order.

The list of variables can be searched for variables by name, label and value.

1. Click **Find** on the toolbar above the upper-right panel.

   The Find Variables dialog appears.

Figure 35 The Find Variables dialog

2. Select the properties by which you want to search, by checking the corresponding checkboxes.
3. Type the search string in the **Find** field.
4. Check **Match case** to enable a case-sensitive search.
5. Click **Find**.

   When a variable that meets the specified searching criteria is found, it is highlighted in blue in the list of variables.
6. Click **Find** again to navigate to the next variable meeting the search criteria.

In the event no variables matching the search string are found, a window displaying the notification message appears:

Figure 36 Example of the Search Results Notification window when no variables are found

You can filter variables to be displayed by their common properties as well as assign to them logical variable as filters (see Variable Properties on page 20 for more information).

2.1.10.4. How to Back Up a Template

If you wish to back up a Survey Data template, you can export the file and store it or generate a duplicate of the template.

Note: We recommend you duplicate your Template to create a back-up copy if you plan to apply a number of changes to your existing Survey Data Template.

2.1.10.5. How to Add Variables to the Template

1. In the Selected Variables list, click **Add** in the toolbar.

   A new variable appears in the variable list.

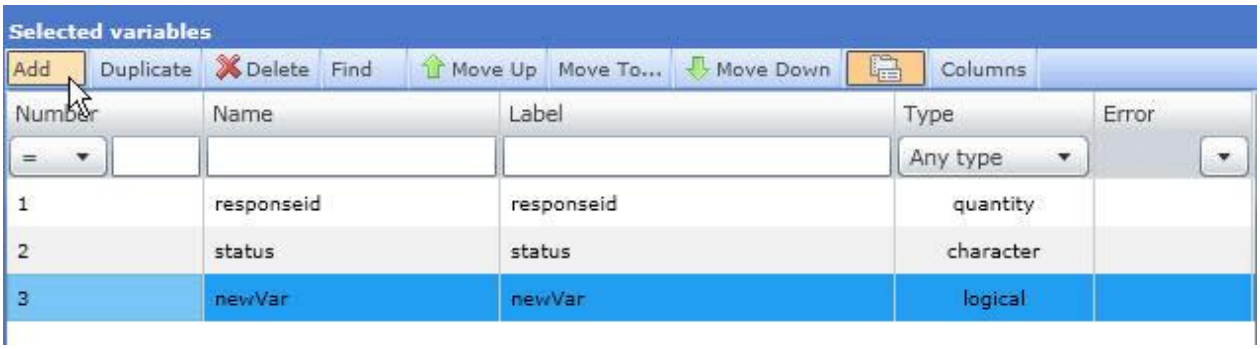


Figure 37 Creating a new variable

The new variable will have default template-specific property values that you can change later (see Variable Properties on page 20 for more information).

2. Click **Save.**

2.1.10.6. How to Import Variables into the Template

Note: This process is ONLY required if you want to import variables from a different project (not the one used for generating the template). If you wish to import variables from the same project, use the "Update from project" function.

Imagine the following scenario:

You have generated a template for Project A and would like to use this template for Project B, which differs slightly from Project A. After duplicating the template, you would run the import process. This allows you to import new variables and to replace existing ones if they also exist in Project B.

1. In the Template List, click on the template you wish to import the variable to.

   The Template Editor page opens.

2. In the Available Variables toolbar, click **Import**.

   A confirmation message appears.

3. Assuming you wish to proceed, confirm the import by clicking **Yes**.

   The Webpage Dialog opens.

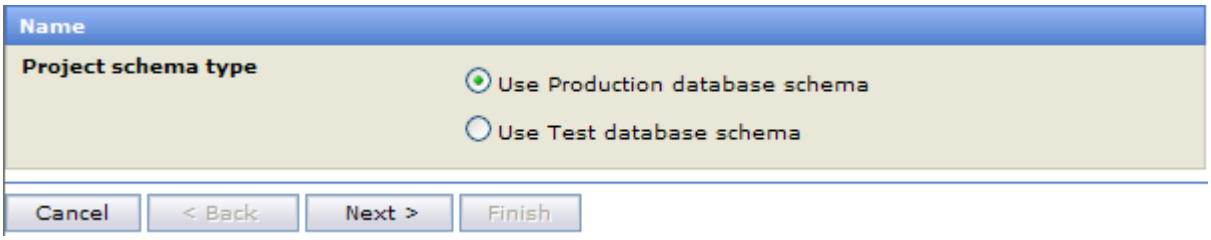


Figure 38 The Webpage Dialog

4. Select the database you wish to use and click **Next**.

   The Webpage Dialog changes to show a list of the projects you have access to.

5. Select the project containing the variable you wish to import (the project you are working with), then click **Next**.

   The Advanced Template Options window opens. The layout of this window will depend on the type of template you are working with.

6. Make the appropriate settings and click **Finish**.

   The Template Generator task is executed. As in this case you are importing variables into a template that already contains some variables, a warning message appears.

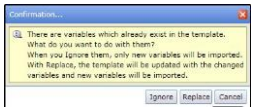


Figure 39 Import warning message

- If you click **Ignore**, only new variables will be imported to the Available Variables list; any variables that already exist in the template will be ignored.
- If you click **Replace**, new variables will be imported to the Available Variables list AND any variables in the survey that have been changed will be updated in the template.

7. As in this exercise you wish to import the new variable and update one that has been changed, click **Replace**.

   The Import Variables dialog opens. The variables you are importing are now listed one by one, allowing you to accept or stop each import/change separately. Alternatively, if you are certain your previous selections are correct, you can click **Replace All** to accept all the imports/changes in one go.

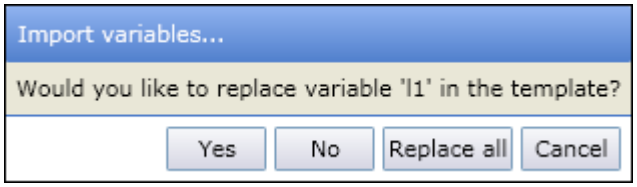


Figure 40 The Import Variables dialog

8. In this case, click **Replace All**.

   The new variables (in this case one imported and one changed) are added to the Available Variables list.

Figure 41 The Available Variables list with the new and updated variables

Note: An Undo button is available, however the import process itself is not reversible. You are recommended to export the template before you import a project so that you have a backup copy of the variables before you make the changes.

The import process is different when the template is flattened. In a flattened template, the **Import** button in the available variable section is not visible unless you are in the Source mode of the template.

- Click on **Source** (the Source button changes to Target). The template changes to hierarchical view and the import button is now visible in the “Available variables” section.
- Go through the import process as before.

After the import process the template must be flattened again.

Note: If you want to maintain the column positions, make sure the column positions are fixed (Fix by should be set to Position) before you start the import process. If the column positions are fixed, then re-flattening after the import process will not change the positions.

You now need to ensure that any changed variables are correctly set up, and new variables are added into the template in the desired position(s). Any variables that are incorrectly set up will be displayed in red. To check for these:

2. In the Selected Variables pane on the right, scroll down and look for red variables, or apply a filter.

   To apply the filter: In the last Error column, click on the down-arrow and deselect “With no errors”.

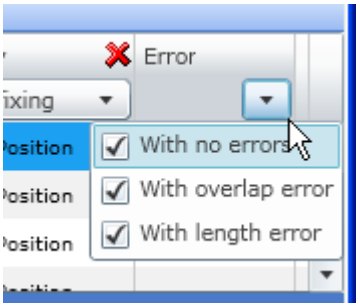


Figure 42 Selecting the error filter

Click in the grid to apply the filter. Only variables that include errors will be listed. The selected variable is presented in dark red.

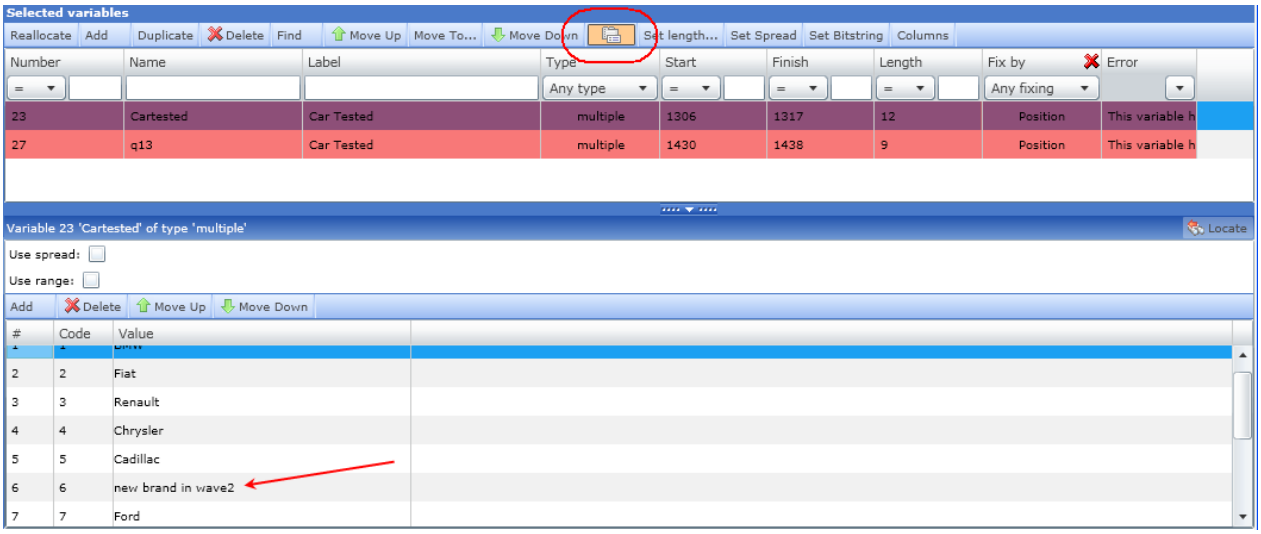


Figure 43 Only those variables containing errors are now listed

3. Toggle the **Show Variable Properties** button (ringed in the figure above) to open the Variable Properties pane towards the bottom of the window. Here you can view the properties (see Variable Properties on page 20 for more information) and see the changes that have been made. In this case, the new category is displayed (“new brand in wave2” - arrowed).

Note: In this case, the reason why the variables are displayed with a red background is that the "Fix By" positions are set to Position. This was originally set to ensure that the columns are maintained even when the project is changed and exported again. To fix this, when generating the template the first time, ensure that there is enough space reserved (using Set Length), or apply Split Multi, change the variable to Spread now (this uses less space), or move the variable to the end.

To change the setting to Spread:

1. Click on first "red" variable to select it.
2. In the Variable Properties window, check **Use spread**.

   Two additional fields appear.

Figure 44 Checking the Use Spread property box

3. In this case, set Sub-fields number to **2** and Sub-field width to **2**.

   The red background should change to blue for this variable.
4. Repeat the procedure for the remaining red variables.

To select the variables that have been added to the Available Variables list:

1. In the column between the Available Variables list and the Selected Variables panes, click the **>>** button.

   All the variables are added to the template.

Remove the filter from the error column to view the new variables in the Selected Variables pane. In this case, the two new variables (q50,q15_E99) have been added to the bottom of the list. You can now position then as required in the list using the **Move Up** and **Move Down** buttons.

2.1.10.7. How to Fix the Positions of Variables

To fix the positions of all variables in the current flattened template:

1. click the **Fix by** button in the Selected Variables page toolbar, the Fix by... overlay opens.

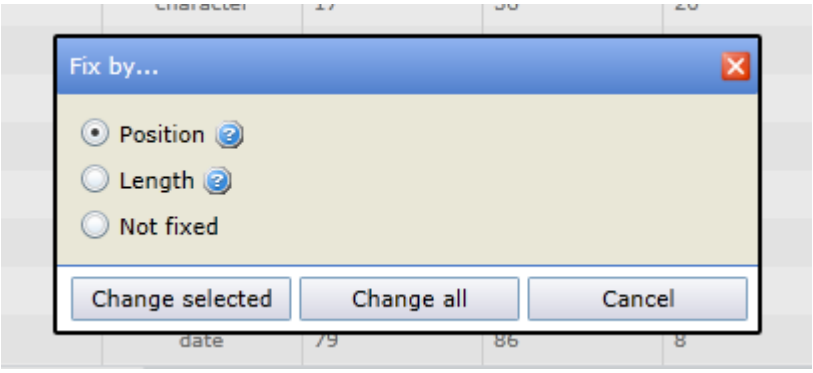


Figure 45 The Fix by... overlay

This overlay allows you to apply the selected parameter to all variables or just those you have already selected. The options are:

- **Position -** The column positions specified in the Start and Finish columns will be fixed. Use this function to maintain the column positions when updating the Template with the changes in the project running the "Update from project" process, and to maintain the column positions when exporting Survey data.
- **Length -** The variable length specified in the Length column will be fixed. Use this function to maintain the variable length when updating the Template with the changes in the project running the "Update from project" process, and to maintain the length when exporting Survey data.
- **Not fixed -** changes the selected variables or all variables to **Fix by = None**. This means the variables are not fixed by positions or length.

2. Select **Position**.
3. Select **Change selected** or **Change all** as appropriate.

Note: In the event of hierarchical Survey Data Templates, these steps must be repeated for each loop level.

2.1.10.8. Changing a Multi Variable

Multi variables can be changed in several ways; you can set the Spread, set the Bitstring, and Split them. To change a multi variable:

1. Click the Change Multi button in the Selected Variables area.

   The Change Multi overlay appears.

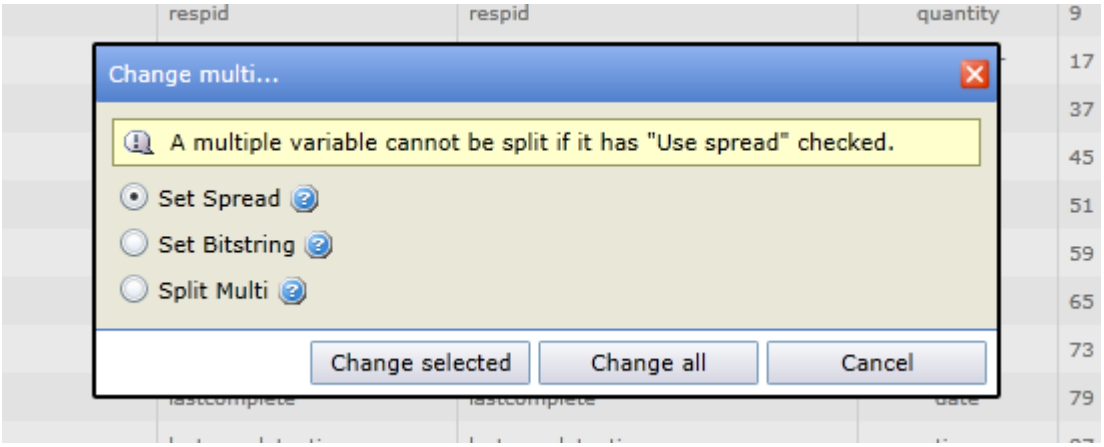


Figure 46 The Change Multi overlay

2. Select the change you wish to perform.

   Note that a multi variable cannot be split if it has the Use Spread property checked (see Variable Properties on page 20 for more information).

3. Click **Change selected** to change just the selected multi variable; click **Change all** to change all multi variables.

- **Set Spread -** select if you wish to be able to set a multi variable to the Spread format. In the Spread format the data is recorded as a series of sub-fields, each containing one category value of the multi variable. The data sub-field length is the minimum number of characters required to represent the largest category value in the Values block. Thus variables with category values up to 9 have a data sub-field one character long; variables with category values up to 99 have a data sub-field length of 2, etc. With this storage type it is possible to reduce the field size for multi variables, so it is recommended particularly for variables with long lists of category values (see The Spread Format on page 123 for more information).

- **Set Bitstring -** select if you wish to be able to set a multi variable to the Bitstring format. In the Bitstring format the data is recorded with one character per category of the corresponding variable. A character "1" is used to signify that a category has been selected; a character "0" signifies that a category is not selected. The category value refers to the relative position of the 0/1 code in the data field. Therefore a category value of 9 will always refer to the code in the 9th location of the data field, even if some of the lower category values have not been defined. The data field length is defined by the highest category value. This means that with nine category values, nine fields in the data will be used. Using this storage type, Multi variables with long category lists will require a large data field length (see The Bitstring Format on page 122 for more information).
- **Split Multi -** logical variables are generated from each category of the selected multi variable. For example, a multi question q5 with 3 categories (1, 2, 99) will result in 3 logical variables (q5_1, q5_2, q5_99). These generated logical variables can be positioned in the template by moving them or by allocating specific columns .

2.1.10.9. How to Duplicate Variables

This Duplicate functionality can be used to manually add new variables to a template by duplicating existing variables and amending the variable id to match the new variable to be added. Note that the Duplicate functionality was introduced prior to the 'Update From Project' functionality (see How to Update the Template from the Project on page 39 for more information), which now makes this Duplicate functionality obsolete as it is easier for the user to use Update From Project when adding new variables to a template rather than manually duplicating existing variables.

1. In the upper panel of the Template Editor, select from the list the variables you wish to duplicate.
2. Click **Duplicate**.

   New copies of the duplicated variables are added to the template's list of variables.
3. Click **Save**.

All values of the duplicate variables except the IDs and names are identical to those of the variables from which the duplicate variables are derived. The name of the duplicate variable consists of the name of the variable from which it is derived, and suffix '_Clone_x' where 'x' is the serial number of the duplicated variable. Duplicated variables are automatically assigned IDs.

Note: The ID property indicates the position of the variable within the Triple-S Template and the variable list. Although the ID is assigned automatically, the range values of the duplicated variables are the same as the range values of the variables from which the duplicate variables are derived. This will cause range overlap problems. To change the range values of variables in respect to their ID and location within the Template, use the Reallocate feature (see Reallocating Variables on page 37 for more information).

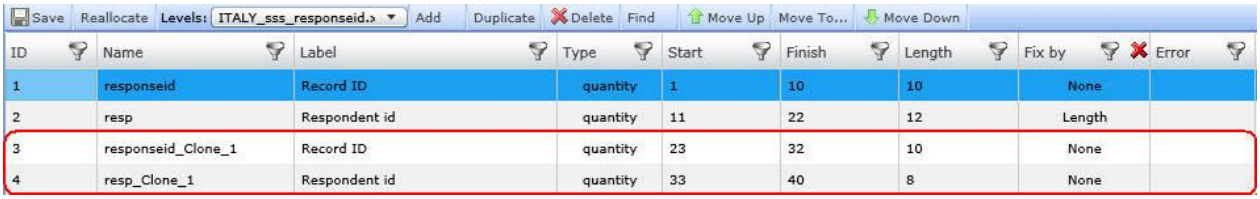


Figure 47 Example of duplicated variables after reallocation

2.1.10.10. How to Assign new Range Values to a Variable

To assign new Range values (Start, Finish and Length - (see Variable Properties on page 20 for more information)) to a variable:

1. In the Template Editor's upper panel, click on the appropriate cell of the variable whose range value(s) you want to change.
2. In the input field of the cell, type the new value.
3. Click **Save**.

2.1.10.11. How to Move Variables within the Template

You can move variables within the Template:

1. In the upper panel, select the variable(s) you want to move.
2. Click **Move Up** to move the selected variable(s) one position up, or click **Move Down** to move the selected variable(s) one position down.

   The selected variables will be moved within the list of variables.

You can also move a variable to a specific place in the template:

1. In the upper panel, select the variable(s) you want to move.

Figure 48 Selecting the variables before moving

2. Click **Move To...** .

   The Move Variables dialog opens.

Figure 49 Specifying the new position

3. Specify the desired position in the **Move To...** field as a positive integer and click **Move** , or click **To start** or **To end** as appropriate.

   The selected variable is moved within the list of variables to the specified location. In the event several variables are selected to be moved, the top-most variable selected is moved to the specified position whilst the others are placed consecutively below the first.

ID	Name
1	c10
2	responseid
3	brands
4	c10_lev
5	newVar3
6	newVar
7	newVar1
8	newVar2
9	newVar4

Figure 50 The variables list after moving the variables

4. Click **Save**.

Note: As the ID property indicates the position of a variable within the template and the variable list, moving variables also changes the ID of the variables being moved. However the range values of the variables do not change (see Variable Properties on page 20 for more information). To change the range values of variables with respect to their ID and position within the template, use the Reallocate feature.

2.1.10.12. How to Delete Variables from the Template

You can remove a variable from the template by moving it from the Selected Variables column (right side) to the Available Variables column (left side). Note that if you wish to delete a variable entirely from the template, this can only be done from the Available Variables column.

1. If the variable you wish to delete is currently in the Selected Variables (right) column, select the variable and click the **<** button to move it to the Available Variables (left) column.
2. In the Available Variables column, select the variable(s) you want to delete.
3. Click **Delete**.

   A confirmation dialog opens.
4. Click **OK** to confirm deletion of the variable(s) or click **Cancel** to cancel the operation.
5. Click **Save**.

2.1.10.13. Reallocating Variables

The ranges occupied by different variables should not intersect each other (see Variable Properties on page 20 for more information). When you change a variable's range value such that its range overlaps the range of another variable, the variables' **Errors** cells display a brief error description and a recommended solution, and the entire row of variables is highlighted in red.

To automatically fix problems of this kind, the variable range value Fixing is used. This is performed when you click **Reallocate**, located towards the left end of the toolbar.

The Reallocate function changes the variables' range values such that range overlaps and insufficient range lengths are eliminated, and it also places variables in ascending order with respect to their range values.

The Fixing rule used to change the range values of a variable is defined by the value selected in the **Fix by** cell of the variable list (see Variable Properties on page 20 for more information).

2.1.10.14. How to Show and Hide List Columns

You can decide which columns of information are to be displayed in the Pool and Selected Variables lists, and the order in which those columns are displayed.

1. In the Available Variables list or Selected Variables list as appropriate, click the **Columns** button.

   The Customize View dialog opens.

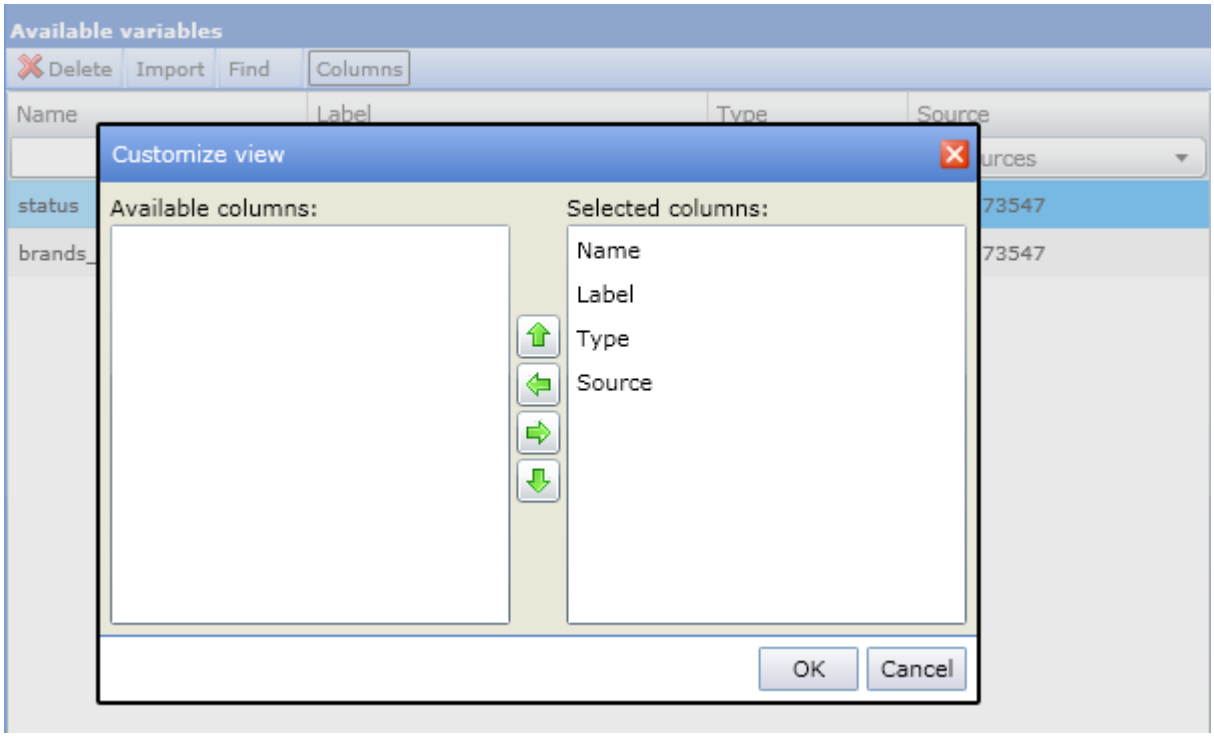


Figure 51 Example of the Customize... View dialog

   The columns are displayed in the order in which they appear in the Selected Columns list (compare the list to the columns in the shaded background window).

   - To show a column, select it in the Available list and click the  button.
   - To hide a column, select it in the Selected list and click the  button.
   - To move a column towards the left in the list, select it in the Selected list and click the  button.
   - To move a column towards the right in the list, select it in the Selected list and click the  button.

2. When you have the desired columns in the correct places, click **OK** to close the dialog.

2.1.10.15. How to Flatten a Template

A survey template that includes loops can be simplified such that the loops are converted to a number of 'standard' variables. During this flattening process, loop data will be expanded, and variables will be created to represent each iteration of each question. If you do not need to include specific loop iterations or questions in the flattening process, use the Template editor to remove those that are not required.

Important
In complex surveys with large numbers of loops, iterations or loop questions, you are strongly recommended to edit the template to simplify it as much as possible before conducting a flattening operation. A huge number of variables can be generated during the flattening process, which may exceed Confirmit's Acceptable Use Policies.

Note: When a template is flattened, the loop variables will be positioned as they appear in the questionnaire.

To flatten a template:

1. In the Template Editor window's toolbar, click **Flatten**.

   A Task page opens. This shows the progress of the operation, and on completion the page closes automatically. Note that the **Flatten** button has now been replaced by the **Source** button - click this to view the source template.

Note: Positions should always be fixed after the template has been flattened.

2.1.10.16. How to Update the Template from the Project

Imagine the following scenario:

In the first instance, Project A was generated, data was collected, a template was generated and the data was exported. In the second instance, Project A was changed (one question and one category were added), but we want to use the same template as before so the positions of the variables can be maintained.

The Update from Project functionality allows you to easily update the template with any changes that have been made in the project since the template was created or last updated. This function is activated by the **Update from Project** button in the template editor.

Note: If you wish to retain the column positions of existing variables then you must set all variables to Fix By Position before updating the template (see How to Fix the Positions of Variables on page 33 for more information).

To update the template:

1. In the Template Editor page, click the **Update from Project** button.

Note: If the template was generated using more than one project, then a project selection page now opens. In this case, select the project you wish to update the template from and click Next.

Note: If the template was generated before the Confirmit 15 SP1 release, then the procedure is similar to that used for creating a new template (see How to Create a New Template on page 6 for more information). In this case make the appropriate selections and click Next/Finish.

The Template Generator task runs. On completion, a page opens in which any differences between the template and the project are listed.

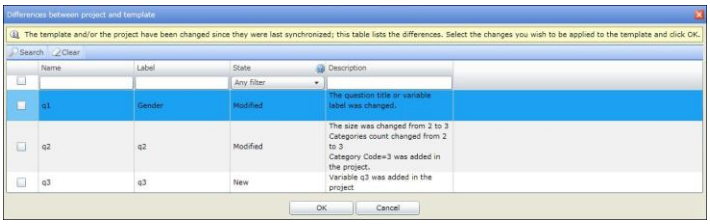


Figure 52 Example of a "Differences..." page

Note: In the event there are no differences between the template and the project, a message will inform you of this fact.

You can now select which of the changes you wish to copy to the template.

2. Click in the check-box at the left end of a row to select that change, or click in the top box to select all the changes, then click **OK**.

   The changes are copied to the template.

2.1.11. Mapping Confirmit Variables

The table below outlines how Confirmit variable types are mapped to Triple-S variable types.

System fields	
respid,responseid	quantity
rowguid	character
status	character
dates (interview_start, interview_end, last_touched, lastcomplete)	Will be split into pairs of date + time variables, e.g. interview_start (for date) and interview_start_time (for time).
Question types	
single	single
multi	multiple
open text	character
open text numeric	quantity
grid	Will be split into a set of single variables, one for each element in the answer list.
loop	(In 2.0 hierarchy export) single
multi open text	Will be split into a set of character variables, one for each element in the answer list.
multi numeric	Will be split into a set of quantity variables, one for each element in the answer list
multi ranking	Will be split into a set of quantity variables, one for each element in the answer list
other, specify fields	character

2.2. Current Rule

Rules are used to change data and move/copy it from one place to another. For example you can use rules to update the database.

The Current Rule page shows the details of the rule selected in the Rule List (see Rule List on page 86 for more information). When you select a rule in the Rule List, the Current Rule page opens at the General tab.

The following buttons are common for all the tabs in the page:

- **Back –** takes you back to the Rule list
- **Save –** saves any changes made.
- **Duplicate –** makes a duplicate copy of the rule. Use this if you need to make a rule that will be similar to an existing rule. You can then edit the copy.
- **Execute –** once you have set up the rule and are sure it is correct, click this button to run the rule.
- **Validate Action Script –** checks the script created in the Action tab to ensure there are no errors.
- **Export Rule –** exports the rule so it can be imported into a different server.

2.2.1. The General Tab

The **Current Rule > General** tab shows the details of the currently selected rule. Here you can change the rule's name, write in a comment and specify the source and target types, Status and Validation setting. The remaining information cannot be edited.

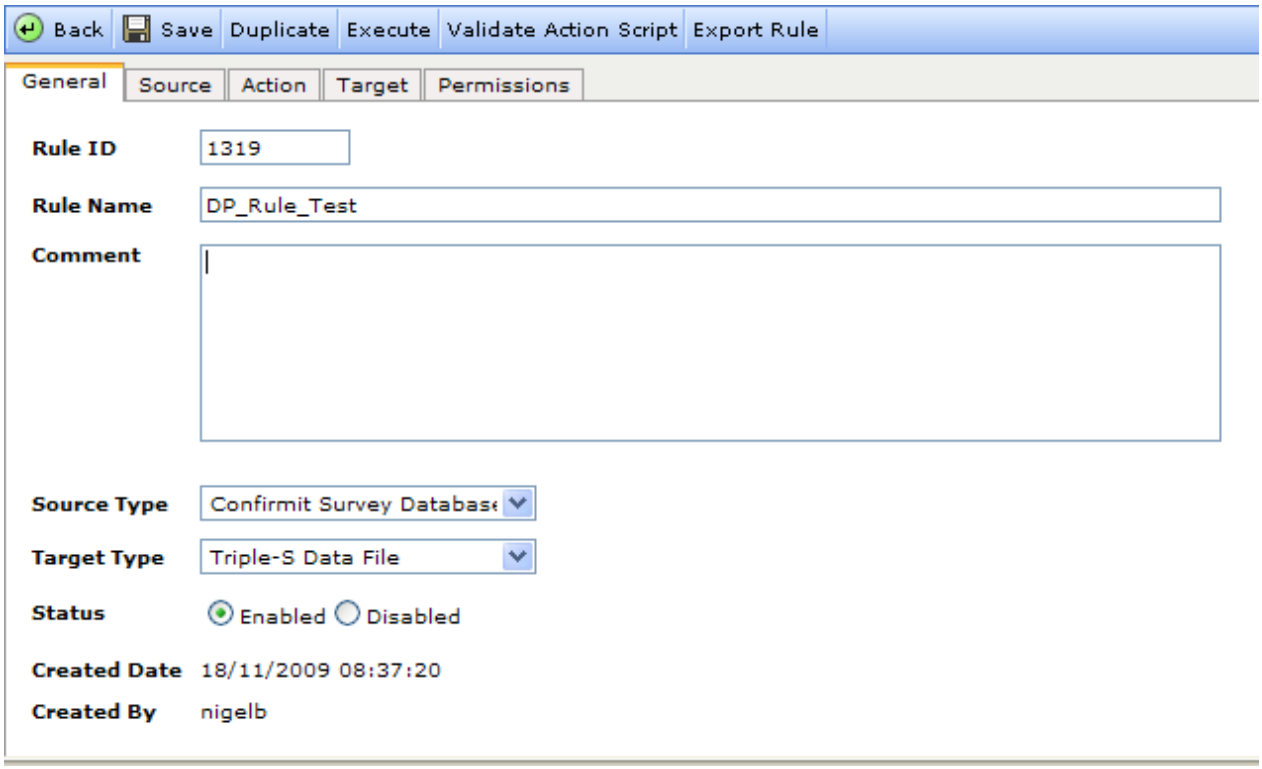


Figure 53 Example of the Current Rule > General tab

The properties and fields are as follows:

- **Source Type -** select the type of source the rule is to use. The screen layout for the Source tab depends on the type selected.
- **Target Type -** select the type of target the rule is to use. The screen layout for the Target tab depends on the type selected.
- **Status -** select the required status for the rule. The options are:
  - **Enabled –** select to allow the rule to be run "as required". This is the default setting.
  - **Disabled –** select this option if you wish to prevent the rule from being run. This could be useful if you have a recurring task, and wish to stop using this rule in that task for a period but do not wish to change the task permanently.
- **Created Date -** the date the rule was created.
- **Created By -** the user name of the person who created the rule.

Note: If Source Type is set to Survey Data and the Target Type is set to Delimited Text File, or vice versa, then in the event the user has the necessary permissions, they can execute the rule as a different user. The Execute as Other User field is then available below the Created By information (see Executing Rules as Other User on page 43 for more information).

Important
If you select "Confirmit Survey Data", and "Columns" or "Survey Data Template" in the Columns options, in both the Source and Target tabs, then Validation Setting options will become available on the Source tab (see Validation Rules on page 121 for more information).

2.2.1.1. How to Duplicate a Rule

To save time while creating a new rule, if you have an existing rule that is similar to the rule you intend to create, then you can duplicate it.

1. In the Rule List, click on the rule you wish to duplicate, to select it.

   The Rule Details page opens.

2. Click **Duplicate**.

   The Duplicate Panel Rule dialog opens.

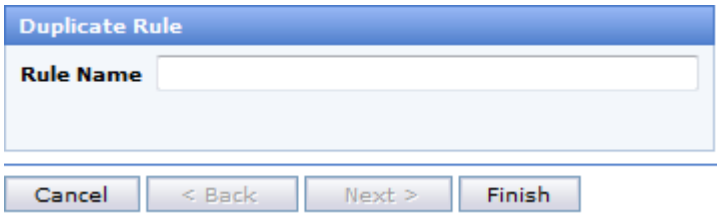


Figure 54 The Duplicate Rule dialog

3. Type in a name for the new rule, then click **Finish**.

   The rule is duplicated, and will appear in the Rules list. The Rule Details page opens showing the new duplicate rule, and you can now edit the new rule as required.

2.2.1.2. How to Execute a Rule

Run the rule to perform the specified changes etc.

1. In the Current Rule page, click **Execute**.

   The Rule Execution Properties dialog opens.

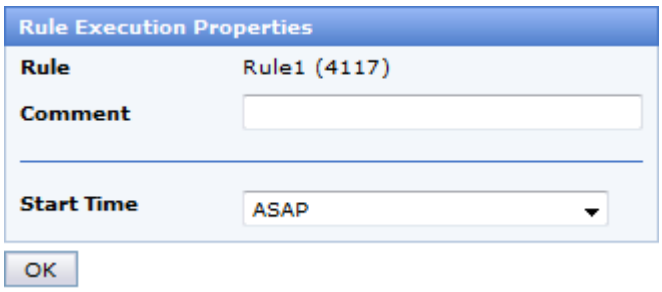


Figure 55 The Rule Execution Properties dialog

2. Type any comments into the Comment field.
3. In the Start Time field, select when you want the task to be run.

   Select ASAP to run the job as soon as it gets to the front of the task queue in the server. Select Schedule for Later Execution if you want the job to be run at a specific time in the future or if you want the job to be repeated at regular intervals.

4. Click **OK**.

   If you have specified that the task is to run as soon as possible (ASAP) then a Task page opens showing a progress bar, the Task ID and the sequences being run and completed.

   If you have specified that the task is to be scheduled for later execution, then a Recurrence Pattern dialog opens. Refer to the Authoring User Guide for more information on recurrence patterns.

   On completion, the text Task Completed is displayed at the bottom of the sequence list.

5. Click **OK** to close the Task page and return to the Rule Details page.

2.2.1.3. Validating an Action Script

Click to check the script for compilation errors. If errors are found, they will be listed in a separate window. You must then correct the errors and validate again. If no errors are found, a message is given.

Click the red X button in the upper-right corner of the window to close the window and return to the Rule Details page.

2.2.1.4. How to Export a Rule

You can export rules to other servers. Proceed as follows:

1. In the Rule Details page, save the rule to ensure all changes/updates are included.
2. Click **Export Rule**.

   The Export Rule dialog opens.

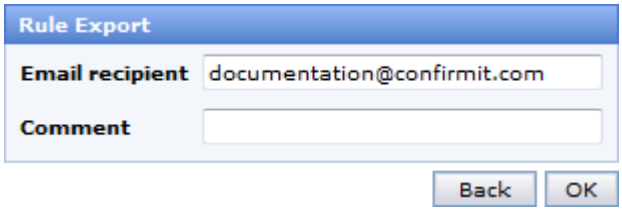


Figure 56 The Rule Export dialog

3. Check / edit the email address to which the rule is to be sent, and add a comment, as necessary.
4. Click **OK**.

   An email is sent to the specified address with the rule attached. This rule can now be imported into the destination server (see How to Import a Rule on page 87 for more information).

2.2.1.5. Executing Rules as Other User

In the event you have the necessary permissions, you can execute several of the import, export and data processing rules as "Other user". This enables you to select another user from the selected survey's company, and execute the rule with that selected user's settings, for example pgp encryption, file transfer type, email, etc.

The option will be available to a user only if he/she has the permissions: **system_account_read** and **system_project_data_export_admin**. Refer to the Confirmit Administrator Guide for further details.

In Data Processing, the option appears at the bottom of the Current Rule > General tab if the Source Type is set to Survey Data and the Target Type is set to Delimited Text File, or vice versa.

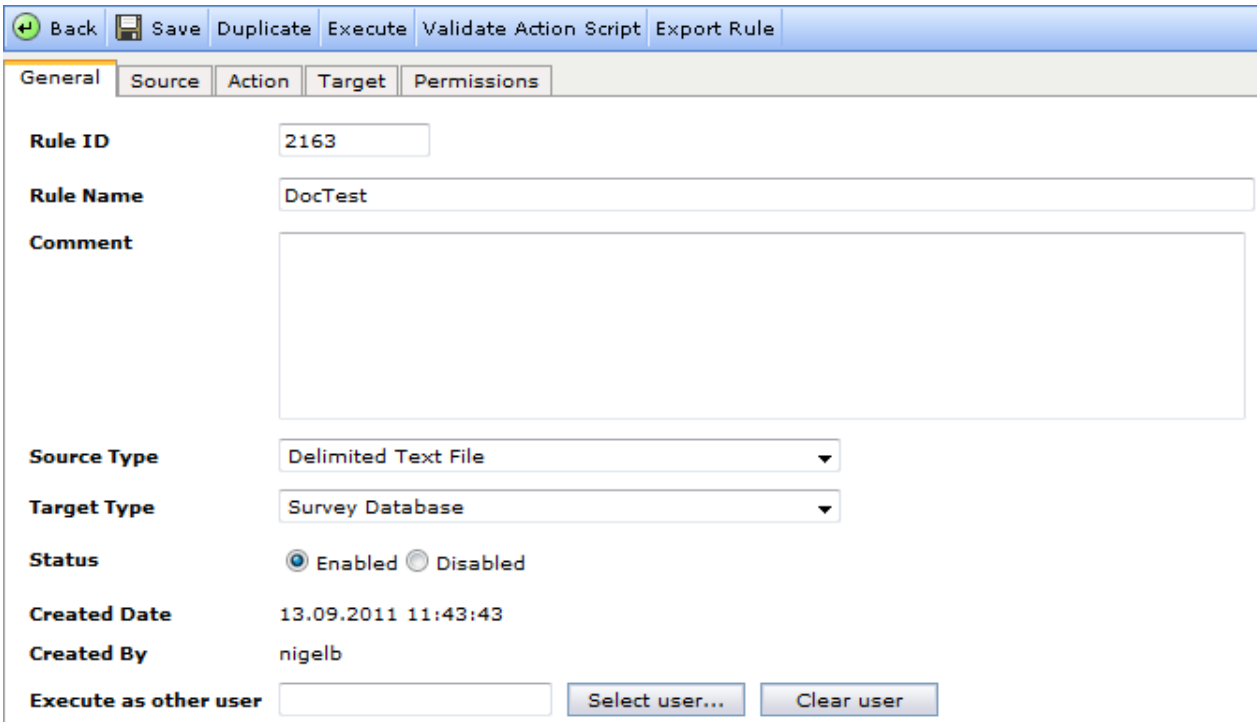


Figure 57 The Current Rule > General tab showing the Execute as other user option

Click **Select User** to open a Select User overlay in which you can search for and select the user you wish to use. Click **OK** to add the selected user's user name to the field, then continue with the procedure.

The Execute as other user feature is available for the following rules:

- Survey Data Export
- Survey Data Import
- Survey Respondents Export
- Survey Respondents Upload
- Data Processing rules:
  - from SurveyData to File
  - from File to SurveyData

Note that the project must be selected before you can select the "other user".

2.2.2. The Source Tab

Use the fields on this tab to specify the data source on which the rule is to operate. The data to be moved or changed can come from a number of sources – select the Source Type on the General tab (see The General Tab on page **Error! Bookmark not defined.** for more information). The screen layout for the Source tab then depends on the Source Type selected.

2.2.2.1. Source Type > Contact Database

Select this option if the data source is a contact database. The Source tab layout is then as shown below.

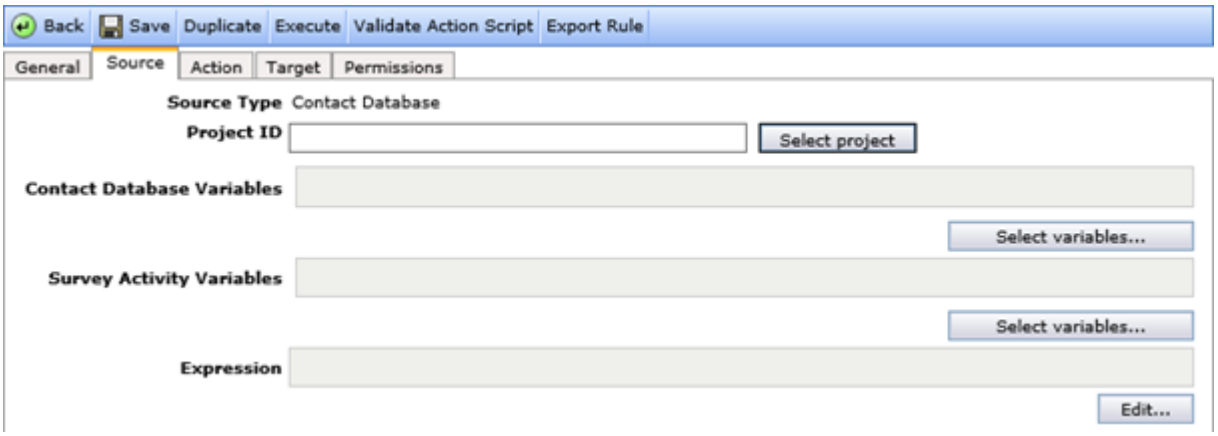


Figure 58 The Source tab with Contact Database selected as the Source Type

The properties are as follows:

- **Project ID –** to select a project click **Select project** and select the required project from the list.
- Contact Database Variables -
- Survey Activity Variables -
- **Expression -** here you can create an expression to filter the data that is to be manipulated by the rule. Click **Edit** to open the Expression Editor window (see The Expression Editor Window on page 102 for more information).

2.2.2.2. Source Type > Delimited Text File

Select this option if the data source is a delimited text file. Note that the file can be .txt or .csv. The Source tab layout is then as shown below.

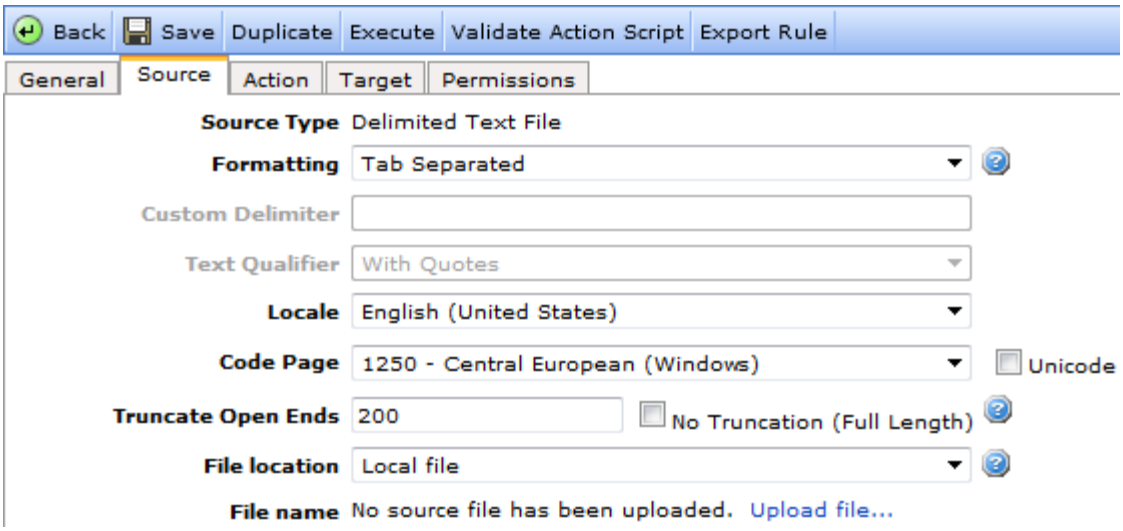


Figure 59 The Source tab with File selected as the Source Type

The properties are as follows:

- **Formatting –** Select Comma-Separated, Tab-Separated or Custom as required.

- **Custom Delimiter** - if you have selected Formatting to be Custom, this field becomes active. Type in the character you wish to use as the delimiter.
- **Text Qualifier -** this property is available when you select Formatting as Comma separated or Custom. In these conditions, the separating character has a special meaning; it is used to separate the different values from the different variables. However some texts to be exported may include punctuation. Specifying quotes around texts ensures that any punctuation does not corrupt the file layout.
- **Locale –** specify the area or country in which the data in the file is to be used. This will allow the system to format fields such as date fields according to local standards.

Note: On a later import of the file, the Locale setting made on the Target tab (see Target Type > Delimited Text File or Delimited Text File (Answer Codes as Labels) on page Error! Bookmark not defined. **for more information) must match the setting made here.**

- **Code Page –** select the code used in the file.
- **Unicode –** check this box if the file is saved as Unicode. The Code Page property is then disabled.
- **Truncate Open Ends** - when exporting data to File, system performance is heavily affected by the number of "unlimited width" text fields in the exports (i.e. Open Text fields with no field width settings). Open Text fields can be truncated by using this setting (default is 200 characters). Confirmit strongly recommends truncating Open Text field widths with this setting rather than choosing "Full length", as this will lead to significant improvements in processing time.
- **File location -** select the source of the file. Import files can be uploaded directly in the browser, placed on a Confirmit FTP server and retrieved from there, or imported from an external FTP server.
  - **Local file -** if you wish to upload the source file from your server network (perhaps the file has been stored there after having been sent to you via email), then select this option, click the **Upload File** link in the line below, then click **Browse**. A standard browser window opens, in which you can search for and select the file you wish to upload.
  - **FTP -** if your company has licensed the FTP add-on and it has been enabled, this option will be active. You can then fetch the source file from Confirmit's FTP location. Type in the file name. Confirmit's FTP address is specified as part of the enabling procedure and cannot be changed.

Note: Confirmit FTP imports support the use of wildcards in the file name. * gives zero or more characters, ? gives exactly zero or one character. For example, myFile?_*.txt - will match myFile1_20082012.txt and myFile2_22082012.txt.

  - **External FTP -** files can be taken from an external FTP location. In this case the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct.

Note: Wildcards are not supported when using External FTP.

- If you select one of the FTP options, then you can also decide what to do with the original files on the FTP site; leave them there or delete them. Note that fetching from FTP can allow automation of data flows, since you can set up the system to pick up files automatically.
- In the event the file is uploaded from an FTP site, you can select where the error files are to be sent in the event a problem is encountered with the rule. Select between sending the files by email and sending them to the FTP site from which the files as uploaded. In this case the file will include the task ID so the reader will be able to trace the task that failed.

Note: If a Delimited Text File is uploaded which contains more column headers in a specific record than there are header columns, an error message will be displayed.

- **Encrypted File** - if your company has licensed the Encryption add-on and it has been enabled , the data transfer encryption functionality makes it possible to perform secure data transfers in Confirmit. If the source file has been encrypted by the sender using your PGP public key, you will need to decrypt the files using your private key. Note that an administrator setting makes it possible to force every Confirmit user within a company to use encryption and FTP server during data transfer.

1. Make the required selections and save them.
2. Select the **Local File** or **FTP** option as appropriate.
3. Depending on which option you have selected, click the **Upload File** link or type the required information into the fields.

   If you have clicked **Upload File**, a standard Windows File Upload dialog opens.
4. In which case, browse to and select the file to be uploaded (ensure it is of the correct type as selected in Formatting above).

   The name of the selected file is displayed alongside the **Uploaded File** button.
5. Click **Save** to save the changes.

2.2.2.3. Source Type > Excel File

Select this option if the data source is an Excel file. The Source tab layout is then as shown below.

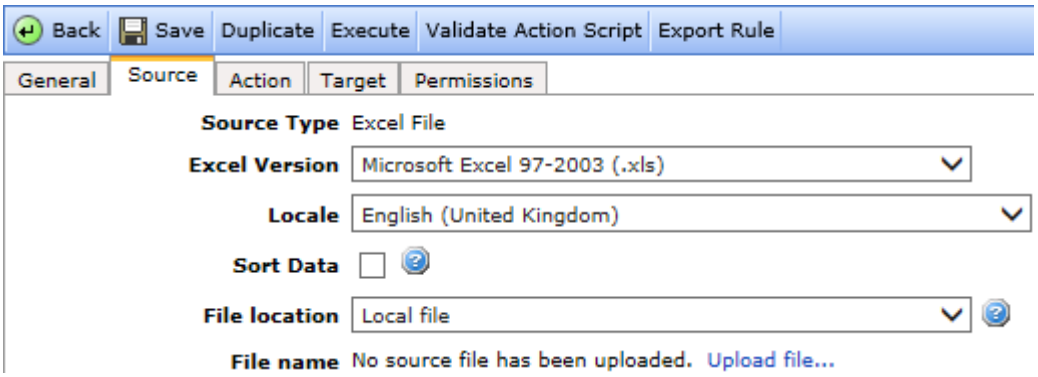


Figure 60 The Source tab with Excel selected as the Source Type

The properties and options are as follows:

- **Excel version -** the system supports .xls (default) and .xlsx formats. Select the appropriate type from the drop-down.
- **Locale –** specify the area or country in which the data in the file is to be used. This will allow the system to format fields such as date fields according to local standards.
- **Sort Data** - In Excel import, the data in all sheets must be sorted by key columns. If the data in your import file is not sorted, check this box to instruct the task execution to sort the data in all the Excel sheets automatically. Note that with a large database, sorting may take some time.
- **File location -** select the source of the file. Import files can be uploaded directly in the browser, placed on a Confirmit FTP server and retrieved from there, or imported from an external FTP server.
  - **Local file -** if you wish to upload the source file from your server network (perhaps the file has been stored there after having been sent to you via email), then select this option, click the **Upload File** link, then click **Browse**. A standard browser window opens, in which you can search for and select the file you wish to upload.
  - **FTP -** if your company has licensed the FTP add-on and it has been enabled, this option will be active. You can then fetch the source file from Confirmit's FTP location. Type in the file name. Confirmit's FTP address is specified as part of the enabling procedure and cannot be changed.

Note: Confirmit FTP imports support the use of wildcards in the file name. * gives zero or more characters, ? gives exactly zero or one character. For example, myFile?_*.txt - will match myFile1_20082012.txt and myFile2_22082012.txt.

- **External FTP -** files can be taken from an external FTP location. In this case the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct.

Note: Wildcards are not supported when using External FTP.

- If you select one of the FTP options, then you can also decide what to do with the original files on the FTP site; leave them there or delete them. Note that fetching from FTP can allow automation of data flows, since you can set up the system to pick up files automatically.
- **Encrypted File** - if your company has licensed the Encryption add-on and it has been enabled, the data transfer encryption functionality makes it possible to perform secure data transfers in Confirmit. If the source file has been encrypted by the sender using your PGP public key, you will need to decrypt the files using your private key. Note that an administrator setting makes it possible to force every Confirmit user within a company to use encryption and FTP server during data transfer.

1. Make the required selections and save them.
2. Select the **Uploaded File** or **Pick up from FTP Location** radio button as appropriate.
3. Depending on which button you have selected, click the **Upload File** link or type the file name into the FTP field.

   If you have clicked **Local File**, a standard Windows File Upload dialog opens.
4. In which case, browse to and select the file to be uploaded.

   The name of the selected file is displayed alongside the **Uploaded File** button.
5. Click **Save** to save the changes.

2.2.2.4. Source Type > Respondent Data

Select this option if the data source is a Respondent Data File. If the target is Survey Database (for the same or a different survey), information from the Respondent table will be copied into the background variables in the Response table. The Source tab layout is then as shown below.

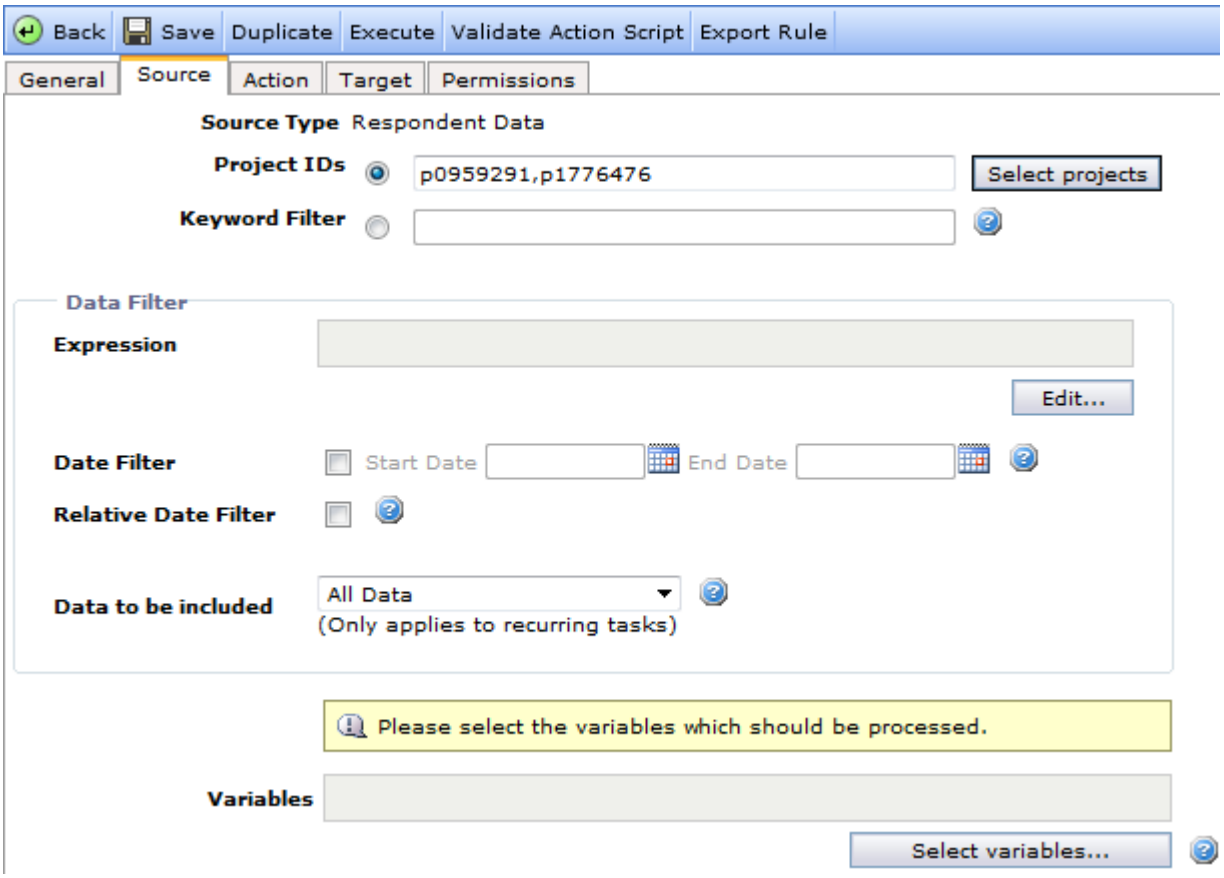


Figure 61 The Source tab with Respondent Data selected as the Source Type

- **Project IDs –** you can select a project either by its Project ID or by keywords. To use Project IDs, click the radio button, click **Projects**, and select the required project(s) from the list (note that you can select more than one). The Project IDs are separated by a comma. When the rule is executed, a result file will be generated for each project that is selected.
- **Keyword Filter** - click the radio button and type in the required keyword. The filter will then match any survey that is assigned the particular category or keyword in the Project Overview page . Refer to the Authoring User Guide for more information. When the rule is executed, a result file will be generated for each project that is selected.
- **Expression -** here you can create an expression to filter the data that is to be manipulated by the rule. Click **Edit** to open the Expression Editor window (see The Expression Editor Window on page 102 for more information).

Note: When exporting data from CATI surveys, CATI Extended Status can be used as a filter. Use an expression such as "CatiExtendedStatus=13".

- **Date Filter** - if you wish to include only data from between particular dates, check the box to activate the date filter, then specify the start and end dates for the data to be used by the rule. The date filter is based on the value stored in the CreatedDate field.
- **Relative Date Filter -** allows you to use data from different time intervals relative to the scheduled export time.
- **Data to be included** - in the event the rule is recurring, you can instruct the rule to process all the data specified by the filters above, or only the data that has changed since the previous time the rule was run. The changes will be based on the value stored in the LastUpdated field.

- **Variables -** select the variables you wish to use.
  - If the source and the target are Respondent Data then the following rules apply: If no variables are specifically selected, all variables will be selected by default. When the selected variable does not exist in the Respondent database, it will be generated (as type “nvarchar”).
  - If the source is Respondent Data and the target is Survey Database, the following rules apply: Variables must be selected; if no variables are selected then the rule execution will fail. The selected variables must exist in the target survey database.

2.2.2.5. Source Type > Survey Database

Select this option if the data source is a survey database. The Source tab layout is then as shown below.

Note: Export to Quantum, SAS or SPSS (SAV) file is only allowed from a Confirmit Survey Database.

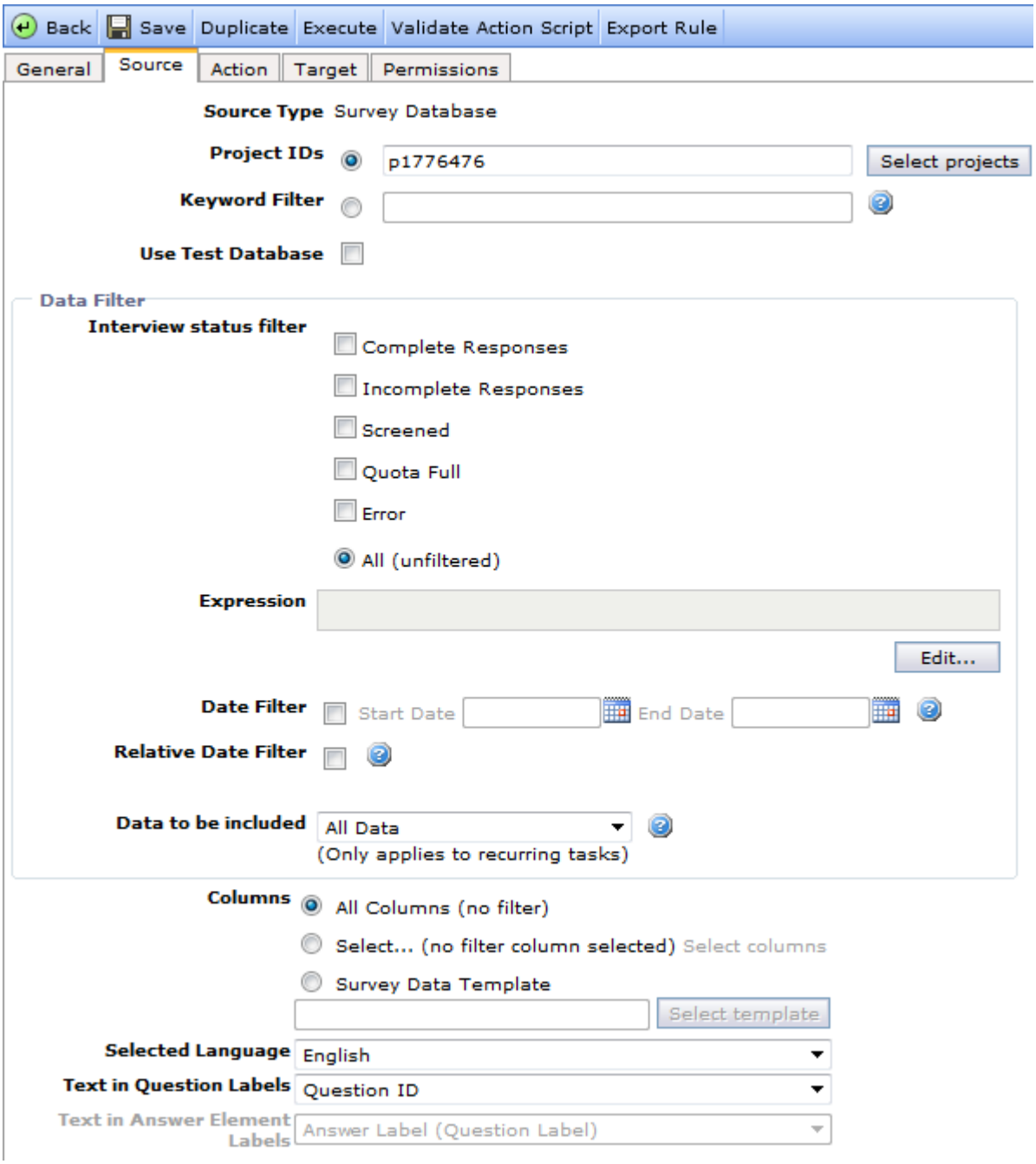


Figure 62 The Source tab with Confirmit Survey Data selected as the Source Type

The properties and options are as follows:

- **Project IDs –** you can select a project either by its Project ID or by keywords. To use Project IDs, click the radio button, click **Projects**, and select the required project(s) from the list (note that you can select more than one). The Project IDs are separated by a comma. When the rule is executed, a result file will be generated for each project that is selected.

Note: When Delete Data is selected as Execution mode on the Target tab (see Target Type > Survey Database on page Error! Bookmark not defined. **for more information), only one project can be selected as the source.**

- **Keyword Filter** - click the radio button and type in the required keyword. The filter will then match any survey that is assigned the particular category or keyword in the Project Overview page . Refer to the Authoring User Guide for more information. When the rule is executed, a result file will be generated for each project that is selected.

Note: When multiple projects are selected, if ...File is selected as the target, for most data types this will produce a single file combining the data from all the selected surveys. However for Excel (xlsx) and SPSS (sav) files the data is exported to separate files for each project.

- **Use Test Database** - check if you wish to test the rule using data from the Test database.
- **Complete responses –** selects only data from surveys with the status Complete.
- **Incomplete responses –** selects only data from surveys with the status Incomplete.
- **Screened –** selects only data from surveys with the status Screened.
- **Quota full** - selects only data from surveys with the status Quota Full.
- **Error** - selects only data from surveys with the status Error.
- **Expression -** here you can create an expression to filter the data that is to be manipulated by the rule. Click **Edit** to open the Expression Editor window (see The Expression Editor Window on page 102 for more information).
- **Date Filter -** if you wish to include only data from between particular dates, select the dates here.
- **Relative Date Filter -** allows you to export data from different time intervals relative to the scheduled export time.
- **Data to be included** - select All Data, which updates all data, or Data Changed Since Last Run, which includes only the data that has been changed since the previous update (see Survey Source on page 120 for more information). Note that this setting only applies to recurring tasks (non-recurring tasks will include all data subject to the data filters on the Source tab). Note also that if an Update Rule references the same source/target surveys then this setting will have no effect since during the previous execution the rule will have updated the “last touched” column in the target survey so the next execution will deem the data to have changed.
- **Columns** - if the selected target is anything other than Triple-S File, then you can select the columns you wish to include; all columns, selected, or as used in the selected template. If Survey Data Template is selected, then you can select whether the label texts are to be taken from the template or the survey. Click the **Select Template** button to open an overlay in which you can select the template you wish to use.

Note: The Columns settings will not be available if the target is set to "Triple-S file" because then the Triple-S template on the target will control which columns are to be included.

- **Validation Settings** - if the Target Type selected is Triple-S Data File (see Target Type > Triple-S XML (Standard or Extended) on page **Error! Bookmark not defined.** for more information), the Validation Setting options will be available. Check the boxes as required (see Validation Rules on page 121 for more information).
- **Selected language -** in the event the survey is multi-lingual, select the survey language version to be exported.
- **Text in Question Labels -** select the text you wish to be included as the question labels. The options are the question ID, only the title, only the question text, or both the question title and text.
- **Text in Answer Element Labels -** allows you to specify whether the Answer element of a Multi / Grid / Open Text List / Numeric List Question is to be positioned in front of the Question label, after the Question label or without the Question label when exporting survey data or when generating a Survey Data Template which can be used for a survey data export. The content of the Question label depends on the Text in Question Labels setting, which allows you to specify whether you want the Question ID, Question text, Question title or Question text and Title exported. Select the text you wish to be included as the answer labels. The options are:
  - **Answer (Question Label)** - the question label is placed after the answer element.
  - **Question Label (Answer) -** the answer element is placed after the question label.

- **Answer -** only the answer element.

Note: The Text in Answer Element Labels property will be grayed out if the Text in Question Lapels property is set to Question ID.

2.2.2.5.1. The Relative Date Filter

The Relative date filter allows you to export data from different time intervals relative to the scheduled export time. This is useful when data exports are run as recurring tasks.

For example. If a task is set to run every Monday at 00:01, and you want to export data from the last month, you can set up the export task with these "relative" settings:

- **Interval start:**
  - Months = 1.
  - Days = (not specified).
  - Hours = (not specified).
  - Minutes = (not specified).
- **Interval end:**
  - Months = (not specified).
  - Days = (not specified).
  - Hours = (not specified).
  - Minutes = (not specified).

A more complex example could be:

Let us assume that a data export has been scheduled to run at a specific time N, and the user wants to receive data for an interval:

- Start = N - (2 months + 3 days)
- End = N - (1 month + 5 hours + 30 minutes)

The interval length will be as follows:

(2 months + 3 days) - (1 months + 5 hours + 30 minutes) = (1 months + 2 days + 18 hours + 30 minutes).

To perform a data export for the above-mentioned interval, enter the following specifications in export properties:

- **Interval start:**
  - Months = 2.
  - Days = 3.
  - Hours = (not specified).
  - Minutes = (not specified).
- **Interval end:**
  - Months = 1.
  - Days = (not specified).
  - Hours = 5.
  - Minutes = 30.

Note: When the source is a survey database the Relative Date filter is based on Interview Start, while for a Respondent database it is based on the system variable CreatedDate.

2.2.2.6. Source Type > Triple-S Data

Select this option if the data source is to be Triple-S data (see What is Triple-S? on page 2 for more information). The Source tab layout is then as shown below:

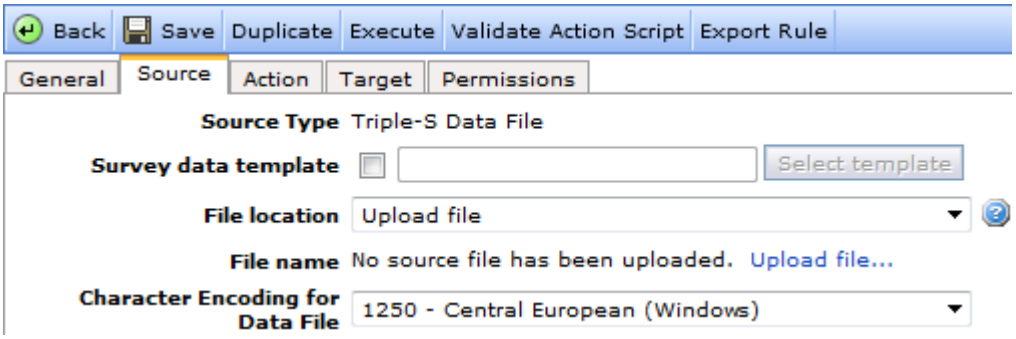


Figure 63 The Source tab with Triple-S Data selected as the Source Type

The options and properties are as follows:

- **Survey data template** - if desired, check the box then select the appropriate template from the Template List. If you do not select this option, then the schema definition (XML) must be included in the uploaded zip file.
- **File location -** select the source of the file. Import files can be uploaded directly in the browser, placed on a Confirmit FTP server and retrieved from there, or imported from an external FTP server.
  - **Upload file -** if you wish to upload the source file from your server network (perhaps the file has been stored there after having been sent to you via email), then select this option, click the **Upload File** link, then and click **Browse**. A standard browser window opens, in which you can search for and select the file you wish to upload.
  - **FTP -** if your company has licensed the FTP add-on and it has been enabled, this option will be active. You can then fetch the source file from Confirmit's FTP location. Type in the file name. Confirmit's FTP address is specified as part of the enabling procedure and cannot be changed.

Note: Confirmit FTP imports support the use of wildcards in the file name. * gives zero or more characters, ? gives exactly zero or one character. For example, myFile?_*.txt - will match myFile1_20082012.txt and myFile2_22082012.txt.

  - **External FTP -** files can be taken from an external FTP location. In this case the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct.

Note: Wildcards are not supported when using External FTP.

- If you select one of the FTP options, then you can also decide what to do with the original files on the FTP site; leave them there or delete them. Note that fetching from FTP can allow automation of data flows, since you can set up the system to pick up files automatically.
- **Encrypted File** - if your company has licensed the Encryption add-on and it has been enabled, the data transfer encryption functionality makes it possible to perform secure data transfers in Confirmit. If the source file has been encrypted by the sender using your PGP public key, you will need to decrypt the files using your private key. Note that an administrator setting makes it possible to force every Confirmit user within a company to use encryption and FTP server during data transfer.
- **Character encoding for data file** - select ANSI or Unicode as appropriate.

2.2.3. The Action Tab

Use the Action tab to input scripting code to specify actions that are to be performed on the data.

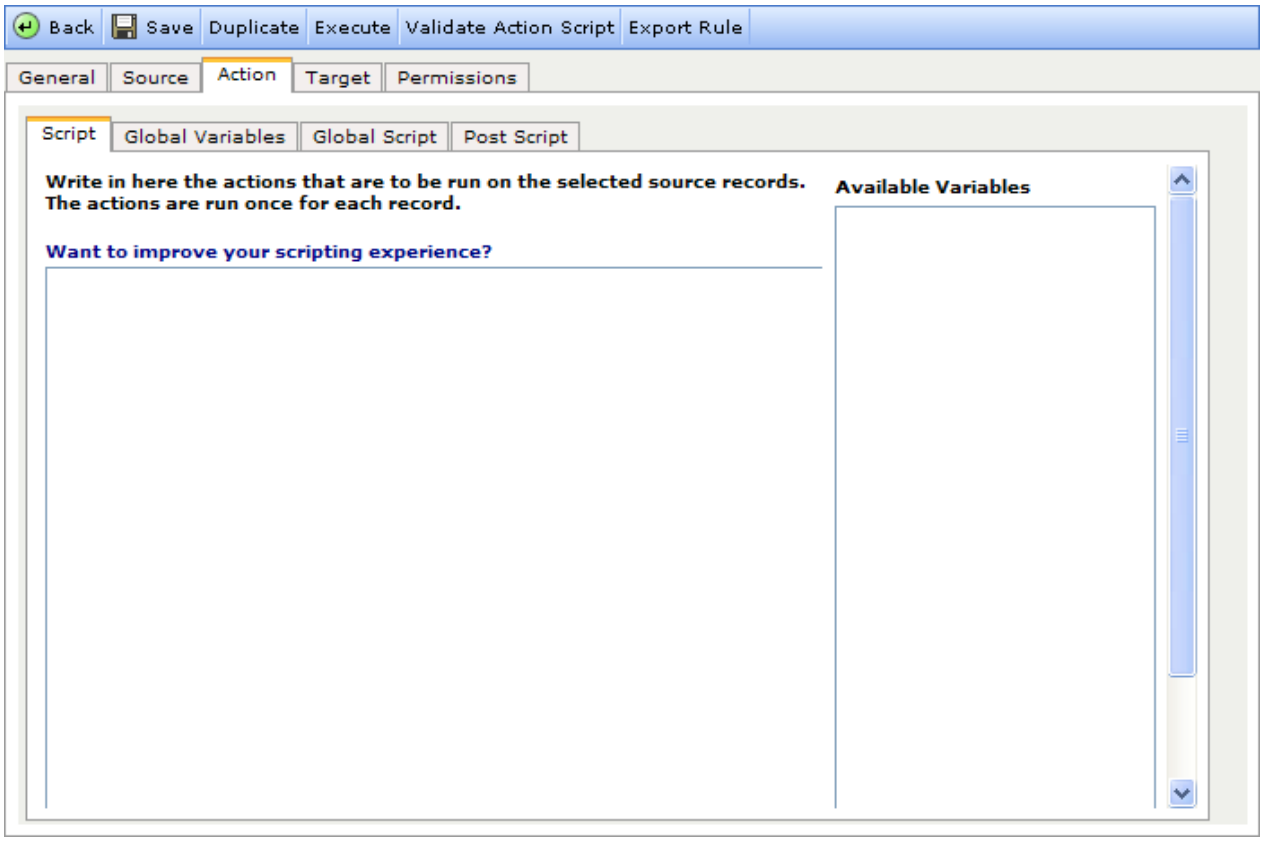


Figure 64 Example of the Action tab

Note: You are not required to enter information into this tab. Any scripting entered on this tab must be in JSCRIPT.NET. Refer to MSDN.COM for further details.

Fields selected in the Source tab (see The Source Tab on page 44 for more information) are listed in the Available Variables column. These fields are available as Strongly Typed Properties in the script code.

If you wish to change data, write the required action into the field on the appropriate tab. The tabs are as follows:

- **Script –** write in here the actions that are to be run on the selected source records. The actions are run once for each record.
- **Global Variables –** you can define script properties that will be available to all records. They must then be defined here.
- **Global Script –** actions written here are run once at the beginning of the process. A typical example would be if you want to execute a Customer Code library before running the actual Data Processing script. In this case you could write for example:

```
GlobalScript:
zipCode2CityMap = MyCustomCodeLib.GetZipCode2CityMapping();
```

- **Post Script** - actions written here are performed once, after all other actions have been performed.

Note: Respondents who close the survey before completing will have their status set to "null" in the database. If you want to update respondents with the status “Incomplete”, ensure “Incomplete” or “All” are selected under “Source” and use the action script:
If(status == null) { //update respondents with status incomplete}

Further information on scripting in Data Processing is given in the Scripting Language chapter (see Data Processing Scripting on page 105 for more information).

Note: The Syntax Highlighter functionality automatically color-codes key words, and provides lists of selectable options under specific conditions while scripting. (refer to the Authoring User Guide for more information). The Syntax Highlighter functionality is on by default for a survey, but you can switch it off in the User Settings.

2.2.4. The Target Tab

Use the Target tab to select the target for the data defined in the Source tab (see The Source Tab on page 44 for more information). The fields available on the Target tab depend on the Target Type that you select in the General tab (see The General Tab on page **Error! Bookmark not defined.** for more information).

2.2.4.1. Target Type > Contact Database

When the Source Type (see The Source Tab on page 44 for more information) is set to Contact Database in the General tab (see The General Tab on page **Error! Bookmark not defined.** for more information), the Target tab will be as shown in the figure below.

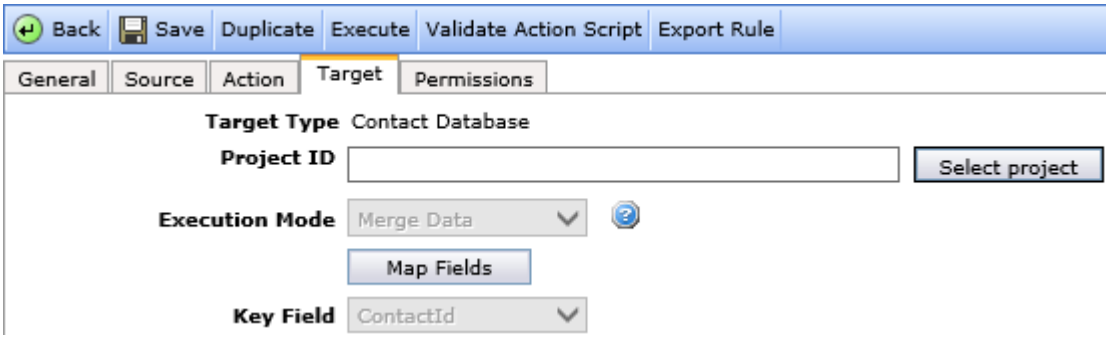


Figure 65 The Target tab when Contact database is selected

- **Project ID –** type in here or select the project ID of the target.
- **Execution Mode** - this property is available except when the Source is set to either Respondent Data or Survey Database and the same project is selected as both Source and Target. When the property is available you can choose between three modes, listed below. In all the modes the user will be asked to provide a key (see Key field below).
  - **Update Data** - records from the source will update any matching records in the target database. The selected key field will be used to match records from the source to records in the target database. Any records in the source database that do not match the selected key fields in the target will be ignored.
  - **Append Data** - the records from the source will be added to any data that already exists in the target database. If a key field is selected, and there is a match in the key field between data in the source and the target, that data will not be added again. If there is no key field selected, the records of the source database will be appended each time to the target database.
  - **Merge data** - a combination of updating and appending of records will be executed. The selected key field will be used to match records from the source to records in the target database. Records from the source database will update matching records in the target, and any records not matching the selected key field will be appended.

- **Delete Data -** When the Action tab contains an action script that includes the DeleteCurrentResponse() or the DeleteCurrentResponseAndRespondent() function, selecting Delete Data will perform the specified action. DeleteCurrentResponse() will delete the responses from the survey database that are selected by the filter currently applied in the Source tab. DeleteCurrentResponseAndRespondent() will delete both the responses from the survey database and the respondents from the respondent database that are selected by the filter currently applied in the Source tab. Note that if you continue with this action, the selected responses and/or respondents will be permanently removed from the databases and cannot later be retrieved.

- **Key field** - appears when Execution Mode is available. The key field must exist in the source and the target, and is used as a unique identifier to indicate which records are to be updated and which are to be appended. You may choose as the key field any survey variable that has a unique value for each respondent. Typical key fields can be an email address or a customer number, though if a field "Email" exists in the Source and Target this will be set as default.

2.2.4.2. Target Type > Delimited Text File or Delimited Text File (Answer Codes as Labels)

Note: Some of the options are only available when the project includes loops.

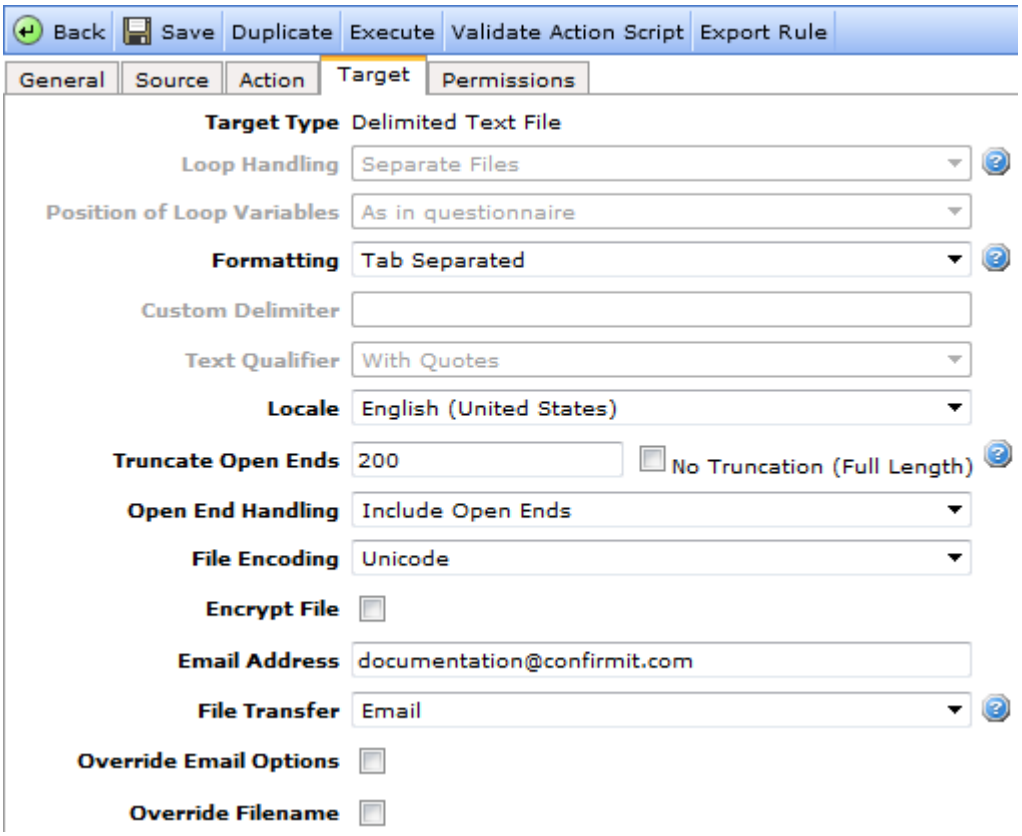


Figure 66 The Target tab when Delimited Text File is selected

When Target Type is set to **Delimited Text File** or **Delimited Text File (Answer Codes as Labels)**, the properties and options available on the tab are as follows:

- **Loop Handling -** this option is only available if the project included loops. Here you specify how loops are to be handled for the export. The options are:

  - **Separate files -** the default export format for loops creates one export file for each loop, and one export file for the top level. In the files containing the loop data there will be one row per loop iteration per respondent, so there will be several rows for each respondent. Each row will have the responseid (system generated respondent id) of the respondent and the code of the loop id for the iteration as identifiers, and then the answers for the questions inside the loop for that specific iteration for that respondent. This means you can export a hierarchical project without having to generate a flattened template.
  - **Single file -** Instead of exporting loop data as separate files, you can export all data belonging to a project in one single file. Loop data will then be expanded. This means that variables will be created to represent each iteration of each question.

- **Position of Loop Variables -** only available when Single file is selected in the Loop Handling option. This allows the user to specify in which position the loop variables should be exported. The options are:
  - **Appended at end -** the loop variables are appended at the end of the template.
  - **As in Questionnaire -** the loop variables are positioned as the corresponding loop was placed in the questionnaire.
- **Formatting –** Select comma-separated, tab-separated or Custom as required.
- **Custom Delimiter** - if you have selected Formatting to be Custom, this field becomes active. Type in the character you wish to use as the delimiter.
- **Text Qualifier -** this property is available when you select Formatting as Comma separated or Custom. In these conditions, the separating character has a special meaning; it is used to separate the different values from the different variables. However some texts to be exported may include punctuation. Specifying quotes around texts ensures that any punctuation does not corrupt the file layout.
- **Quoted Values -** in some cases when exporting to Delimited Text File, commas will be removed from the answers to Open Text questions during the export. Check this box to ensure the commas are retained in the answers.
- **Locale –** specify the area or country in which the data in the file is to be used. This will allow the system to format fields such as date fields according to local standards.

Note: The Locale setting here must match the setting made on the Source tab (see Source Type > Delimited Text File on page 45 for more information).

- **Truncate Open Ends** - for Open Ends (Open Text questions with no field width specified), it is recommended to truncate texts to improve performance. If a number of characters is specified for the Open Ends Width, texts longer than this limit, if any, will automatically be truncated. If No Truncation (Full Length) is selected, the whole text will be imported/exported, but the task will take significantly longer to execute.
- **Open End Handling -** defines how open ended questions are handled. The options are:
  - **Include Open Ends -** all open end questions are included in the export.
  - **Exclude Open Ends -** no open end questions are included in the export.
  - **Open Ends Only (one row per respondent) -** only open end questions are included in the export file, with one row in the file for each respondent (all the answers for each respondent are in the same row).
  - **Open Ends Only (one row per answer) -** only open end questions are included in the export file, with one row in the file for each answer given.
- **File Encoding -** in the File Encoding drop-down menu, choose the encoding method to be used. Click more… to expand the list.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys. Note that your company must license the Data Transfer Encryption add-on for this option to be available.
- **Email Address –** when Email is selected in File Transfer, this is the email address to which the file is to be sent. Default is the current user's (yours).

- **File Transfer** - export files can either be sent by email or placed on a Confirmit or External FTP server. FTP may be a good option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. In the event External FTP is selected, the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct. Note that your company must license the FTP add-on for the FTP options to be available (refer to the Authoring User Guide for more information).
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

Note: The Filename template must contain the '_^PROJECTID^_' part of the name as this will be replaced by the real project id during rule execution. Default is ^PROJECTID^_^USERID^_^TASKID^.

2.2.4.3. Target Type > Excel File or Excel File (Answer Codes as Labels)

The Target Type = Excel File export enables you to export the data as an Excel file, while the Excel File (Answer Codes as Labels) export gives you the additional option of including the answer codes as labels with the export. This export gives an additional export property that, in the event the survey is multilingual, allows you to select the language to be used.

Note: When Source is Survey Data and multiple projects are selected, for xlsx files the data is exported to separate files for each project.

Note: Some of the options are only available when the project includes loops.

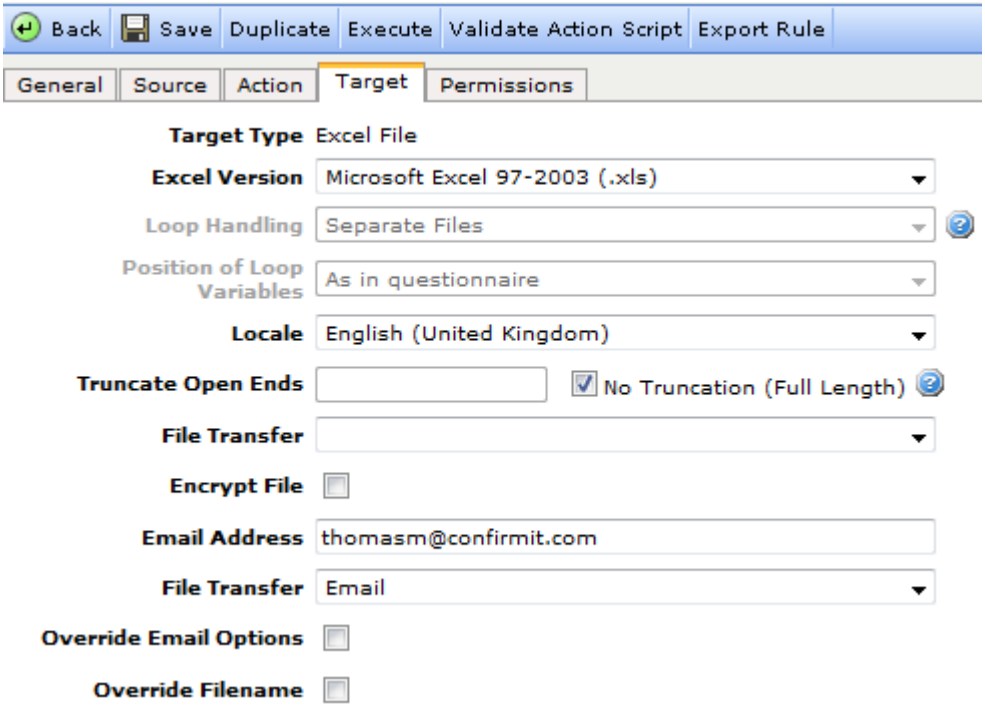


Figure 67 The Target tab when Excel is selected

If you have selected to export to **Excel File** or **Excel File (Answer Codes as Labels)** in stage 1 of the dialog, the properties and options available on the tab are as follows:

- **Excel version** - select the version of the Excel file to which the data is to be transferred. Microsoft Excel 97-2003 and Microsoft Excel (xlsx) are supported.
- **Loop Handling -**specify how loops are to be handled for the export. The options are:
  - **Separate files -** the default export format for loops creates one export file for each loop, and one export file for the top level. In the files containing the loop data there will be one row per loop iteration per respondent, so there will be several rows for each respondent. Each row will have the responseid (system generated respondent id) of the respondent and the code of the loop id for the iteration as identifiers, and then the answers for the questions inside the loop for that specific iteration for that respondent. This means you can export a hierarchical project directly to SPSS without having to generate a flattened template.
  - **Single file -** Instead of exporting loop data as separate files, you can export all data belonging to a project in one single file. Loop data will then be expanded. This means that variables will be created to represent each iteration of each question.
- **Position of Loop Variables -** only available when Single file is selected in the Loop Handling option. This allows the user to specify in which position the loop variables should be exported. The options are:
  - **Appended at end -** the loop variables are appended at the end of the template.
  - **As in Questionnaire -** the loop variables are positioned as the corresponding loop was placed in the questionnaire.
- **Locale –** specify the area or country in which the data in the file is to be used. This will allow the system to format fields such as date fields according to local standards.

Note: The Locale setting here must match the setting made on the Source tab (see Source Type > Delimited Text File on page 45 for more information).

- **Truncate Open Ends** - when exporting data to Excel, system performance is heavily affected by the number of “unlimited width” text fields in the exports (i.e. Open Text fields with no field width settings). For Open Text questions with no field width specified, you are recommended to truncate texts to improve performance. If a number of characters is specified for the Open Ends Width, any texts longer than this limit will automatically be truncated. If No Truncation (Full Length) is selected, the whole text will be imported/exported, but the task will take significantly longer to execute.
- **File transfer** - export files can either be sent by email or placed on an FTP server. FTP is the recommended option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. Note that your company must license the FTP add-on for this option to be available (refer to the Authoring User Guide for more information).
- **Encrypt file** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys. Note that your company must license the Data Transfer Encryption add-on for this option to be available.
- **Email Address –** if Email is selected in File Transfer, add to this field the email address to which the file is to be sent. Default is the user's (your) registered email address.
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename** - allows you to override the system-generated name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example “..\..\myftpfile_in_another_folder.txt”. In this case the file will not be stored in the default folder (“ProjectsData\p123123” or “RulesData\RuleN”), but rather directly under the (Company) Download folder.

Note: The Filename template must contain the '_^PROJECTID^_' part of the name as this will be replaced by the real project id during rule execution.

Note: When exporting to Microsoft Excel 97-2003, the column header text will be truncated to 64 characters. Note that this limitation does not exist in the Microsoft Excel 2007 or Delimited Text File export, which can be used instead. The text file output can then be opened and processed as required in Excel.

- **Export language** - [Excel File (Answer Codes as Labels) only] this field is active when Include Labels is checked. In the event the survey is multi-lingual, select the survey language version to be exported.

Note: Microsoft Excel 2007 cannot be imported. Only single files can be imported.

2.2.4.4. Target Type > Fixed Width File

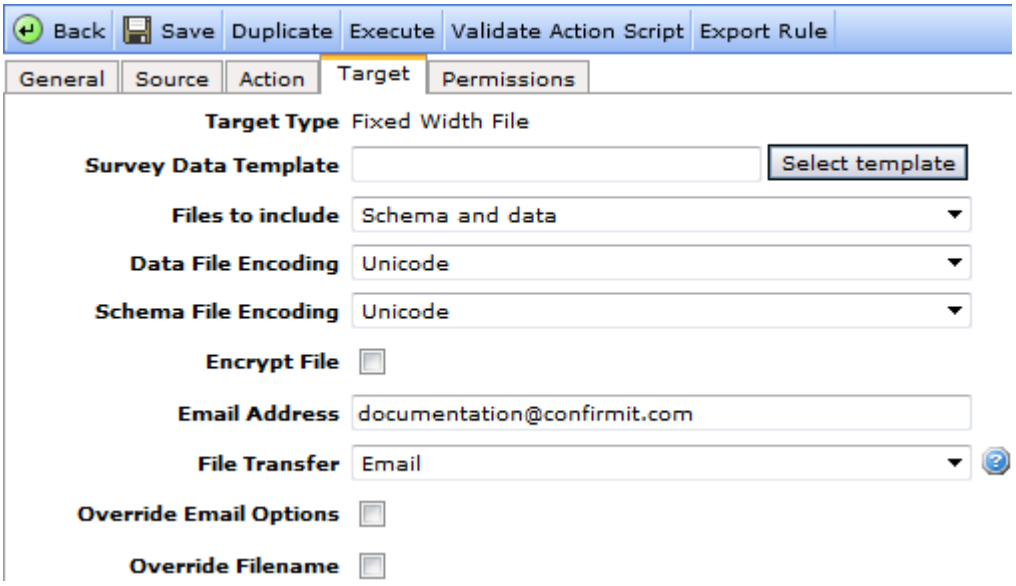


Figure 68 The Target tab when Fixed Width File is selected

When Target Type is set to Fixed Width File, the properties and options available on the tab are as follows:

- **Survey Data Template** - select the template to be used from the Template List.
- **Files to include -** select which files are to be included in the export; Schema and data, Schema only, or Data only.
- **Data File Encoding -** to support the export of open text answers in surveys using Unicode (for example Chinese), you can choose the Character Encoding of the Export files. Choose between ANSI (default), Unicode or UTF-8 character encoding. This property defines the encoding for the data file.
- **Schema File Encoding** - to support the export of open text answers in surveys using Unicode (for example Chinese), you can choose the Character Encoding of the Export files. Choose between ANSI, Unicode or UTF-8 (default) character encoding.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys.
- **Email Address** - if the file is to be sent via email, this is the recipient's email address. Default is the current user's (yours).
- **File Transfer** - export files can either be sent by email or placed on an FTP server. FTP is the recommended option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. Note that your company must license the FTP add-on for this option to be available.

- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

2.2.4.5. Target Type > Quantum / SAS

Note: When the target type selected is SAS, the Loop Handling and Position of Loop Variables options will also be available.

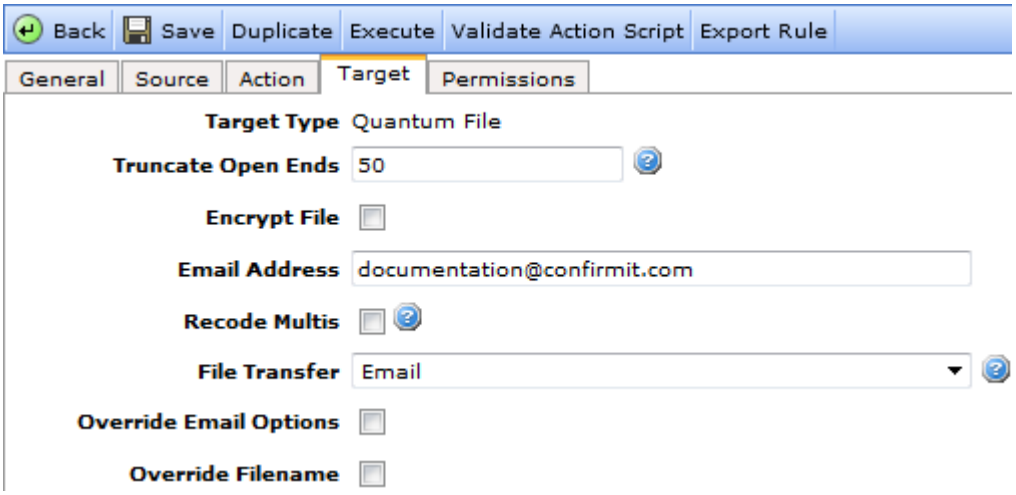


Figure 69 The Target tab when Quantum or SAS is selected

When Target Type is set to Quantum or SAS, the properties and options available on the tab are as follows:

- **Truncate Open Ends -** For Open Ends (Open Text questions with no field width specified), it is recommended to truncate texts to improve performance. If a number of characters is specified for the Open Ends Width, texts longer than this limit, if any, will automatically be truncated. If No Truncation (Full Length) is selected, the whole text will be imported/exported, but the task will take significantly longer to execute.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys.
- **Email Address** - if the file is to be sent via email, this is the recipient's email address. Default is the current user's (yours).
- **Loop Handling -** [SAS only] this option is only available if the project included loops. Here you specify how loops are to be handled for the export. The options are:
  - **Separate files -** the default export format for loops creates one export file for each loop, and one export file for the top level. In the files containing the loop data there will be one row per loop iteration per respondent, so there will be several rows for each respondent. Each row will have the responseid (system generated respondent id) of the respondent and the code of the loop id for the iteration as identifiers, and then the answers for the questions inside the loop for that specific iteration for that respondent. This means you can export a hierarchical project without having to generate a flattened template.

  - **Single file -** Instead of exporting loop data as separate files, you can export all data belonging to a project in one single file. Loop data will then be expanded. This means that variables will be created to represent each iteration of each question.

- **Position of Loop Variables -** [SAS only] only available when Single file is selected in the Loop Handling option. This allows the user to specify in which position the loop variables should be exported. The options are:
  - **Appended at end -** the loop variables are appended at the end of the template.
  - **As in Questionnaire -** the loop variables are positioned as the corresponding loop was placed in the questionnaire.
- **Recode Multis -** check this box to recode value codes for non-sequential multi variables. For example, a multi variable with the answer codes 1, 2, and 99 will normally use 99 positions in the export, although only three are actually required. Check the box to recode the variables such that they will have the value codes 1, 2 and 3. The variable will then use only three positions. If you have many multi variables with non sequential codes, selecting Recode Multis will greatly reduce the size of the exported file.
- **File Transfer** - export files can either be sent by email or placed on a Confirmit or External FTP server. FTP may be a good option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. In the event External FTP is selected, the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct. Note that your company must license the FTP add-on for the FTP options to be available (refer to the Authoring User Guide for more information).
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

Note: The Filename template must contain the '_^PROJECTID^_' part of the name as this will be replaced by the real project id during rule execution. Default is ^PROJECTID^_^USERID^_^TASKID^.

2.2.4.6. Target Type > Respondent Data

When the Source Type (see The Source Tab on page 44 for more information) is set to Respondent Data in the General tab (see The General Tab on page **Error! Bookmark not defined.** for more information), the Target tab will be as shown in the figure below.

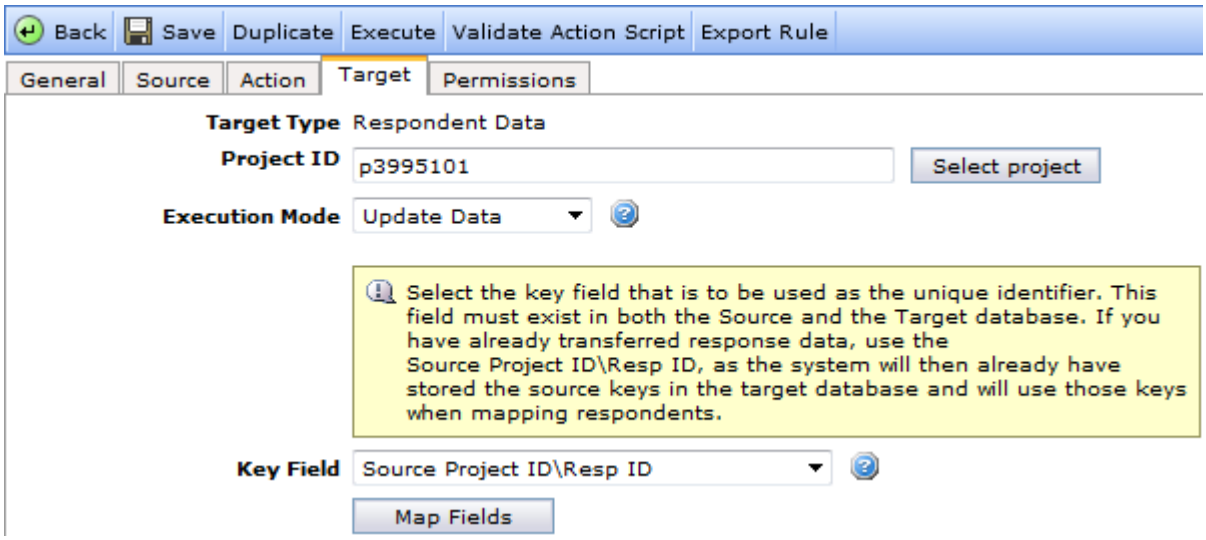


Figure 70 The Target tab when Respondent Data is selected

Note: The number of variables that can be copied is limited by the maximum size of the Respondent table (it can contain no more than 1024 columns).

- **Project ID –** type in here or select the project ID of the target.
- **CATI scheduling -** respondent data being loaded into a CATI-enabled project can have one of the following scheduling modes applied:
  - **Simple scheduling –** this will by default create a call without an assignment with a time to call of now. The following respondent data can adjust the call created:
- **CatiInterviewerID –** will assign the call to the specified group/interviewer ID, a blank (or invalid) value will result in no explicit assignment being made.
- **CatiCallTime –** will assign the date and time to call based on the respondent timezone or the local company timezone if no timezone is specified, defaulting to the company local timezone, a blank (or invalid) value will result in the time to call to be set to now. An example value could be: 2001-03-14 13:30
- **CatiExtendedStatus –** will assign the extended status to that value, a blank (or invalid) value will result in the extended status being set to be Fresh Sample (16). Values other than 16 will not have a call created for them.
- **DialMode –** will assign the call to be dialed with the given dial mode. (e.g. 2 for Preview).
  - **Full scheduling –** this will run all respondent data through the full scheduling engine and adhere to all calling rules. This mode should be used if advanced scheduling is required at the respondent loading time. Note that the DP rule's specified Execution Mode determines which scheduling rule(s) within the target survey's scheduling script are run:
- **Append Data –** will run all scheduling rules that don't have a Description 'UpdateSample'.
- **Update Data –** will run only scheduling rule(s) that have a Description 'UpdateSample'.
- **Merge Data –** both of the above: if an individual record in the upload file is updated to the survey then only scheduling rule(s) with 'UpdateSample' will be executed, if the record is appended then non-UpdateSample scheduling rules will be executed.

Note: The functionality will only create new CATI calls in the target project based on the sample variables being pulled across from the source. That is, it will not copy across existing CATI calls from source to target. Also, Call History values will not be pulled across because loops are not supported in the respondent db.

- **Execution Mode** - this property is available except when the Source is set to either Respondent Data or Survey Database and the same project is selected as both Source and Target. When the property is available you can choose between three modes, listed below. In all the modes the user will be asked to provide a key (see Key field below).
  - **Update Data** - records from the source will update any matching records in the target database. The selected key field will be used to match records from the source to records in the target database. Any records in the source database that do not match the selected key fields in the target will be ignored.
  - **Append Data** - the records from the source will be added to any data that already exists in the target database. If a key field is selected, and there is a match in the key field between data in the source and the target, that data will not be added again. If there is no key field selected, the records of the source database will be appended each time to the target database.
  - **Merge data** - a combination of updating and appending of records will be executed. The selected key field will be used to match records from the source to records in the target database. Records from the source database will update matching records in the target, and any records not matching the selected key field will be appended.
- **Key field** - appears when Execution Mode is available. The key field must exist in the source and the target, and is used as a unique identifier to indicate which records are to be updated and which are to be appended. You may choose as the key field any survey variable that has a unique value for each respondent. Typical key fields can be an email address or a customer number, though if a field "Email" exists in the Source and Target this will be set as default.

  When updating respondents in the target database, the key “Source Project ID\Resp ID” can be used. If you have already transferred response data, then you are recommended to use the Source Project ID\Resp ID as the system will already have stored the source keys in the target database and will use those keys when mapping respondents. Note that if you wish to update respondents and you do not have a usable key field available, then the Source Project ID\Resp ID option must be used.
- **Map Fields -** use this to map fields/columns with different names in source and target, from the source to the Confirmit Survey Database (see Mapping Fields on page 72 for more information).

  Note that the Map Fields overlay layout is different when Target Respondent > Toggle Key Field does not exist and is not required, since in this scenario the key field specified in the drop-down list in the Target tab of a Data Processing rule will be automatically set as key field

2.2.4.7. Target Type > SPSS

Note: Some of the options are only available when the project includes loops.

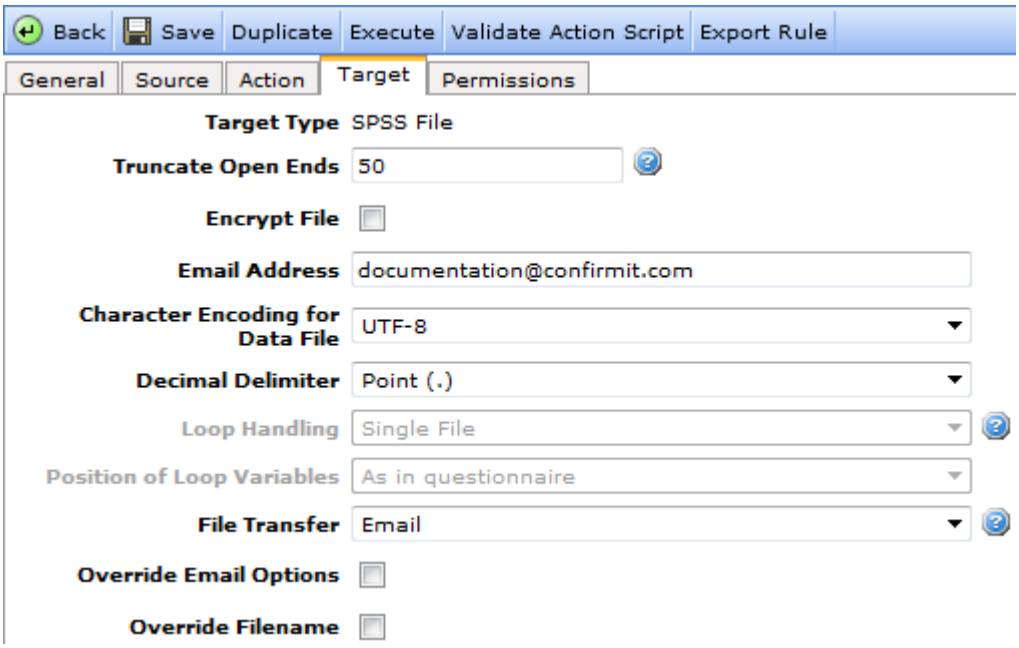


Figure 71 The Target tab when SPSS is selected

When Target Type is set to SPSS, the properties and options available on the tab are as follows:

- **Truncate Open Ends -** For Open Ends (Open Text questions with no field width specified), it is recommended to truncate texts to improve performance. If a number of characters is specified for the Open Ends Width, texts longer than this limit, if any, will automatically be truncated. If No Truncation (Full Length) is selected, the whole text will be imported/exported, but the task will take significantly longer to execute.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys.
- **Email Address** - if the file is to be sent via email, this is the recipient's email address. Default is the current user's (yours).
- **Character Encoding for Data File -** To support the export of open text answers in surveys using Unicode (for example Chinese), you can choose Character Encoding of the Export files. Choose between ANSI (default) and Unicode character encoding.

Important
The customer must enable the Unicode Character Encoding Option in SPSS itself before loading the sps/dat file.

- **Decimal Delimiter -** select the character to be used as the decimal point.
- **Loop Handling -** specify how loops are to be handled for the export. The options are:
  - **Separate files -** the default export format for loops creates one export file for each loop, and one export file for the top level. In the files containing the loop data there will be one row per loop iteration per respondent, so there will be several rows for each respondent. Each row will have the responseid (system generated respondent id) of the respondent and the code of the loop id for the iteration as identifiers, and then the answers for the questions inside the loop for that specific iteration for that respondent. This means you can export a hierarchical project directly to SPSS without having to generate a flattened template.
  - **Single file -** Instead of exporting loop data as separate files, you can export all data belonging to a project in one single file. Loop data will then be expanded. This means that variables will be created to represent each iteration of each question.

- **Position of Loop Variables -** only available when Single file is selected in the Loop Handling option. This allows the user to specify in which position the loop variables should be exported. The options are:
  - **As in Questionnaire -** the loop variables are positioned as the corresponding loop was placed in the questionnaire.
  - **Appended at end -** the loop variables are appended at the end of the template.
- **File Transfer** - export files can either be sent by email or placed on a Confirmit or External FTP server. FTP may be a good option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. In the event External FTP is selected, the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct. Note that your company must license the FTP add-on for the FTP options to be available (refer to the Authoring User Guide for more information).
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

Note: The Filename template must contain the '_^PROJECTID^_' part of the name as this will be replaced by the real project id during rule execution. Default is ^PROJECTID^_^USERID^_^TASKID^.

2.2.4.8. Target Type > SPSS (SAV)

Note: When Source is Survey Data and multiple projects are selected, for SPSS (sav) files the data is exported to separate files for each project.

Note: Some of the options are only available when the project includes loops.

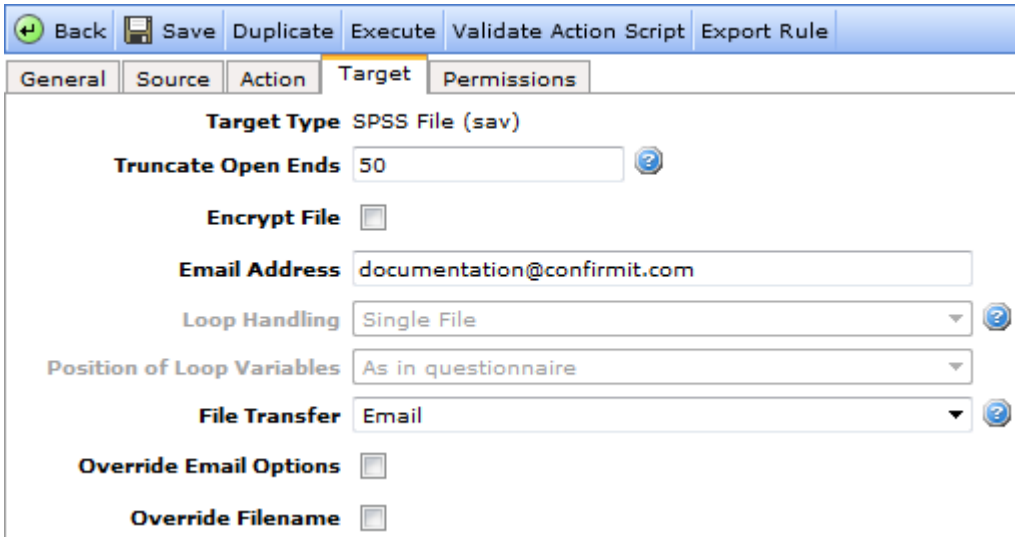


Figure 72 The Target tab when SPSS (SAV) is selected

When Target Type is set to SPSS (SAV), the properties and options available on the tab are as follows:

- **Truncate Open Ends -** For Open Ends (Open Text questions with no field width specified), it is recommended to truncate texts to improve performance. If a number of characters is specified for the Open Ends Width, texts longer than this limit, if any, will automatically be truncated. If No Truncation (Full Length) is selected, the whole text will be imported/exported, but the task will take significantly longer to execute.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys.
- **Email Address** - if the file is to be sent via email, this is the recipient's email address. Default is the current user's (yours).
- **Loop Handling -** specify how loops are to be handled for the export. The options are:
  - **Separate files -** the default export format for loops creates one export file for each loop, and one export file for the top level. In the files containing the loop data there will be one row per loop iteration per respondent, so there will be several rows for each respondent. Each row will have the responseid (system generated respondent id) of the respondent and the code of the loop id for the iteration as identifiers, and then the answers for the questions inside the loop for that specific iteration for that respondent. This means you can export a hierarchical project directly to SPSS without having to generate a flattened template.
  - **Single file -** Instead of exporting loop data as separate files, you can export all data belonging to a project in one single file. Loop data will then be expanded. This means that variables will be created to represent each iteration of each question.
- **Position of Loop Variables -** only available when Single file is selected in the Loop Handling option. This allows the user to specify in which position the loop variables should be exported. The options are:
  - **As in Questionnaire -** the loop variables are positioned as the corresponding loop was placed in the questionnaire.
  - **Appended at end -** the loop variables are appended at the end of the template.
- **File Transfer** - export files can either be sent by email or placed on a Confirmit or External FTP server. FTP may be a good option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. In the event External FTP is selected, the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct. Note that your company must license the FTP add-on for the FTP options to be available (refer to the Authoring User Guide for more information).
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

Note: The Filename template must contain the '_^PROJECTID^_' part of the name as this will be replaced by the real project id during rule execution. Default is ^PROJECTID^_^USERID^_^TASKID^.

2.2.4.9. Target Type > Survey Database

Note: For several of the properties and property options, availability depends on the source type selected. When a property or option is source-specific, this is specified in the text.

When the Source Type (see The Source Tab on page 44 for more information) is set to Triple-S Data in the General tab (see The General Tab on page **Error! Bookmark not defined.** for more information), the Target tab will be as shown in the figure below.

Note: When the Source Type is set to Survey Database, the Key Field property is hidden, the Columns options become active, and the Validation Setting options are only available if Columns is set to Survey Data Template. In addition, the Map Fields button is available when the Source is set to Delimited Text File or Confirmit Survey Database.

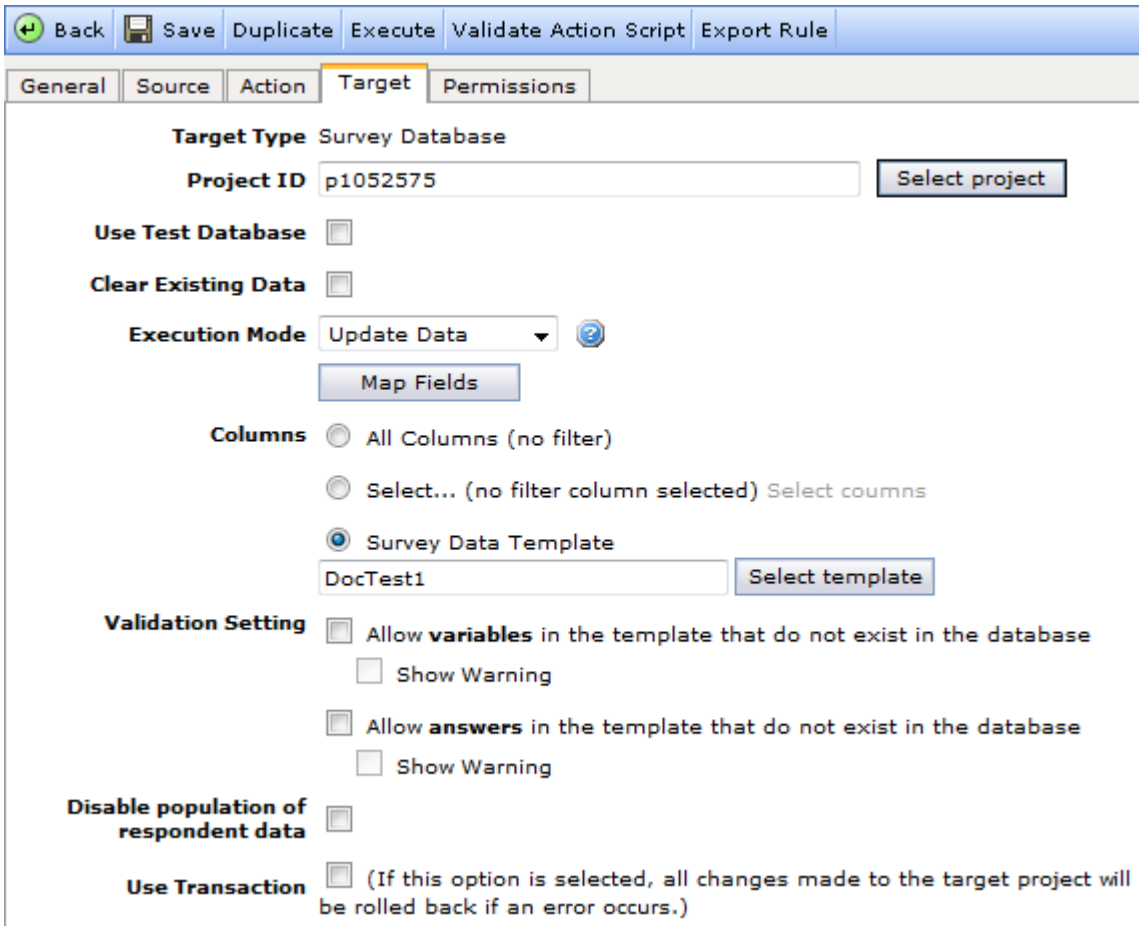


Figure 73 The Target tab when the Source Type is set to Triple-S Data and the Target Type is set to Confirmit Survey Database

When Target Type is set to Confirmit Survey Database, the properties and options available on the tab are as follows:

- **Project ID –** type in here or select the project ID of the target.
- **Use Test Database –** check this box if you are testing the setup and wish to use data from the test database.
- **Clear existing data –** becomes active when the Source Type is set to Confirmit Survey Database (it is inactive if Source Type is set to Triple-S Data File). Check to remove all existing data from the database before adding the new data.

WARNING:
All your data will be deleted.
If you select Clear Existing Data, ALL existing data will be removed from the database when the rule is run; not just the variables in the schema. This deletion process cannot be undone. Be very careful when using this option.

- **Execution Mode** - this property has different options available depending on the Source and Target selections:

When both Source and Target are Survey Database, and the same project is selected for the Source and the Target:

- **Update Data** - records from the source will update any matching records in the target database. The selected key field will be used to match records from the source to records in the target database. Any records in the source database that do not match the selected key fields in the target will be ignored.
- **Delete Data -** when the Action tab contains an action script that includes the DeleteCurrentResponse() or the DeleteCurrentResponseAndRespondent() function, selecting Delete Data will perform the specified action. DeleteCurrentResponse() will delete the responses from the survey database that are selected by the filter currently applied in the Source tab (note that use of a filter in this case is mandatory). DeleteCurrentResponseAndRespondent() will delete both the responses from the survey database and the respondents from the respondent database that are selected by the filter currently applied in the Source tab. Note that if you continue with this action, the selected responses and/or respondents will be permanently removed from the databases and cannot later be retrieved. Note that only one project can be selected as source when Delete Data is selected as Execution mode.

Important
If your survey contains quotas, deleting data could cause quota counts to be incorrect. This can be rectified by running a quota recalculation for the quotas. Note that this is not performed automatically when the data is deleted

When both Source and Target are Survey Database and different projects are selected for the Source and the Target, or if a source other than Survey Database is selected, you can choose between the three modes listed below. In all the modes the user will be asked to provide a key (see Key field below).

- **Update Data** - any records in the source that already exist in the target survey database will be updated with values from the source. Any records in the source that do not already exist in the target survey database will be ignored.
- **Append Data** - any records in the source that do not exist in the target survey database will be added to the target survey database. Any records in the source that already exist in the target survey database will be ignored.
- **Merge data** - all the data from the source will be added to the target survey database. Any records in the source that already exist in the target survey database will be updated, and any records in the source that do not currently exist in the target survey database will be added to the target survey database.

In these scenarios, when new records are added, the new records are inserted both in the response data and in the respondent table (respondent list).

- **Map Fields -** available if Source Type is Delimited Text File or Confirmit Survey Database. Use this to map fields/columns with different names in source and target, from the source to the Confirmit Survey Database (see Mapping Fields on page 72 for more information).
- **Key field** - the key field is used as a unique identifier to indicate which records are to be updated and which are to be appended. The key field is also used to map the responses in the top-level file with the responses in loop response files. **The key field must exist in both the import file(s) and the database**.

  System variables respid and responseid and all survey variables with the "Indexed" property set, will be displayed in the "Key field" drop-down. You may choose any survey variable that has a unique value for each respondent as key field. The key field should either be one of the system-provided ids (respid or responseid), or an open text question with a defined field width. Examples of key fields could be membership number, customer id or email address.

  In the event the Source is Delimited text file or Excel, a key field is not required when appending data. So in this case, when Execution Mode is set to Append Data, the Key Field can be set to **None**.

Important
The fields respid and responseid are system-provided ids in Confirmit. When appending records (inserting records that are not already present) through data import with one of these fields as key field, the system will replace the ids you import with new system-generated ids.

- **Columns** - select the columns you wish to include; all, selected, or as used in the selected template.

- **Source / Target variable usage -** This option is used when columns are selected either manually or by using a template. When both the source and the target are Survey Database, and Columns are selected, this property is active. Two options are then available:
  - **As filter (Target variables match source variables) (default) -** only columns that are selected from the source and that exist in the target will be transferred to the target. For example: The source contains the columns [responseid, interview_start, interview_end, status, q1, q2], and the target has the columns selection [responseid, status, q1, q3]. The columns transferred to the target database will be those that exist in both the source and the target [responseid, status, q1].
  - **Convert Source variables to new Target variables -** this option can only be used when the source is a survey database from a different project. The selected columns will be available as output columns in the Action Script, where a value can be assigned. The output columns are prefixed with "T.". Only the columns selected in the target will be transferred to the target database. Source columns can be mapped to target columns that have different or same names. In this way, source columns can also be transferred to the target database automatically. Columns responseid and respid will always be transferred from source to target.

    Example: The source contains the columns [responseid, interview_start, interview_end, status, q1, q2]. The target has the columns [responseid,status,q5_a, q5_b]. Status from source is mapped to status in target. The Action Script looks like:

    T.q5_a = q1;

    T.q5_b = q2;

    If the following row comes from the source [23, '01-01-2014 12:33:23 PM','01-01-2014 12:37:23 PM', 'complete', 1, 6],
    then the input to the target will be [responseid, status, q5_q, q5_b] with values [23, 'complete', 1, 6].
- **Validation Setting** - check the boxes as required (see Validation Rules on page 121 for more information).
- **Disable Population of Respondent Data** - this checkbox appears only if both Source and Target are set to Confirmit Survey Database and different databases are selected. Selecting this will cause the import to run faster because no respondent data is added. This property must therefore only be selected for projects where the target database will not be accessed by respondents and respondent data is not required, for example if the project is used to collect data from other surveys.

Important
Do not check this box for live surveys.

- **Use Transaction** - if this option is selected, all changes made to the target project will be rolled back if an error occurs.

Note: If your Target Survey Database or Respondent Data does not contain any records and you are using Action scripting to push data from the Source, if the script does not change any values and contains only the "AddLogMessage " function, data will only be transferred to the Target if you use "Append" as the Execution mode.

2.2.4.10. Target Type > Triple-S XML (Standard or Extended)

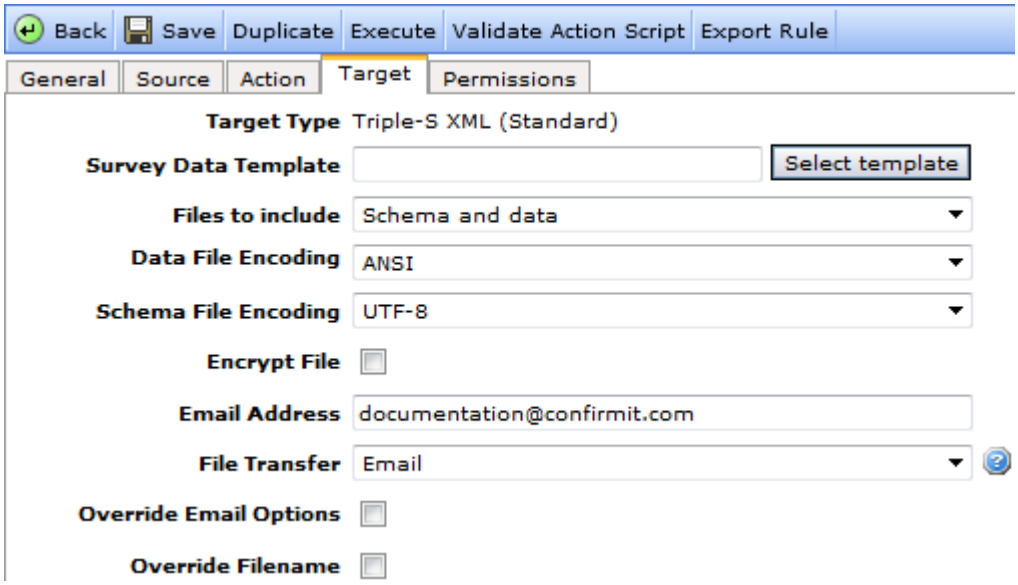


Figure 74 The Target tab with Triple-S XML selected

When Target Type is set to Triple-S Data File or Confirmit Extended Triple-S XML, the properties and options available on the tab are as follows:

- **Survey Data Template** - select the template to be used from the Template List.
- **Files to include -** select which files are to be included in the export; Schema and data, Schema only, or Data only.
- **Data File Encoding**- select ANSI or Unicode as appropriate.
- **Schema File Encoding** - select ANSI, Unicode or UTF-8 (default) as appropriate.
- **Encrypt File** - data transfer encryption functionality makes it possible to perform secure data exports from Confirmit. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys.
- **Email Address** - if the file is to be sent via email, this is the recipient's email address.
- **File Transfer** - export files can either be sent by email or placed on an FTP server. FTP is the recommended option for large volumes of data, since emails with large attachments may be blocked. FTP can allow automation of data flows, since files can then be picked up automatically by another system/process. Note that your company must license the FTP add-on for this option to be available.
- **Override Email Options -** when selected, allows you to override the standard export email options and customize both the subject and the email that will be sent to the export recipient. Checking this box displays a number of additional options.
- **Override Filename -** allows you to override the system-generated file name. Tick this check-box to open the file name text-box. Here you can edit the system-generated name. Note that when exporting Survey Data to the FTP server in Survey Data > Exports or Data Processing rules, the Override Filename option accepts relative paths, as for example "..\..\myftpfile_in_another_folder.txt". In this case the file will not be stored in the default folder ("ProjectsData\p123123" or "RulesData\RuleN"), but rather directly under the (Company) Download folder.

2.2.4.11. Mapping Fields

When the target is a Confirmit Survey Database, and the source is a Delimited Text File or another Confirmit Survey Database, you can map fields (columns) that have different names in the source and target. To do this:

1. In the rule's Target tab, click the **Map Fields** button.

   The Target page changes to display lists of the source fields and target fields.

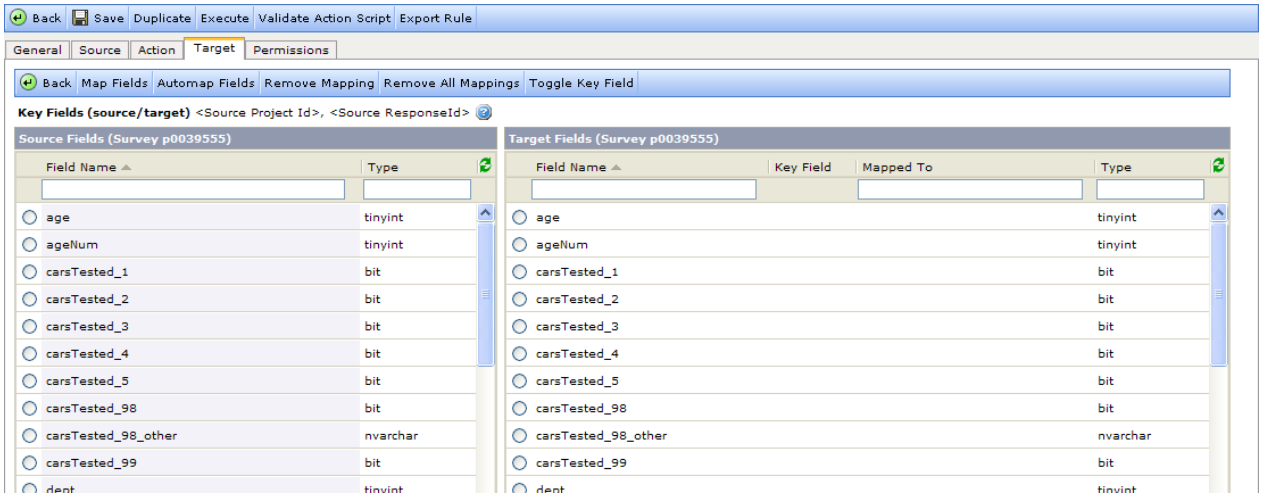


Figure 75 Example of the Source and Target Field lists for a rule

2. Select pairs of fields; one in the Source Fields list and one in the Target Fields list, and click **Map Fields**.

   The fields are mapped. To indicate this, the field name is moved from the Source Fields list and displayed in the Mapped To column in the Target Fields list.

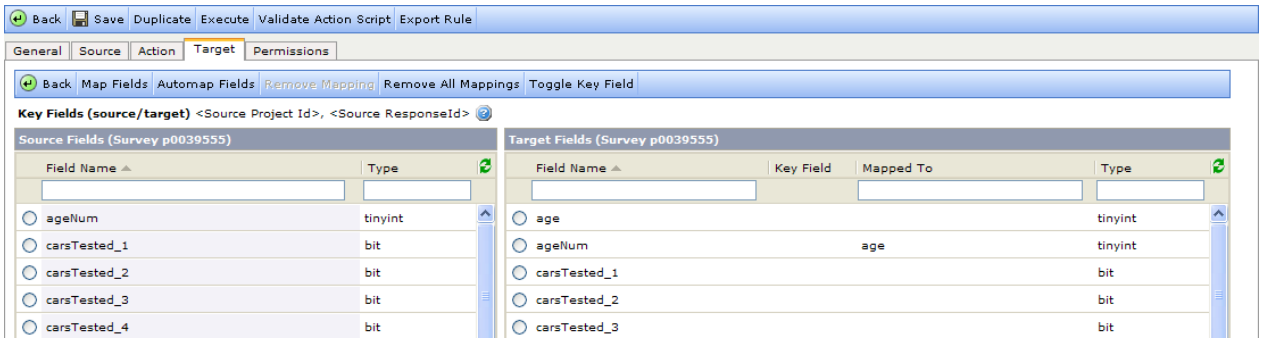


Figure 76 The age field from the Source is mapped to the ageNum field in the Target

3. Save your changes.

Other buttons on this page are:

- **Automap Fields** - automatically maps all fields that have matching names in the Source and Target Fields lists. The types of the fields being mapped is ignored during automapping. Save changes on completion.
- **Remove Mapping** - select a mapping in the Target Fields list and click this button to remove it. The field in the Mapped To column is returned to the Source Fields list. Use this button also to remove un-wanted key fields. Save your changes.
- **Remove All Mappings** - click to remove all mappings (don't forget to save the changes).

- **Toggle Key Field -** changes the fields used as Key Fields (see Target Type > Survey Database on page **Error! Bookmark not defined.** for more information). Select a field in the target Fields list and click **Toggle Key Field** button. The Key Fields (source/target) row towards the top of the page is updated. Note that you can select any number of fields as key fields. However these must be selected individually, and only fields that have been indexed can be used. A Key icon is displayed in the Key Field column for the selected field.

2.2.5. The Permissions Tab

The user who creates a rule has full administrator rights to that rule. All other users have no rights; they cannot even see the rule in their rule list, until the creator has allocated the appropriate rights to them. The Current Rule Permissions tab allows the creating user to allocate access rights to the rule he/she has created, to the various other users in the company.

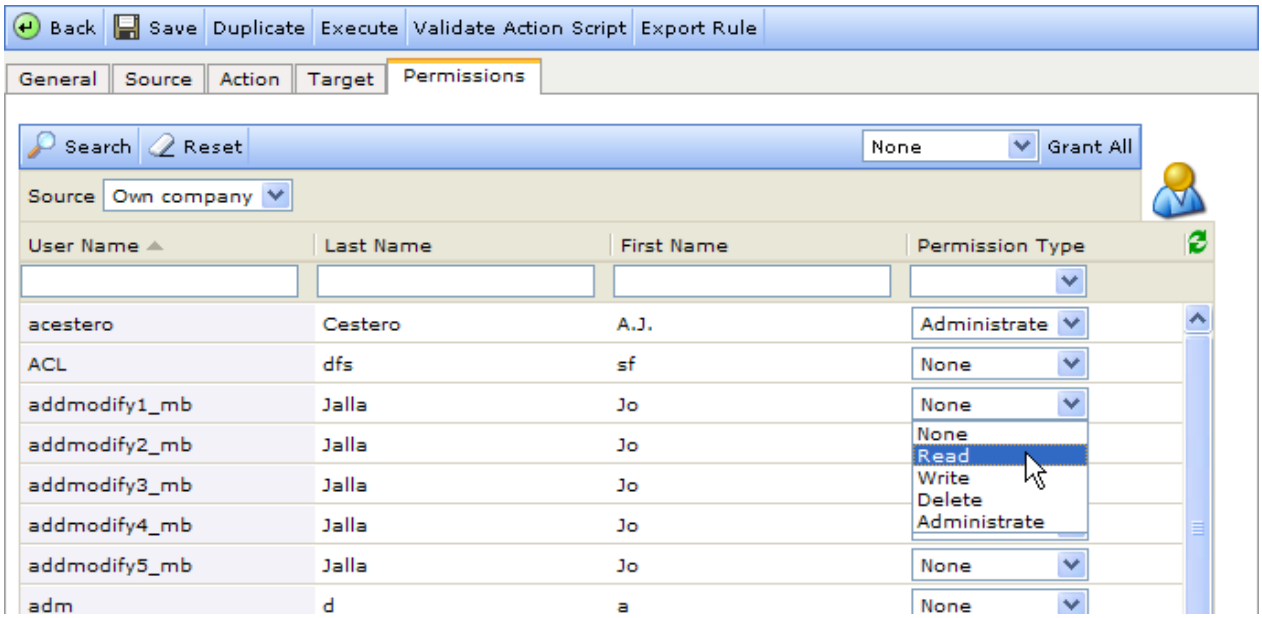


Figure 77 Example of the Permissions tab for a rule

For each user listed, click the down-arrow in the Permission Type column and select the appropriate permission. On completion, save the changes.

In the event the list of users is extensive, add search criteria to the various search fields then click **Search** to reduce the list to manageable proportions. Click **Reset** to remove all input search criteria and display the full list.

If all the employees in your company are to have the same permission level for the rule, select the permission level from the drop-down list towards the right end of the Search toolbar, then click **Grant All**. All employees will then be given the selected permission.

2.2.6. Example of Transferring Data

How to transfer data from Survey Data in one survey to Respondents List in a different survey.

Confirmit includes the following Data Processing capabilities:

- Respondent > Response (Same project).
- Respondent > Respondent (Same/Different project).
- Response > Respondent (Same/Different project).

In this example we will use a Data Processing Rule to transfer data from a surveys Response database to a Respondent database in a different survey. This functionality can be very useful if you wish to use the data that the respondents enter in one survey as background data in a different survey, for example to send a follow-up survey.

In this example two questions will be moved from one survey into a second survey.

In the first survey, the respondents are asked if they want to participate in a second survey. If they say yes (code 1), they will be asked to input the name and email address that the link should be sent to. These two questions are normal questions in the first survey, while in the second survey the two questions are added as background questions.

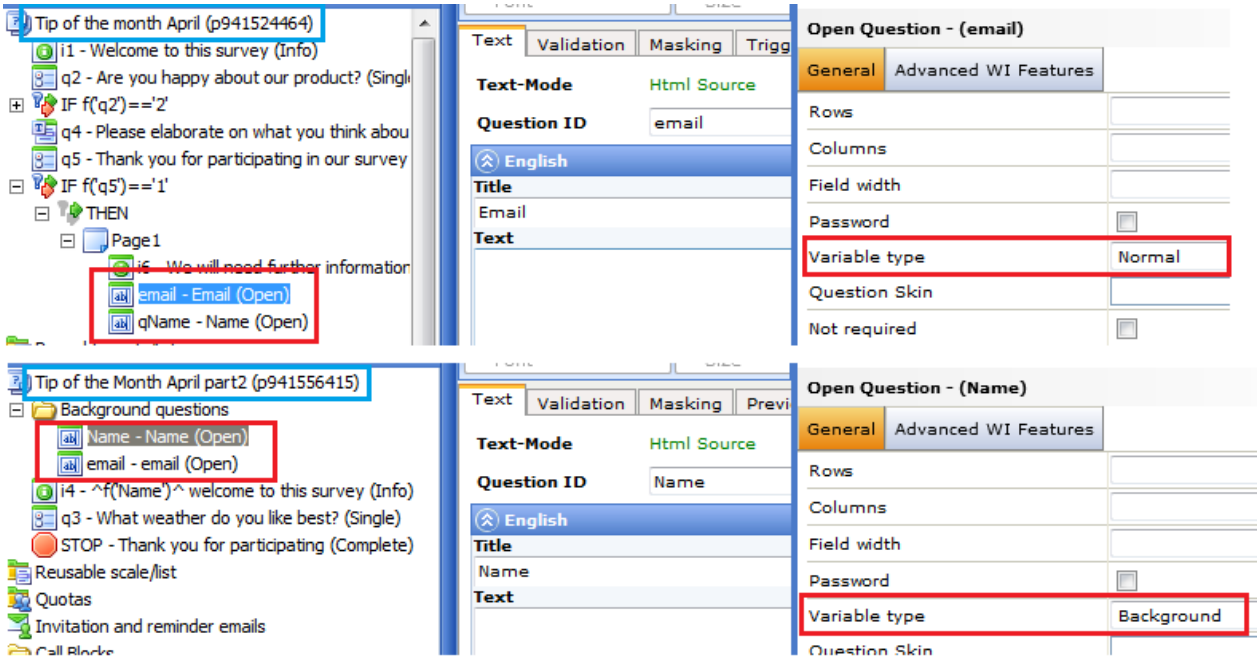


Figure 78 The two surveys used in this example

To create the data processing rule:

1. Go to the **Data Processing > Rule List** menu command to open the Rule List Page.
2. Click the **New Rule** button.
3. In the General tab, add a name for the rule and a comment as necessary.
4. Specify the type of rule required.

   As we wish to move data from Survey data to Respondents list, select:

   - Source Type to Survey Database.
   - Target Type to Respondent Data.

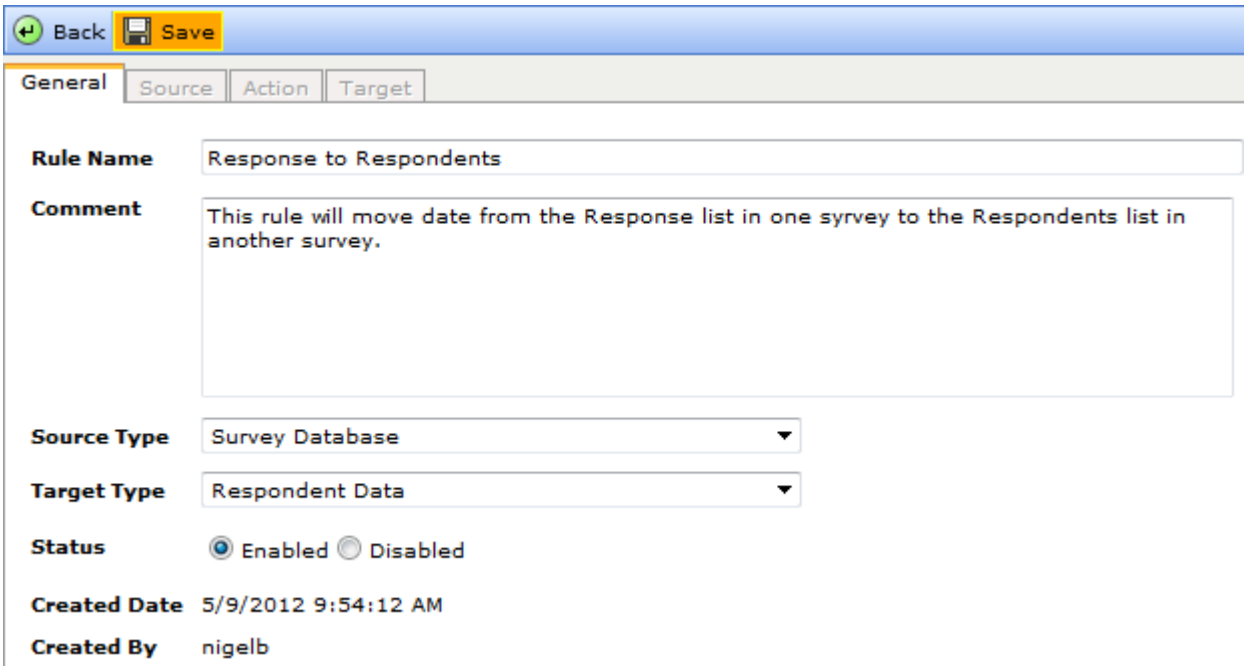


Figure 79 Making the settings in the General tab

5. Save the changes then go to the Source tab.
6. Specify in Project IDs the project that is to provide the data.
7. Add an expression which will only move data for those that have answered Yes in the appropriate question (in this case q5).
8. As this is going to be a recurring task, set Data to be included to "Data changed since last run" to ensure the rule only adds the newest data.
9. In the Columns section, click the **Select Columns** link and select the questions that are to provide the data.

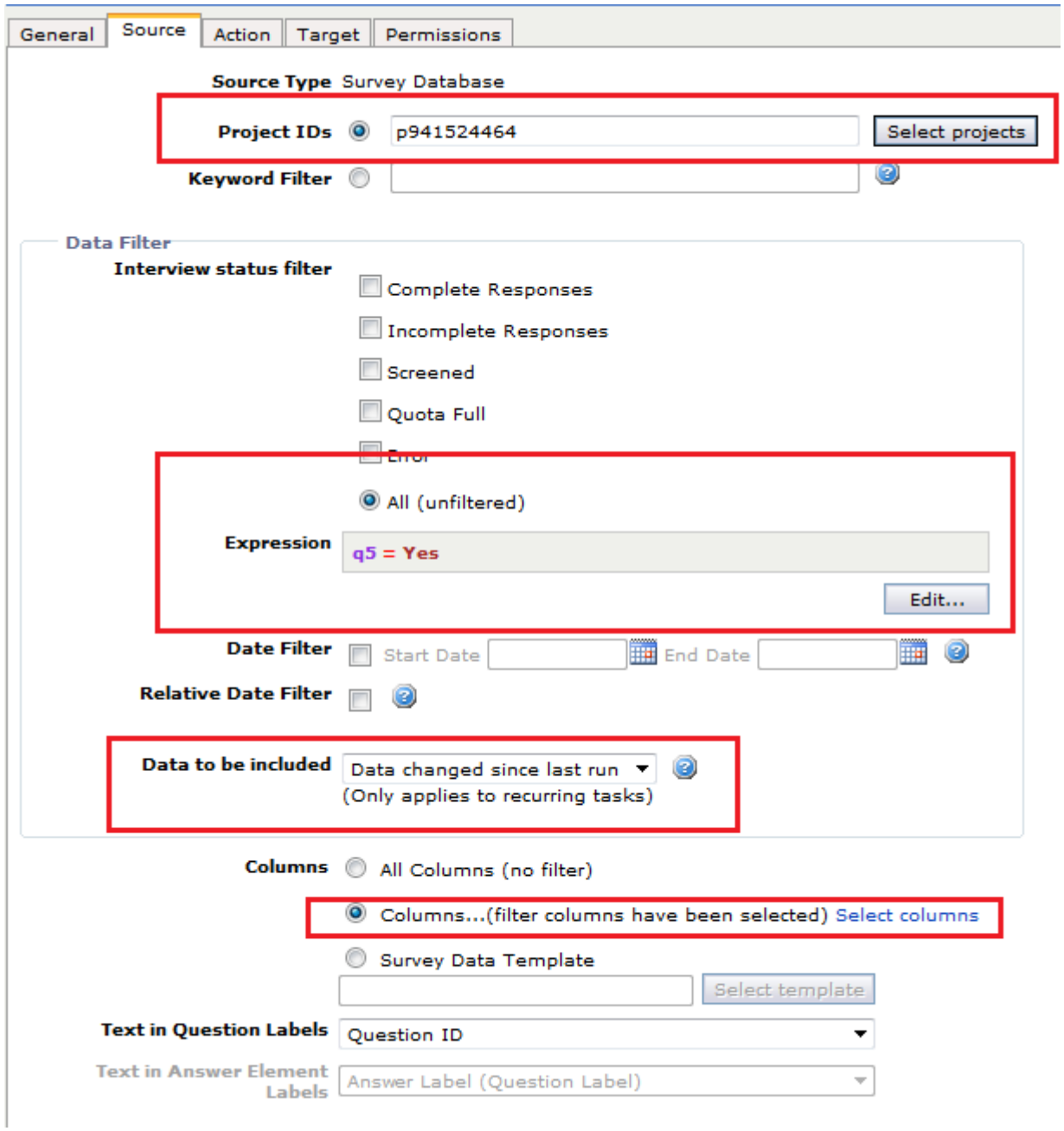


Figure 80 Making the settings in the Source tab

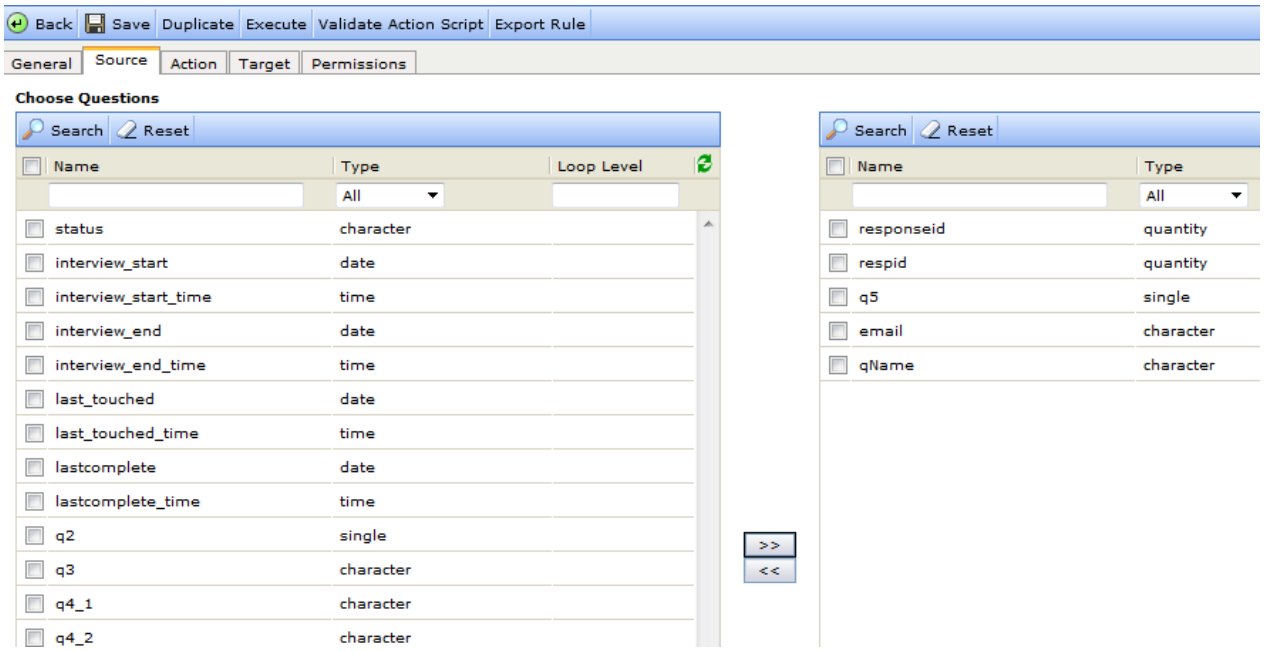


Figure 81 Selecting the questions that are to provide the data

10. Go to the Target tab.
11. In the Project ID field, add the project to which the data is to be moved.
12. As we wish to add new data to this project, set the Execution Mode to "Append data".

Note: A Key field must usually be specified as the unique identifier, but as in this case the data to be Appended will be new records "applied since last run" a Key field is not required.

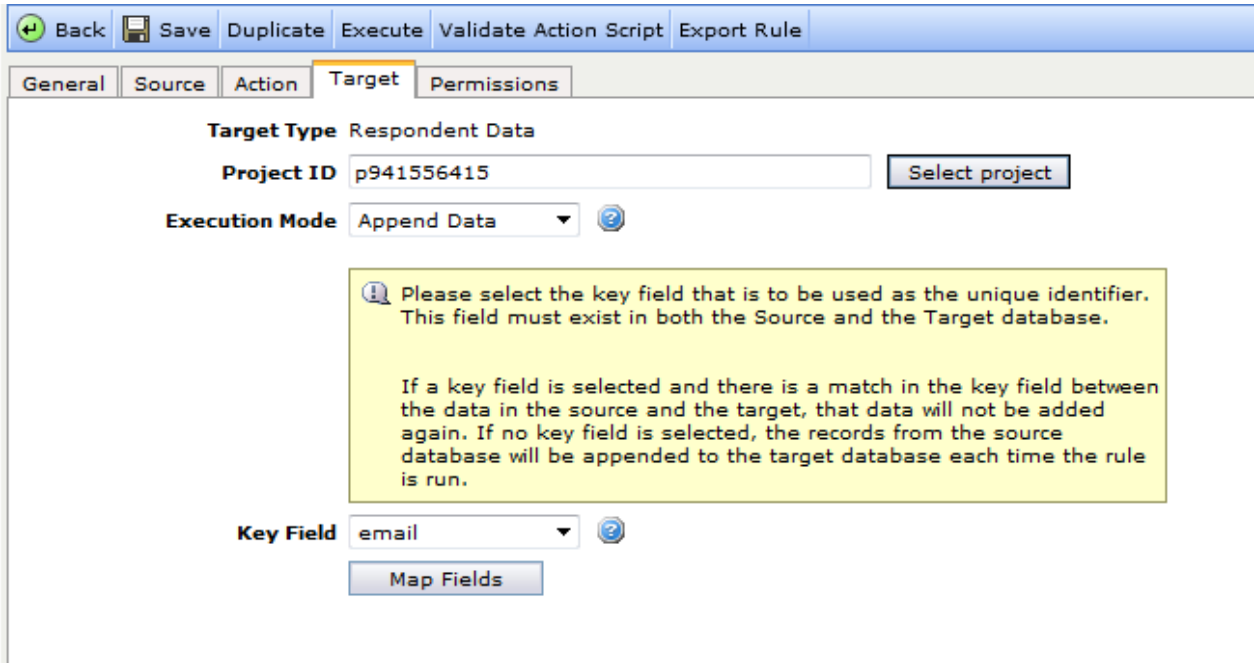


Figure 82 The Target tab

The id for the question "name" is not the same in the two projects ("qname" in the first and "Name" in the second). We will therefore need to Map Fields so the system will know which question it should add the data from qname to.

When you click on **Map Fields** in the Target tab, all the variables selected in the source template will be listed in the left column and all the variables in the Target project will be listed in the right column. Click on "qname" in the left column, then "Name" in the right column, then click on **Map Fields** to connect them together.

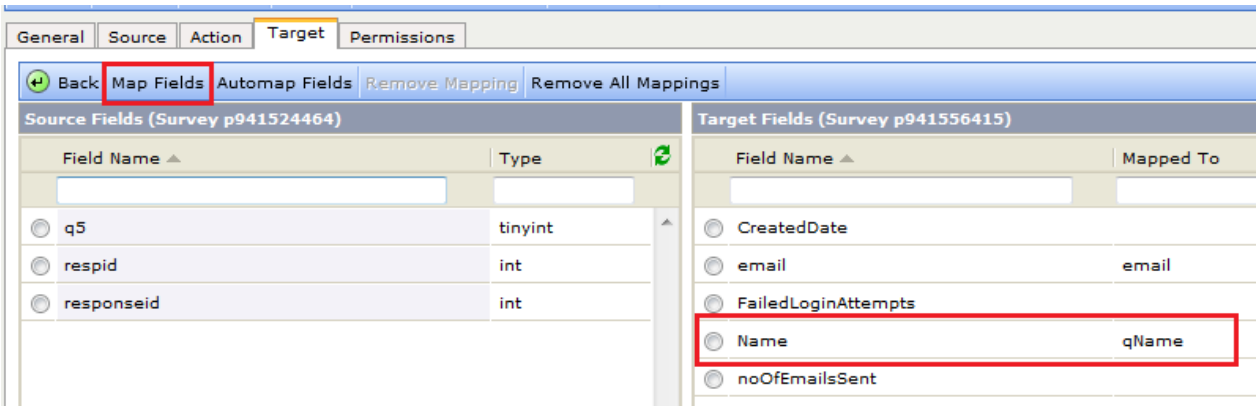


Figure 83 Mapping the fields

In the figure below are listed three responses to the first survey, where two have answered "Yes" (code 1) to q5 and have entered an email address and a name.

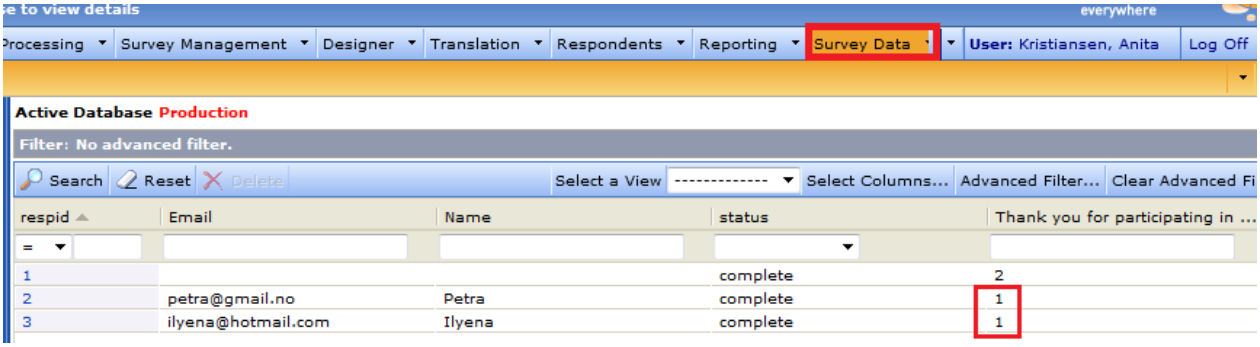


Figure 84 Example of responses

12. Click **Execute** in the data processing rule to run the rule.

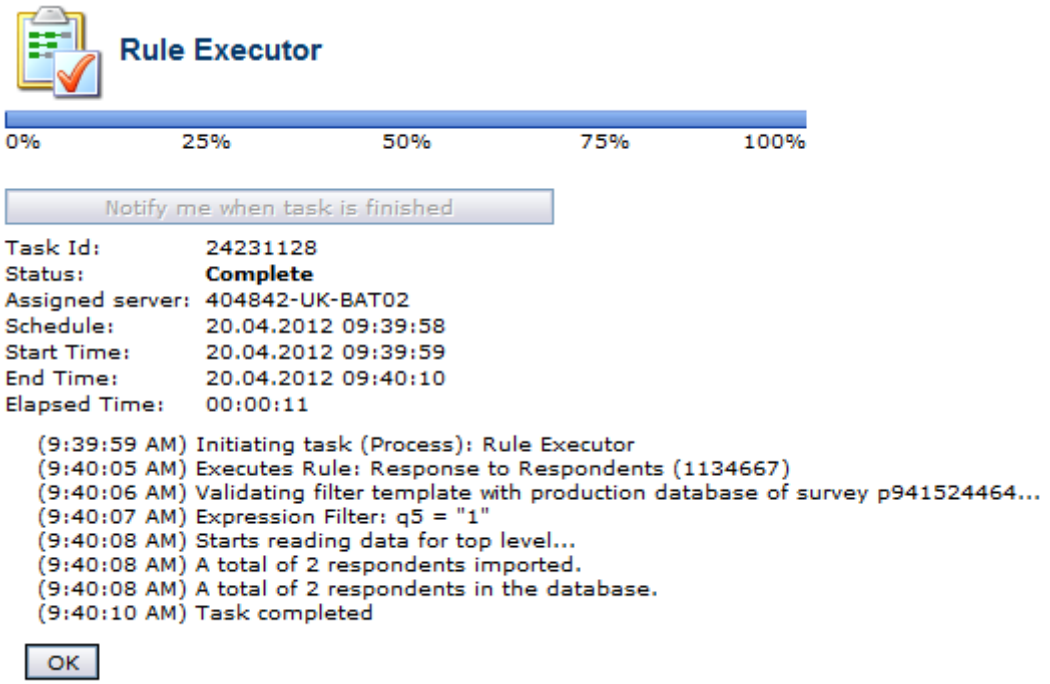


Figure 85 The task results

In this case, two respondents were moved into the second survey. If you open the second survey you will see these two in the respondent list.

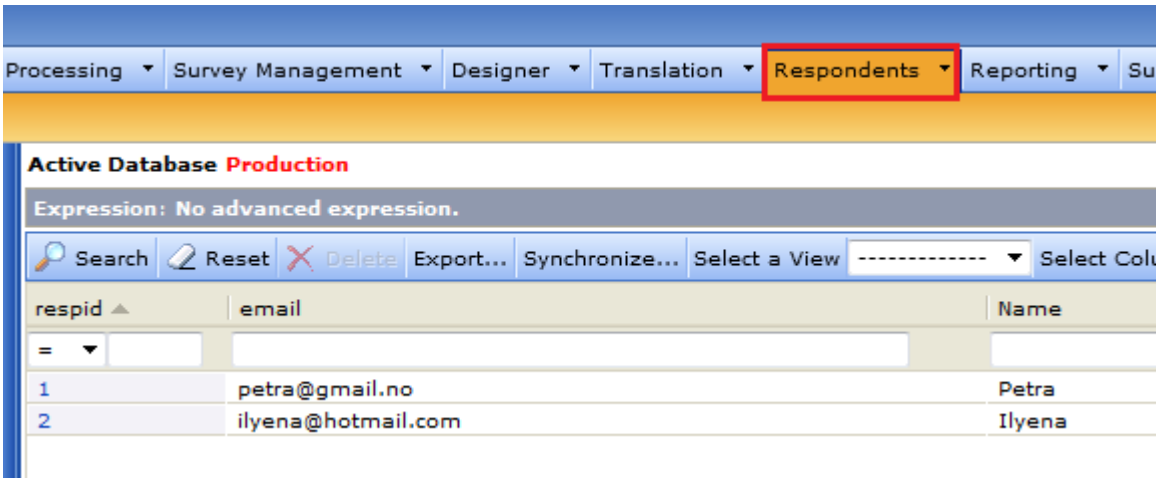


Figure 86 The second survey with the two respondents

The second survey is now ready to send out invitations. If the Source is still open and collecting data, the task can be set to recur automatically and move new respondents to the target survey.

2.3. Current Rule Set

A Rule set is a number of rules that are to be run consecutively. The rules are run in the order in which they are listed in the set.

To open the latest rule set selected from the Rule Set List during the current session, go to the **Data Processing > Current Rule Set** menu command. If no rule set has been selected during the current session, then the Rule Set List will be displayed (see Rule Set List on page 88 for more information)

When you click on a rule set in the Rule Set List or go to the **Data Processing > Current Rule Set** menu command, the Rule Set Details page opens at the General tab as shown in the example below.

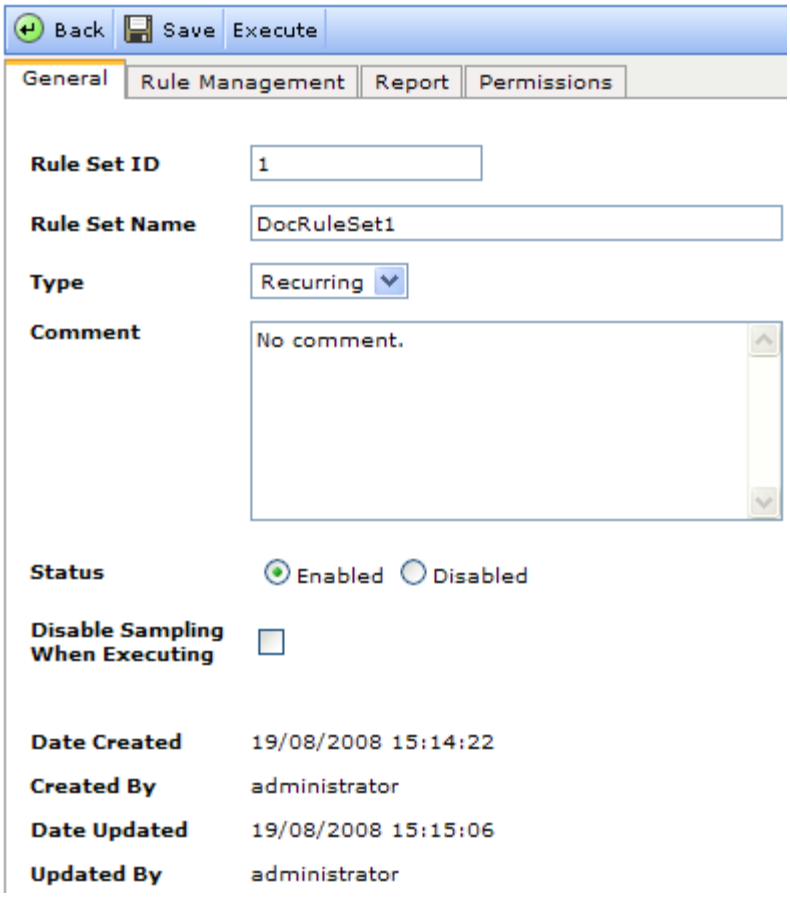


Figure 87 Example of the Rule Set Details General tab

2.3.1. The General Tab

The Rule Set Details page opens at the General tab.

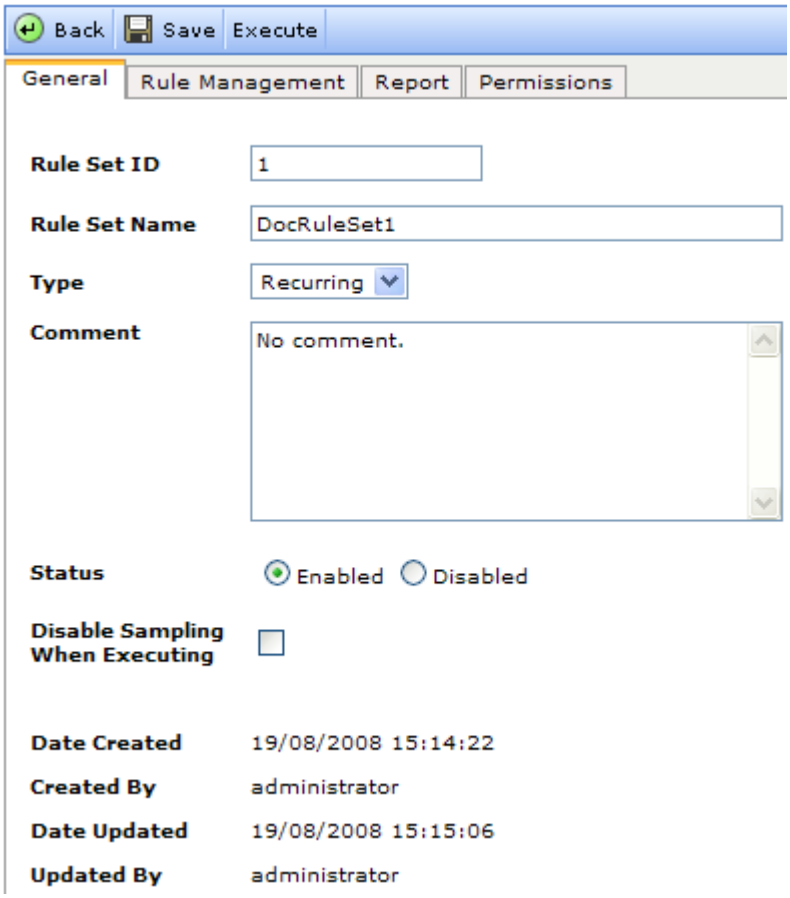


Figure 88 Example of the Rule Set Details page > General tab

- **Rule Set ID –** the identification number for the rule set. This number is generated automatically by Confirmit and cannot be changed.
- **Rule Set Name –** the name given to the rule set when it was created/last edited. You can change this name as required.
- **Type –** the type of rule set. The options are:
  - **Ad Hoc –** a rule set that is created for a specific use/event.
  - **Recurring –** a rule set created to perform a long-term job, that will normally recur at regular intervals.
- **Comment –** a description of the rule set, to simplify identification.
- **Status –** the status for the rule set.
  - **Enabled –**allows the rule to be run “as required”. This is the default setting.
  - **Disabled –** select this option if you wish to prevent the rule from being run. This could be useful if you have a recurring task, and wish to stop using this rule set in that task for a period but do not wish to change the task permanently.
- **Disable Sampling When Executing –** check the box to prevent sampling being performed on the database while the rule set is being run.
- **Date information –** for information only.

2.3.2. The Rule Management Tab

Use this tab to specify what is to occur in the event Confirmit discovers an error whilst the rule set is running.

- To add rules to the set, select the required rule and click Add (see How to Add a Rule to the Rule Set on page 83 for more information).
- To set up the properties for a rule in the set, double-click on the rule in the left column to open the Details page. The example below shows the details page for the "Export data to excel..." rule that has been selected in the left column.

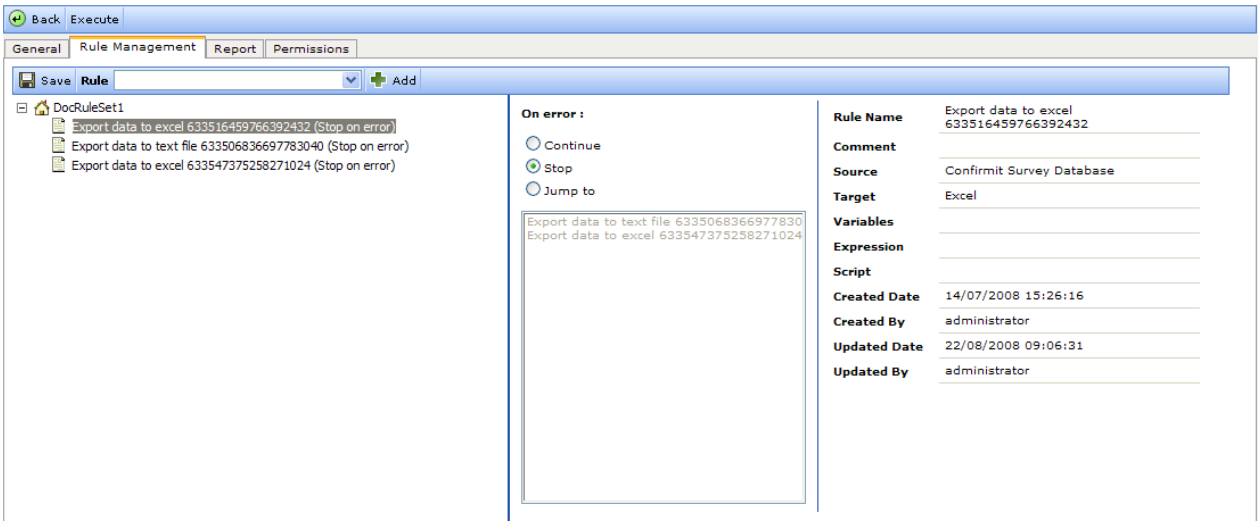


Figure 89 Example of the Rule Management tab

- **On error –** select the function you wish to occur in the event Confirmit discovers an error whilst the rule set is running. The options are:
- **Continue –** select this option if you wish the rule set to continue running.
- **Stop –** select this option if you wish the rule set to be stopped.
- **Jump to –** select this option if you wish the current rule to be stopped and the rule set to jump to another rule. If you select this option, you must then select the rule to which the set is to jump, from the list below the “on error” options.

2.3.2.1. How to Add a Rule to the Rule Set

1. Go to the **Panel Management > Current Rule Set** menu command.
2. In the Rule Management tab, click the down-arrow beside the Rule field to open a drop-down list of the rules available.

Note: Once a rule is added to the set it is removed from the list so you cannot run the same rule twice in the same set.

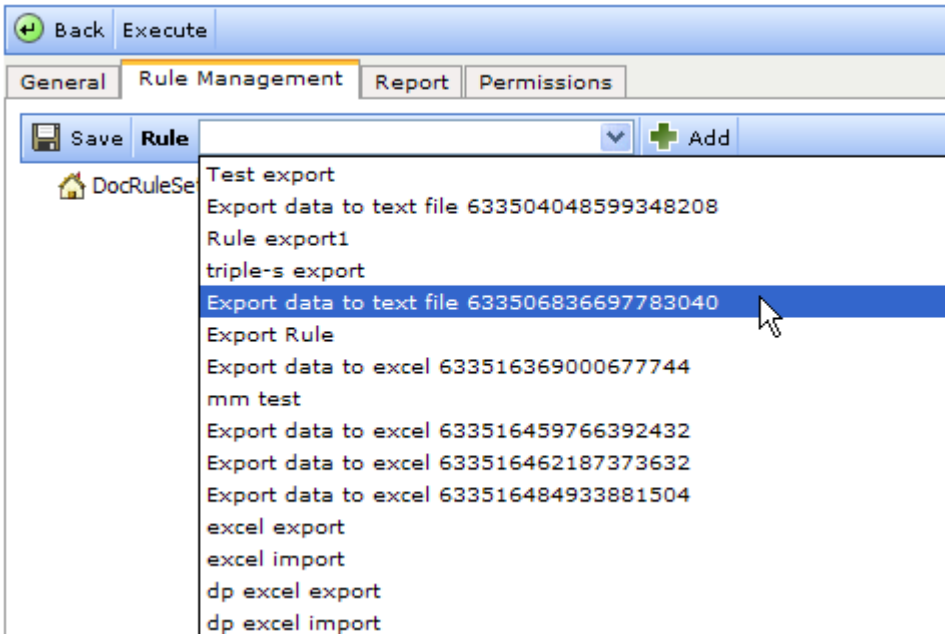


Figure 90 Selecting a rule to add to the rule set

3. Select the required rule from the list.
4. Click **Add**.

   The rule is added to the rule set.

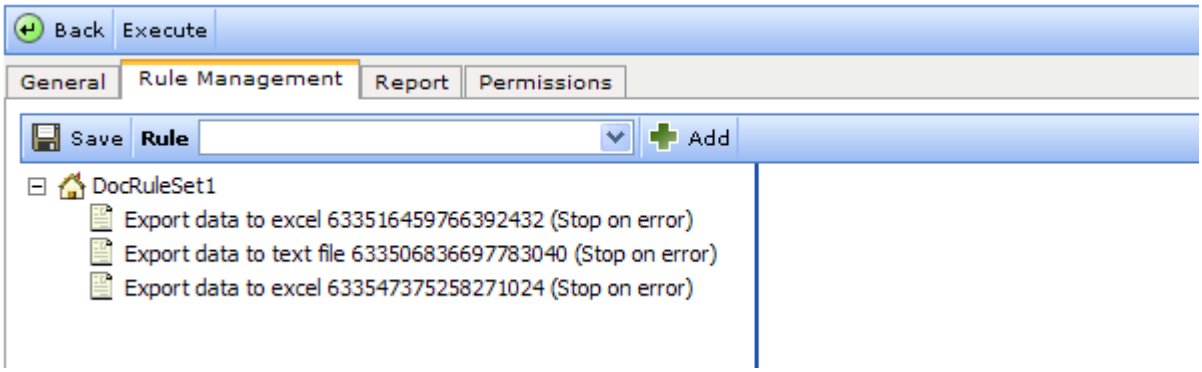


Figure 91 The rule added to the rule set

5. Double-click on the rule to open its Details pane, then make the appropriate settings (see The Rule Management Tab on page **Error! Bookmark not defined.** for more information).
6. On completion, click **Save** to save the changes.

2.3.3. The Report Tab

This tab provides an overview of the contents of the various rules selected in the Rule Management tab.

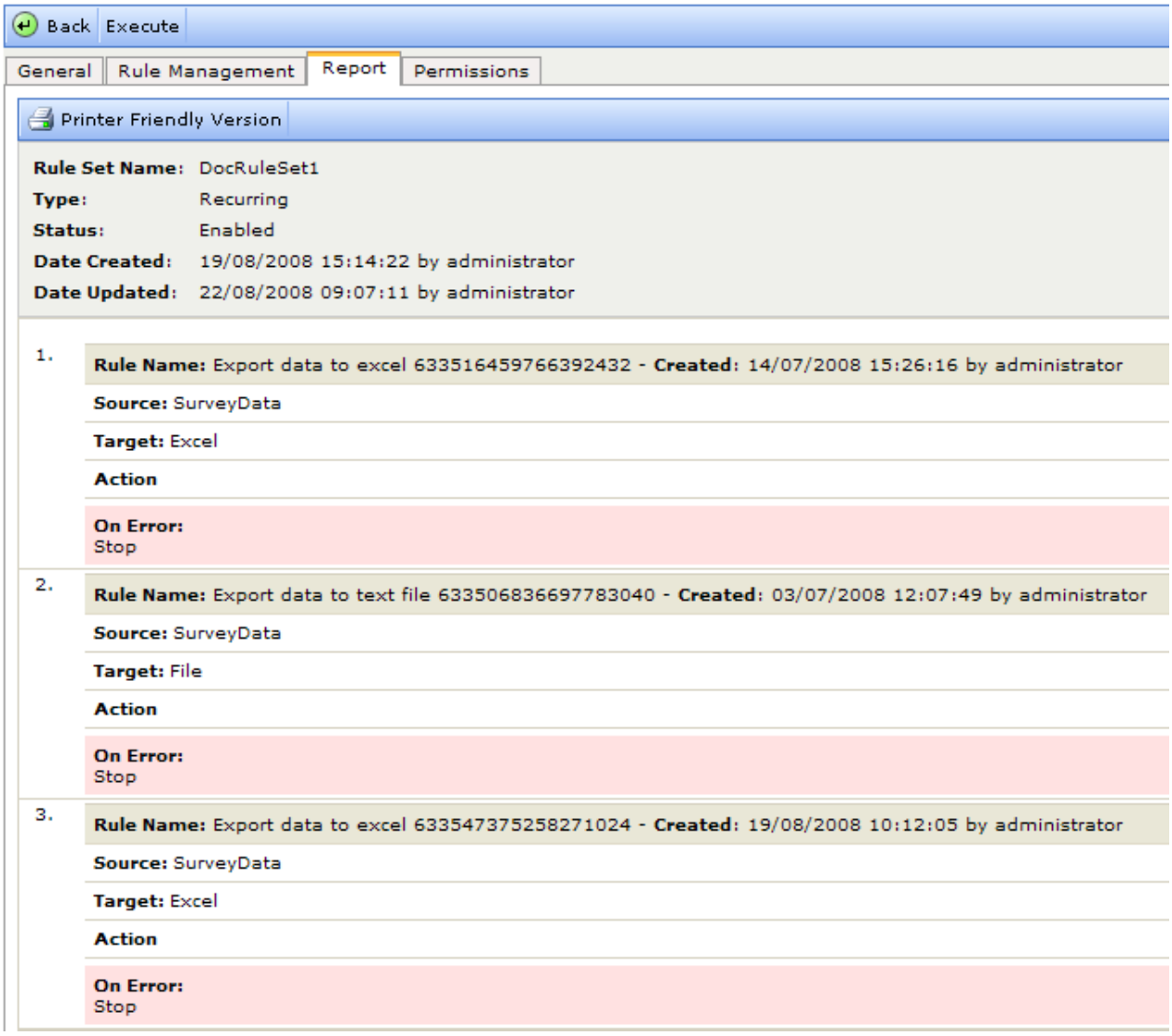


Figure 92 Example of the Report tab

Click **Printer Friendly Version** to open the report in a new window, formatted to be printed out.

2.3.4. The Permissions Tab

The user who creates a rule set has full administrator rights to that rule set. All other users have no rights; they cannot even see the rule in their rule list, until the creator has allocated the appropriate rights to them. The Current Rule Set Permissions tab allows the creating user to allocate access rights to the rule set he/she has created, to the various other users in the company.

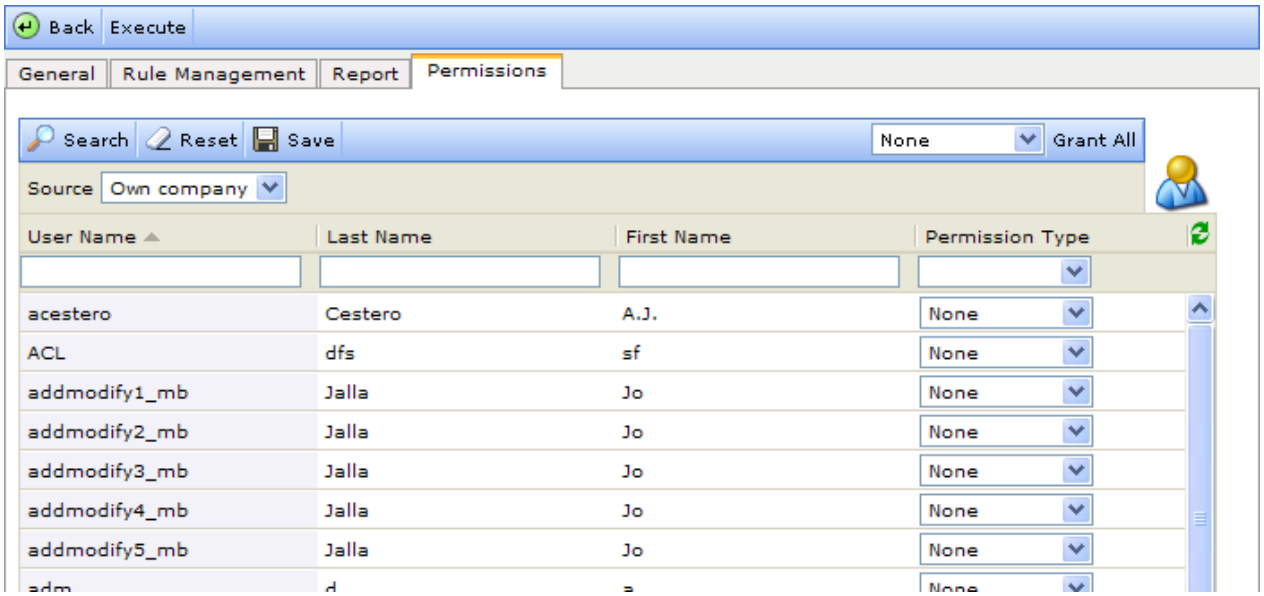


Figure 93 Example of the Permissions tab for a rule set

For each user listed, click the down-arrow in the Permission Type column and select the appropriate permission. On completion, save the changes.

In the event the list of users is extensive, add search criteria to the various search fields then click **Search** to reduce the list to manageable proportions. Click **Reset** to remove all input search criteria and display the full list.

If all the employees in your company are to have the same permission level for the rule set, select the permission level from the drop-down list towards the right end of the Search toolbar, then click **Grant All**. All employees will then be given the selected permission.

2.4. Rule List

Go to the **Data Processing > Rule List** menu command to display a list of all the Data Processing rules for this project. From the Rule List you can create new rules, both "standard" (see How to Create a New Rule on page **Error! Bookmark not defined.** for more information) and Data Central rules (see How to Create a New Data Central Rule on page 92 for more information) and import rules from other projects (see How to Import a Rule on page 87 for more information).

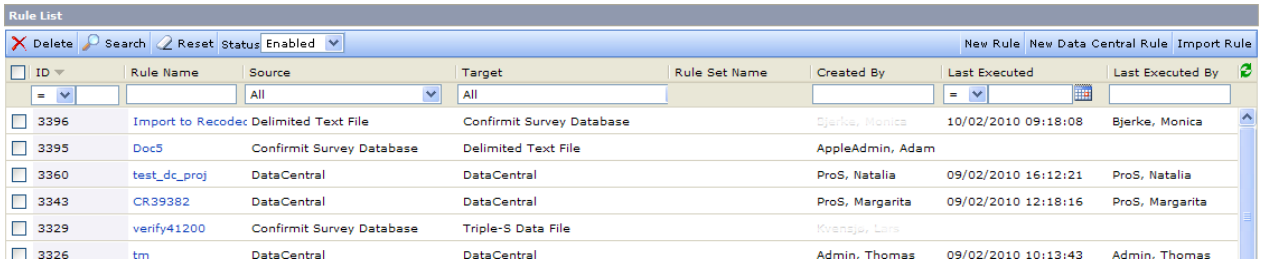


Figure 94 Example of the Rule List

Click on a Rule Name link to open the Current Rule page for that rule (see Current Rule on page 40 for more information). The selected rule becomes the Current Rule (and will open every time you go to the **Data Processing > Current Rule** menu command) until you return to the Rule List and select a different rule or until you close the current Confirmit session.

In the event the list of rules is extensive, add search criteria to the various search fields then click **Search** to reduce the list to manageable proportions. You can also search by date. Click **Reset** to remove all input search criteria and display the full list.

2.4.1. How to Create a New Rule

1. When in the Rule List page, click the **New Rule** Button towards the right end of the Rule List toolbar.

   The Add New Panel Rule form opens at the General tab. Note that until you have named and saved the new rule, the other tabs in the form are inactive.

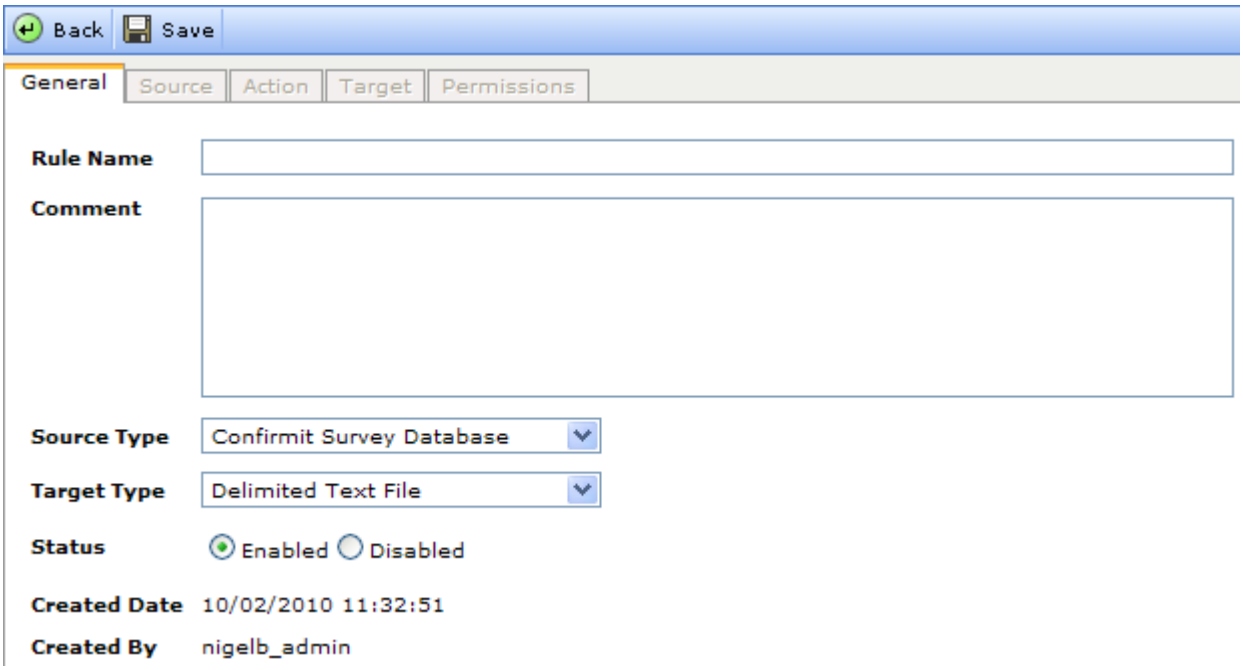


Figure 95 The Add New Rule page

2. In the Rule Name field, type in a name for your new rule.
3. Type a comment/description into the Comment field so others can see what this rule is intended for.
4. Select the required Source and Target types.
5. Select the desired Status for the rule (see The General Tab on page **Error! Bookmark not defined.** for more information).
5. On completion, click **Save**.

The new rule is saved and will now appear in the Rules List. The system allocates a Rule ID to the new rule, and this ID is displayed towards the top of the form. The Source, Action, Target and Permissions tabs become active. Go to these tabs and set up the rule as required.

2.4.2. How to Import a Rule

You can copy rules to other servers by using the Rule Export functionality (see How to Export a Rule on page 43 for more information). Proceed as follows to import a rule into the current server once it has been exported from another.

Note: The rule must be available as an .XML file (zipped or open) in a folder accessible from the current server. The file will have been sent, attached to an email, from the originating server.

1. Go to the**Data Processing > Rule List** menu command to open the Rule List window.

2. Click the **Import Rule** button towards the right end of the toolbar.

   The Rule Import dialog opens.

Figure 96 The Rule Import dialog

3. Browse to and select the file.
4. Type a name for the rule into the Rule Name field.
5. Click **OK**.

   The rule is imported and added to the Rule List. Click on the blue **Rule Name** link to open the rule in the Current Rule window (see Current Rule on page 40 for more information).

2.5. Rule Set List

A Rule Set is a number of rules that are to be run consecutively. The rules are run in the order in which they are listed in the set. Go to the **Data Processing > Rule Set List** menu command to display a list of the rule sets available to you.

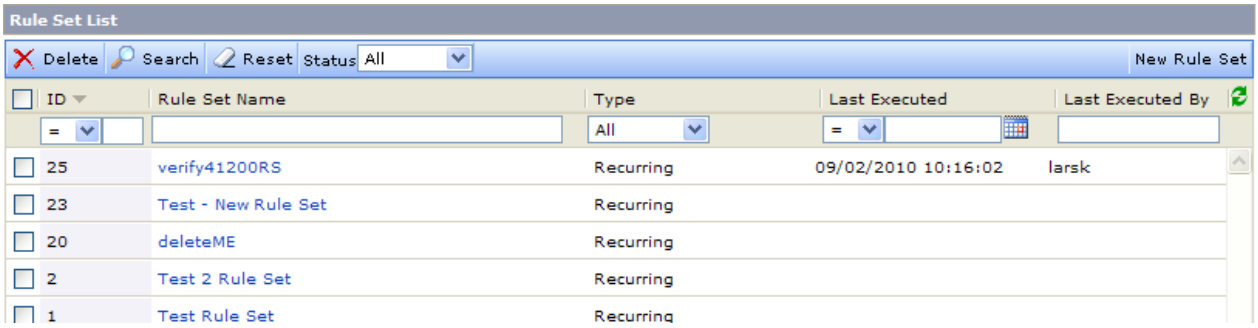


Figure 97 Example of the Rule Set List

Click on a blue **Rule Set Name** link to select that rule set and open the Current Rule Set window (see Current Rule Set on page 80 for more information).

In the event the list is extensive it may cover several pages. In this case, the **Page** arrows in the lower-right corner of the page will be active. Click the arrows to move to other pages. Add search criteria to the various fields above the columns to find the task you are interested in (refer to the Authoring User Guide for more information). Click **Reset** to remove all input search criteria and display the full list.

In the Rule Set List window you can also create new rule sets.

2.5.1. How to Create a New Rule Set

1. In the Rule Set List window, click the **New Rule Set** button towards the right end of the toolbar.

   The New Rule Set dialog opens.

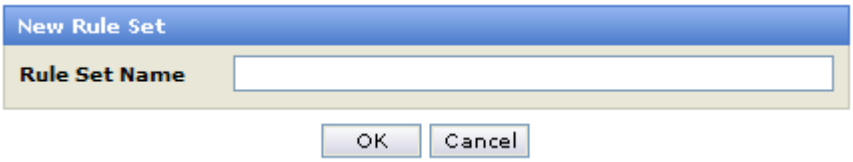


Figure 98 The New Rule Set dialog

2. Type the name of the new rule set into the field, then click **OK**.

   The rule set is added to the list.

Click on the blue **Rule Set Name** link for the rule set to select it and open the Current Rule Set window (see Current Rule Set on page 80 for more information). Here you set up the rule set properties and add rules.

2.6. Data Central Project List

The Data Central Project List lists the Data Central projects currently available to you. When you select this menu, the page opens as shown below.

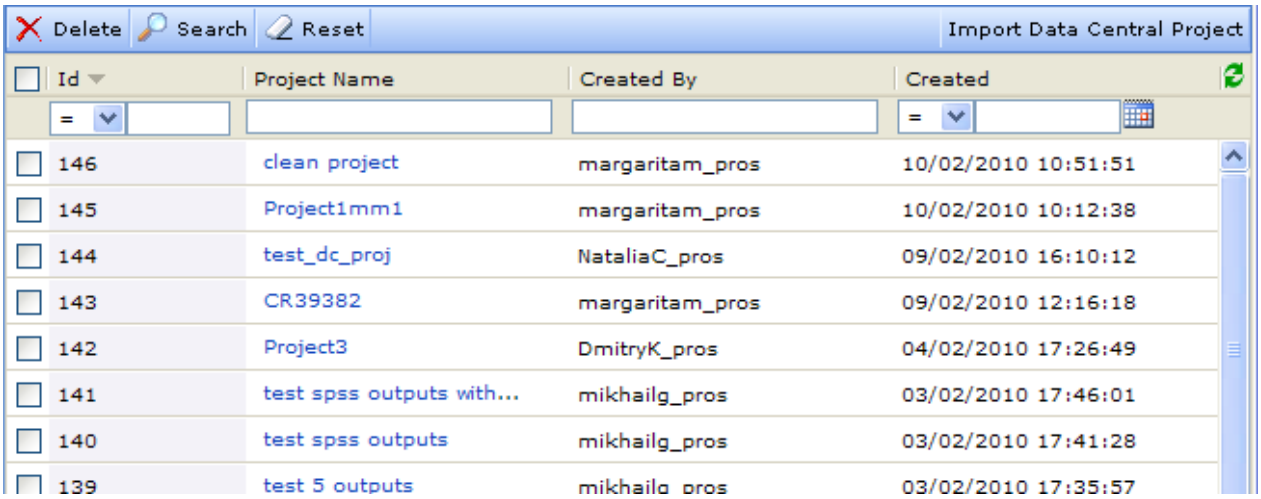


Figure 99 Example of the Data Central Project List

On this page you can search for and open a desired project, import Data Central Projects, and delete them if required. Left-click on a blue Project Name link or right-click on it and select **View Details** to open the Details page for the project, and right-click and select **Create New Rule** to create a new Data Central rule.

In the event the list is extensive it may cover several pages. In this case, the **Page** arrows in the lower-right corner of the page will be active. Click the arrows to move to other pages. Add search criteria to the various fields above the columns to find the task you are interested in (refer to the Authoring User Guide for more information), or click a "letter button" (located across the lower frame of the window) to display only those rules where the project name begins with that letter. Click **Reset** to remove all input search criteria and display the full list.

2.6.1. Data Central - General Description

Confirmit Data Central is a desktop application that brings together all of the activities that can take place after data has been collected, but before it has been reported. These activities include data and metadata definition and manipulation, cleaning and recoding, reformatting, streaming, weighting, and exporting.

Note: The Data Central application is a chargeable add-on for Confirmit Authoring. For more detailed information about Data Central, refer to the Data Central User Guide which accompanies the application.

2.6.2. The Data Central Project Details Page

When you click on a Data Central project link in the project list, the Project Details page opens at the general tab as shown in the example.

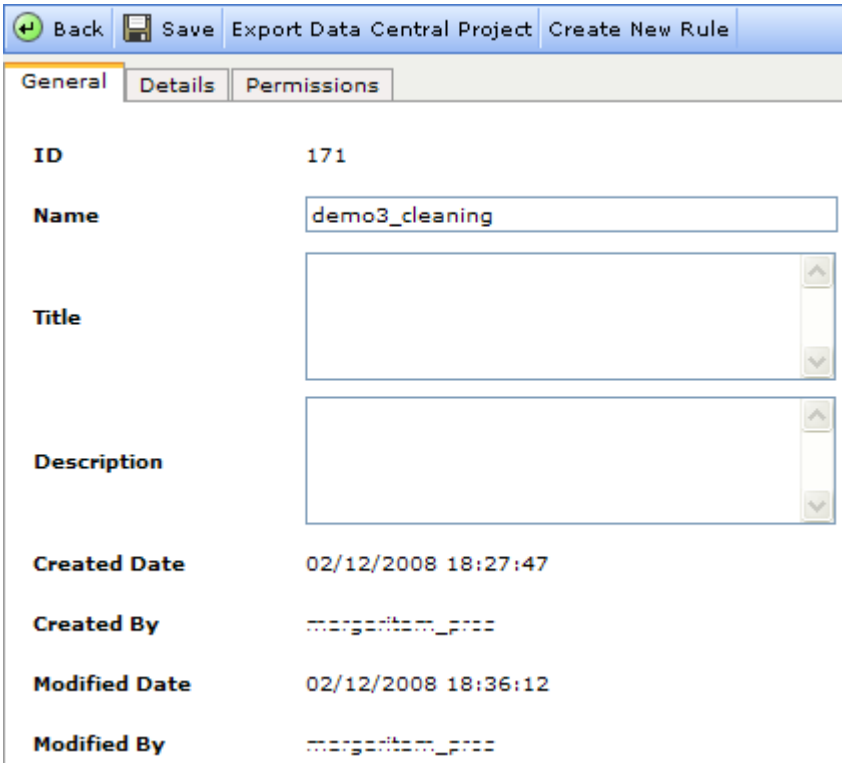


Figure 100 Example of the Data Central Project details page

This tab provides general details for the rule, such as its name, title and description, and the created and modified information (not editable).

2.6.3. The Details Tab

The Details tab shows the input and output details of the rule. This information is read-only on this tab.

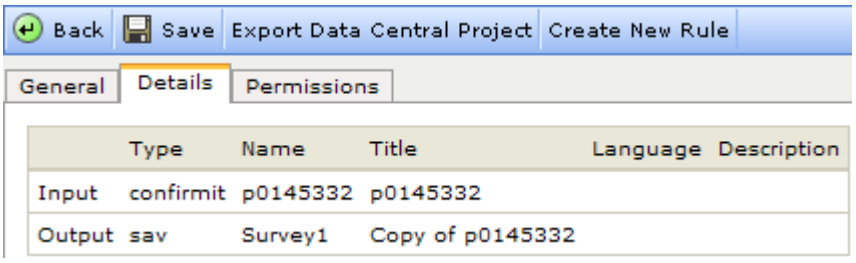


Figure 101 Example of the Details tab

Note that more than one source and/or target can be specified (see How to Create a New Data Central Rule on page 92 for more information).

The detail columns are as follows:

- **Type** - the data type of file specified as input and output for the data (source and target) to be processed by the rule.
- **Name** - the name of the projects/files specified as the data source and target.
- **Title** - if the source and/or target files have been given titles, these are listed in this column.
- **Language** - if the project is multilingual, then project languages are listed here.
- **Description** - the project description.

2.6.4. The Permissions Tab

The "owner" of a project - the user who creates or imports a Data Central project - has full administrator rights to that project. Initially, all other users (except administrators) have no rights; they cannot even see the project in their Data Central Project List (see Data Central Project List on page 89 for more information) until the "owner" has allocated the appropriate rights to them. The Data Central Project Permissions tab allows the creator to allocate access rights to the project he/she has created/imported, to the various other users in the company. The tab lists all the users currently registered in your company and others who may have been added to the list.

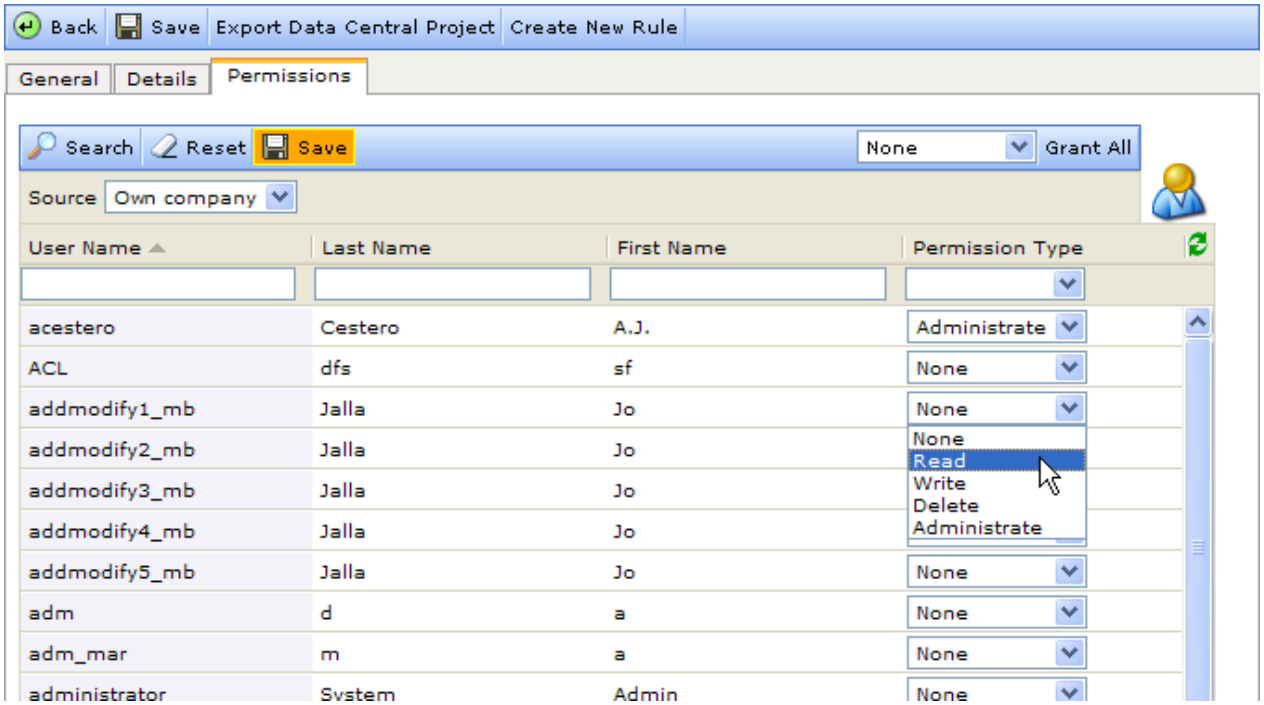


Figure 102 Example of the Permissions tab

In the event the list is extensive it may cover several pages. In this case, the **Page** arrows in the lower-right corner of the page will be active. Click the arrows to move to other pages. Add search criteria to the various fields above the columns then click **Search** to reduce the list to manageable proportions. Click **Reset** to remove all input search criteria and display the full list.

For each user listed, click the down-arrow in the Permission Type column and select the appropriate permission. On completion, save the changes.

If all the employees in your company are to have the same permission level for the project, select the permission level from the drop-down list towards the right end of the Search toolbar, then click **Grant All**. All employees will then be given the selected permission.

2.6.5. How to Create a New Data Central Rule

Note: You can export and import Data Central rules using the same procedures as for "standard" rules. Go to How to Export a Rule and How to Import a Rule for further details.

There are two ways of creating a new Data Central rule; you can open a project from the Project List and create a new rule in that project, or you can go to the Rule List and create a new Data Central rule, then attach it to a project.

To create a new Data Central rule:

1. Go to the **Data Processing > Data Central Project List** menu command.

   The Project List opens.

2. Click on the blue Project Name link for the project you wish to create the new rule for, to open that project.

   The Data Central Project Details page opens at the General tab.

3. In the Project Details page toolbar, click **Create New Rule**.

   The Rule Details page opens at the General tab (see The General Tab on page 94 for more information). The Rule Name field is by default filled in using the name of the project for which you are creating the rule, and the Email field (the email address to which any emails concerning this rule will be sent) will by default contain the address of the current user (your address). The page also indicates to which Data Central project the rule belongs, when the project was last modified, and when the rule itself was last updated.

4. Edit the editable fields as necessary then click **Save** the save the changes.
5. When you have set up the required details here, go to the Source tab to set up the source data (see The Source Tab on page 96 for more information).
6. Select the project that is to be the source for the data.

   This is filled in automatically according to the specifications in the Data Central project (input data source used).

7. If you wish to try the rule using test data before going "live" on the real data, check the Use Test Database box.
8. Check the appropriate filter boxes to select the respondent statuses you wish to be used in the rule (the Complete filter is set by default).
9. If you wish to restrict the dates from which the data is to be extracted, check the Date Filter box and set the associated date limits (all data is selected by default).
10. If you wish to restrict the number of columns that are to be used, click the radio button and select the columns as appropriate.

Note: You must ensure that the columns used in the Data Central project, exist in the rule.

11. If the project is multi-language, select the language data you wish to use.
12. Click **Save** then go to the Target tab (see The Target Tab on page 98 for more information).

    Depending on the specified outputs in the Data Central project, one or more Target entries will be available. You can click on each of these entries and edit them as necessary.

13. Select the project that is to be updated or select to create a new project.
14. Select the changes that are to be made, whether or not the project's Test database is to be updated, and the execution mode.

    If the target Type is a report or an external output file (for example Quantum files), specify whether the file is to be sent via email or stored on the FTP server, and you can choose whether the file is to be encrypted.

    Click **Save** then go to the Permissions tab.

15. Set up the permissions for the new rule as required (see The Permissions Tab on page 101 for more information).

16. Click **Save**.

You can now test the rule to check that it is set up correctly.

2.6.6. How to Export a Data Central Project

A Data Central project can be exported to Data Central Desktop:

1. Go to the **Data Processing > Data Central Project List** menu command.

   The Project List opens.

2. Click on the blue project link for the project you wish to export, to open that project.

   The Data Central Project Details page opens at the General tab.

3. In the Project Details page toolbar, click **Export Data Central Project**.

   The Data Central Project Export dialog opens.

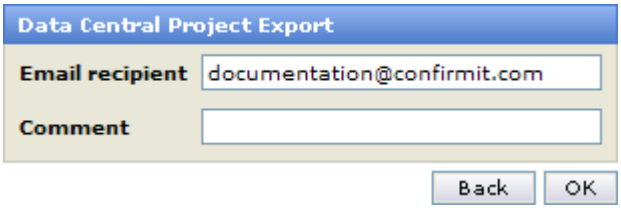


Figure 103 The Project Export dialog

4. The address given in the Email Recipient field will by default be that of the current user - you. If you wish to export the project to a different pc, type the appropriate address into the field.
5. Type a comment into the Comment field as required.

   This comment will be included in the email, and is intended to assist you (or another recipient) with later identification of the email.

6. Click **OK**.

   The task is run; the project file is attached to an email and the email is sent to the specified recipient.

When the recipient receives the email with the project file attached, he/she can save the attachment in a suitable archive and open it with Data Central Desktop.

2.6.7. How to Import a Data Central Project

In the event you have no direct access to the Confirmit platform, you may need to import a Data Central project into your pc so that you can view or edit the project. To import a project:

1. Go to the **Data Processing > Data Central Project List** menu command.
2. In the Data Central Project List page, click the **Import Data Central Project** button (located towards the right end of the list toolbar).

   The Data Central Project Import dialog opens.

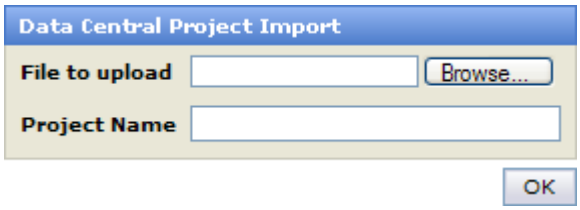


Figure 104 The Data Central Project Import dialog

3. Click the **Browse** button to open a file browser, find the project file you wish to import, and select it.

   The file must have the extension **.dcps**.

4. Type a suitable name for the project into the Project Name field.
5. Click **OK**.

The project is imported and added to the Data Central Project List. You can now create new rules for the project, and if you have the Data Central application installed then you can edit the project.

2.6.8. The Create New Data Central Rule Tabs

When you click the **Create New Rule** button, the Rule Details page opens. This page has four tabs, opening at the General tab.

- The General tab.
- The Source tab.
- The Target tab.
- The Permissions tab.

See the following sections for descriptions of the tabs and their properties.

Note: The properties available on the Source and Target tabs will depend on the settings in the Data Central project when the rule was created.

2.6.8.1. The General Tab

When you create a new Data Central rule (see How to Create a New Data Central Rule on page 92 for more information), the Rule Details page opens at the General tab.

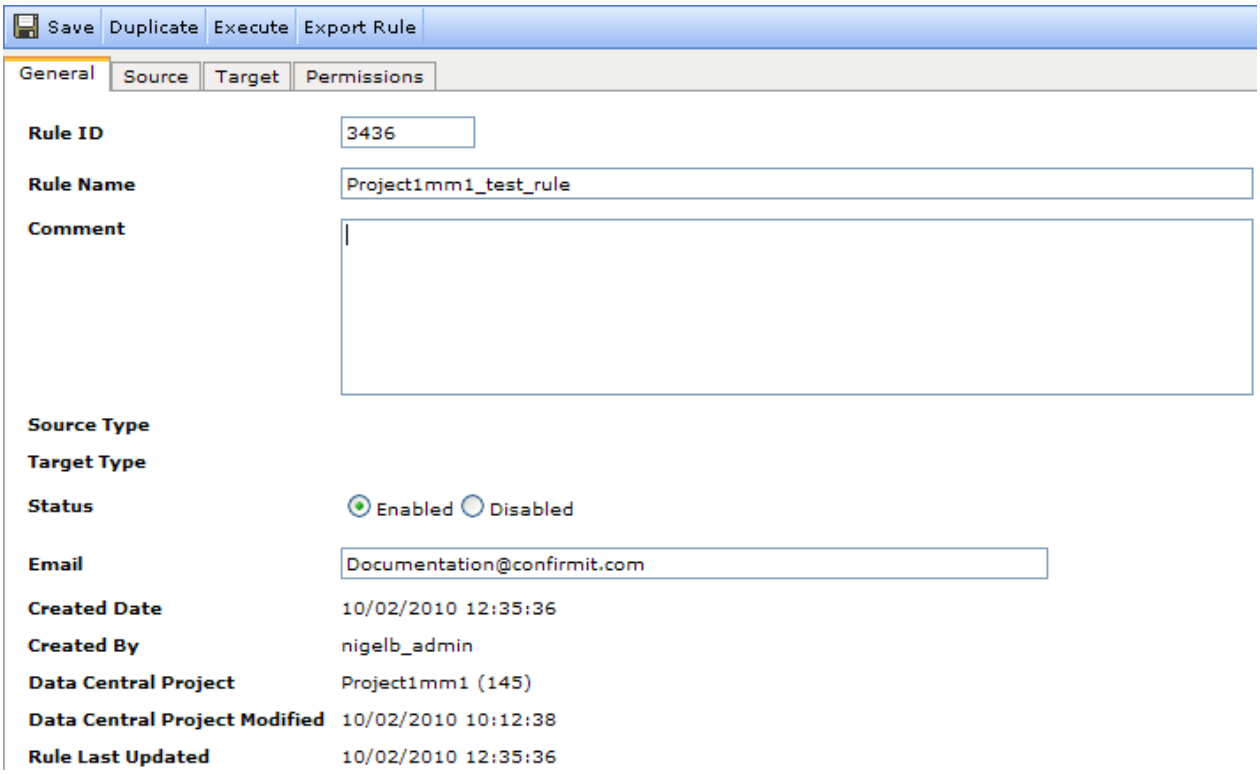


Figure 105 The Rule Details page - General tab

The properties and fields are as follows:

- **Rule ID -** the identification number of the new rule. This is generated automatically by the system and cannot be changed.
- **Rule Name -** by default this is the same as the name of the Data Central project for which the rule is being created. Edit this as required.
- **Comment -** add any comments you wish to make about this rule, to simplify identification later.
- **Status –** select the required status for the rule. The options are:
  - **Enabled –** select to allow the rule to be run “as required”. This is the default setting.
  - **Disabled –** select this option if you wish to prevent the rule from being run. This could be useful if you have a recurring task, and wish to stop using this rule in that task for a period but do not wish to change the task permanently.
- **Email -** this is the email address to which any emails concerning this rule will be sent (for example if you export the rule). The email address given will by default be that of the current user (your address).
- **Created Date -** the date the rule was created.
- **Created By -** the user name of the person who created the rule (probably yours).
- **Data Central Project -** the name and ID of the Data Central project for which the rule is being created (the current project).
- **Data Central Project Modified -** the date and time when the project was last modified.
- **Rule Last Updated -** the date and time for when this rule was last updated.

2.6.8.2. The Source Tab

When you create a Data Central rule, you must specify a source for the data on which the rule is to operate. Use the fields on this tab to specify the data source on which the rule is to operate.

Note: The properties available on the Source tab will depend on the settings in the Data Central project when the rule was created.

2.6.8.2.1. The Properties when the Source is a Project

When you create a Data Central rule and the source is a project, the properties list is as shown below.

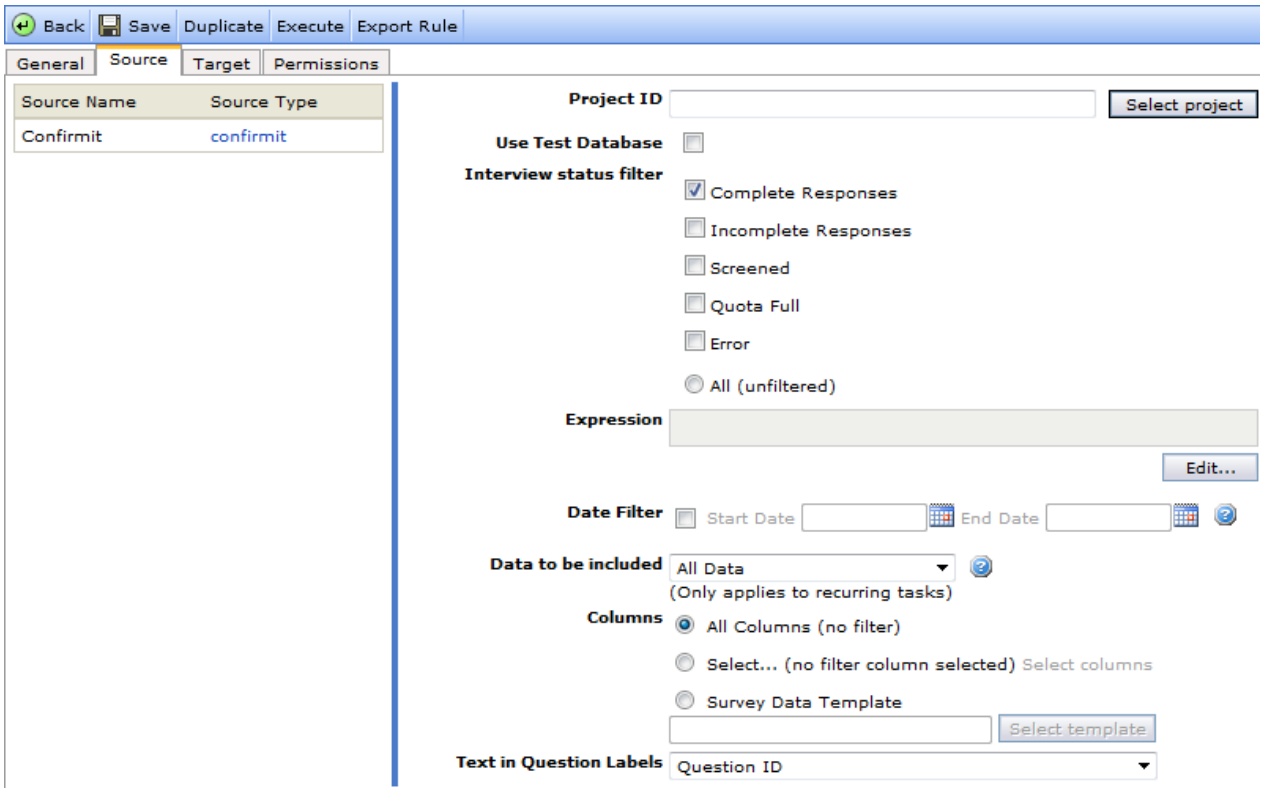


Figure 106 The properties when the source is a project

The properties and fields are as follows:

- **Source Name** - all sources are listed here. These sources can be either Confirmit projects or external data sources.
- **Source Type** - the type of project.

  If the Source Type is an external file:

  - **File Transfer** - select this if the file is to be uploaded or picked up from the FTP server, and select the individual files.

  If the Source Type is a Confirmit project:

  - **Project ID** - this field shows the project ID of the project that is to be used as the data source. You can change to a different project by clicking **Select Project**.
- **Use Test Database** - check if you wish to test the rule using data from the project's Test database.

- **Interview Status Filter** - check the appropriate boxes to specify which categories of response data are to be used.
  - **Complete responses** – selects only data from surveys with the status Complete.
  - **Incomplete responses** – selects only data from surveys with the status Incomplete.
  - **Screened** – selects only data from surveys with the status Screened.
  - **Quota full** - selects only data from surveys with the status Quota Full.
  - **Error** - selects only data from surveys with the status Error.
- **Expression -** here you can create an expression to filter the data that is to be manipulated by the rule. Click **Edit** to open the Expression Editor window (see The Expression Editor Window on page 102 for more information).
- **Date Filter** - check to activate the data filter, then specify the start and end dates for the data to be used by the rule.
- **Data to be included** - in the event the rule is recurring, you can instruct the rule to process all the data specified by the filters above, or only the data that has changed since the previous time the rule was run.
- **Columns** - select the columns you wish to include;
  - **All columns** - use all columns.
  - **Select** - use only the selected columns - click the **Select Columns** button to open a selection dialog.
  - **Survey Data template** - as used in the selected template.
- **Selected Language** - if the project supplying the data has more than one language selected, select the language to be used.
- **Text in question labels -** select the type of question labels you wish to use. The options are:
  - **Text Only -** the label element will contain only the text of the question.
  - **Title Only -** the label element will contain only the title of the question.
  - **Title and Text -** the label element will contain the question title followed by the question text.
  - **Question ID -** the label element will contain the question id.

2.6.8.2.2. The Properties when the Source is a File

When you create a Data Central rule and the source is a file, the properties list is as shown below.

Note: The properties available depend on the File Transfer type selected. This page lists all available properties.

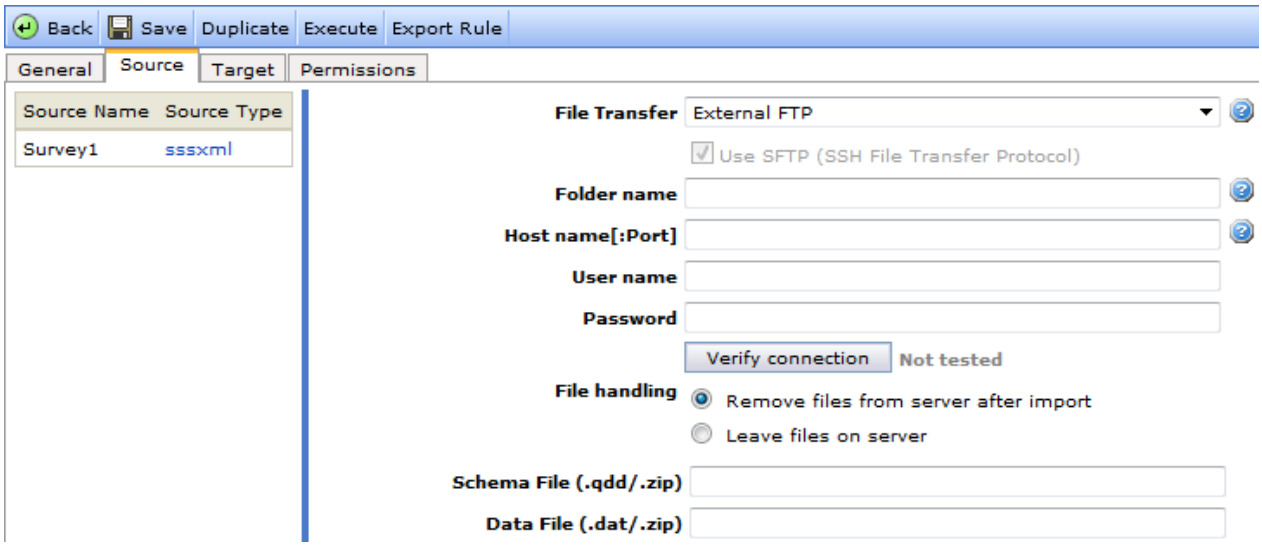


Figure 107 The properties when the source is a file

The properties and fields are as follows:

- **File Transfer** - import files can be uploaded directly in the browser, placed on a Confirmit FTP server and retrieved from there, or imported from an external FTP server. The remaining properties will depend on which file transfer method you use:
- **Use SFTP -** select this option if you wish to use protected protocol SFTP (SSH File Transfer Protocol). Note that this option can be preset as a company setting, in which case it will be grayed out and will not be "deselectable".
  - **Local file -** if you wish to upload the source file from your server network (perhaps the file has been stored there after having been sent to you via email), then select this option, click the Upload File link in the line below, then click Browse. A standard browser window opens, in which you can search for and select the file you wish to upload.
  - **FTP -** if your company has licensed the FTP add-on and it has been enabled, this option will be active. You can then fetch the source file from Confirmit's FTP location. Type in the file name. Confirmit's FTP address is specified as part of the enabling procedure and cannot be changed.
  - **External FTP -** files can be taken from an external FTP location. In this case the file name, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct.
- **File handling -** select whether you wish to copy the file from the server/FTP site or move it (delete it from the site).
- **Schema File / Data File -** type in the file names of the files you wish to use.

2.6.8.3. The Target Tab

Use the Target tab to select the target for the data defined in the Source tab (see The Source Tab on page 96 for more information), or if external files are to be used, specify how the files are to be delivered (email or FTP).

The Target Types listed in the tab's left column are those defined in the specific Data Central project. Any number of outputs can be defined for a project, and these outputs can include data files, reports and log files. Data files can be SPSS, Quantum, SSSXML, SAS or Transposed. The properties available in the Target tab will depend on the Target Type (data file, report or log file), then if Data file, the type of data file, and then the File Transfer type selected.

2.6.8.3.1. The Target Tab when the Target is a Project

Use the Target tab to select the target for the data defined in the Source tab (see The Source Tab on page 96 for more information), and specify how the files are to be delivered.

The Target Types listed in the tab's left column are those defined in the specific Data Central project. Any number of outputs can be defined for a project, and these outputs can include data files, reports and log files. The properties available in the Target tab will depend on the type of output selected. This section describes the options available when the target is a project.

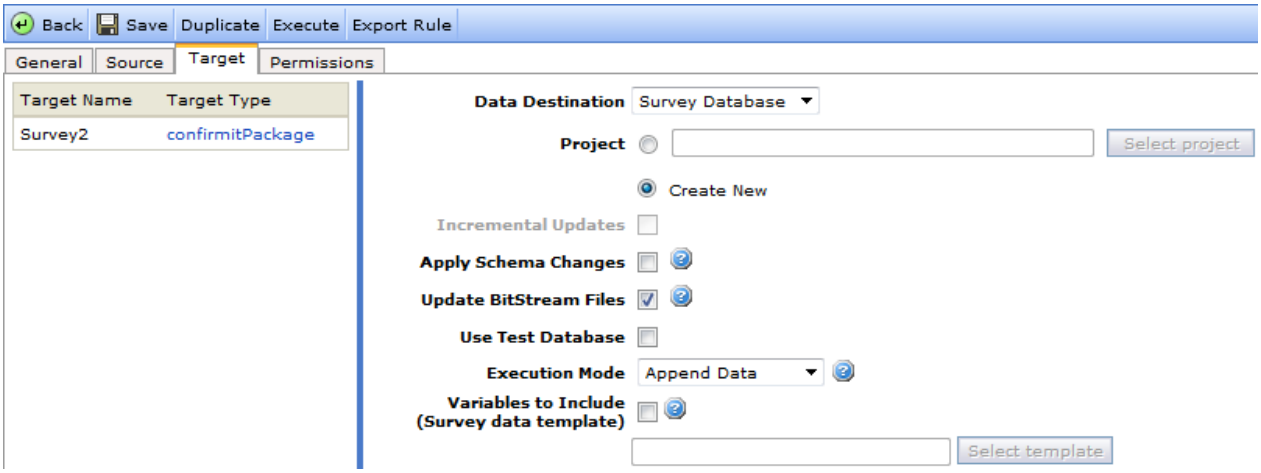


Figure 108 The Target tab when the target is a project

The data fields and options are as follows:

- **Data Destination** - when the selected target is a Confirmit project, the processed data can be sent to:
  - **BitStream Files** - BitStream files are generated.
  - **Survey Database** - a new project database is generated.
- **Project** - if you wish to use an existing project as the target, select this option and type in or select the project to be used.
- **Create New** - if you wish to create a new project to be the target, select this option. This option is selected by default when generating a new rule.
- **Incremental Updates** - only changed or new responses for the survey (since the rule was last executed) will be included.
- **Apply Schema Changes** - check this option if wish to merge schema changes into the target survey (note that it is not possible to merge hierarchical/loop changes).
- **Update BitStream Files** - check this box if you also wish to merge schema changes into the BitStream files.
- **Use Test Database** – check this box if you are testing the setup and wish to send the data to the test database.
- **Execution Mode** - select how the data is to be added to the target database.
  - **Append Data** - any records in the source that do not exist in the target survey database will be added to the target survey database. Any records in the source that already exist in the target survey database will be ignored.
  - **Update Data** - any records in the source that already exist in the target survey database will be updated with values from the source. Any records in the source that do not already exist in the target survey database will be ignored.
  - **Merge data** - all the data from the source will be added to the target survey database. Any records in the source that already exist in the target survey database will be updated, and any records in the source that do not currently exist in the target survey database will be added to the target survey database.

- **Variables to include -** if for example you have a Confirmit project which is to be processed in Data Central (perhaps you wish to perform a cleaning operation), the result after execution of the DC rule will be a new Confirmit project which contains the changes specified by the rule. If in addition you wish to specify the order of the questions or the column positions in this new project, you cannot do both within the rule. However you can build a template to choose the subset of data fields for your exports and arrange the columns (see How to Create a New Template on page 6 for more information), and then apply this template to the target. Check this box, then select the template you wish to use. Three template types are supported: Simple (Delimited), Fixed width and Punch card (see Template Types on page 3 for more information).

2.6.8.3.2. The Target Tab when the Target is a File

Use the Target tab to select the target for the data defined in the Source tab (see The Source Tab on page 96 for more information), and specify how the files are to be delivered (email or FTP).

The Target Types listed in the tab's left column are those defined in the specific Data Central project. Any number of outputs can be defined for a project, and these outputs can include data files, reports and log files. Data files can be SPSS, Quantum, SSSXML, SAS or Transposed. The properties available in the Target tab will depend on the type of data file and then the File Transfer type selected.

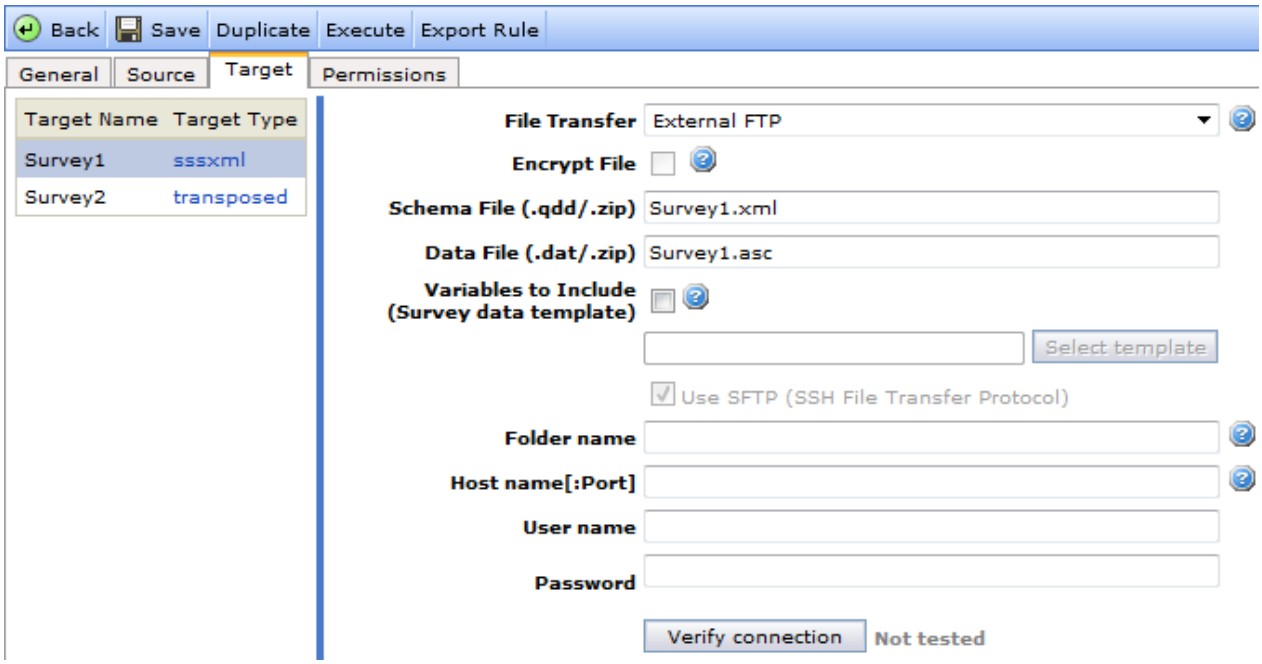


Figure 109 The Target tab when the target is a file

Note that the rule in the example is set up with two targets (in the left column). The SSSXML file type is currently selected, so the properties in the area to the right apply to that package. If you select the "transposed" file as the target type, the properties available will change.

- **File Transfer** - files can be transferred by email, placed on a Confirmit FTP server and retrieved from there, or imported from an external FTP server. The remaining properties will depend on which file transfer method you use:
  - **Email -** sends an email. The files' default names are given in the Schema File and Data File fields; edit these if necessary.
  - **FTP -** if your company has licensed the FTP add-on and it has been enabled, this option will be active. You can then send the file to Confirmit's FTP location. The files' default names are given in the Schema File and Data File fields; edit these if necessary. Confirmit's FTP address is specified as part of the enabling procedure and cannot be changed.

  - **External FTP -** the files can be sent to an external FTP location. The files' default names are given in the Schema File and Data File fields; edit these if necessary. In this case the, Folder Name (at the external FTP location), the Host Name, and the FTP User name and Password must be specified. The **Verify connection** button is provided to allow you to check whether the FTP settings are correct.

- **Encrypt file** - File transfer encryption functionality makes it possible to export data from Confirmit in a secure way. The encrypted files can then be either ordered by email or sent to the FTP server for downloading. The users will have to decrypt the files using their private PGP encryption keys. Refer to the user manual for further information. The setting will be disabled on the following cases:
  - Encryption is enforced due to company settings.
  - The public encryption key is missing.
- **Variables to include -** if for example you have a Confirmit project which is to be processed in Data Central (perhaps you wish to perform a cleaning operation), the result after execution of the DC rule will be a new Confirmit project which contains the changes specified by the rule. If in addition you wish to specify the order of the questions or the column positions in this new project, you cannot do both within the rule. However you can build a template to choose the subset of data fields for your exports and arrange the columns (see How to Create a New Template on page 6 for more information), and then apply this template to the target. Check this box, then select the template you wish to use. Three template types are supported: Simple (Delimited), Fixed width and Punch card (see Template Types on page 3 for more information).
- **Use SFTP -** select this option if you wish to use protected protocol SFTP (SSH File Transfer Protocol). Note that this option can be preset as a company setting, in which case it will be grayed out and will not be "deselectable".

2.6.8.4. The Permissions Tab

The user who creates a Data Central rule has full administrator rights to that rule. Initially, all other users have no rights; they cannot even see the rule in their rule list, until the creator has allocated the appropriate rights to them. The New Rule Permissions tab allows the creating user (you) to allocate access rights to the rule you are creating, to the various other users in the company. The tab lists all the users currently registered in your company and others who may have been added to the list.

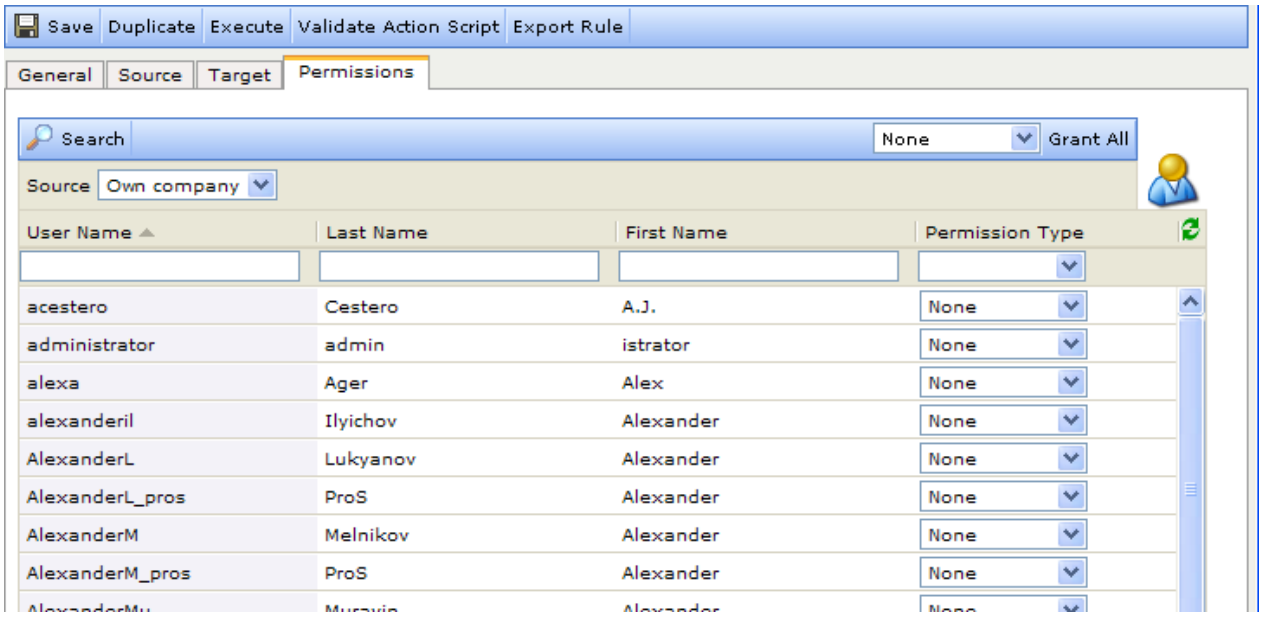


Figure 110 The Rule Details page - Permissions tab

1. For each user to whom you wish to allocate a permission, click the down-arrow in the Permission Type column to open the drop-down list of options.

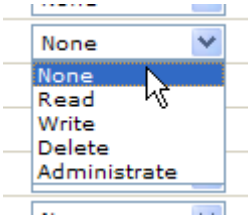


Figure 111 The permission allocation drop-down

2. Select the appropriate permission.

   The list closes and the selected option is added to the Type field.

3. On completion, save the changes.

The user names are listed 30 to a page. Sort the list by clicking on the column headers. Move to the next or previous pages in the list by clicking the Page arrows in the lower right corner of the list window. In the event the list of users is extensive, you can add search criteria to the various search fields then click **Search** to reduce the list to manageable proportions.

If all the employees in your company are to have the same permission level for the project, select the permission level from the drop-down list towards the right end of the Search toolbar, then click **Grant All**. All employees will then be given the selected permission.

2.7. The Expression Editor Window

Several of the dialogs within the Data Processing rules include an Expression field. This field allows you to create a filter expression such that only the data you require is included in the rule.

For example, say you would like to export only the records of female respondents. Assuming you have a question in the survey “What is your gender?”, with the answer options Male=1 and Female=2, you can generate an expression such as gender=2. When the rule is executed, the expression would remove any respondents with gender anything other than 2 from the data set. I.e. all males (with gender=1) would be removed, leaving only females.

You have two options when creating an expression; you can type the expression directly into the Expression field (on completion click **Validate** to check your code), or you can use the Expression Editor to assist you. To create an expression using the editor:

1. Click the **Edit** button located beside Expression field.

   The Expression Editor window opens.

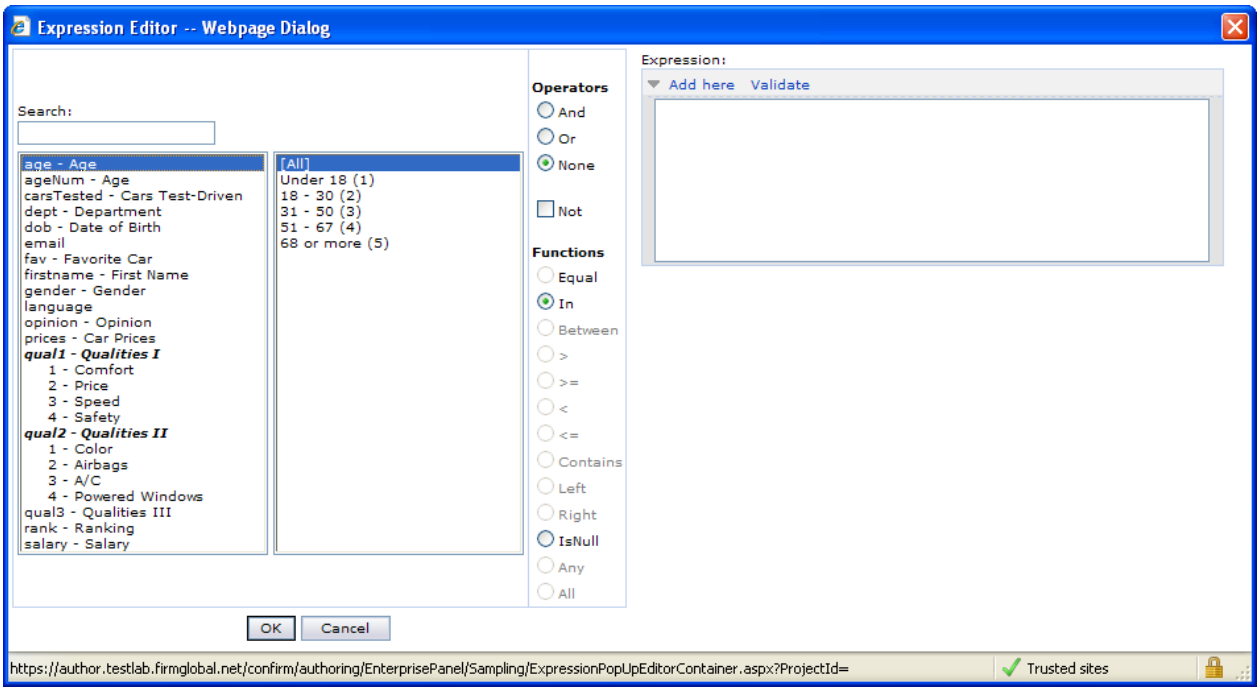


Figure 112 Example of the Expression Editor window

2. In the left column, search for or browse to the variable you wish to start your expression with, and click on it to select it.

   The Values or Parameters (depending on the variable type selected) that apply to the variable will be listed in the second column.

Note: The status, respid, responseid, interview_start, interview_end and CatiExtendedStatus system variables will not be displayed in the list, but they can nevertheless be used in the expression. The syntax varies depending on the type of the variable. For example, the CatiExtendedStatus variable is numeric so it will typed as CatiExtendedStatus=13.

3. Click on the required Value/Parameter to select it.
4. Select the radio button for the **None** operator (you cannot start an expression with the operators **And** or **Or**), and check the **NOT** box if required.
5. Select the appropriate function and type any text or values into the Text or Number fields as required.
6. Click **Add Here** to add the criteria to the Expression field.

   Note that the coding is displayed in the white text field and the expression is “written” below the field in full with colors to denote the functions.

6. Select and add criteria until you have the required expression.
7. On completion, click **OK** to apply the expression to the Expression field in the Rule Details pane and close the Expression Editor window.
8. Click **Save** to save the changes.

The expression is now part of the rule and will be used to filter the data as appropriate.

2.8. Combining the Data from a Large Number of Surveys

In scenarios such as Employee Pulse, hundreds or potentially thousands of surveys can have been created from a master template (library). In this case all the surveys can be using exactly the same question ids and answer codes, and are either an identical copy of the master or they contain a subset of the questions from the master. If you want to be able to report across many or all of the surveys, SmartHub's combined survey solution may not be able to accommodate this because the mapping definition will quickly exceed what can be supported due to of the number of surveys. (Note that the number of sources multiplied by the number of fields in a combined source in SmartHub should not exceed 5000.)

In this scenario, as the question ids etc. are identical and as there is no requirement for manual mappings, mappings are not necessary. It would therefore be simpler to use a recurring data processing rule, where the source comprises all the surveys that would be combined (typically using a keyword filter), and the target is a master survey that contains all the questions. Alternatively, you can use two data processing rules in a recurring rule set; one for respondent data and one for survey data, which would then allow you to report on response rates etc. in the combined data set.

Up until now, information on this combined data set regarding the source surveys has not been available, so you would have had to ensure that the relevant data was included in some background variables or similar. However additional fields have now been introduced into such surveys: **source_projectid** and **source_respid** for the respondent data, and **source_projectid** and **source_responseid** for the response data. These are automatically added by the hub loader on the first load for a new survey that has been populated by such data processing rules.

For existing surveys that have already been loaded to the hub, a full reload must be done first. Note that Operations can, on request, set a flag on the hub loader task to trigger a full reload on next load.

These fields will be available in Studio for reporting, but for the time being they will not be visible in the data source tree in Reportal as this would require the system variable handling process in Reportal to be changed.

Note: As these fields are added to the reporting database by the hub loader, they are not available in data editors or data export from the combined source; they are only available from reporting (Studio/Reportal).

3. Data Processing Scripting

Confirmit uses JScript .NET as its scripting language. The functions and methods available allow you to perform typical Data Processing tasks.

When the script is executed, the values are accessed and updated on a record by record basis. For example, the script is applied to all variables for the first respondent, then applied to all variables for the next respondent, and so on.

Refer to http://msdn.microsoft.com/en-us/library/x85xxsf4(VS.71).aspx for the full Jscript.NET. documentation. The Confirmit scripting manual provides a good introduction to Jscript.NET, however you should note that the scripting manual also covers a number of Confirmit-specific functions and objects. These are specific to scripting inside surveys only, and cannot be used in Data Processing scripts.

3.1. Data Types

In Action scripts you do not have to call a particular function to work with the survey variables, but can use the question IDs as variables directly. The survey variables are given below in bold text.

The following .Net Framework and JScript.NET data types are used for the various question types (note that for some there are differences between the Optimized and Legacy Database Formats):

- **Open text variables** (open text questions, other specify, multi open text) - String.
- **Single questions** and elements of **grids**:
  - Legacy Database Format - String
  - Optimized Database Format - Depends on the codes of the answer lists:
    - If the codes are numeric:
      - For codes up to 255 - byte
      - For codes up to 32767 - short
      - For codes up to 2147483647 . ,int
      - For codes up to approximately 10^{19} - long
    - If the codes include non-numeric characters - String
    - For boolean single questions - boolean
  - Elements of normal **multi** questions:
    - Legacy Database format - String
    - Optimized Database format - boolean
- Numeric questions (open numeric, elements of multi numeric) - Decimal
- Date questions (Optimized Database Format only) and date system variables (interview_start etc. on both database formats) - DateTime

3.2. Available Functions

Below is a list of the functions available in Data Processing:

Function	Description	Example
AddLogError(string message)	Adds an error message to the task log, highlighted with red error icon.	AddLogError(“Error”);

AddLogMessage(string message)	Adds a message to the task log, highlighted with information icon.	If (Gender == “female”)
		{
		AddLogMessage(“female found”);

		}
AddLogWarning(string message)	Adds a warning to the task log, highlighted with question mark icon.	AddLogWarning(“Warning!”);

Average(object[] values)	Returns the average of the specified values.	var avg = Average(“10”,15, Field1);
		if (avg >= 15.2)
		{
		MyAverageVariable = avg;
		}

CleanLoopRecords(string variableId)	Sets the value of the specified variableId to NULL for all answers in a question variableid with loop reference answerlist.	CleanLoopRecords("m1");
CurrentResponseId()	Returns an int containing the responseid of the current record.	If (CurrentResponseId() > 10) Gender = “female”;
DeleteCurrentResponse()	Permanently deletes the current response record from the survey database. Note: Survey database (same project) must be selected as Source and Target in the Data Processing rule, a filter must be applied in the Source Tab, and “Delete Data” must be selected as Execution Mode in the Target tab.	DeleteCurrentResponse()
DeleteCurrentResponseAndRespondent()	Permanently deletes both the current response record from the survey database and the corresponding respondent record from the respondent database. Note: Survey database (same project) must be selected as Source and Target in a Data Processing rule, a filter must be applied in the Source Tab, and “Delete Data” must be selected as Execution Mode in the Target tab.	DeleteCurrentResponseAndRespondent()
GetCodes(string formName)	Returns the codes of the specified question where the question uses a normal answerlist. This is not supported for hierarchy and table lookup questions.	var multiQCodes = GetCodes("multiQ");
GetQuestions()	Returns all questions which were selected as columns in the Data Processing rule.	
GetQuestionsByCategory(string category)	Returns all questions which have the question category specified as variable property and are selected as columns in the Data Processing rule.	var questions = GetQuestionsByCategory("NeedsCleaning");

GetQuestionsByType(QuestionType type)	Returns an array of QuestionInfo objects for all the questions of a specific type (Single, Multi, Grid, Numeric, Date, OpenText, OpenTextList, Ranking, NumericList). QuestionInfo objects has the following properties:
	string : Name,
	QuestionType : Type,
	string[] : Codes,
	string[] : Scale,
	string : Category
		var questions = GetQuestionsByType(QuestionType.Numeric);
		
		for (var i = 0; i < questions.length; i++) { var value = GetValue(questions[i].Name); }

GetScale(string gridFormName)	Returns the scales of the specified Grid question.	var scaleGrid = GetScale("gridQ");
GetValue(string fieldName)	Returns the value of the current respondent for a specified question.	var val = GetValue("singleQ"); var val = GetValue("multiQ_precode3");

IsNull(string fieldname)	Returns true if a variable doesn't have any data (null in the database), and false if not.	If (IsNull(“Gender”))
		{
		Gender = “male”;
		}

SendMail(string from, string to, string subject, string bodyText, string CC, string bcc, int mailFormat, int bodyFormat, int codepage)	Function for sending an email. Parameters are: • from: Message sender address • to: Recipient’s address • subject: Message subject line • bodyText: Message body • cc: cc address • bcc: bcc address • mailFormat: Deprecated, not in use • bodyFormat: Body format, where 0 = HTML, 1 = Plain text • codepage: Code page	SendMail("mymail@company.com", "yourmail@company.com", “Test email”, “Can you read this?”)?”,,,,1);
SetInterviewStatus(status)	Used for setting status, it will also update the system field "state" correctly, so that for example when switching from complete to incomplete, the respondent will be allowed to open the survey when "Allow recipient to re-enter a complete interview" is not set. SetInterviewStatus(status); where status is one of the predefined statuses in the InterviewStatus object: • InterviewStatus.Incomplete • InterviewStatus.Complete • InterviewStatus.QuotaFull • InterviewStatus.Screened • InterviewStatus.Error	SetInterviewStatus(InterviewStatus.Incomplete);
SetLoopRecord(string variableId, string iterationId, object value)	Adds or updates a loop record of current respondent with specified value for the specified variable in the specified loop iteration. The value used depends on the variable type. If the specified loop record already exists then it will be updated, if it doesn’t yet exist it will be added – it is not possible to do both for the same respondent record in the same action script. Note that nested loops are not supported.	SetLoopRecord("m1", "iter2", true); SetLoopRecord ("s1", "iter1", "singleAnswer3");

SetNull(string fieldname)	Used to assign the null value to a variable.	If (!IsNull(“Gender))
		{
		SetNull(“Gender”);
		}

SetValue(string fieldName, object	Sets the value of the current	SetValue("singleQ","precode1");

value)	respondent for a specified question. Depending of the question type, the value needs to be set accordingly. Example: If a Multi question is used the value needs to either set to true or false, if a Numeric question is used a decimal value can be applied.	SetValue("multiQ_2", true); SetValue("numericQ", 123.45); SetValue("dateQ", DateTime.Now);
SkipCurrentRecord()	Skips the record and moves to the next in the DP rule.	if (Gender=”female”) SkipCurrentRecord();
Weights(object[] fields)	Returns an array containing the weights for the given fields. The fields must be questions having a weighted answer list, otherwise the script will fail.	var weights = Weights(q1, q2, q3); var avg = Average (Weights);

Refer to the Confirmit Scripting manual for further information.

3.2.1. Database Designer Specific Functions

The following functions are specific to Database Designer:

Function	Description	Example
GetAdditionalColumnValue(string key, string columnName, int schemaId, int tableId, int languageId (optional))	Will return the value, in the specified language (default language, if not specified), of the additional column from table tableId in database designer schema schemaId for the given key. GetAdditionalColumnValue can be used to get extra information for a given key. For example, Get County for a given ZipCode.	GetAdditionalColumnValue(”10001”,”city”,23,53,9)
GetLookupId(string key, int schemaId, int relationId)	Returns the lookup Id from a relation relationId in database designer schema schemaId for the given key. Or null if not found.	var id = GetLookupId(“bmw”, 12, 23); CarId = id;
GetLookupLabel(string key, int schemaId, int realtionId, int languageId)	Returns the lookup label from a relation relationId in database designer schema schemaId for the given key.	var label = GetLookupLabel(“bmw”, 12, 23, 20); CarLabel = label;
GetLookupValue(string key, int schemaId, int relationId, int languageId (optional))	Returns a LookupValue object for the given key from a relation relationId in database designer schema schemaId. The objects label will be in the default language. If the key is not found, null is returned. The LookupValue object returned has Id and Label as properties.	var lv = GetLookupValue(“bmw”, 12, 23); CarLabel = lv.Label;
GetParentID(string key, int schemaId, int relationId)	When there is a relation with id relationID in a schema with id schemaId in Database Designer, GetParentID can be used to return the id of the parent of the item with id key. The function can be used both for relations between two different tables or a selfref (parent/child) within one table.	In a schema with schemaid 5, with a parentRel relation beween (Employee=>Org) with relationid 34. And the table employee has id English parentRel jd John Doe rd And the table Org has id English rd R&D

Function	Description	Example
		GetParentId (“jd”, 5, 34) will return “rd”
GetTableValue(string key, int schemaId, int tableId, int languageId (optional))	Will return the value (answer label) of the key in the given language from table tableId in database designer schema schemaId (default language, if languageId not specified). Returns string, or null if not found.	var answerLabel = GetTableValue("8",4223,9);
IsTableKeyValid(string key, int schemaID, int tableId)	Will check if the given key exists in table tableId in database designer schema schemaId. Used to validate if a key specified on a respondent actually exists in the database table. Returns bool, true if key exists in table, false if not.	if (IsTableKeyValid("zip1245", 14, 255)) { MyEnglishZipCodeLabelVar = GetTableValue ("zip1245", 14, 255); //Uses default language, which in this example is English MyNorwegianZipCodeLabelVar = GetTableValue ("zip1245", 14, 255, 20); }

3.2.2. Panel Specific Functions

The following functions add a record to a Panel’s CreditTransactionHistory. CreditTransactionType can be: Normal, Correction, Error, Expiry.

```
AddCreditTransaction(CreditTransactionType transactionType, int credits);

AddCreditTransaction(CreditTransactionType transactionType, int credits,
string surveyId);

AddCreditTransaction(CreditTransactionType transactionType, int credits,
string surveyId, string sectionId);

AddCreditTransaction(CreditTransactionType transactionType, int credits,
string surveyId, string sectionId, string comment);

AddCreditTransaction(CreditTransactionType transactionType, int credits,
string surveyId, string sectionId, string comment, string[]
customFieldNames, string[] customFieldValues);

AddCreditTransaction(int credits);

 AddCreditTransaction(int credits, string surveyId);

 AddCreditTransaction(int credits, string surveyId, string sectionId);

AddCreditTransaction(int credits, string surveyId, string sectionId,
string comment);

AddCreditTransaction(int credits, string surveyId, string sectionId,
string comment, string[] customFieldNames, string[] customFieldValues);
```

For example:

```
AddCreditTransaction(CreditTransactionType.Normal,500);
```

adds a record to CreditTransactionHistory with TransactionCredit set to 500 and TransactionType set to Normal (answer code 1).

3.3. Working with Open Text Variables

In the following examples, an Open Text question as in q2 of the Car study is used.

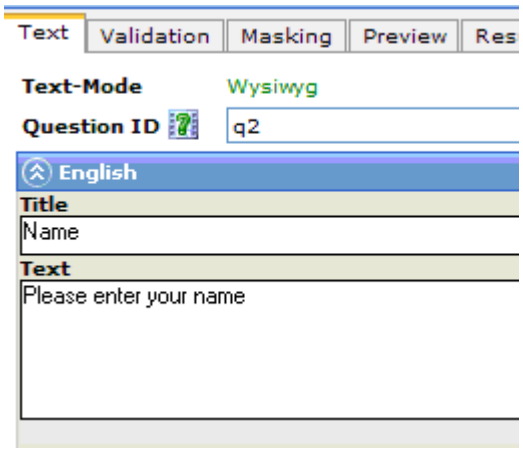


Figure 113 Example of an Open Text question

Search for Open text answers

If you wish to search for specific names or character combinations in the question q2, you could use the following expression:

```
if (q2.Contains("name1")) { }
```

Using this example you would search for “name1” in variable q2. Inside the final brackets you would usually specify an action that would be performed if “name1” is found in a given answer. You could for example replace the found text with a different one, or set a value for another variable.

You can also search for specific texts at the beginning or end of a given answer:

```
if (q2.StartsWith("a") || q2.EndsWith("z")) { }
```

This expression would search for “a” at the beginning of the given answer and “z” at the end of the given answer.

Replace Open Text answers

If you would like to replace the given answer with a different text, you could use the following expression:

```
if (q2.Contains("name1"))
{
q2 = q2.Replace ("name1", "new name");
}
```

In this example, “name1” would be replaced by “new name”.

3.4. Working with Open Text Numeric Variables

An Open Text Numeric question could for example ask for the respondent's salary:

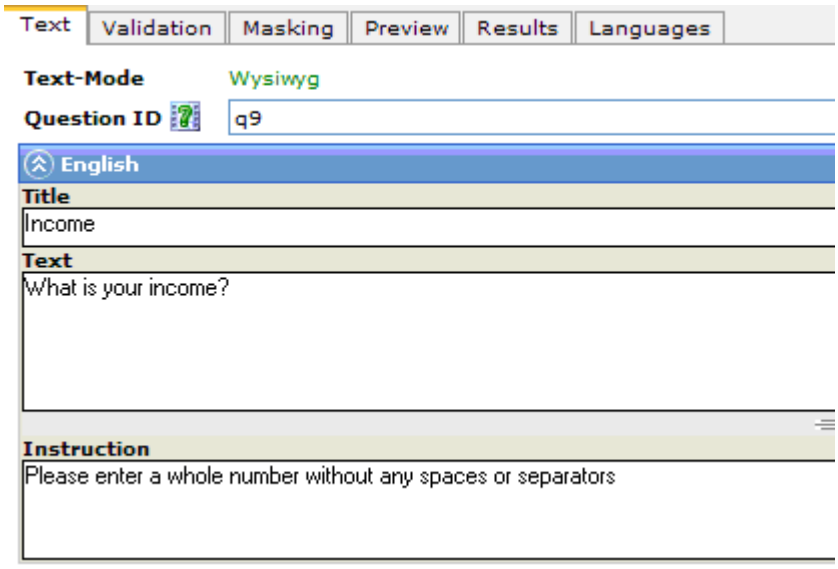


Figure 114 Example of an Open Text Numeric question

If you would like to check for an income higher than a certain amount, for example $20000, you could write:

```
if (q9 > 20000) { }
```

Inside the brackets you must specify the action that should be executed if a respondent gives a higher income. If you would like to calculate for example a new income and overwrite the existing value:

```
if (q9 > 20000)
{
q9 = q9 * ( q9 / 33);
}
```

3.5. Working with Single Questions

Question q4 of the car survey asks for the respondent's age. The answer options are:

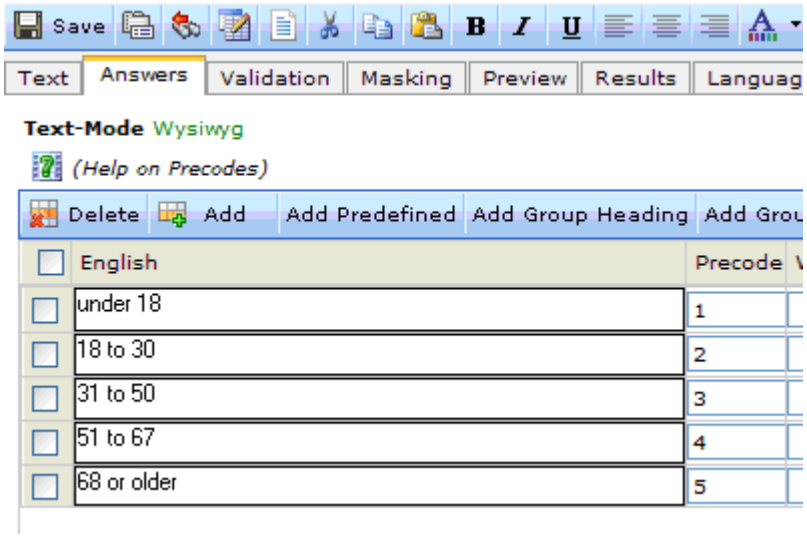


Figure 115 The q4 answer options

If you wish to check whether a respondent selected “under 18” or “68 or older”, you would write the following:

```
if (q4 == "1" || q4 == "5") { }
```

In the event a respondent belongs to this group, you could for example order a recoding of the variable such that this record is flagged for further investigation.

```
if (q4 == "1" || q4 == "5")
{
NeedsCheck = "2"; //Not ok
}
else
NeedsCheck = "1"; //ok
```

In this example, the variable NeedsCheck would indicate whether a record needs further validation, and could be used as a filter to filter out those records.

3.6. Working with Multi Questions

Question q5 of the car survey is a Multi question that asks, “What cars have you test driven?”.

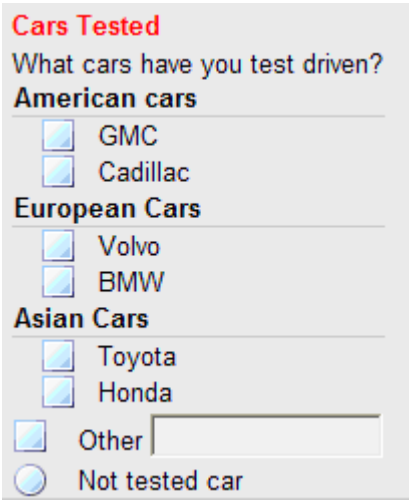


Figure 116 The q5 answer options

The codes on the cars here are 1,2,3,4,5,6 (in the order shown).

Check specific answers in Multi question

If you wish to perform specific checks in this Multi question,for example to check if only one of the six car brands was selected, you would use the following expression:

```
if (parseInt(q5_1) + parseInt(q5_2) + parseInt(q5_3) + parseInt(q5_4) +
parseInt(q5_5) + parseInt(q5_6) == 1) { }
```

If you wish to check if for example either GMC OR Cadillac was selected:

```
If ( q5_1 == "1" || q5_2 == "1" ) { }
```

Set a value in a Multi

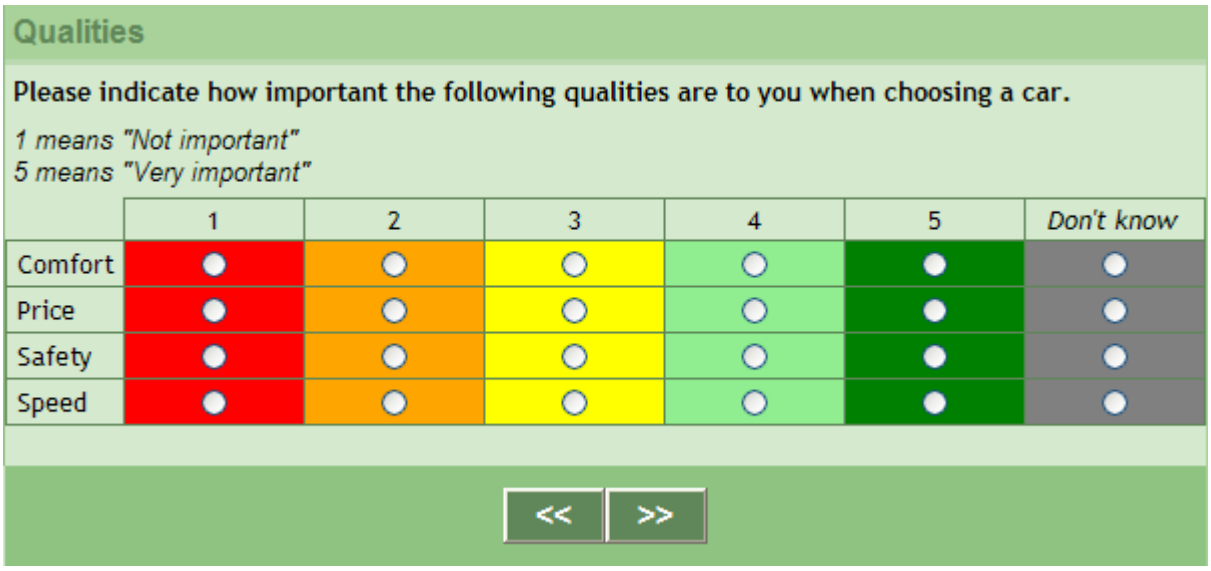
For setting specific answers in a Multi question, you set 0 for "not selected" and 1 for "selected".

```
q5_1 = q5_2 = "0";
q5_3 = "1";
```

This would set GMC and Cadillac to "not selected", and Volvo to "selected", while other answers will remain unchanged.

3.7. Grids and 3D Grids

There may come a time when you need to access a grid, as for example question q6 of the car survey which asks, "Please indicate how important the following qualities are to you when choosing a car".



Perhaps you wish to know whether "Not important" (answer option 1) was selected for the "Price" question. In this case you could write:

```
if (q6_2 == "1”)
{
q6_2 = "3"
}
```

Within the brackets you can place other examples for recoding a variable. For example in a 3D Grid which contains a Multi, a Single and a Grid question, you can check for individual questions by using:

Multi: `if ( q12_3 == "1" )`

Single: `if ( q13 == "4" )`

Grid: `if (q14_3 == "4" )`

3.8. Working with interview_start and interview_end

When a respondent enters a Confirmit interview, a variable called interview_start is set with the exact time and date. Similarly, the interview_end variable is set when the interview is finished. In some cases it may be useful to access those variables, for example when changing different parts of the date.

You can set different parts of the date as year, month and day or set to actual date of both variables:

```
var IS : DateTime = interview_start;
if ( IS.Month == 10 )
{
interview_start = new DateTime (IS.Year, 9, IS.Day, IS.Hour, IS.Minute,
IS.Second);
interview_start = DateTime.Now;
interview_start = new DateTime (2008, 10, 10);
}
```

3.9. Post Scripts

Post Scripts are actions that are executed after all other actions are performed. Typical examples can be when information is written in the Log Window for checking purposes or sending via email. You could have in your Post script section the following expression:

```
var l1 = noAgeCounter + " respondents have not answered Age.";
AddLogMessage (l1);
```

This expression would log the content of noAgeCounter. You would use noAgeCounter in Scripts as :

```
if (IsNull ("q4"))
{
++noAgeCounter;
}
```

In this example **noAgeCounter** would increment each time q4 is not answered. When executing the rule the entry would be displayed as below:

(8:25:06 AM) Initiating task: Rule Executor

(8:25:35 AM) 9 respondents have not answered Age.

Another example for a Post Script is the sending of emails. This could be achieved using the following expression:

```
SendMail("myemail@myemail.com", "youremail@youremail.com", "Subject: Rule
Result", "Body: \r\n" + l1 + "\r\n" + l2);
```

3.10. Validating and Executing the Script

To validate the script and check it for compilation errors, click the **Validate Action Script** button. If any errors are found, they will be listed in a separate window. The locations of the errors, in the form of line and column numbers, are also provided to assist you in correcting the errors.

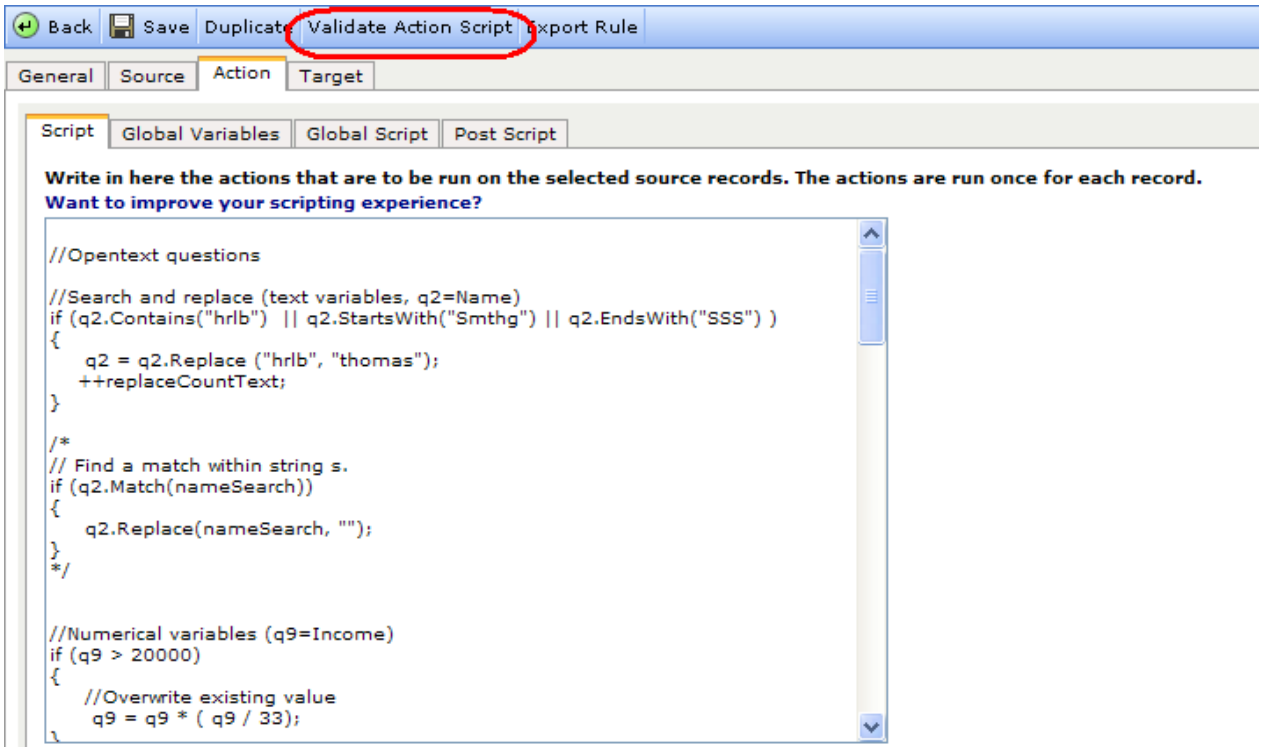


Figure 117 Validating an action script

After finalizing and for checking purposes, you can execute your script by clicking **Execute**. The Rule execution properties dialog opens. Here you can select whether the rule is to be executed ASAP, scheduled for later execution, or setup as a re-occurring task (see How to Execute a Rule on page 42 for more information).

3.11. Action Tab Script Examples

Note: Confirmit uses the Syntax Highlighter functionality. The syntax highlighter is enabled by default in all areas where scripts can be written. To disable the syntax highlighting, check "Disable script highlighting" in the User Settings overlay. When the syntax highlighter is in use, each time the Tab key is pressed, the line of script is indented one step. Each press of the Shift-Tab keys removes one indent from the line. Note that the Tab key does not insert a tab in the text. Refer to the Authoring User Guide for further details.

The first example incorporates the use of Global scripts and Action scripts.

For Global script, the defined script will be executed once before the action script is started. In this case the Global script initializes a Customer Code Library, and this needs to be done before the script can retrieve information.

Cross-referencing city name and zip-code

The Customer Code library used in this example contains the details of which zipcode belongs to which city. The cross-references between city names and their appropriate zip codes are stored in a look-up table (Hashtable), which must be declared as a global variable.

The actual script can use this information as a look-up table, so in the survey, when for example a question only asks for the zipcode, the City name can automatically be retrieved.

The following code must be added to the Global Variables tab:

```
var zipCode2CityMap : Hashtable;
```

And to the Global Script tab could be added:

```
zipCode2CityMap = MyCustomCodeLib.GetZipCode2CityMapping();
```

To the Script tab add:

```
var zipCode = ZipCodeVariable;
var city = zipcode2CityMap[zipCode];

CityVariable = city;
```

Calculating numeric age and age-band

This script takes the respondent's date of birth (in this case it has been entered as three separate questions – day, month and year) and calculates a numeric age and age-band.

```
if(!IsNull("Year_1"))
{
var year = Year_1;
var month = Month_1-1;
var day = Day_1;

var birthday= new Date(year,month,day);

var today = new Date();
var years = today.getFullYear()-birthday.getFullYear();

birthday.setYear(today.getFullYear());

// If your birthday hasn't occurred yet this year, subtract 1.
if(today.valueOf() < birthday.valueOf())
{
years=years-1;
}
agenum = years;

if (agenum>=16 && agenum<=24)
{
Agebands="1";
}

if(agenum>=25 && agenum<=34)
{
Agebands="2";
}

if(agenum>=35 && agenum<=44)
{
Agebands="3";
}

if(agenum>=45 && agenum<=54)
{
Agebands="4";
}

if(agenum>=55 && agenum<=64)
{
Agebands="5";
}

if(agenum>=65)
{
Agebands="6";
}

}
```

Importing data from single questions into a grid

This scenario might be important when data is imported from a data source that has no concept of Grids, but we want to import the data to a grid in Confirmit so it can be used for example in Reportal.

The action script may be followed by some explanations in the comments (// in front of the text). In this scenario, the external data source has three single questions (Comfort, Price and Color) which are to be imported into a grid (Qualities) containing three answers (Comfort, Price and, Color) in the Confirmit survey.

```
// The external data source contains 3 single questions: Comfort, Price
and Color

var singles = ['Comfort','Price','Color'];

// The grid "Qualities" in the Confirmit survey contains 3 answers with
the following codes: Comfort, Price, Color

var gridCodes = ['Comfort','Price','Color'];

// A loop iterates 3 times in this case since the array contains 3
questions

for (var i = 0; i < singles.length; i++)
{

// if the value of the current respondent of the individual single
variable is null the individual grid variable will be set equally to null
//if the value of the current respondent of individual single variable is
not null , the value of the single variable will be set to the individual
grid variable

var singleVariable = singles[i];
var gridVariable = 'g1_' + gridCodes[i];
if (IsNull (singleVariable))
SetNull(gridVariable);
else
SetValue (gridVariable, GetValue(singleVariable));
}
```

Setting a group of variables to NULL

If you want to set the value of all respondents of a group of variables to NULL, you can do this with the following script:

```
// Generate an array with the questions you would like to set to NULL

var variables = ['q1','q2','q3','q4'];

// loop iterates through all questions from the array

for (var i = 0; i < variables.length; i++)
{

// variables will be set to Null

SetNull (variables[i]);
}
```

Copying a multi question into a different multi question

If you want to set the values of the current respondent of one multi variable (source) to a different multi variable (target), this could be accomplished with the following code:

```
// Generate an array with the codes of the source multi question

var sourceCodes = [‘1’,’2’,’3’];

// Generate an array with the codes of the target multi variable

var targetCodes = [‘a’,’b’,’c’];

// loop iterates through all codes from the array

for (var i = 0; i < sourceCodes.length; i++)
{
var sourceVariable =’m1_’ + sourceCodes[i];
var targetVariable =’m2_’ + targetCodes[i];

// if the value of the current respondent of the multi variable (source)
is null the target multi variable will be set to null
//if the value of the current respondent of the multi variable (source)
is not null, the value of the multi variable (target) will be set to the
value of the multi variable (source)

if (IsNull (sourceVariable))
{
 SetNull(targetVariable);
}
else
{
 SetValue (targetVariable, GetValue(sourceVariable));
}
```

Aggregating codes from several single questions into a multi question

In this case, Q1 is a hidden multi question, while Q2, Q3 and Q4 are single questions that share the same answer list (codes) with Q1. The script will aggregate the codes from Q2, Q3 and Q4 in the multi question.

```
// Generate an array of all the codes available in q1 which will be used
for the loop

var codes = GetCodes("q1");

// E.g. If q1==1 or q2==1 or q3==1 then q1_1 is set to true. The loop
will iterate through all codes.

for(var i=0;i < codes.Length; i++)
{
 if (q2==codes[i] ||q3==codes[i] || q4==codes[i])
 {
 SetValue('q1_'+codes[i], true);
 }
}
```

Copying the data from questions

This is an example of a script that will copy the data from questions labeled H1 to h1.

```
var H1q = GetQuestionsByCategory("H1");
// this creates an array of all the questions with H1 in Question
Category (question properties)

// this will loop through the questions copying the data if the question
has an answer.
for (var i=0;i<H1q.length;i++)
{
 var q = H1q[i]

 if (GetValue(q.Name)>0)
 {
 h1=GetValue(q.Name)
 }
}
```

3.12. Questions and Answers

This section contains a few frequently-asked questions, and answers to those questions.

1. My source is file import to target survey db. I don't select columns in Source. By selecting columns in Target – would that mean that only those selected columns are imported/updated?

   When your source is a file, you do not have the option to select a column in the Source tab. However by selecting columns in your Target tab, only the questions that have been selected will be imported/updated regardless of how many other questions you may have in your upload file.

2. My Source and my Target are both Survey dbs. I select columns in the Source on which some calculations/actions are to be performed. I do not select any columns in the Target. Will only the columns selected in the Source be updated in the Target, or will all columns be updated because I didn't select which ones were to be updated in the Target?

   Only the columns that are selected in your Source tab will be updated with any action/calculation you may have performed in the Action tab.

3. My Source and my Target are both Survey dbs. I do not select any columns in the Source (and no action), and my Target is a different Survey db. If I select columns in the target, does this determine which columns are imported/updated?

   If you do not select any columns in your Source tab and only select in your Target tab, only the columns selected in your Target tab will be imported/updated in the database. You will notice that once you have selected columns in the Target tab, if you go back to the Source tab the "Inherit from Target" property is automatically selected and the "All columns" option will no longer be available. So by default, if you do not specify any columns in the Source tab, it will inherit the details from the Target tab.

4. My Source and my Target are both Survey dbs. I select columns in the Source on which to perform some calculations/actions. I select different columns in the Target tab. Will any data be updated?

   If you have different questions selected in your Source tab and Target tab, when you run the rule you will be presented with an error message saying that the columns selected in the Source do not exist in the Target. You can however override this by selecting "Allow variables in source schema template that do not exist in destination schema template" under the General tab. This will allow the rule to execute, but NO data will be updated since it will not be able to find any matching columns/questions to update in the destination/target schema/tab. Also, you will notice that ONLY the Source columns are available for scripting in the Action tab.

4. Technical Details

The following sections provide further technical details.

4.1. Survey Source

The Confirmit Survey Source reads responses from one or more surveys. Multiple surveys can be chosen either by selecting them from a list of surveys, or by setting a keyword filter. The keyword filter will match any survey that is assigned a particular category/keyword in the Project Overview page in Confirmit. Refer to the Authoring User Guide for more information.

Incremental Updates

The source supports incremental read mode. This means that only changed or new responses for a survey (since the rule was last executed) will be included in the buffer. The matching is based on the "last touched" column in the response control table. If this value is later than the last executed time for the rule (for this particular survey), then the response is included in the buffer.

Note: Incremental Updates are only applicable to recurring tasks - non-recurring tasks will include all data subject to the data filters on the Source tab.

Note: This setting will have no effect in a rule with the same source/target survey ids where Execution Mode is set to 'Update Data' because the previous execution of the rule will have updated the 'last touched' column and therefore on the next execution the records will be included again since their 'last touched' value is later than the previous execution of the rule.

Multi Source Surveys

When selecting multiple survey sources using the keyword filter, new surveys may be included that were not part of the source during the previous execution. For these new surveys, all responses will be read, even if the source is set to incremental read mode, as they will not have been synchronized before. The multiple-survey source will transfer data from one survey at a time. If a transfer for a survey fails, the task will be aborted.

Survey data will not be removed from the destination, even if the survey is removed from Confirmit. The only way to remove the data is to clean the destination and to schedule a complete transfer of all sources.

Note: Executing the rule for Multi Source Survey transfers requires considerable resources and it will take a considerable time to run (in extreme cases several hours). In addition, Confirmit cannot guarantee that Multi Source Surveys including more than 20 surveys will function correctly. Multi Source Survey transfers should therefore be limited to a maximum of 20 surveys.

Uncommitted Reads

In order to achieve maximum performance, the Confirmit Source will read uncommitted data and will not use any transactional locking mechanisms.

4.2. Survey Target

The Confirmit Survey Target writes data from one of the supported sources. It uses two different modes for matching rows:

- With a Confirmit Survey as the source, it will use the rowguid in the response control table to match the rows.
- When a Triple-S data file is being imported to Survey Data, if the user selects responseid as the key field then it will be used.

The target will identify whether the row is a new row or an existing row. In the event the row is new, the target will create a new response with corresponding response control values. If the row exists, the target will update the values for the columns provided.

Bulk Inserts and Table Updates

To improve performance, the Confirmit Survey Target will first perform a bulk insert of all the data into a temp table. The target will then identify which rows are new and which rows already exist in the survey. The process of moving (insert or update) the data from the temp table to the actual response tables completes the procedure.

4.3. Validation Rules

Survey Data schemas (templates) hold the meta information about target and source: Which variables are to be read from the source and updated in the target, the variable types, answer lists etc. When running a rule, with data flowing from the source to the target, some validation must be done to verify that the schemas match.

There may be different templates for source and target, and there may be differences between the templates and the survey databases when the source or target is a Confirmit survey database. When a rule is run, three basic validation checks are performed:

1. If the source is a Confirmit database and a template is used, the source database is checked against the template.
2. The source template is compared with the destination template.
3. If the target is a Confirmit database, the target database is checked against the template.

These three checks are run for both the variables (questions) and the answers in the data file. As one of the main benefits of using the templates is to reduce the number of variables processed in the data processing rule to optimize performance, it is not an issue if there are more variables in the survey database than are described in the template. This process reduces the volume of data to be transferred and thereby speeds up the export/import task. However the following situations may cause issues and will be default make a data processing rule abort:

- **The template used in the source lists more variables than are available in the source database.**

  By default, if this validation returns an error, the data processing rule execution will abort. However you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. Variables that are missing in the source database will then be available in the source template, but will be empty (no values).

- **The answer lists in the Survey Data template used in the source do not match the answer list in the source survey database.**

  By default, if this validation returns an error, the data processing rule execution will abort. However, you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. The values stored for these variables will then be read even though they do not match the answer list in the template.

- **The variable type in the template used in the source does not match the variable type defined in the source database.**

  If this validation returns an error, the data processing rule execution will abort. This validation can not be overridden.

- **The template used in the target lists more variables than are in the target survey database.**

  By default, if this validation returns an error, the data processing rule execution will abort. However, you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. No attempt will be made to write anything into the target database for variables that do not exist in the database.

- **The answer lists in the template used in the target do not match the answer list in the target survey database.**

  By default, if this validation returns an error, the data processing rule execution will abort. However, you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. The rule executor will then write the values to the database even though there is a mismatch between the answer list in the template and the database.

- **The variable type in the template used in the target does not match the variable type defined in the target database.**

  If this validation returns an error, the data processing rule execution will abort. This validation can not be overridden.

For a rule with a survey database in both the source and the target, it is possible to specify different Survey Data templates for the source and the target. For other combinations, the template will either be inherited from source to target (as in Triple-S import to survey database) or inherited from target to source (as in Triple-S export from survey database). With both a template for source and a template for target, the following situations may cause issues:

- **The template used in the target lists more variables than the template used in the source.**

  By default, if this validation returns an error, the data processing rule execution will abort. However, you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. Variables that are missing in the source template will then be empty (no values).

- **The answer lists in the template used in the source do not match the answer list in the target template.**

  By default, if this validation returns an error, the data processing rule execution will abort. However, you can override this rule and log a warning instead of aborting the task, or even switch off this validation check completely. The rule executor will then write the values to the database even though there is a mismatch between the answer list in the two templates.

- **The variable type in the template used in the source does not match the variable type defined in the target template.**

  If this validation returns an error, the data processing rule execution will abort. This validation can not be overridden.

As mentioned, for some of the validations, you have three possible choices:

a) An error is raised and the process stops (strict handling) - this is the default setting and will apply if you do not make any other selections.

b) You can switch off validation and allow the process to continue - check the **Allow variables ...** and/or **Allow answers ...** boxes (see the figure below).

c) You can choose that the process continues but also display a warning - check the **Allow variables ...** and/or **Allow answers ...** boxes and also the appropriate **Show warning** boxes (see the figure below).

You make these selections in the **Validation setting** properties on the Source (see Source Type > Survey Database on page **Error! Bookmark not defined.** for more information), the Target (see Target Type > Survey Database on page **Error! Bookmark not defined.** for more information) and the General (see The General Tab on page **Error! Bookmark not defined.** for more information) tabs for the Current Rule in the event the source type selected is Confirmit Survey Data.

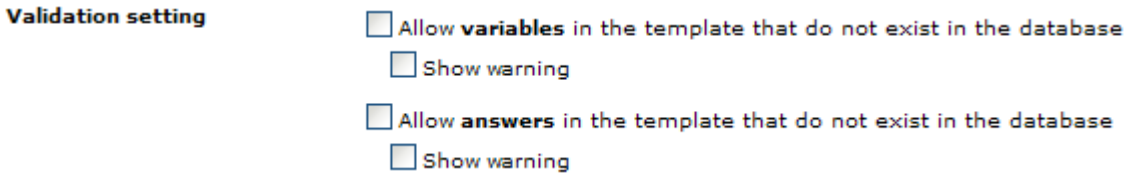


Figure 118 The Validation Setting options

The validation process will be performed before the SSIS package (rule) is executed. If a survey does not conform to the schema and the default settings are in force, data for the survey will not be transferred and a warning will be recorded in the log.

Note: All the variables in the source and target must be of the same type. This requirement may not be overridden.

4.4. The Bitstring Format

Data is recorded with one character per category of the corresponding variable. A character '1' is used to signify that a category has been selected, a character '0' signifies that a category is not selected. The category value refers to the relative position of the 0/1 code in the data field: thus a category value of 9 will always refer to the code in the 9th location of the data field even if some lower category values have not been defined. An import program should ignore the locations of undefined category values.

The data field length is the highest category value in the associated <value> or <range> elements. This means that with for example nine category values, nine fields in the data will be used. Using this storage type, Multi variables with long category lists will require a large data field length. In these cases you are recommended to use Spread instead (see The Spread Format on page 123 for more information). This can be selected as Multiple format when generating the template, or assigned to one particular variable or a group of variables in the Template Editor.

If the data field length is less than the <position> element then it is assumed to be left-justified within the locations defined by the position. Export programs should ensure that any extra columns contain blanks or zeros.

Note that in a CSV data file, any data field representing a bit-style multiple which begins with "0" (zero) should always be delimited with double-quote characters. For example, for Triple-S XML version 2.0:

Data value	Maximum in <values> element	<position> element	Data record b=space, x=space or zero
1	1 to 9	start="21" finish="29"	100000000
1	1, 2, 3 and 9	start="21" finish="29"	100xxxxx0
1,3	1 to 12	start="21" finish="32"	101000000000
none	1 to 99	start="21" finish="120"	000000000...0
2,8	1 to 9	start="21" finish="30"	010000010b or 0100000100
2	1, 2, 3 and 9	start="21" finish="24"	illegal
missing	1 to 9	start="21" finish="29"	bbbbbbbbb
missing	1, 2, 3 and 10	start="21" finish="30"	bbbxxxxxxb
1	1 to 9	start="5" (csv format)	100000000 or "100000000"
2,8	1 to 9	start="5" (csv format)	"010000010"

4.5. The Spread Format

The Spread format will generate a Triple-S XML template in which data is recorded as a series of sub-fields each containing one category value of the variable. The category value is recorded as an integer number as described in the <values> element. The number 0 should be used to represent sub-fields that are not needed.

The data sub-field length is the minimum number of characters required to represent the largest value in the values block. Thus variables with values up to 9 have a data sub-field one character long, variables with values up to 99 have a data sub-field length of 2, and so on. If any particular data value requires less than the maximum for the sub-field, it should be right justified using leading space or zero characters as padding. Data values may be stored in any or all sub-fields.

If the data sub-field length is less than the sub-field defined in the <spread> element then it is assumed to be right justified within the width defined in the spread. Export programs must ensure that extra columns contain blanks or zeros within the sub-fields.

If the total width of the sub-fields is less than that defined in the <position> element, then the sub-fields are stored consecutively, left-justified within the locations defined by the position. Export programs must ensure that any extra columns contain blanks or zeros. For example, for Triple-S XML version 2.0:

Data value	Maximum in <values> element	<spread> element	<position> element	Data record b=space
1	1 to 9	subfields="2" width="1"	start="21" finish="22"	10 or 01
1	1, 2, 3 and 9	subfields="2" width="1"	start="21" finish="22"	10 or 01
1,3	1 to 9	subfields="2" width="1"	start="21" finish="22"	13
1	1 to 9	subfields="2" width="2"	start="21" finish="24"	b1b0 or b0b1 or 0100 etc

none	1 to 9	subfields="2" width="1"	start="21" finish="22"	00
2	1, 2, 3 and 9	subfields="2" width="1"	start="21" finish="24"	20bb or 02bb or 2000 etc
1,42	1 to 999	subfields="2" width="3"	start="21" finish="26"	001042
missing	1 to 999	subfields="2" width="3"	start="21" finish="26"	bbbbbb
1	1 to 9	subfields="2" width="1"	start="4" (csv format)	1 or 10 or "10" or "01"
1	1 to 99	subfields="2" width="2"	start="4" (csv format)	"0100" or "0001"

4.6. Confirmit Tags

Confirmit has introduced extensions to the Standard Triple-S XML to facilitate internal Data Processing processes. If you wish an overview over the Standard definitions, go to the Website of the Triple-S Consortium.

http://www.triple-s.org/.

The extensions can be identified in the Triple-S XML with the prefix **confirmit:**

A list of the introduced extensions is available in Appendix A (see Appendix A: Introduced Extensions on page 125 for more information).

Confirmit accepts numbers, letters and underscore (_) in codes on Multi questions, but the Triple-S multiple variable type only accepts numeric codes. On Multi questions with non-numeric characters in the codes, the codes will be recoded into numeric characters for the Triple-S codes in the answer list (both in schema and data).

Note: If you only ever use numeric codes in Multi questions, you will avoid this issue.

However, when moving data between Confirmit surveys, or out of Confirmit for external changes and then back in to a Confirmit survey again, the link to the original codes in the Confirmit survey must be retained. Confirmit has therefore made an extension to Triple-S. A multiple variable with non-numeric codes will then look as follows in the schema (template) file:

```
<variable ident="1" type="multiple">
<name>q1</name>
<label>Car brands</label>
<position start="100" finish="105" />
<values>
<value code="1" confirmit:precode="a">Ford</value>
<value code="2" confirmit:precode="b">Chrysler</value>
<value code="3" confirmit:precode="c">Volvo</value>
<value code="4" confirmit:precode="d">BMW</value>
<value code="5" confirmit:precode="e">Honda</value>
<value code="6" confirmit:precode="f">Toyota</value>
</values>
</variable>
```

You may choose not to include these Confirmit tags in the file in case it causes issues for some importers. To do this, use the Triple-S XML (Standard) export box when exporting a template (see How to Export a Template on page 13 for more information).

Appendix A: Introduced Extensions

Confirmit has introduced extensions to the Standard Triple-S XML to facilitate internal Data Processing processes. If you require an overview over the Standard definitions, go to the Website of the Triple-S Consortium:

http://www.triple-s.org/.

Export to Triple-S XML changes	Confirmit extensions
confirmit:routingid	
confirmit extensions :formtype	confirmit:formtype="numeric" confirmit:formtype="opentext" confirmit:formtype="date" confirmit:formtype="time" confirmit:formtype="single" confirmit:formtype="multi" confirmit:formtype="ranking" confirmit:formtype="numericlist" confirmit:formtype="opentextlist" confirmit:formtype="grid"
confirmit extensions :formlabel	confirmit:formlabel="TextForSingle"
confirmit extensions :questioncategory	confirmit:questioncategory="qCat4Single"
confirmit extensions:precode	confirmit:precode="SingleOther"
confirmit extensions :other	confirmit:other="true"
confirmit extensions: source	confirmit:source="p0205105"
confirmit extensions: formname	confirmit:formname="interview_start" confirmit:formtype="date" confirmit:formname="interview_start" confirmit:formtype="time" confirmit:formname="interview_end" confirmit:formtype="date" confirmit:formname="interview_end" confirmit:formtype="time" confirmit:formname="last_touched" confirmit:formtype="date" confirmit:formname="last_touched" confirmit:formtype="time" confirmit:formname="lastcomplete" confirmit:formtype="date" confirmit:formname="lastcomplete" confirmit:formtype="time"
confirmit extensions: loopid	confirmit:loopid="l1"
confirmit extensions:parentname, parentlabel, parenttype	variable ident="36" type="character" confirmit:formname="q15" confirmit:formlabel="Text for Open Text List inside 3DGrid" confirmit:formtype="opentextlist" confirmit:parentname="g10" confirmit:parentlabel="3DGridText" confirmit:parenttype="3Dgrid" confirmit:questioncategory="QCopenTextListIn3DGrid" confirmit:source="p0205105" confirmit:precode="3dgridPre1">

Appendix B: List of Data Processing Examples

Example

1. Cross-referencing city name and zip-code
2. Calculating numeric age and age-band
3. Importing data from single questions into a grid
4. Setting a group of variables to NULL
5. Copying a multi question into a different multi question
6. Aggregating codes from several single questions into a multi question
7. Copying the data from questions

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