Confirmit Horizons v2019

This is revision 2 of the Confirmit Horizons v2019 SmartHub User Guide published in December 2019. The information herein describes Confirmit Horizons SmartHub and its features as of Build nr. 2019.12.146. 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?

The following changes have been made in this revision:

- The Excluding Invalid Data Responses section is added to the Manage Survey Pages section (see Excluding Invalid Data Responses on page 18 for more information).
- A note is removed from the Custom Data section as it no longer applies (see Custom Data on page 84 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. What is SmartHub - Introduction

Confirmit SmartHub™ is a centralized area for data management and optimization. It allows multiple data sets of different types to be brought together, relationships defined, and readied for use in dashboards, analysis, reports, action management, and other areas. SmartHub reduces the need for data processing tasks to merge data across data sets and map data sets together for use in reporting and analytics.

Data that is brought into SmartHub is loaded to a reporting database, The SmartHub Columnstore, which is used for reporting and analysis in Confirmit Horizons. The SmartHub Columnstore provides very fast query support, especially for ad-hoc queries on large data sets.

Note: SmartHub requires MS SQL Server Enterprise Edition, so On-Premise clients who wish to use SmartHub must have Enterprise Edition installed.

The SmartHub Columnstore offers very good support for analytics and reporting on VoC, VoE and MR programs:

- Personalized interactive dashboards.
- Hierarchies, drill-down.
- Ad-hoc reporting: Top-line and banner reports.
- Data discovery.
- Advanced analytics.
- Joining data across many data sets. One-to-many relations.

Confirmit SmartHub supports:

- Surveys (Professional/Express/Polls). Note also that the surveys must be launched before they can be used.
- Contact Databases.
- Standard Panels/Professional Panels.

SmartHub does not currently support:

- Basic Panels.
- Test databases.

Note: The hub creation/editing facility is only available via Horizons Authoring, by Professional Users with the appropriate permission.

To use a hub in Studio, Reportal, Active Dashboards or Discovery Analytics, the report designer must have at least View permission to the hub (see Hub Permissions on page 97 for more information).

Important!
While you can have as many hubs as you wish, assets can only be shared within a single hub. So creating multiple hubs within a company negates the main purpose of having a hub; it also increases storage used.

1.1. How it Works

Data is moved continuously from surveys and other data sources over to a separate database (the SmartHub Columnstore) for reporting and analytics. SmartHub supports continuous updates of data and the ability to set a recurrence pattern (for example daily). For continuous updates, data sources will be checked for changes and updates once every five minutes, and will initiate a load task if any changes are registered. Changes that will trigger a load include changes in data (new records, removed records, updated records) and meta data/survey definition (relaunch). If no changes are registered, then no task is initiated.

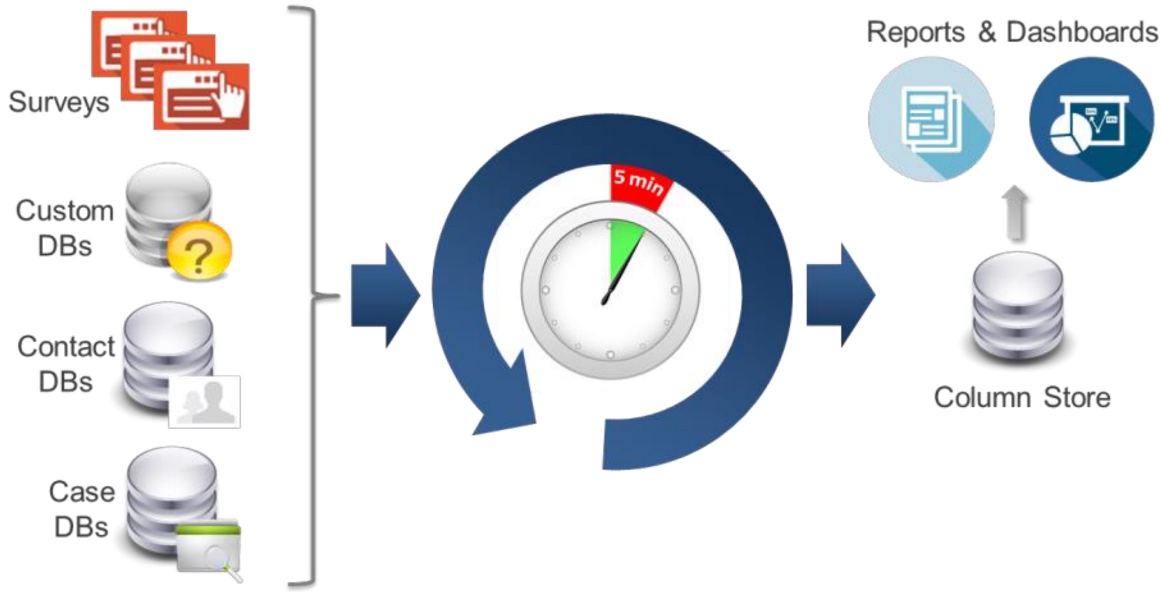


Figure 1 SmartHub block diagram

1.1.1. System Requirements

For system requirements, please refer to the Confirmit System Requirements document, available on the company extranet at https://extranet.confirmit.com/.

1.1.2. Encryption

For companies that have the "Database Encryption" add-on, the entire hub database will be encrypted if the company has enforced DB encryption set to apply for all projects. If not, the hub database will not be encrypted.

1.1.3. Storage Cost

For Confirmit SaaS clients, SmartHub is offered at no additional cost for up to 10 GB of data. For larger data volumes, additional costs apply. Reports on storage consumption will be included in the monthly reports.

For Confirmit On Premise clients, SmartHub is offered at no additional cost, regardless of storage consumption.

You can view the current storage usage in the **Settings > Storage usage** menu (see Storage Usage on page 98 for more information).

The storage consumption for a survey will vary based on the number of variables and records in the data set, the type of variables and the length of the values stored. Open text questions with long answers will lead to significantly higher storage than other variables.

Below are some real examples:

Description	Size of storage
Survey with 530 variables and 380 000 records	1.5 GB
Survey with 200 fields and 86 500 records	270 MB
Survey with 45 fields and 51 000 records	146 MB
Survey with 103 fields and 21 600 records	120 MB
Survey with 1082 fields and 300 000 records	97 MB
Survey with 166 fields and 46 000 records	61 MB
Survey with 76 fields, 1000 records	<1 MB

1.2. The Horizons Homepage

The Horizons Homepage is common to the majority of Confirmit's applications. When you first log in to Horizons this page opens, and it provides access to all the Confirmit applications that you are licensed to use. Click the appropriate icon to go to that application. Note that if you are not licensed to use an application, its icon will not be displayed in the page.

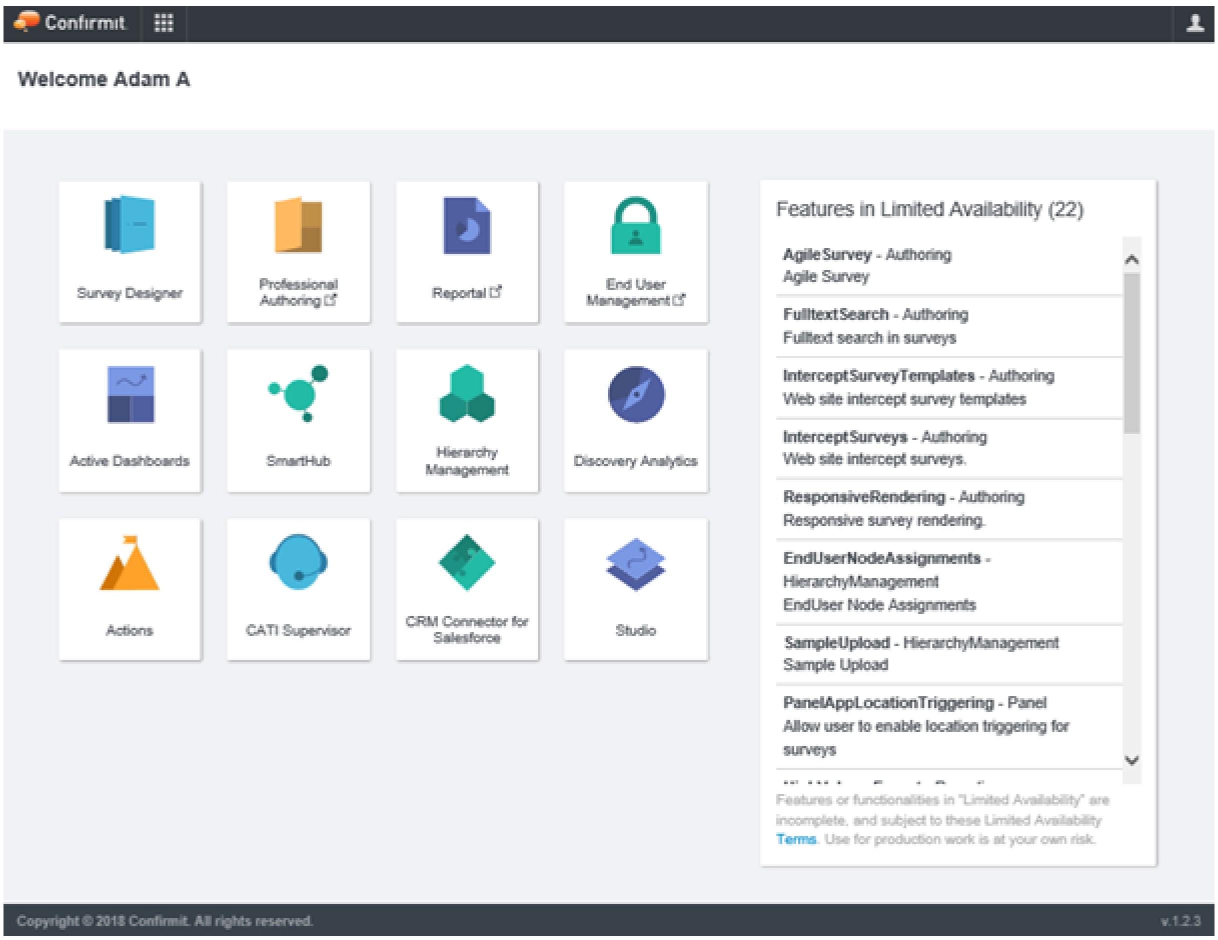


Figure 2 Example of the Horizons Homepage

Note: Applications that do not yet have a waffle icon **(see The Waffle Icon on page 4 for more information)** **have beside the application name. These will open in a new window, allowing this Homepage to remain open while you are working in the selected application.**

A list of new features and functionality currently accessible to you under "Limited availability" is presented on the right side of the Homepage. These items are still undergoing development, but are made available for testing purposes if your company has agreed to trial them. Please note that use of this new functionality for production work is at your own risk.

1.3. The Waffle Icon

The Waffle icon in the main toolbar is common to the majority of Confirmit's applications. It opens a selection overlay providing access to all the other Confirmit applications which you are licensed to use. If you are logged in to Horizons and you wish to change to a different application, click the waffle icon and click the appropriate icon. Note that if you are not licensed to use an application, its icon will not be displayed in the overlay.

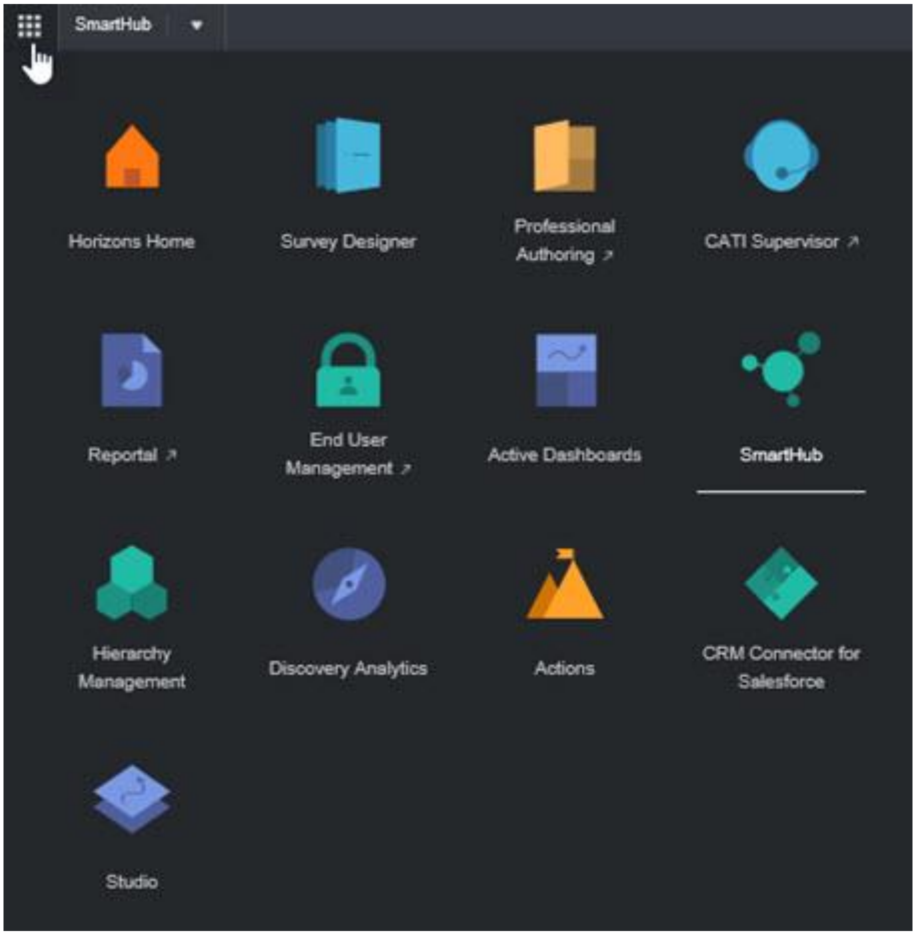


Figure 3 The application selection overlay

Icons with an “arrow” icon  open Authoring or Reportal, and icons without the arrow take you directly to the selected application. Refer to the separate user guides for further information on the various applications.

The **SmartHub** button beside the waffle icon is always available while you are in SmartHub, and returns you directly to the Hubs list (see The Hubs List Page with Preexisting Hubs on page 7 for more information).

2. Opening the SmartHub Page for the First Time

When you are logged into Confirmit and you go to the **Home > SmartHub** menu item or you click on **SmartHub** in the Quick Access pane, the SmartHub page opens. If this is the first time you are entering this page and you therefore have not yet created a hub, you are invited to create one.

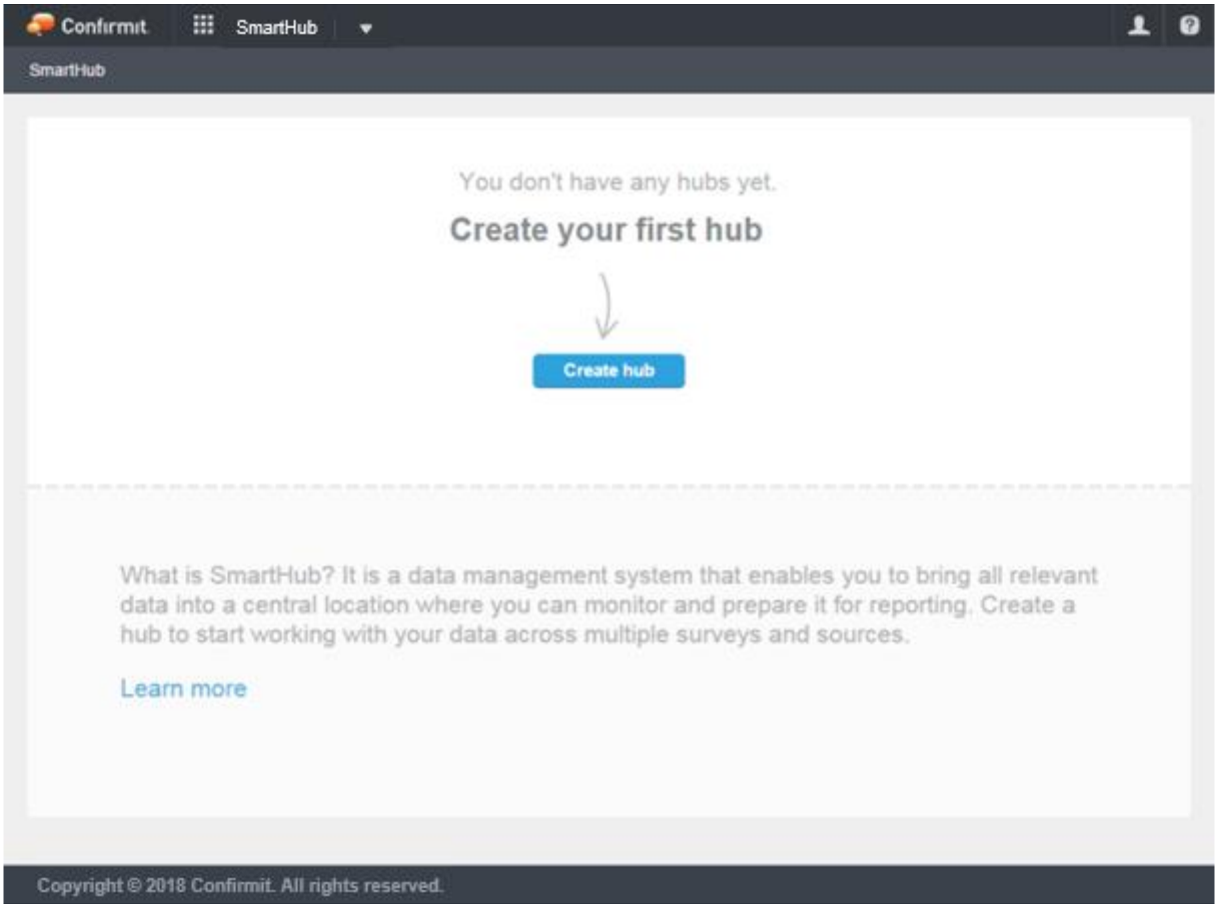


Figure 4 The opening page when there are no pre-existing hubs available to you

2.1. Creating Your First Hub

1. In the Hubs page, click **Create hub**.

   The Create hub overlay opens.

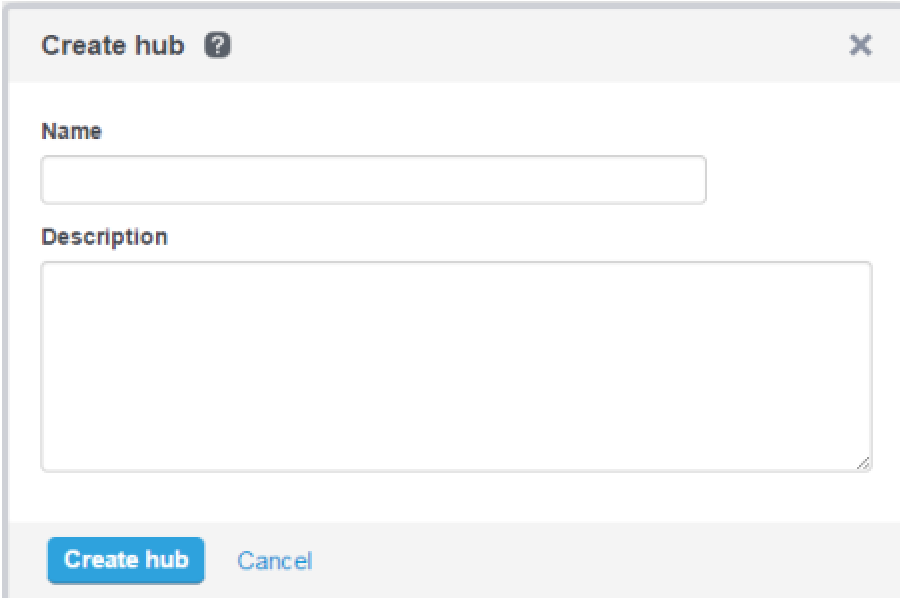


Figure 5 The Create hub overlay

2. Give the new hub a name.
3. Most users will only have access to one company - their own. In this event the overlay will look as shown above. If you have access to more than one company then a Company field will also be visible. In this case select the company to which the hub is to be linked.
4. Type a brief description of the hub into the Description field for future reference if required.
5. Click **Create Hub**.

   The hub is created, and the Hub Designer page for the hub opens.

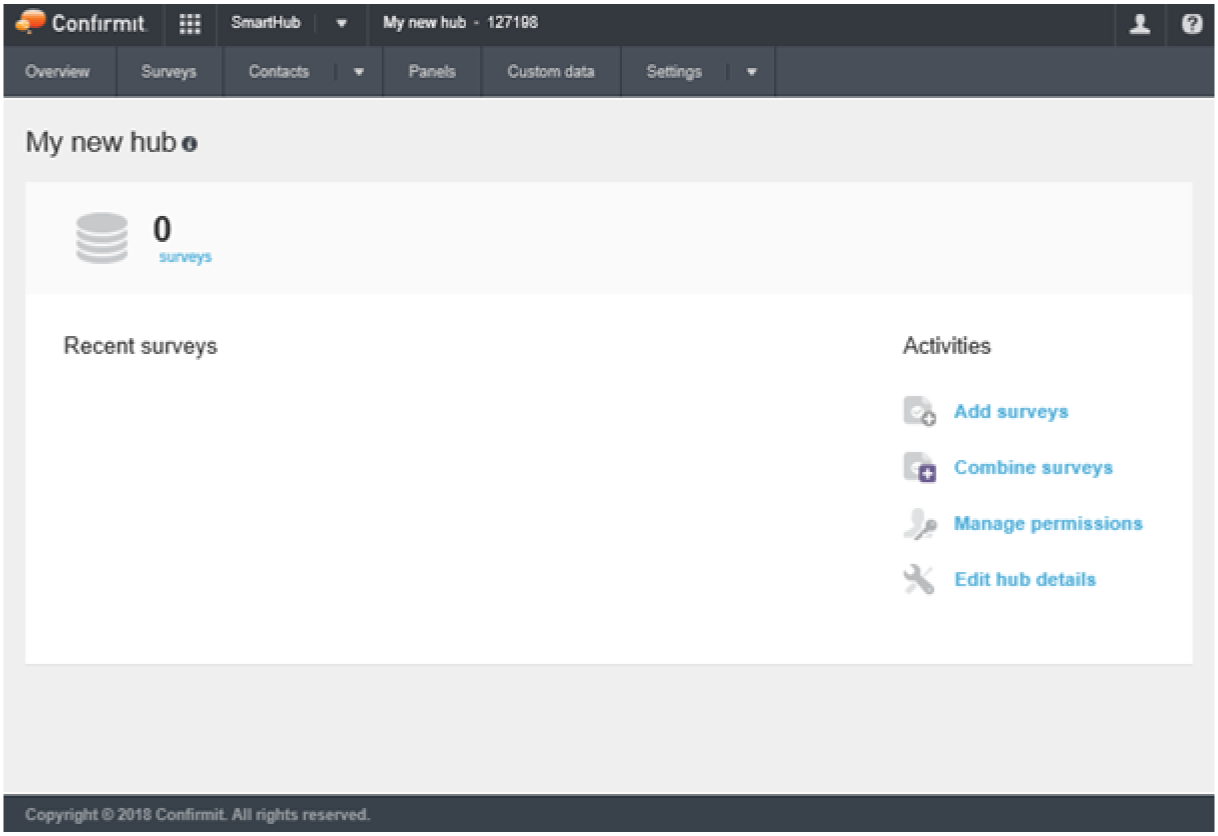


Figure 6 The Hub Designer > Overview page

You can now add surveys (see How to Add a Survey to the Hub on page 20 for more information), set access permissions (see Hub Permissions on page 97 for more information), and generally set up the hub ready for use (see The Hub Designer Page on page 10 for more information).

2.2. The Hubs List Page with Preexisting Hubs

If you have already created a hub, the Hub Designer page will open with that hub displayed. If you have access to more than one hub, then the page opens with a list of the hubs available to you. Click on the blue hub name link to open the Hub Designer page for that hub (see The Hub Designer Page on page 10 for more information). Note that the **Create hub** button is now located towards the upper-right corner of the window.

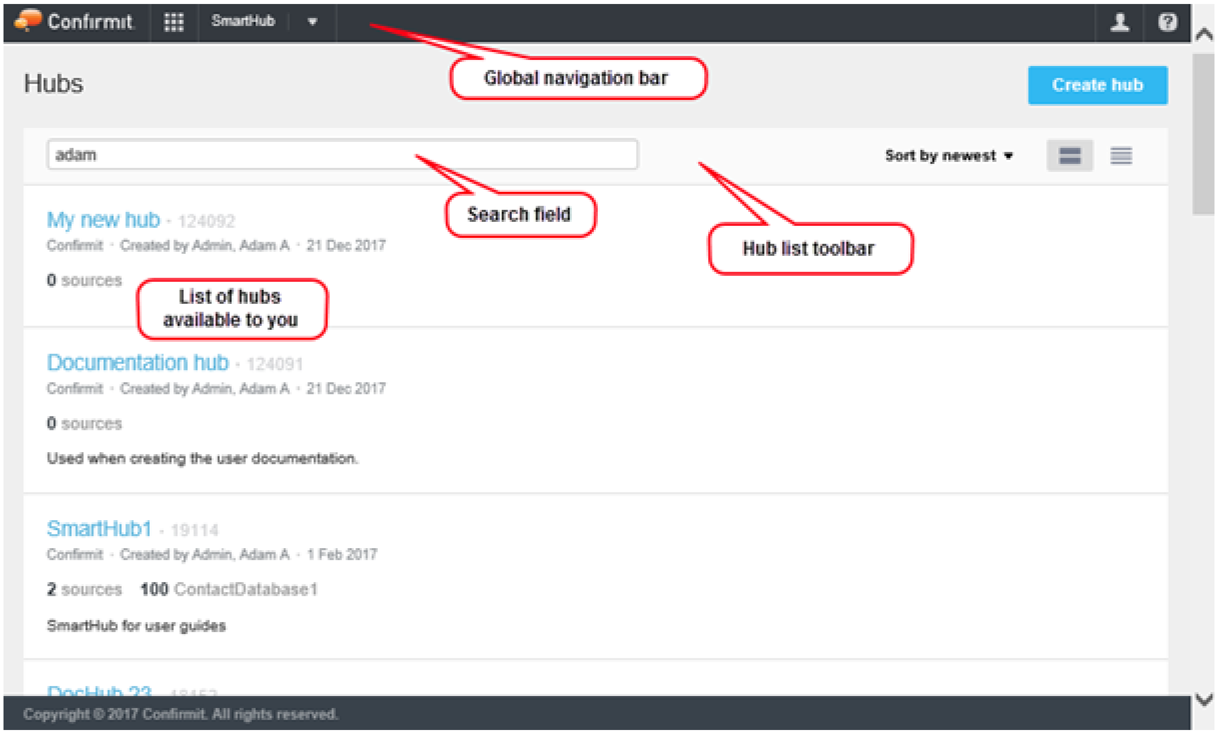


Figure 7 Example of the SmartHubs page

The Global navigation bar holds the following tools:

- The **Navigate** button (also known as the "Waffle" icon) allows you to go directly to other relevant Confirmit functionality (see The Waffle Icon on page 4 for more information).
- The **SmartHub** button opens a list of the hubs you have access to, hubs you have accessed recently, and allows you to create a new hub.
- The User icon click to access your user settings or log out of SmartHub.
- The help button - click to open the SmartHub on-line help system.

The Hub List toolbar includes:

- A **Search** field. Type a text string into the Search field. The list of hubs is reduced as you type to those that contain the text string somewhere in the hub name, the company name or the user name. You can also search for the userID, but in this case you must type in the full ID, for example adam. Note that the search text is not case-sensitive. To re-display the full list, clear any characters from the field.
- If you wish to sort the list, click **Sort** and select the sorting method required.
- **Expand -** if the list has been collapsed (the information area is hidden), click **Expand** to show the information area.
- **Collapse -** click to hide the information areas for the hubs listed. This will allow more hubs to be visible on your display without scrolling.

2.3. The Hubs List Details

When you open the Hub List page, each hub that you have access to is displayed as one row in the list.

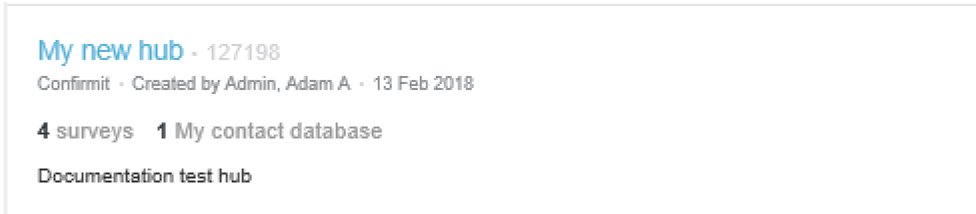


Figure 8 Example of Hub link and information

Click on the blue hub name link to open the Hub Designer page for that hub (see The Hub Designer Page on page 10 for more information). The details displayed for each hub include:

- **Hub name -** this is the access link to the hub. Click on the link to open the Hub Designer page for that hub.
- **Hub ID -** when the hub is created it is automatically given the next available identification number. If a hub is deleted, its number is not re-used.
- **<Company name> -** the name of the company against which the hub is registered (in this illustration, Confirmit).
- **Created by... -** the username of the person who created the hub, followed by the date the hub was created.
- **Surveys -** indicates the number of surveys currently linked to the hub. Other details may be listed in this row, such as any contact databases, notifications etc.
- **Description -** any text below the information area is taken from the Description field in the Hub Designer page, and is displayed to allow you to more easily identify the hub you are working with.

3. The Hub Designer Page

To open the Hub Designer page, in the Hubs list click on the name of the hub you wish to work with.

The Hub Designer page allows you to select which surveys are to be made available in the hub, define relationships between the surveys and manage access to the hub for other users. In addition you can use the Hub Designer to monitor data feeds into the hub, resolve issues etc.

You can create as many hubs as you need. For many users it will make most sense to have one hub for their entire survey program. However for companies that are running several survey programs, and especially when those are performed for other companies, it would probably make most sense to create one hub for each company they are working with.

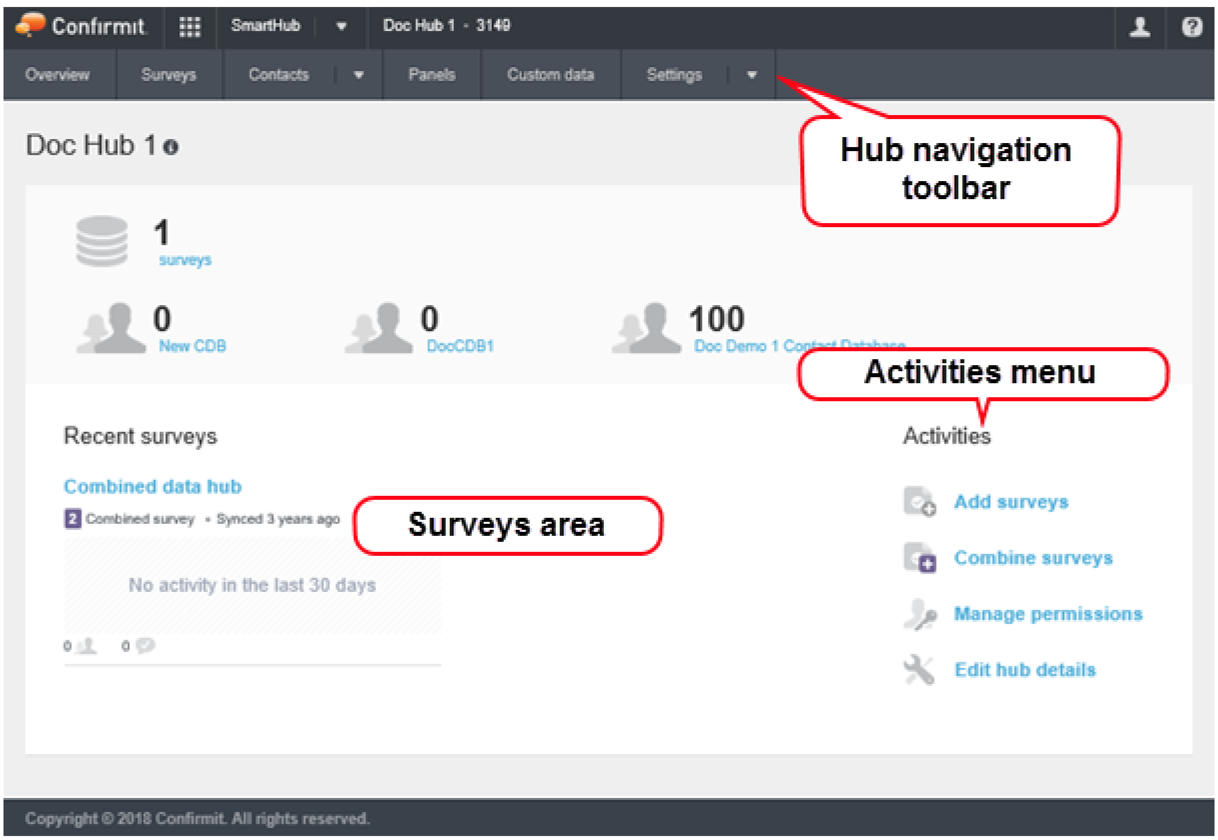


Figure 9 The Hub Designer page

The Hub Designer page's navigation toolbar includes the following buttons:

- **Overview -** opens the Hub designer page for the hub.
- **Surveys -** opens the Surveys page, in which the surveys linked to the hub are listed. Here you can also add surveys to the hub, and combine surveys (see The Surveys Tab on page 12 for more information).
- **Contacts -** opens the Contact Databases page, in which any contact databases you may have created are listed(see Contact Databases on page 60 for more information). Here you can also add contact databases to the hub. See also the View contact databases link in the **Activities** menu.
- **Panels -** opens the Panels page, where any Panels linked to the hub are listed. Here you can also add panels to the hub.

- **Custom data -** opens the Custom Data page, where any Custom data tables linked to the hub are listed. Here you can also create new tables in the hub.
- **Settings -** opens the Settings page, allowing you to set access permissions, check storage usage and remove data sets (see The Settings Menu on page 96 for more information).

The Surveys area shows the surveys that are linked into this hub, giving an overview of what these surveys are and any recent activity within them (see Surveys on page 11 for more information).

The **Activities** menu lists and provides links to the activities you can undertake related to the hub (see The Activities Menu on page 18 for more information).

3.1. Surveys

Surveys provide the data to the hub such that it can be used in dashboards, reports etc. These surveys are the Professional, Express and Poll surveys previously created using Confirmit Professional Authoring or Survey Designer. Each survey linked to a hub is presented in the Hub Designer page for that hub, and in the Surveys tab (see The Surveys Tab on page 12 for more information).

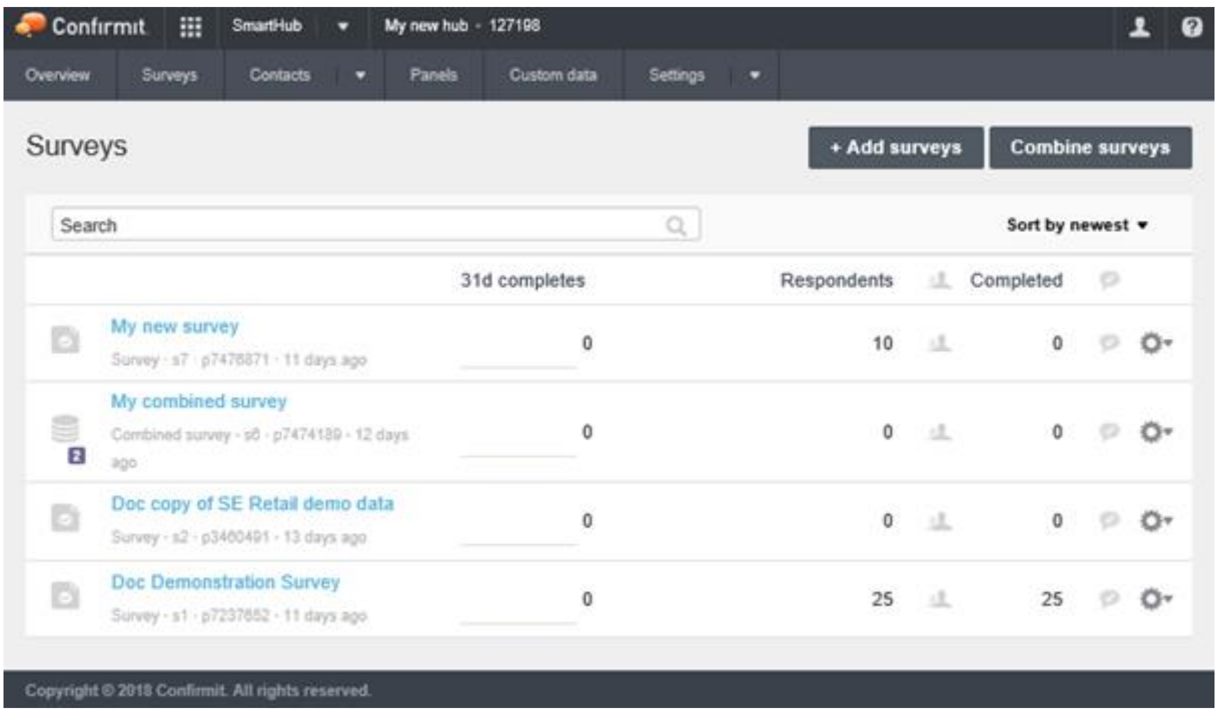


Figure 10 Example of surveys listed for a hub

For each survey, the following information is presented:

- The type of survey, and if it is a combined survey, the number of surveys that it contains.
- A chart of the respondent activity over the last 30 days.
- The number of invitations sent and the number of completes.
- Hover the mouse cursor over the Activity chart to view details of the recent respondent activity.

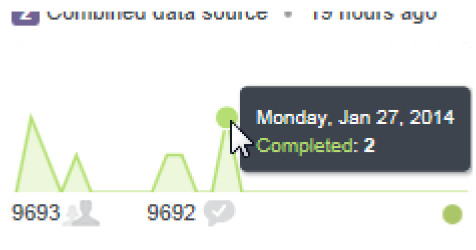


Figure 11 The activity chart details

- Click on the blue survey name link to go to the Manage Survey page for that survey (see The Manage Survey Page on page 13 for more information).

3.2. The Surveys Tab

In the hub's navigation bar, click **Surveys** to open the Surveys tab for the current hub. This tab provides details about the surveys linked to the hub, and allows you to add additional surveys, create combined surveys (see How to Create a Combined Survey on page 27 for more information), and remove the survey if necessary.

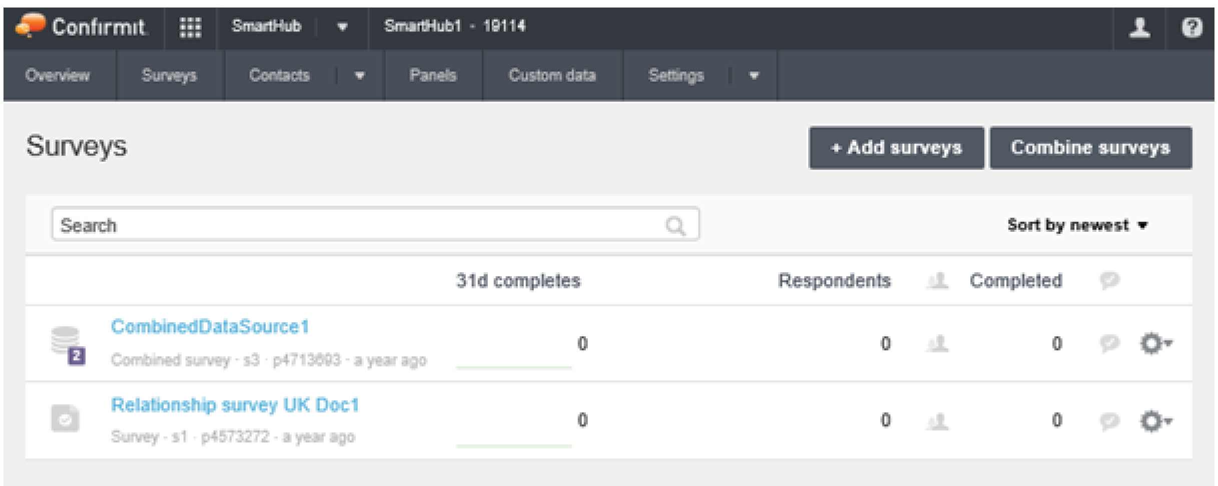


Figure 12 Example of the Surveys tab

Click anywhere in a survey row to go to the Manage Survey page for that survey (see The Manage Survey Page on page 13 for more information).

For each survey is presented:

- The type of survey, and if it is a combined survey, the number of surveys that it contains.
- The survey name and number, and when it was last edited.
- A chart of the respondent activity and the number of completes registered during the last 31 days.
- The number of invitations sent and the total number of completed interviews.

If you wish to sort the list, click **Sort** and select the sorting method required.

Click **Add surveys** to add more surveys to the hub (see How to Add a Survey to the Hub on page 20 for more information).

Click **Combine surveys** to create a combined survey for the hub (see How to Create a Combined Survey on page 27 for more information).

Click the edit icon to open a drop-down menu that enables you to manage the data set (see The Manage Survey Page on page 13 for more information) and remove it from the hub if required (see How to Delete a Survey on page 13 for more information). Note that removed surveys can be restored during a period of 90 days (see How to Restore a Data Set on page 99 for more information).

3.2.1. How to Delete a Survey

You can delete unwanted surveys from a hub. Note that if you remove a survey from a hub, any reports or dashboards using that survey will cease to function.

To delete a survey:

1. Go to the Surveys tab (see The Surveys Tab on page 12 for more information) and click the edit icon for the survey you wish to remove.

   A drop-down menu opens.

2. Select **Remove survey**.

   A warning dialog is displayed showing the details of the survey you are about to remove.

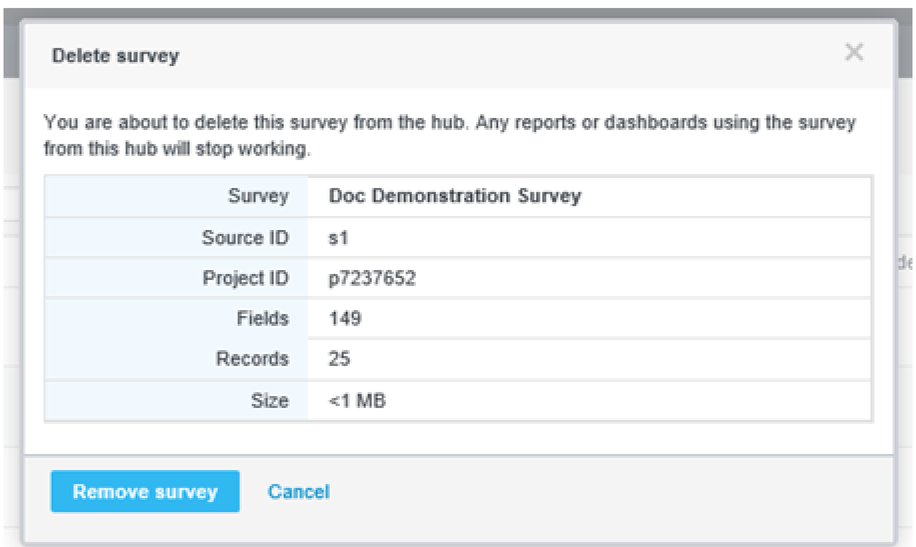


Figure 13 The remove survey warning dialog

3. Click **Remove survey** to remove the survey from the hub, or **Cancel** to stop the operation.

Note that removed surveys will remain in the system for 90 days and can be restored during this period (see How to Restore a Data Set on page 99 for more information).

Note: Hub Cleanup can be performed periodically to permanently remove deleted hubs, surveys and related objects from SmartHub. When a survey is removed from the user interface (see above), it will initially be "soft-deleted" (marked for deletion), and can be restored if required. The database will not be removed until the hub cleanup task runs after a specified number of days have passed. Setting up this Cleanup routine is a task for the system administrator - refer to the Confirmit Server manual for further details.

3.3. The Manage Survey Page

From the Surveys tab, click on a blue survey name link to open the Manage Survey page for that survey. This page provides greater details about the selected survey. The layout and tools provided depend on the type of survey.

If the survey is a combined survey, then you can map additional surveys into it (see How to Map a Survey into an Existing Combined Survey on page 30 for more information), you can view and edit the mappings (see Viewing and Editing the Mapping on page 31 for more information), you can control the synchronization settings for the survey, and you can remove the combined survey from the hub.

If the survey is an individual survey, then you can control the synchronization settings for the survey or remove the survey from the hub.

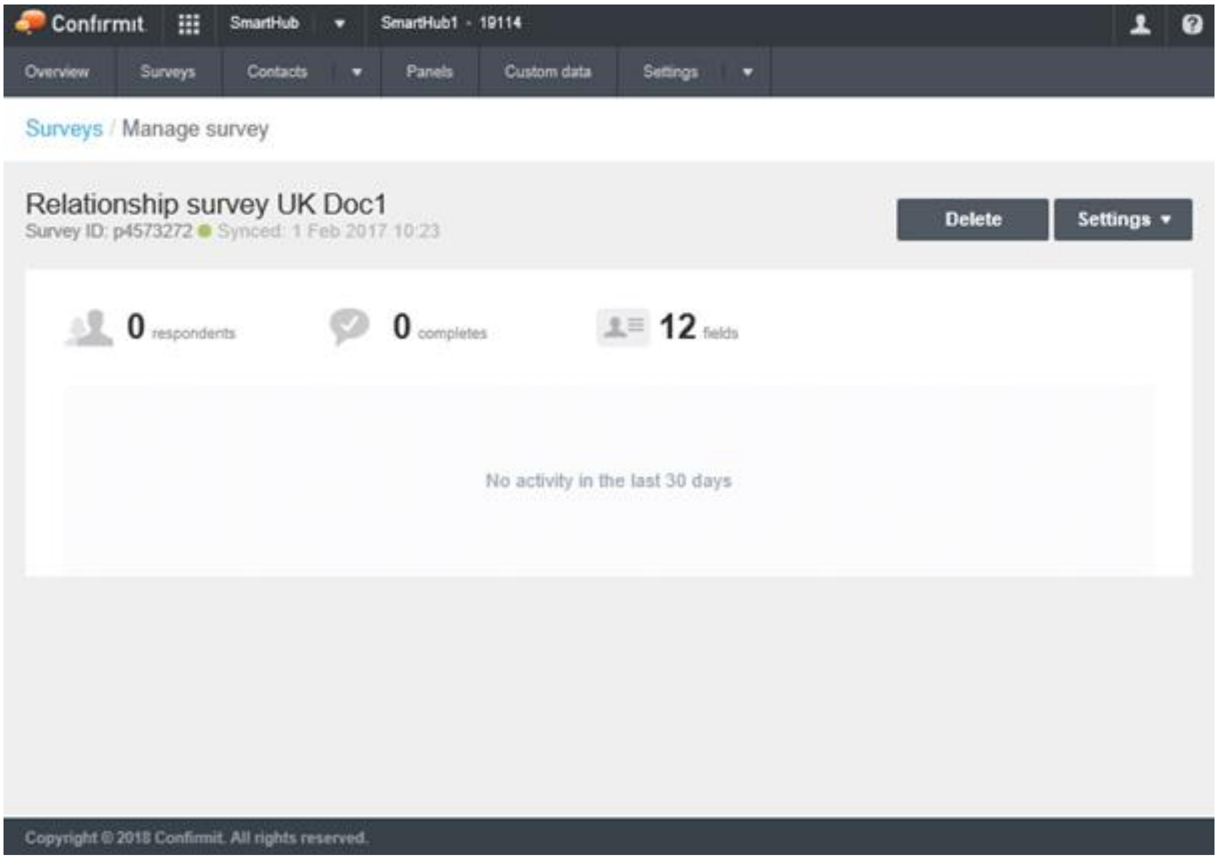


Figure 14 Example of the Manage Survey page for a survey

- An information row above the chart provides the following details:
  - The number of respondents that are linked to the survey.
  - The total number of completes that are registered for the survey.
  - If the survey is a combined survey then the number of surveys that are linked to it.
  - The number of variables (fields) in the survey.
- The activity chart tells you how many completes have been registered for the survey on a daily basis during the last 31 days. Hover the mouse cursor over the Activity chart to view details of the activity.
- If the survey is a combined survey, then the surveys linked into the combined survey are listed below the chart. Click the **Hub menu** icon for a survey to open a drop-down menu that enables you to unlink the survey from the combined survey.
- The **Remove survey** option enables you to delete unwanted surveys from the hub (see How to Delete a Survey on page 13 for more information).

- The **Settings** button enables you to edit the name of the survey, to synchronize the data in the survey (see Data Synchronization on page 15 for more information) and to override the labels used in the survey (see Editing Question Labels in Surveys on page 73 for more information).

3.3.1. Data Synchronization

You can setup how data is synchronized to the Hub and thereby control when data is to be available for reports based on the Hub. In addition, you can launch a synchronization task directly by clicking the **Sync Now** button.

Note: The default behavior for synchronization is continuous data updates, where a service will check every five minutes for changes in the data, and a synchronization will be run in the event changes are found. This default behavior starts automatically when a survey is added to the hub, so if this arrangement covers your requirements then you do not need to make any changes to the setup. However there may be times when you do not want to wait until the task runs by itself, and then the Sync now button can be used.

1. Click **Surveys** in the SmartHub menu bar to open the Surveys page, then click on the survey you wish to set synchronization for to open its Manage Survey page.
2. Click the **Settings** button for the Survey (not the **Settings** menu in the menu bar) and select **Data synchronization**.

   The Data sync overlay opens.

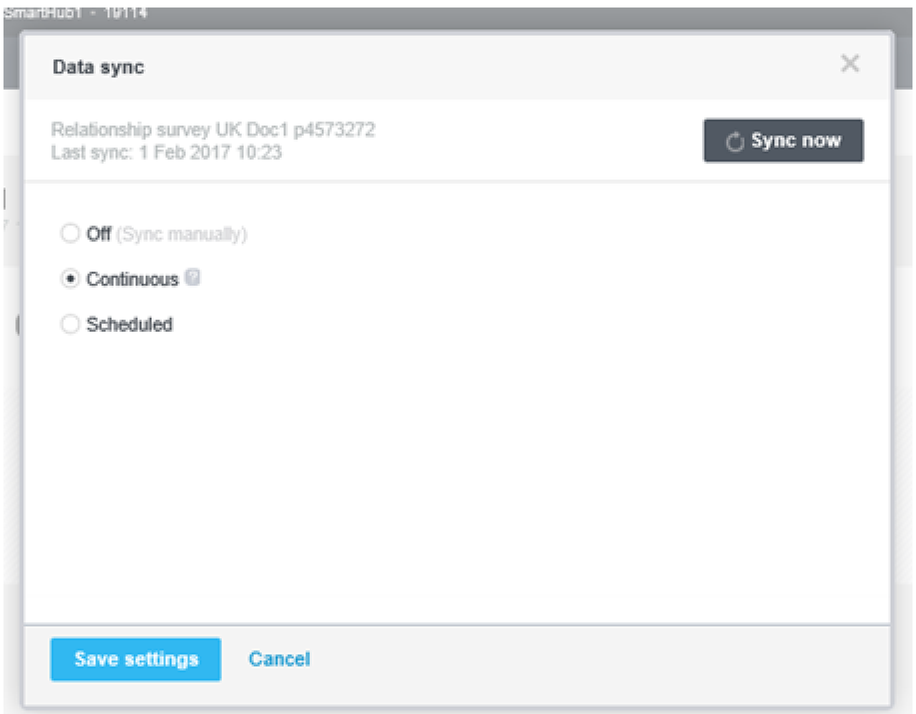


Figure 15 The Data sync overlay

- **Off -** the synchronization task is turned off.
- **Continuous -** data is automatically synchronized on a (near) continuous basis. The task is run every five minutes, however updates may take longer depending on the size of the data-set and the queue status.
- **Scheduled -** set up the synchronization task to follow a recurrence pattern.

When you select **Scheduled**, a number of additional fields are displayed.

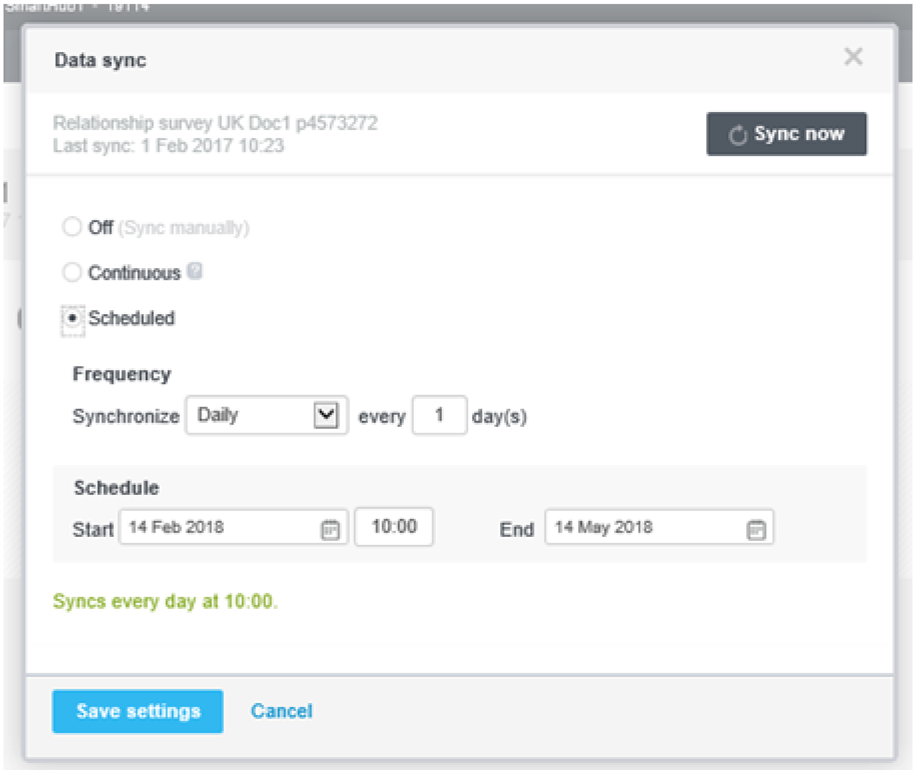


Figure 16 The additional fields

- **Frequency** - select how often you want the synchronization to run. Depending on what unit you select here, other selections will become available. For example, if you select Weekly, you must then select the interval (for example every 2nd week) and on which days of the week the sync is to run.
- **Schedule** - Set when you want the sync task to start its run, and when you want it to finish.

The currently selected settings are specified in green text towards the lower edge of the overlay. In the event a setting is illegal, for example you have selected a date in the past, then an error message is presented in red text.

3. On completion click **Save settings**. The settings are saved and the overlay closes.

Important
The Data Synchronization itself runs as a regular task called “Hub Confirmit Project Loader”. You will find it in the task system if you search by the ID of the survey or the hub ID in task management. If this task fails due to an issue with the data or the system, synchronization may stop:

• If a handled exception occurs, the task system will automatically disable the task (switch from “Continuous” to “Off”). A handled exception could for example be a data inconsistency such as an illegal value.

• If an unhandled exception occurs, the task system will allow the task to start again a configured number of times (set to 5 times on our production servers). An unhandled exception could for example be a server connectivity issue, from which the system might recover in time for the next load. If however the task keeps failing, the task system will automatically disable the task when the configured limit has been exceeded (switch from “Continuous” to “Off”).

Notifications will be sent depending on user and/or task settings for notifications (see the User Settings and The Task Properties Page sections in the Authoring manual for further information).

If the task stops running, you will have to check the task log to see what the problem is and try to correct it, for example by removing an illegal value in the data. If you are not able to resolve the issue, you can contact support for assistance with details about the task that failed.

Once the issue has been resolved you can switch the Data Sync service on again by switching it back to the desired setting (for example Continuous), and a new hub loader task will be started.

Data synchronization is typically incremental, updating the Hub with changes in data since the last synchronization (new, remove, changed records), and unless there has been a large amount of changes or new data, it will not take long to process. However occasionally the hub loader will perform a full reload, which may take some time, especially on large datasets. A full reload is triggered under the following conditions:

- When the hub loader version is incremented. This is an internal version number in the system that is rarely changed. However there may sometimes be a bug fix that requires a full reload, or other large structural changes in hub loading.
- If the question type is changed for a question, for example from single to multi.
- If the variable type is changed for a single-question, for example from normal answer list to table lookup.
- If a variable that was previously removed from the survey is added back (either by deleting and re-adding questions in the survey or by changing the “exclude from reporting” property on a question).
- Adding, moving or deleting loops.
- If more than a specified number (currently 500.000) records are touched (updated) in the survey database, regardless of what has triggered these changes (data processing rules, data imports, web services updates, data editors or survey responses).
- If field widths are increased for open text questions.
- If total digits and decimals are changed for numeric questions.
- For combined surveys, a full reload will be run if the combined survey is changed.

While the hub loader runs, data from the last sync is fully available for the reporting applications so there is no down-time while the data is being synchronized. Once the load has completed, the hub will switch to the latest synchronized data.

Note: When a survey has a variable "invalidResp", records where this is set to 1 will not be included when the hub loader writes data to the column store. This can be used to flag as "invalid" specific responses that should not be included in reporting, for example if you suspect the survey respondent has just provided random answers.

3.3.2. Excluding Invalid Data Responses

The Hub Loader allows you to exclude from reporting survey responses that appear to be illegitimate. This could be useful for example when you suspect respondents have provided random answers in an effort to earn an incentive instead of giving considered responses.

If the survey has a boolean single question (true/false) with **invalidResp** as its qid, this can be used to flag certain responses as invalid. Responses with this flag set to 1 (TRUE) will not be loaded to the SmartHub columnstore, so will not be included in Reportal, Instant Analytics, Discovery Analytics, Active Dashboards, Studio and other reporting tools which are based on SmartHub or reporting data.

As the invalidResp variable is a regular variable it can be set through the data editor, data import or APIs using standard functionality. It will not affect "real-time" hitlists or Reportal reports using BitStream, or response rate reports/survey metrics in Professional Authoring/Survey Designer. The invalidResp variable does not lead to any changes in the survey engine/quota system, so users will have to update quota targets accordingly when some responses are invalidated, for example by increasing targets. The invalidResp variable will be available in data exports and in the data editor in Professional Authoring, and through APIs, and data with this flag set will be included when using APIs or when Professional Users conduct data exports or view data in the survey data editor. There are no changes in response rate reports in Professional Authoring or Survey Designer. The “invalid” records will be included in the counts.

Invalid records are currently included in raw data exports from Instant Analytics, however this may be changed so those responses are also excluded there.

Note: invalidResp is listed as a reserved keyword and should only be used in this situation.

3.4. The Activities Menu

The Hub Designer page contains a menu of the activities you can perform on the hub.

- **View data sources -** displays a list of the data sources that are currently linked into the hub, giving details on each.
- **Add surveys -** opens a list of the surveys available to you, allowing you to add more surveys to the hub (see How to Add a Survey to the Hub on page 20 for more information).
- **Combine surveys -** starts the procedure for combining surveys (see How to Create a Combined Survey on page 27 for more information).
- **View contact databases -** opens a list of contact databases that are available to you, and allows you to create new databases (see Contact Databases on page 60 for more information).
- **Manage permissions -** allows you to provide and remove access permissions to other users for the hub. This menu item takes you to the Permissions page (see Hub Permissions on page 97 for more information).
- **Edit hub details -** opens the Edit hub overlay where you can change the name and/or description of the hub.

3.5. How to Create a New Hub

Important!
While you can have as many hubs as you wish, assets can only be shared within a single hub. So creating multiple hubs within a company negates the main purpose of having a hub; it also increases storage used.

1. In the Hubs page, click **Create hub**.

   The Create hub overlay opens.

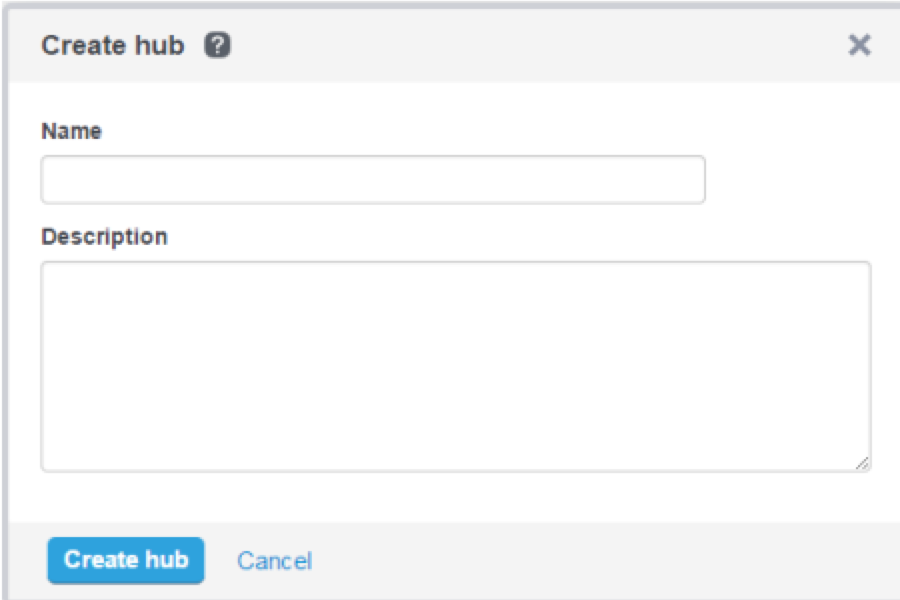


Figure 17 The Create hub overlay

2. Give your new hub a name.
3. Most users will only have access to one company - their own. If you have access to more than one company then a Company field will also be visible; select the company to which the hub is to be linked.
4. Type a brief description of the hub into the Description field for future reference if required. This description will be visible in the Hub list.
5. Click **Create Hub**.

   The hub is created and the Hub Designer page for the hub opens.

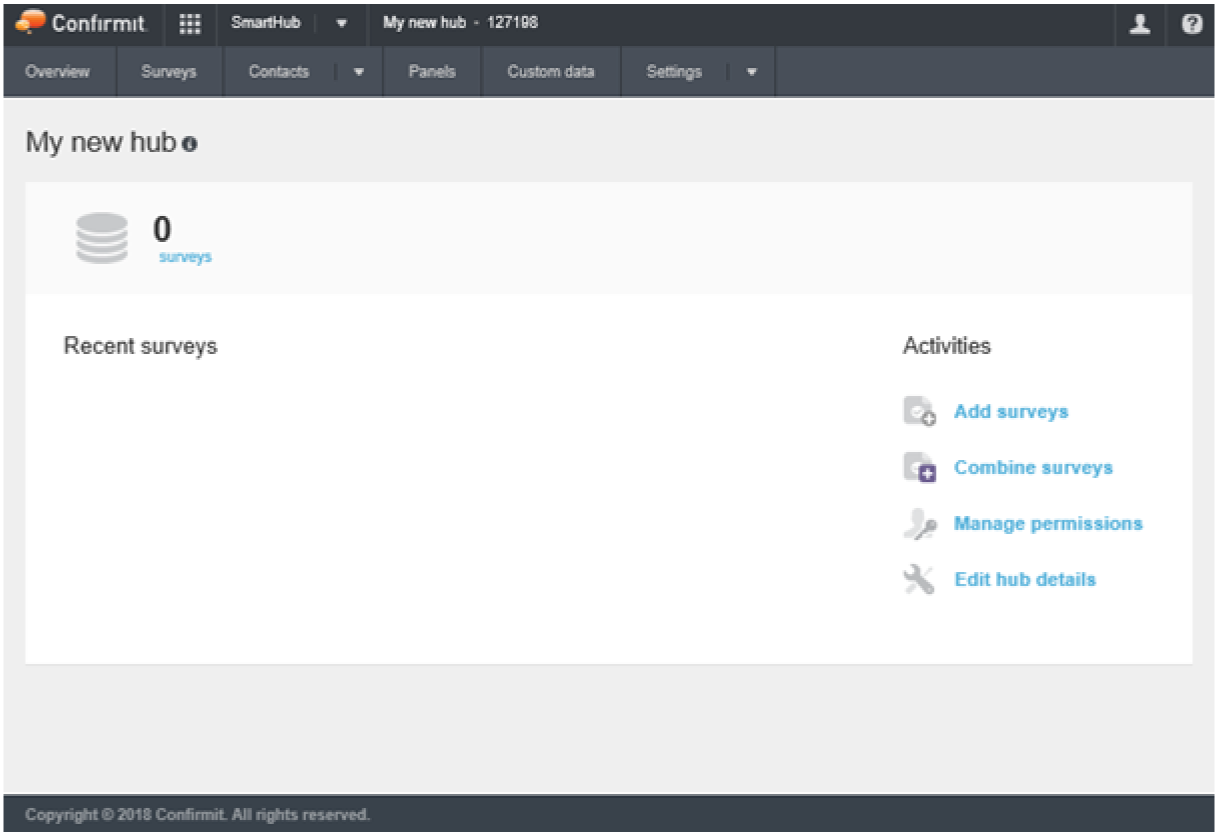


Figure 18 The Hub Designer > Overview page

You can now add surveys (see How to Add a Survey to the Hub on page 20 for more information), set access permissions (see Hub Permissions on page 97 for more information), and generally set up the hub ready for use.

3.6. How to Add a Survey to the Hub

1. In the Hub Designer page, click **Surveys** in the main navigation bar.

   The Surveys page opens. This page lists all the surveys that are currently in the hub.

2. Click **+ Add surveys**.

   The Add surveys overlay opens.

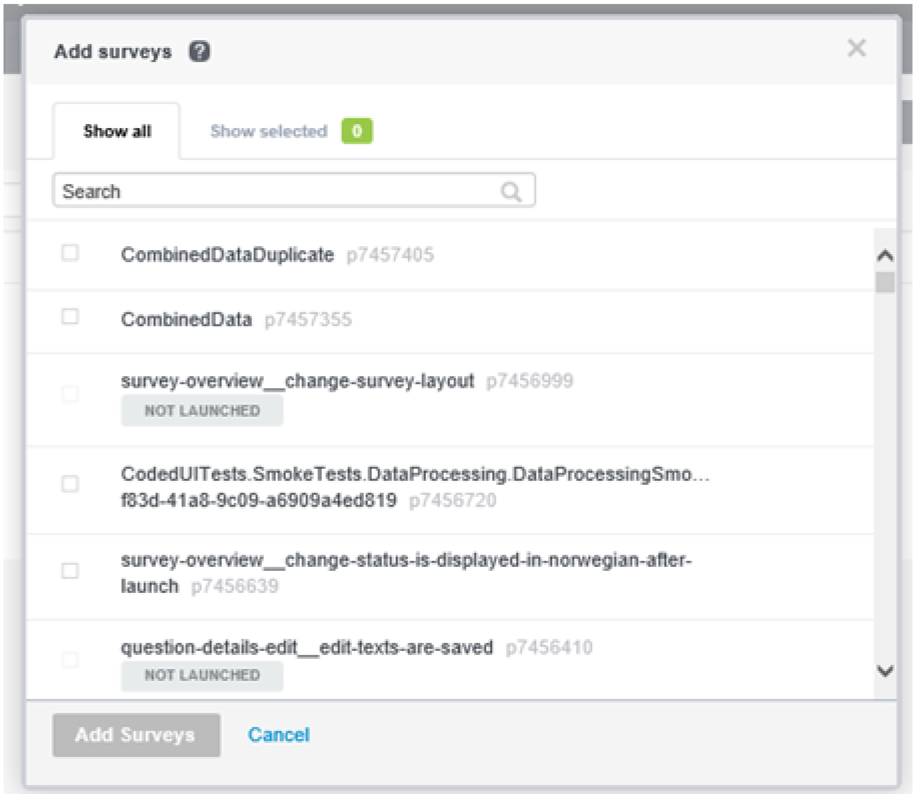


Figure 19 The Add Surveys overlay

This overlay lists all the surveys to which you have access permission. In the event the list is extensive you can type search criteria into the Search field to search for surveys with names beginning with the input criteria.

To acquire a better overview of the surveys you have selected, click **Show selected**. This removes from the list any surveys that you have not selected. Click **Show all** to redisplay the full list.

Note: Only surveys that belong to the company to which the hub is registered, will be listed. Only surveys launched in the production database can be added to the hub.

3. Check the boxes beside the surveys you wish to add to the hub.
4. Click **Add Surveys**.

   The selected surveys are added to the hub. When a survey is added, the first synchronization of data will automatically run in the background. Depending on the task queue and the size of the survey database, this may take some time. The correct numbers for the survey will not be displayed until the first synchronization has completed.

3.7. How to Add a Panel to the Hub

1. In the Hub Designer page, click **Panels** in the main navigation bar.

   The Panels page opens. This page lists all the Professional and Standard panels that are currently in the hub.

2. Click **Add panels**.

   The Add panels overlay opens.

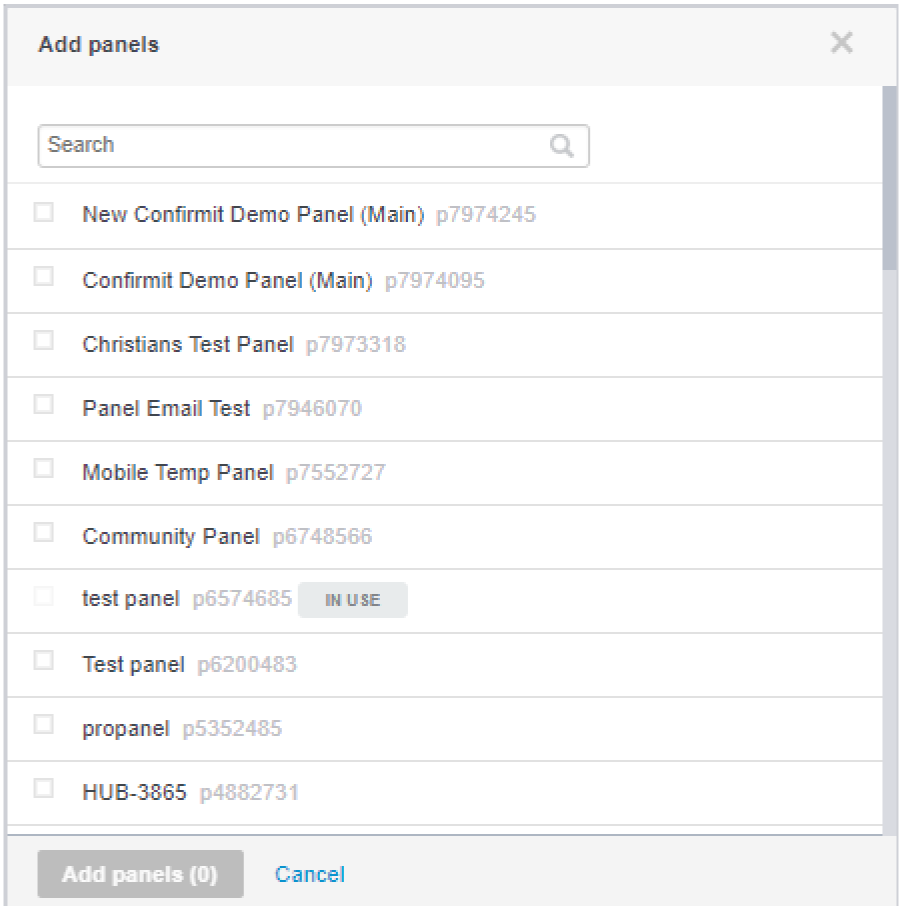


Figure 20 Example of the Add panels overlay, listing the panels available

This overlay lists all the Professional and Standard panels to which you have access permission. In the event the list is extensive you can type search criteria into the Search field to search for surveys with names beginning with the input criteria. To acquire a better overview of the panels you have selected, click Show selected; this removes any panels that you have not selected. Click Show all to redisplay the full list.

Note: Only panels that belong to the company to which the hub is registered, will be listed. Only panels with a generated production database can be added to the hub.

3. Check the boxes beside the panels you wish to add to the hub.
4. Click **Add Panels**.

   The selected panels are added to the hub. When a panel is added, the first synchronization of data will automatically run in the background. Depending on the task queue and the size of the panel database, this may take some time. The correct numbers for the panel will not be displayed until the first synchronization has completed.

3.8. How to Delete a Hub

1. In the Hubs page, find the hub you wish to delete, and click on it to select it.
2. In the toolbar, click on the **Settings** menu button (ringed) (click on the button, not its drop-down arrow!).

   The Settings page opens (see The Settings Menu on page 96 for more information).

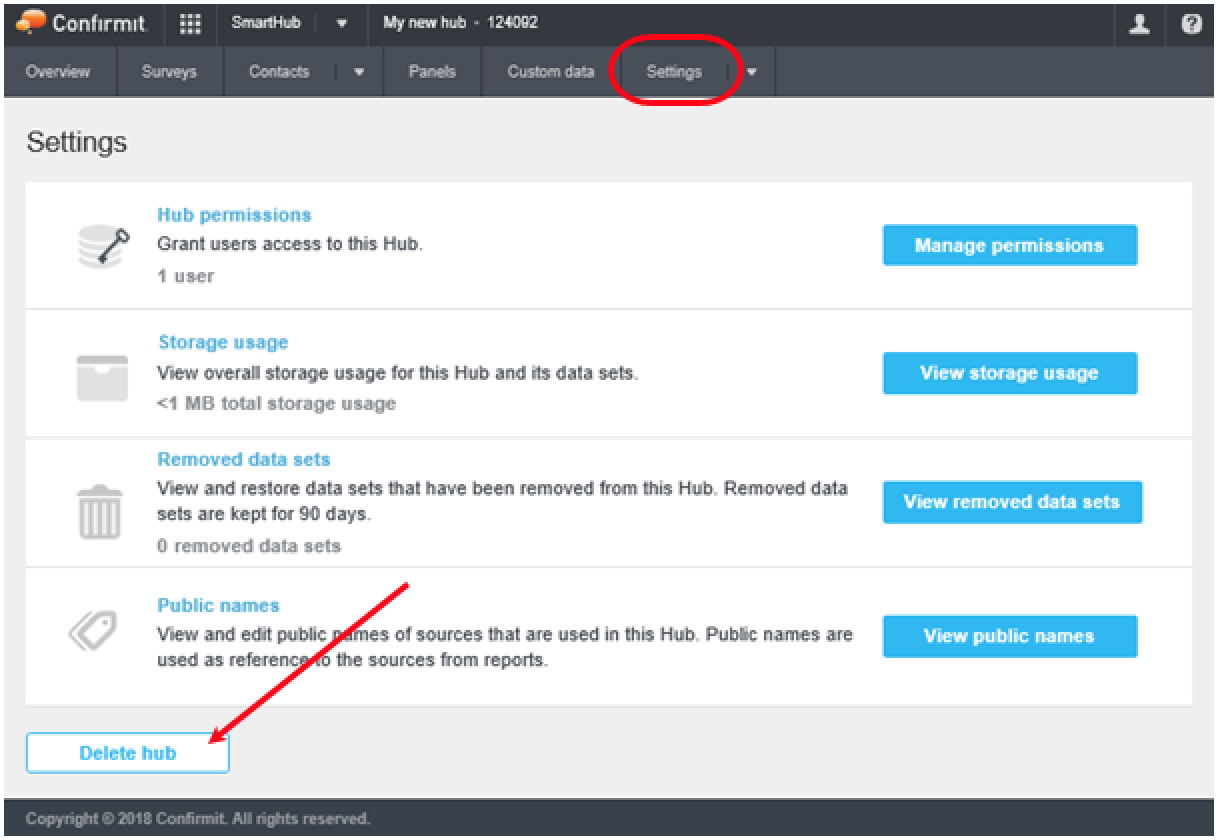


Figure 21 The Delete hub button

3. Click **Delete hub** arrowed.

Note: To ensure the deletion of a hub is an intended action and cannot be performed by accident, the deletion process requires several deliberate steps. The Delete hub button is therefore not included in the Settings menu.

The confirmation overlay opens.

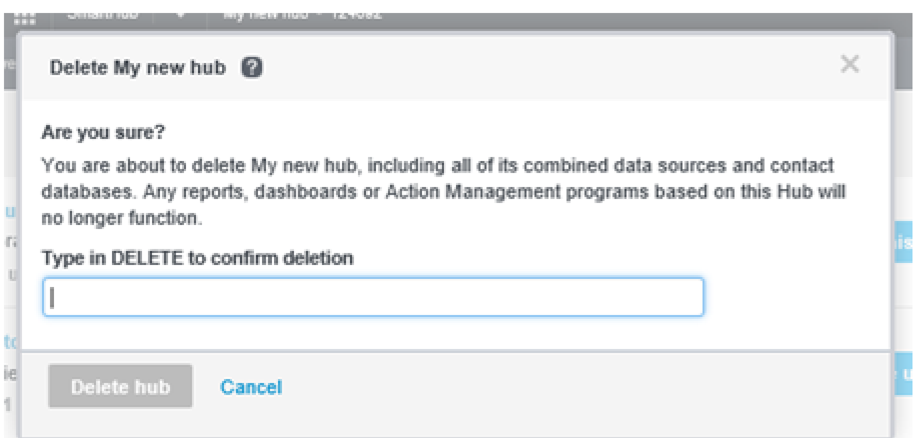


Figure 22 The Delete Hub confirmation overlay

4. In the confirmation overlay, check that you are deleting the correct hub, then type **DELETE** into the field (note that this is not case-sensitive) and click **Delete hub**.

   The hub is deleted. Recently deleted hubs are listed in the global navigation toolbar **SmartHub** drop-down menu under **Deleted hubs** for a period of 90 days. During this period you can restore a deleted hub via this menu (see How to Restore a Hub on page 24 for more information).

Note: Hub Cleanup can be performed periodically to permanently remove deleted hubs, surveys and related objects from SmartHub. When a hub is deleted from the user interface (see above), it will initially be "soft-deleted" (marked for deletion), and can be restored. The database will not be removed until the hub cleanup task runs after a specified number of days have passed. For SaaS users, the system is currently set up to remove hub databases after 60 days, and to remove the hub definition after 1 year. For on-Premise users, setting up this Cleanup routine is a task for the system administrator. Refer to the Confirmit Server manual for further details.

3.9. How to Restore a Hub

If a hub is deleted from your hub list, it will remain in the system for a period of 90 days. During this period, it will be listed under **Deleted hubs** in the global navigation toolbar.

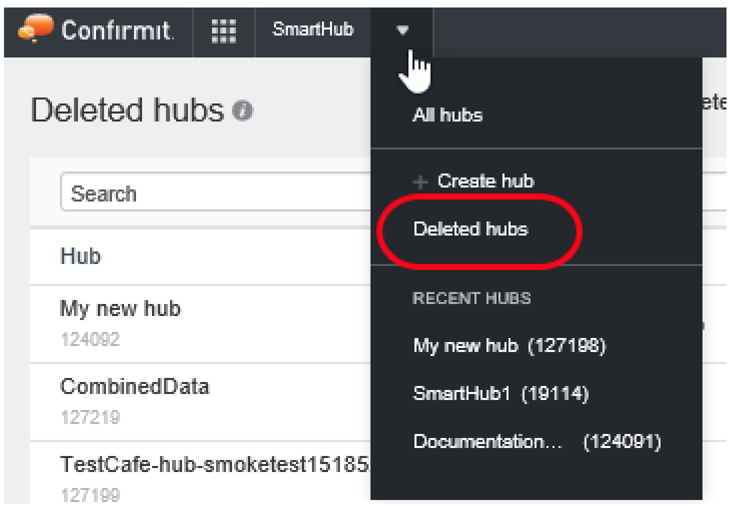


Figure 23 The Recently Deleted Hubs menu item

During this time, if you change your mind about deleting it you can restore it to your hub list.

1. Click on the **Deleted hubs** menu item to open a list of the hubs that have been deleted in the last 90 days.

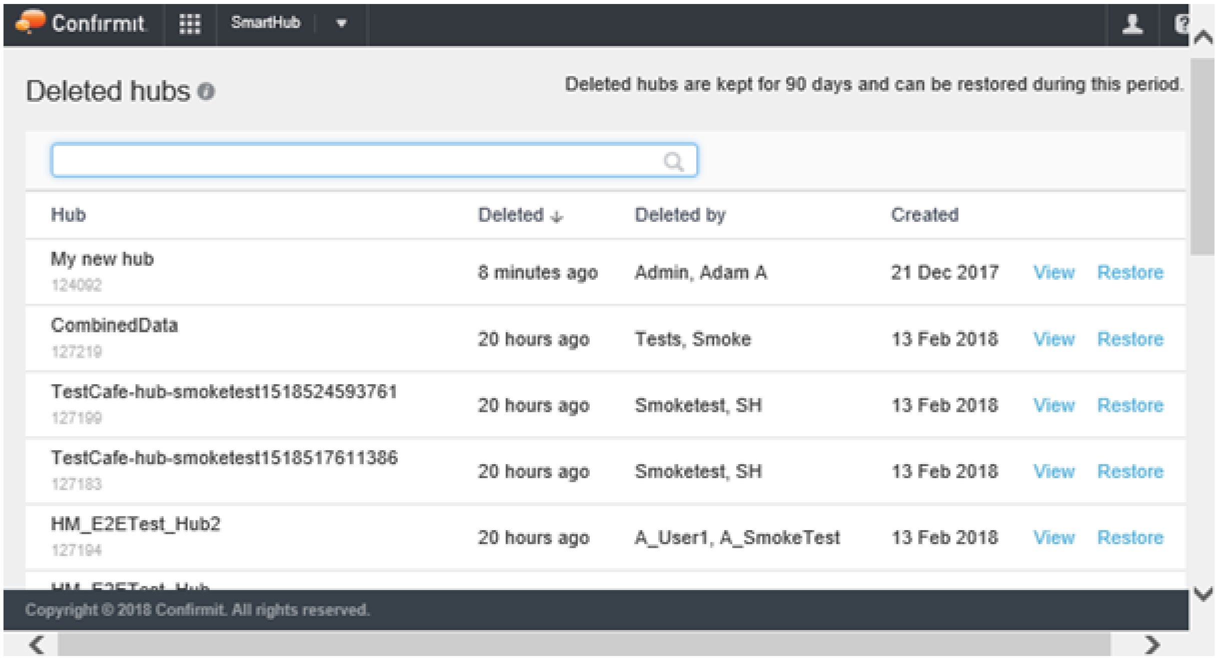


Figure 24 The Recently Deleted Hubs list

2. Click **View** to view the details of the hub.

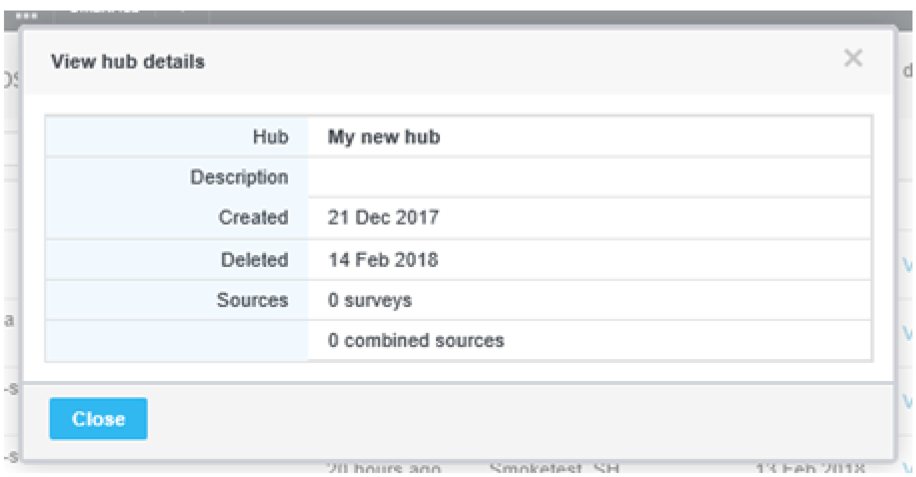


Figure 25 Viewing the details of a deleted hub

3. Click **Restore** and then **Restore** again to restore the deleted hub to the hub list.

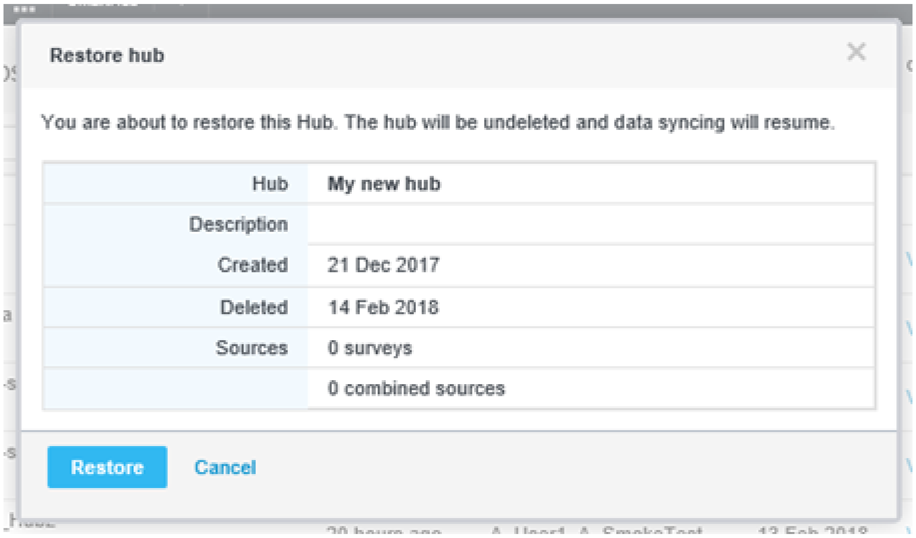


Figure 26 Restoring a deleted hub

4. Combined Surveys

Combining of surveys can be useful if:

- You have a continually running survey (sometimes called a Tracker survey), for example the same survey that is sent out every month for a year. This survey may include small changes each time it is sent out to tailor it to changing circumstances etc, and you may handle that by setting up a new survey for each month. You can then combine the data from the 12 surveys to see developments over the year.
- You are running a VoC program for a large international company. Perhaps there are small differences in the surveys sent out in the various countries to account for local customs and conditions, so that it is most practical to set up individual surveys for each country. Again, the data from all the surveys can be gathered together for overall reporting.
- You would like to look at several different surveys and compare some key metrics such as for example overall satisfaction (OSAT) or Net Promoter Score™[1] (NPS™) in the same table or chart.
- You would for example like to compare how employees and customers answer if you have two surveys that have asked the same questions to the two groups.

When the surveys are combined, questions that satisfy the comparison criteria are mapped automatically to ensure the same questions from each survey are merged (see The Mapping Rules on page 59 for more information). Any questions in the additional survey(s) that do not satisfy the criteria will not be mapped; these you can map manually (see Manual Mapping on page 42 for more information). You can also edit any existing mappings, changing them or deleting them as required (see How to Edit a Mapping on page 34 for more information).

For reporting, the combined survey will function as one survey irrespective of how many surveys have been combined. However, the report will include a variable that holds which survey the specific records have come from, so you can for example create filters or banners based on which survey the responses are from.

Note: Loops and questions in loops are not supported in combined surveys. "Loop reference" answer lists used in questions on the top level are supported. Questions using loop reference answer lists may be mapped if the loop reference is to a loop with the same content (same answer list or lookup table).

4.1. How to Create a Combined Survey

1. In the hub's Overview page click **Combine surveys** in the **Activities** menu, or in the Hub Designer page, go to the Surveys tab and click **Combine surveys**.

   The Select surveys to combine page opens. This page lists all the surveys that you have permission to use.

Note: Only surveys that belong to the company to which the hub is registered, will be listed, and only surveys that are launched with the production database can be added to the hub.

[1] NPS and NET PROMOTER are registered trademarks of Satmetrix Systems, Inc., F. Reicheld, and Bain & Company

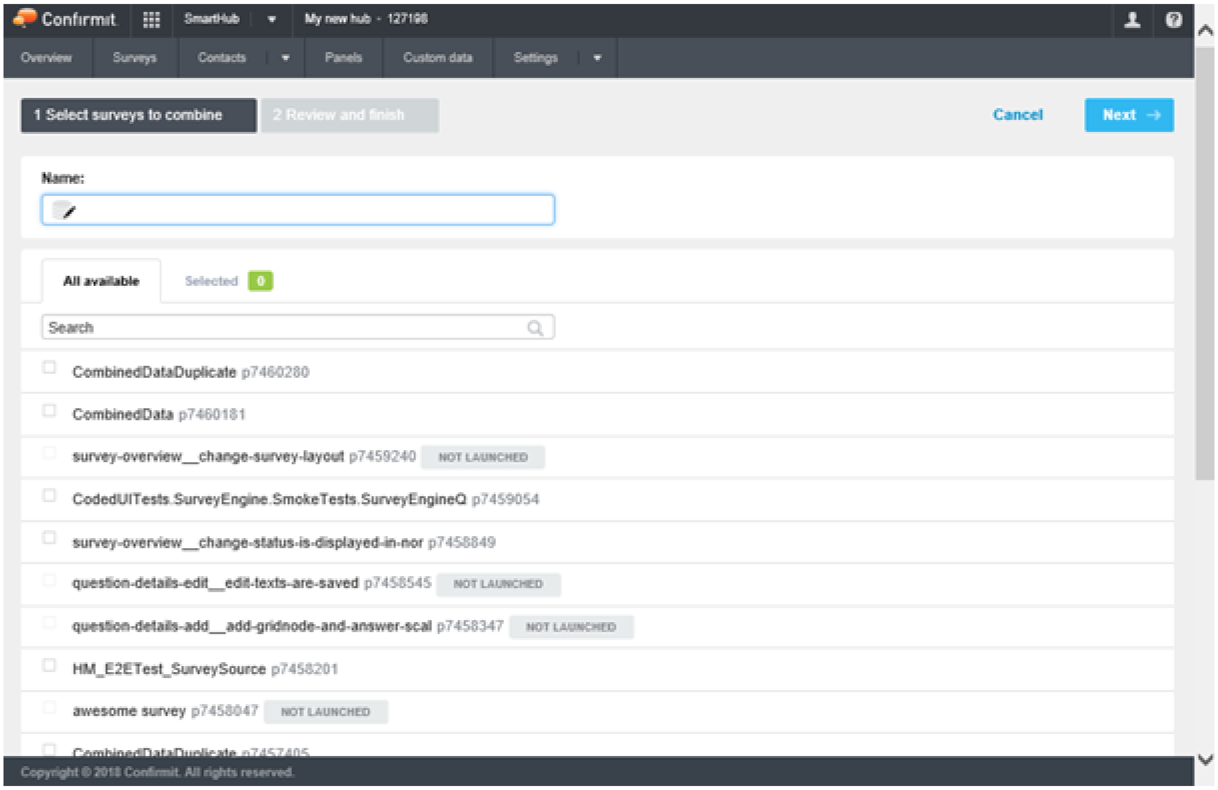


Figure 27 The Select surveys to combine page

2. In the **Name** field, give the combined survey a name.
3. Check the boxes beside the surveys you wish to add to the combined survey.

   The first survey you select will be designated as the Master Survey. Once you have selected more than one survey then you can change the Master Survey designation by clicking the appropriate button.

Note: When the combined survey is created, the hub makes a copy of the survey designated as the "master" and uses that as the starting point for the survey definition for the combined survey. This means that the original survey is not changed, but it also means that any changes made to the original survey after the combined survey is created will not automatically be incorporated into the combined survey.

4. Click **Next**.

   The Review and finish page opens. Here, all the variables for the surveys in the combined survey are listed.

Note: The Search & Filter field allows you to quickly find a particular question by searching for the question ID (see The Search and Filter Field on page 37 for more information)

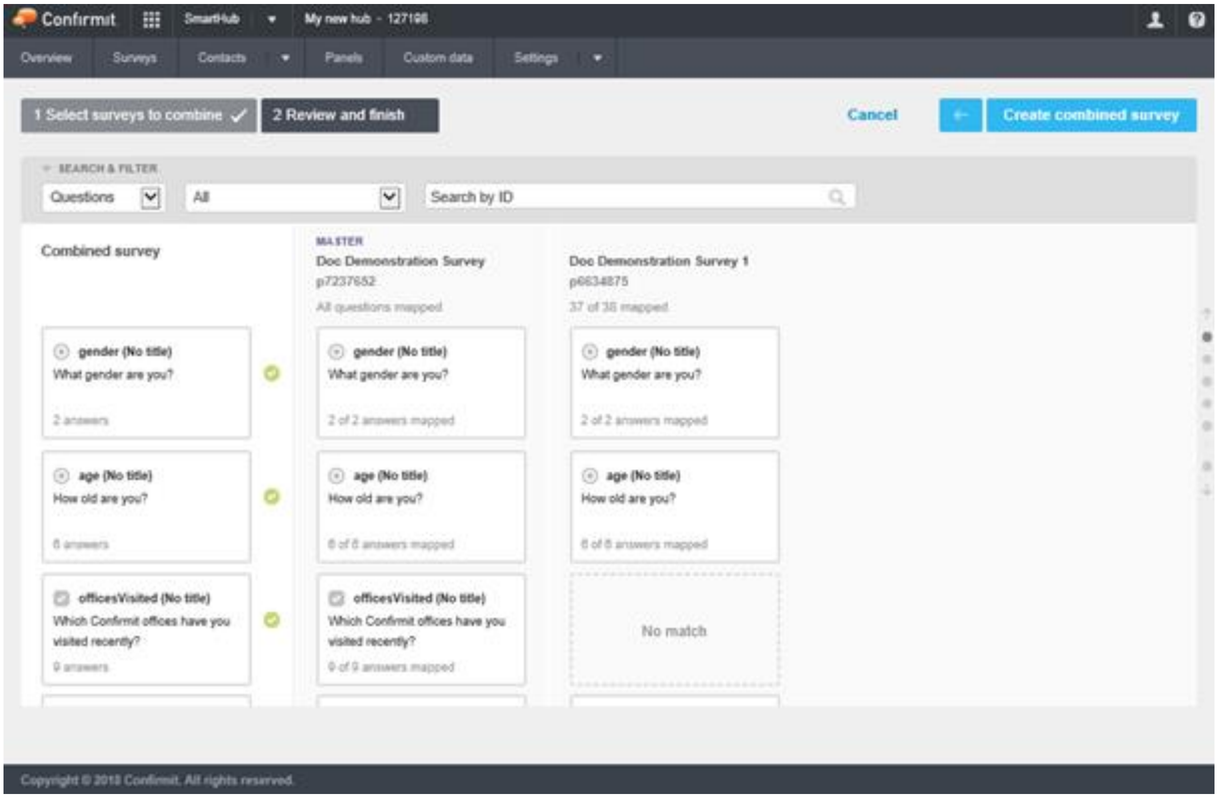


Figure 28 Example of the Edit Mapping page when combining two surveys

Those questions that have the same questionID, are of the same question type, where the answer list or scale (depending on question type) have the same number of answers, and where the codes are the same, are mapped (see The Mapping Rules on page 59 for more information) and given a green tick indicator. Note that for questions with reusable lists, the questions mapped together must use the same reusable list across the surveys.

Note: Manual mapping of Scale items in multi-grid questions is currently not supported

Note: The answer labels are not compared as the surveys may for example be in different languages so the labels could well be different by design. You should therefore check the questions to ensure the answers correspond. In the event of discrepancies you can map the answers (see Answer Mapping on page 49 for more information).

Any question that does not appear comparable in all the selected surveys will be indicated with “No match” for the appropriate question in the relevant survey's column. The preview gives you a chance to verify whether you picked the right surveys, before either going back and selecting other surveys, canceling the operation or moving forward by clicking **Create combined survey**.

The combined survey is created and saved, and the Manage survey page opens. From here you can:

- Add additional surveys (see How to Map a Survey into an Existing Combined Survey on page 30 for more information).

You can click **View/Edit mapping** to do any of the following:

- View the question mapping (see How to View a Mapping on page 31 for more information).
- Edit the question mapping (see How to Edit a Mapping on page 34 for more information).
- Remove questions from the combined survey (see How to Remove a Question from a Combined Survey on page 40 for more information).
- You can remove the entire survey from the combined survey (see How to Remove a Survey from a Combined Survey on page 41 for more information).

- You can add another survey to the combined survey.
- You can edit the question mappings manually (see Manual Mapping on page 42 for more information).
- In the event answer codes are different, you can edit the answer mapping (see Answer Mapping on page 49 for more information).
- You can delete the combined survey.
- You can override labels used in reporting on the combined survey.
- You can change synchronization settings.

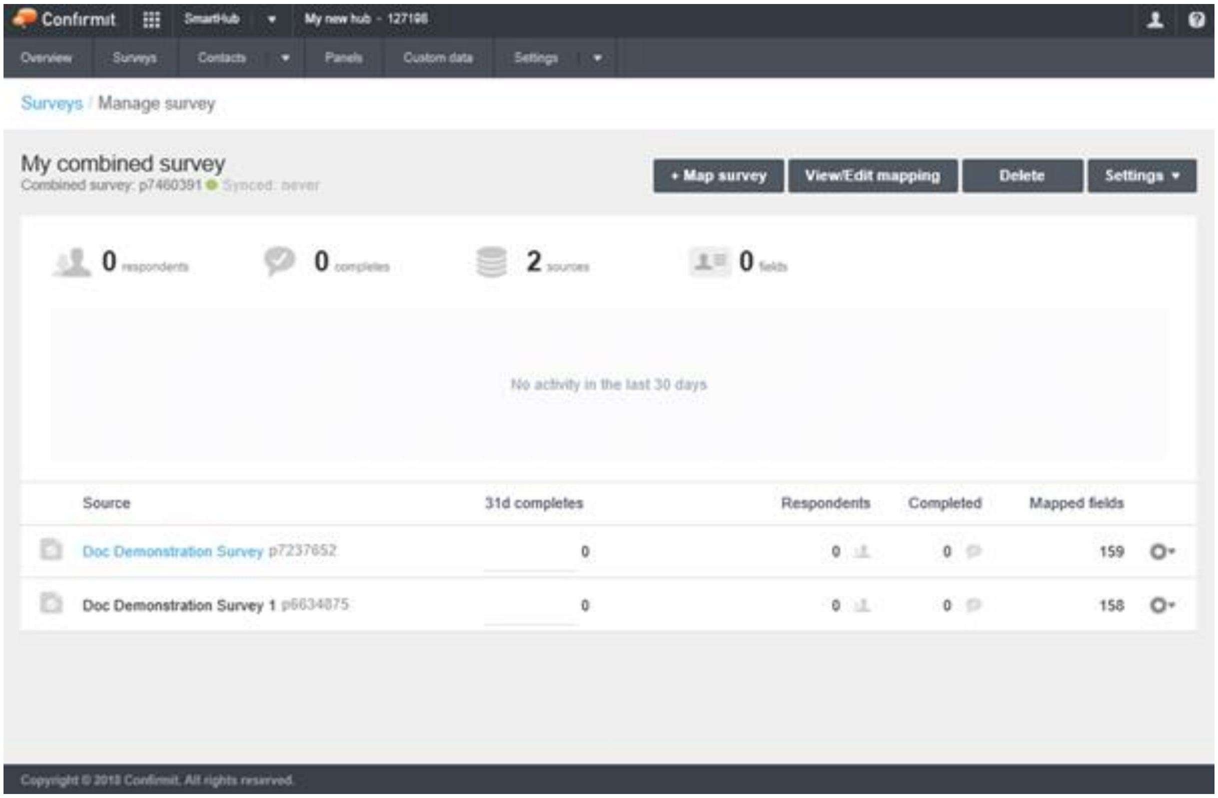


Figure 29 Example of the Manage survey page

Note: If you have a combined survey with a large number of mapped surveys and you only want to view or edit the mapping of one specific survey, when you are on the overview page for the combined survey, select View/Edit mapping under the cog-wheel icon for that specific survey (see Viewing or Editing the Mapping of a Single Survey on page 39 for more information).

4.2. How to Map a Survey into an Existing Combined Survey

Once you have a combined survey, you can add further surveys to it at any time.

1. In the combined survey, click the **+ Map survey** button.

   The Select survey to combine page opens.

2. Check the box(es) for the survey(s) you wish to add to the combined survey, then click **Next**.

The Edit mapping page opens. Here, all the variables for the surveys in the combined survey are listed. The variables that have the same questionID, are of the same type and that have the same answer list or scale depending on type, are mapped automatically; other variables are listed with "No match". You can edit the mappings (see How to Edit a Mapping on page 34 for more information), remove any questions from the selected surveys that you do not wish to include, and/or remove questions from the combined survey (see How to Remove a Question from a Combined Survey on page 40 for more information).

3. Click **Next**.

   The Review and finish page opens. Here you can check the variables and the mappings to ensure they are correct before saving.

4. If all is as required, click **Save changes**.

   You are returned to the Manage Survey page for the combined survey.

4.3. Viewing and Editing the Mapping

Once a mapping has been made, you can view it and change or delete it if necessary.

4.3.1. How to View a Mapping

To view a mapping:

1. In the combined survey's Manage Survey page, click the **View/edit mapping** button.

   The View/Edit mapping page opens.

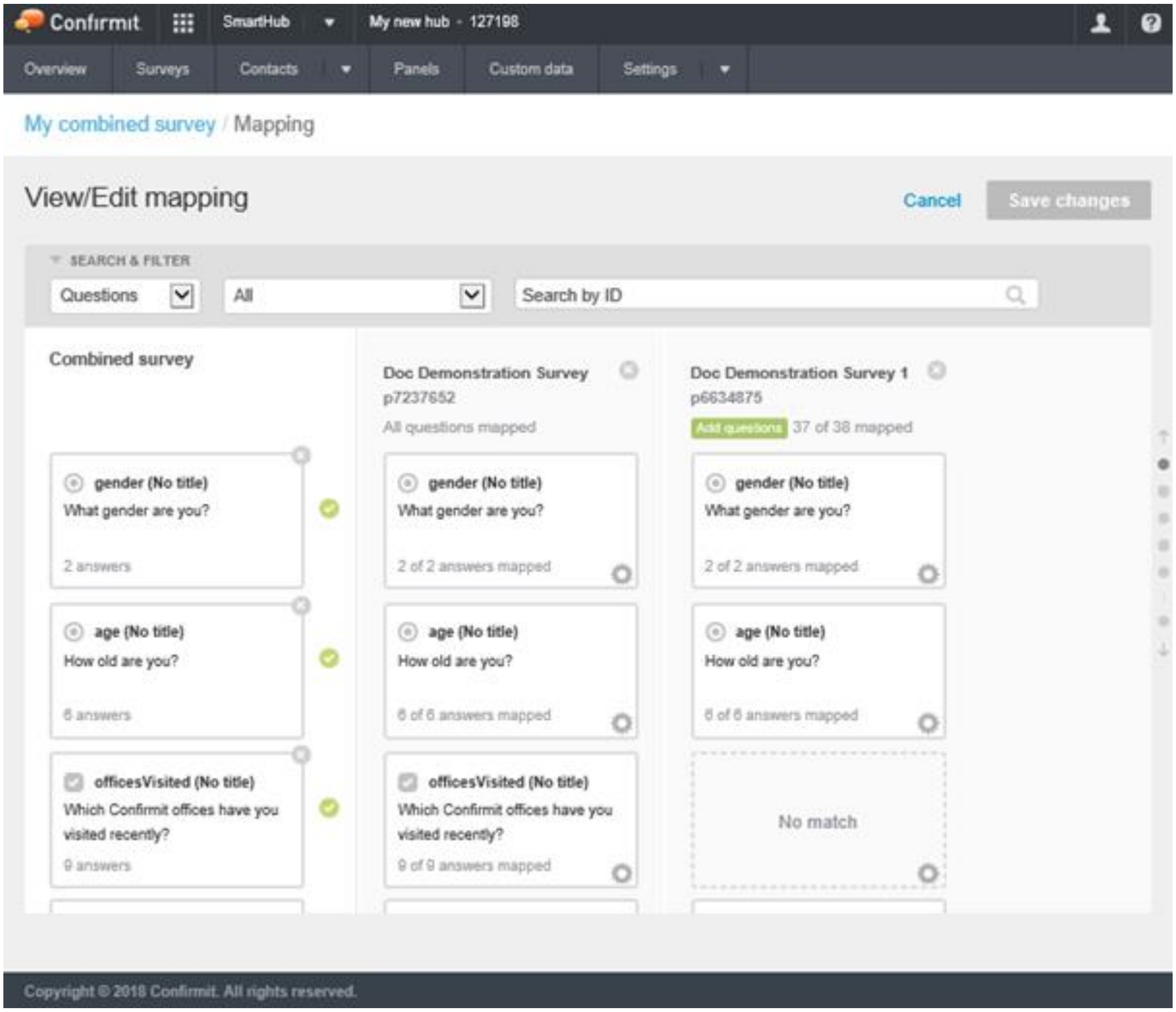


Figure 30 Example of the View/Edit mapping page for a combined survey

Here, all the variables for the surveys in the combined survey are listed. Note that loops and questions within loops will not be listed and will not be processed. The number of questions processed and the number actually mapped for each additional survey are given at the top of the column.

2. If you wish to make any changes to the mappings, click the cog-wheel icon in the lower-right corner of the mapping you wish to edit (see How to Edit a Mapping on page 34 for more information).

For grid, numeric list, open text list, ranking, multi or single questions you can click on the question to view the answers that are mapped and the codes for those answers.

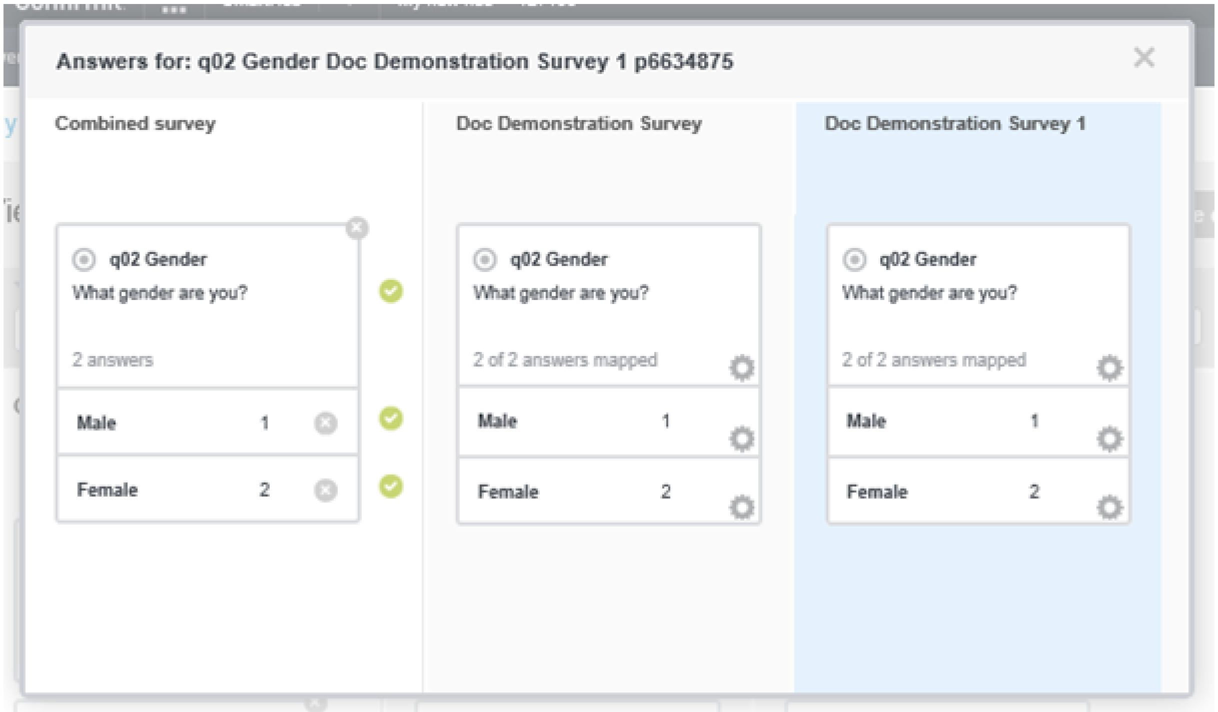


Figure 31 Example of the answer and code details for a mapped single question

In the event the answers to a question are taken from a reusable list, then this will be indicated by an icon in the header box (ringed) and a solid line on the left side of the answer (arrowed). Any additional answers that are not part of the reusable list will not have the solid line. Note that the answer lists will be taken from the individual surveys so may not be identical.

Note: If you are using a reusable answer list and you change the list, the changes will be applied everywhere you have used the list.

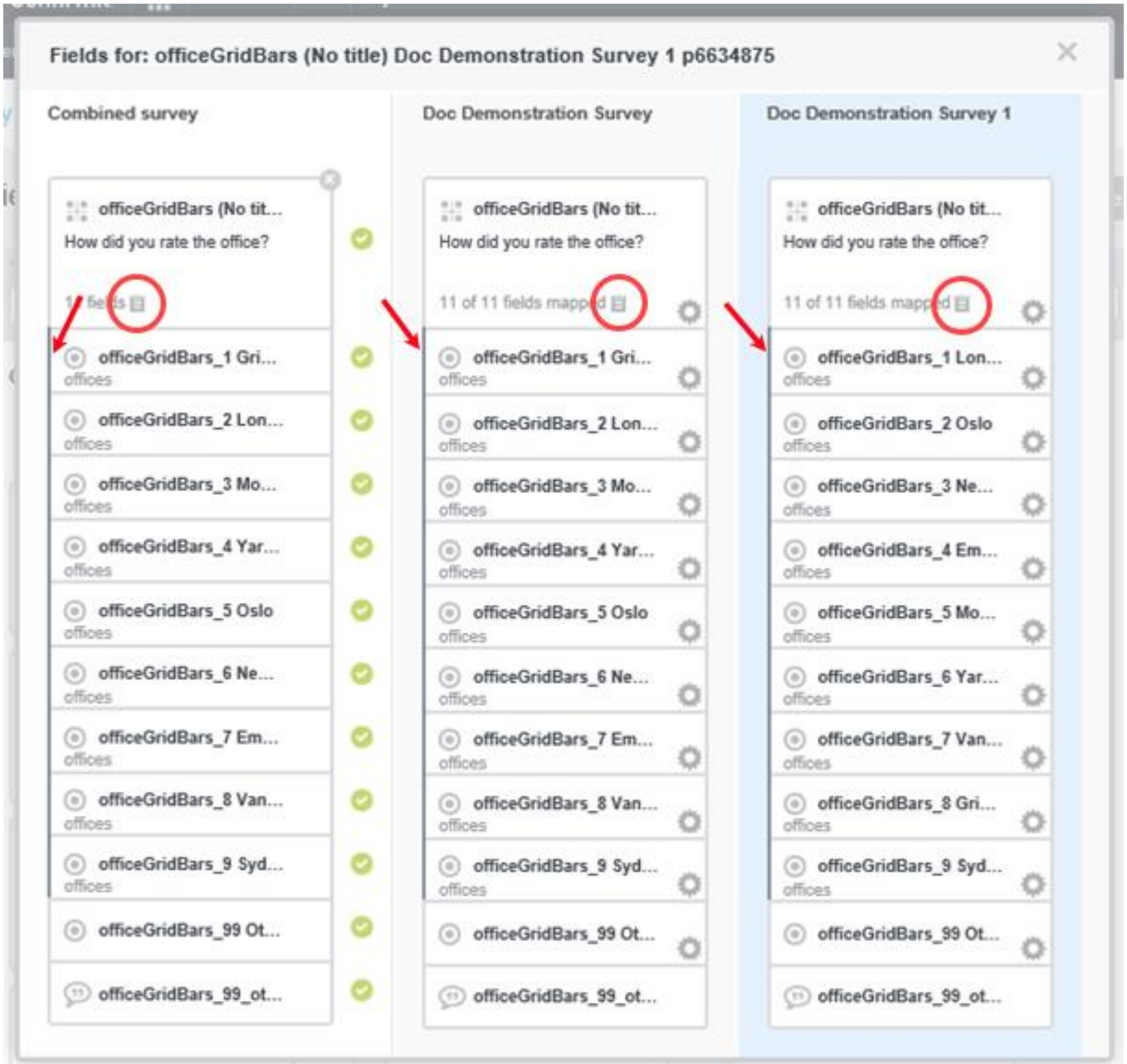


Figure 32 Answers from a reusable list

4.3.2. How to Edit a Mapping

1. In the Manage survey page, click the **View/edit mapping** button.

   The View/Edit mapping page opens.

   This page displays the question in the combined survey in the first column. The other columns show the mapped questions in all the surveys in the combined survey.

   The Search & Filter field allows you to quickly find a particular question by searching for the question ID (see The Search and Filter Field on page 37 for more information).

   To edit a mapping for a question:

2. Click the cog-wheel icon in the lower-right corner of the appropriate box to open a drop-down menu.

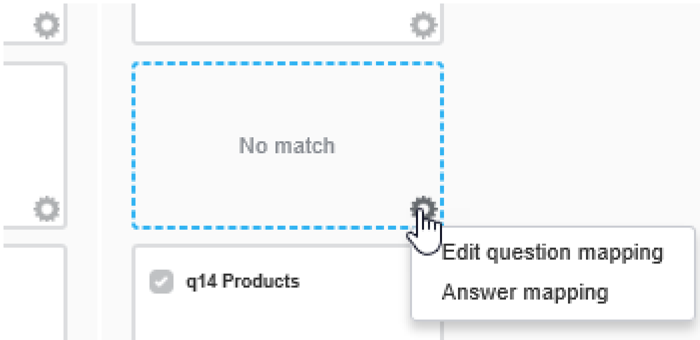


Figure 33 Activating the edit icon for a question

3. Click **Edit question mapping**.

   The Edit mapping to overlay opens.

- The Not mapped questions tab lists all those questions in the survey that are of the same type as the question in the master survey and that have not yet been mapped. Here you can choose an unmapped question and map it to the question selected in the master survey (given in the upper-left corner of the overlay.
- The All questions tab lists all the questions in the additional survey that are of the same type as the question in the master survey, whether or not they have been mapped. Here you can transfer a mapping that has been made automatically, from another question to the question selected in the master survey.

  Items in the list that according to the mapping rules match the current question have a green **Suggested** icon. If you select a Suggested item the icon changes to **Suggested & mapped**. Items that match the current question but are already mapped to another question have a gray **Mapped** icon. Items that according to the mapping rules do not match the current question have no icon.

  In the event the system cannot find any questions that match the criteria, you can view all the available questions and perhaps select one of those manually (see Manual Mapping on page 42 for more information). If the problem could be that the answer lists don't match, then you can change the **Matching answer lists...** option to **Allow different answer lists...**.

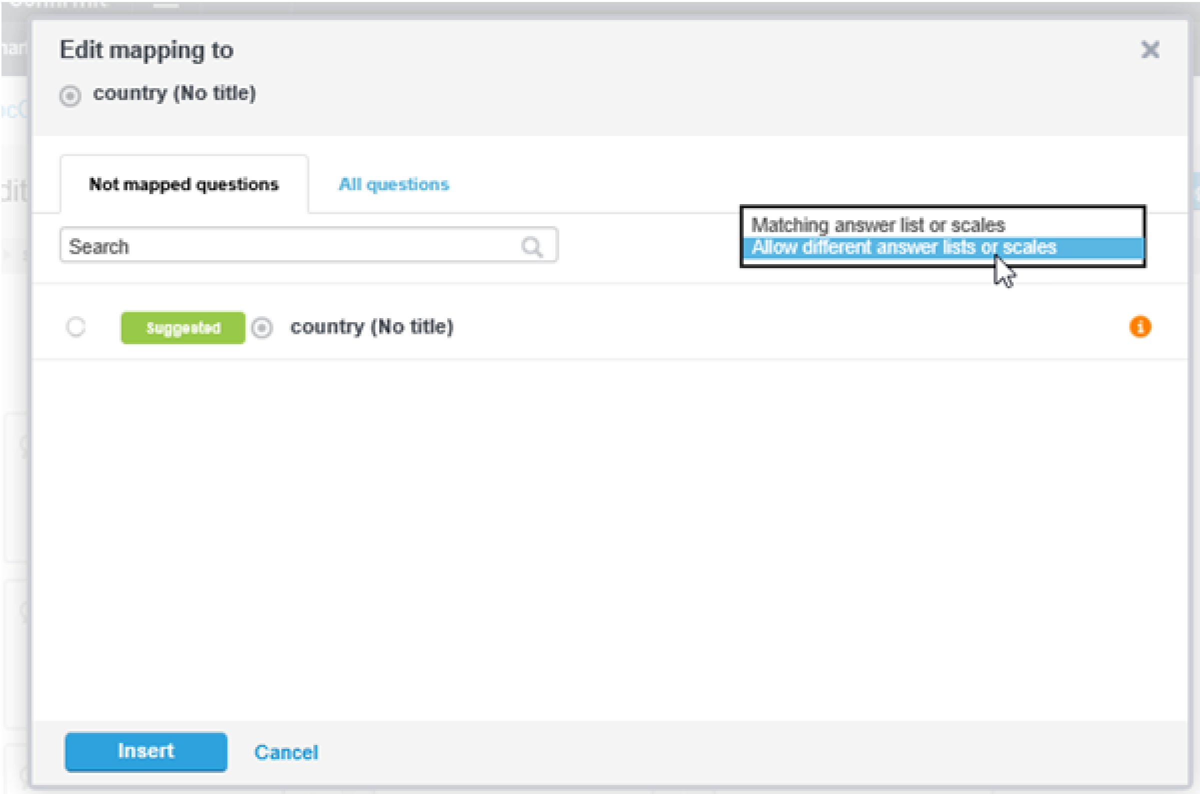


Figure 34 The Edit mapping to overlay, Not mapped questions tab

Note that a question can only be mapped once; if you transfer a mapping then the original mapping will be deleted.

In the event the overlay lists a large number of questions, you can use the Search field to filter the list. Start typing the question ID into the field; as you type, the list will be filtered to include only those questions where the ID matches the typed characters.

4. When you have found the question you wish to map, select it and click **Insert** (see Manual Mapping on page 42 for more information).

   You are returned to the Manage Survey page for the combined survey.

   In the event you have mapped a question where the answer list doesn't match the master, this will be indicated in the question box by a discrepancy in the number of answers mapped. You can now map the answers (see Answer Mapping on page 49 for more information).

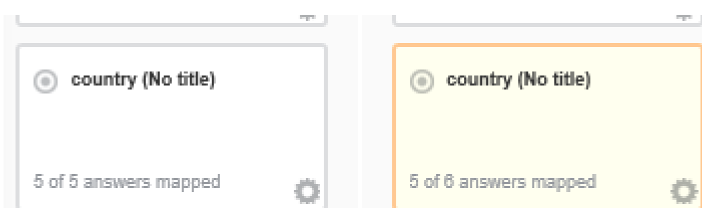


Figure 35 Example of an answer list discrepancy

4.3.2.1. The Search and Filter Field

The Edit Mapping page includes a Search and Filter field to simplify searching for the required question. Click on the field to open it.

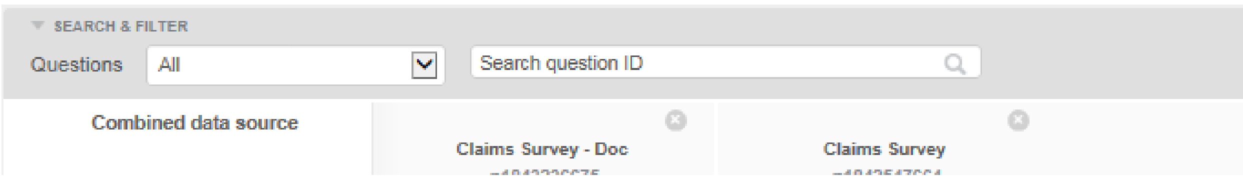


Figure 36 The Search and Filter field

- You can choose between searching for questions and searching for reusable lists.
- You can choose between showing all questions or reusable lists, or just showing questions or reusable lists with errors or warnings in the mapping. This provides a quick way of finding questions or reusable lists were there are issues you may need to look into.
- For questions, you can also choose to show only questions with reusable lists, to easily find those questions.
- Start typing the required question ID or reusable list ID into the field. The list of questions will be filtered as you type to show only those questions where the question ID starts with the typed characters.

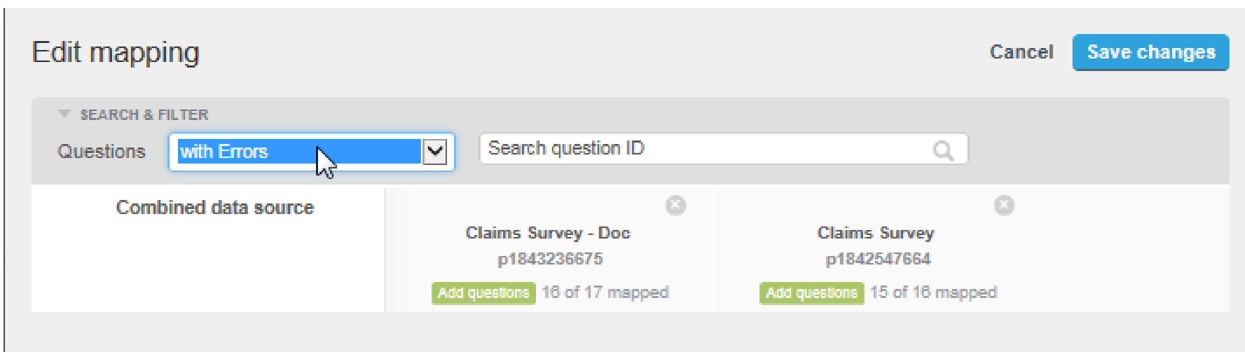


Figure 37 Only showing the errors

More information regarding the error is available on the question (see Mapping Errors and Warnings on page 37 for more information).

4.3.2.2. Mapping Errors and Warnings

When a problem is discovered in a combined survey, perhaps a question has been deleted from one of the surveys, then an error or warning is indicated.

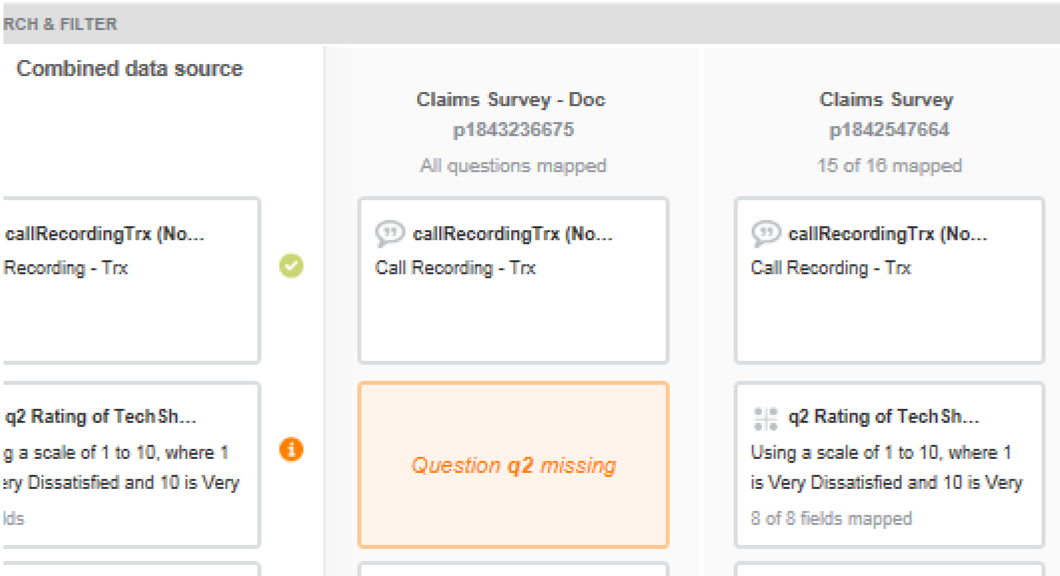


Figure 38 A warning

Move the pointer over the **i** icon to show information about the status and the number of notifications for this question.

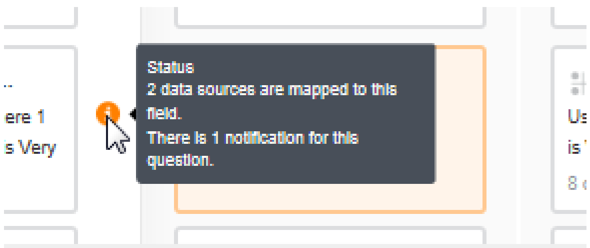


Figure 39 Example of the status and notification message

Move the pointer over the question box to show information about the actual problem.

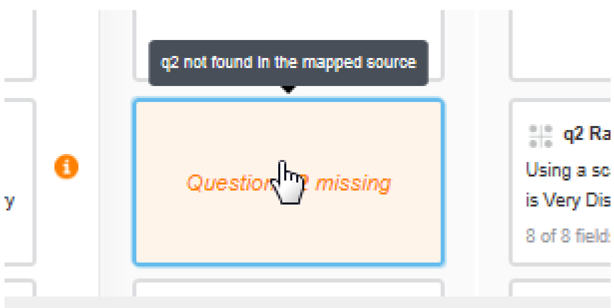


Figure 40 Example of the problem message

Errors will prevent the hub loader from executing, so all must be resolved for the data synchronization to continue. Warnings will not prevent the hub loader from running, so the user may choose to ignore them without disrupting data synchronization. Issues in mapping may be resolved by updating the mapping (removing the question or survey entirely, or editing the mapping to for example map a different question) or making updates to the survey(s) that are referenced (for example add back a question or answer that was deleted etc.).

4.3.3. Viewing or Editing the Mapping of a Single Survey

If you have a combined survey with a large number of mapped surveys and you only want to view or edit the mapping of one specific survey, when you are on the overview page for the combined survey, select **View/Edit mapping** under the cog-wheel icon for that specific survey.

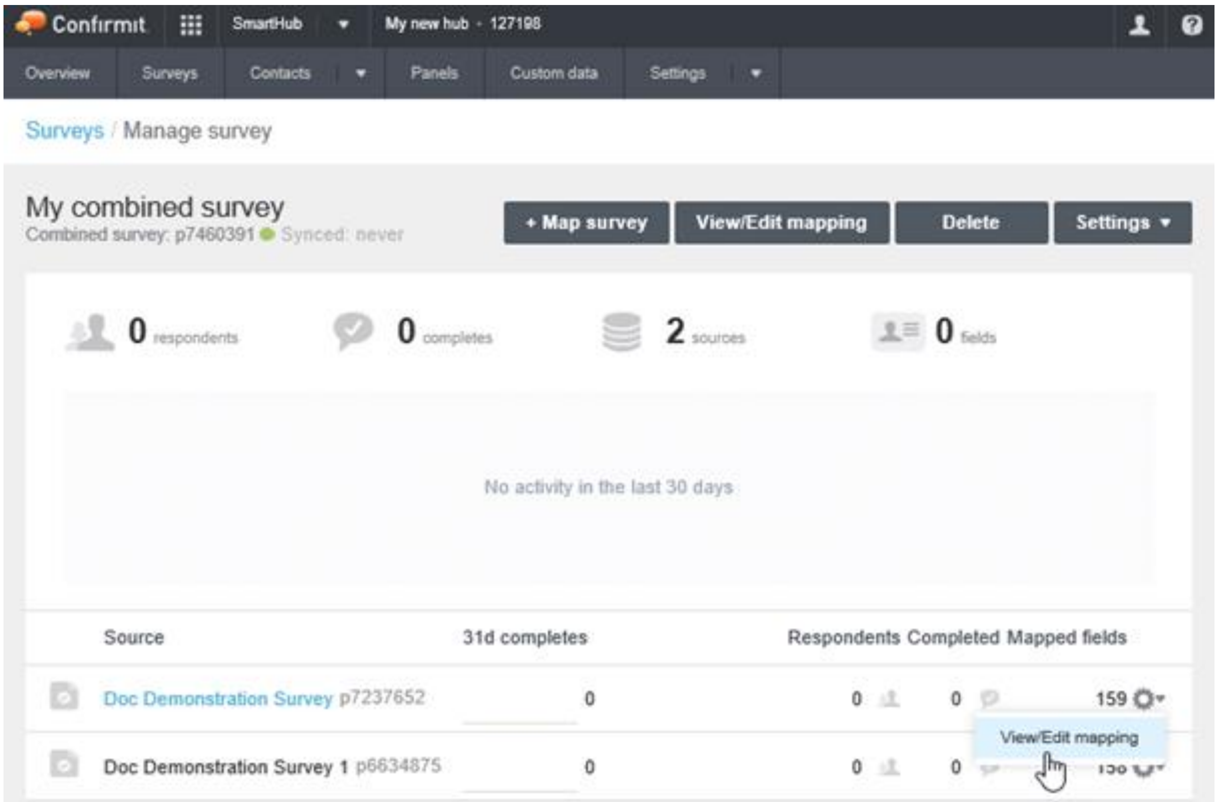


Figure 41 View/Edit mapping for a single survey

It may be convenient to have less “clutter” on your screen if for example you are not interested in reviewing all the mapped surveys, and by accessing just the one survey you will not have to scroll horizontally to find the particular survey in the mapping editor. It will also make the mapping editor open faster and be more responsive when editing a combined survey with many surveys. When selecting **View/Edit mapping** for a specific survey, the editor will open with just two columns; one for the combined survey and one for the survey you have selected to open the mapping for.

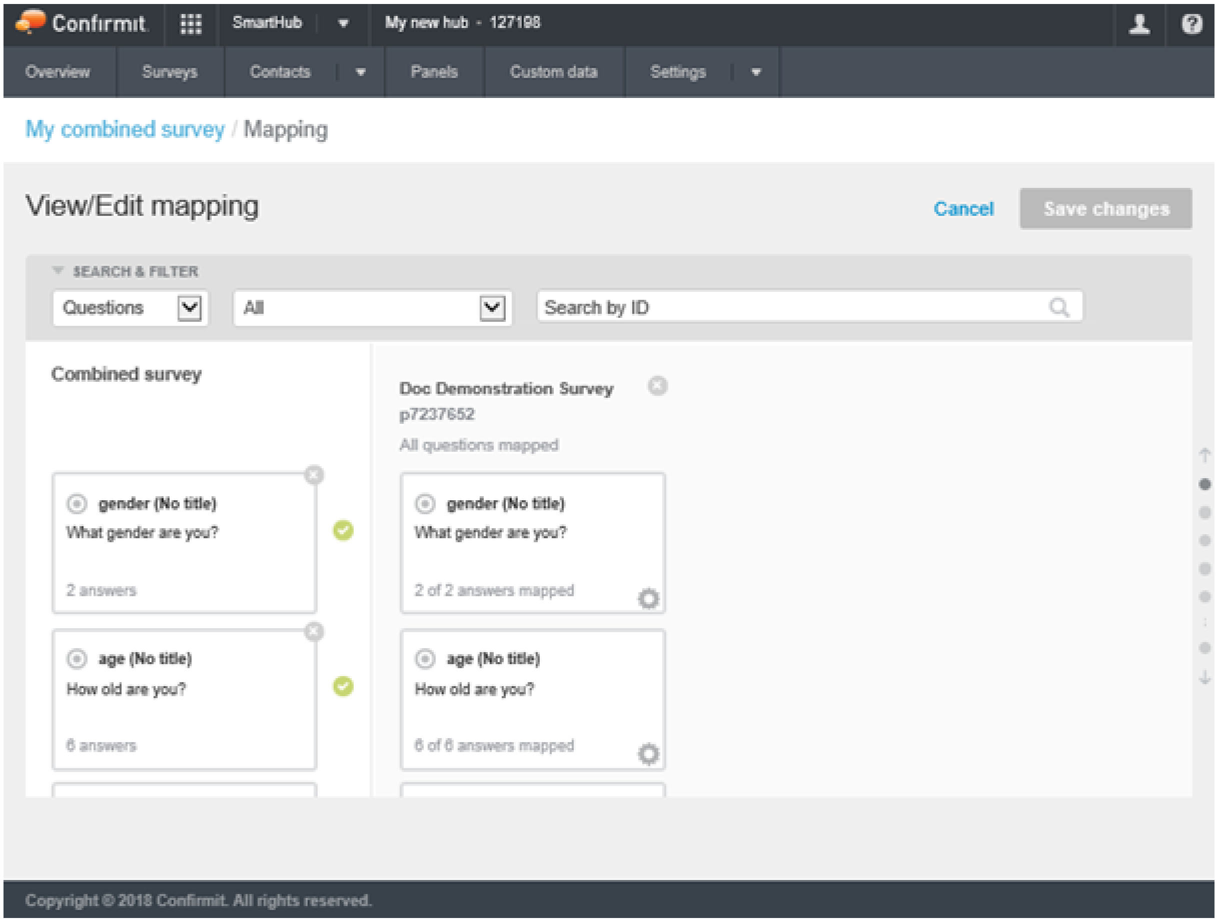


Figure 42 Only the combined survey and the selected survey are presented

4.3.4. How to Remove a Question from a Combined Survey

To remove a question from a combined survey:

1. In the Manage Survey page, click the **View/edit mapping** button.

   The View/Edit mapping page opens.

2. In the Combined survey column, find the question you wish to remove then click the **X** button in the upper-right corner of that question box.

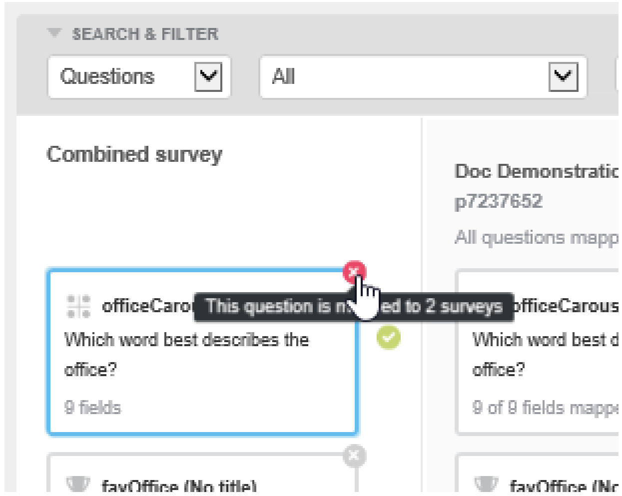


Figure 43 Removing a question from a combined survey

A confirmation overlay opens.

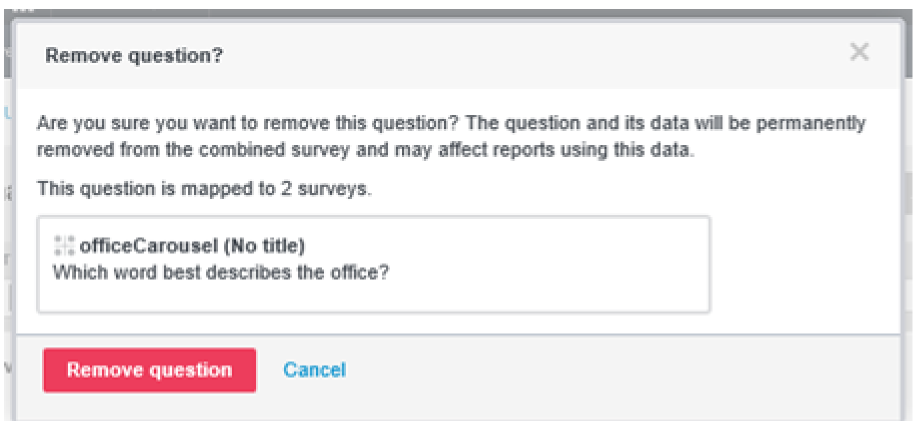


Figure 44 Example of the confirmation overlay

3. Click **Remove question** to confirm the removal.

Note: The question and its data will be permanently removed from the combined survey and this will affect reports and Action Management systems using this data. Only the combined survey is effected; the surveys used in the combined survey are not changed.

4.3.5. How to Remove a Survey from a Combined Survey

To remove a survey from a combined survey:

1. In the Manage survey page, click the **View/edit mapping** button.

   The View/Edit mapping page opens.

2. Find the column for the survey you wish to remove, then click the **X** button in the upper-right corner of that column.

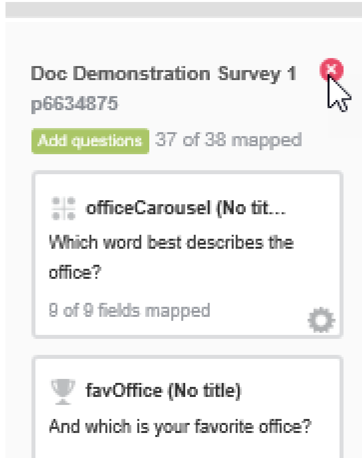


Figure 45 Removing a survey

A confirmation overlay opens.

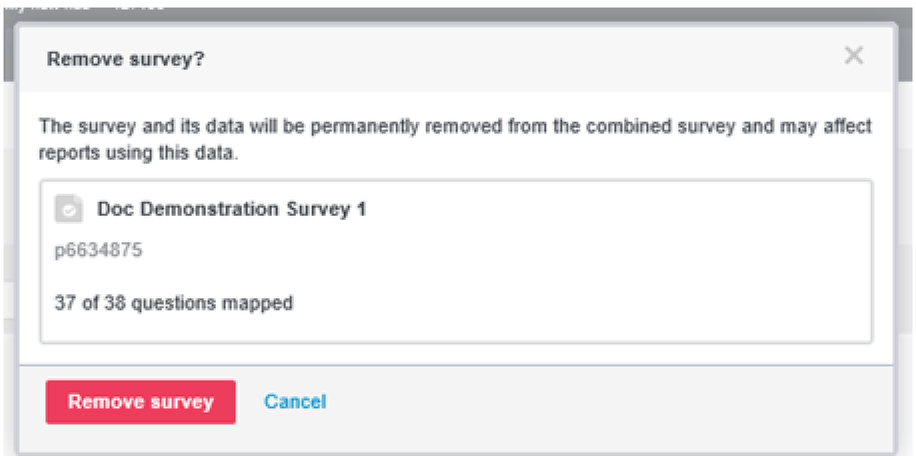


Figure 46 Example of the confirmation overlay

3. Click **Remove survey** to confirm the removal.

Note: The survey and its data will be permanently removed from the combined survey and this will affect reports and Action Management systems using this data. Only the combined survey is affected; the surveys used in the combined survey are not changed.

4.4. Manual Mapping

In the event some questions will not map automatically, or you wish to edit mappings that have been made, you can do this manually. The questions that will be available to you for mapping will depend on the question type that is selected in the master survey.

4.4.1. Mapping Questions with Different QIDs

When creating a combined survey, there may be cases when corresponding questions that you want to be mapped have different question IDs. In this case you can map the questions manually.

Note: In general, only questions that are of the same question type (for example single, open text, numeric etc.) can be mapped. The only exception to this rule is items in grid questions; these can be mapped to single questions.

In this example, the question q4_IssueResolved in the master survey is to be mapped with the question q4_1_IssueResolved in the additional survey. To do this:

1. Create the combined survey.
2. Open the combined survey and click **View/Edit mapping**.
3. Find the question that hasn't been mapped because of the different question IDs.
4. Click the cog-wheel icon and select **Edit question mapping**.

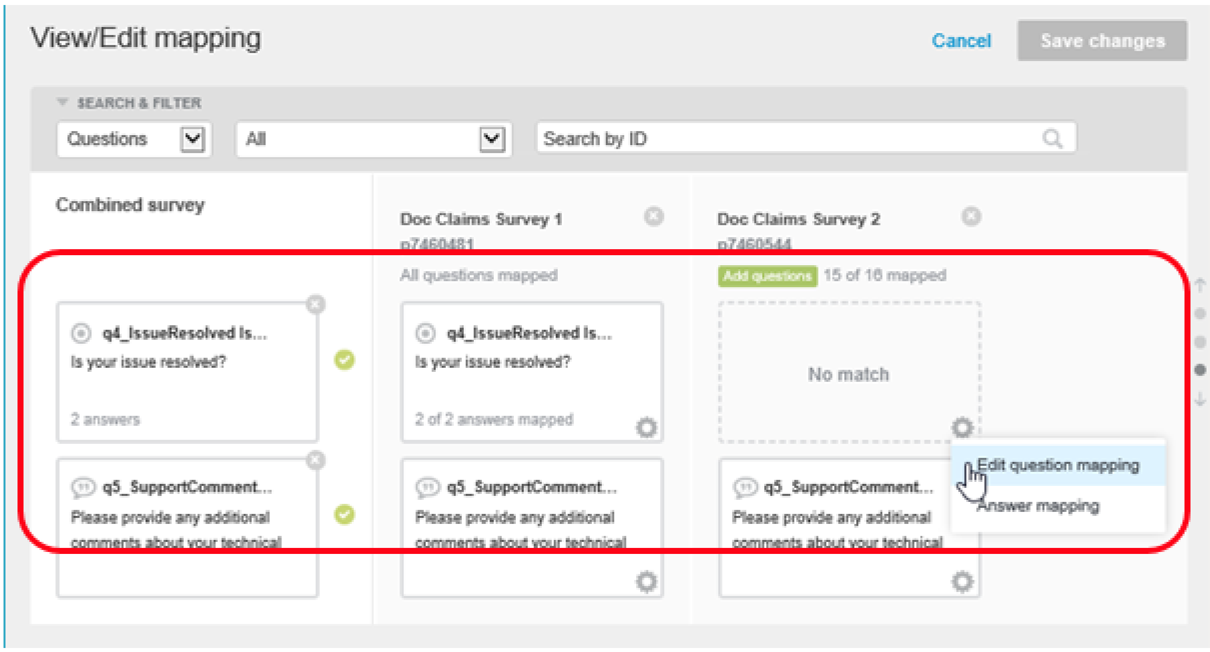


Figure 47 Editing the mapping

The Edit mapping to overlay opens listing all the unmapped questions of the same question type that have the same answer list.

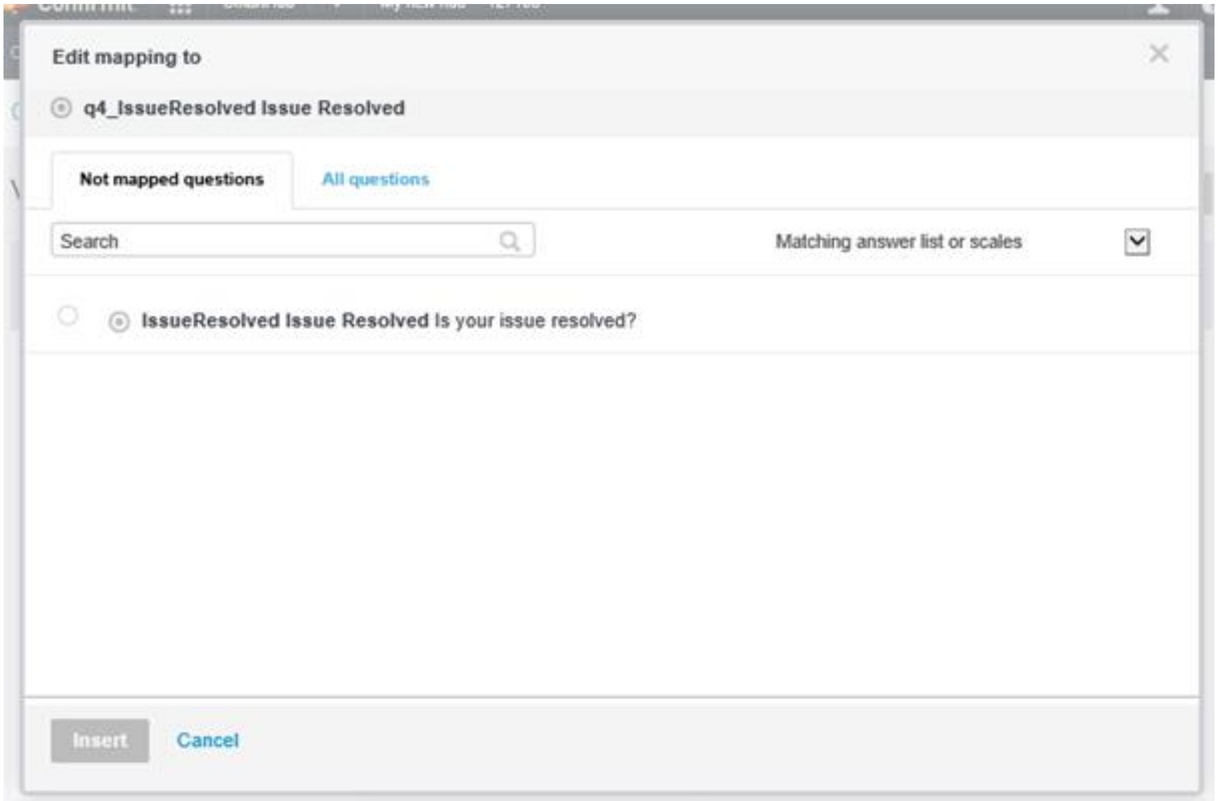


Figure 48 The unmapped question suggested for mapping

5. Find the question that you wish to map (in this case there is only one suggestion), select it and click **Insert**.

Note: In this example the question name has merely been changed slightly to illustrate the situation.

The mapping is performed.

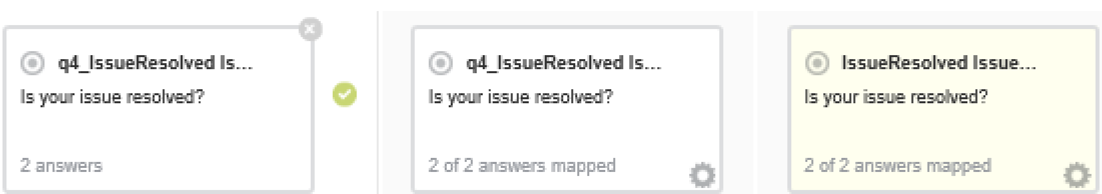


Figure 49 The questions with different question IDs are mapped

6. Assuming the result is correct, click **Save changes** to return to the View/Edit mapping page.

4.4.2. Field Mapping

For grid, multi grid, multi with capture order, numeric list, open text list, and ranking questions, which are all question types that can be seen as a collection of questions with one field for each item in the answer list, you can perform mapping at the field level as an alternative to question level mapping. You can for example map an entire grid to another grid, or you can conduct field mapping to for example map fields from one grid to specific fields in another grid, map single questions to fields in a grid, or map fields in a grid to single questions (note that this last action is actually Question mapping, not Field mapping). Similarly, open text questions can be mapped to open text list and numeric questions to numeric list. Field mapping is necessarily a manual process; choosing which questions are to be mapped cannot be automated.

Here is an example where we have a grid question q2 in the combined survey, where the exact match isn't found in the second survey.

To set up field mappings for a grid:

1. Open **View/Edit Mapping** for the combined survey and locate the grid question (Here: q2).

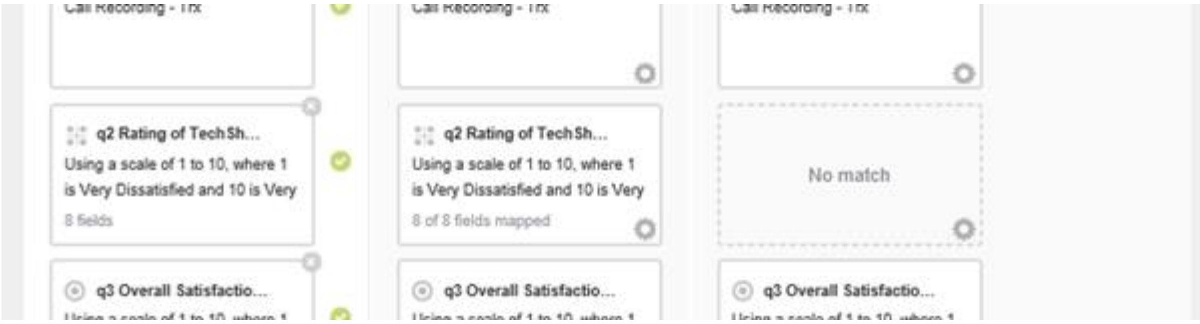


Figure 50 The combined survey contains the grid but there is no match

2. Click **Edit mapping**.
3. Select **Field Mapping** for the question in the survey with "No match".

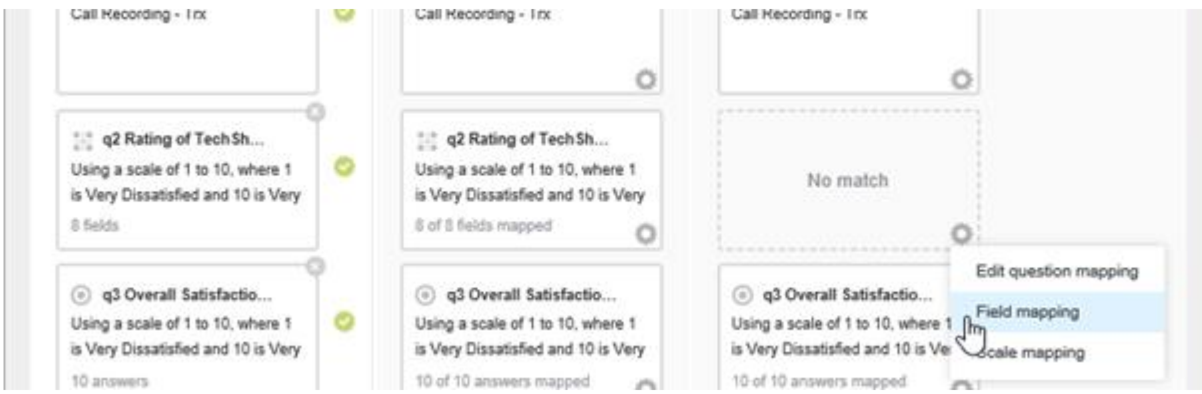


Figure 51 Selecting Field mapping for a grid question

4. Pick the field you want to map and select **Edit Mapping**.

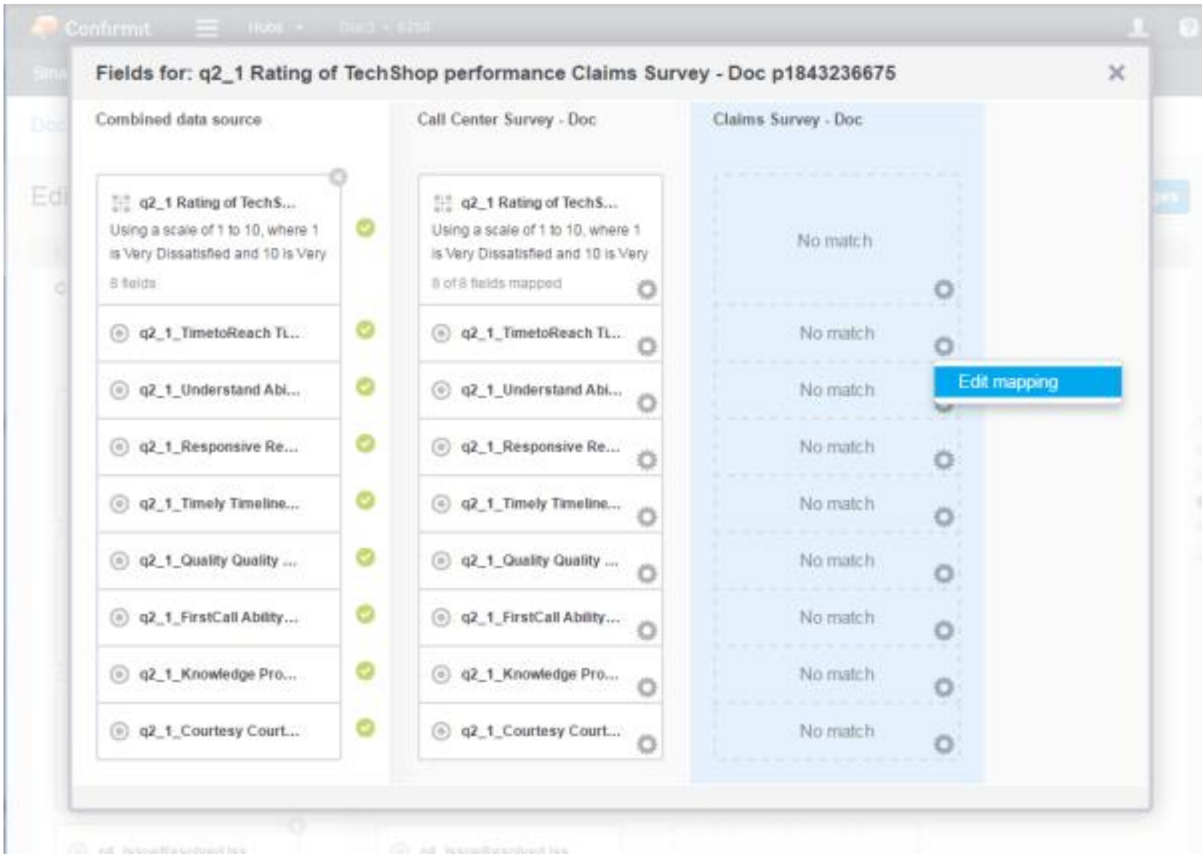


Figure 52 Editing the mapping for a grid field

Choose from the list of other grid fields and single questions that can be mapped. You can choose whether to show only fields and singles with matching scales (same number of answers and same codes) or not, and you can also switch between listing only unmapped fields or all fields.

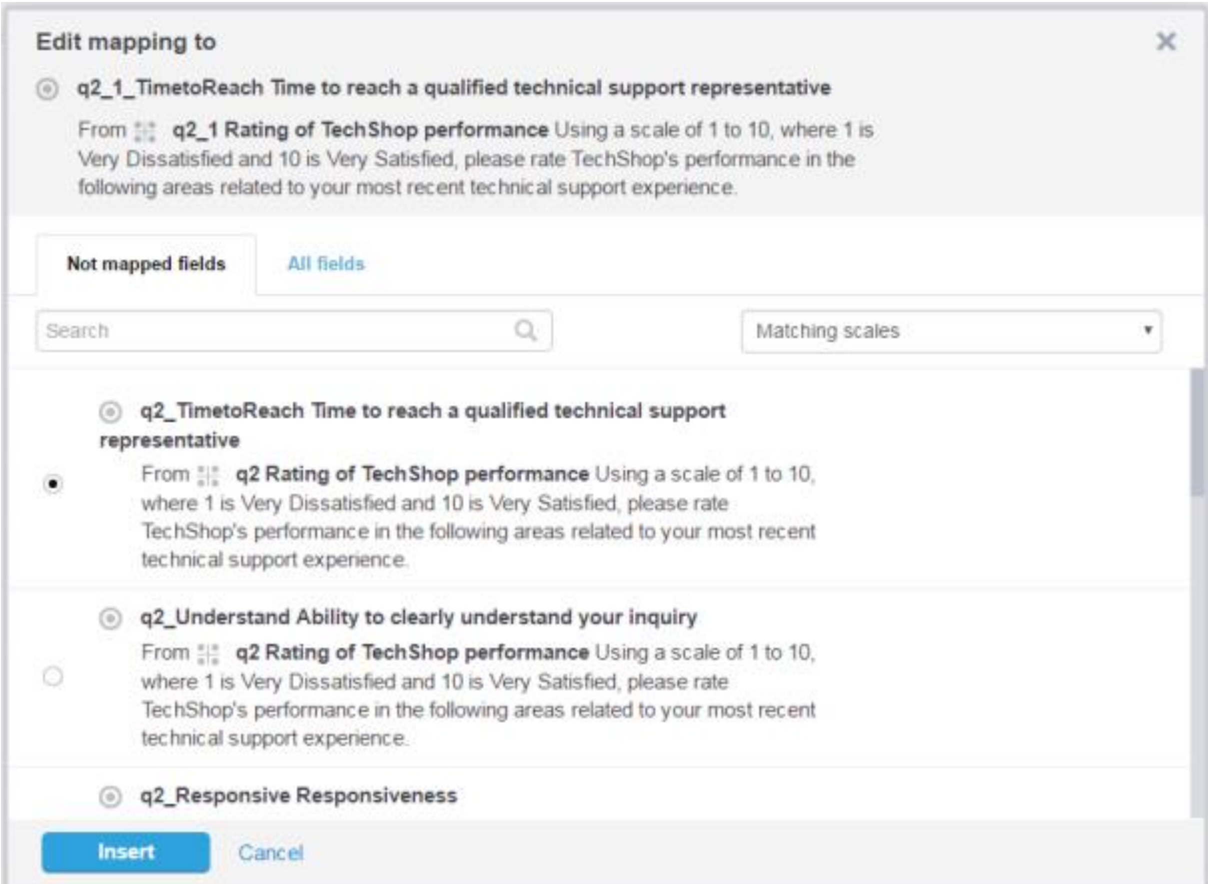


Figure 53 Selecting grid fields or single questions to map to a grid field

5. Select the field you want to be mapped to the current grid field.
6. Click **Insert**.

   The field is mapped.

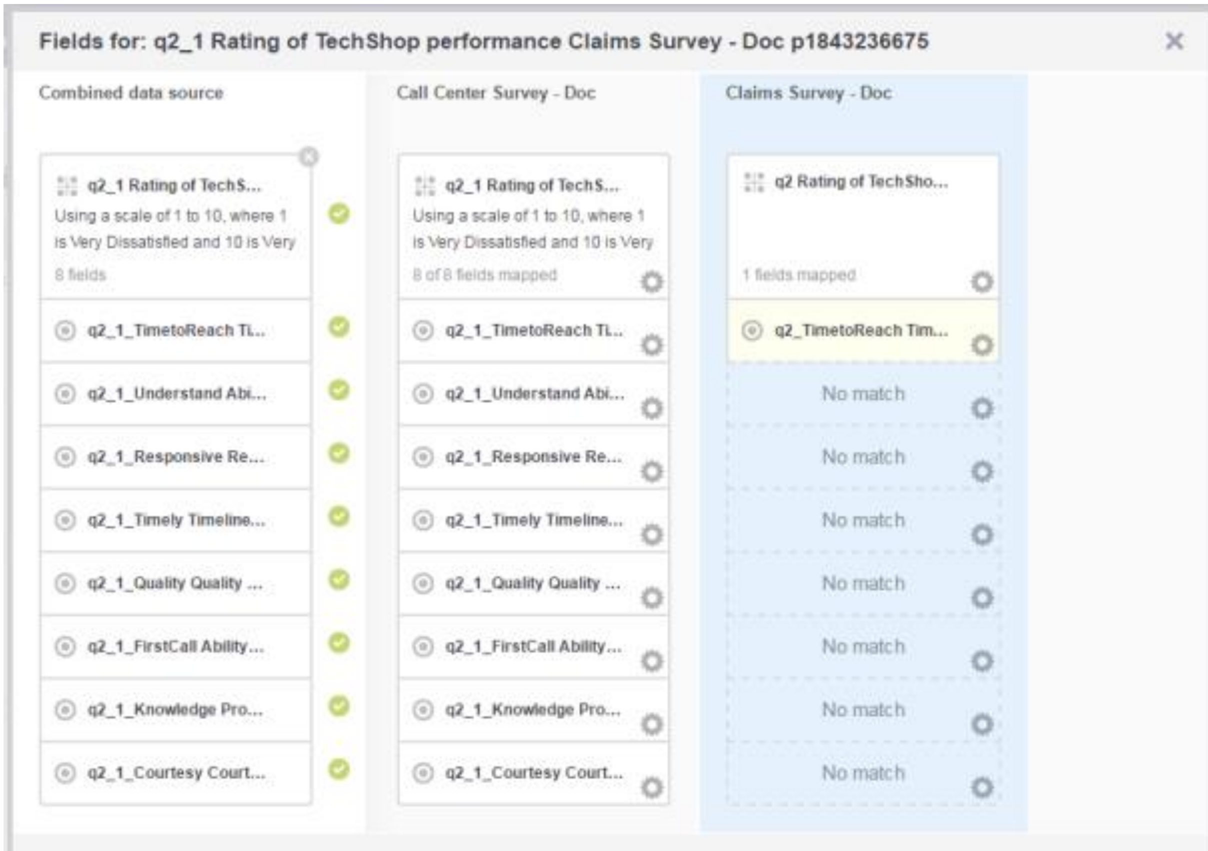


Figure 54 The field is mapped

7. Repeat the procedure for all the fields you want to map.
8. On completion, click the **X** button in the upper-right corner of the overlay to return to the Edit mapping page.

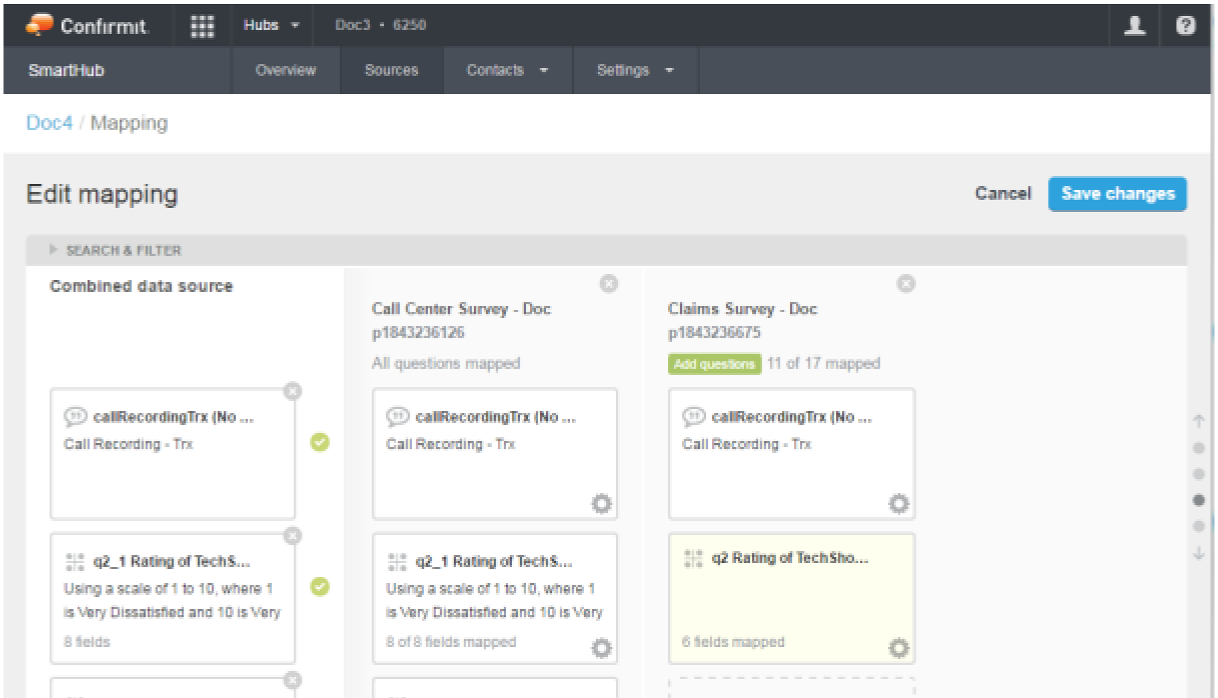


Figure 55 The fields in the grid are now mapped

To take away a mapping, click **Field mapping** and select **Remove mapping** on the field(s) you want to remove.

4.4.3. Answer Mapping

When combining multiple surveys into a combined survey in SmartHub, for each corresponding question SmartHub checks that there are the same number of answers and that the codes are the same. The answer labels are not compared as the surveys may for example be in different languages, so the labels could well be different by design. If an additional survey has a different number of answers in a question, or different codes have been used for the same answer options, then the affected questions will not be mapped and the discrepancy will be indicated by **No match** in the question.

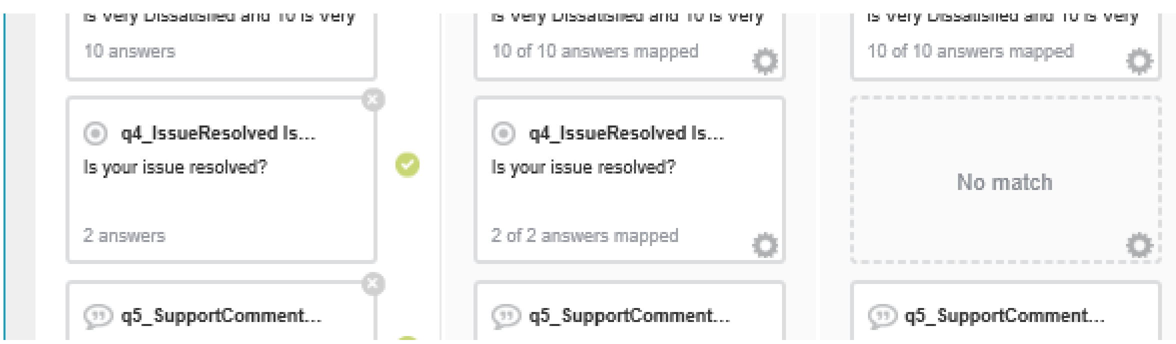


Figure 56 A question has not been mapped

Once you have mapped the question, the underlying problem that resulted in the question not being mapped automatically will still exist. The question with the problem will be highlighted and an information pop-up will be available. The question will need to be investigated and the problem corrected.

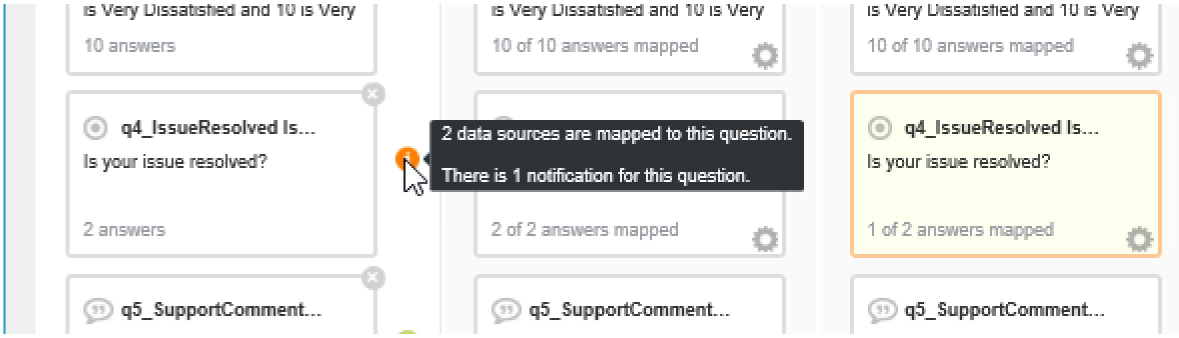


Figure 57 Example of a mapping notification

The Answer Mapping functionality allows you to map the answers to questions. This can be performed on the answers for Single and Multi questions, on the scales in Grid questions (scale mapping), and can also be done on reusable lists. In this case it will apply to all questions using the reusable list.

Note: Manual mapping of Scale items in multi-grid questions is currently not supported

In the example given here, there is a notification for the q4_IssueResolved question and the question in the additional survey is highlighted. Hover the mouse pointer over the additional survey's q4_ question to view the details.

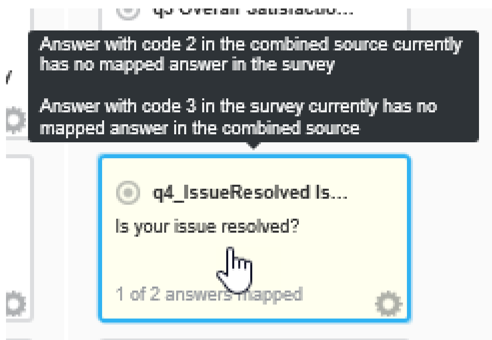


Figure 58 Viewing the notification details

Investigation of the surveys shows that in this case the question in the additional survey has an answer code that is different from that used in the master survey.

Adjusting the mapping

1. Click the cog-wheel icon for the question you wish to work with, and select **Answer mapping**.

   The Answers for... overlay appears, enabling you to edit the mapping.

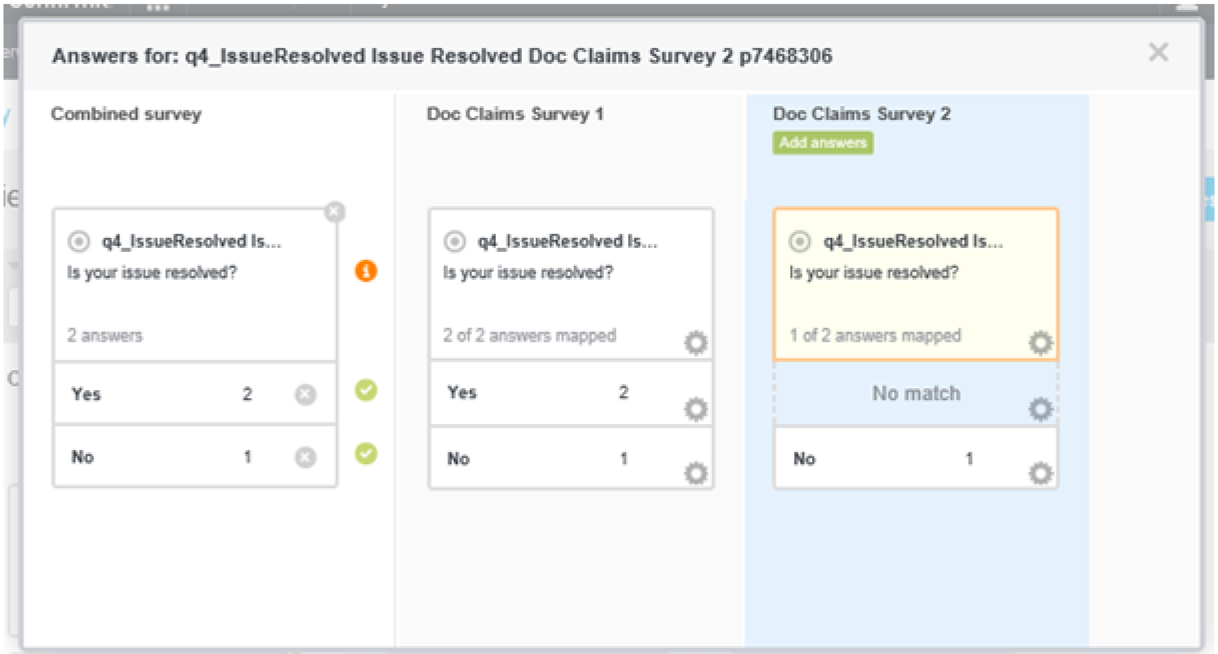


Figure 59 Example of the Answers overlay

In this example the answer 'No match' in the last survey should be mapped to 'Yes' in the combined survey.

2. Click the cog-wheel icon for the No match item and select **Edit mapping** (now the only option).

   The Edit answer mapping to overlay appears

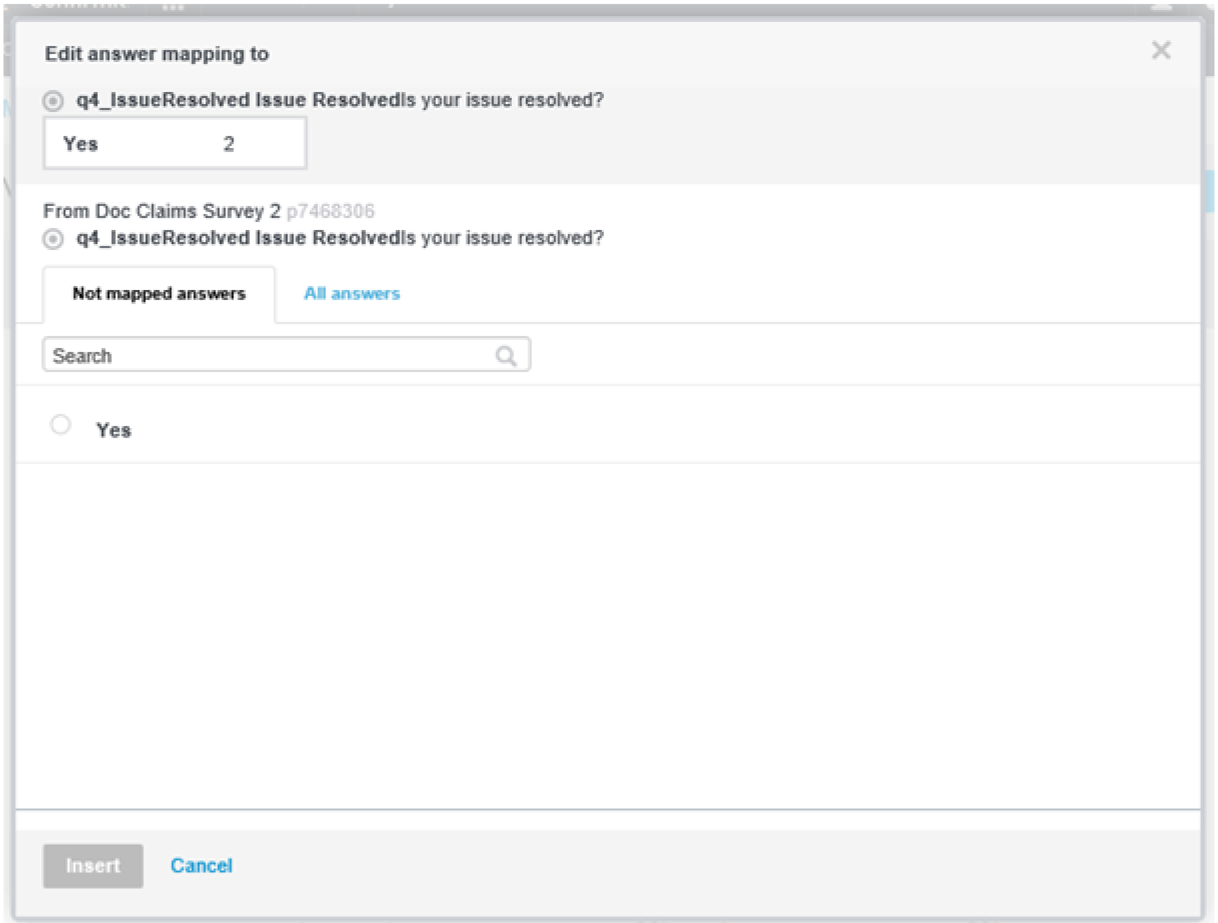


Figure 60 The Edit answer mapping to overlay

This overlay shows the answer in the survey that you will be mapping to at the top, and the answers that are available to be mapped below. By default the Not mapped answers tab will open, showing answers that have not yet been mapped. You can open the **All answers** tab to see all the answers that are available regardless of whether they have already been mapped to another answer. The "Mapped" label indicates those that are already mapped.

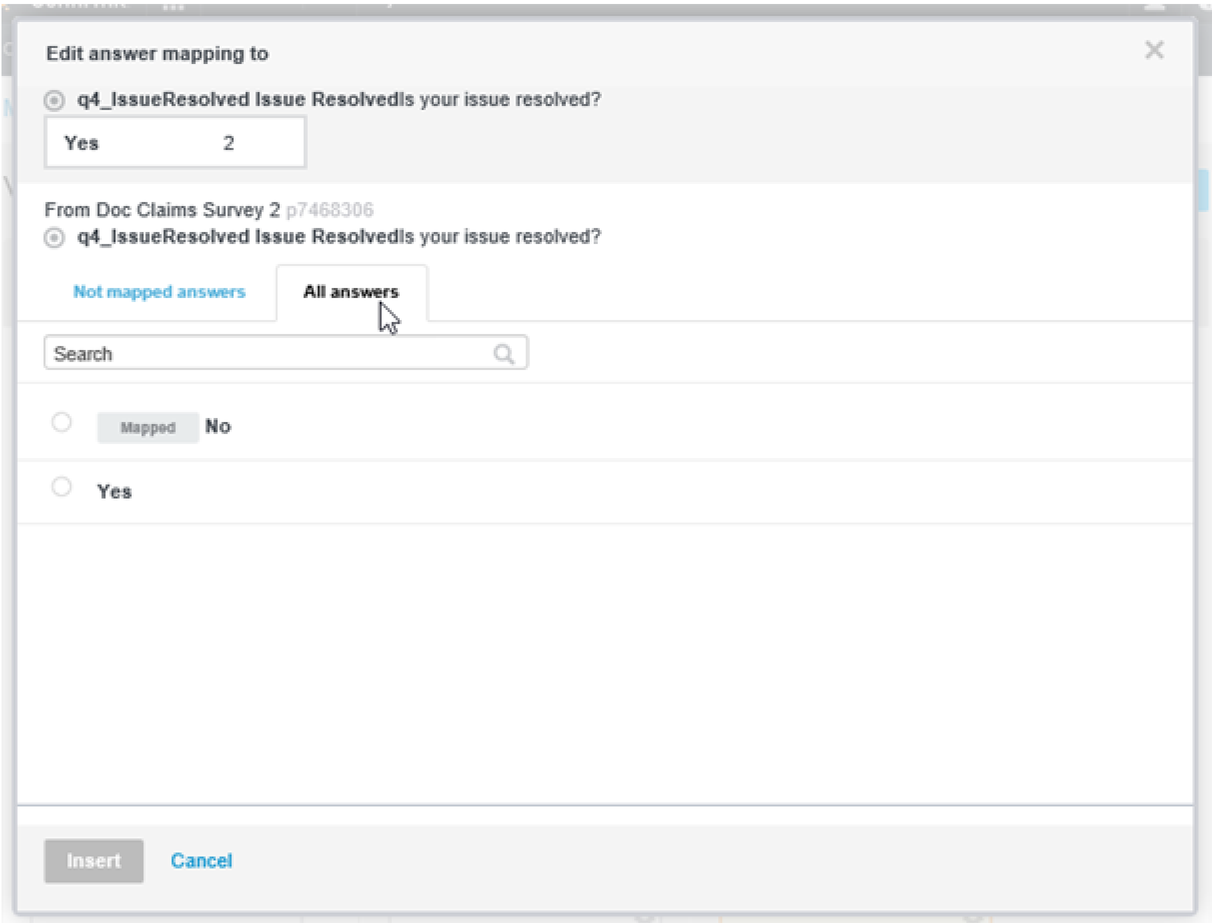


Figure 61 The All answers tab

In this case you merely want to map 'Yes' to 'Yes'.

3. Select **Yes** and click **Insert**.

   The answer option 'Yes' from the additional survey is now mapped to 'Yes' in the combined survey. In the event there is still a discrepancy, maybe some of the answers still need to be mapped, then the question will be highlighted to indicate the error. The answer option 'Yes' is also highlighted to indicate that this item has been edited. Move the mouse pointer into the highlighted question to view details of the discrepancy.

4. Close the overlay and return to the Edit mapping page.

5. On completion click **Save changes**.

4.4.4. Adding Answers to a Question in a Combined Survey

Surveys that are mapped to a combined survey may contain additional answers that are not in the combined survey. In this event, in the View/Edit mapping page you can hover the mouse cursor over the question to view the details of the additional answers.

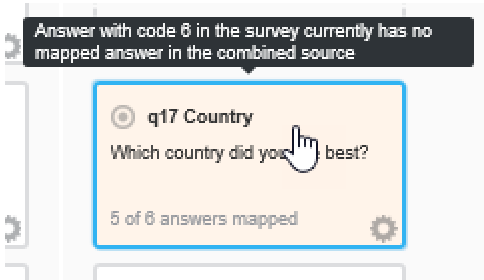


Figure 62 Viewing the details

Click in the question to open the details overlay. When additional answers are available, an **Add Answer** button is shown above the question.

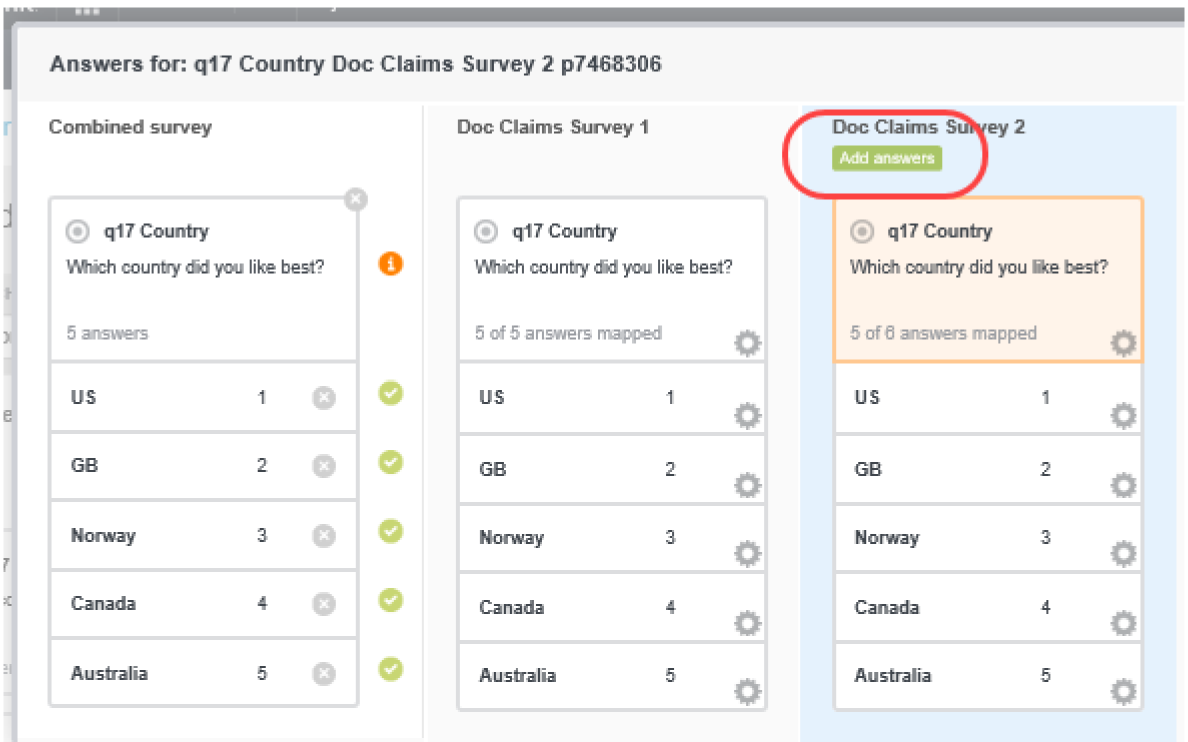


Figure 63 The Add answers button

To add a new answer to the combined survey:

1. Click **Add answers**.

   The Add answers to question overlay opens.

2. Select the additional answers you wish to add.

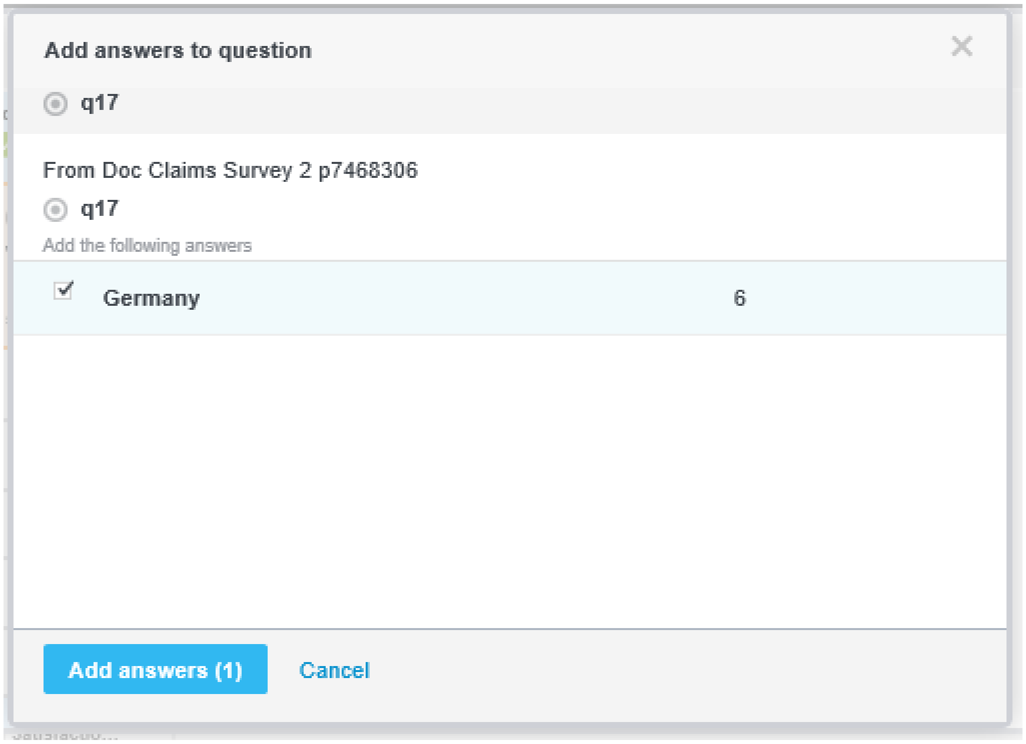


Figure 64 Adding an answer with a used code

3. Click **Add answers**.

   The answer is mapped to the combined survey. Now, the Combined survey and the additional survey have the extra answer while the master survey does not. This is reflected in the details overlay.

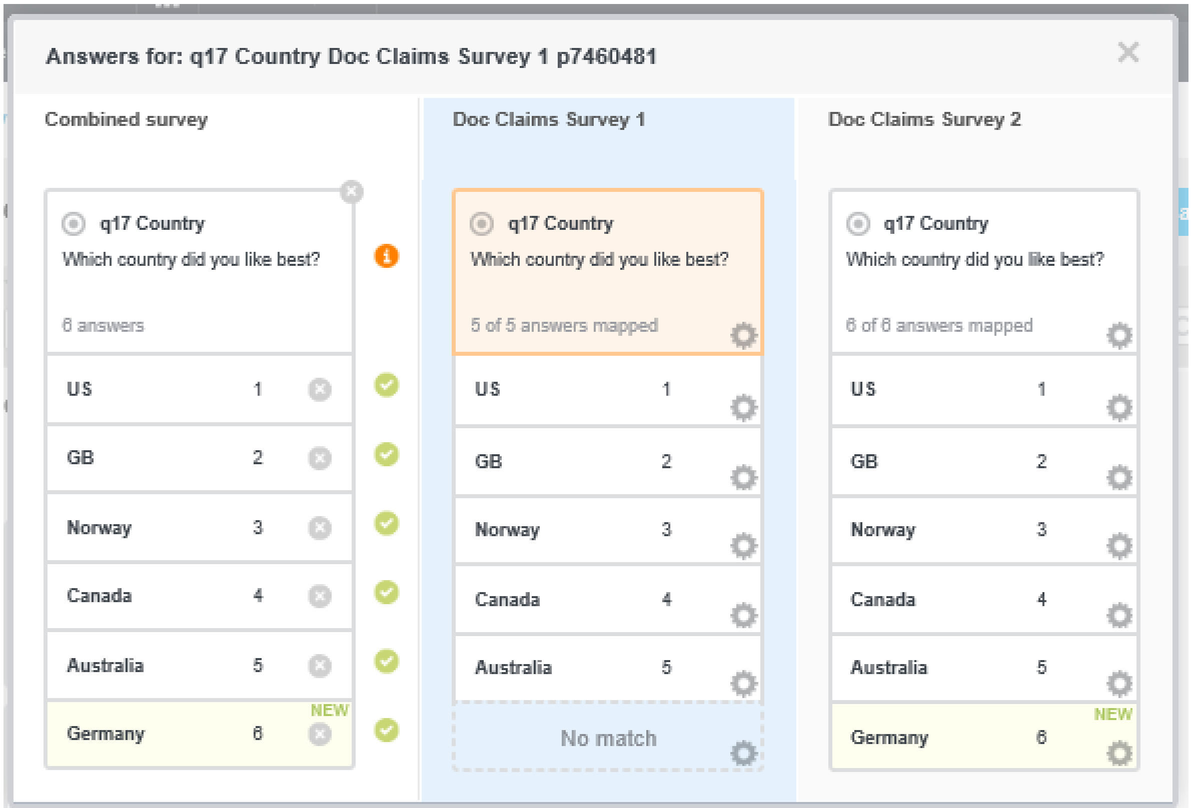


Figure 65 The details overlay, now with the master survey missing an answer

If the extra answer in the additional survey uses a code that is already in use in the combined survey, then you will have to assign a different code to it for the combined survey.

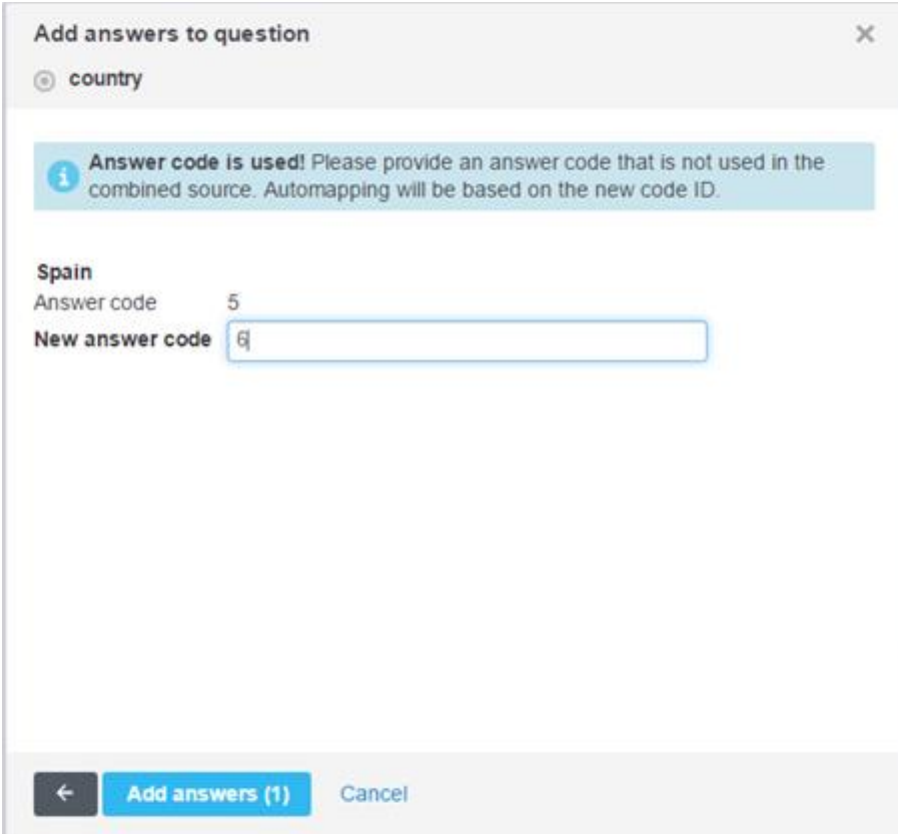


Figure 66 Assigning a new answer code for the combined survey

4. Click **Add answers (1)** to add this answer to the combined survey.

   The answer will be added to the combined survey, and will be mapped to the original answer code in the survey.
5. Close the overlay to return to the Edit mapping page, then click **Save changes**.
6. Once the changes have been saved, click **Done** to return to the Manage Survey page.

4.4.5. Removing an Answer Mapping

If an answer has been incorrectly mapped, you can remove it.

1. Select **Answer mapping** on the question which has the mapping you want to remove.
2. Select **Remove mapping** on the answer that you want to un-map.

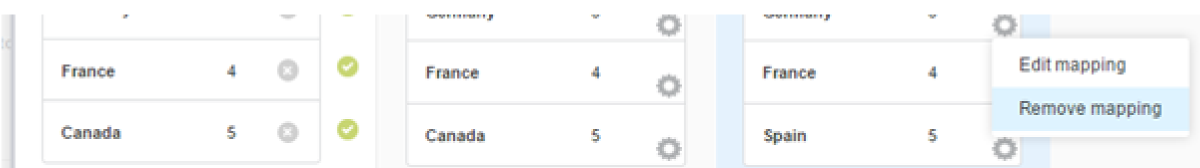


Figure 67 Remove mapping

3. The mapping is removed, and the answer is shown with "No match".

Figure 68 The mapping is removed - No match

4. Close the overlay and return to the View/Edit mapping page.
5. On completion click **Save changes**.
6. Once the changes have been saved, click **Done** to return to the Manage Survey page.

4.4.6. Deleting an Answer

You may want to remove an answer that has incorrectly been added to the combined survey.

1. Select **Answer mapping** on the question you want to remove answers from.
2. Click on the red **X** icon next to the answer in the combined survey column to remove that answer.

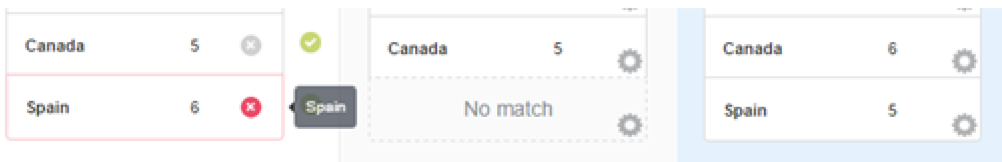


Figure 69 Remove answer

3. When asked for confirmation, click **Remove answer**.

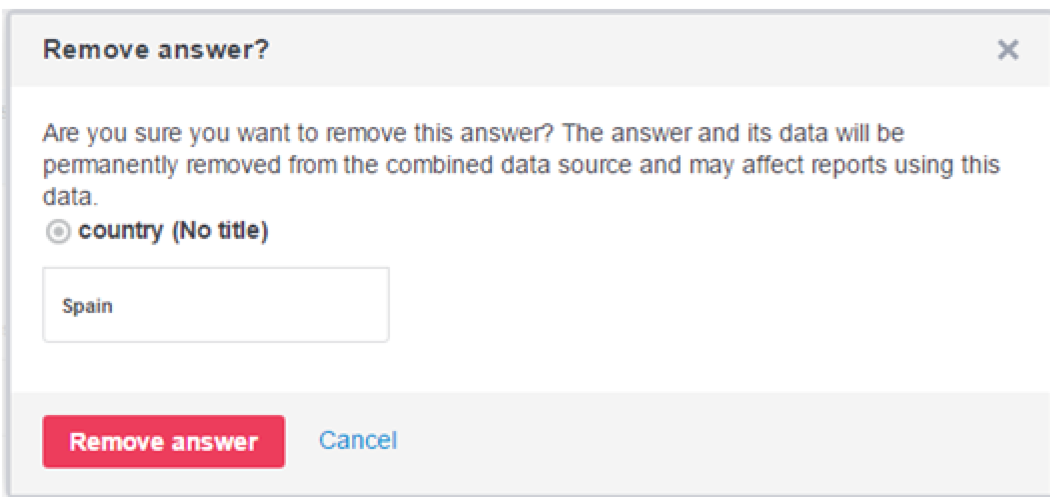


Figure 70 Confirming the removal

4. The answer, with mappings, will be removed from the combined survey.

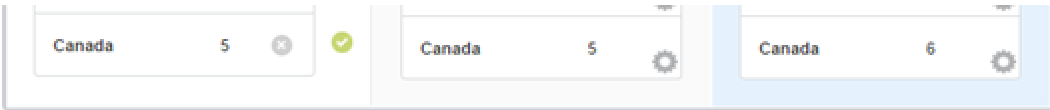


Figure 71 The answer Spain is removed

5. Close the overlay and return to the Edit mapping page.
6. On completion click **Save changes**.
7. Once the changes have been saved, click **Done** to return to the Manage Survey page.

4.5. The Mapping Rules

To ensure that the correct questions are merged when surveys are combined, automatic mapping functionality is provided in SmartHub. The hub will suggest mappings for questions depending on the following criteria:

- For Single, Open, Numeric, Multi and Date questions, the questions must be of the same type, they must have the same questionID, and Single and Multi questions must have the same answer list (same number of items and same codes).
- For Grid, Open text list, Numeric list and Ranking questions, mapping will be performed at the field level (that is, for each answer). The questions must be of the same type, they must have the same questionID and Grid questions must have the same scale (same number of items and same codes). They can have different answer lists, but if so, only matching answers will be mapped. For example, for a grid q1 with items 1, 2, 3 in survey A and a grid q1 with items 1 and 3 in survey B, fields q1_1 and q1_3 will be mapped between the two surveys.
- "Other - specify" questions will be mapped if the questions they belong to are mapped according to the rules above and they belong to the same answer list item.
- Questions with reusable lists will only be mapped if the same reusable list is used across all the surveys (same list ID, same number of items, same codes etc.).

Note: The question and answer labels are not compared as the surveys may for example be in different languages, so the labels could well be different by design. You are therefore recommended to check all mappings before confirming them.

4.6. The Survey Definition of the Combined Survey

As mentioned previously, when you create a combined survey a copy is made of the survey definition of the survey that is chosen as master when the combined survey is created. This copy will hold the metadata for the combined survey: Question types, ids, titles, question texts, answer texts, question properties and so on. When you make changes to the combined survey, such as adding and removing questions, this survey definition will be updated. The hub loader will read this survey definition when synchronizing data to the hub, and make it available in reporting as the meta-data for the combined survey.

The survey definition is available in Horizons Authoring, if filtering by “Combined Survey” in “Survey Category” in the survey list. Normally there should be no reason to make any changes to the schema directly in Authoring, and changes should mainly be done through the combined survey interface in SmartHub. However, you may occasionally have to make certain changes that can’t be done in the combined survey editor, such as for example adding a language. Such changes can be done in Authoring. However proceed with caution, and make sure you do not make any changes here that will cause conflicts with the mapping you have done in the combined survey editor, for example by removing a mapped question.

The survey definition of a combined survey cannot be launched and there is no survey database created for the combined survey. The updated definition will be loaded to the hub when the hub loader for the combined survey runs, fetching the current survey definition of the combined survey, and iterating through the mapped surveys fetching data according to the mapping set up in the combined survey.

5. Contact Databases

A contact database allows you to gain greater understanding of your customers, employees or other contacts by creating a central store of their key information and a history of their transactions. This enables you to track their feedback and responses over time. The SmartHub provides a single repository for all the data, such as name, email, address, gender, age etc. known as a “Contact database” (see How to Create a Contact Database on page 62 for more information).

Using a key such as “customerid” or “email”, you can link to all the different surveys with contact data (transactional/relationship/ad-hoc surveys, CRM data, support emails etc.), in a one-to-many relation (one contact, several responses in one or more surveys). Several types of contact databases can be included in a hub, for example databases for customers, employees, agents, partners etc.

Surveys that are added to a hub can be linked to a Contact Database using a key (for example customerid or email). This linkage can be performed at any stage: before sample is uploaded and data collection has started, and also during data collection or even after the survey has been closed.

This provides the following benefits:

- Users can use data from the contact database in reporting and analytics on any survey that is linked, without first having to bring all the customer data into the survey as background variables.
- There is only one repository to maintain if data must be corrected, new customer data must be added etc.

Note: A survey must be linked to the hub before you can use it in a contact database.
When creating a contact database from a survey, at least one of the variables in the survey must be a background variable to ensure there is a key field available. Note also that to be able to select a background variable as the key field/set it to contactid, it must have a Field width set.
When using hierarchies in a contact database, the hierarchy must be in the same hub as the contact database.

5.1. New User

Click Contacts to open the Contact Databases page. If you already have a contact database this will be presented; if you have no databases yet, the database creation page opens.

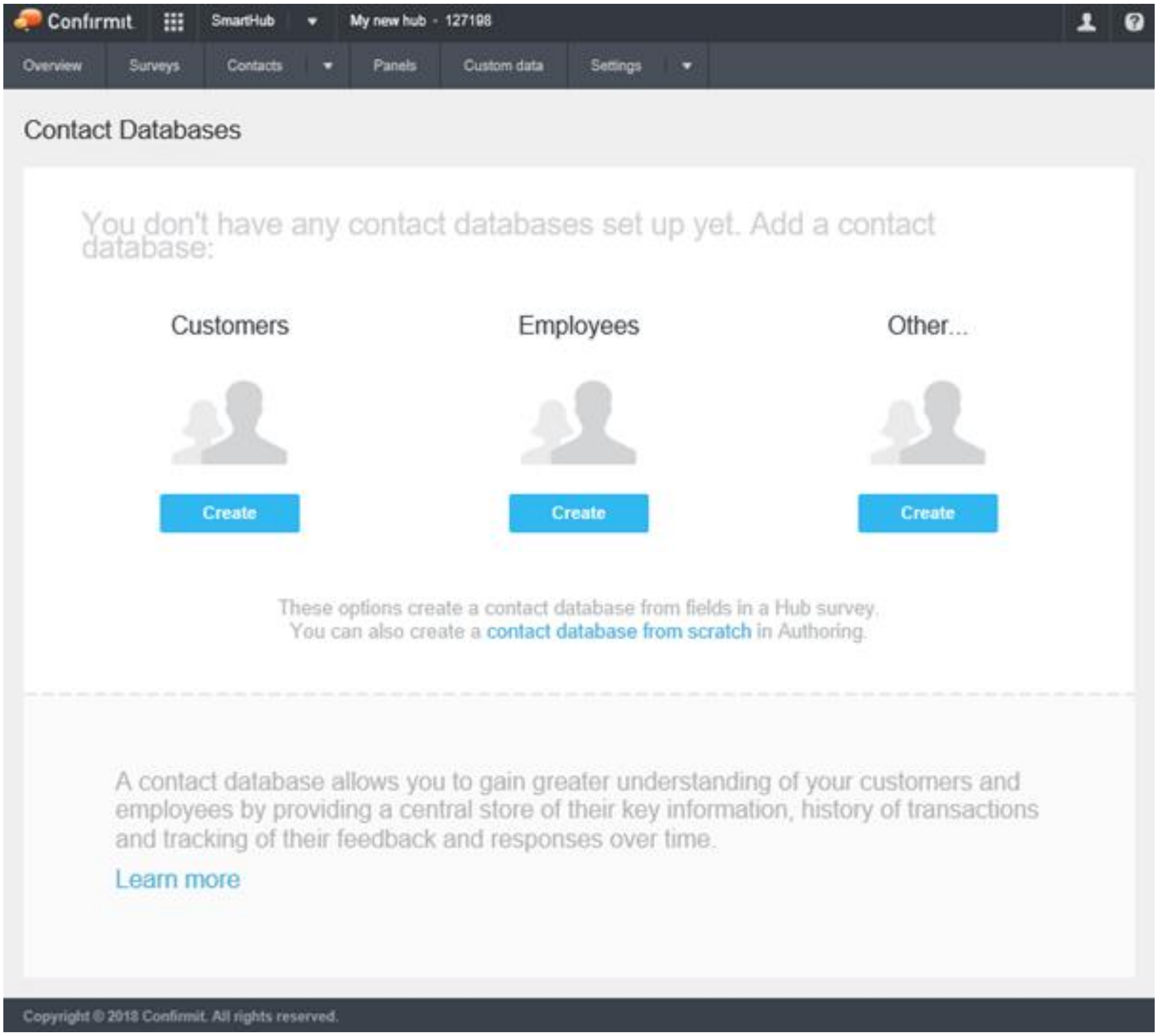


Figure 72 The Contact Databases creation page

Here you can create databases for customers, employees and "others", based on information extracted from fields in a hub survey (see How to Create a Contact Database on page 62 for more information). Note that you can also go to Confirmit Horizons Professional Authoring and create a database from the bottom up.

Note: You can change the type of contacts at any time by selecting a different option from the Type of Contacts drop-down in Settings for the Contact Database. The type is only used for labels in the user interface, for example showing that you have X "customers", or X "employees" or X "contacts" in the Contact Database, and the functionality available is the same for all of them.

5.2. Synchronizing Background Data from a Survey to a Contact Database

A Contact Database can be created and populated from background variables in a survey. Once the survey is linked and you have selected background variables to bring into the contact database, the contact database will be created and data will be continuously synchronized, automatically, from the survey to the contact database. The background variables that should be brought over to the contact database should be variables that hold data on the contact level, not those that are specific to each transaction.

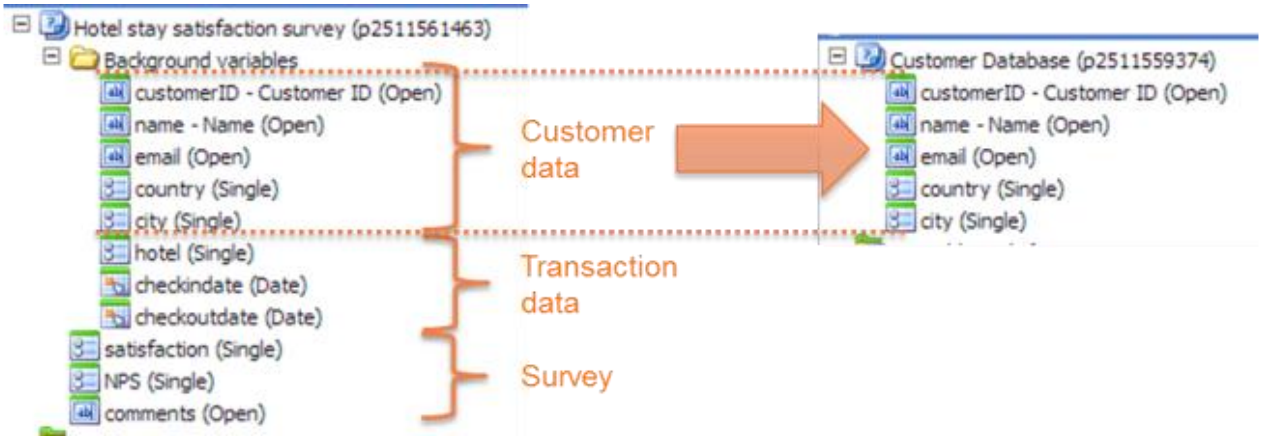


Figure 73 Synchronizing data

The synchronization will add the customer record if it doesn't already exist in the contact database. If it already exists, it will compare existing values with new values. If there are no changes, no updates will be performed on the contact database. If there are changes however, these will be recorded.

The synchronization will also add a record for this survey in an activity log.

You can have multiple surveys linked to the same contact database provided they all have the key field in the background data.

5.3. How to Create a Contact Database

There are several methods of creating a new contact database:

1. You can go to the SmartHub menu bar and click **Contacts > Based on a survey**. You are then taken directly to the page shown in the first figure below; follow the procedure from there as described.
2. You can also open the Hub Designer page and in the **Activities** menu, click **View Contact Databases**. If you do not yet have access to a database, the Contact Database start page opens (see New User on page 60 for more information). In this case, click the button for the type of database you wish to create. If you already have one or more contact databases in your hub, then the Create New Contact Database page opens.
3. You can go to the SmartHub menu bar and click **Contacts > From scratch in Authoring**. You are then taken to the Professional Authoring Home page. In the Quick Access menu on the left side of the page click **Contact Databases** to open the Contact Database List, and proceed from there. Refer to the Authoring User Guide for further information.

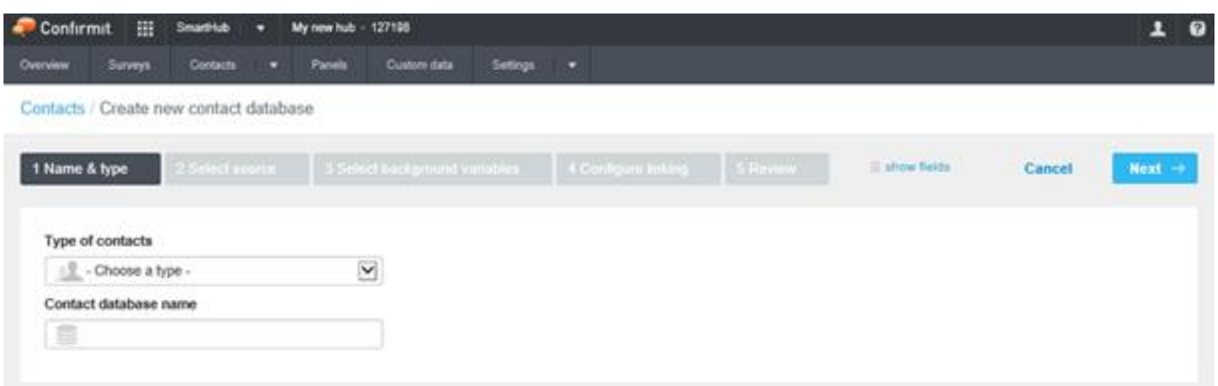


Figure 74 The Create Contact Database page

The process for creating a new contact database really starts here:

1. In the Create New Contact Database page, choose the type of database you wish to create, give your new database a name, then click **Next**.

   The Select Source page opens. This page lists all the surveys that are currently linked into your hub.

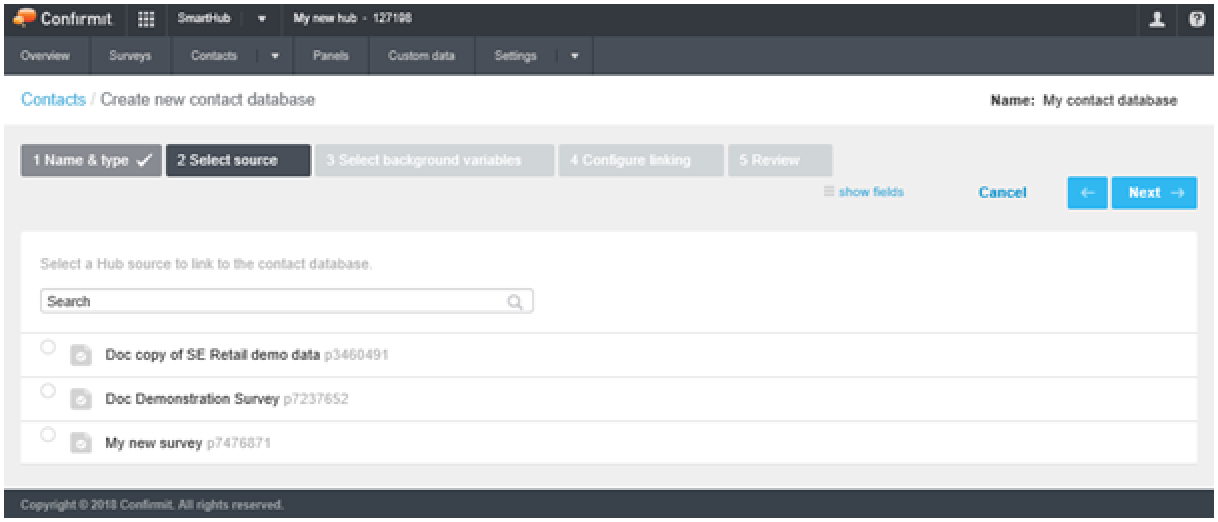


Figure 75 Selecting the source

2. Select a survey from the list then click **Next**.

   The Select Background Variables page opens. This page lists all the background variables that are included in the selected survey.

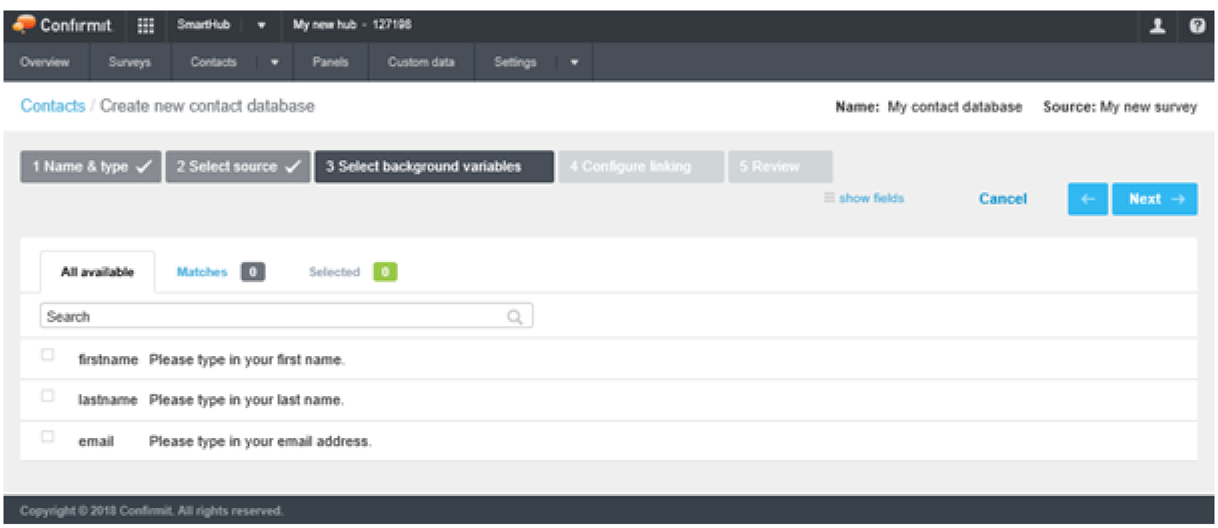


Figure 76 Selecting the background variables

3. Check the box beside each variable that you wish to include in your contact database, then click **Next**.

   The Configure linking page opens.

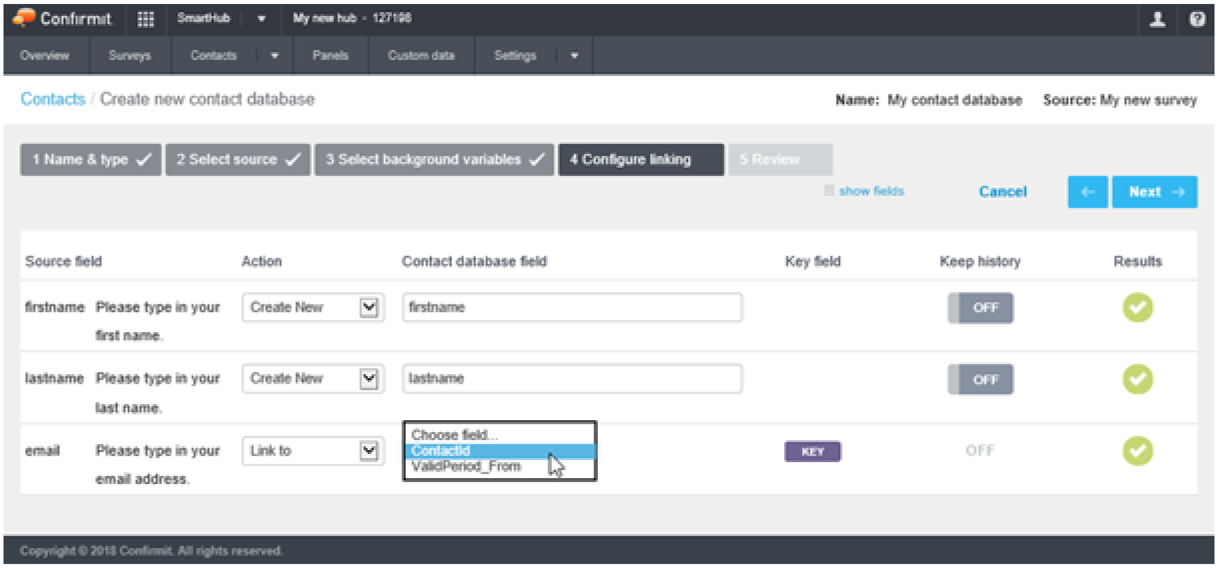


Figure 77 Configuring the linking options

4. Click in the Action field for each variable and select whether you wish to create a new field or link the variable to an existing field.
5. If you select to link a variable to an existing field, go to the Field name field for that variable and select the field you wish to link it to.

Note: The key field for your contacts, such as a customer ID or email, must be linked to the system field "contactid". Note also that to be able to select the variable as the key field or set it to contactid, it must have a Field width set.

6. If you wish to keep the history for a background variable, so that when you report on variables in the contact database the reports will be based on what the value was at the time of the survey, click on the **Keep history** button for the appropriate variable to toggle it to **On**.

   Variables for which it could make sense to keep the history could for example be location, whereas for variables such as name and date-of-birth (which are not as likely to change, or for which it is not necessary to keep track of changes) it will not make sense to keep the history.

7. Click **Next**.

   The Review and finish page opens.

8. Check your settings and if everything is correct, click **Save**.

The contact database is created and you are returned to the Manage Contact Database page.

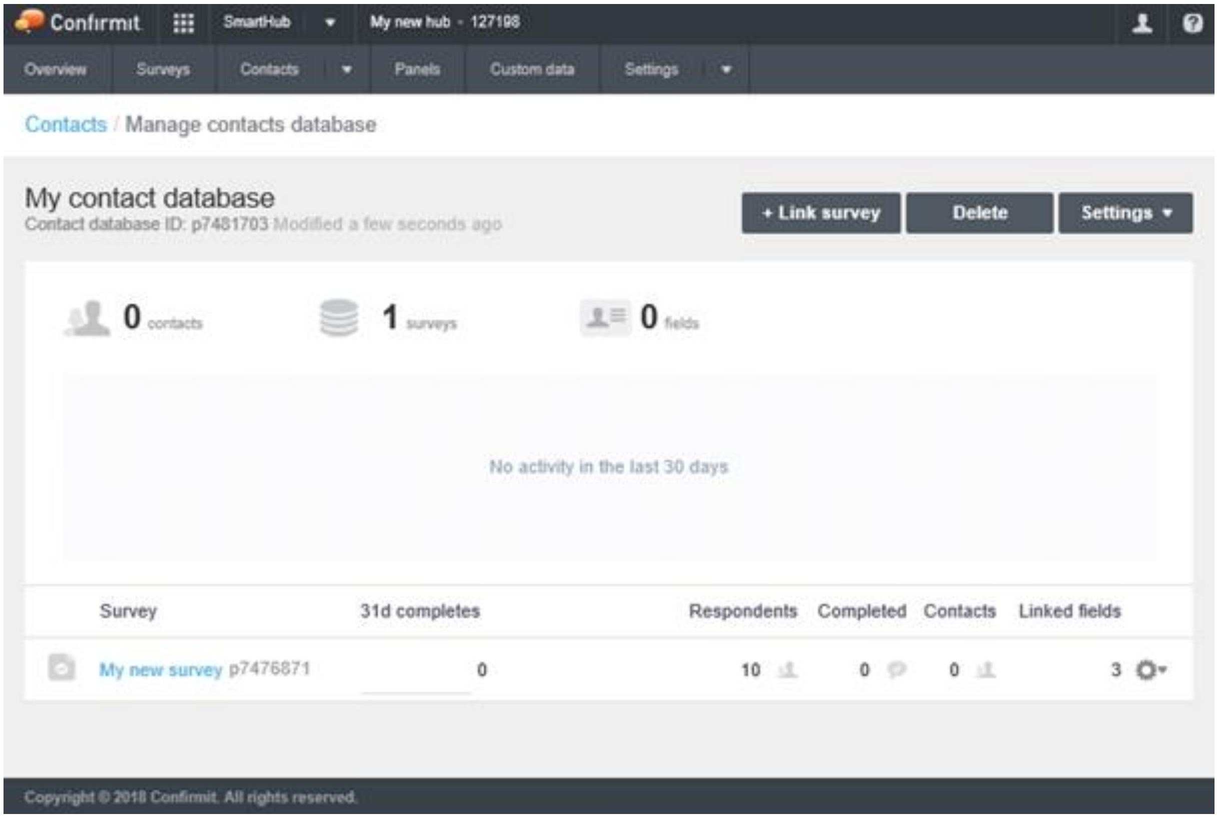


Figure 78 Example of the Manage Contact Database page

5.4. The Contact Database Page Header Tools

The Contact Database page header bar contains three tools:

- **+ Link survey -** enables you to link an additional survey to the contact database (see How to Link an Additional Survey to a Contact Database on page 65 for more information).
- **Delete -** deletes the contact database. A confirmation overlay is presented, detailing the database you are about to delete.
- **Settings -** opens a drop-down menu enabling you to perform actions on the contact database.
  - o **Edit name and type of contacts -** opens the Edit contact database overlay.
  - o **Contact frequency rules** - set up rules to prevent respondents being sent excessive numbers of emails (see Contact Frequency Rules on page 76 for more information).
  - o **Override labels -** enables you to change the question labels for questions in the surveys (see Editing Question Labels in Surveys on page 73 for more information).
  - o **Create end users from contacts -** allows you to automatically create and maintain an end user list based on the contact database attached to the hub (see Creating an End User List from the Contact Database on page 68 for more information).

5.5. How to Link an Additional Survey to a Contact Database

1. In the Contacts tab, open the contact database that you wish to work with.

   The Manage contact database page opens.
2. Click the **+ Link survey** button.

The Link survey page opens, listing all the surveys that have been added to your hub but that are not yet included in your contact database.

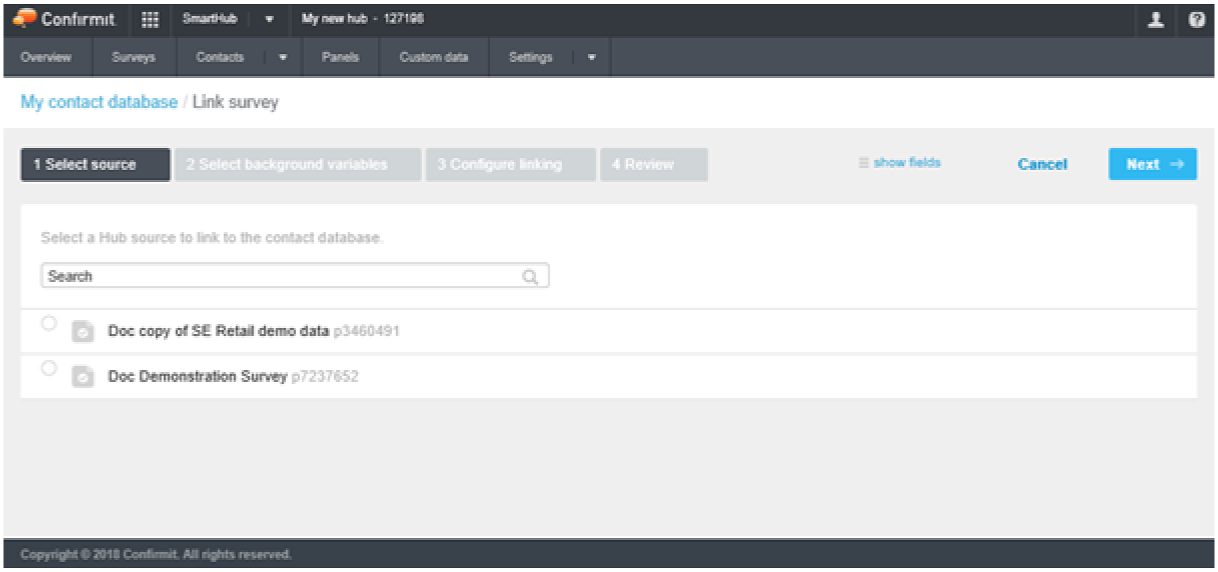


Figure 79 Example of the Link survey page for a contact database

3. Select the survey you wish to link to your contact database then click **Next**.

   The Select Background Variables page opens. This page lists all the background variables that are included in the selected survey.

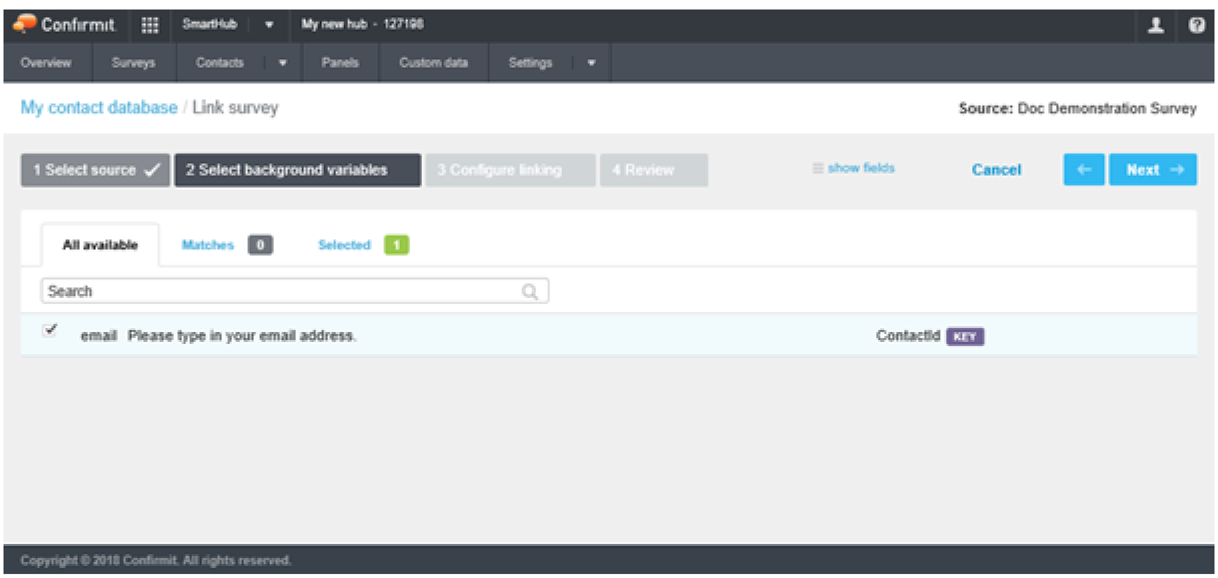


Figure 80 Selecting the background variables

4. Check the box beside each variable that you wish to include in your contact database (the system may suggest some variables based on field names), then click **Next**.

   The Configure linking page opens.

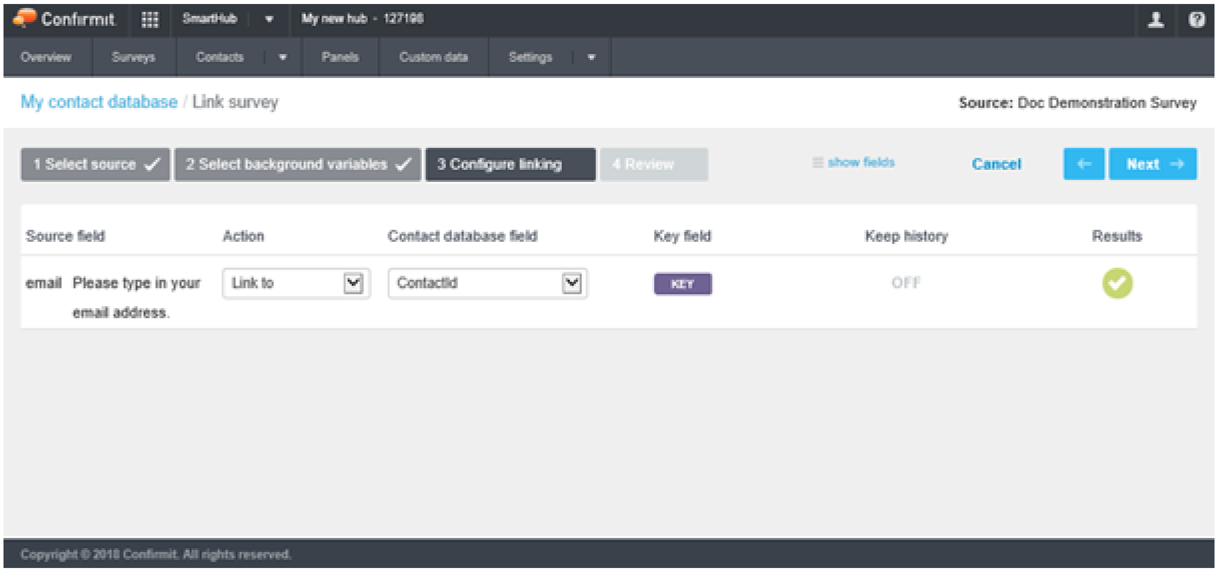


Figure 81 Configuring the linking options

5. Click in the Action field for each variable and select whether you wish to create a new field or link the variable to an existing field.

   The system may suggest settings for some variables based on field names.

6. If you select to link a variable to an existing field, go to the Field name field for that variable and select the field you wish to link it to.

Note: The key field for your contacts, such as a customer ID or email, must be linked to the system field "contactid".

7. If you wish to keep the history for a background variable, so that when you report on variables in the contact database the reports will be based on what the value was at the time of the survey, click on the **Keep history** button for the appropriate variable to toggle it to **On**.

   Variables for which it could make sense to keep the history could for example be location, whereas for variables such as name and date-of-birth (which don't normally change) it will not make sense to keep the history.

8. Click **Next**.

   The Review page opens.

9. Check your settings and if everything is correct, click **Save**.

The contact database is updated and you are returned to the Manage contact database page.

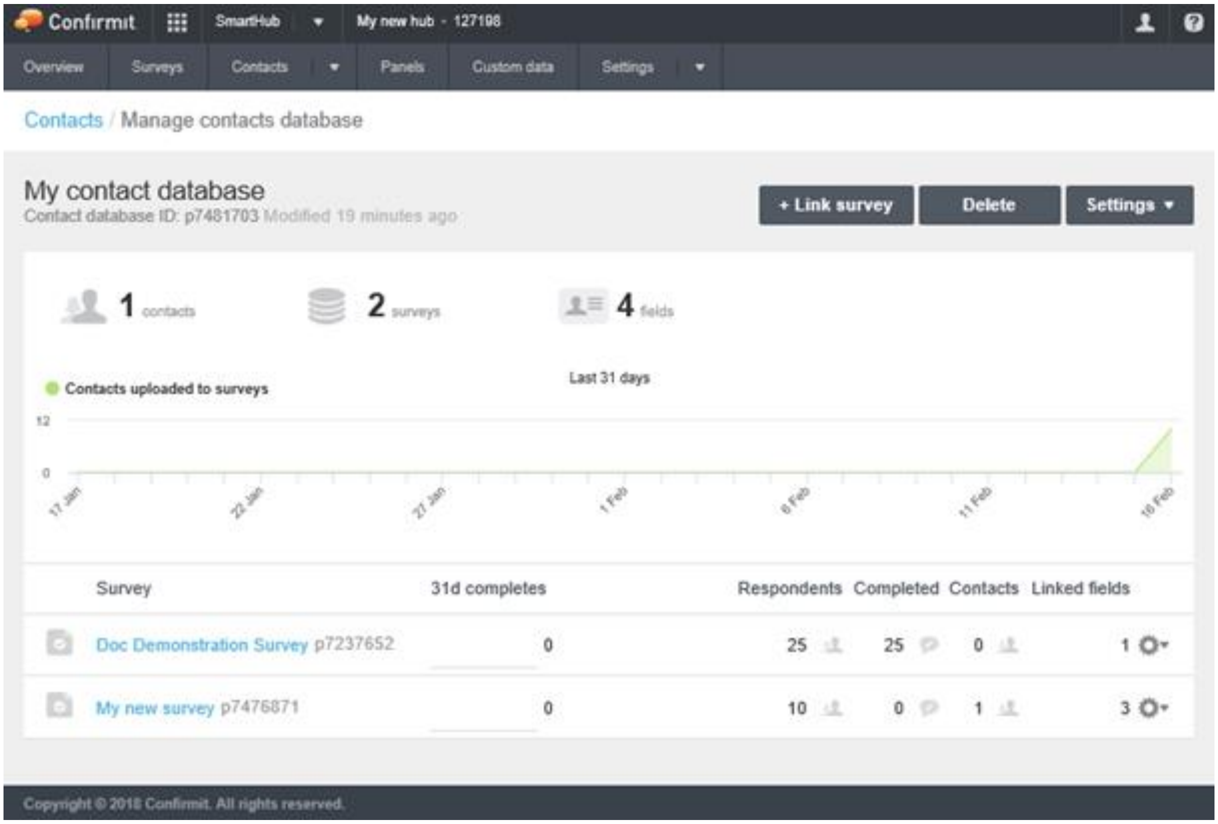


Figure 82 Example of the Manage contact database page

5.6. Synchronizing Respondent Data to the Contact Database

When a survey is linked to a contact database, if changes are made to the survey then the system will automatically synchronize linked respondent data and system variables with the contact database. Every respondent upload will automatically trigger a synchronization that updates the contact database, as will respondent emailing, and in addition the hub loader will look for changes and trigger synchronization of respondent data to the contact database when needed. For this synchronization to succeed, the mapping and data types must be correct. If there is for example open text data in respondent data for a background variable that is set up as numeric, for which the corresponding field in the contact database will also be numeric, the synchronization will fail and stop. The situation will then need to be resolved, either by fixing the data (to get numeric) or mapping (set up an open text background variable and map that instead).

5.7. Creating an End User List from the Contact Database

You can populate an empty end user list directly from the contact database, and update the list automatically as changes are made to the database from the attached hierarchy. Note that the end user list you wish to populate must exist before you can link to it, so you must first open Professional Authoring and create the list (refer to the separate Professional Authoring User Guide for details).

1. In Professional Authoring, go to **End Users > Lists** and create an empty end user list.
2. On the list's General tab, set the Smarthub ID to the hub you are working with (copy this from the Smarthub URL).
3. In the hub, go to **Contacts** in the toolbar and open the contact database you wish to populate the user list from.
4. In the contact database, go to **Settings** towards the right side of the page and select **Create end users from contacts**.

The Create end users from contacts overlay opens.

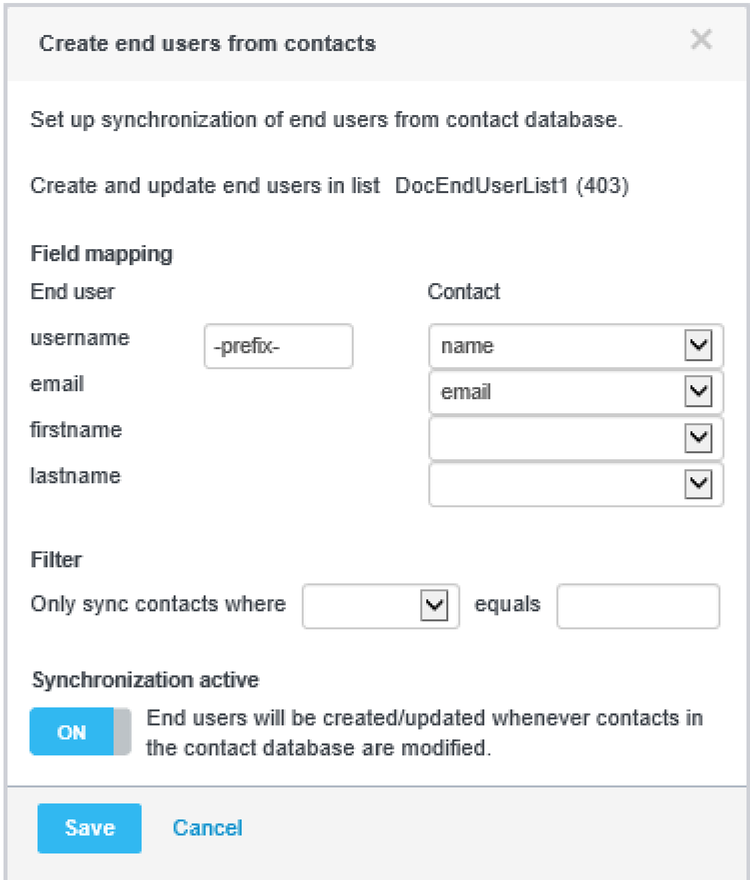


Figure 83 The Create end users from contacts overlay

5. Click into the **Create and update end users in list** field, and select the end user list you created in point 1 of this procedure.
6. Click into the **username** field and select from the drop-down list the field from the contact database that you wish to associate with the username field in the end user list.
7. Click into the **email** field and select from the drop-down list the field from the contact database that you wish to associate with the email field in the end user list.

Note: The username and email fields are required. You can also map the firstname and lastname fields but these fields are not required.

8. The Prefix field will be needed in the event the users in the end user list have a "single sign-on" setup. In this case type the appropriate characters into the field so this matches the single sign-on text prefix.

You can filter the data that is synchronized by one of the variables in the contact database, such that only end users that have a specific value in the variable are created. For example, you could create only end users who have 'yes' in the 'Manager' variable.

9. In the **Only sync contacts where** field's drop-down select the variable you wish to filter on, then in the **equals** field type in the required value.
10. Click **Save** to save the settings.

The end user list will synchronize, and the contacts from the contact database will be added to the list.

Now, whenever the contact database is updated due to the hierarchy and contents being uploaded in Hierarchy Management or due to synchronization of data from a survey it is linked to, the end user list will synchronize and update automatically. You can also synchronize the end user list manually if the contact database is updated without being uploaded from the hierarchy or a survey (see Manually Synchronizing Contacts to an End User List on page 70 for more information).

On synchronization, any new users added to the contact database will also be added to the end user list, and details for existing users will be updated. Note that users deleted from the contact database will not be removed from the end user list.

5.8. Manually Synchronizing Contacts to an End User List

When the contact database is updated due to the hierarchy and contents being uploaded in Hierarchy Management, or due to synchronization of data from a survey the database is linked to, the end user list will be synchronized and updated automatically. In the event the contact database is updated "manually", without going through the hierarchy or a survey, you can also manually trigger a synchronization of the contacts to the end user list.

1. In the hub, go to **Contacts** in the toolbar and open the contact database you wish to synchronize with the user list.
2. In the contact database, go to **Settings** towards the right side of the page and select **Create end users from contacts**.

   The Create end users from contacts overlay opens. Note that the overlay now includes details of the end user list it is linked to and when it was last synced, and the **Sync now** button.

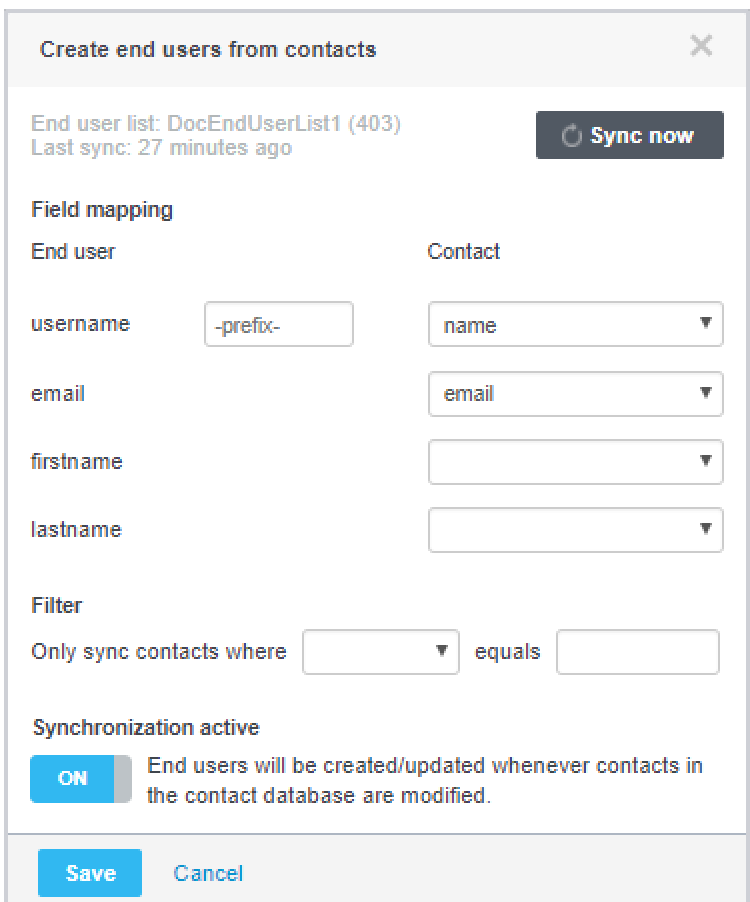


Figure 84 The Create end users from contacts overlay

3. Click **Sync now**.

   The contact database is synchronized to the end user list. Any changes that have been made to the contacts in the database outside of a hierarchy import will now be included in the end user list.

Note that you can set the synchronization to be performed automatically whenever the hierarchy is uploaded by setting **Synchronization active** to **ON**. The manual sync operation described in this section will then be performed as a "one-off" operation in addition to the automatic syncs triggered by hierarchy uploads. If you want the end user list to be synchronized only when triggered manually, set **Synchronization active** to **OFF** (and save any changes).

5.9. The Contact Database Action Menu

Each Contact database has an **Action** menu that contains commands applicable to the specific database. To open this menu, click the **Action** icon for the relevant database.

- **View and edit fields** - enables you to manage the fields used by the contact database (see Viewing and Editing Fields on page 71 for more information).

5.9.1. Viewing and Editing Fields

Once you have a contact database in your hub you can view the settings and edit them at any time.

1. In the Hub navigation toolbar click **Contacts** to open the Contact Databases page.
2. Click **View and manage** for the contact database you wish to work with.
3. In the Manage contact database page, click the Action icon for the survey and select **View or edit field**.

   The Select background variables page opens.

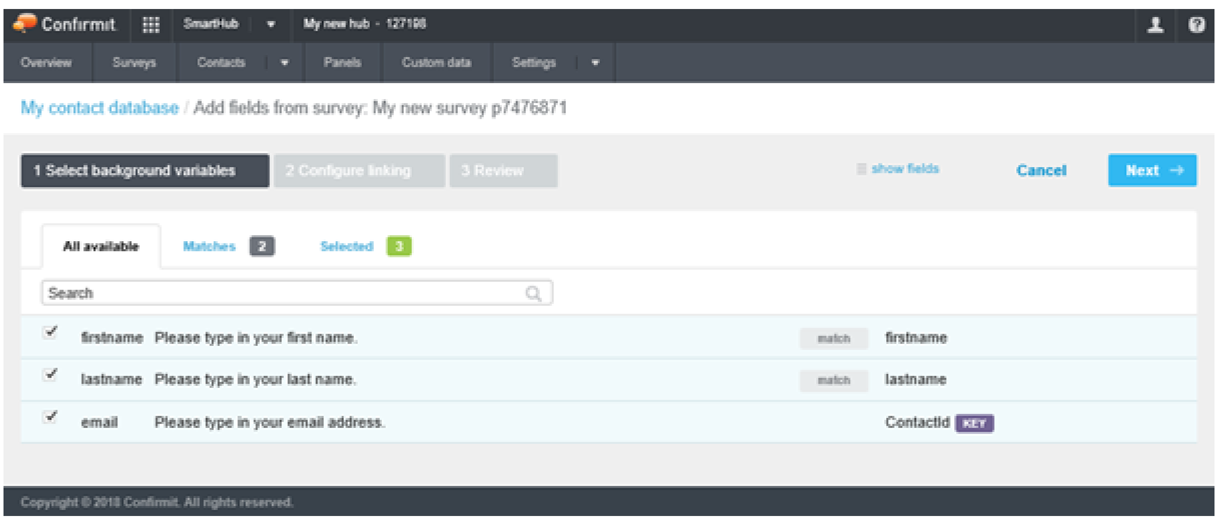


Figure 85 Example of the Select background variables page

   This page lists the background variables available in the survey. Here you can select and deselect variables as required. The system may suggest some variables based on field names. In the event the list is extensive, use the Search field - as you type characters into the field the list is reduced to show only those variables with names starting with the characters you type.

4. Select and deselect background variables as required.
5. Click **Next**.

   The Configure linking page opens.

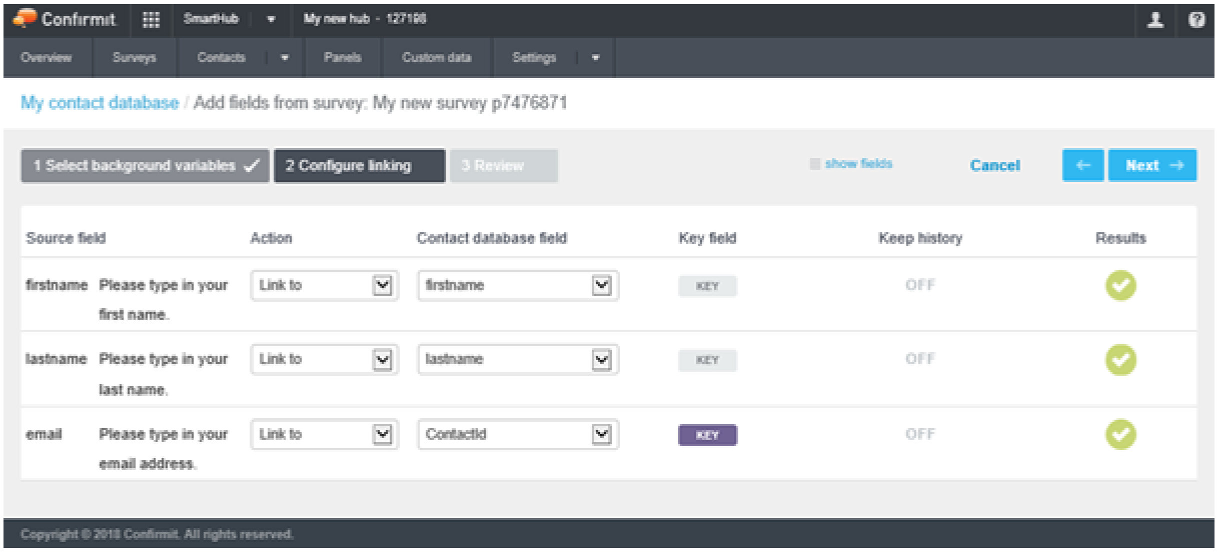


Figure 86 Example of the Configure linking page

6. For each Source field you can edit the Action and the linked Contact database field as necessary.
7. If you select to link a variable to an existing field, go to the Contact database field for that variable and select the field you wish to link it to.

   The system may suggest settings for some variables based on field names.

Note: The key field for your contacts, such as customer ID or email, must be linked to the system field "contactid".

8. If you wish to keep the history for a background variable so that the contact database will keep track of previous values for variables that change over time, click on the **Keep history** button for the appropriate variable to toggle it to **On**.

   Variables for which it could make sense to keep the history could for example be location, whereas for variables such as name and date-of-birth (which don't normally change) it would not make sense to keep the history.
9. Click **Next**.

   The Review and finish page opens.
10. Check your settings and if everything is correct, click **Save**.

The changes to the contact database are saved and you are returned to the Manage contact database page.

6. Editing Question Labels in Surveys

You may find that the question labels used in a survey in your hub are not suitable to be used in your reports; the labels may be too long, or inappropriate. In this event you can download from the hub an Excel®[2] document containing the existing labels for the questions in a survey. You can then edit the label texts in the spreadsheet, and upload the same spreadsheet back to the hub and over-write the original label texts with your new texts.

This allows you to create shorter, better texts for use in reports and dashboards than those used in the survey. The new texts will take effect in the reports the next time the survey is synchronized, and will affect any reports based on that hub (Reportal, Active Dashboard, Discovery Analytics). Note that you can do this for surveys, combined surveys and contact databases.

1. In the SmartHub, go to **Surveys**, then click on the survey for which you wish to override the labels.

   The manage Survey page opens.

2. Go to **Settings > Override Labels**.

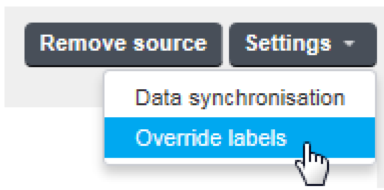


Figure 87 Accessing the Override Labels functionality

The Override Labels overlay opens.

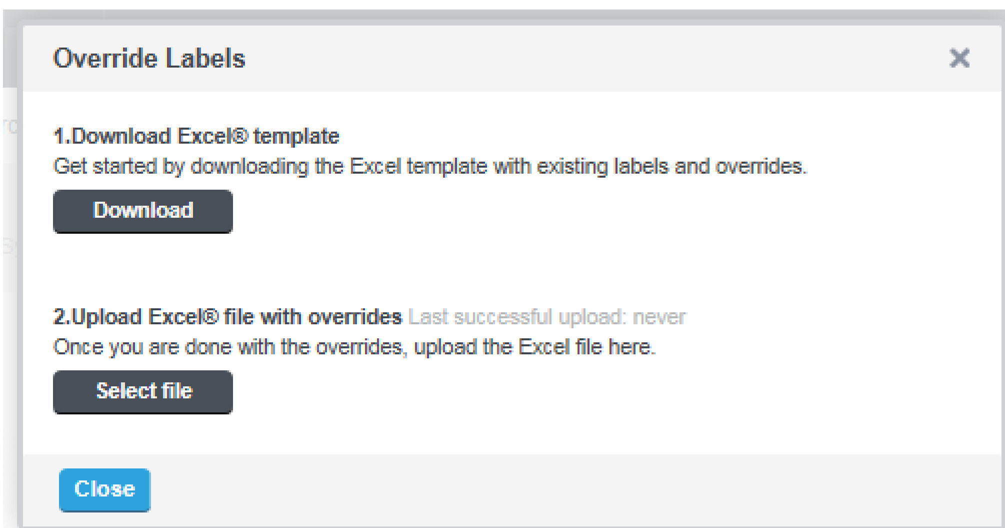


Figure 88 The Override Labels overlay

3. Click **Download**.

   A message appears across the bottom of the window asking you what you want done with the file.

[2] The word Excel®, as used in the Confirmit GUI, is a registered trademark of the Microsoft Corporation.

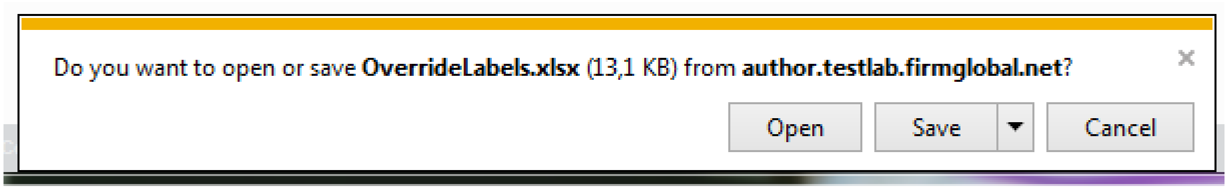
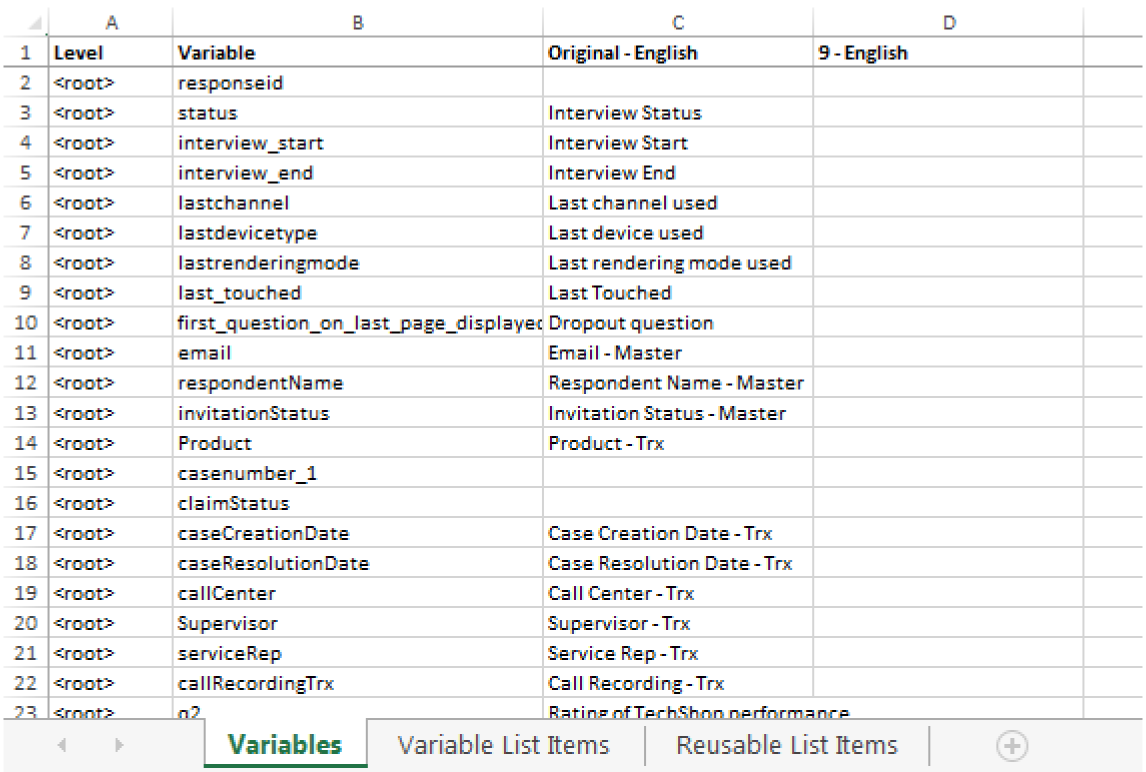


Figure 89 The open or save message

4. Click **Open** or select a **Save** option as appropriate.

   The Excel file lists all the labels used in the selected survey, with the variables, variable list items and reusable list items presented on separate sheets. Note that the Level column indicates the level in a loop where the variable is located; <root> means the variable is in the top level.



	A	B	C	D
1	Level	Variable	Original - English	9 - English
2	<root>	responseid		
3	<root>	status	Interview Status	
4	<root>	interview_start	Interview Start	
5	<root>	interview_end	Interview End	
6	<root>	lastchannel	Last channel used	
7	<root>	lastdevicetype	Last device used	
8	<root>	lastrenderingmode	Last rendering mode used	
9	<root>	last_touched	Last Touched	
10	<root>	first_question_on_last_page_displaye	Dropout question	
11	<root>	email	Email - Master	
12	<root>	respondentName	Respondent Name - Master	
13	<root>	invitationStatus	Invitation Status - Master	
14	<root>	Product	Product - Trx	
15	<root>	casenumber_1		
16	<root>	claimStatus		
17	<root>	caseCreationDate	Case Creation Date - Trx	
18	<root>	caseResolutionDate	Case Resolution Date - Trx	
19	<root>	callCenter	Call Center - Trx	
20	<root>	Supervisor	Supervisor - Trx	
21	<root>	serviceRep	Service Rep - Trx	
22	<root>	callRecordingTrx	Call Recording - Trx	
23	<root>	q2	Rating of TechShop performance	

Figure 90 Example of the resulting Excel file

   You can now edit the texts as required. Type the desired texts into the column for the appropriate language. For example in the case above, if you wanted the text for the Status variable in row 3 to read just Status in English instead of Interview Status, then type the word Status into cell D3. On completion save the changes then:

5. Go to the **Settings > Override Labels** menu command and click **Select file**.

   A standard file selection window opens.

6. Browse to and select the Excel file, and click **Open**.

The Excel file is uploaded, overwriting the original labels with your new texts. The new texts will take effect in the reports the next time the survey is synchronized, and will affect any reports based on that hub.

Note: If you download the Excel file again after having performed an override, the Excel file will have <overridden> in the column for the original labels where those labels have been overridden. If you want to go back to the original text, delete the text that has been added in the override column.

Note: When Override Labels is selected, for Grid questions in Active Dashboards the Question ID and the overriding label will be combined, separated by an underscore character. For example, if the QID is "Statements1" and the override label is "Corporate Values", the resulting label will be "Statements1_Corporate Values".

7. Contact Frequency Rules

If your respondents feel that they are being inundated with an endless shower of survey invitation emails, they will rapidly lose interest and possibly block your emails. Contact frequency rules allow you to control how often your contacts receive survey invitations. You can set up rules for individual surveys or groups of surveys to prevent email invitations being sent to respondents if they have previously received an email within a specified number of days.

Contact Frequency Rules only apply to surveys that have been added to the hub and linked to the contact database. The Rules do not apply to reminder emails if the original invitation was not stopped by the contact frequency rules.

You can set up three types of rule:

- Global rules that apply across all surveys (see How to Apply a Global Rule on page 76 for more information).
- Survey-specific rules that apply only to specific surveys (see How to Add a Survey-Specific Rule on page 77 for more information).
- You can also create groups of surveys with specific delays (see How to Create a Group on page 79 for more information).

7.1. How to Apply a Global Rule

Global rules apply to all contacts in all surveys linked to this contact database, with the exception of the contacts in surveys that have survey-specific rules set, either individually or as part of a group of surveys. To apply a global rule to a contact database:

1. In the hub, go to the contact database for which you wish to set up a contact frequency rule.
2. Select **View and manage** to open the Manage .... database page.
3. In the **Settings** menu, select **Contact Frequency Rules**.

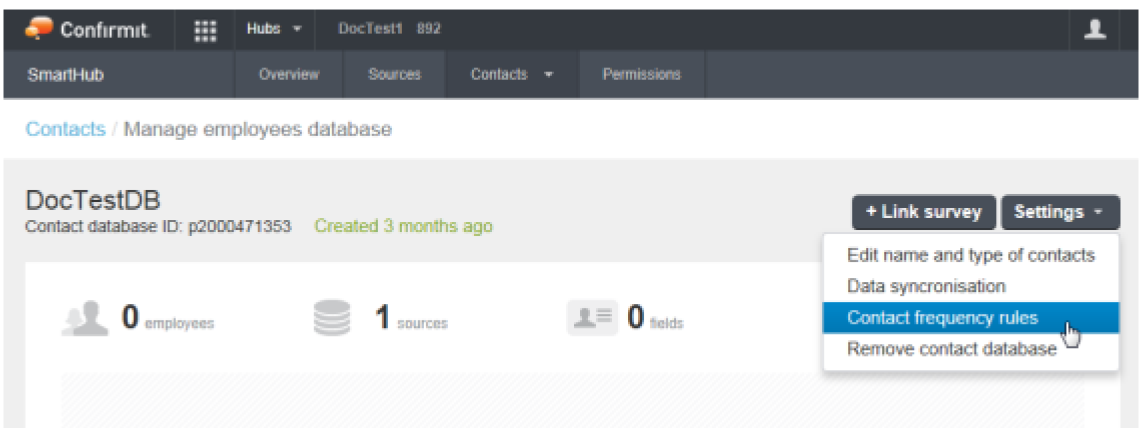


Figure 91 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

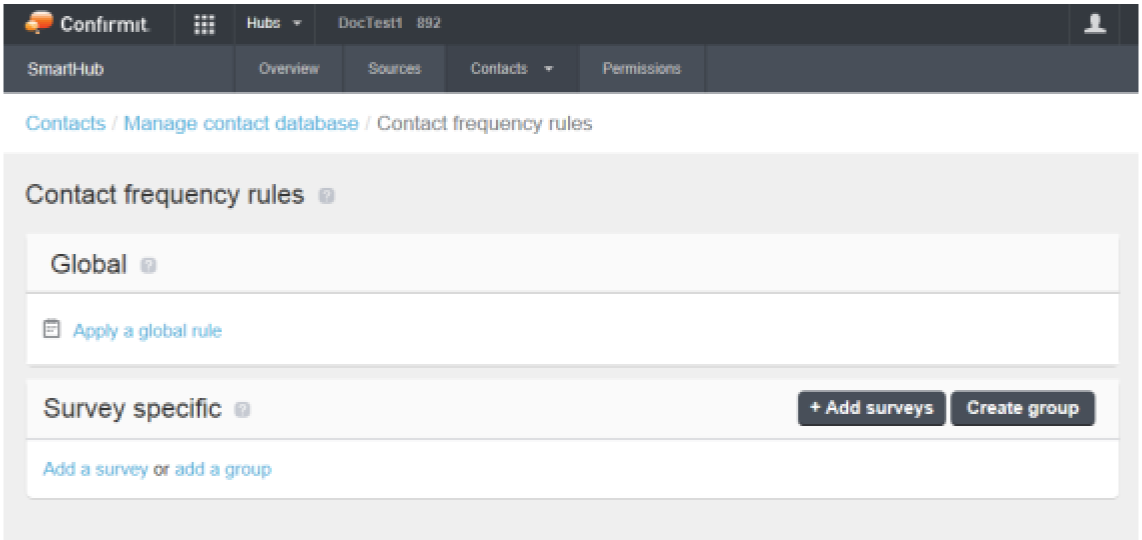


Figure 92 The Contact Frequency Rules page

4. Click **Apply a global rule**.

   The input field opens.

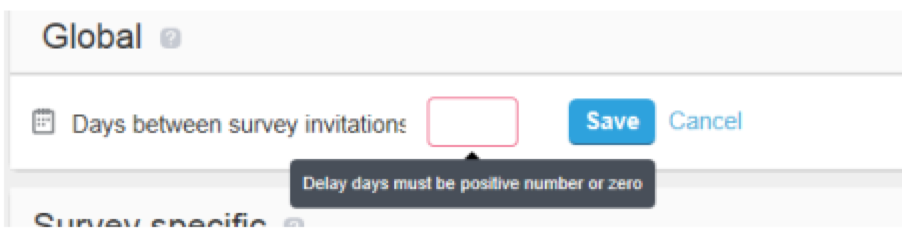


Figure 93 The delay input field and controls

5. Type the required number of "delay days" into the field.

   This must be a positive number or zero, and specifies the minimum number of days to the next emailing to the same contact. For example, if you send emails to your contacts on a Monday and the Delay-days specified in the rule is 3, then the earliest you can send the next email to those contacts will be the Thursday of that week.

6. Click **Save**.

   The rule is saved against that contact database. You can edit the delay (click the **Edit** icon) or delete the rule (click the Delete icon and confirm) at any time.

7.2. How to Add a Survey-Specific Rule

Survey-specific rules override the global rule (if one is applied), and apply only to the contacts in the surveys added. You can set rules on individual surveys (see below), or you can create a group of surveys and set a rule for the group as a whole (see How to Create a Group on page 79 for more information). To set rules on individual surveys:

1. In the hub, go to the contact database to which you wish to add a survey with a specific contact frequency rule.
2. In the **Settings** menu, select **Contact Frequency Rules**.

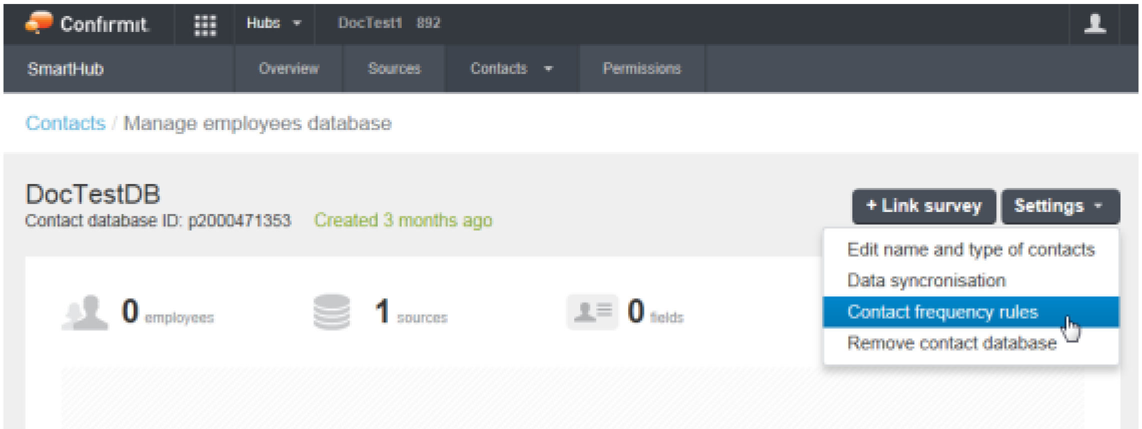


Figure 94 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

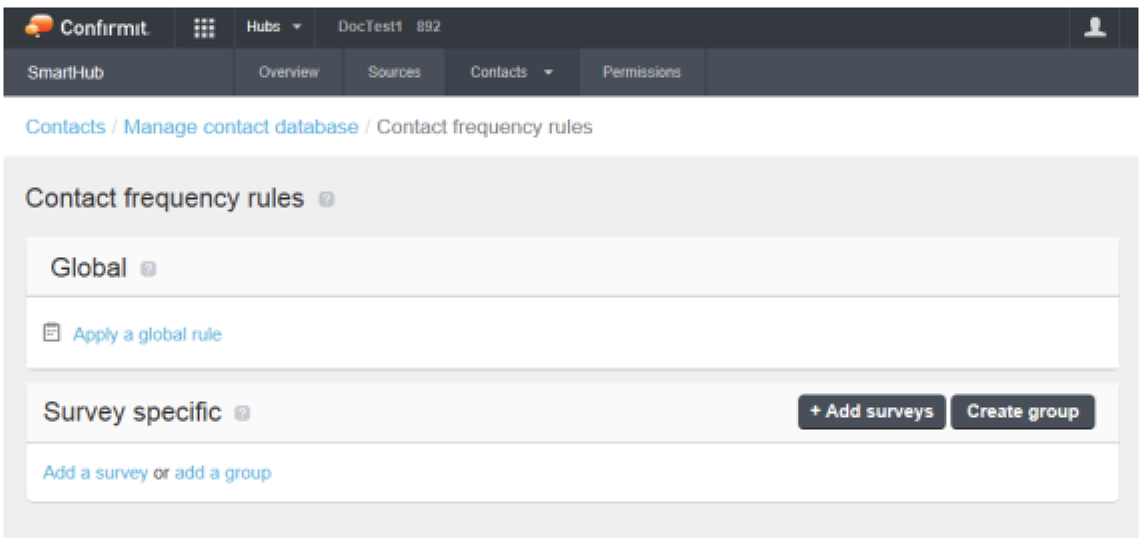


Figure 95 The Contact Frequency Rules page

3. Click **+ Add surveys**.

   The Add surveys with specific frequency rules overlay opens.

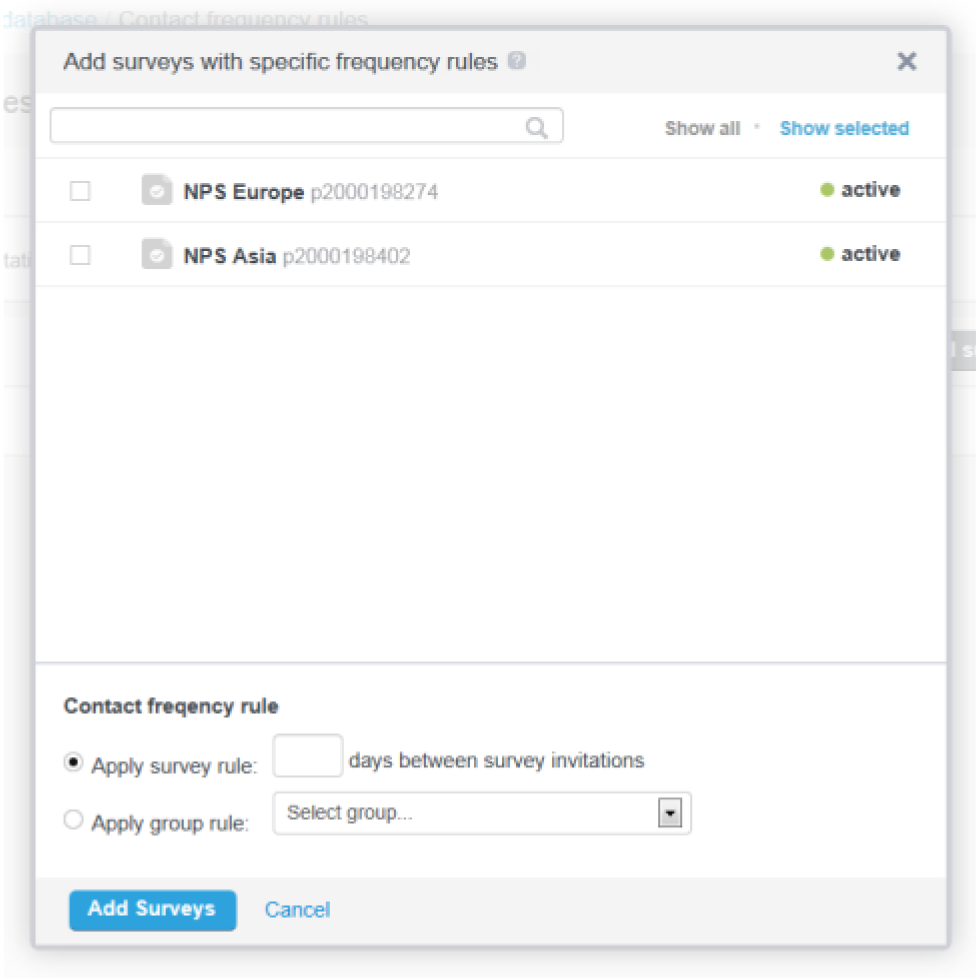


Figure 96 The Add surveys... overlay

This page lists the surveys that are included in the contact database.

4. Select the survey or surveys that you wish to apply a specific rule to.
5. Type the required number of "delay days" into the field.

   This must be a positive number or zero, and specifies the minimum number of days that must elapse between emails. For example, if you send emails to your contacts on a Monday and the Delay-days specified in the rule is 3, then the earliest you can send the next email to those contacts will be the Friday of that week.
6. Click **Add Surveys**.

   The rule is saved against that contact database in the Survey Specific part of the list, and details which survey from the contact database it applies to. You can edit the delay (click the **Edit** icon) or delete the rule (click the Delete icon and confirm) at any time.

7.3. How to Create a Group

You can create a group of surveys and set a rule for the group as a whole.

1. In the hub, go to the contact database to which you wish to create a group.
2. In the **Settings** menu, select **Contact Frequency Rules**.

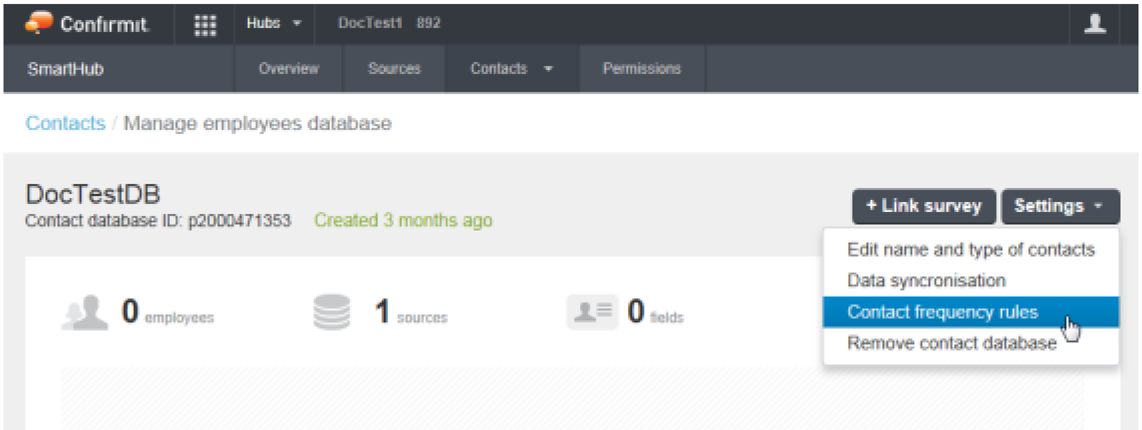


Figure 97 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

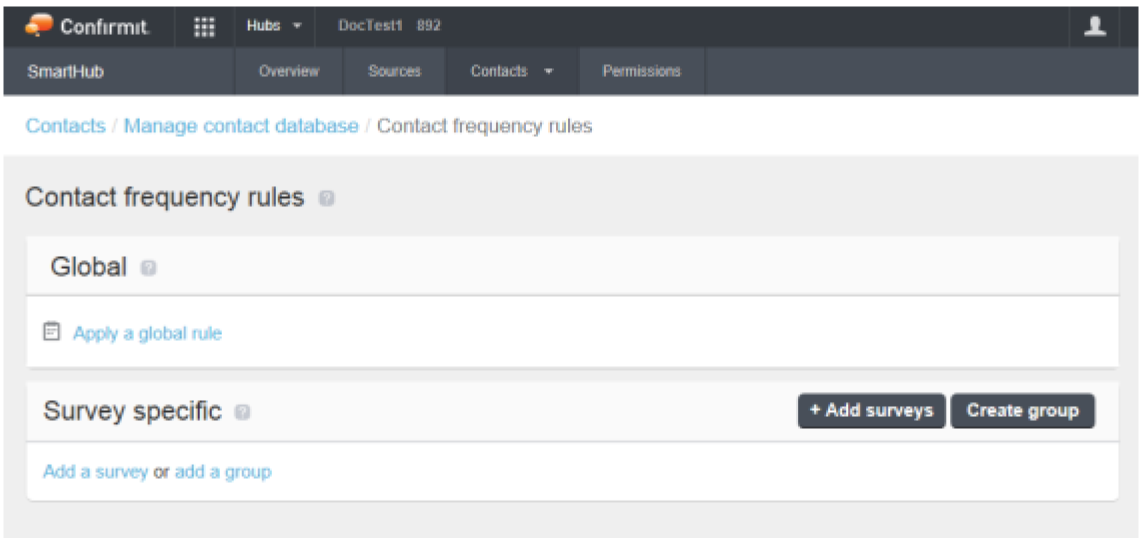


Figure 98 The Contact Frequency Rules page

3. Click **Create group**.

   The Create group overlay opens.

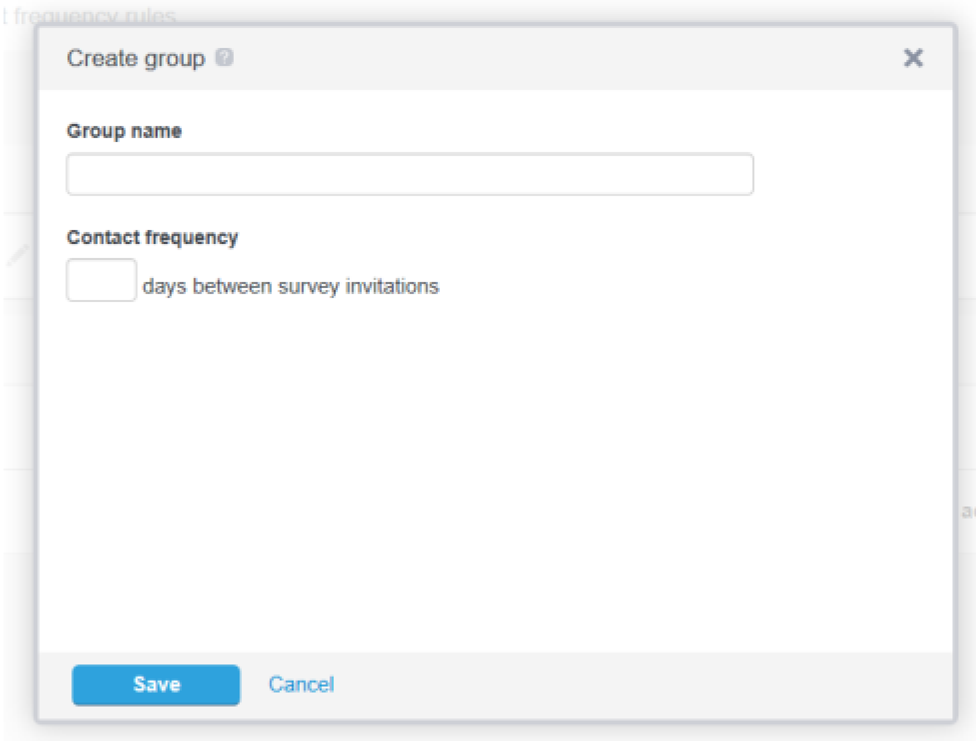


Figure 99 The Create group overlay

4. Type in a name for the new group.
5. Type the required number of "delay days" into the field.

   This must be a positive number or zero, and specifies the minimum number of days that must elapse between emails. For example, if you send emails to your contacts on a Monday and the Delay-days specified in the rule is 3, then the earliest you can send the next email to those contacts will be the Friday of that week.
6. Click **Save**.

   The group is saved against that contact database in the Survey Specific part of the list. You now need to add surveys to the group.
7. Click the **Add Surveys** icon .

   The Add surveys with specific frequency rules overlay opens.

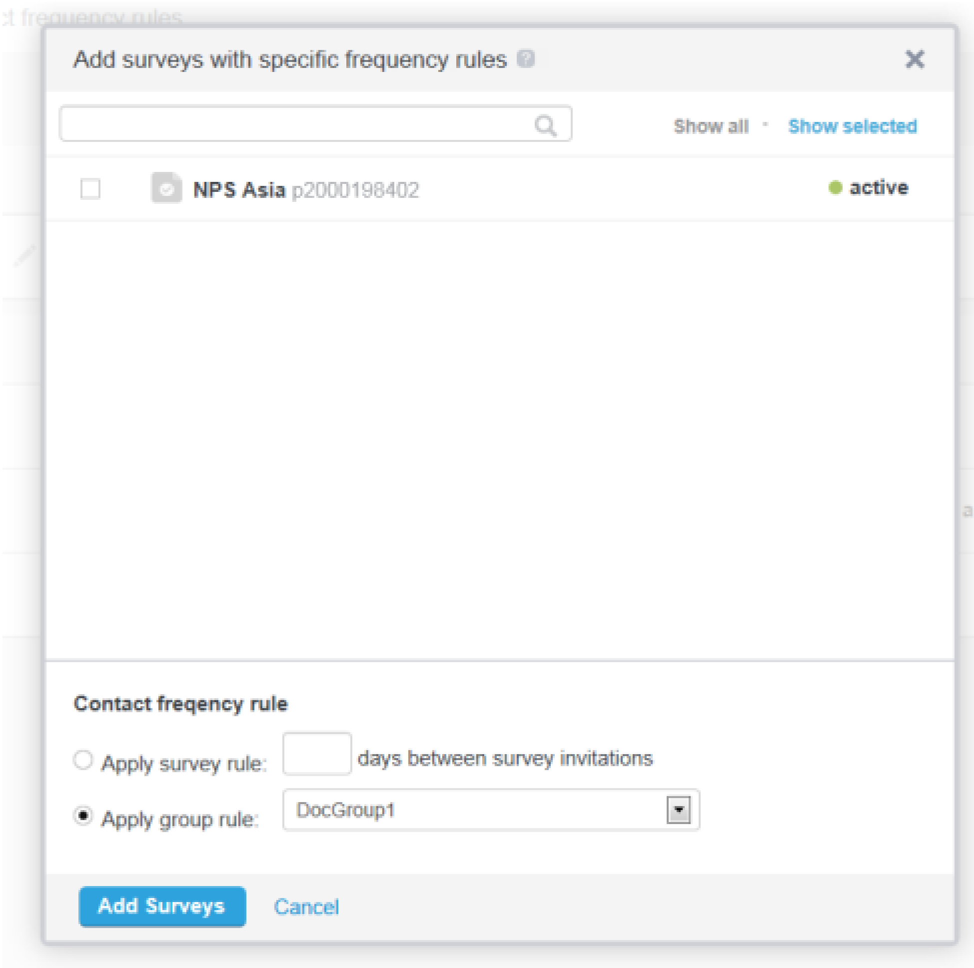


Figure 100 The Add surveys... overlay

This page lists the surveys that are included in the contact database that do not already have specific rules applied.

8. Select the surveys that you wish to add to the group.
9. Type the required number of "delay days" into the field.

   This must be a positive number or zero, and specifies the minimum number of days that must elapse between emails. For example, if you send emails to your contacts on a Monday and the Delay-days specified in the rule is 3, then the earliest you can send the next email to those contacts will be the Friday of that week.
10. If you have several groups available, select the group you wish to add the surveys to.
11. Click **Add Surveys**.

   The group is saved against that contact database in the Survey Specific part of the list, and details which surveys from the contact database it applies to. You can edit the delay (click the **Edit** icon), add further surveys to the group (click the **Add Surveys** icon) or delete the rule (click the Delete icon and confirm) at any time.

7.4. How Contact Frequency Rules Work

When a survey is linked to a contact database for which Contact Frequency Rules are set up, the rules will automatically apply to any emailing done on that survey. So when respondent emailing is run, each respondent will be checked against the contact database to see whether he/she has been emailed previously on a different record in the same survey, or another survey in the contact database. If the system finds a previous record with emailing activity, it will then check whether the number of days since the “InivitationDate” on the last email sent to that record is more than or equal to the “Days between survey invitations” setting in the Contact Frequency Rules.

If the time elapsed since an email was last sent to that contact is less than the “Days between survey invitations” setting, the system will set a system variable FilterStatus to 1, a FilterStatusDate to current time, and FilteredBySurveyId to the survey id of the survey for which there was a previous respondent record with emailing within the limit (this could be for another record on the same contact in the same or a different survey). Emailing will then be blocked for this particular respondent record, and as long as FilterStatus is 1 there will be no further attempt to email this particular respondent record. However the same contact may be uploaded again to the survey as a new respondent record at a later date, and if enough days have passed it will pass the contact frequency check.

If the time elapsed since an email was last sent to that contact is more than the specified time, the system will set FilterStatus to 0, and then any emailing on this particular respondent record will be allowed without further checking against contact frequency rules. This means that you will for example be allowed to send a reminder email to that particular respondent record, regardless of how many days have elapsed since the original invitation was sent to that particular respondent record. If you upload the same contact again to the survey as a new respondent record later, the system will run contact frequency checks on the new record.

8. Custom Data

The Custom Data functionality allows you to import into the hub other types of data than just survey data. The data must be in the form of an .xlsx file, and once it is uploaded into the hub it can be used in Studio reports.

Examples of custom data include accounts information for Business to Business (B2B), Salesforce data regarding a company's sub contractors, revenue data, operational data, ticket data, marketing data, usage data, benchmark data, targets etc.

There is no requirement to create schemas or design tables before importing data as this is done automatically; the variables are created from the column headers in the file during data import.

The data types being imported from the .xlsx file (date, text, numeric, single etc.) are detected by the system, and the appropriate types of variables are then created in the table. You can change the variable types later if necessary.

The variable types and the data uploaded are validated, and any registered errors are highlighted. You can then correct the data or change the variable types to ensure the details are correct.

Once the data is uploaded, it cannot be changed within the table. If you want to edit the data you must make the required changes in the original .xlsx file and re-upload to the table.

Note: The data uploaded to a Custom data table can only be used in Studio reports.

8.1. Creating a Table

Before you can import custom data, you need to create a table into which the data can be imported.

1. In the main toolbar, click **Custom data**.

   A blank Custom data page opens.

2. Click **Create table**.

   The Create table overlay opens.

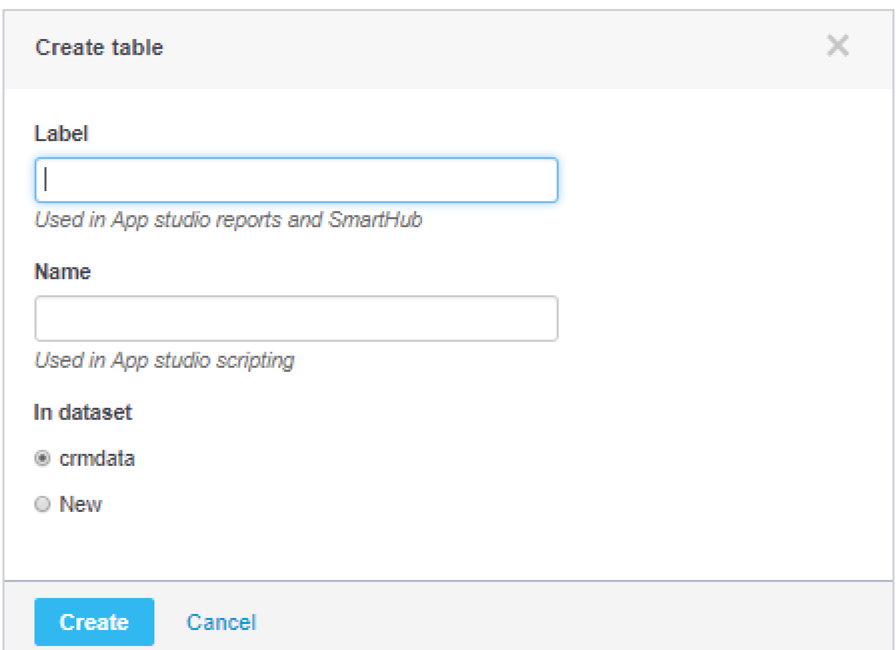


Figure 101 The Create table overlay

- **Label -** type in your description for the table.
- **Name -** the name for the table. This will be referred to in scripting, so it cannot include spaces or special characters.
- **In dataSet –** tables are grouped in data sets so that you can organize the tables as you see fit, for example creating different data sets for different types of data (CRM, financial etc.).

Note: You can create one or more data sets, call them what you like, and assign tables to these data sets. You can chose an existing data set or create a new (the first time, in a new hub, you can only create a new data set).

3. Click **Create**.

   The table is created and the Upload Data page opens. You can now upload the data file.

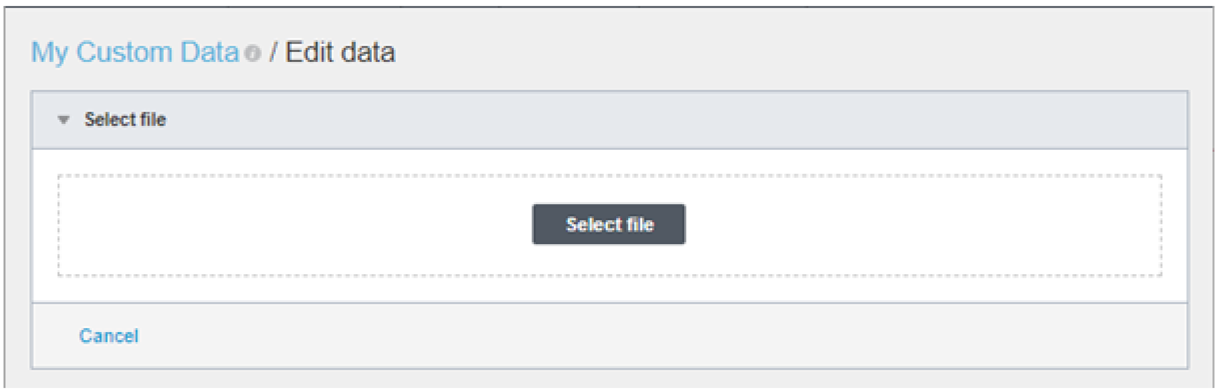


Figure 102 The Upload Data page

4. Click **Select file**.

   A standard file selection dialog opens.

5. Browse to and select the data file you wish to upload. Note that the file must be of type .xlsx (see The Data File on page 90 for more information).

   The selected file is opened in the Upload page.

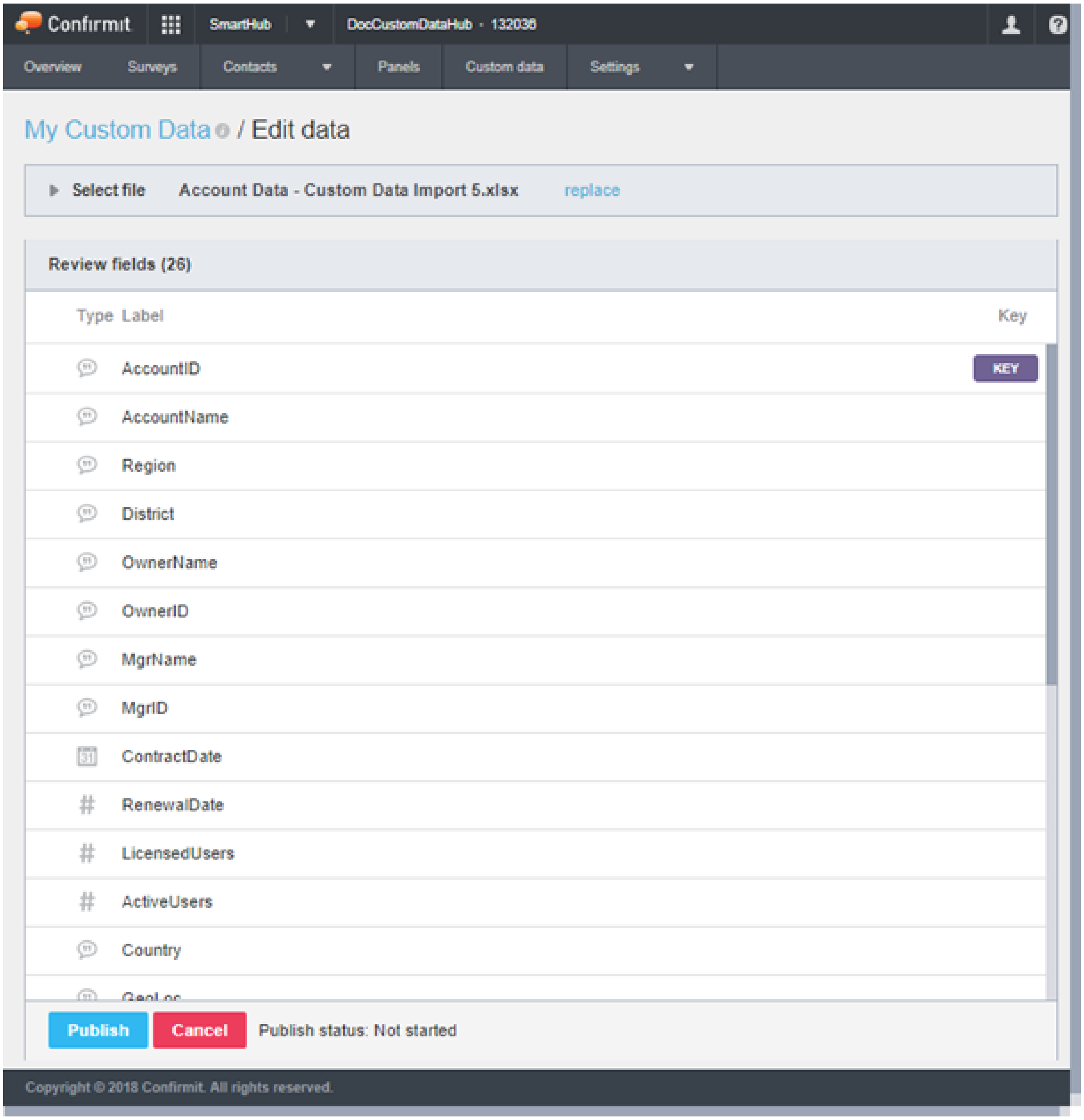


Figure 103 The selected file open in the Upload page

- Note that a column has been automatically selected to be the key. One or more columns must be defined as the key(s), and the (combined) values for the key(s) must be unique. In the event it is not unique, an indication will be given. Click then on the row to show the "error", and correct the error in the .xlsx file before re-selecting and proceeding.
- Note also the field Type icons to the left of each label - these indicate which type of field the system has selected for that field. You can change both the key and the data type as necessary.

3. Click on a field to view details about the.

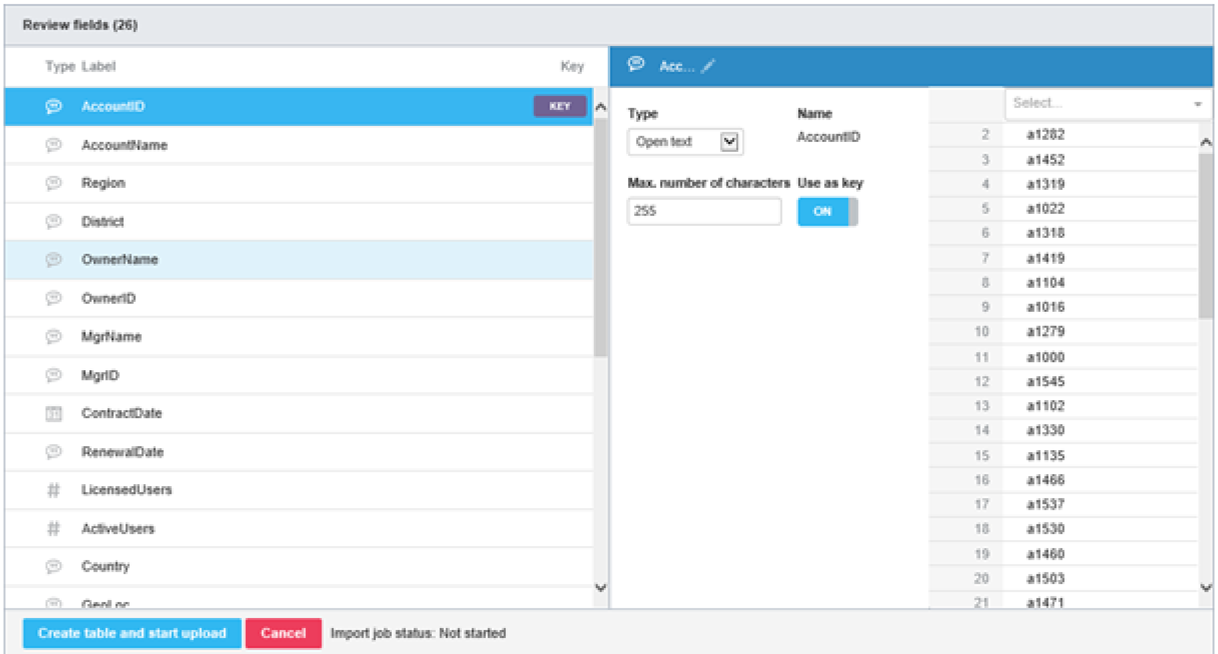


Figure 104 The data for one of the rows

To change the type of data that is presented, click the **Type** drop-down and select the desired type. Note that the row numbers of the data reflect the row numbers from the original .xlsx file; the first row of data will be row 2 because row 1 is the header row in the .xlsx file.

For fields that contain categorical data, for example a list of countries, you can switch type to “Single choice”. The system will then automatically parse the data and find all distinct values, and automatically create an answer list based on those, with the original value as “Answer value” and the value stripped of special characters and blanks. The answer values and the codes used will be listed along with the total number of values.

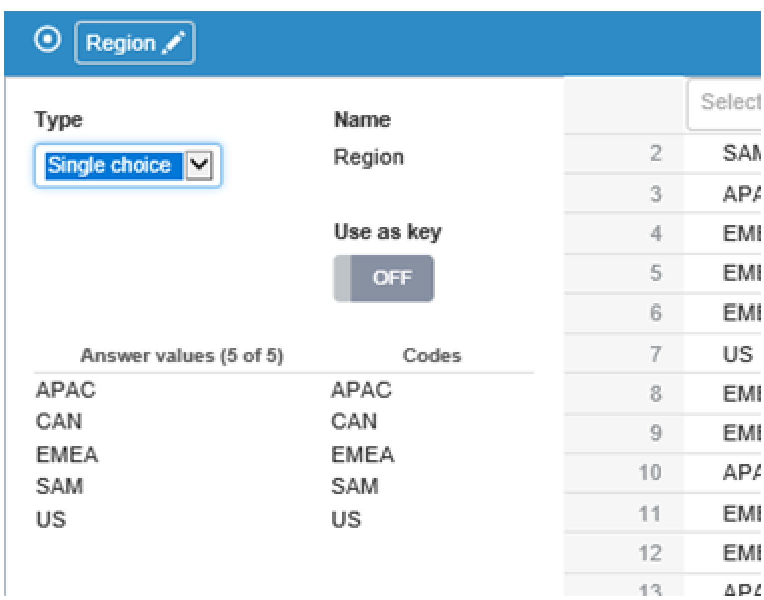


Figure 105 Example of the answer values for a single choice variable

If the system thinks that the selected variable type or one or more of the data values is wrong, an indication will be given.

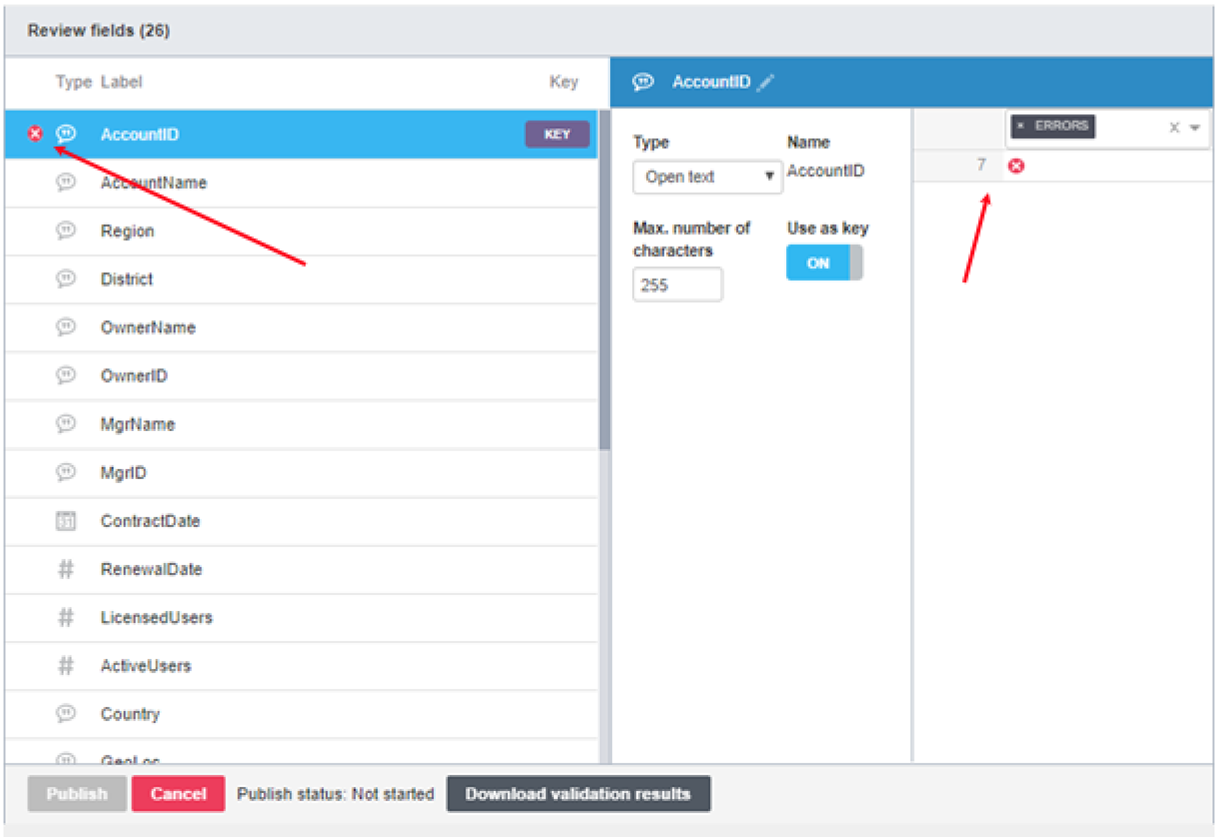


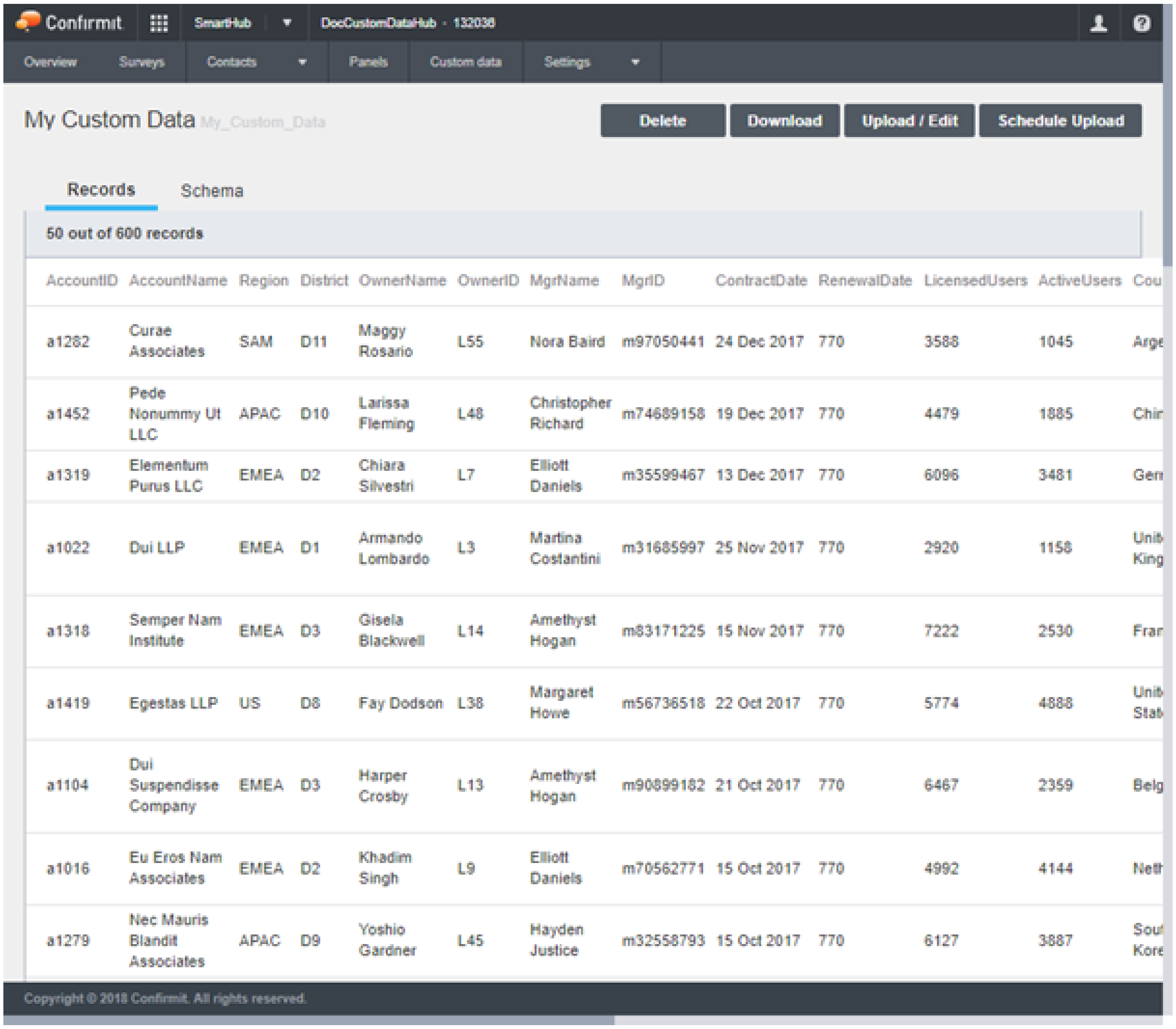
Figure 106 Example of the data where the system has registered an error

In this example a field is missing its data; you have the opportunity to check and correct the data in the .xlsx file before uploading. Note that while the data contains errors, the **Publish** button is grayed out and cannot be clicked. In the right pane, choose a filter option; you can choose to display the errors or the approved rows. So if for example you have a large file with a lot of rows, and one or two rows contain errors, then you can display only these rows. You can also download a report of the validation results.

4. When the data and variable types are correct click **Publish**.

Note: Once you have imported the data, it cannot be changed. If you need to edit the data it must be edited in Excel and then re-imported (see Uploading Data to the Table on page 92 for more information).

During the upload, the status of the task is displayed at the bottom of the window. On completion, the data records are presented in the table area.



AccountID	AccountName	Region	District	OwnerName	OwnerID	MgrName	MgrID	ContractDate	RenewalDate	LicensedUsers	ActiveUsers	Cou
a1282	Curae Associates	SAM	D11	Maggy Rosario	L55	Nora Baird	m97050441	24 Dec 2017	770	3588	1045	Arge
a1452	Pede Nonummy Ut LLC	APAC	D10	Larissa Fleming	L48	Christopher Richard	m74689158	19 Dec 2017	770	4479	1885	Chir
a1319	Elementum Purus LLC	EMEA	D2	Chiara Silvestri	L7	Elliott Daniels	m35599467	13 Dec 2017	770	6096	3481	Gern
a1022	Dui LLP	EMEA	D1	Armando Lombardo	L3	Martina Costantini	m31685997	25 Nov 2017	770	2920	1158	Unit King
a1318	Semper Nam Institute	EMEA	D3	Gisela Blackwell	L14	Amethyst Hogan	m83171225	15 Nov 2017	770	7222	2530	Frar
a1419	Egestas LLP	US	D8	Fay Dodson	L38	Margaret Howe	m56736518	22 Oct 2017	770	5774	4888	Unit Stat
a1104	Dui Suspendisse Company	EMEA	D3	Harper Crosby	L13	Amethyst Hogan	m90899182	21 Oct 2017	770	6467	2359	Belg
a1016	Eu Eros Nam Associates	EMEA	D2	Khadim Singh	L9	Elliott Daniels	m70562771	15 Oct 2017	770	4992	4144	Neth
a1279	Nec Mauris Blandit Associates	APAC	D9	Yoshio Gardner	L45	Hayden Justice	m32558793	15 Oct 2017	770	6127	3887	Sout Kore

Figure 107 Example of the table with data loaded

Note that the table has two tabs:

- **Records** lists all the data in columns and rows, with the column headers at the top.
- **Schema** shows the columns with the variable types and the selected key. Click on a row in the schema tab to view the settings for that row.

There are five actions you can perform on the custom table:

- You can delete the table (see Deleting a Custom Table on page 91 for more information).
- You can download the table as an .xlsx file (see Downloading a Custom Table on page 91 for more information).
- You can upload data to the table (see Uploading Data to the Table on page 92 for more information).
- You can edit the schema of the table (see Editing the Schema of a Custom Table on page 93 for more information).
- You can schedule an FTP upload of data to the table (see Automation through Importing from an FTP Server on page 94 for more information).

8.1.1. The Data File

The custom data file that is to be uploaded must be of type .xlsx.

	A	B	C	D	E	F	G	H	I	J	K	L	
1	AccountID	AccountName	Region	District	OwnerName	OwnerID	MgrName	MgrID	ContractDat	RenewalDat	License	ActiveU:	Cou
2	a1282	Curae Associates	SAM	D11	Maggy Rosario	L55	Nora Baird	m97050441	12/24/2017	02.02.20	3588	1045	Arge
3	a1452	Pede Nonummy Ut LLC	APAC	D10	Larissa Fleming	L48	Christopher Rich:	m74689158	12/19/2017	01.28.20	4479	1885	Chin
4	a1319	Elementum Purus LLC	EMEA	D2	Chiara Silvestri	L7	Elliott Daniels	m35599467	12/13/2017	01.22.20	6096	3481	Gerr
5	a1022	Dui LLP	EMEA	D1	Armando Lombardo	L3	Martina Costanti	m31685997	11/25/2017	01.04.20	2920	1158	Unit
6	a1318	Semper Nam Institute	EMEA	D3	Gisela Blackwell	L14	Amethyst Hogan	m83171225	11/15/2017	12.25.19	7222	2530	Fran
7	a1419	Egestas LLP	US	D8	Fay Dodson	L38	Margaret Howe	m56736518	10/22/2017	12.01.19	5774	4888	Unit
8	a1104	Dui Suspendisse Company	EMEA	D3	Harper Crosby	L13	Amethyst Hogan	m90899182	10/21/2017	11.30.19	6467	2359	Belg
9	a1016	Eu Eros Nam Associates	EMEA	D2	Khadim Singh	L9	Elliott Daniels	m70562771	10/15/2017	11.24.19	4992	4144	Neth
10	a1279	Nec Mauris Blandit Associates	APAC	D9	Yoshio Gardner	L45	Hayden Justice	m32558793	10/15/2017	11.24.19	6127	3887	Sout
11	a1000	Lobortis Quam A Consulting	EMEA	D4	Tatiana Cochran	L20	Maura Venegas	m79401805	10/04/2017	11.13.19	4886	1705	Finl
12	a1545	Nec LLP	EMEA	D1	Andrea Ricci	L5	Martina Costanti	m29191192	10/02/2017	11.11.19	4073	666	Gerr
13	a1102	Auctor Ullamcorper Nisl Ltd	APAC	D10	Aurelia Manning	L46	Christopher Rich:	m98418595	09/27/2017	11.06.19	1460	1390	Chin
14	a1330	Urna LLP	EMEA	D2	Chiara Silvestri	L7	Elliott Daniels	m75071699	09/24/2017	11.03.19	5670	1305	Gerr
15	a1135	Vehicula Aliquet Corp.	CAN	D6	Felicia Santana	L26	Rayén Reyes	m92396437	09/14/2017	10.24.19	6029	5548	Can:
16	a1466	Donec Sollicitudin Adipiscing Corpo:	SAM	D12	Martina Mazza	L58	Jin Davidson	m45057127	08/30/2017	10.09.19	619	94	Chil
17	a1537	Scelerisque Ltd	US	D7	Erika Ericsson	L32	Hop Witt	m28169087	08/28/2017	10.07.19	5689	1734	Unit
18	a1530	Mauris Sagittis Corporation	SAM	D12	Federica Orlando	L57	Jin Davidson	m05876211	08/09/2017	09.18.19	6280	5924	Chil
19	a1460	Ornare In Corporation	EMEA	D1	Deacon Wynn	L1	Martina Costanti	m20395557	07/23/2017	09.01.19	6202	2692	Italy
20	a1503	Dui Augue Eu Corp	SAM	D12	Federica Orlando	L57	Jin Davidson	m72894330	07/10/2017	08.19.19	7567	1613	Arge

Figure 108 Extract of an .xlsx data file

The first row in the data file contains the column headers. These column headers will be used as the field names when the data is loaded into the table. The system assesses the type of data contained in the columns - its layout and format - and decides what data type the column should have.

The system will check the contents of the columns, and it will select the first column it finds where the data is unique to each row, to be the key.

8.1.2. Data Types

The following data types are supported for fields in custom data tables:

- **Open text -** Textual data, with the ability to specify a max number of characters. Longer texts will be truncated.
- **Numeric -** Numeric data, either whole (integer) or decimal numbers, with the ability to specify number of decimals. The system will validate that the data uploaded actually is numeric.
- **Date -** If cells are formatted as date from Excel it will accept date format as defined in Excel, but if cells are formatted as text, the following date formats are accepted: "yyyy-M-d","M/d/yyyy","d.M.yyyy". The system will validate that the data uploaded is valid dates of one of those formats (or a valid date value in a cell formatted as date).
- **Single choice -** For categorical data, like for example “country” or “product”, the system will parse the data and find all distinct values and automatically create an answer list based on those, with the original value as “Answer value”, and the value stripped of special characters and blanks as code. As new values are uploaded, new answers will be added.
- **Parent relation -** Parent relation can be used when there is a hierarchical structure within the data, for example for a table with accounts data, where an account may belong to a parent account. The relation field should then contain the id of the parent account, and will validate that that id exists in the data, in the key field of the table.
- **Reference -** A field may reference another table. For example there may be table that holds revenue data per year for each account, that has an accountid field, that references the key of an “accounts” custom data table in the same hub. A reference field allows you to set up such a reference to the key of another custom data table. The system will validate that the key referenced actually exist in that other table.

8.2. Editing an Existing Table

You can edit an existing table, updating the data file or changing to a different file as necessary. Note that once the data file is uploaded to the table, the data cannot be changed within the table - you must make any changes in the original data file and then re-upload the file to the table.

To edit a table:

1. In the SmartHub, click **Custom data** in the main toolbar.

   The Custom data page opens, displaying a list of the custom tables available in the hub.

2. Click on the table you wish to edit.

   The table opens. You can now delete the table, download the data as an .xlsx file, upload a new or edited file, edit the schema (data types and settings on the fields) or schedult an FTP update of the data.

8.2.1. Deleting a Custom Table

To delete a custom table:

1. In the table, click **Delete** in the upper-right corner of the window.

   The Delete... confirmation overlay opens.

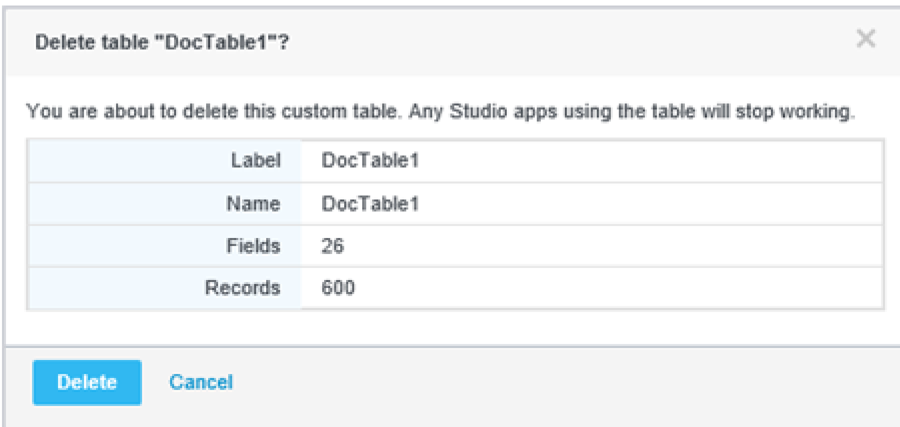


Figure 109 Example of the delete confirmation overlay

2. Check that you are about to delete the correct table, then click **Delete**.

   The table is deleted.

8.2.2. Downloading a Custom Table

You can download a custom table to an .xlsx file.

Note: Companies that have enforced encryption will receive an encrypted file.

To do this:

1. In the table, click **Download** in the upper-right corner of the window.

   A standard "Do you want to save..." dialog appears across the bottom of the window.

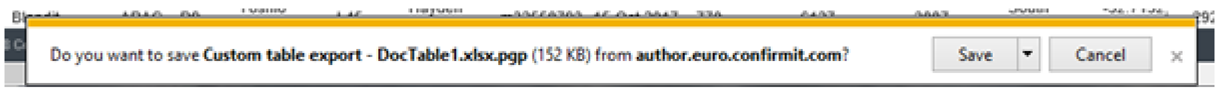


Figure 110 Example of the save dialog

2. From the drop-down select **Save** to save the file in your default downloads folder, or select **Save as** to open a standard save dialog and browse to the location where you wish to save the file.

   The file is saved.

8.2.3. Uploading Data to the Table

In the event you wish to refresh or change the data in the table, this can only be achieved by re-uploading the data file. The procedure is the same as when you first created the table (see Creating a Table on page 84 for more information).

1. Go to Custom Data and open the table you wish to update.
2. In the table, click **Upload/Edit** in the upper-right corner of the window.

   The Edit Data page opens

3. Click **Select file**.

   A standard file selection dialog opens.

4. Browse to and select the data file you wish to upload. Note that the file must be of type .xlsx (see The Data File on page 90 for more information).

   The selected file is opened in the Upload page. In the event the updated data file contains new rows of data or data is changed from the previous upload, these will not be highlighted. If columns will be added to or deleted from the data file (new or deleted fields in the table), these will be highlighted.

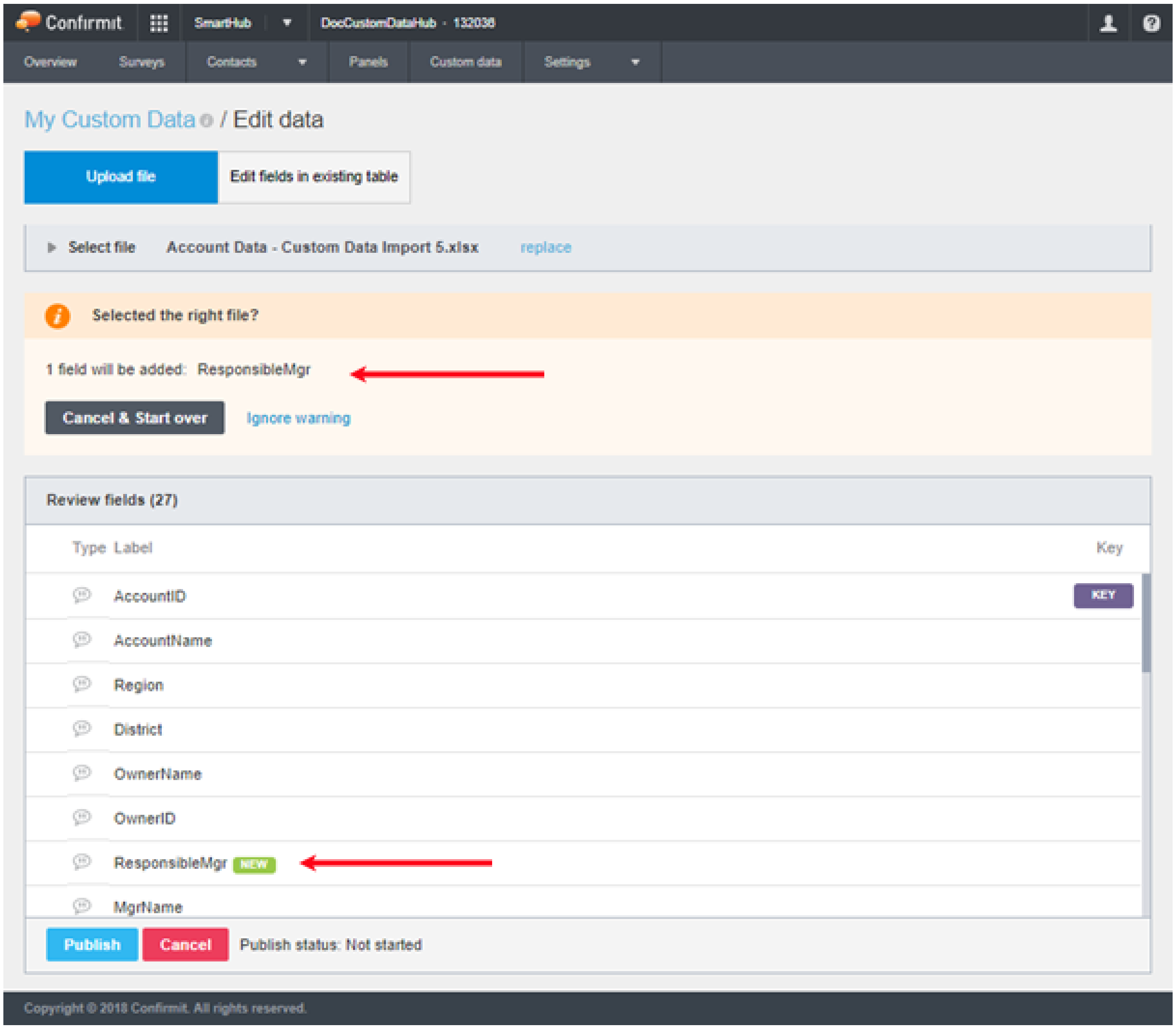


Figure 111 Uploading a data file with a new field

5. Check the data and selections,
6. When the data and field types are correct click **Publish**.

The data is uploaded, overwriting and replacing any data that is already in the table.

Note: If you are re-importing a data file due to changes in the data, the system will remember the settings you made for the original import (key field, data types etc.).

8.2.4. Editing the Schema of a Custom Table

You may make updates to the schema, for example changing data type of a field, set a field as key, or update some other settings on the fields, without uploading the file again. To do this:

1. Go to **Custom Data** and open the table you wish to update.
2. In the table, click **Upload / Edit** in the upper-right corner of the window.

   The Edit Data page opens
3. Click **Edit fields in existing table**.

4. Click on the field you want to update, and set the new properties for the field.

   Switching properties will trigger a new validation of the data in the table, and if the change leads to validation errors, those will be shown and you will need to resolve them before you can publish the changes.

5. When you have made the desired changes, click **Publish** to apply all changes to the custom data table.

8.2.5. Automation through Importing from an FTP Server

To ensure a custom data table always has the most recent data, it is possible to set up an automated workflow. Here one system, for example a CRM system, periodically downloads data to a FTP server, and then SmartHub can be set up to pick up files from the FTP server instead of performing manual uploads.

To set up an automated workflow:

1. You must first set up the custom table with the correct data types etc. by performing a manual file upload (see Creating a Table on page 84 for more information).
2. Then select **Schedule upload**.

   The FTP upload overlay opens.

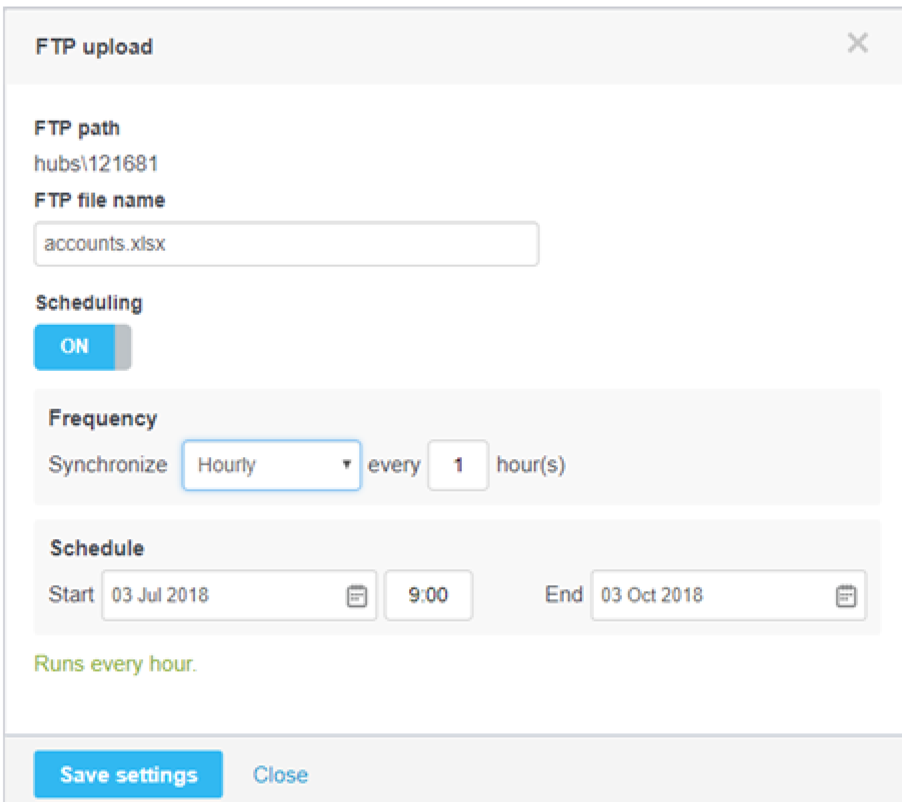


Figure 112 Example of the FTP upload overlay

The overlay allows you to specify the name of the file to upload, which should be placed under the specified FTP path (folder). You can enable scheduling to specify when the file should run, and how often. The upload will run as a recurring task.

The FTP upload will validate that the data matches the definition of the table (correct fields etc.) and that the data is according to the data types set for the fields. The upload will fail if there are validation errors. If validation is successful, data will be imported and will overwrite and replace any existing data in the table. The FTP upload will not change any fields or field settings (remove, add or update). It will however add new answer values (categories) for single choice fields. After a successful upload, the file will be removed from the FTP server so you don't upload the same file over and over again.

Note: Uploading from an external FTP server is not supported; only the Horizons FTP server is currently supported.

The FTP upload runs as a regular task, so details of the task instances, task log etc. can be found in the tasks system in Professional Authoring. Search for the "Hub Entity import" task type. It is also possible to set up email alerts in the event tasks fail.

9. The Settings Menu

Click on the **Settings** menu in the toolbar to open the Settings page, or hover the mouse pointer over the menu command to open the menu, then select an item directly from the menu. Note that there is a separate **Settings** button on the Manage Survey page that provides access to different functionality (see The Manage Survey Page on page 13 for more information).

Note: You cannot delete a hub via the Settings menu; you must open the Setting page to access the Delete Hub button.

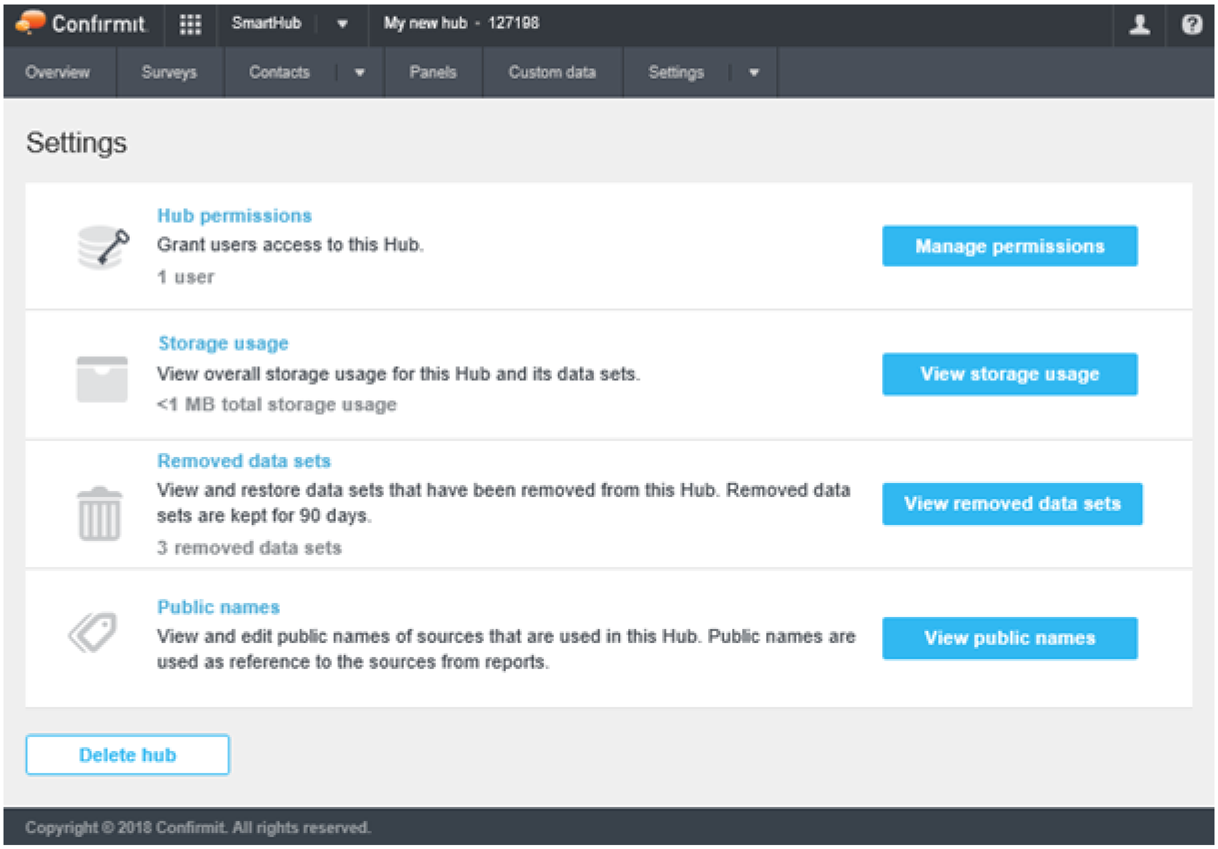


Figure 113 The Settings page

- **Hub permissions -** give users access to this hub (see Hub Permissions on page 97 for more information).
- **Storage usage -** Confirmit SaaS clients may store up to 10 GB of data. For larger data volumes, additional costs apply. Use this option to check how much storage capacity you have used (see Storage Usage on page 98 for more information).
- **Removed data sets -** lists any surveys that have been removed from the hub, and allows you to restore them if desired (see How to Restore a Data Set on page 99 for more information).
- **Public names -** allows you to view and edit the public names of the surveys and contact databases used in the hub.
- **Delete hub -** (only available on the Settings page) click to delete the hub (see How to Delete a Hub on page 22 for more information).

9.1. Hub Permissions

The Hub Permissions page allows you to specify who can manage the hub and who can only view it. Here you can add users to the list from your company or other companies, remove users from the list, and allocate permissions to individual users or groups of users.

Note: Report end users will not have access to the Hub Designer, though they will have access to reports created using data from the hub.

To open the Hub permissions page, go to the **Settings > Permissions** menu item.

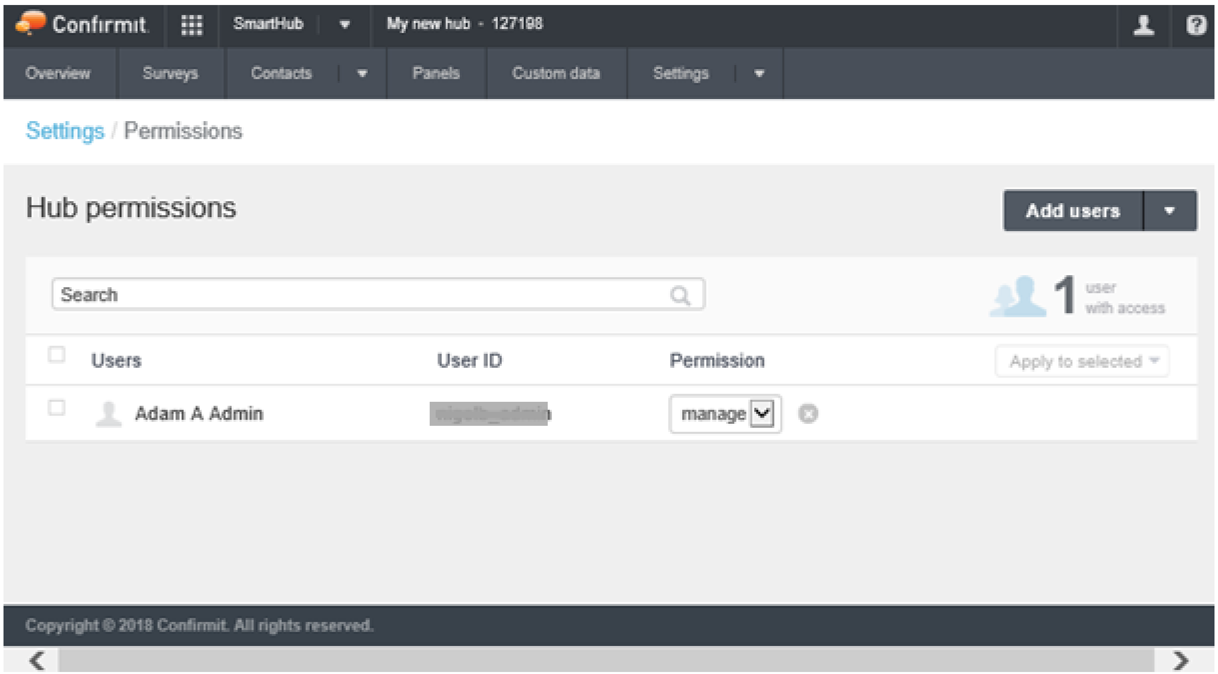


Figure 114 Example of the Hub Permissions page

The hub will by default enable you to add users registered in your own company (see How to Add Users to the Permissions List on page 98 for more information). If you wish to add users from a different company, click the down-arrow beside the **Add users** button and select **From another company** (see How to Add Users from Another Company on page 98 for more information).

- To change the access permission for a user, click the down-arrow in the Permission column for that user and select the desired permission.
  - o **View -** the user can see all the information in the hub, how it is defined etc. but cannot change any settings, add surveys, set permissions etc. The user can access the hub in Reportal (refer to the Reportal User Guide for further details).
  - o **Manage -** the user can see all the information in the hub (as View) and in addition can change the setup, permissions etc.
- To change the access permission for a number of users, check the boxes beside the users you wish to change, click **Apply to selected** then click on the appropriate action.
- To remove a user from the Permissions list, click the **X** button in the Permission column for that user and then confirm the removal.
- To remove a number of users simultaneously, check the boxes beside the users you wish to remove, click **Apply to selected** then click **Revoke access** and confirm the action.

9.1.1. How to Add Users to the Permissions List

To add users from your own company to the Permissions list:

1. Click **Add users**.
2. In the Add users overlay which appears, check the boxes beside those users you wish to add to the permissions list for this hub.

   In the event the list is extensive you can type search criteria into the Search field and press **Enter** to search for users whose names begin with the input criteria.

   To acquire a better overview of the users you have selected, click **Show selected**; this removes any names that you have not selected. Click **Show all** to redisplay the full list.
3. When you have selected the users you wish to add to the Permissions list, click **Add users**.

The selected users are added to the Permissions list.

9.1.2. How to Add Users from Another Company

To add a user from another company to the Permissions list, you will need to have the user's User Key available. Typically, an external user will send you their user key by email; the user's key is displayed towards the top of that user's Confirmit User Settings page.

1. Once you have the user key available, click the down-arrow beside the **Add users** button and select **From another company**.
2. Enter the user key(s) into the field.
3. Select the permission you wish to give that user; View (default) or Manage.
4. Click **Add users**.

The selected users are added to the Permissions list.

9.2. Storage Usage

For Confirmit SaaS clients, SmartHub is offered, at no additional cost, with storage for up to 10 GB of data. For larger data volumes, additional costs apply. Use this menu command to check how much storage the hub has used.

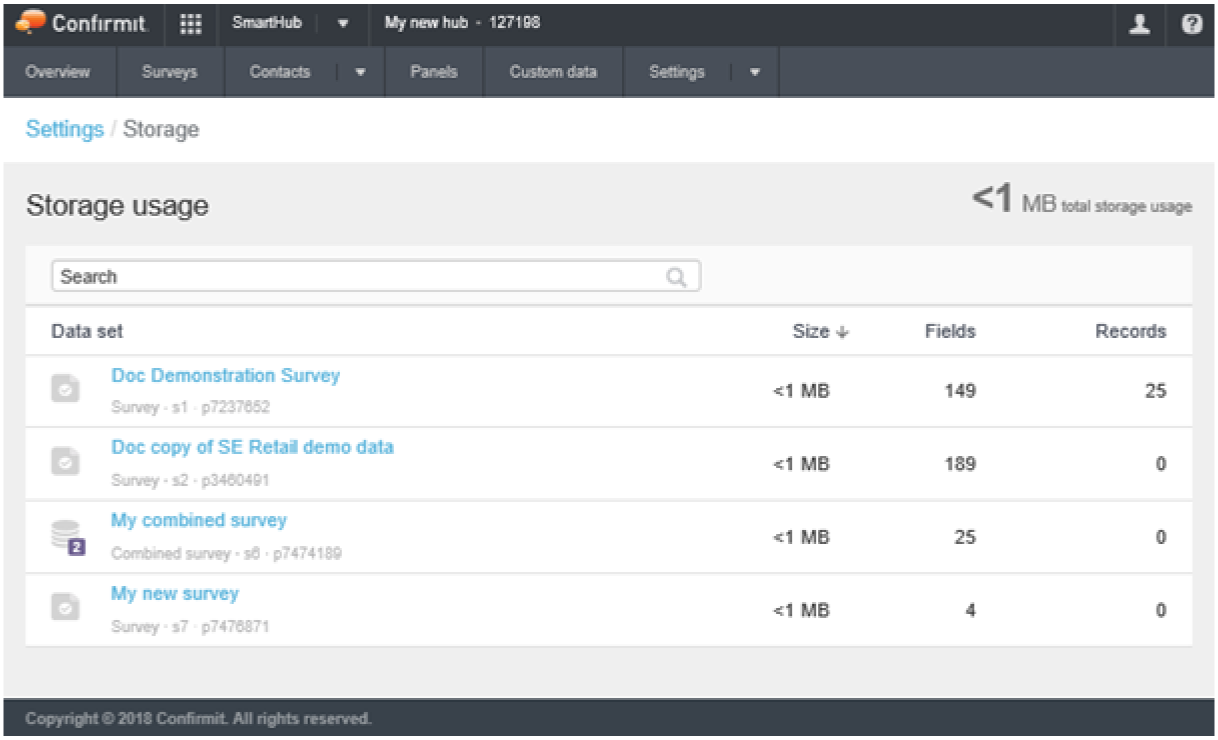


Figure 115 The Storage usage page

Click on a blue Data set name link to go to that data set.

9.3. Removed Data Sets

This menu command lists any data sets that have been removed from the hub. When a survey or contact database is removed from the hub, it will remain listed on this page for a period of 90 days after the removal operation. During this period you can restore the data set to the hub if so desired.

9.3.1. How to Restore a Data Set

If a survey or contact database is deleted from your hub, it will remain in the system for a period of 90 days. During this period it will be listed under **Removed data sets** in the hub's **Settings** menu. To restore a removed data set:

1. While in the hub, go to the **Settings > Removed data sets** menu item.

   The Removed data sets page opens.

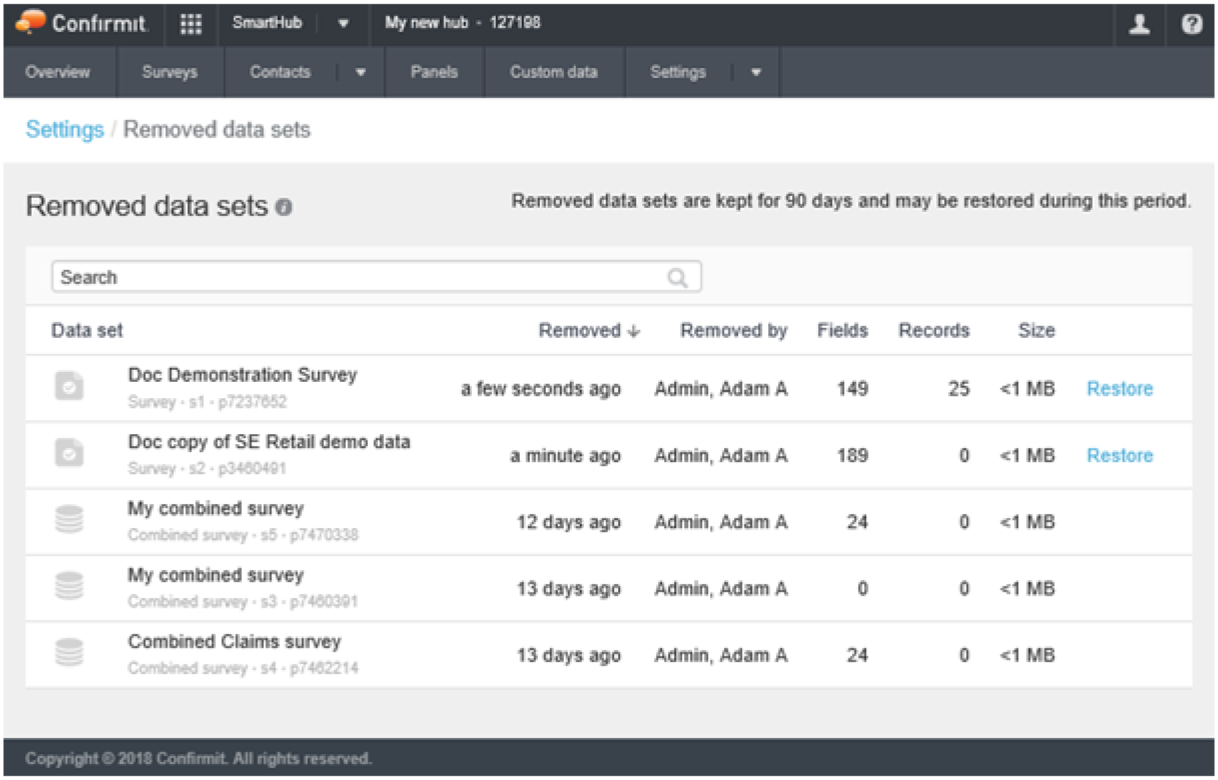


Figure 116 Example of the Removed data sets page

2. Click the **Restore** button for the survey you wish to restore.

   Note that only individual surveys can be restored; combined surveys and contact databases cannot be. A confirmation dialog box is displayed.

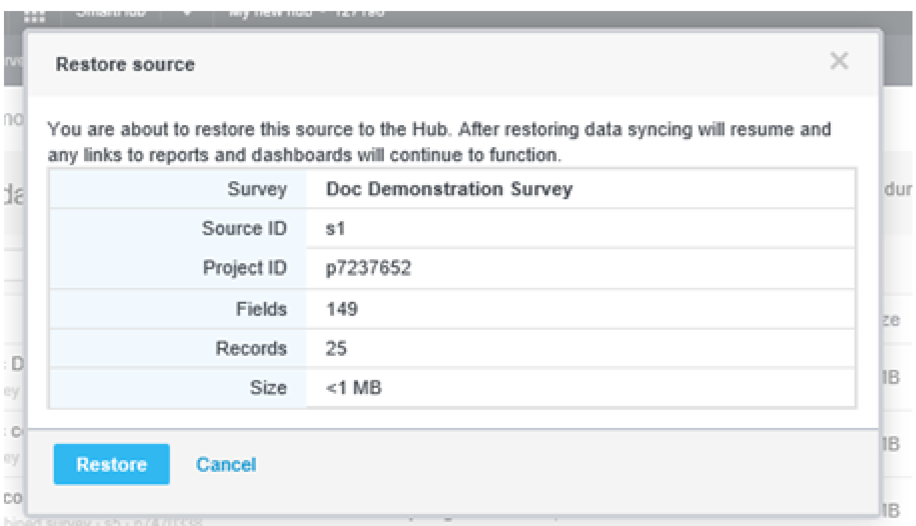


Figure 117 The Restore Source confirmation dialog

3. Click **Restore** to restore the survey to the hub, or **Cancel** to stop the process.

After the survey is restored you can then go to it to manage it if required.

Note: If you remove a survey and then manually add the same survey to the hub again (instead of using Restore) it will be given the same source ID, so any reports or dashboards referencing that survey will work again once the survey is replaced. A manual replacement therefore functions essentially the same as Restore, though Restore is simpler to use.

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