



Confirmit.

Confirmit SmartHub User Guide

This is document revision 1 of the Conformat v20 SmartHub User Guide published in June 2016. The information herein describes Conformat SmartHub and its features as of Build nr. 20.1.69 (shown in the Authoring **Home > Help > About** dialog). New features may be introduced into the product after the document's publication date. Go to www.conformat.com or check "News" on the Customer Extranet for the latest updates.

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The companies, names and data used or described in the examples herein are fictitious.

Table of Contents

Table of Contents	3
What's New in this Revision?	5
1. What is SmartHub - Introduction.....	1
1.1. How it Works	1
1.1.1. System Requirements	2
1.1.2. Encryption.....	2
1.1.3. Storage Cost.....	2
2. Opening the SmartHub Page for the First Time.....	3
2.1. Creating Your First Hub	3
2.2. The SmartHub Page with Preexisting Hubs.....	5
2.3. The SmartHub List Details.....	6
3. The Hub Designer Page	8
3.1. Sources	9
3.2. The Sources Tab	10
3.2.1. How to Delete a Source.....	11
3.3. The Manage Source Page.....	12
3.3.1. Data Synchronization.....	13
3.4. The Activities Menu	15
3.5. How to Create a New Hub	16
3.6. How to Add a Data Source to the Hub.....	17
3.7. How to Delete a Hub.....	18
3.8. How to Restore a Hub	20
4. Combined Data Sources	23
4.1. How to Create a Combined Data Source.....	23
4.2. How to Map a Survey into an Existing Combined Data Source	26
4.3. Viewing and Editing the Mapping.....	27
4.3.1. How to View a Mapping	27
4.3.2. How to Edit a Mapping.....	28
4.3.2.1. The Search and Filter Field.....	31
4.3.2.2. Mapping Errors and Warnings	32
4.3.3. How to Remove a Question from a Combined Data Source.....	34
4.3.4. How to Remove a Survey from a Combined Data Source	35
4.4. Manual Mapping	36
4.4.1. Mapping Questions with Different QIDs.....	37
4.4.2. Field Mapping	39
4.5. The Mapping Rules.....	44
4.6. The Survey Definition of the Combined Source	45
5. Contact Databases	46
5.1. New User.....	46
5.2. Synchronizing Background Data from a Survey to a Contact Database.....	47
5.3. How to Create a Contact Database	48
5.4. The Contact Database Page Header Tools	51
5.5. How to Link an Additional Survey to a Contact Database.....	51
5.6. Synchronizing Respondent Data to the Contact Database.....	53
5.7. The Contact Database Action Menu	53

5.7.1. Viewing and Editing Fields 53

6. Editing Question Labels in Sources 56

7. Contact Frequency Rules 59

7.1. How to Apply a Global Rule 59

7.2. How to Add a Survey-Specific Rule 60

7.3. How to Create a Group 62

7.4. How Contact Frequency Rules Work 66

8. The Settings Menu 67

8.1. Hub Permissions 68

8.1.1. How to Add Users to the Permissions List 69

8.1.2. How to Add Users from Another Company 69

8.2. Storage Usage 69

8.3. Removed Sources 70

8.3.1. How to Restore a Source 70

Index 73

What's New in this Revision?

The following changes have been made in revision 1 of the Confirmit v20 SmartHub User Guide:

- A number of changes are made to the Introduction chapter and System Requirements (see What is SmartHub - Introduction on page 1 for more information).
- The Data Synchronization section is edited (see Data Synchronization on page 13 for more information).
- A note in the How to Delete a Hub section is edited (see How to Delete a Hub on page 18 for more information).
- The text in the Combined Data Sources chapter is edited (see Combined Data Sources on page 23 for more information).
- A note in the How to Create a Combined Data Source section is edited (see How to Create a Combined Data Source on page 23 for more information).
- A note is removed from the Viewing and Editing the Mapping section (see Viewing and Editing the Mapping on page 27 for more information).
- Some text in the How to View a Mapping section is edited (see How to View a Mapping on page 27 for more information).
- Some text in the How to Edit a Mapping section is edited (see How to Edit a Mapping on page 28 for more information).
- The text and illustrations in the Search and Filter Field section are edited (see The Search and Filter Field on page 31 for more information).
- The text and illustrations in the Mapping Errors and Warnings section are edited (see Mapping Errors and Warnings on page 32 for more information).
- The text and illustrations in the Mapping Questions with Different QIDs section are edited (see Mapping Questions with Different QIDs on page 37 for more information).
- The Mapping Single Questions to Grids section is renamed to Field Mapping, and the text and illustrations are edited (see Field Mapping on page 39 for more information).
- The Survey Definition of the Combined Source section is added to the Combined Data Sources chapter (see The Survey Definition of the Combined Source on page 45 for more information).
- A note is added to the New User section (see New User on page 46 for more information).
- Some text in the How to Create a Contact Database section is edited (see How to Create a Contact Database on page 48 for more information).
- The Synchronizing Respondent Data... section is added to the Contact Databases chapter (see Synchronizing Respondent Data to the Contact Database on page 53 for more information).
- The How Contact Frequency Rules Work section is added to the Contact Frequency Rules chapter (see Contact Frequency Rules on page 59 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 sources 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 sources and map data sources together for use in reporting and analytics.

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 sources. 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.

SmartHub does not currently support:

- Standard Panels/Professional Panels.
- Basic Panels.
- Test databases.

Note: Hubs cannot be created or edited via Reportal, or by a report viewer. The hub creation/editing facility is only available via Horizons Authoring, by users with the appropriate permission.

To use a hub in Reportal, the user must have at least View permission to the hub (see Hub Permissions on page 68 for more information).

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 as an alternative to updating according to a set 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

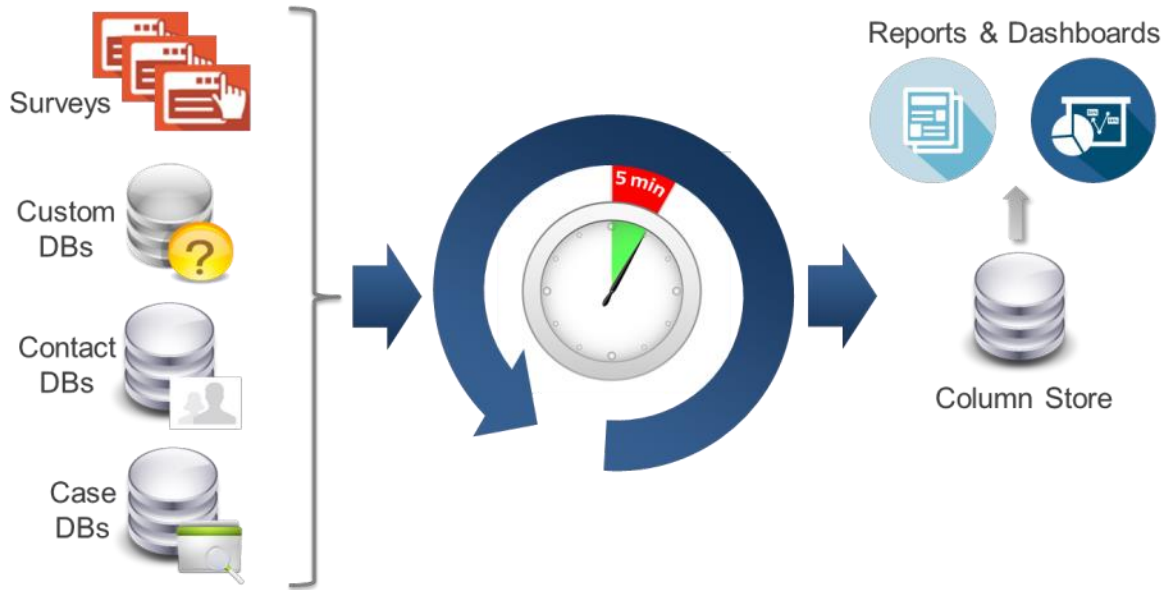


Figure 1 SmartHub block diagram

1.1.1. System Requirements

Confirmit SmartHub		
Element	Minimum	Recommended
Operating system	Windows Vista SP2. OS X	Windows 7 or Windows 8 Desktop.
Web browser	Internet Explorer 10 (Windows only), Firefox (current and previous 5 releases), Chrome (current and previous 5 releases).	Internet Explorer 11, Firefox (latest), Chrome (latest).

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 with 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 69 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.

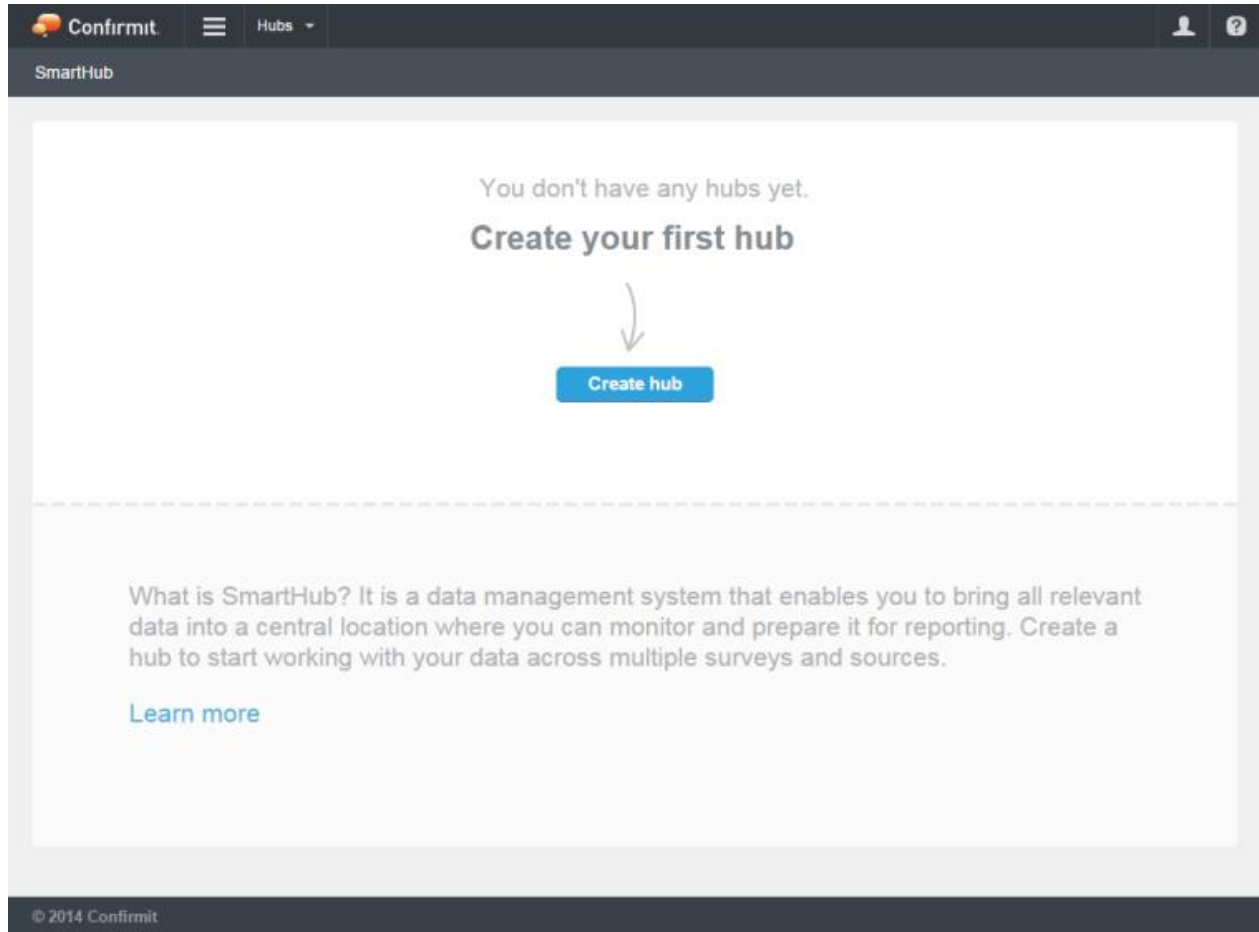


Figure 2 The opening page when there are no pre-existing hubs available to you

2.1. Creating Your First Hub

1. In the SmartHub page, click **Create hub**.
The Create hub overlay opens.

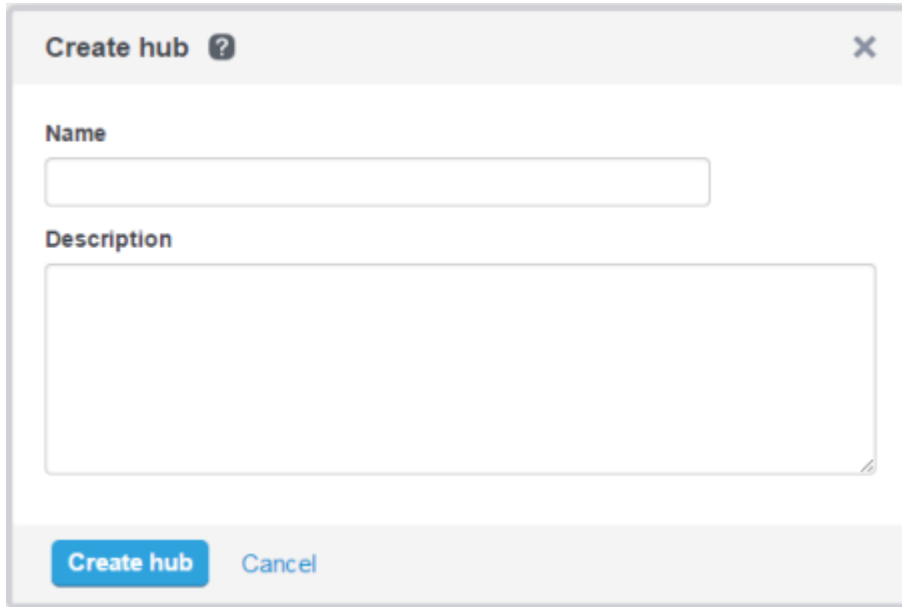
The image shows a modal window titled "Create hub" with a question mark icon and a close button (X) in the top right corner. The form contains two input fields: a single-line text field labeled "Name" and a larger multi-line text area labeled "Description". At the bottom of the modal, there are two buttons: a blue "Create hub" button and a grey "Cancel" button.

Figure 3 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 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.
5. Click **Create Hub**.

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

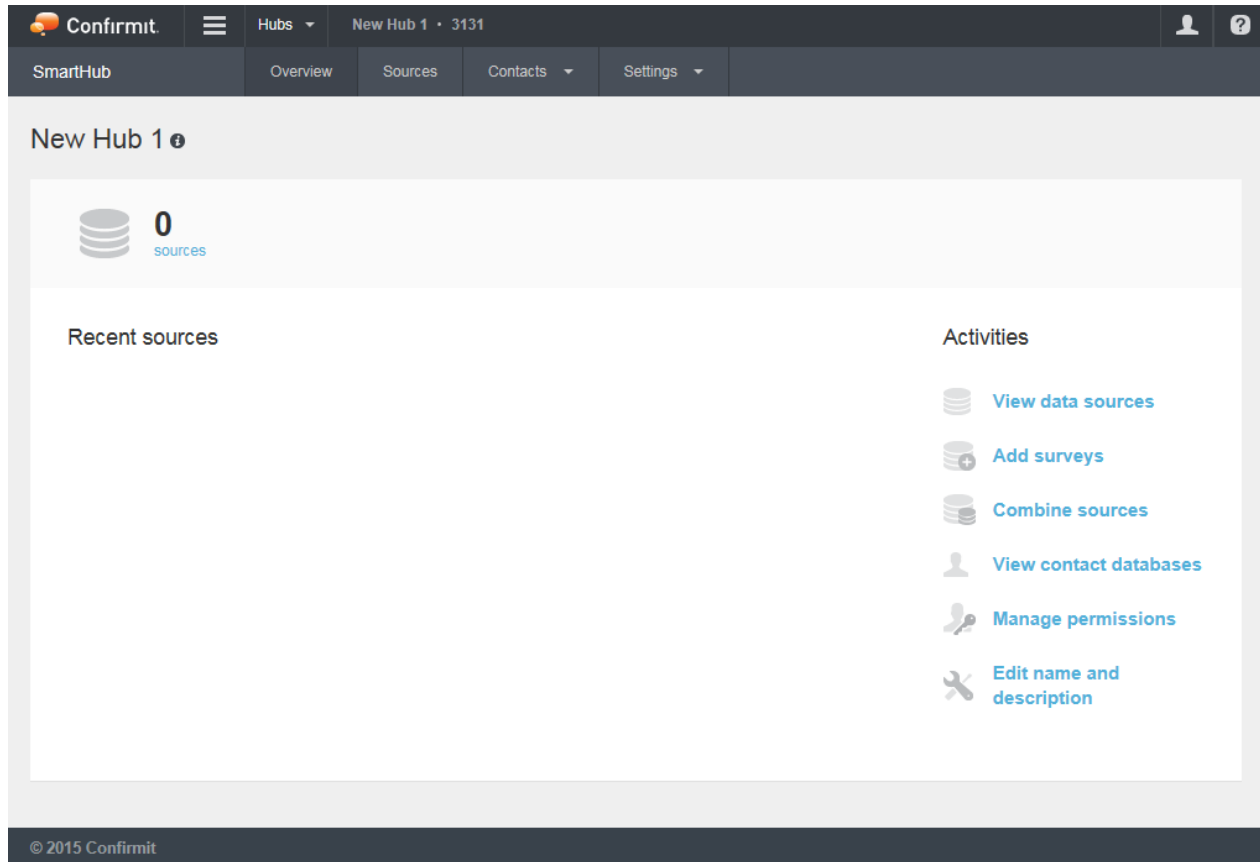


Figure 4 The Hub Designer > Overview page

You can now add data sources (see How to Add a Data Source to the Hub on page 17 for more information), set access permissions (see Hub Permissions on page 68 for more information), and generally set up the hub ready for use (see The Hub Designer Page on page 8 for more information).

2.2. The SmartHub Page with Preexisting Hubs

If you have already created a hub, the Hub Designer page will open with that hub displayed. If you have 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 8 for more information).

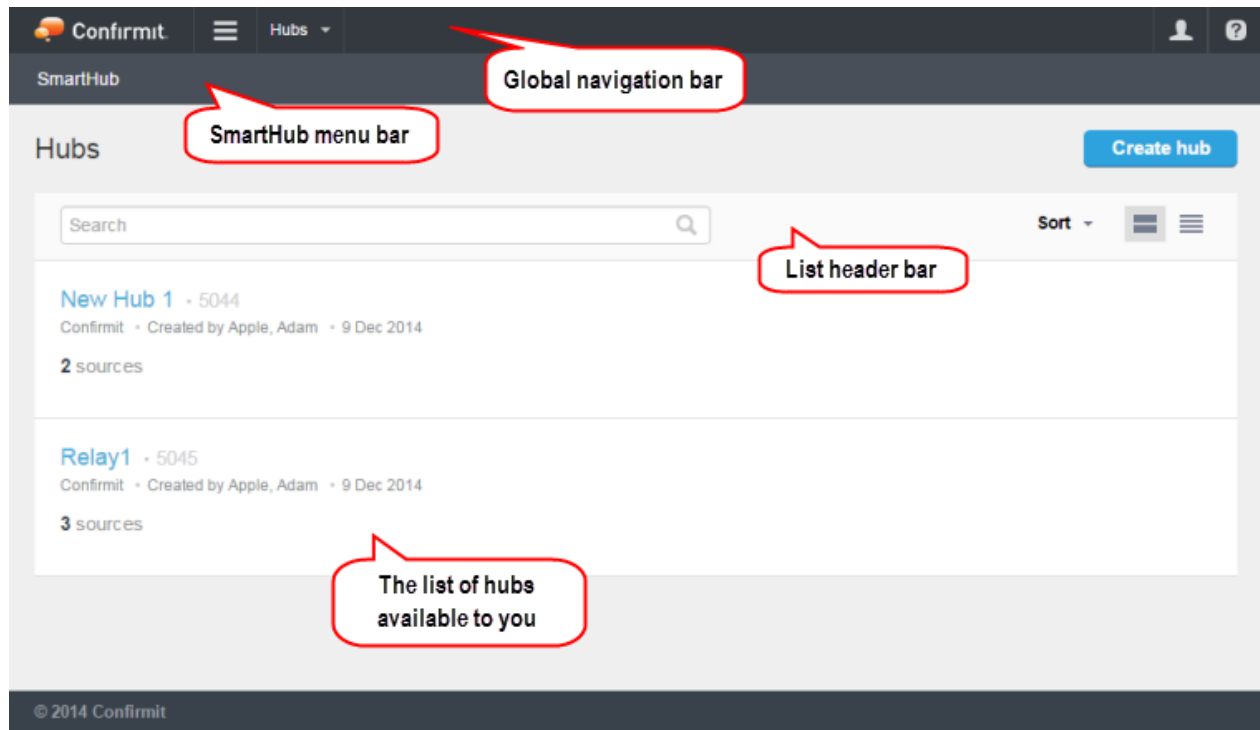




Figure 5 Example of the SmartHubs page

The Global navigation bar holds the following tools:

- The **Navigate** button  - allows you to go directly to other relevant Confirmit functionality.
- The **Hubs** 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 List Header bar includes:

- A **Search** field. Type a text string into the Search field and press the **Enter** key on your keyboard to display only those hubs with names that start with the entered text. Note that the search text is case-sensitive. To re-display the full list, clear any characters from the field and press **Enter**.
- 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 SmartHub List Details

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

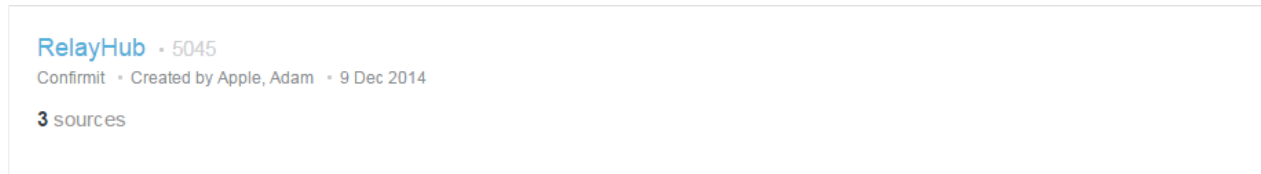


Figure 6 Example of Hub link and information

Click on the blue hub name link to open the Hub Designer page for that hub (see The Hub Designer Page on page 8 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.
- **Sources** - indicates the number of sources currently linked to the hub. Other details may be listed here, 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.

3. The Hub Designer Page

The Hub Designer page allows you to create a hub, select which data sources are to be made available in the hub, and define relationships between the data sources. 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 clients 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.

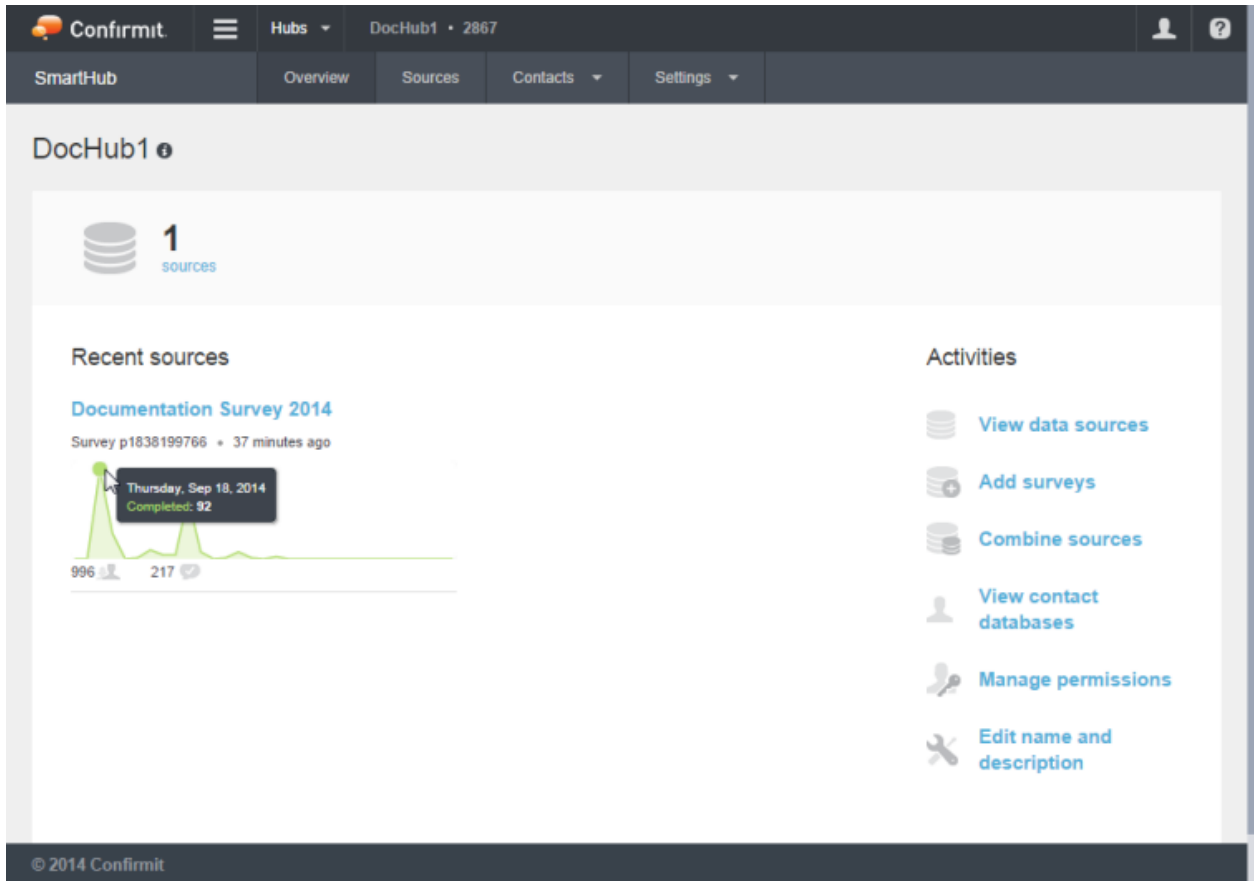


Figure 7 The Hub Designer page

The Hub Designer page toolbar includes the following tools:

- **Overview** - opens the Data Hubs page in which all the hubs you have access to are listed (see The SmartHub Page with Preexisting Hubs on page 5 for more information). If you only have access to one hub, then the Hub Designer page will open with this hub.
- **Sources** - opens the Sources page, in which the data sources linked to the hub are listed (see The Sources Tab on page 10 for more information). See also the View data sources link in the **Activities** menu.
- **Contacts** - opens the Contact databases page, in which any contact databases you may have created are listed(see Contact Databases on page 46 for more information). Here you can also create new contact databases. See also the View contact databases link in the **Activities** menu.

- **Settings** - opens the Settings page, allowing you to set access permissions, check storage usage and remove sources (see The Settings Menu on page 67 for more information).

The Sources area shows the data sources that are linked into this hub, giving an overview of what these sources are and the recent activity within them (see Sources on page 9 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 15 for more information).

3.1. Sources

Data sources, as the name implies, provide the data to the hub such that it can be used in dashboards, reports etc. These sources are the Professional, Express and Poll surveys previously created using Confirmit Authoring. Each source linked to a hub is presented in the Hub Designer page for that hub, and in the Sources tab (see The Sources Tab on page 10 for more information).

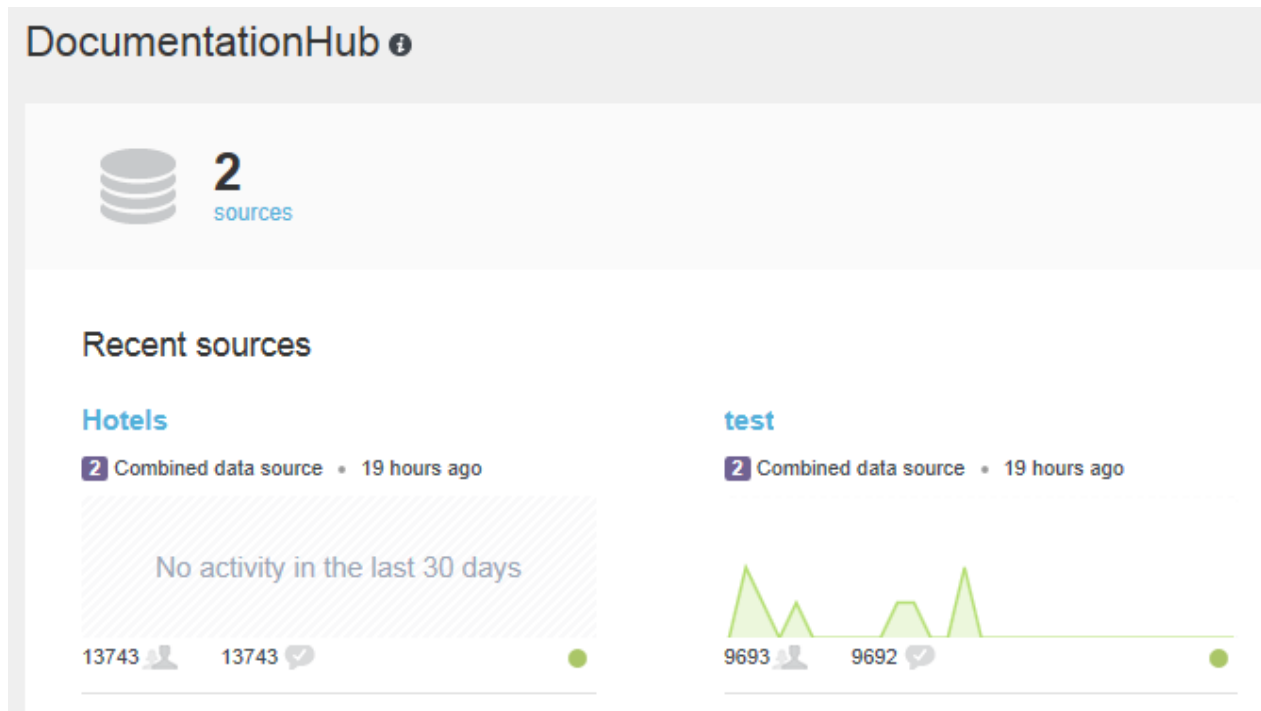


Figure 8 Example of data sources listed for a hub

For each data source is presented:

- The type of data source, and if it is a combined data source, the number of sources that it contains.
- The number of invitations and the number of completes are given below the activity chart.
- A chart of the respondent activity over the last 30 days.
- Hover the mouse cursor over the Activity chart to view details of the recent respondent activity.

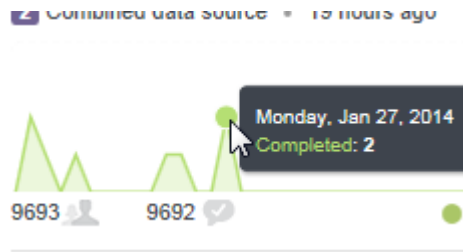


Figure 9 The activity chart details

- Click on the blue source name link to go to the Manage Source page for that source (see The Manage Source Page on page 12 for more information).

3.2. The Sources Tab

In the hub's navigation bar, click **Sources** to open the Sources tab for the current hub. This tab provides details about the sources linked to the hub, and allows you to add additional surveys, create combined sources (see How to Create a Combined Data Source on page 23 for more information), and remove the source if necessary.

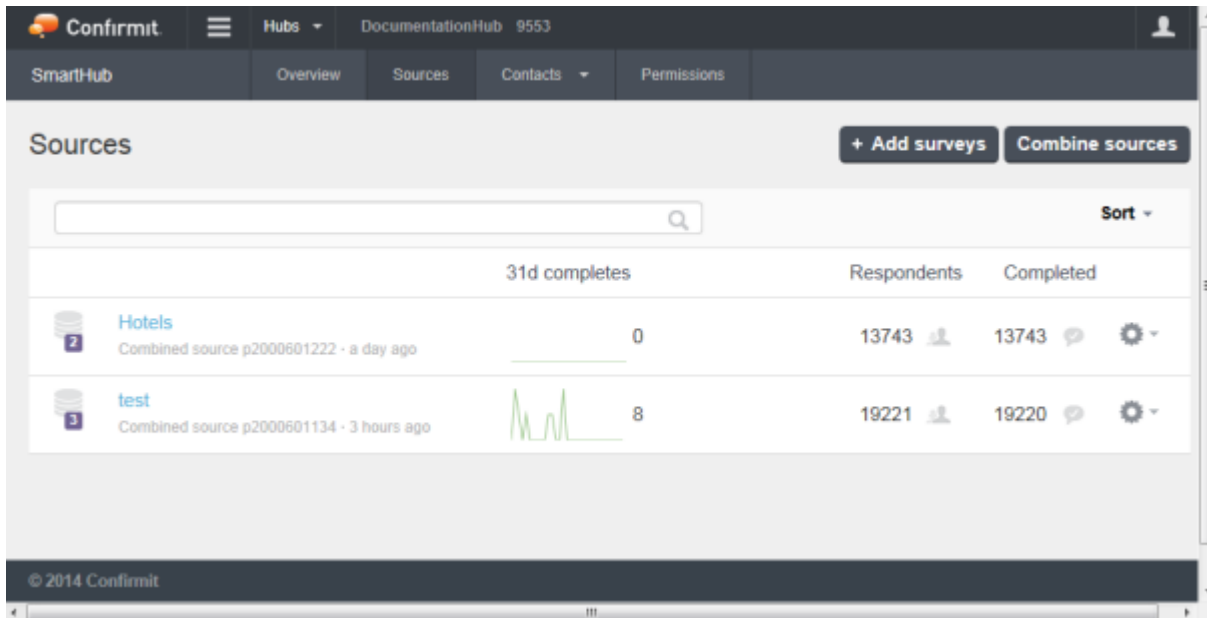


Figure 10 Example of the sources tab

Click anywhere in a source row to go to the Manage Source page for that source (see The Manage Source Page on page 12 for more information).


For each data source is presented:

- The type of data source, and if it is a combined data source, the number of sources that it contains.
- The source 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 Data Source to the Hub on page 17 for more information).


Click the **Combine sources** button to create a combined data source for the hub (see How to Create a Combined Data Source on page 23 for more information).

Click the edit icon  for a drop-down menu that enables you to manage the data source (see The Manage Source Page on page 12 for more information) and remove it from the hub if required (see How to Delete a Source on page 11 for more information). Note that removed sources can be restored during a period of 30 days (see How to Restore a Source on page 70 for more information).

3.2.1. How to Delete a Source

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

To delete a source:

1. Go to the Sources tab (see The Sources Tab on page 10 for more information) and click the edit icon  for the source you wish to remove.

A drop-down menu opens.

2. Select **Remove source**.

Or, go to the Manage Source page (see The Manage Source Page on page 12 for more information) and click **Remove source**.

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

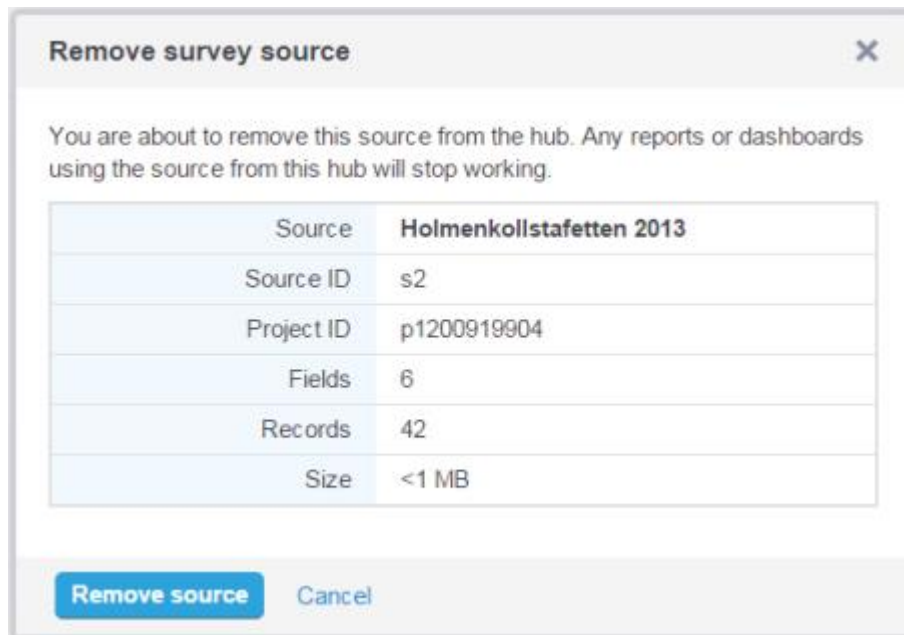


Figure 11 The remove source warning dialog

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

Note that removed sources will remain in the system for 30 days and can be restored during this period (see How to Restore a Source on page 70 for more information).

Note: Hub Cleanup can be performed periodically to permanently remove deleted hubs, sources and related objects from SmartHub. When a source is removed 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. 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 Source Page

This page provides greater details about the selected source. The layout and tools provided depend on the type of source.

If the source is a combined data source, then you can map additional surveys into the source (see How to Map a Survey into an Existing Combined Data Source on page 26 for more information), view and edit the mappings (see Viewing and Editing the Mapping on page 27 for more information), control synchronization settings for the source, and remove the combined data source.

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

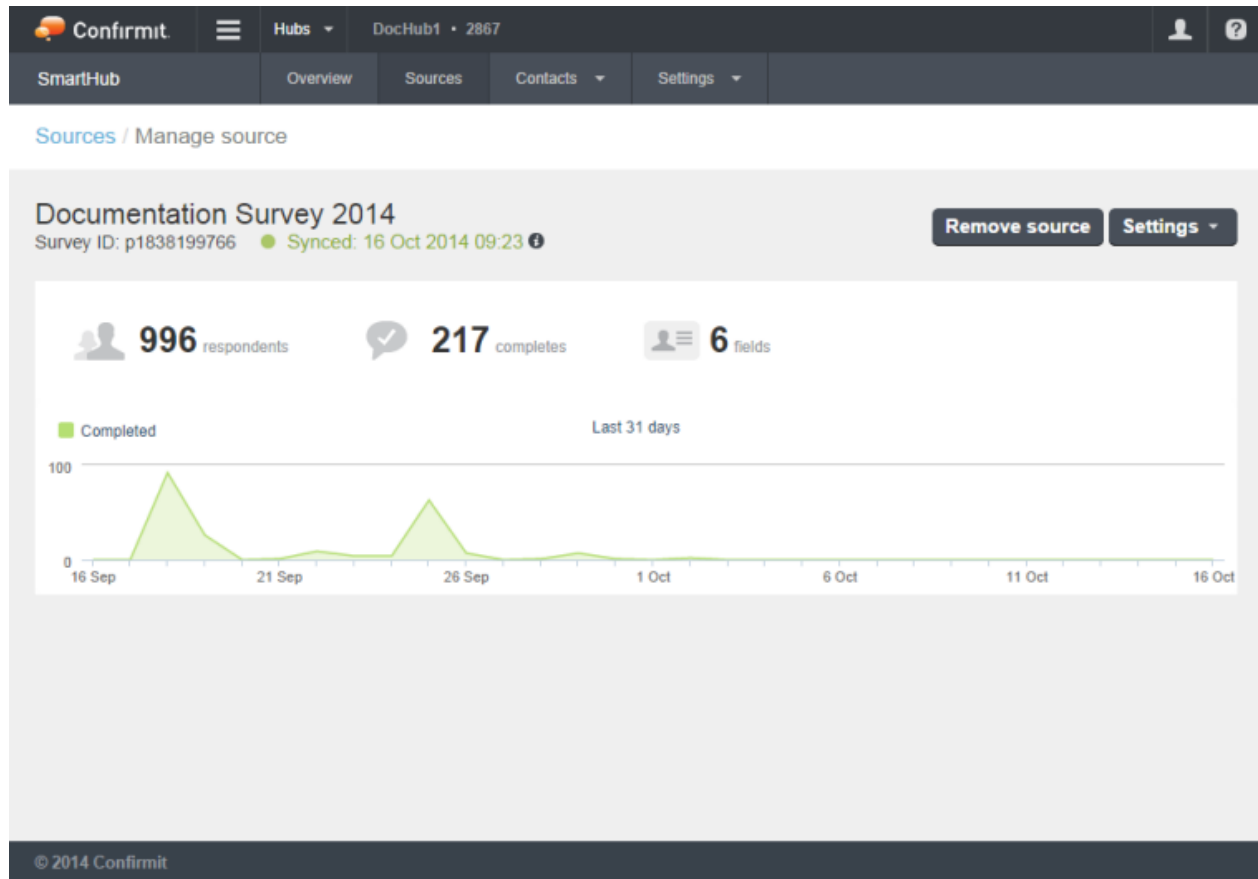



Figure 12 Example of the Manage Source page for a data source

- An information row above the chart provides the following details:
 - o The number of respondents that are linked to the source.
 - o The total number of completes that are registered for the source.
 - o If the source is a combined data source then the number of surveys that are linked to it.
 - o The number of variables (fields) in the source.

- The activity chart tells you how many completes have been registered for the source 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 source is a combined data source, then the surveys linked into the source are listed below the chart. Click the **Hub menu** icon  for a source to open a drop-down menu that enables you to unlink the source from the data source.
- The **Remove source** button enables you to delete unwanted data sources from the hub (see How to Delete a Source on page 11 for more information).
- The **Settings** button enables you to synchronize the data in the source (see Data Synchronization on page 13 for more information) and override the labels used in the source (see Editing Question Labels in Sources on page 56 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 source 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 **Sources** in the SmartHub menu bar to open the Sources page, then click on the source you wish to set synchronization for to open its Manage Source page.
2. Click the **Settings** button for the source (not the Settings menu in the menu bar) and select **Data synchronization**.

The Data sync overlay opens.

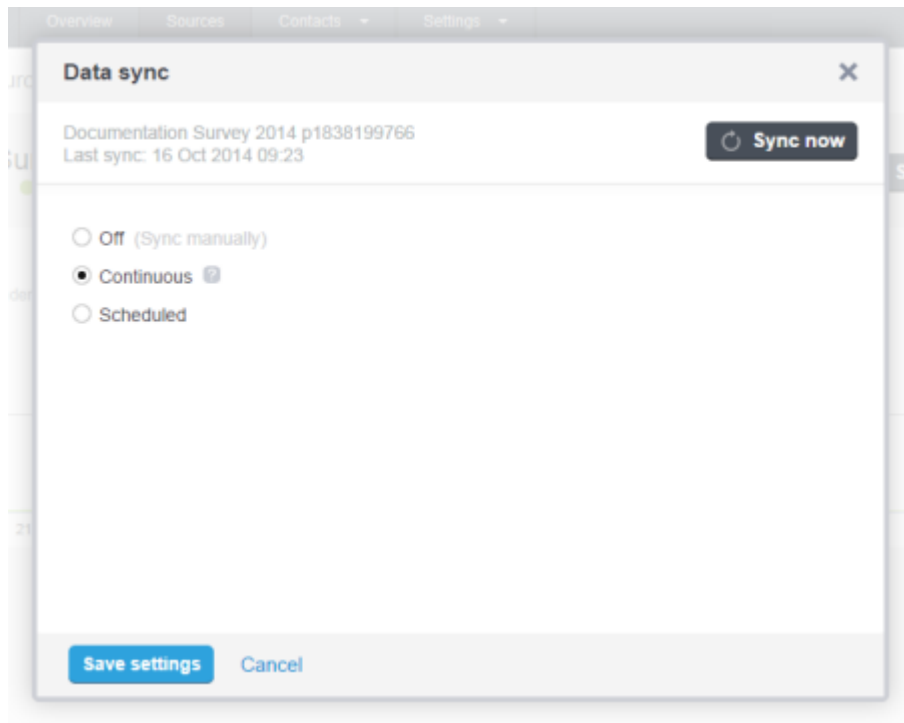


Figure 13 The Data sync overlay

- **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.

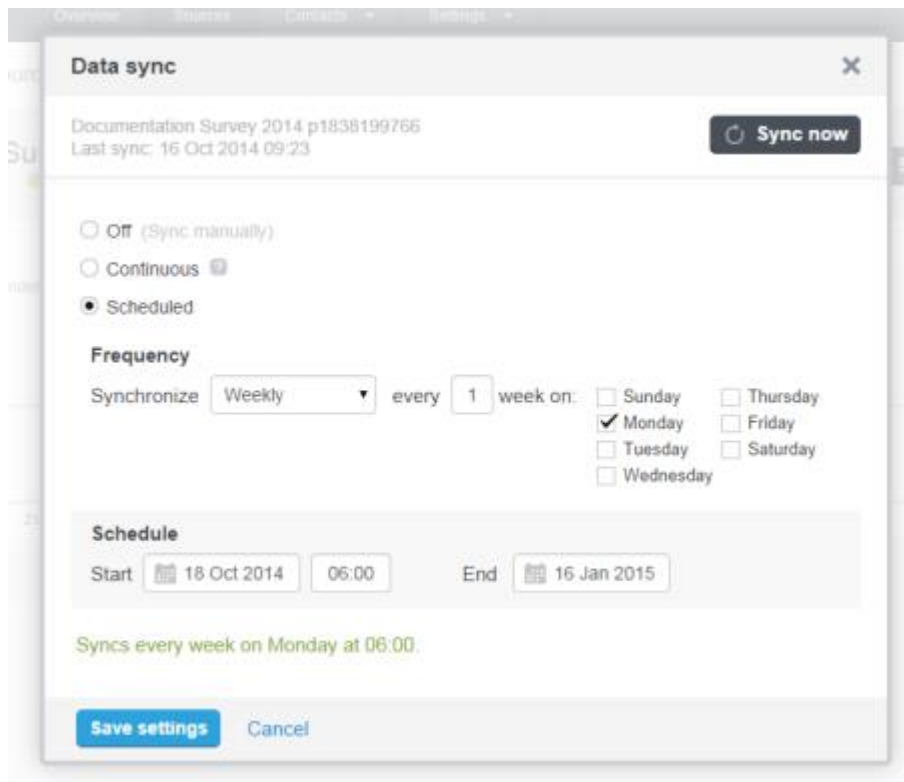


Figure 14 The additional fields

- **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 source 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 doesn't take much time to process.

Occasionally the hub loader will do a full reload, which may take some time, especially on large datasets. A full reload is triggered under these conditions:

- When hub loader version is bumped up. This is an internal version number in the system that is rarely changed, but 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 N (currently 500.000) records are touched (updated) in the survey DB, 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 sources, a full reload will be run if the combined source is changed.

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

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 Data Source to the Hub on page 17 for more information).

- **Combine sources** - starts the procedure for combining data sources (see How to Create a Combined Data Source on page 23 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 46 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 68 for more information).
- **Edit name and description** - 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

1. In the Hubs page, click **Add hub**.
The New data hub overlay opens.

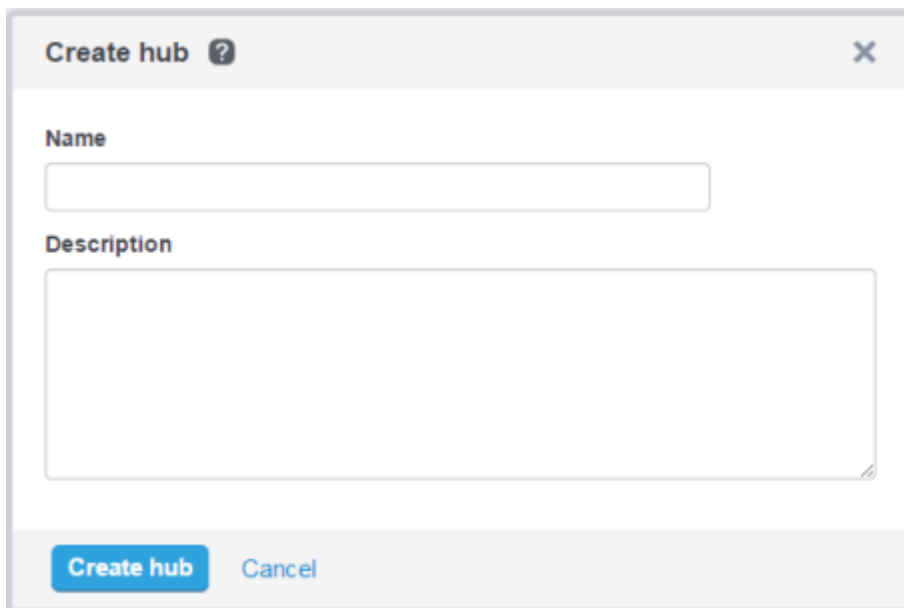


Figure 15 The New data hub overlay

2. Give the 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 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.

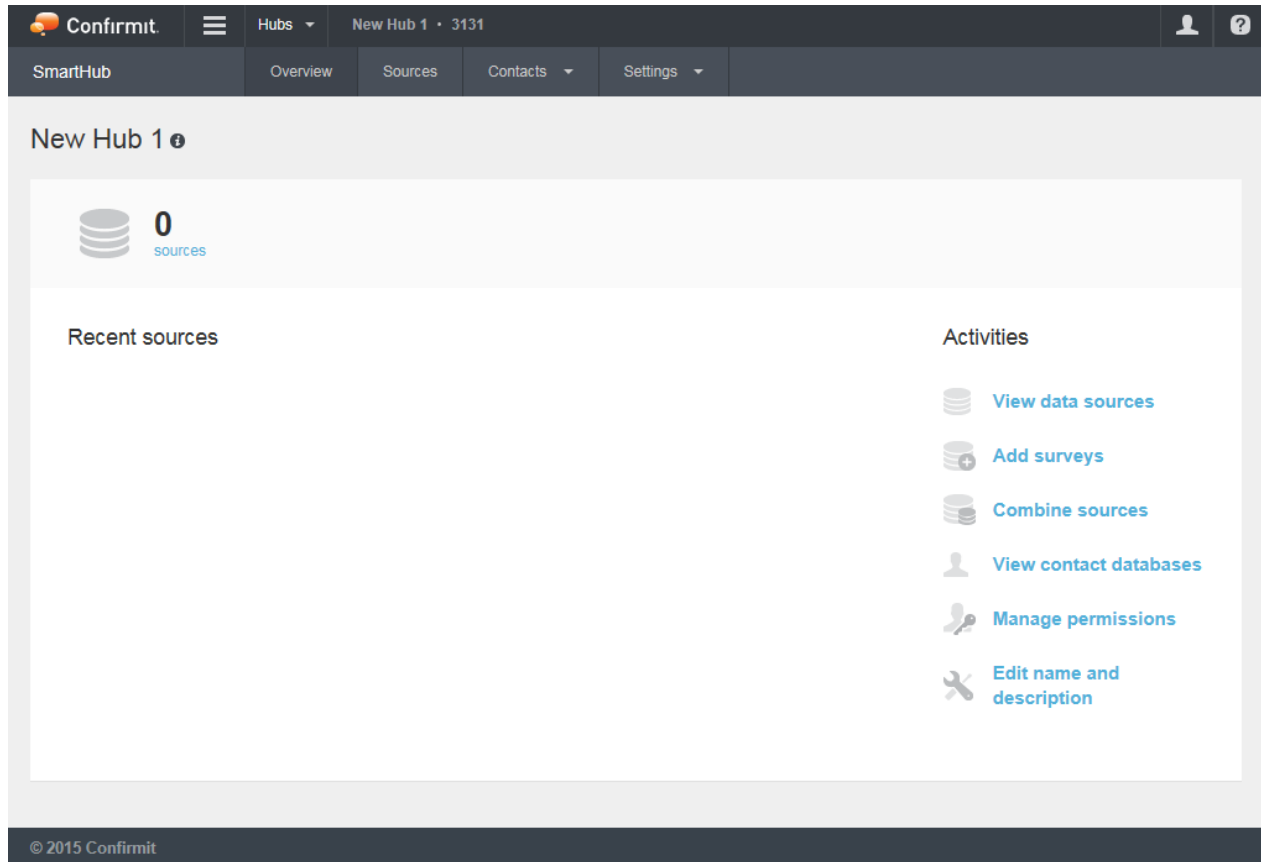


Figure 16 The Hub Designer > Overview page

You can now add data sources (see How to Add a Data Source to the Hub on page 17 for more information), set access permissions (see Hub Permissions on page 68 for more information), and generally set up the hub ready for use.

3.6. How to Add a Data Source to the Hub

1. In the Hub Designer page, click **Sources** in the main navigation bar.
The Sources page opens. This page lists all the data sources that are currently linked to the hub.
2. Click **+ Add surveys**.
The Add surveys overlay opens.

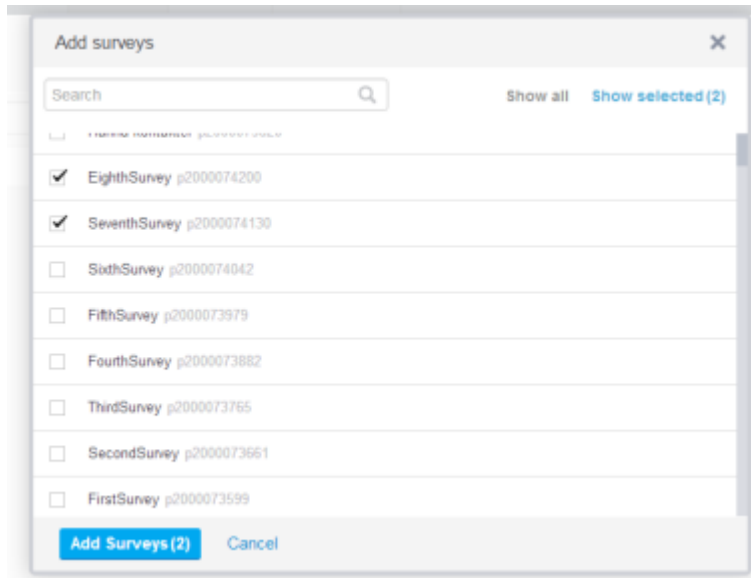


Figure 17 The Add Surveys overlay

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 and press **Enter** 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 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 source 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 source will not be displayed until the first synchronization has completed.

3.7. How to Delete a Hub

1. In the Hubs page > **Global Navigation** toolbar, find the hub you wish to delete, and click on it to select it.
2. In the SmartHub 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 67 for more information).

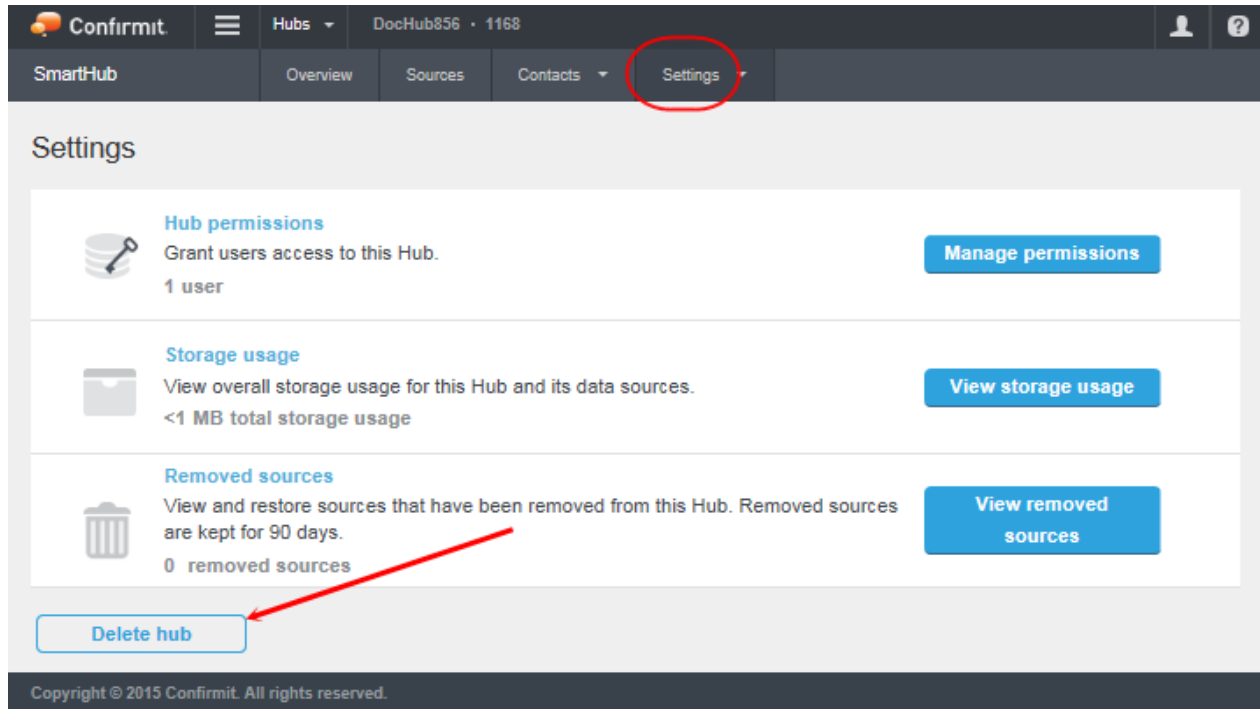


Figure 18 The Delete hub button

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.

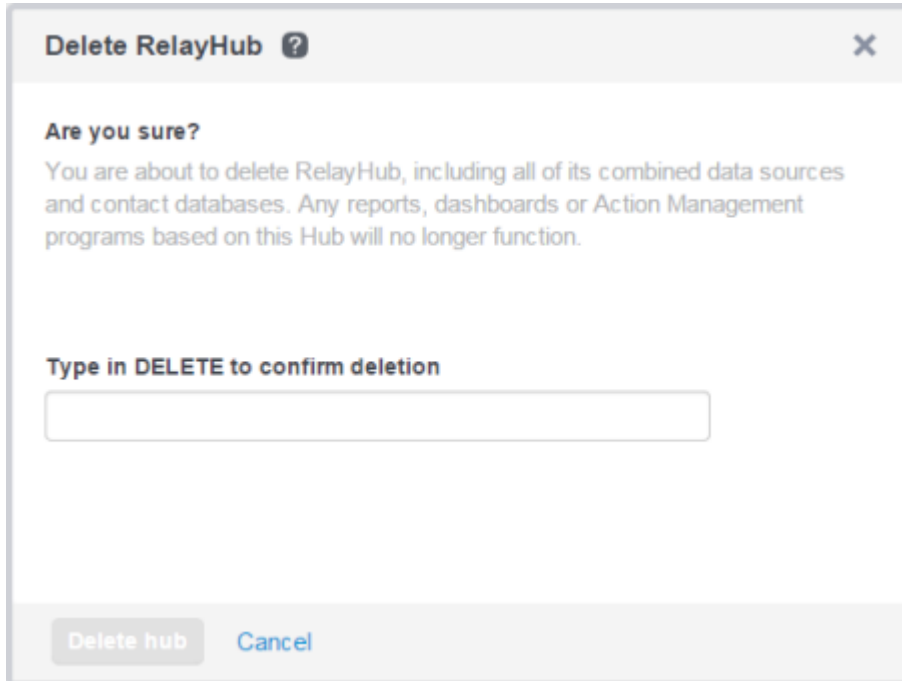


Figure 19 The Delete Hub confirmation overlay

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 Hubs menu in the global navigation toolbar for a period of 30 days. During this period you can restore a deleted hub via this menu (see How to Restore a Hub on page 20 for more information).

Note: Hub Cleanup can be performed periodically to permanently remove deleted hubs, sources 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.

3.8. How to Restore a Hub

If a hub is deleted from your hub list, it will remain in the system for a period of 30 days. During this period, it will be listed under **Deleted hubs** in the global navigation toolbar.

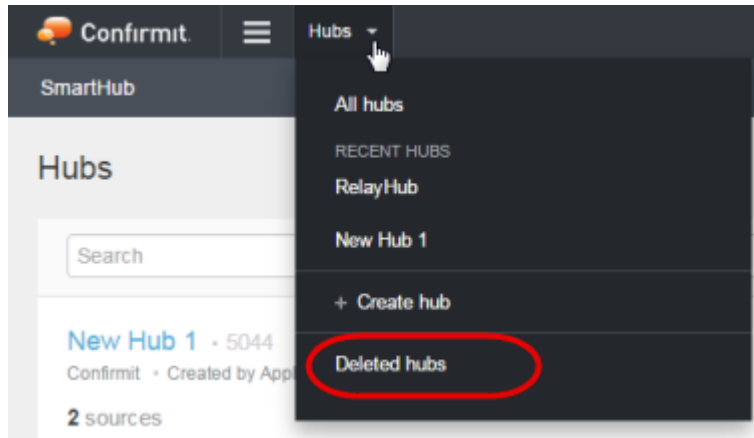


Figure 20 The Recently Deleted Hubs menu item

And 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 30 days.

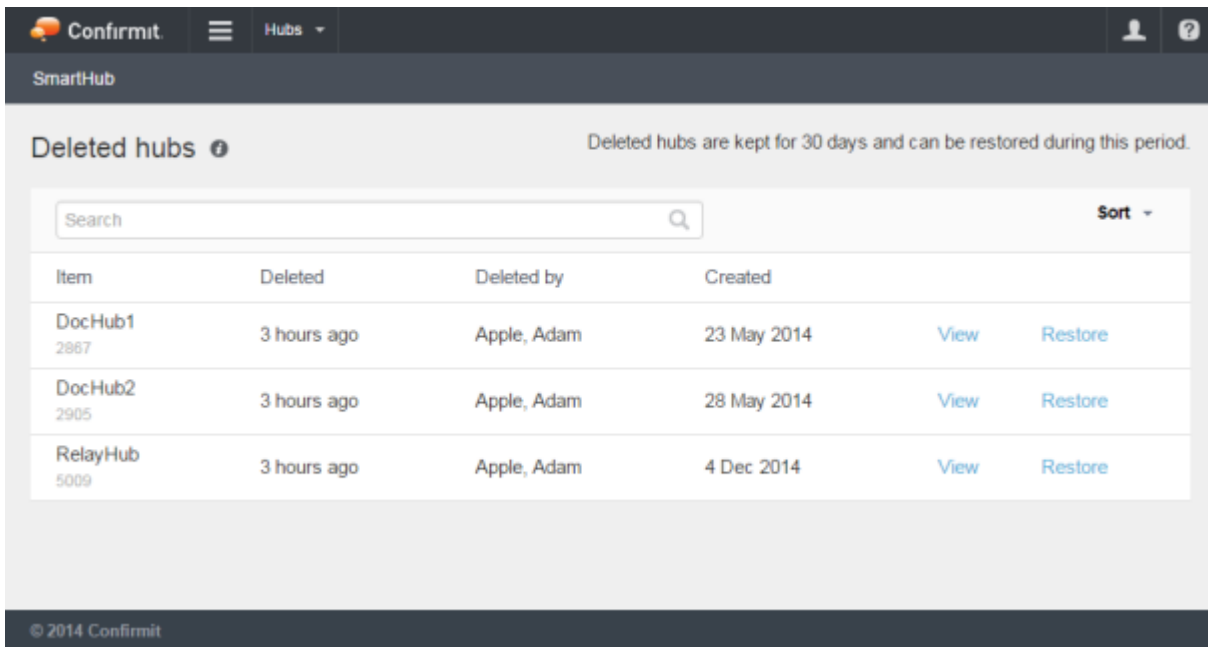


Figure 21 The Recently Deleted Hubs list

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

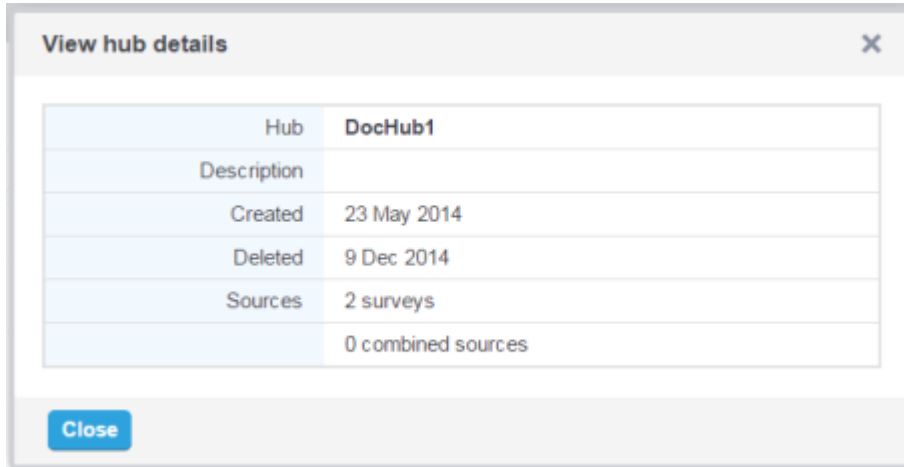


Figure 22 Viewing the details of a deleted hub

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

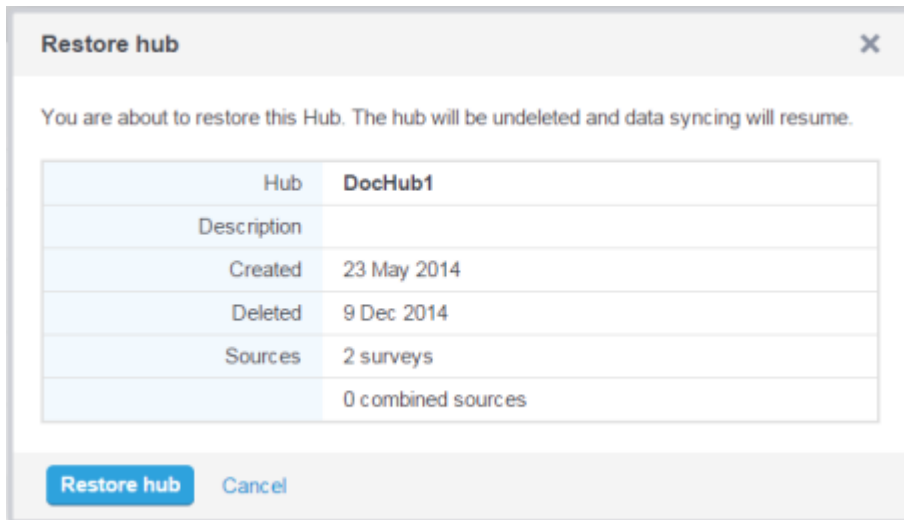


Figure 23 Restoring a deleted hub

4. Combined Data Sources

Combining of data sources (see How to Create a Combined Data Source on page 23 for more information) can be useful if:

- You may 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. You can then combine the data from the 12 surveys to see developments over the year.
- You may be 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. Again, the data from all the surveys can be gathered together for overall reporting.
- You would like to look at several different surveys (both transactional and relationship) 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 data sources are combined, questions that satisfy the comparison criteria are mapped automatically to ensure the same questions from each source are merged (see The Mapping Rules on page 44 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 36 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 28 for more information).

For reporting, the combined data source will function as one data source irrespective of how many data sources 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 sources. “Loop reference” answer lists used in questions on the top level are supported.

4.1. How to Create a Combined Data Source

1. In the Hub Designer page, go to the Sources tab.
2. Click the **Combine sources** button.

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.

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

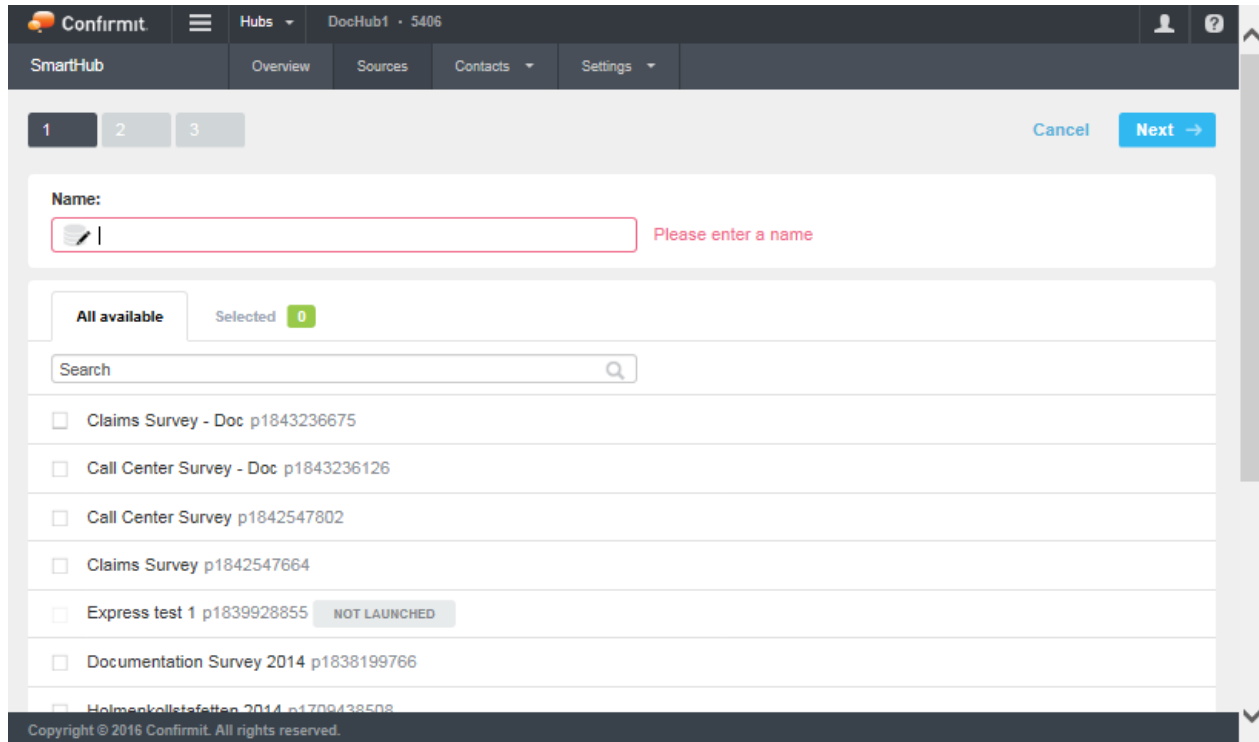


Figure 24 The Select surveys to combine page

3. In the top field, give the Combined data source a name.
4. Check the boxes beside the surveys you wish to add to the source.

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 data source 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 data source. This means that the original survey is not changed, but it also means that any changes made to the original survey after the data source is created will not automatically be incorporated into the combined data source.

5. Click **Next**.

The Edit Mapping page opens. Here, all the variables for the surveys in the combined data source 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 31 for more information)

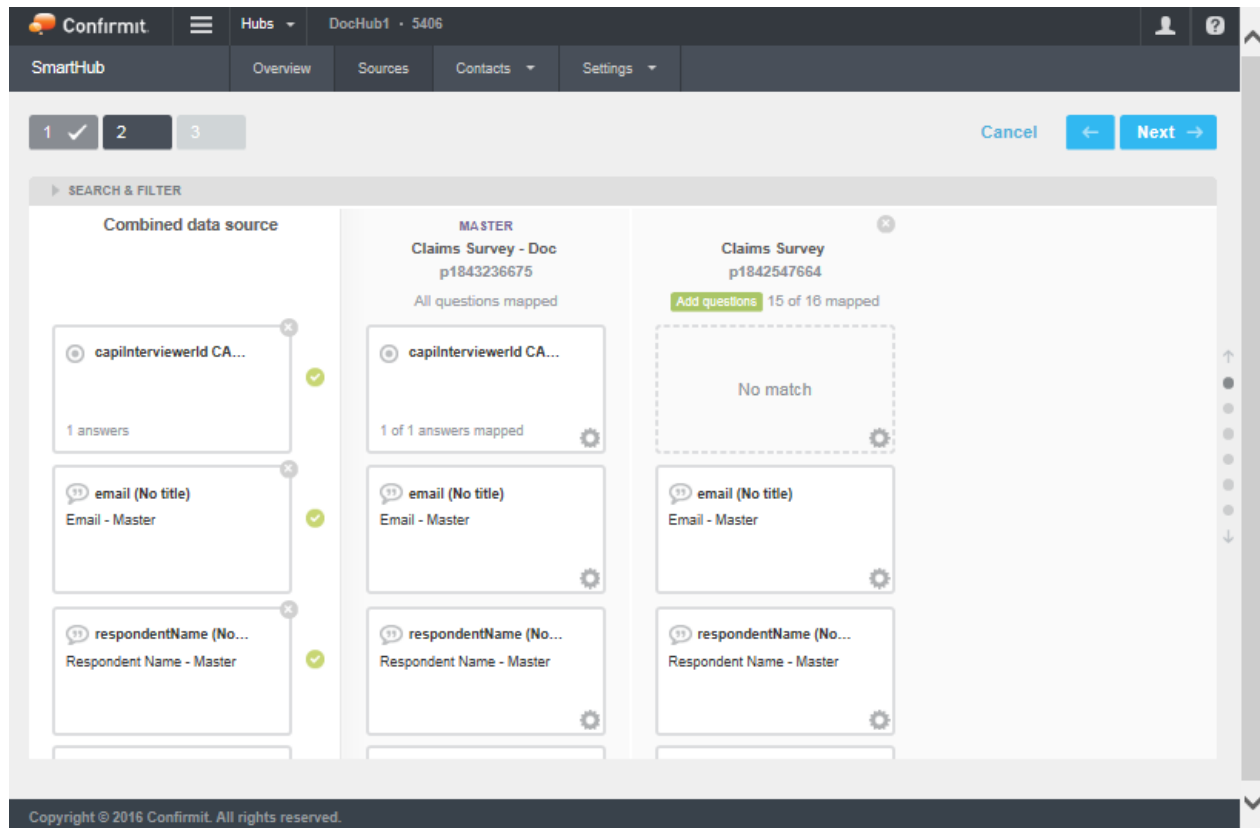


Figure 25 Example of the Edit Mapping page when combining two sources

Those questions that have the same questionID, are of the same question type and that have the same answer list or scale depending on type in all the selected sources, are automatically mapped (see The Mapping Rules on page 44 for more information) and given a green tick indicator. Note that for questions with reusable lists, all the questions mapped must use the use the same reusable list across the sources. Any question that does not appear comparable in all the selected sources will be indicated with “No match” in the appropriate question. You can then:

- View the mapping (see How to View a Mapping on page 27 for more information).
- Edit the mapping (see How to Edit a Mapping on page 28 for more information).
- Remove the indicated question from the combined source (see How to Remove a Question from a Combined Data Source on page 34 for more information).
- You can remove the entire survey from the combined source (see How to Remove a Survey from a Combined Data Source on page 35 for more information).
- Or you can accept the mapping as it is and create the combined source, then edit the mappings manually (see Manual Mapping on page 36 for more information).

6. When you are satisfied with the mapping, click **Next**.

The Review and finish page opens.

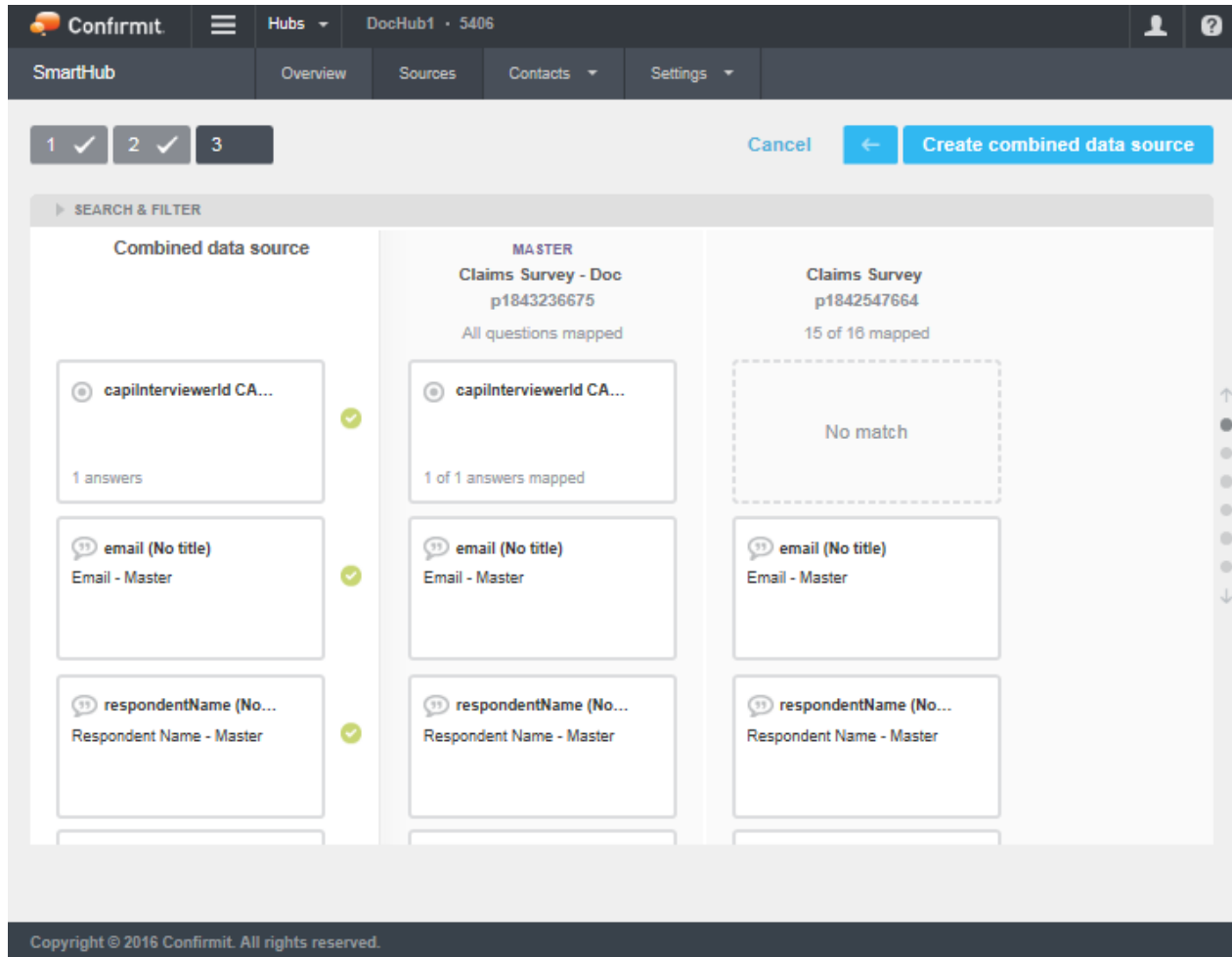


Figure 26 Example of the Review and Finish page

This is essentially the same as the Edit mapping page but without the editing possibility. In the event you wish to make further changes to the mapping, click the **Back** button to return to the Edit mapping page to make the changes.

7. When you are satisfied with the questions, click **Create combined data source**.

The combined data source is created and saved, and you are returned to the Sources page. From here you can edit the combined source, adding or removing surveys, editing the mapping and synchronizing the data.

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

Once you have a combined data source, you can add further surveys to that source at any time.

1. In the combined data source, 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 data source, then click **Next**.

The Edit mapping page opens. Here, all the variables for the surveys in the combined data source 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 28 for more information), remove any questions from the selected surveys that you do not wish to include, and/or remove questions from the combined data source (see How to Remove a Question from a Combined Data Source on page 34 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 Source page for the combined data source.

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 Manage Source page, click the **View/edit mapping** button.

The View mapping page opens.

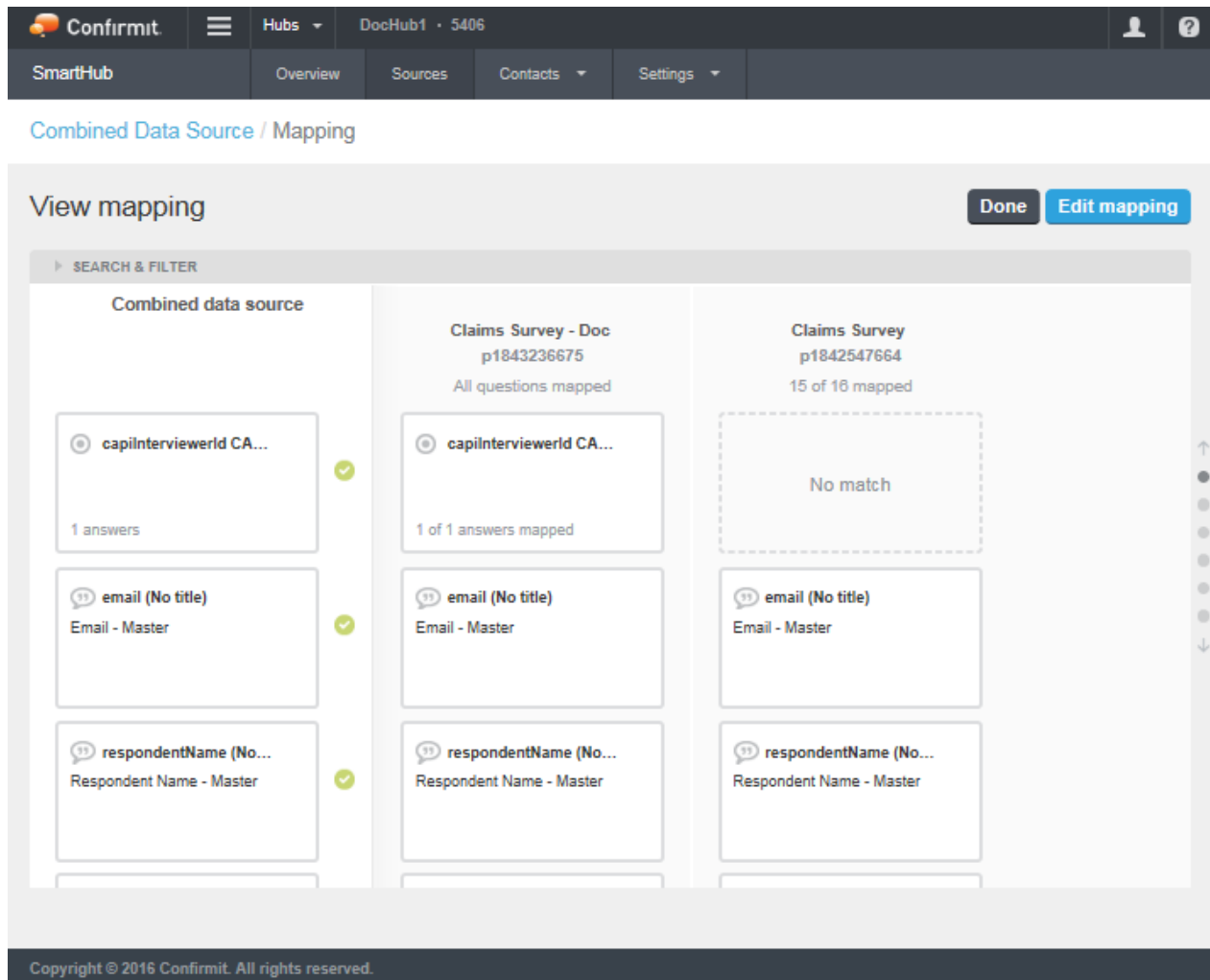


Figure 27 Example of the View mapping page for a combined data source

Here, all the variables for the surveys in the combined data source 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 source are given at the top of the column.

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.

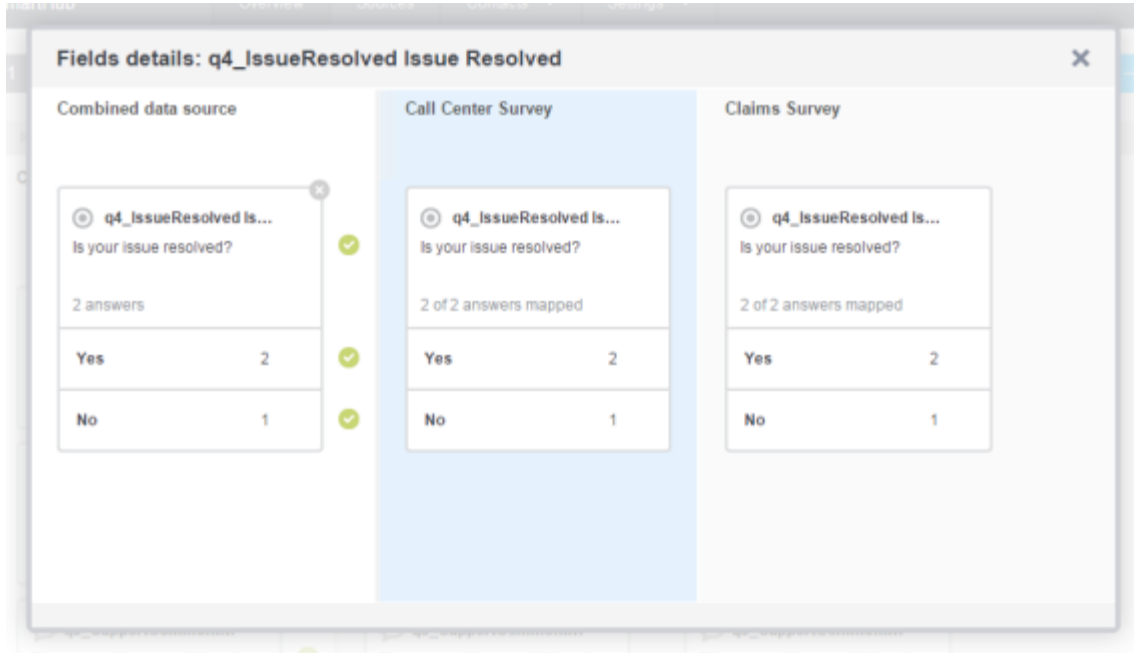


Figure 28 Example of the answer and code details for a mapped single question

2. If you wish to make any changes to the mappings, click **Edit mapping** (see How to Edit a Mapping on page 28 for more information).

4.3.2. How to Edit a Mapping

1. In the Manage Source page, click the **View/edit mapping** button then click **Edit mapping**.
The Edit mapping page opens and the editing functionality is activated.

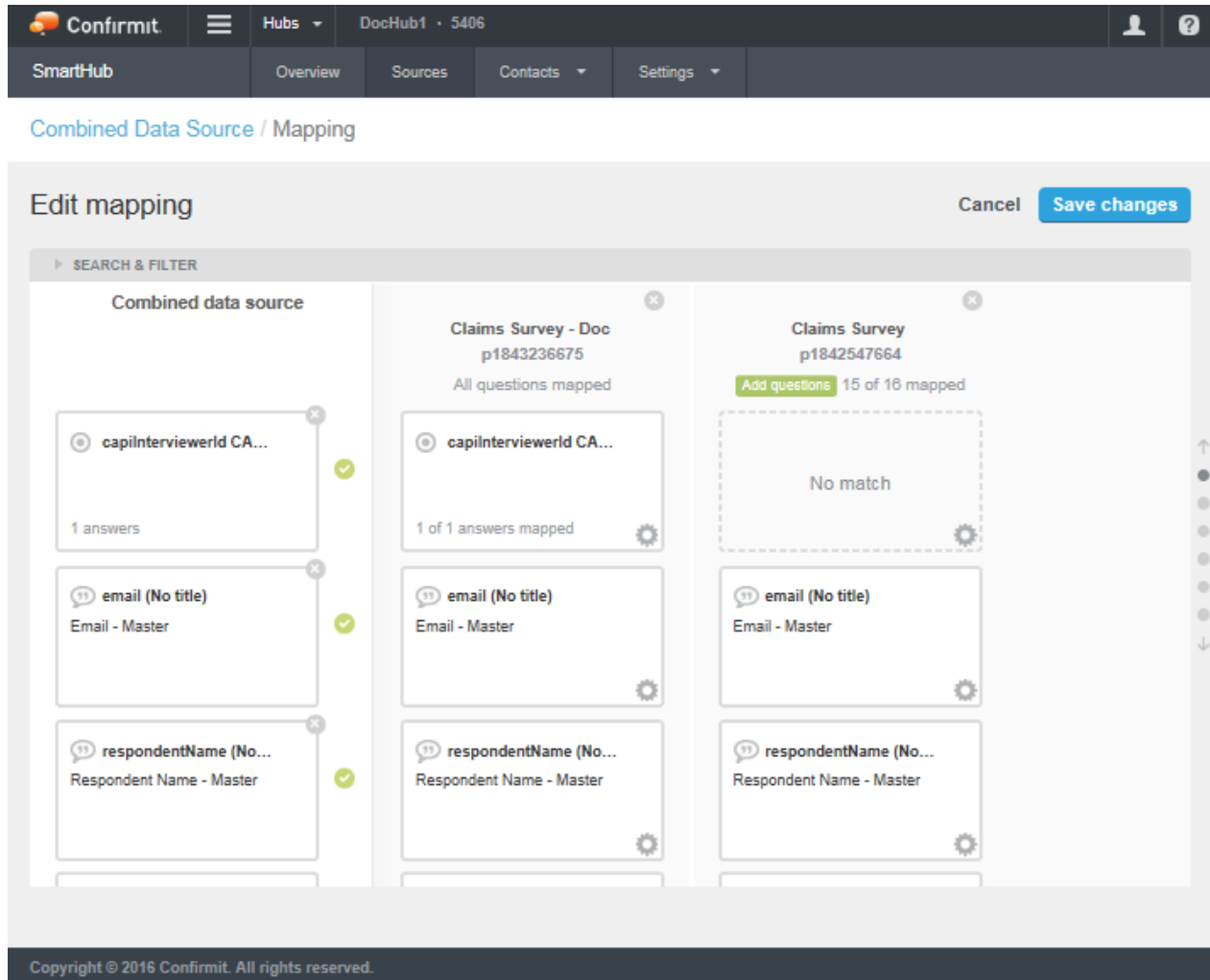


Figure 29 Example of the Edit mapping page for a combined data source

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

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 31 for more information).

To edit a mapping for an additional survey:

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

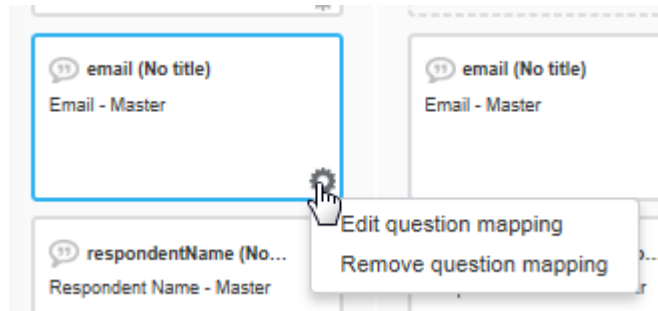


Figure 30 Activating the edit icon for a question

3. Click **Edit question mapping**.

The Edit mapping to overlay opens.

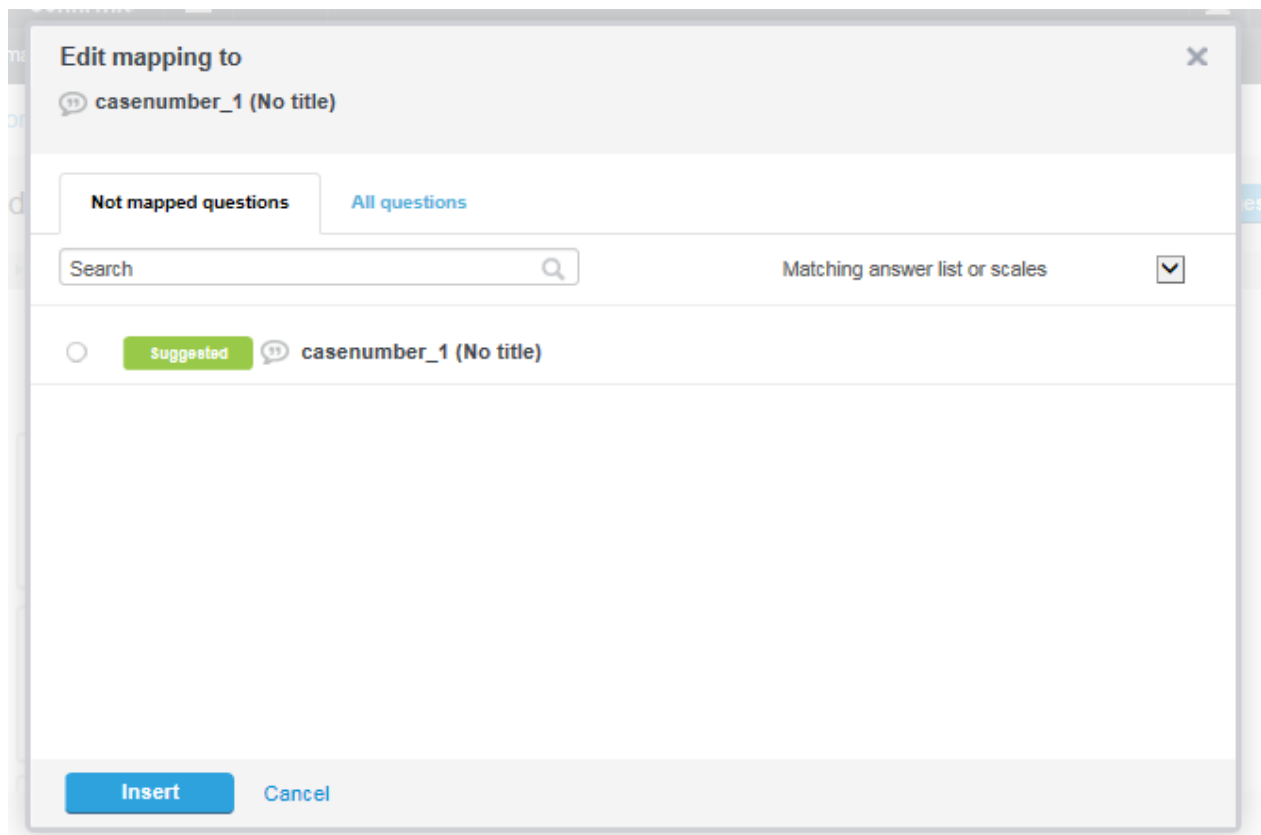


Figure 31 The Edit mapping to overlay, Not mapped questions tab

- The Not mapped questions tab lists all those questions in the additional 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.

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

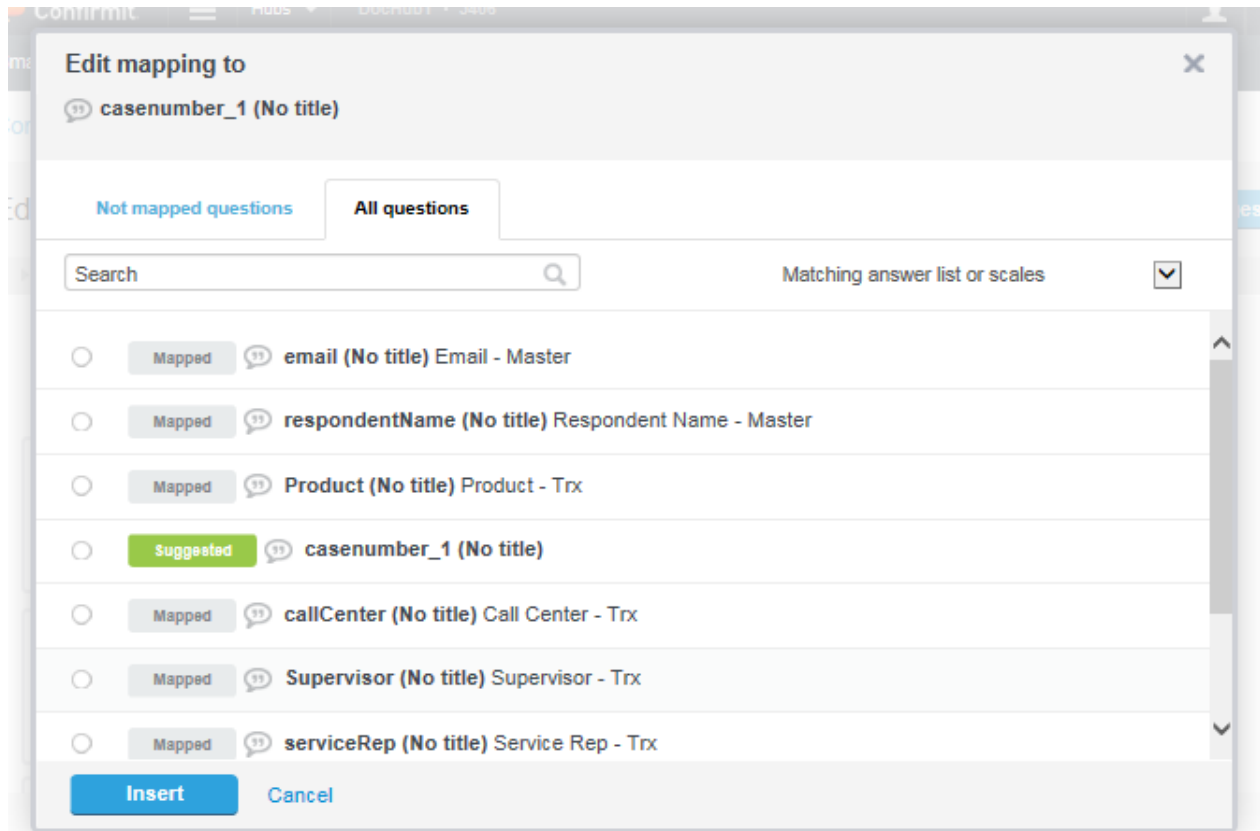


Figure 32 The Edit mapping to overlay, All questions tab

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.

When listing questions, you can select between showing only questions that have “Matching answer list and scales” (default), which will only list questions with same number of elements and same codes in answer lists and scales, or you can choose to “Allow different answer lists or scales” to show all questions of the same question type. The system allows you to map questions where there are differences between the answer lists in the source and the target (combined source).

4. On completion, click **Save changes**.
You are returned to the Manage Source page for the combined data source.

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.

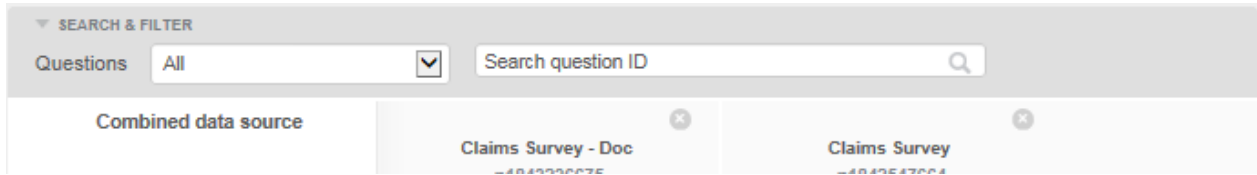


Figure 33 The Search and Filter field

- 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 where 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.

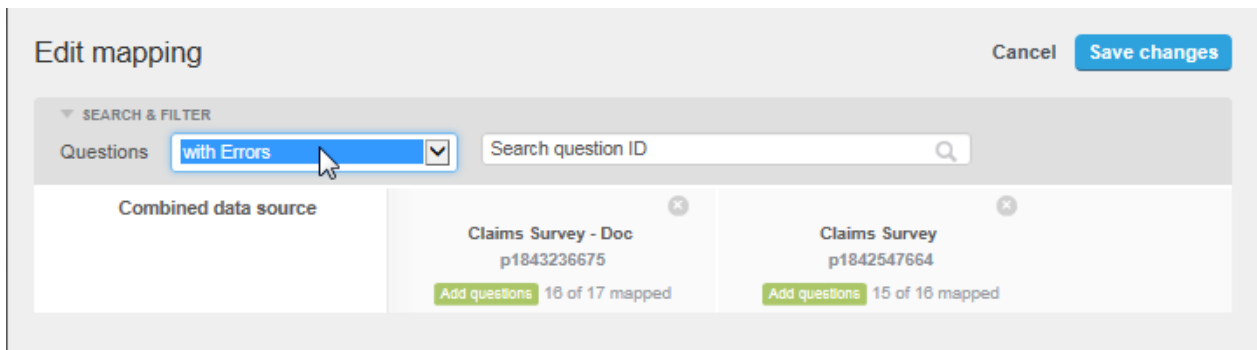


Figure 34 Only showing the errors

More information regarding the error is available on the question (see Mapping Errors and Warnings on page 32 for more information).

4.3.2.2. Mapping Errors and Warnings

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

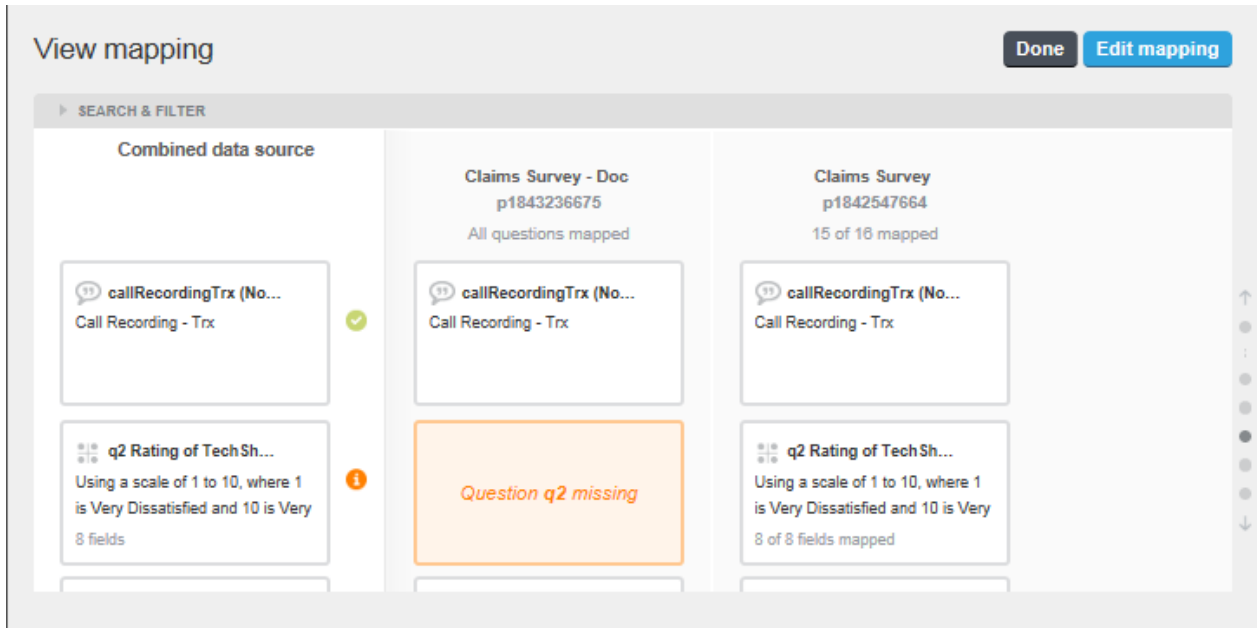


Figure 35 A warning

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

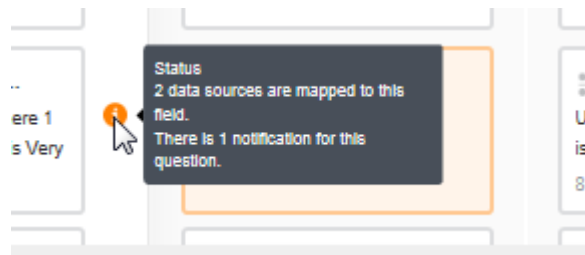


Figure 36 Example of the status and notification message

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

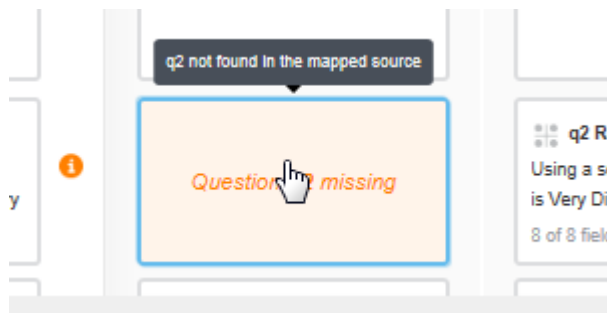


Figure 37 Example of the problem message

Errors will prevent the hub loader from executing, so they must be resolved for the synchronization of data 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 source 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. How to Remove a Question from a Combined Data Source

To remove a question from a combined source:

1. In the Manage Source page, click the **View/edit mapping** button.
The View mapping page opens.
2. Click **Edit mapping**.
The Edit mapping page opens.
3. In the Combined data source column, find the question for the survey you wish to remove then click the **X** button in the upper-right corner of that question box.

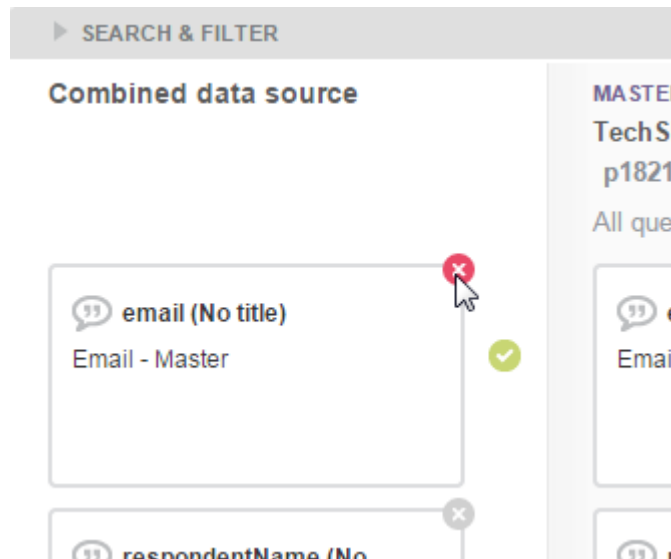


Figure 38 Removing a question from a combined data source

A confirmation overlay opens.

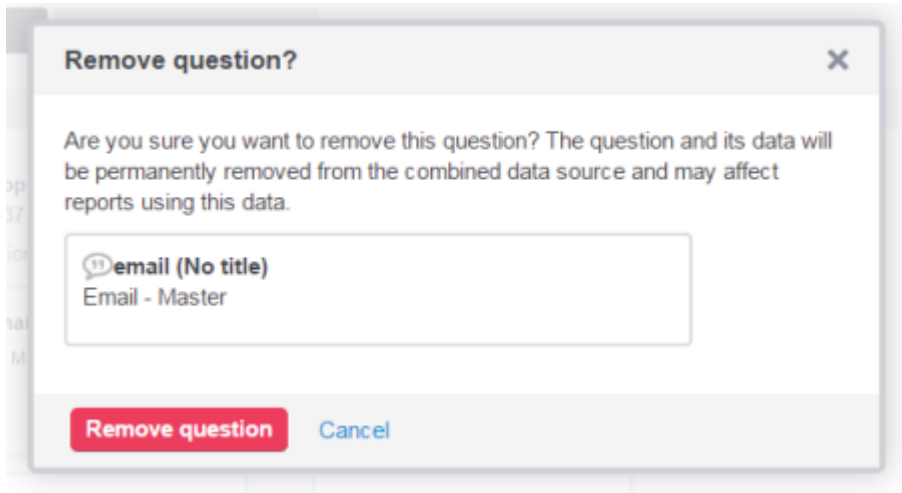


Figure 39 Example of the confirmation overlay

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

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

4.3.4. How to Remove a Survey from a Combined Data Source

To remove a survey from a combined source:

1. In the Manage Source page, click the **View/edit mapping** button.
The View mapping page opens.
2. Click **Edit mapping**.
The Edit mapping page opens.
3. Find the column for the survey you wish to remove, then click the **X** button in the upper-right corner of that column.

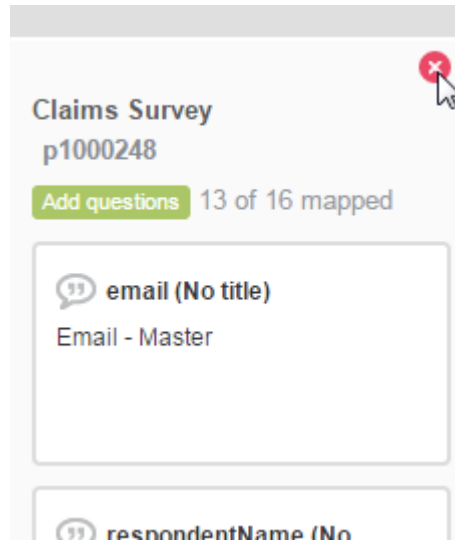


Figure 40 Removing a survey

A confirmation overlay opens.

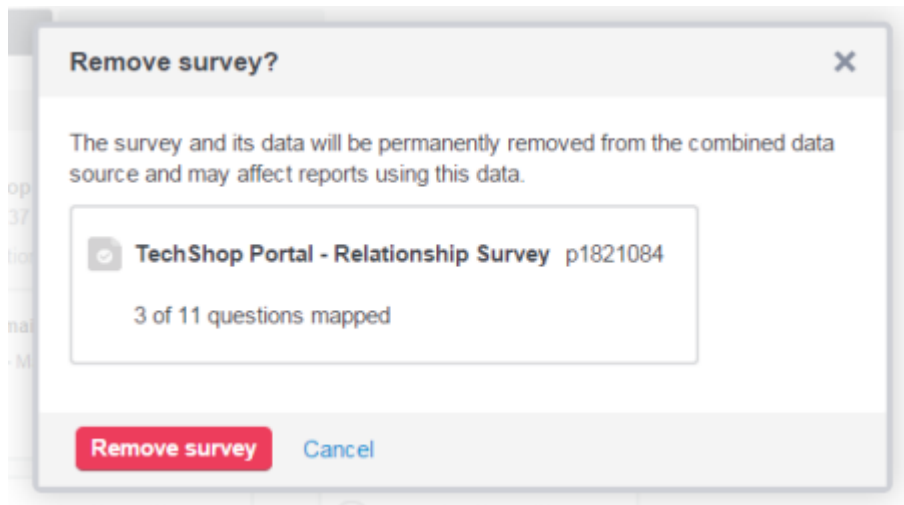


Figure 41 Example of the confirmation overlay

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

Note: The survey and its data will be permanently removed from the combined data source and this will affect reports and Action Management systems using this data. Only the combined data source is effected; the surveys used in the source 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 made 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 data source, 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. 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 data source.
2. Open the source and click **View/Edit mapping**.
3. Click **Edit mapping**.
4. Find the question that hasn't been mapped because of the different question IDs.
5. Click the Edit icon and select **Edit question mapping**.

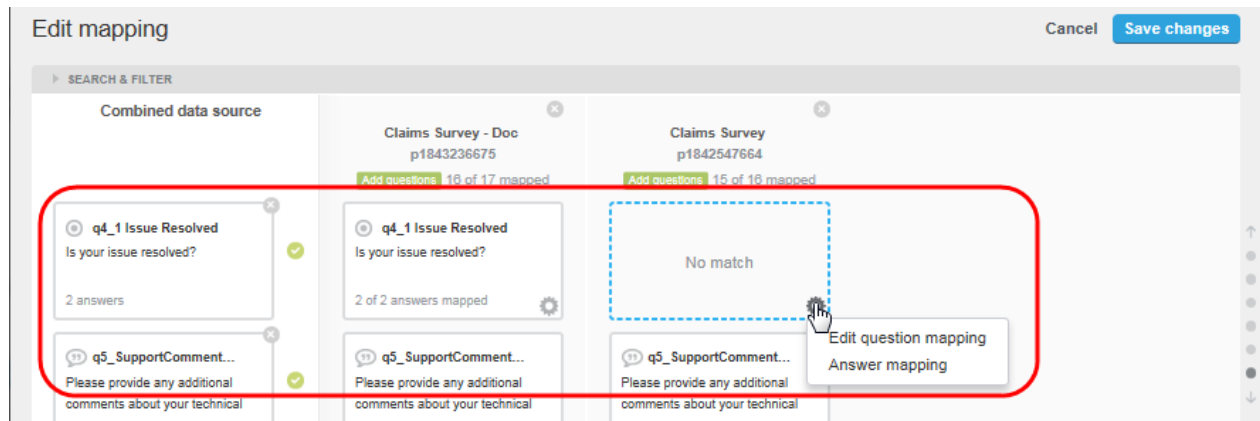


Figure 42 Editing the mapping

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

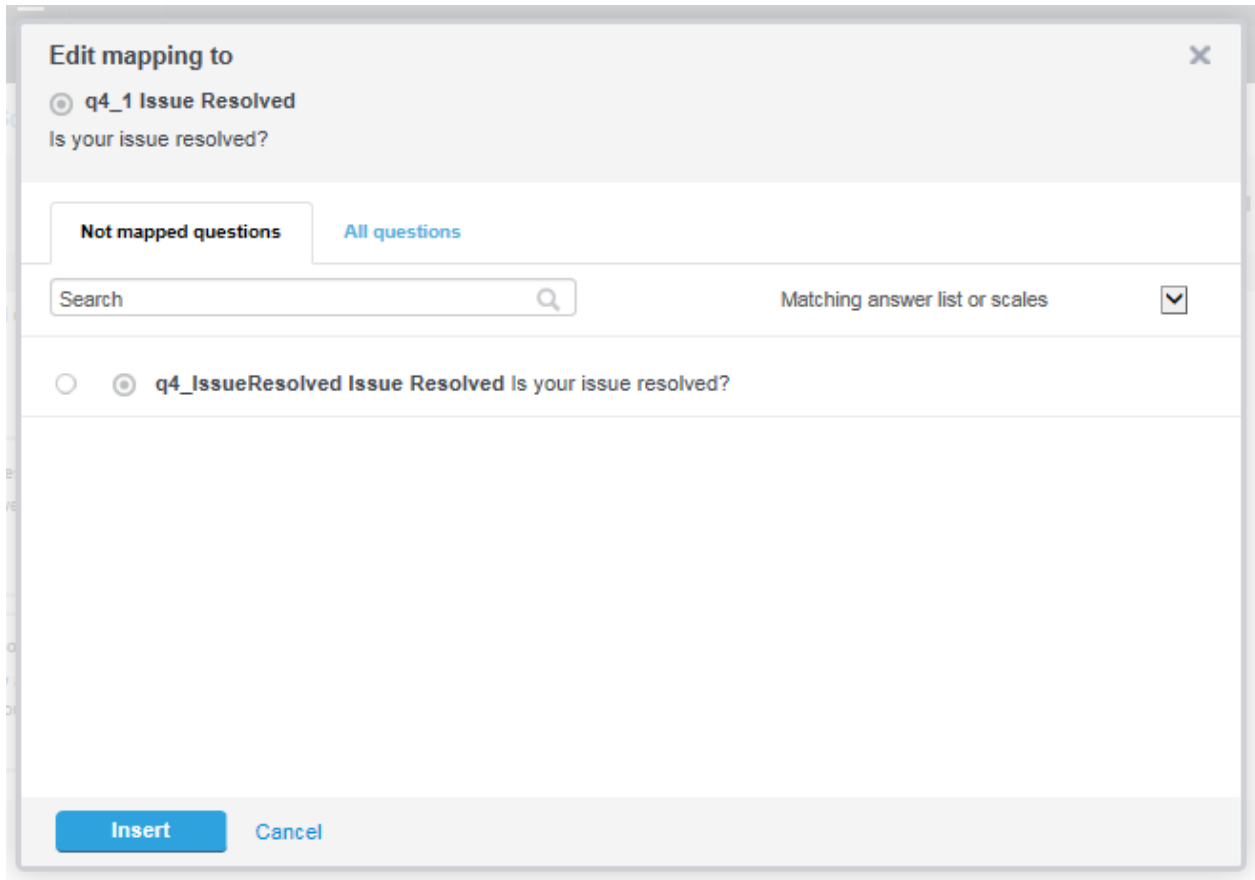


Figure 43 The unmapped question suggested for mapping

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

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

The mapping is performed.

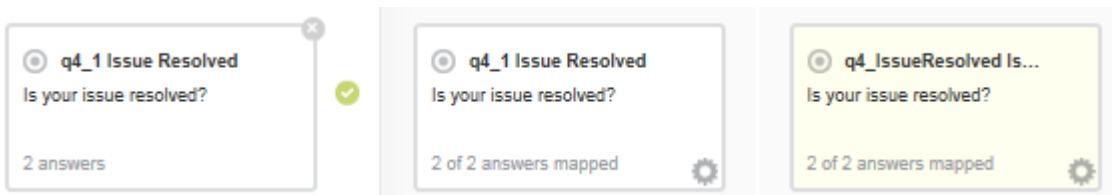


Figure 44 The questions with different question IDs are mapped

- Assuming this is correct, click **Save changes** to return to the View 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 certain fields in another grid, or map single questions to fields in a grid. 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_1 in the combined, which isn't found in the second survey.

To set up field mappings for a grid:

1. Open **View/Edit Mapping** for the Combined Source and locate the grid question (Here: q2_1).

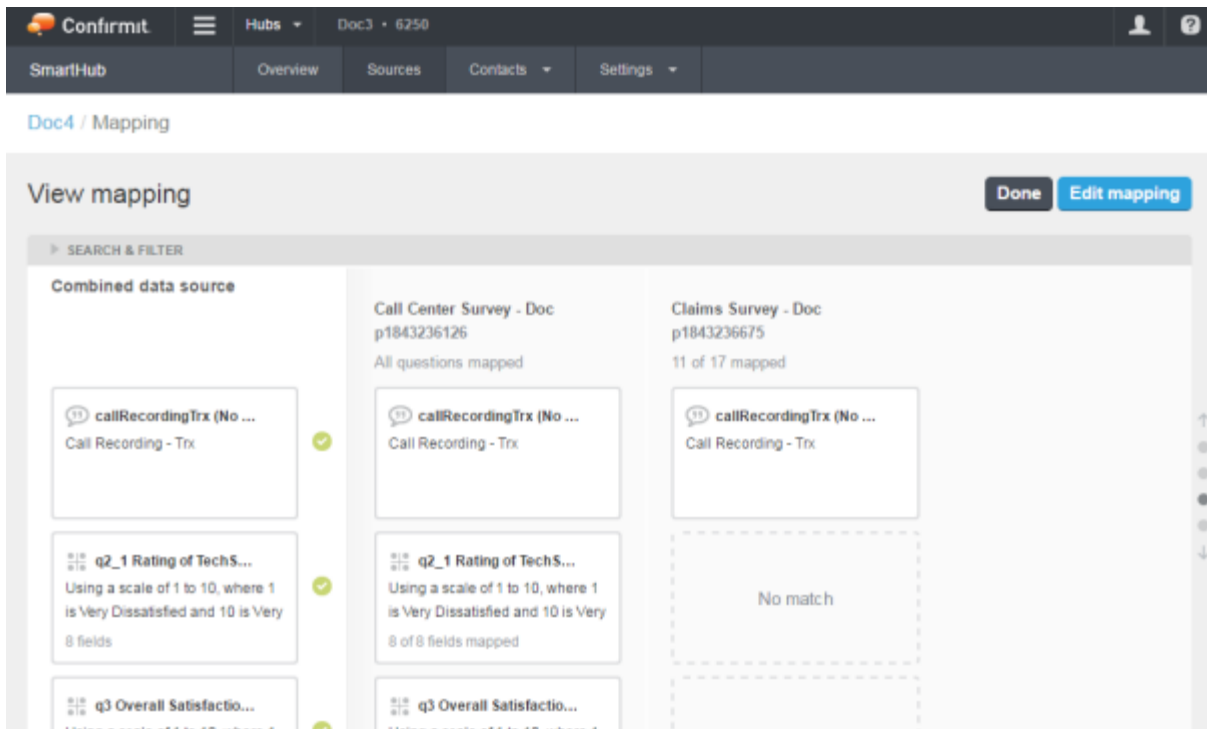


Figure 45 The combined source contains the grid but there is no match

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

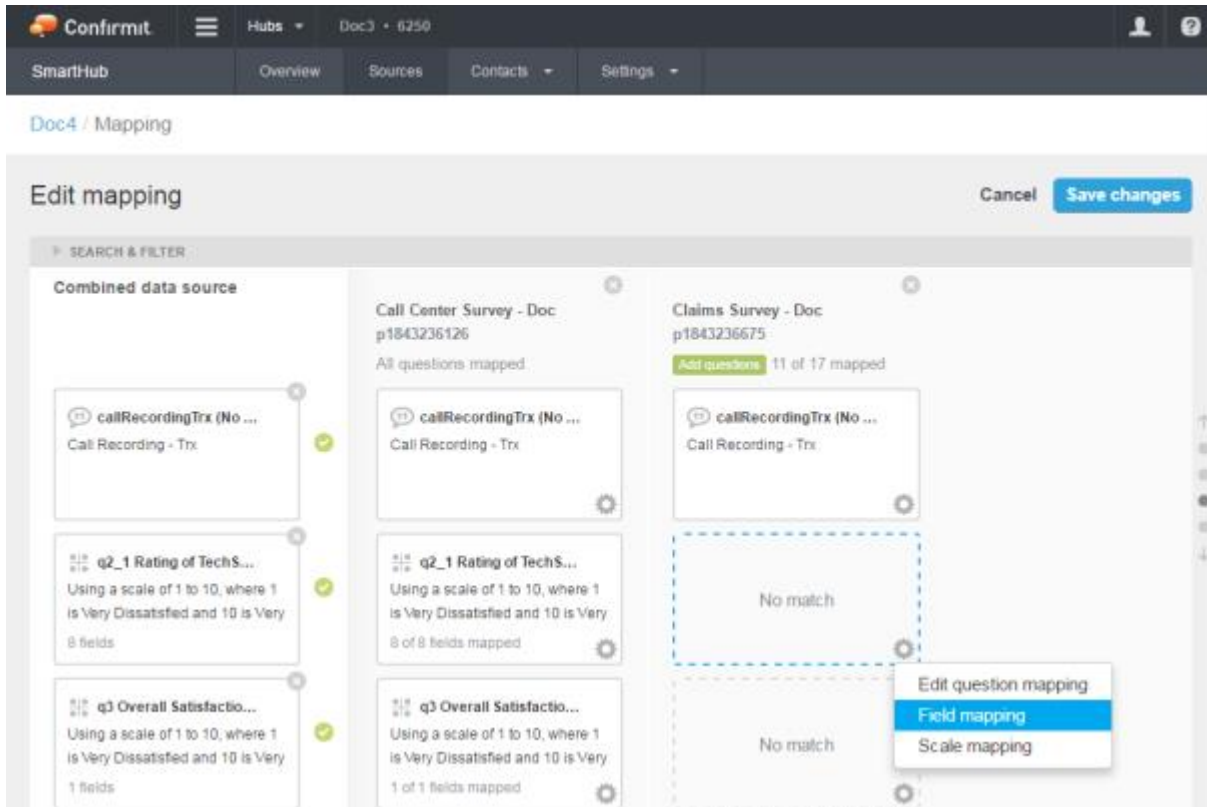


Figure 46 Selecting Field mapping for a grid question

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

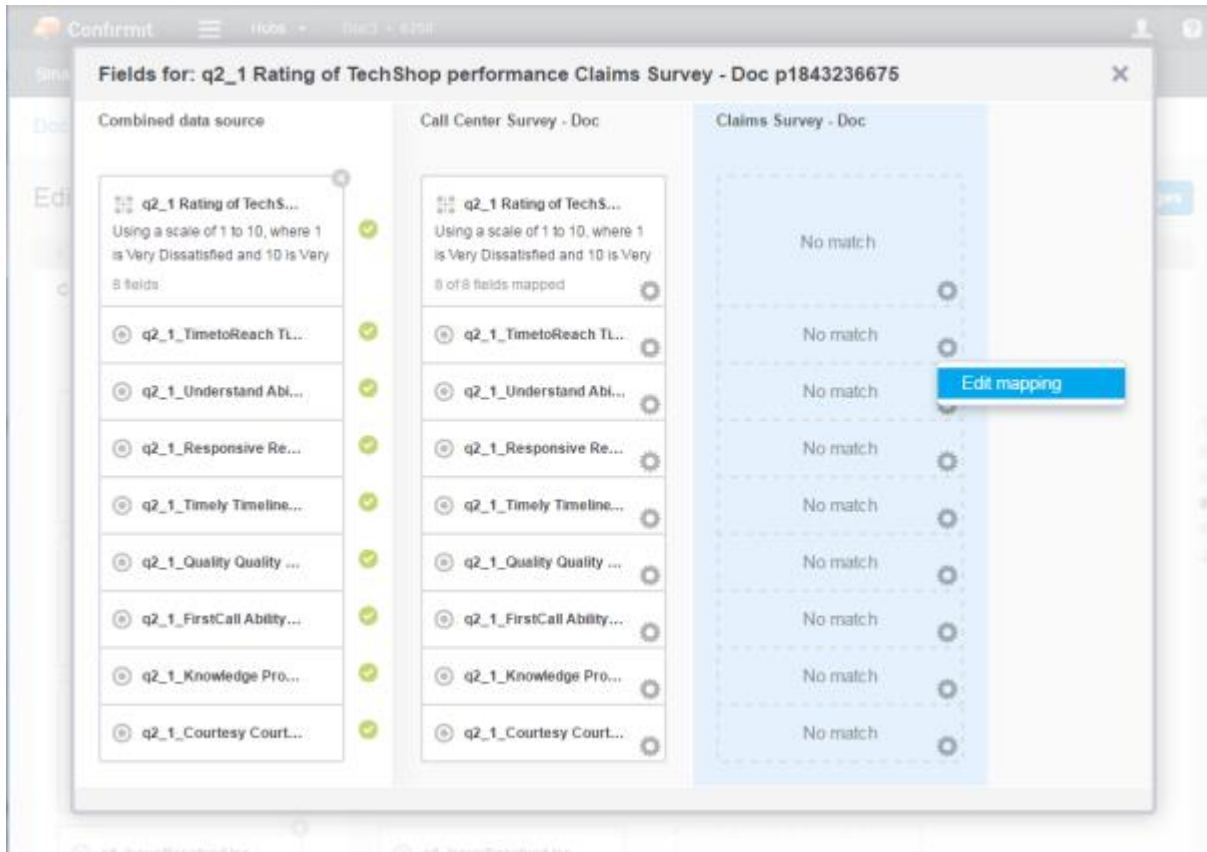


Figure 47 Editing the mapping for a grid field

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.

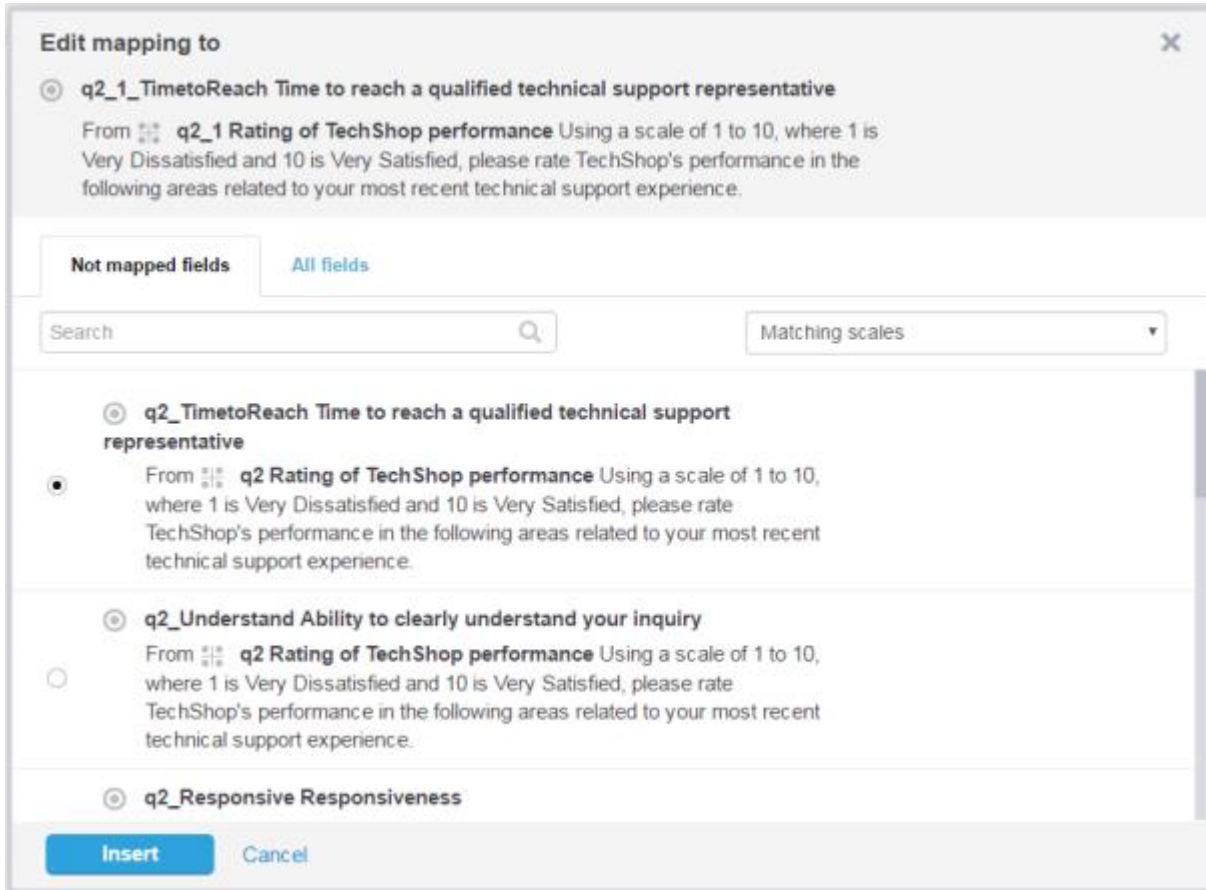


Figure 48 Selecting grid fields or single questions to map to a grid field

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

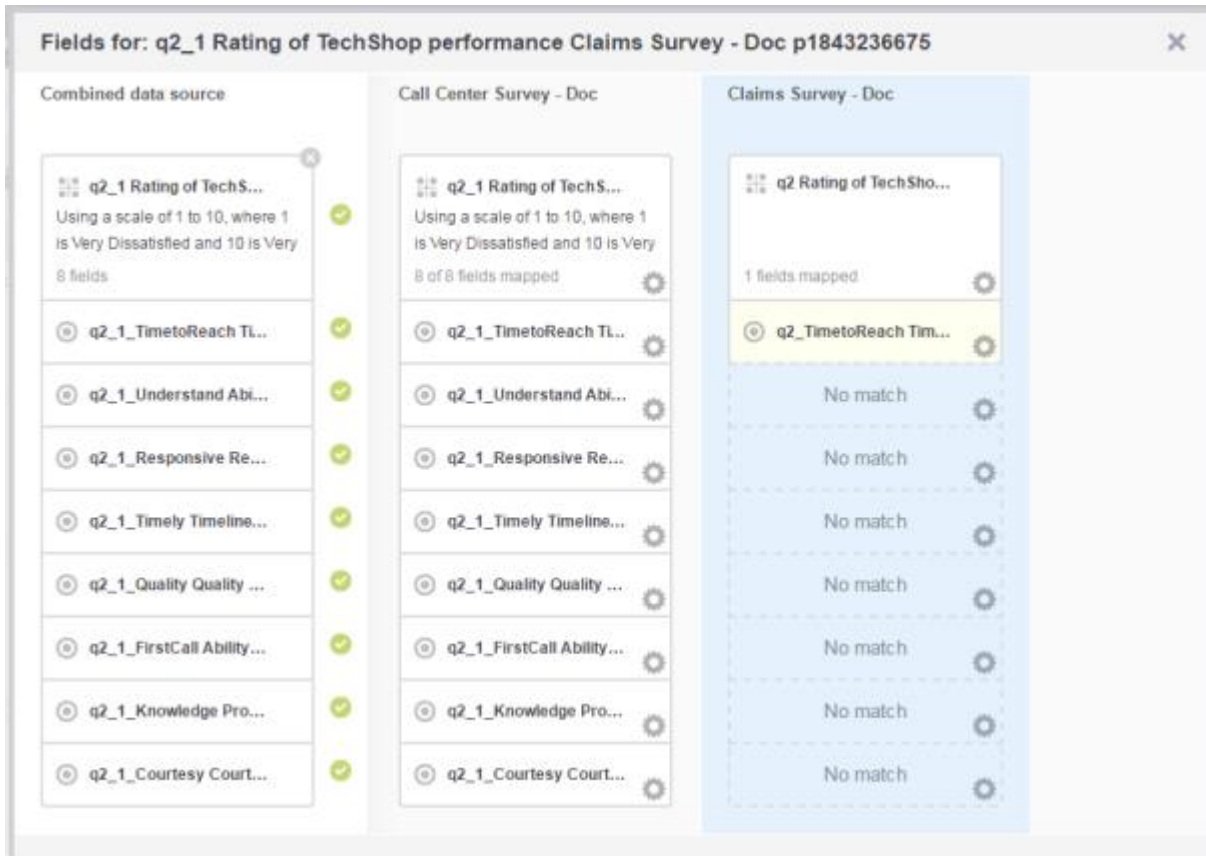


Figure 49 The field is mapped

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.

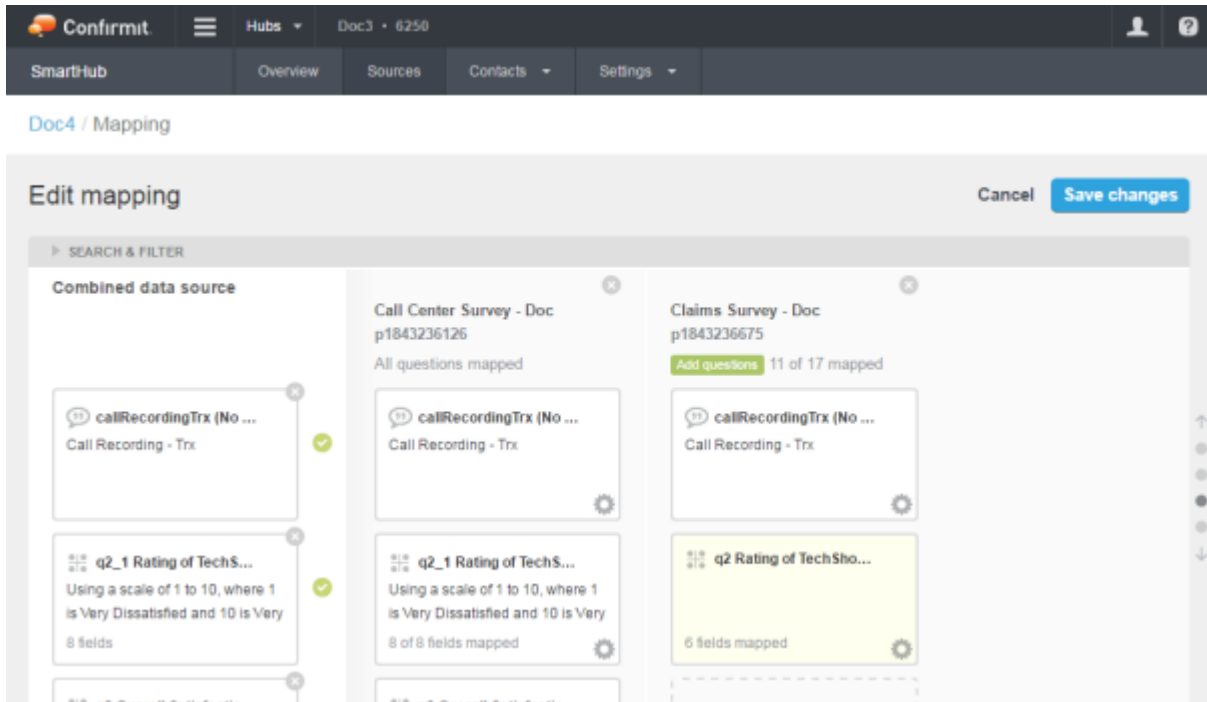


Figure 50 The fields in the grid are now mapped

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

4.5. The Mapping Rules

To ensure that the correct questions are merged when data sources 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 sources (same list ID, same number of items, same codes etc.).

Note: The system does not compare the question and answer texts within the questions as these may be different in different countries. You are therefore recommended to check all mappings before confirming them.

4.6. The Survey Definition of the Combined Source

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

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 source interface in SmartHub. However, there may occasionally be certain changes you need to do that can't be done in the combined source 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 source editor, for example by removing a mapped question.

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

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 48 for more information).

Using a key such as “customerid” or “email”, you can link to all the different data sources 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: When creating a contact database from a survey, at least one of the variables in the survey must be a background variable. This is to ensure there is a key field available.

5.1. New User

When you 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.

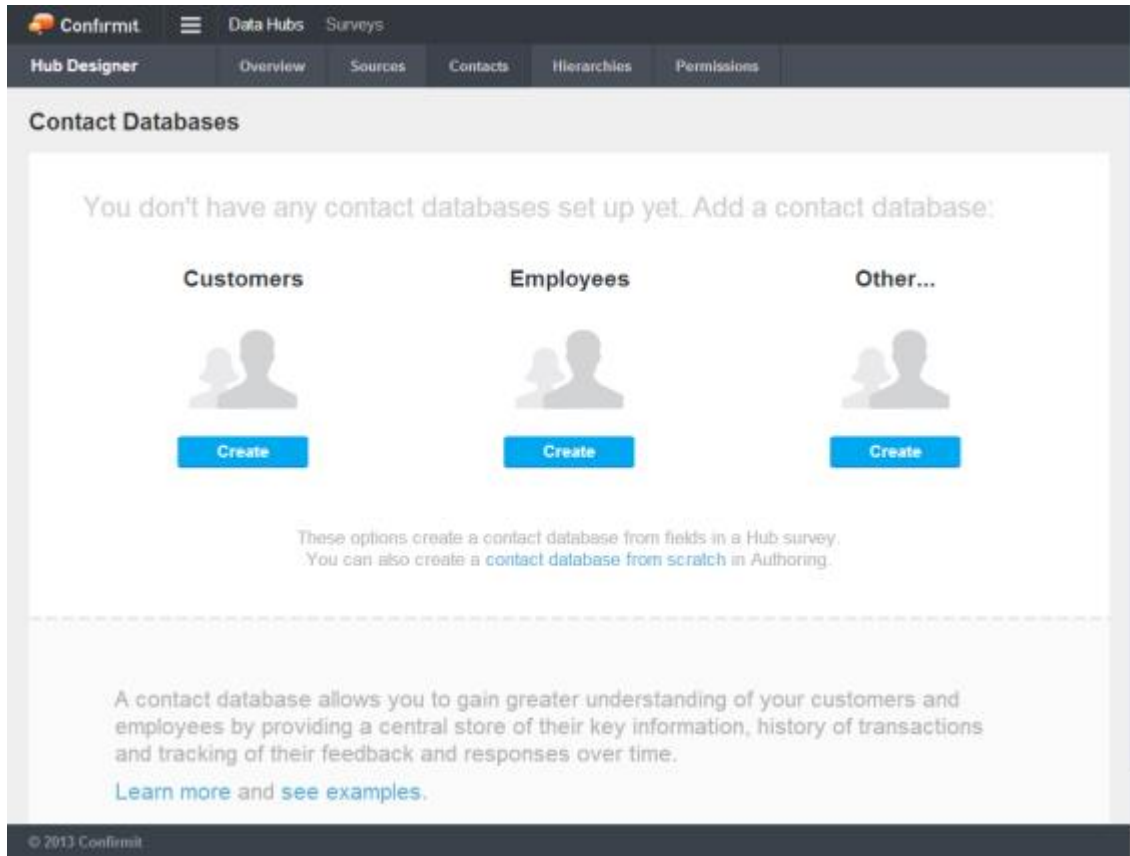


Figure 51 The Contact Databases creation page

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 48 for more information). Note that you can also go to Confirmit 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.

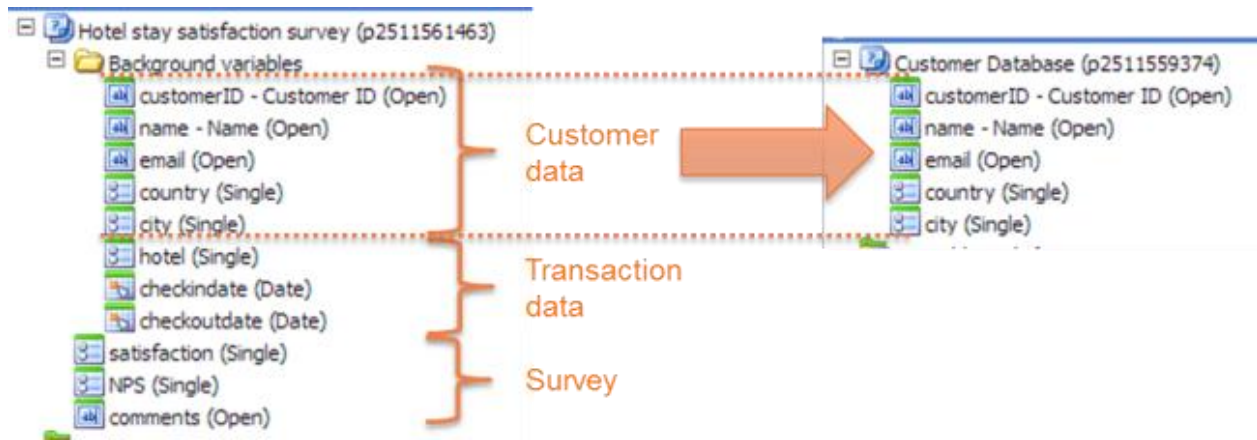


Figure 52 Synchronizing data

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 > Add contact database > 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.

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 46 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.

2. You can go to the SmartHub menu bar and click **Contacts > Add contact database > From scratch in Authoring**. You are then taken to the Confirmit 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.

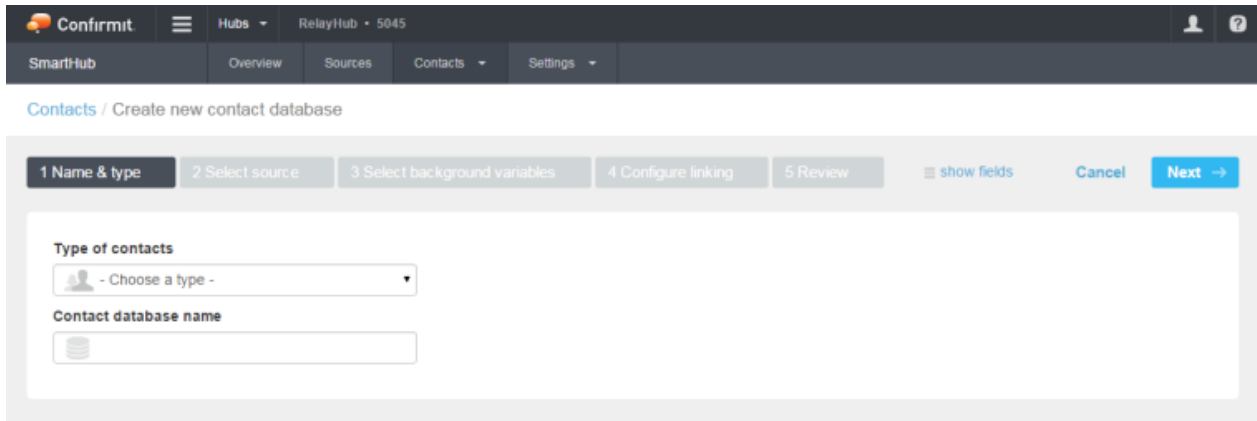


Figure 53 The Create Contact Database page

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

1. In the Create New Contact Database page, 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.

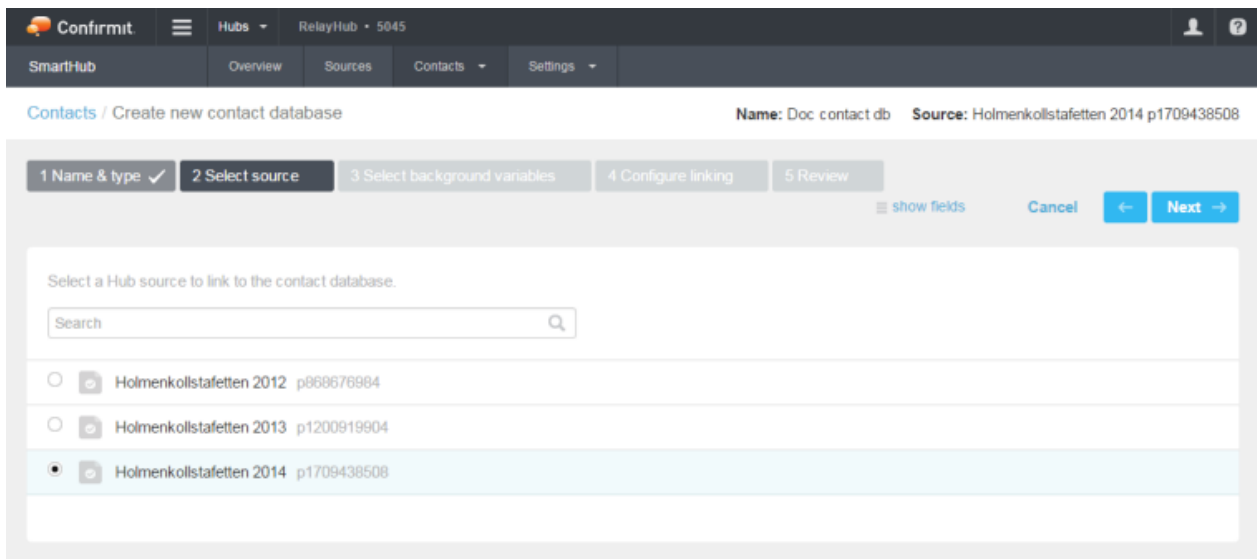


Figure 54 Selecting the source

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.

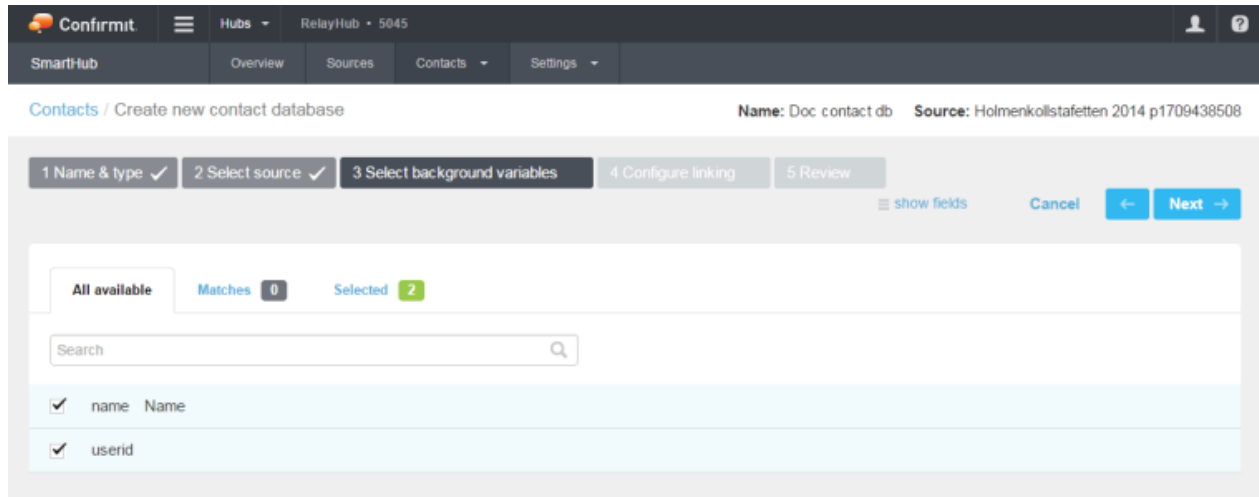


Figure 55 Selecting the background variables

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

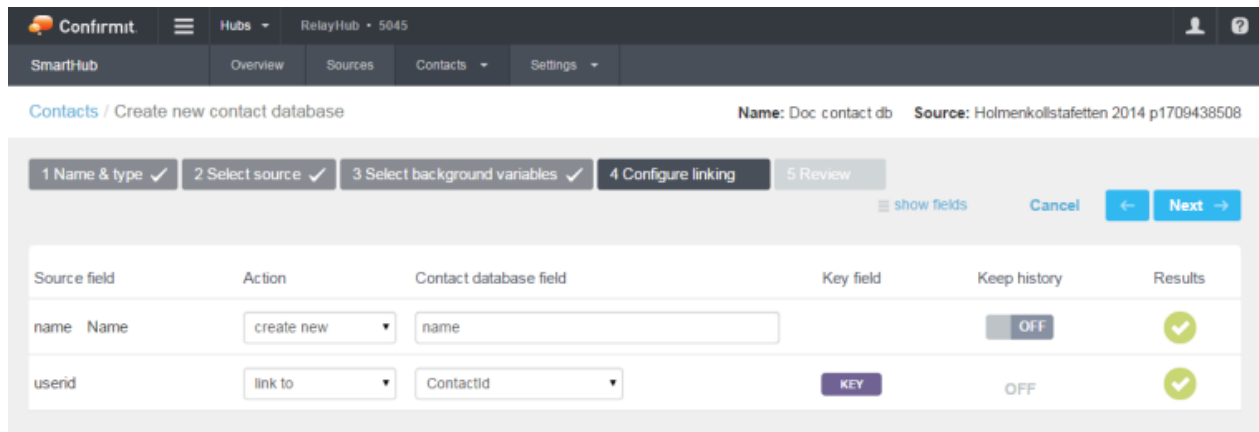


Figure 56 Configuring the linking options

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”.

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 ... database page.

5.4. The Contact Database Page Header Tools

The Contact Database page header bar contains two tools:

- **+ Link survey**- enables you to link an additional data source to the contact database (see How to Link an Additional Survey to a Contact Database on page 51 for more information).
- **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 59 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 ... database page opens.

2. Click the **+ Link survey** button.

The Link survey page opens. This page lists all the surveys that have been added as sources in your hub.

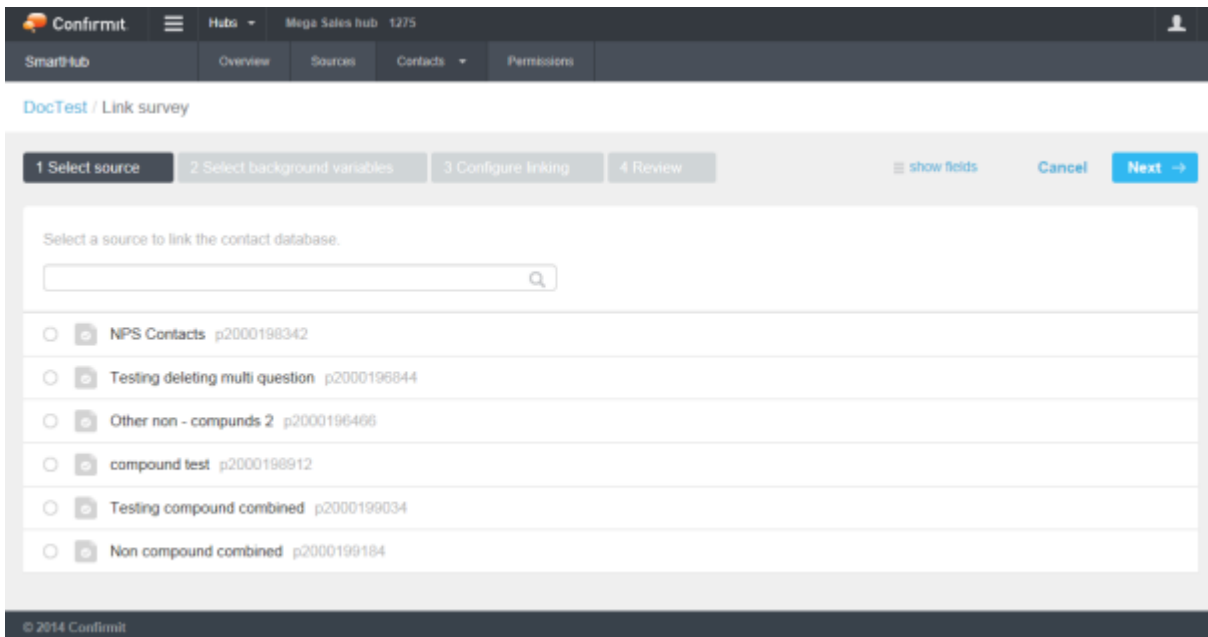


Figure 57 Example of the Link survey page for a contact database

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.

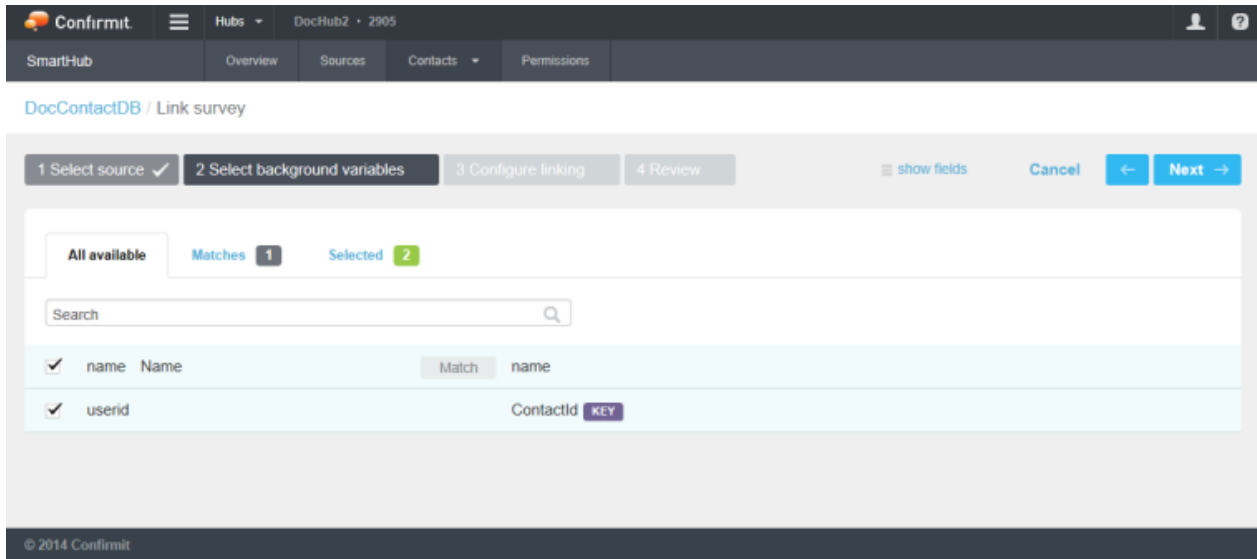


Figure 58 Selecting the background variables

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.

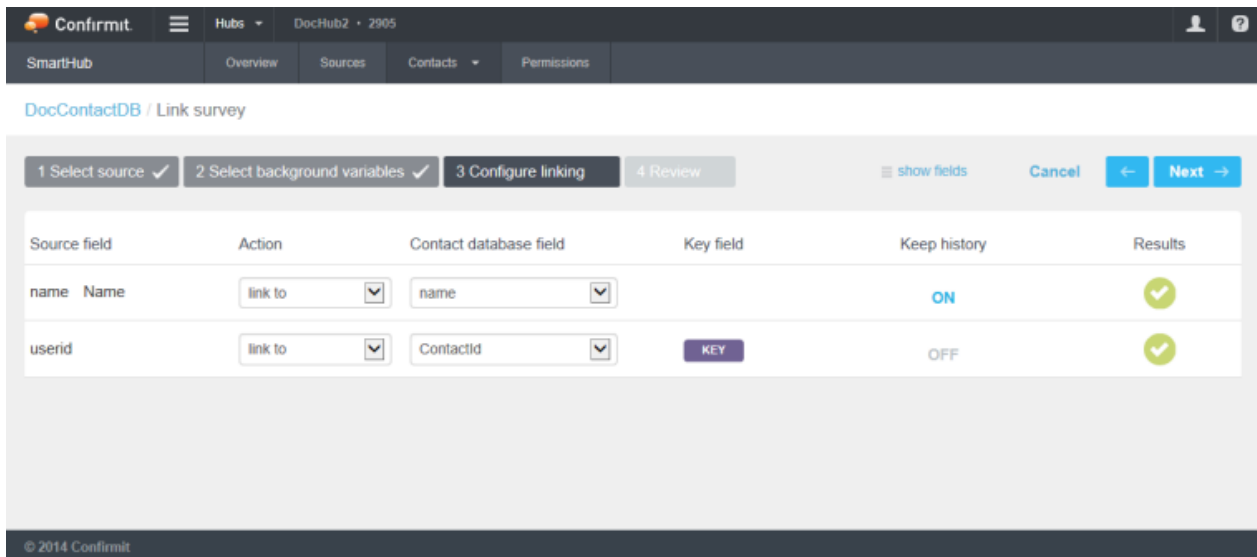


Figure 59 Configuring the linking options

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 ... 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 are 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. The Contact Database Action Menu

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

- **View and edit fields** - enables you to manage the fields used by the contact database (see Viewing and Editing Fields on page 53 for more information).

5.7.1. 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. From the Manage ... database page, click the Action icon  for a source and select **View and edit fields**.
The Select background variables page opens.

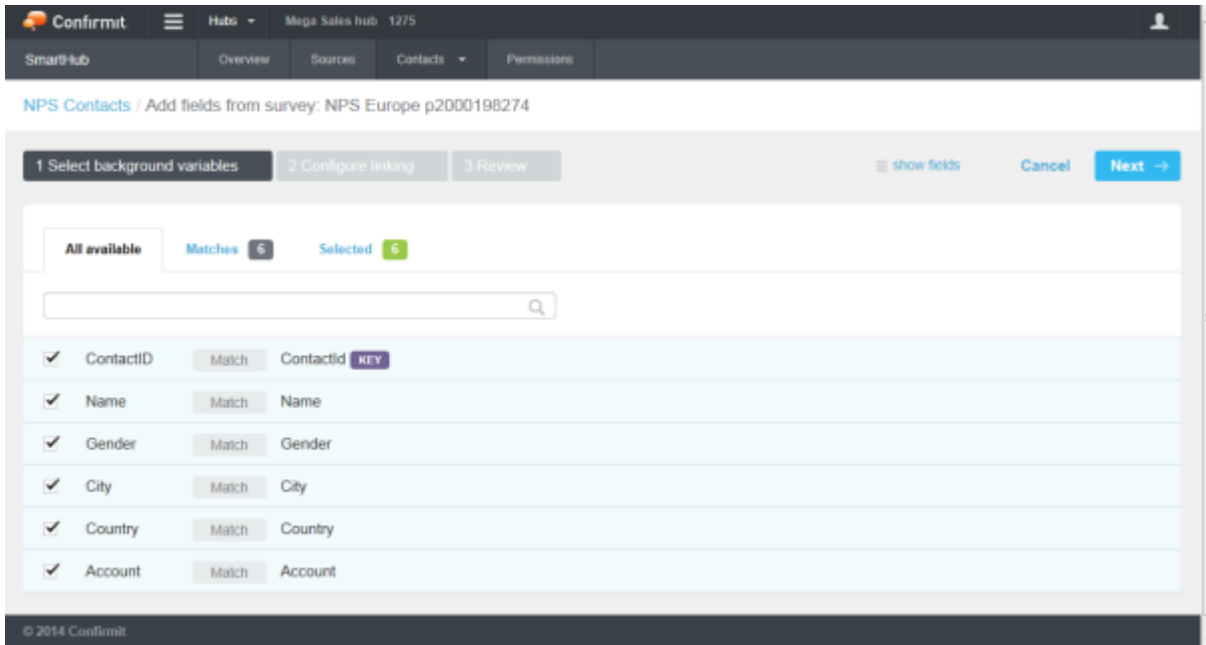


Figure 60 Example of the Select background variables page

This page lists the background variables available in the source. 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.

2. Select and deselect background variables as required.
3. Click **Next**.

The Configure linking page opens.

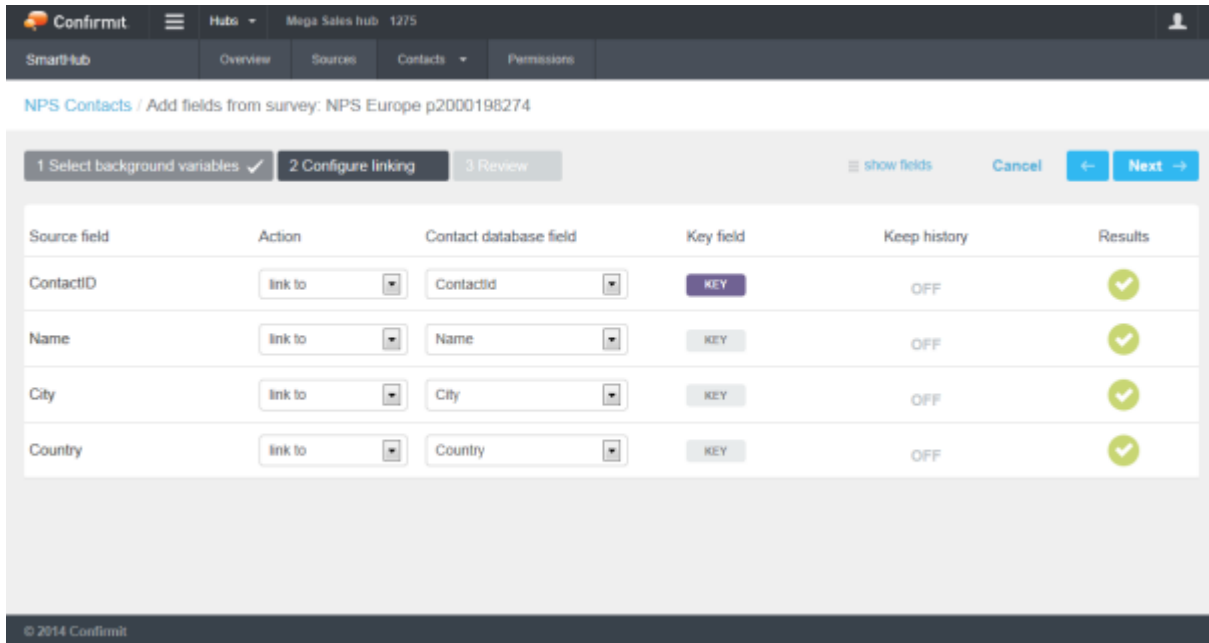


Figure 61 Example of the Configure linking page

4. For each Source field you can edit the Action and the linked Contact database field as necessary.
5. 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".

6. 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.
7. Click **Next**.
The Review and finish page opens.
8. 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 ... database page.

6. Editing Question Labels in Sources

You may find that the question labels used in a data source 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® document containing the existing labels for the questions in a source. 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 source is synchronized, and will affect any reports based on that hub (Reportal, Active Dashboard, Discovery Analytics). Note that you can do this for sources, combined sources and contact databases.

1. In the SmartHub, go to **Sources**, then click on the source for which you wish to override the labels.
The manage Source page opens.
2. Go to **Settings > Override Labels**.

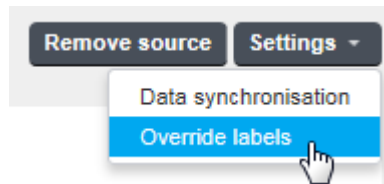


Figure 62 Accessing the Override Labels functionality

The Override Labels overlay opens.

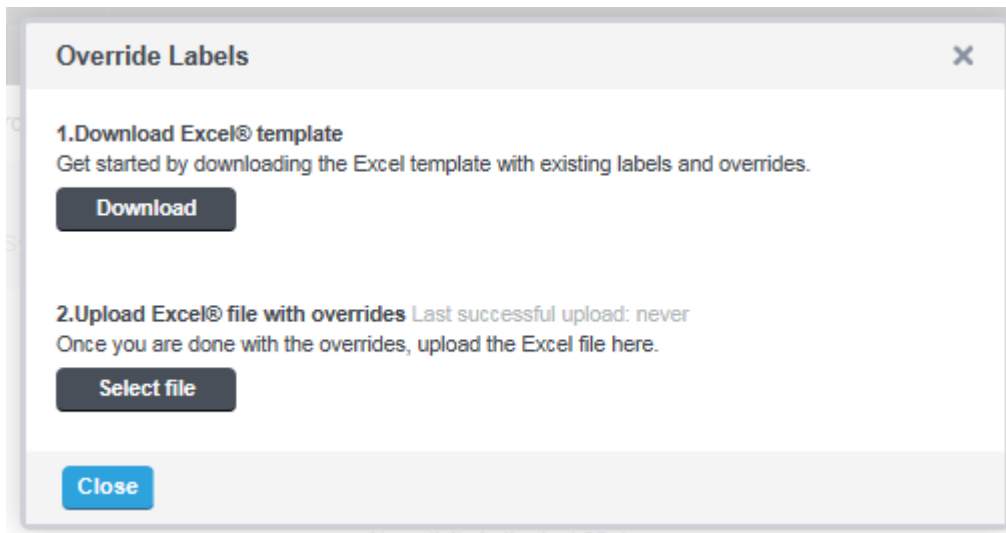


Figure 63 The Override Labels overlay

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.

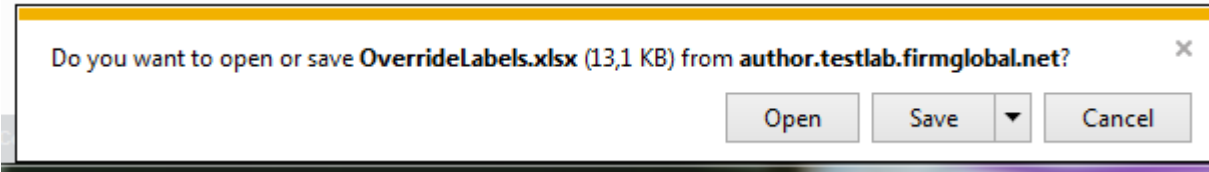


Figure 64 The open or save message

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

The Excel file lists all the labels used in the selected source, 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_displayed	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>	n2	Rating of TechShop performance	

Figure 65 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 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 source 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.

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 59 for more information).
- Survey-specific rules that apply only to specific surveys (see How to Add a Survey-Specific Rule on page 60 for more information).
- You can also create groups of surveys with specific delays (see How to Create a Group on page 62 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**.

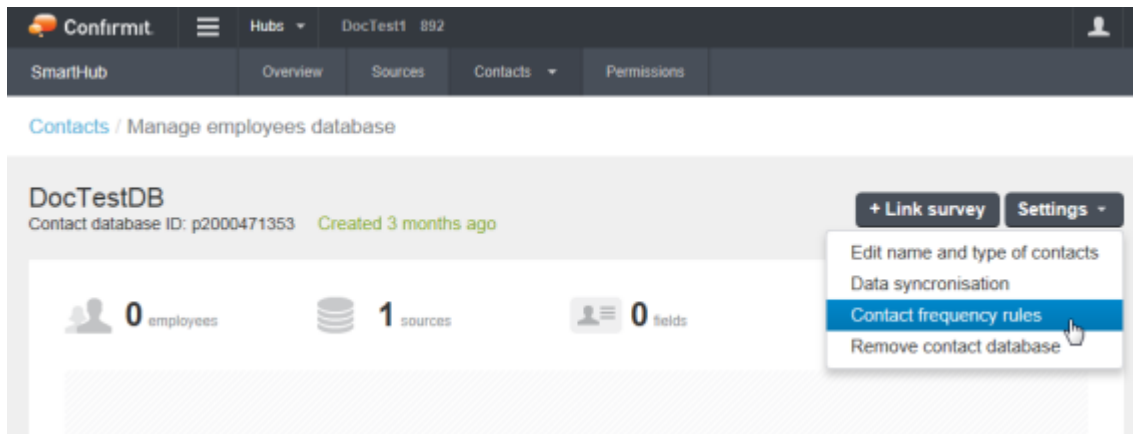


Figure 66 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

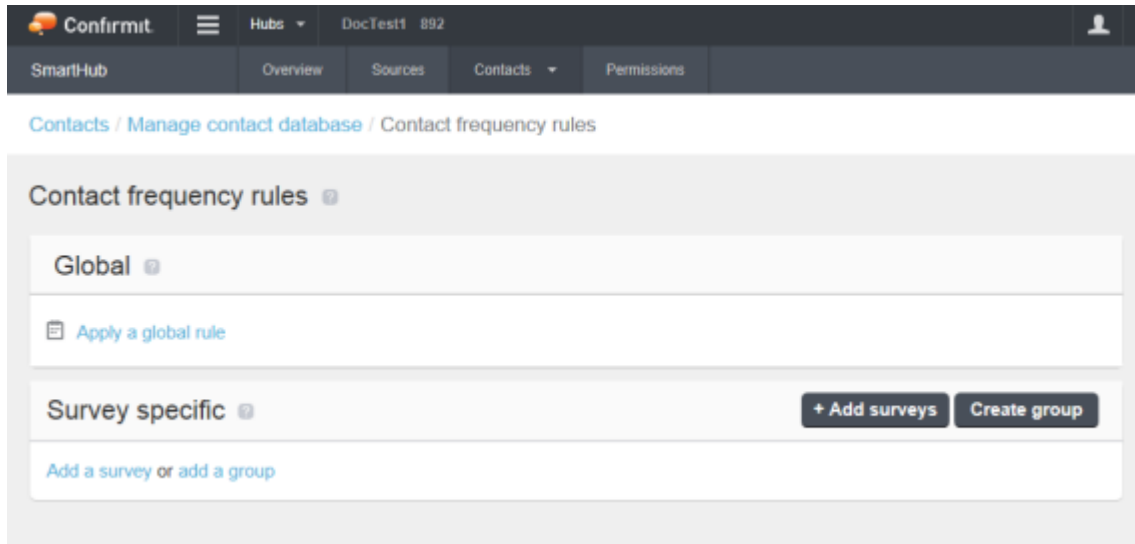


Figure 67 The Contact Frequency Rules page

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

The input field opens.

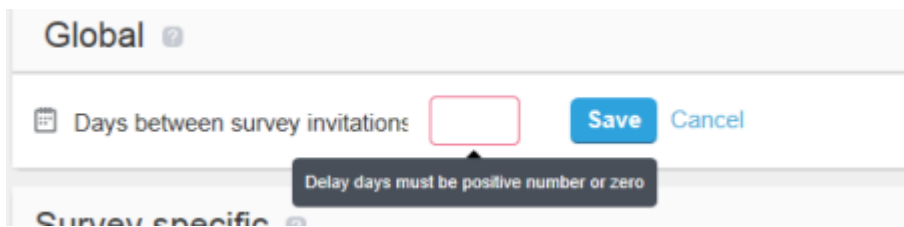




Figure 68 The delay input field and controls

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 62 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**.

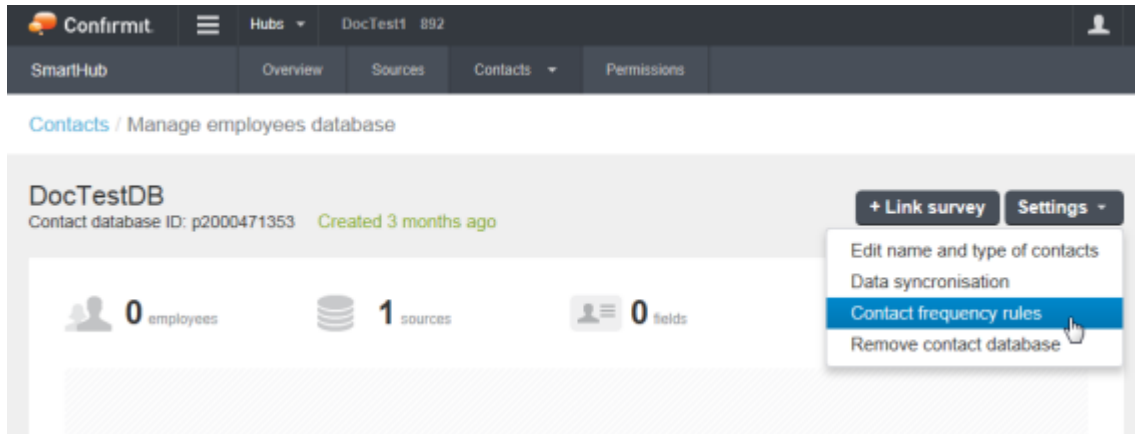


Figure 69 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

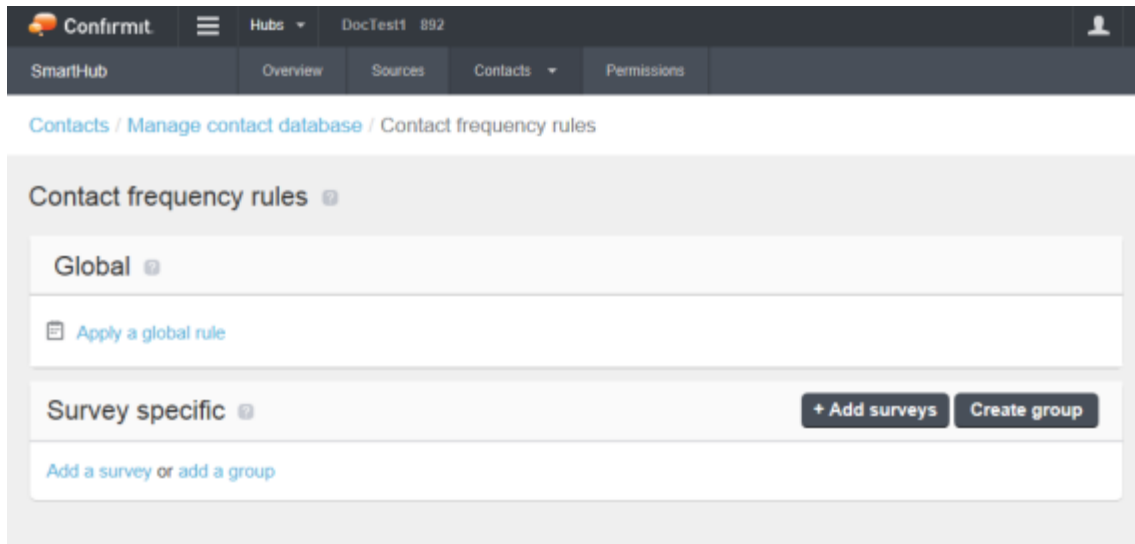


Figure 70 The Contact Frequency Rules page

3. Click **+ Add surveys**.

The Add surveys with specific frequency rules overlay opens.

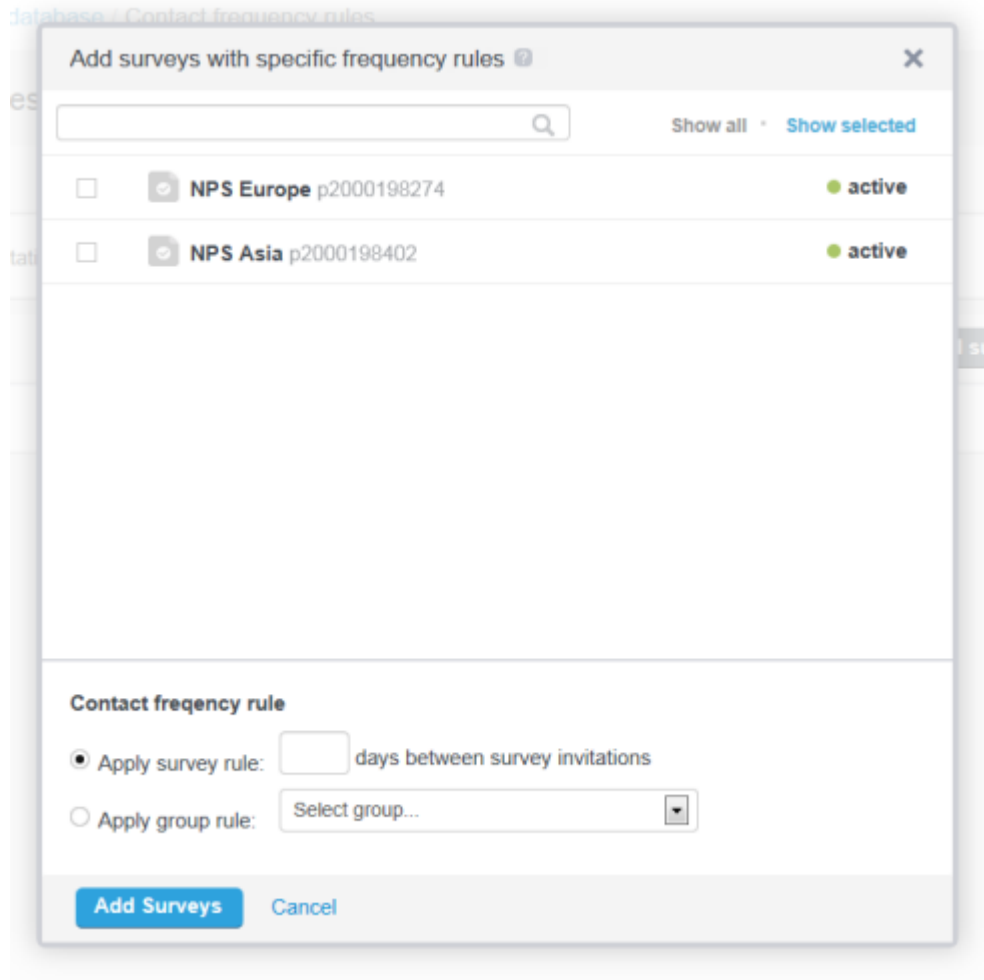




Figure 71 The Add surveys... overlay

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**.

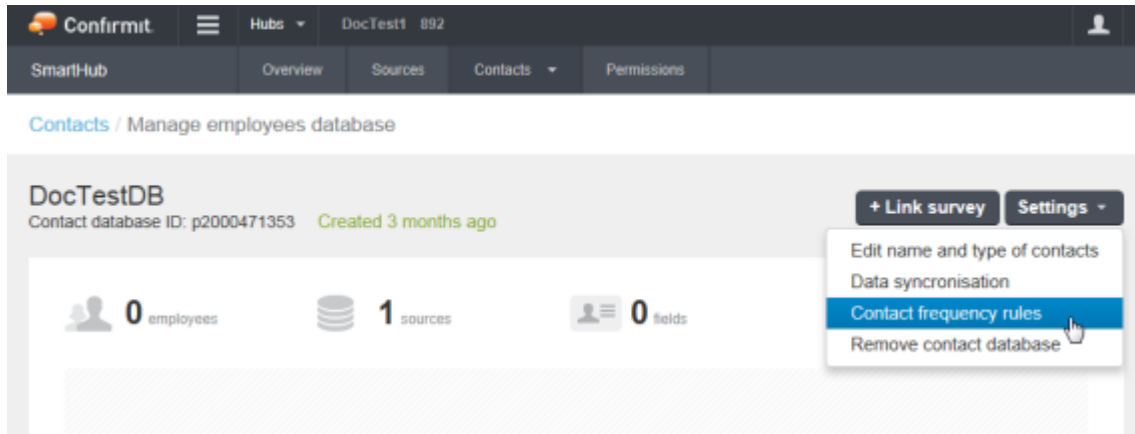


Figure 72 Opening the Contact Frequency Rules functionality

The Contact Frequency Rules page opens.

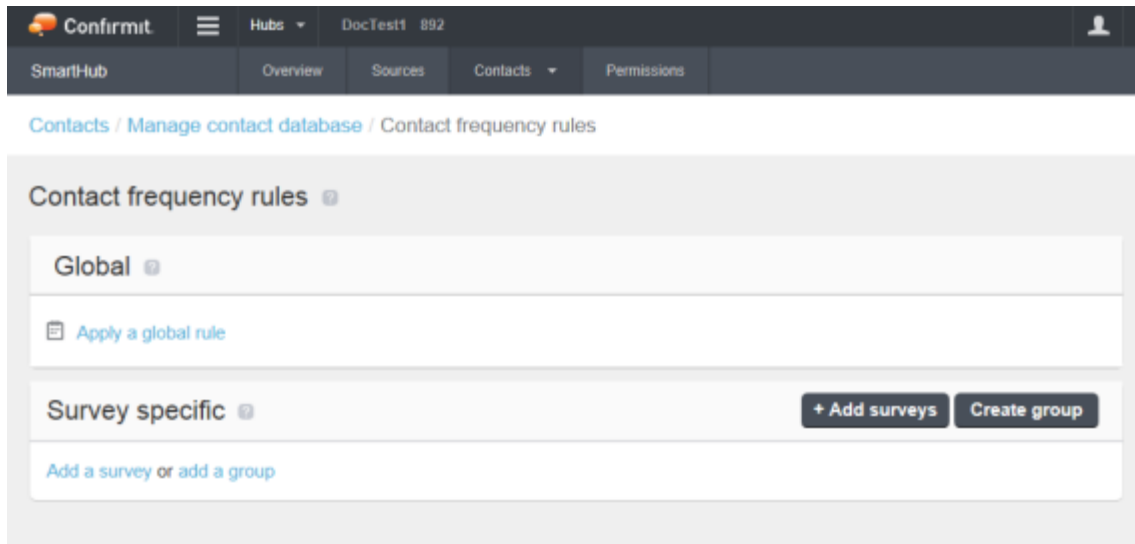
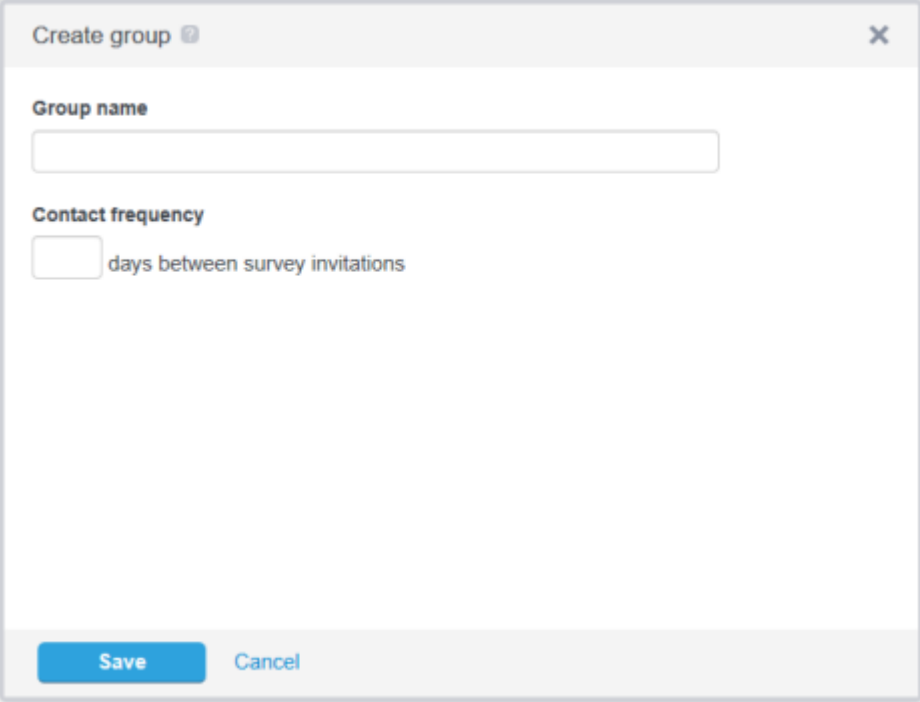


Figure 73 The Contact Frequency Rules page


3. Click **Create group**.

The Create group overlay opens.



The image shows a 'Create group' dialog box. It has a title bar with the text 'Create group' and a close button (X). Below the title bar, there are two sections. The first section is labeled 'Group name' and contains a text input field. The second section is labeled 'Contact frequency' and contains a numeric input field followed by the text 'days between survey invitations'. At the bottom of the dialog, there are two buttons: 'Save' (highlighted in blue) and 'Cancel'.

Figure 74 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.

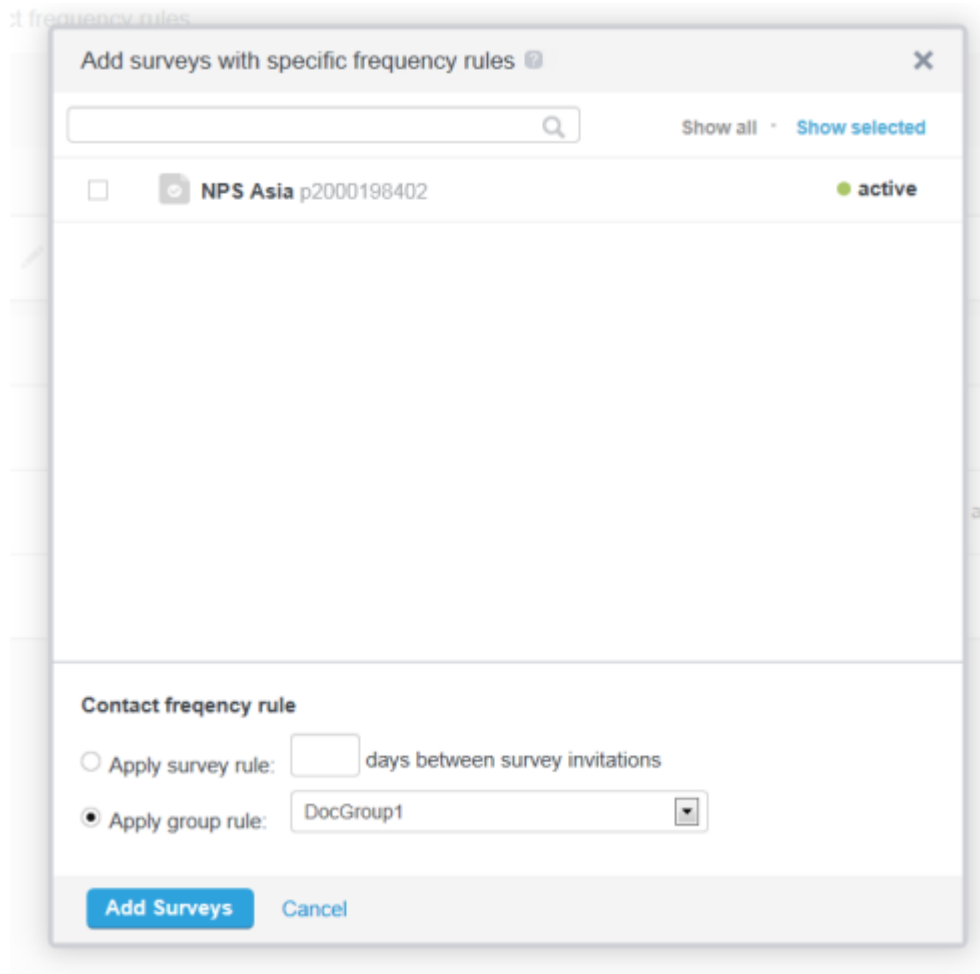





Figure 75 The Add surveys... overlay

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 "InvitationDate" 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. 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 Source page that provides access to different functionality (see The Manage Source Page on page 12 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.

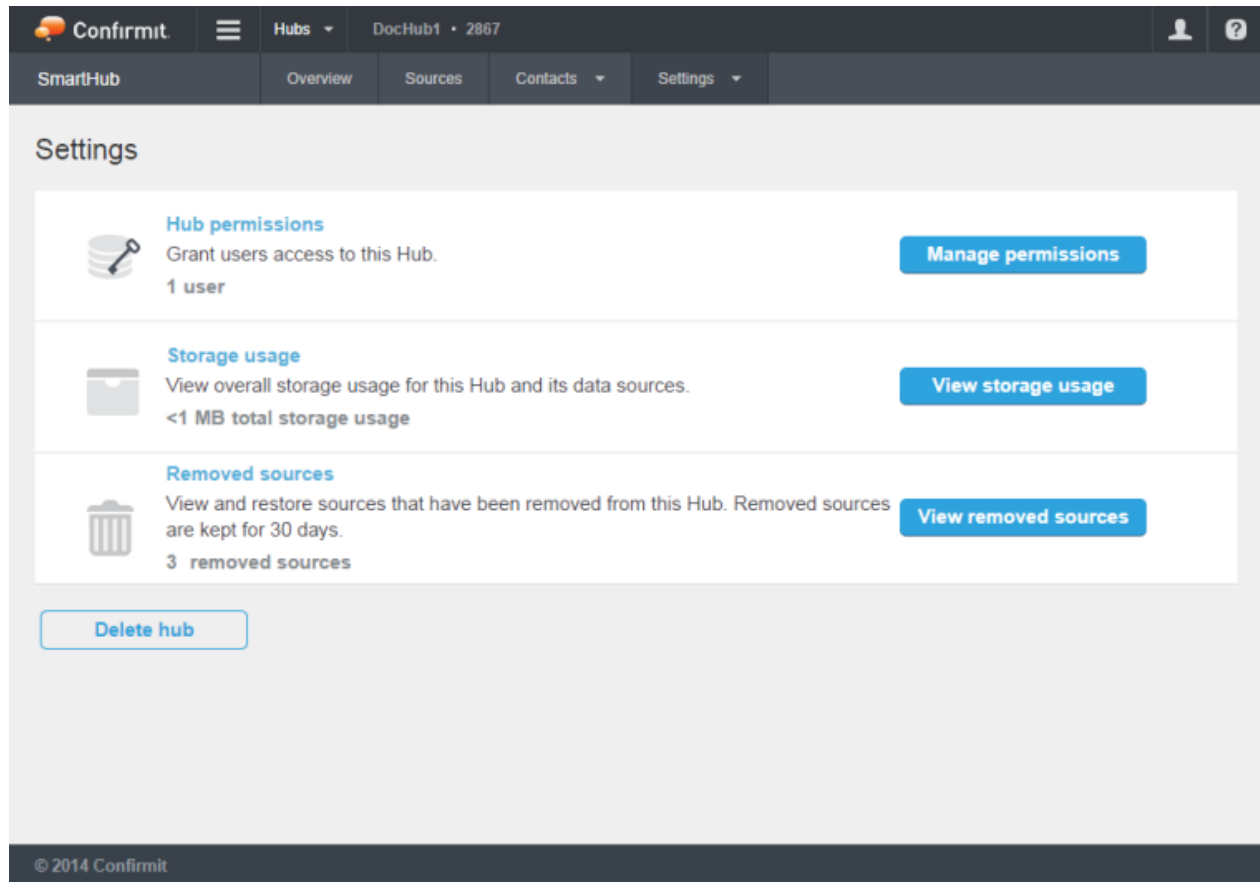


Figure 76 The Settings page

- **Hub permissions** - give users access to this hub (see Hub Permissions on page 68 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 69 for more information).
- **Removed sources** - lists any sources that have been removed from the hub, and allows you to restore them if desired (see How to Restore a Source on page 70 for more information).
- **Delete hub** - (only available on the Settings page) click to delete the hub (see How to Delete a Hub on page 18 for more information).

8.1. 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.

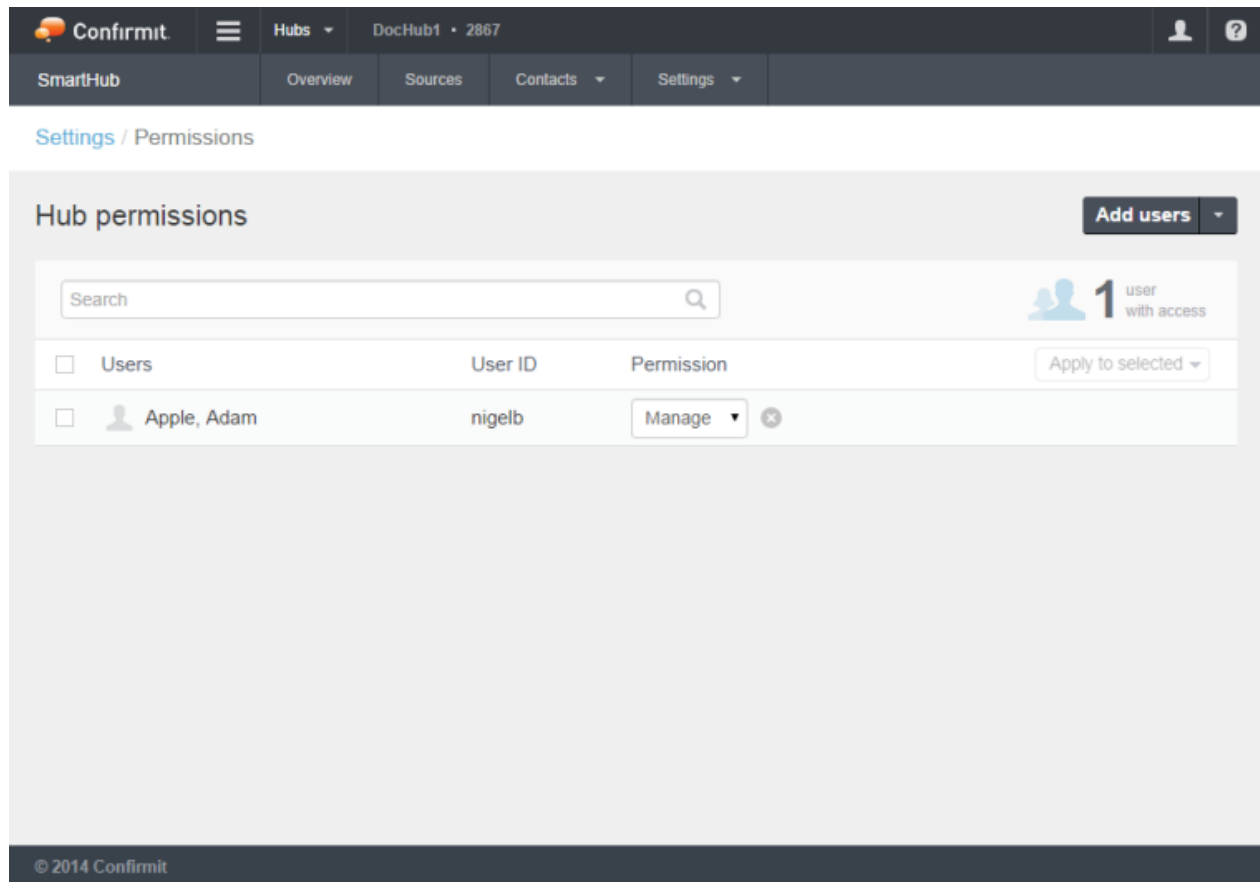


Figure 77 Example of the Hub Permissions page

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 69 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 69 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 sources, 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.

8.1.1. 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.

8.1.2. 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.

8.2. Storage Usage

For Confirmit SaaS clients, SmartHub is offered with at no additional cost 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.

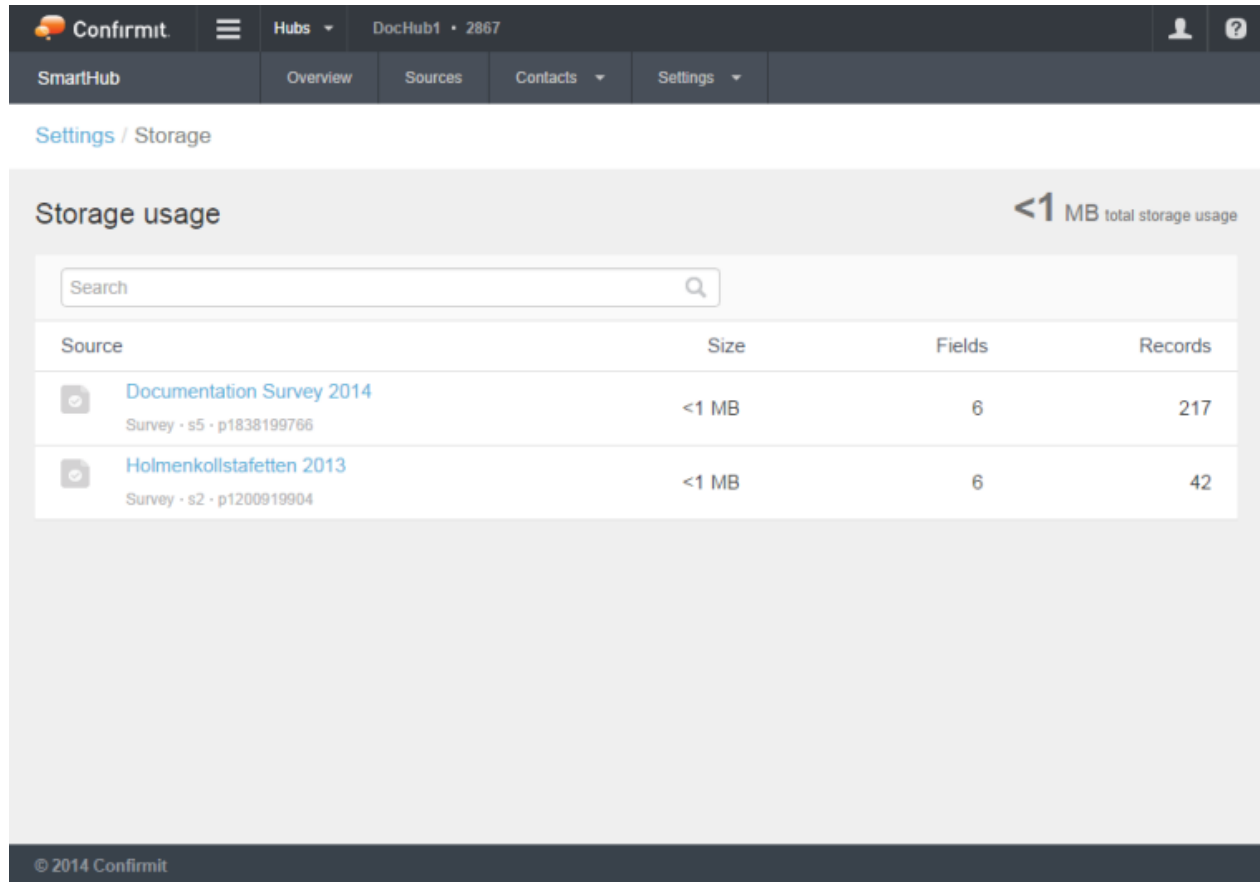


Figure 78 The Storage page

Click on a source to go to that source.

8.3. Removed Sources

This menu command lists any sources that have been removed from the hub. When a source is removed from the hub, it will remain listed on this page for a period of 30 days after the removal operation. During this period you can restore the source if so desired.

8.3.1. How to Restore a Source

If a source is deleted from your hub, it will remain in the system for a period of 30 days. During this period it will be listed under **Removed sources** in the hub's **Settings** menu. To restore a removed source:

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

The Removed sources page opens.

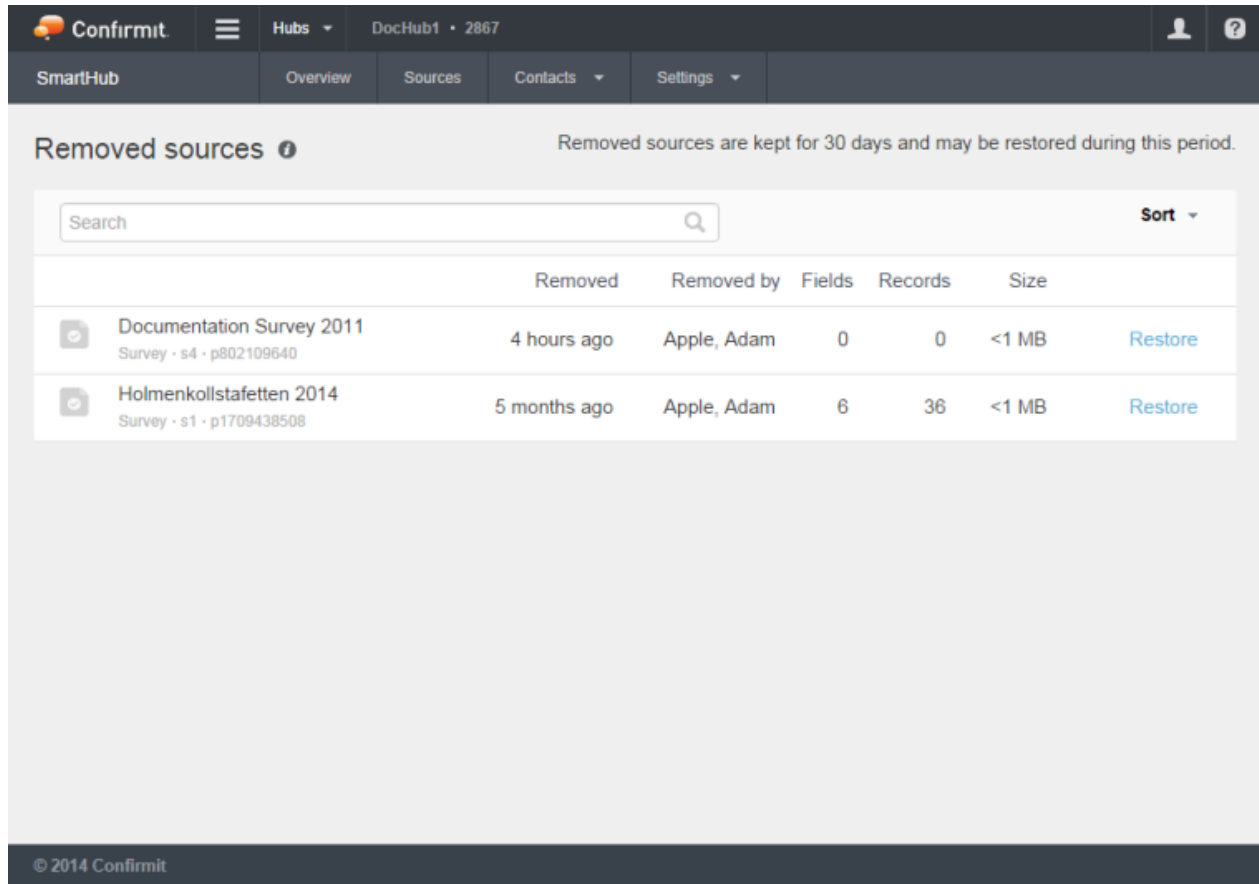


Figure 79 Example of the Removed Sources page

- Click the **Restore** button for the source you wish to restore.
A confirmation dialog box is displayed.

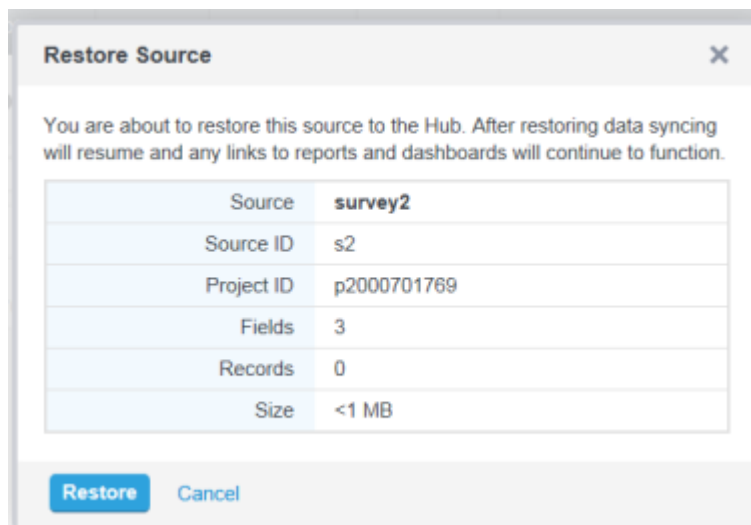


Figure 80 The Restore Source confirmation dialog

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

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

Note: If you remove a source 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 the source will work again once the source is replaced. A manual replacement therefore functions essentially the same as Restore (though Restore is simpler to use).

Index

A

- Action Menu, 53
- Activities Menu, 15
- Add a Data Source to the Hub, 17
- Add a Survey-Specific Rule, 60
- Add surveys, 15
- Add Users from Another Company, 69
- Add Users to the Permissions List, 69
- Apply a Global Rule, 59

C

- Combine sources, 16
- Combined Data Sources, 23
- Company field, 4
- Contact Database, 46, 51
 - Action Menu, 53
 - Creating, 48
 - Page Header Tools, 51
 - Synchronize Background Data, 47
- Contact Frequency Rules, 59
 - How They Work, 66
- Contacts, 8
- Create a
 - Combined Data Source, 23
 - Contact Database, 48
 - Group, 62
 - New Hub, 16
- Creating Your First Hub, 3

D

- Data Source
 - Create, 23
- Data Sources, 9
 - Combined, 23
- Data Synchronization, 13
- Delete a Hub, 18
- Delete a Source, 11
- Delete Hub button, 67

E

- Edit name and description, 16
- Editing Fields, 53
- Editing Question Labels in Sources, 56
- Encryption, 2
- Existing Combined Data Source, 26

F

- Field Mapping, 39
- Filter Field, 31

G

- Global Rule
 - Apply, 59
- Group
 - Create, 62

H

- How Contact Frequency Rules Work, 66
- How it Works, 1
- How to
 - Add a Data Source to the Hub, 17
 - Add a Survey-Specific Rule, 60
 - Add Users from Another Company, 69
 - Add Users to the Permissions List, 69
 - Apply a Global Rule, 59
 - Create a Combined Data Source, 23
 - Create a Contact Database, 48
 - Create a Group, 62
 - Create a New Hub, 16
 - Delete a Hub, 18
 - Delete a Source, 11
 - Edit a Mapping, 28
 - Link a Survey to a Contact Database, 51
 - Map a Survey into Existing Data Source, 26
 - Remove a Question from a Combined Data Source, 34
 - Remove a Survey from a Combined Data Source, 35
 - Restore a Hub, 20
 - Restore a Source, 70
 - View a Mapping, 27
- Hub Designer Page, 8
- Hub Permissions, 68

I

- Introduction, 1

L

- Link a Survey to a Contact Database, 51
- List Details, 6

M

- Manage permissions, 16
- Manage Source Page, 12
- Manual Mapping, 36
- Map a Survey, 26
- Mapping Errors, 32
- Mapping Questions with Different QIDs, 37
- Mapping Rules, 44

<p>N</p> <p>New User, 46</p>	<p>S</p> <p>Search and Filter Field, 31</p> <p>Settings, 9</p> <p>Settings Menu, 67</p> <p>SmartHub List Details, 6</p> <p>SmartHub Page</p> <p style="padding-left: 20px;">First Time, 3</p> <p style="padding-left: 20px;">Preexisting Hubs, 5</p> <p>Source</p> <p style="padding-left: 20px;">Delete, 11</p> <p style="padding-left: 20px;">Restore, 70</p> <p>Sources, 8, 9</p> <p>Sources Tab, 10</p> <p>Storage Cost, 2</p> <p>Storage Usage, 69</p> <p>Survey Definition of the Combined Source, 45</p> <p>Survey-Specific Rule, 60</p> <p>Synchronizing Background Data, 47</p> <p>Synchronizing Respondent Data, 53</p> <p>System Requirements, 2</p>
<p>O</p> <p>Opening the SmartHub Page for the First Time, 3</p> <p>Override Labels, 56</p> <p>Overview, 8</p>	<p>V</p> <p>View contact databases, 16</p> <p>View data sources, 15</p> <p>Viewing and Editing Fields, 53</p> <p>Viewing and Editing the Mapping, 27</p>
<p>P</p> <p>Page Header Tools, 51</p> <p>Permissions, 68</p> <p>Permissions List, 69</p> <p>Preexisting Hubs, 5</p>	<p>W</p> <p>What is SmartHub, 1</p>
<p>Q</p> <p>Question Labels, 56</p>	
<p>R</p> <p>Remove question, 35</p> <p>Remove survey, 36</p> <p>Removed Sources, 70</p> <p>Restore a Hub, 20</p> <p>Restore a Source, 70</p>	