- Datasource Builder -

FOR RISKMAN VERSION 2106

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DETAILED OVERVIEW

What Is The InfoCentre?

The **InfoCentre** is an interactive dashboard that provides all levels of users with simple, real-time information from their Riskman system. This information is displayed as **Widgets**. A widget in this case is a chart or graph that displays information from the RiskMan system. There are different types of Widgets for displaying different types of information. Widgets can display information from any register in the system. Below are two examples of Widgets:
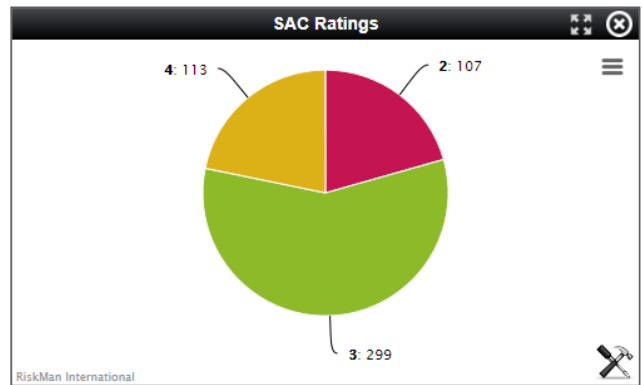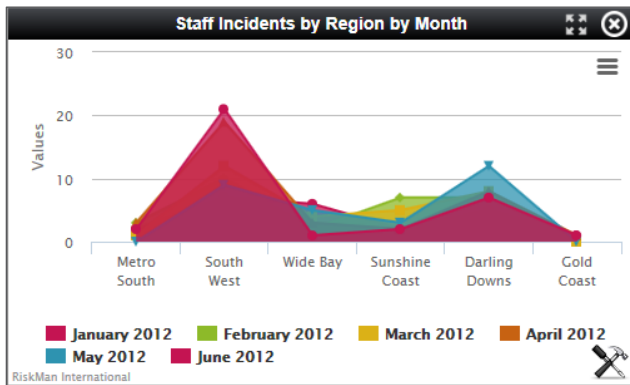
What Is A Datasource?

Behind each Widget there is a set of data that is packaged as a **Datasource**.
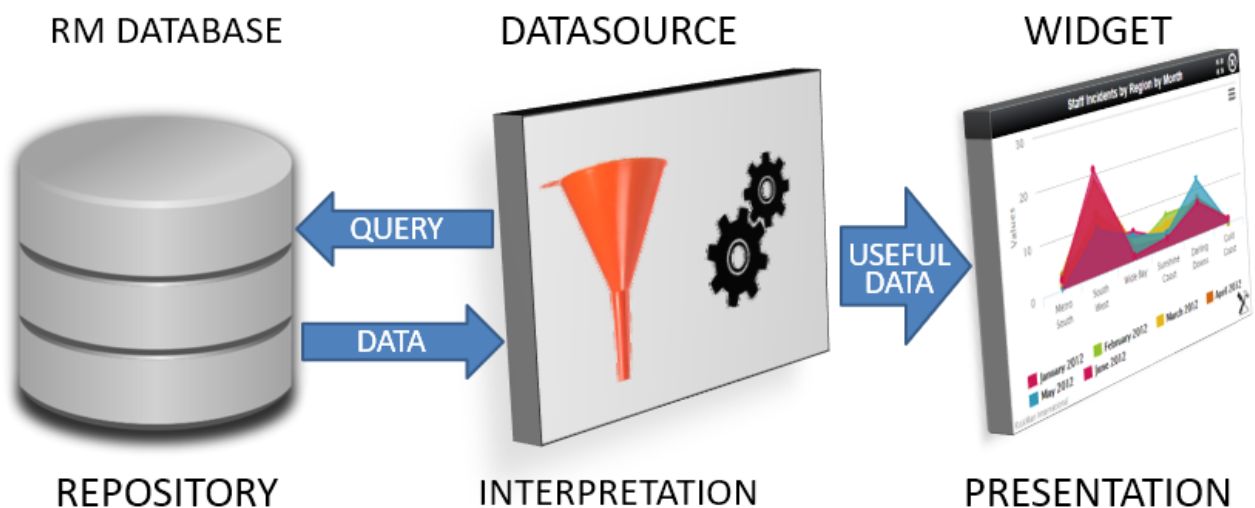
A Datasource contains the background properties which can then in turn be displayed as a widget. The Datasource contains all the configuration information such as the type of chart used, the register the information will be extracted from (incidents, feedback etc.), and any specific filters applied (e.g. site, location, gender etc.)Once this Datasource has been built, it can be shared with

any RiskMan user who has access to the InfoCentre and Homepage. A shared Datasource will allow the end user to select it from a list of existing Datasource and create a Widget.

What is the difference between a Widget and a Datasource?

The Datasource contains the background properties and information, the Widget is a visual presentation of the data. To use an analogy, if a widget is a politician delivering a speech, the Datasource is the political speechwriter.

Can everyone that has access to the InfoCentre build a Datasource?

No. You are able to determine which users should be able to access the Datasource Builder by using the appropriate User Permissions. Please refer to the **Administration of the Datasource Builder section of this guide**.

How Is It Determined Who Will Be Able To View Particular Datasources?

When all users log into the InfoCentre for the first time, they will be able to see a default list of Datasources that come with their system configuration, plus whichever Datasources have been shared with them by another user or Administrator. These shared Datasources, and the default Datasources will be available regardless of whether they have access to creating their own Datasources in the Datasource Builder.

Users are able to view Datasources they have created themselves.
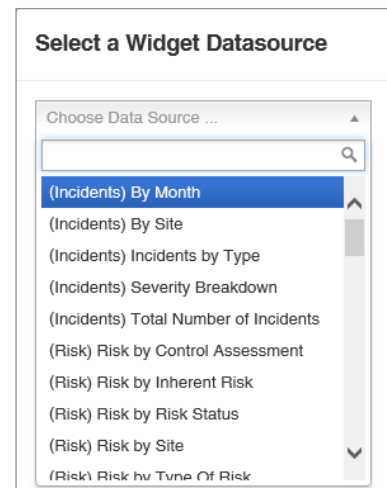
When building a Datasource, you also have the option to **share** that Datasource with users of your choice. You can either share the Datasource with individual users or entire templates of users.

Thus, users will be able to view:

a) Default Datasources that come with the system configuration

b) Any Datasources the user has created themselves

c) Any Datasources that have been shared with them either individually or via the user template assigned to their profile

WHAT IS THE DATASOURCE BUILDER?

The Datasource Builder allows you to create a Datasource, which is the collection of settings and configuration properties that define what a Widget will display in the InfoCentre and Homepage.

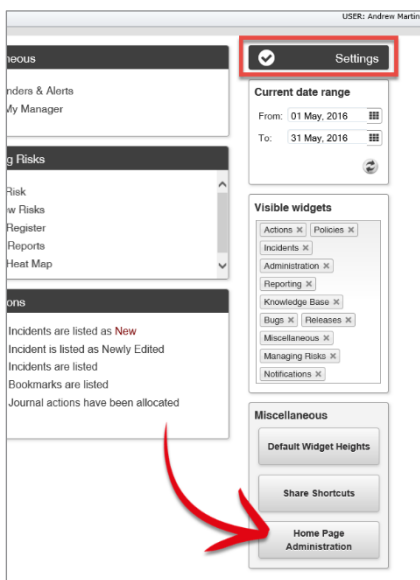### → How to access the Datasource Builder

The Datasource Builder can be accessed from either the **InfoCentre** or the **Homepage**.

From the InfoCentre:

First go to the **InfoCentre** by navigating to *Reports > InfoCentre*. Once you are in the **InfoCentre**, click on the ✚ button and then select **New Datasource**.
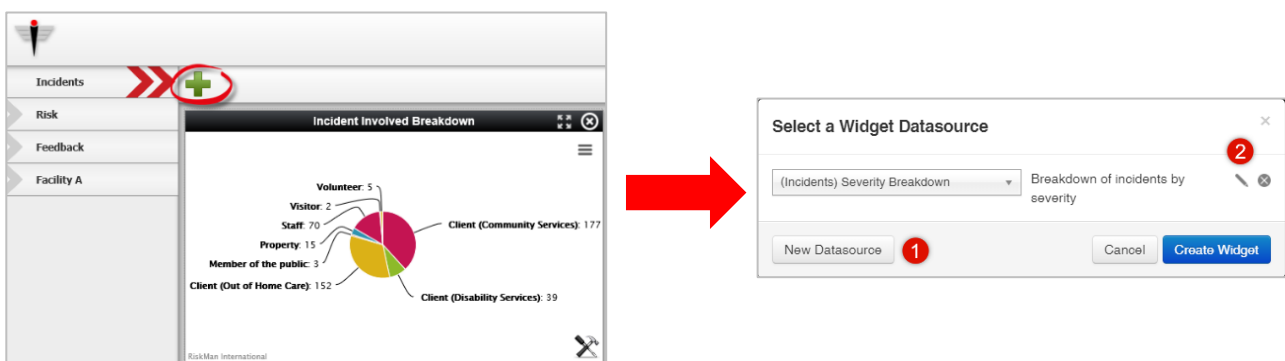
From the Homepage:

Click on the **Settings cog** in the Shortcut section. From there, click the **Homepage Administration** button. Then, click the blue **Add** button:
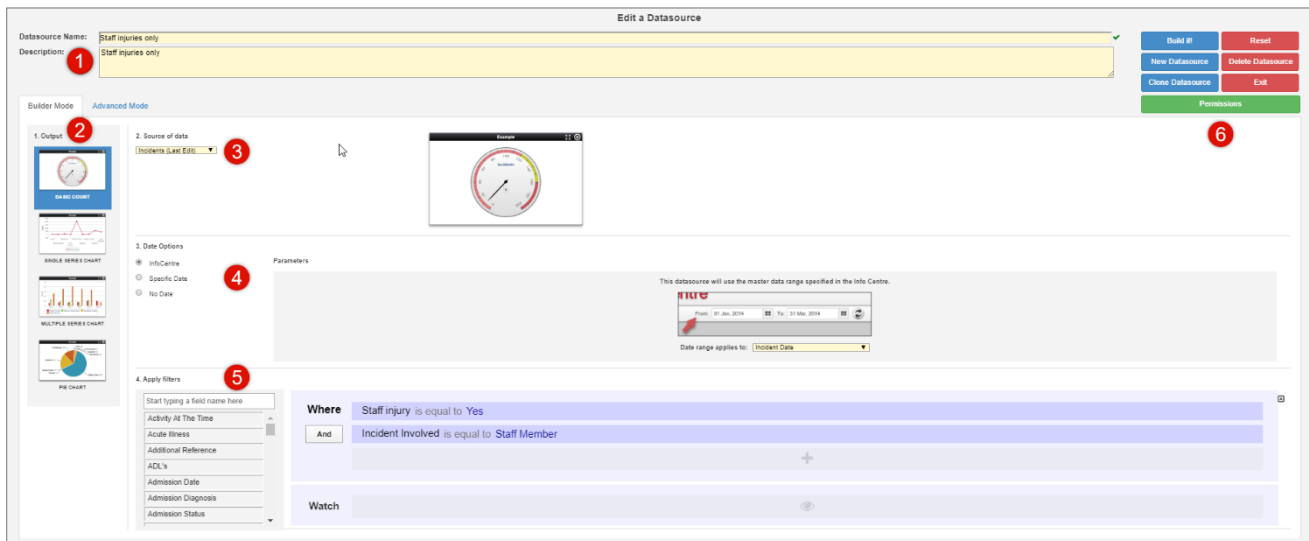
*Note: for more information about managing Datasources and Widgets from your Homepage see the **Homepage Widgets & Datasources** User Guide.*

BUILDING A DATASOURCE

Introduction To The Datasource Builder Page

This is what the Datasource Builder page looks like. We'll just have a look at how the page is structured first.

❶ **Datasource Name and Description:** Give your Datasource an intuitive name and write a explanatory description

❷ **Output:** Select the type of chart that the Datasource will display

❸ **Source of data:** Select the register from which the data will be extracted and whether it will come from all items or posted items only

❹ **Date options:** Select whether the Datasource will follow the InfoCentre date range, a pre-defined date range, or no date range at all

❺ **Apply filters:** Apply an optional data filters to your Datasource to specify which data will display. InfoCentre Datasource filters function in the same way that Report filter function

❻ **Saving and Permissions Menu:**

Build it!	**Reset**
Save the Datasource	Reload the Datasource
New Datasource	**Delete Datasource**
New blank Datasource	Delete the Datasource
Clone Datasource	**Exit**
Copy the Datasource	Exit the Editor

Permissions
Assign Datasource sharing permissions to users
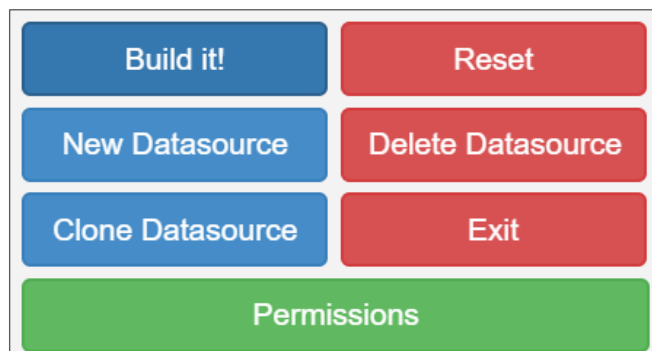
Datasource Name And Description

Datasource Name: Give your Datasource a logical name. If you anticipate your system will have many Datasources, it is advisable to come up with a standardised naming convention.

Purpose / Description: Enter a meaningful description that clearly outlines the purpose of the Datasource, and also what it will show the user. Particularly important with Datasources that you intend to share with others.
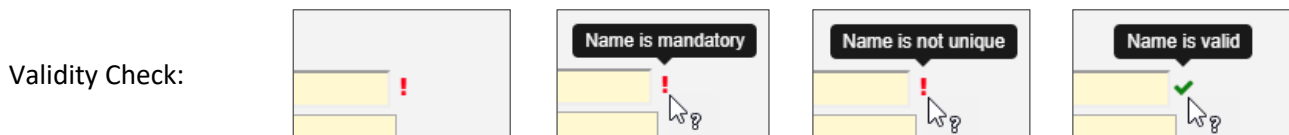
The Validity Check function will tell you if youe name is unique or not. A unique name is manditory.

Output

Select the chart Output type which will display as a widget. There are four basic options:


Only one chart output type can be used for each Datasource.

Output Type	Description
Basic Count	A gauge that counts the total number of something (e.g. total number of incidents, total number of complaints). Once the output is turned into a widget, you can adjust the numbers on the gauge and where the red and green zones are.
Single Series Chart	A bar, line, column or area chart that breaks down the choices in a field. E.g. Incidents by day of week; open risks by residual risk rating; number of complaints by department; staff manual handling injuries by severity
Multiple Series Chart	Multiple series chart – A bar, line, column or area chart that compares data from TWO fields within the one chart (e.g. by Severity Rating and Incident Involved, Type of Feedback by month).
Pie Chart	Pie chart – Shows proportions within a single data series (e.g. pieces of the pie are broken up into Sites)

Source Of Data

This is where you select the register from which the data will be sourced, and choose whether the data will come from all records (Last Edit) or just posted (Posted Only) records if you are creating a Datasource based on the Incident or Feedback registers.
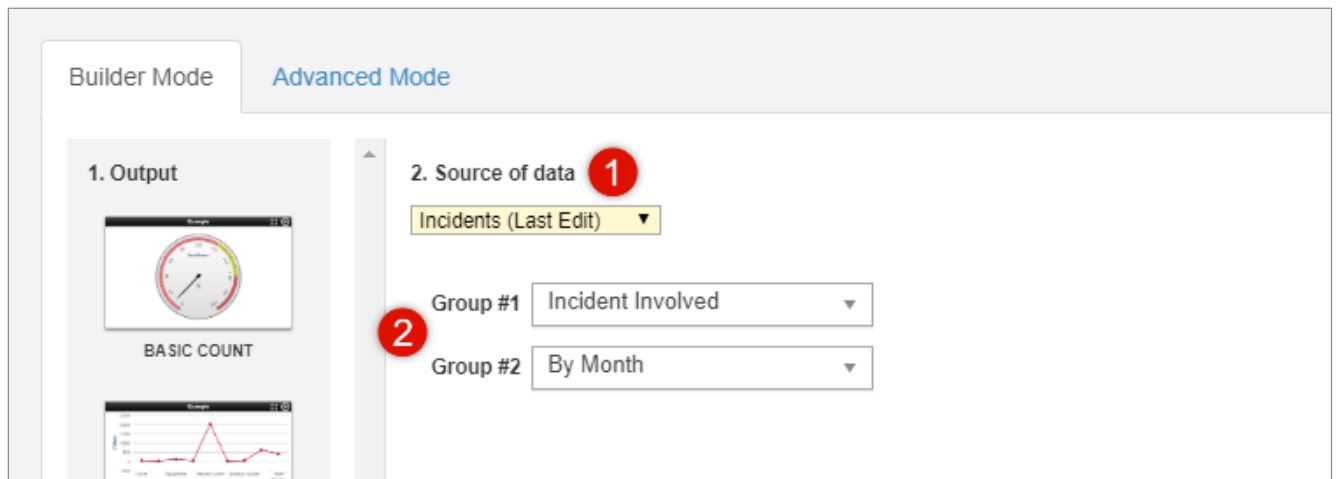
❶ Select the Source of data from the drop-down list. The options will include each register you have access to in RiskMan. For any register that uses the posting paradigm (e.g. incidents, feedback), there will be options to select data from **last edit** or from **posted items only**. If the source of data is **Last Edit** then *all items both posted and un-posted will appear in the widget.* If the source of data is **Posted Only** then the widget will only show items that have been posted. This function is the same as it is in standard reports

❷ After you have selected the source of data, options for *groups* will appear. Note that group options do not apply for gauges. For single series charts and pie charts, you will only see the option **Group #1**. For multiple series charts, you will see options **Group #1** and **Group #2**.

What you are selecting here is the field or fields the data will be grouped by when it is displayed as a widget. For example, if you have selected a single series chart, and your group is Severity Rating then the chart will compare data from SAC1, SAC2, SAC3 and SAC4 (or the terminology used in your system). If you have selected a multiple series chart and you select Type of Feedback for Group #1 and By Month for Group #2 then the chart will compare compliments, complaints and surveys by each month. If you have selected a pie chart and the group is Incident Involved then the pieces of the pie will be client, patient, staff member etc

Date Options

When building a Datasource you need to select how the date range will be determined once this Datasource appears as a widget.

There are three date options to select from when building a Datasource:

❶ **InfoCentre:** The majority of Datasources will likely follow the InfoCentre date range. If the InfoCentre date range is selected, then the relevant widget will always display data reflecting the date range in the top right-hand corner of the screen.

❷ **Specific date:** If you enter a specific date range then that widget will always display data from that date range, regardless of what is in the InfoCentre date range. This could be relevant for Datasources that are for a specific month, quarter, year, etc.

❸ **No Date:** If **No Date** is selected, then this Datasource will have no date restrictions applied regardless of what is in the InfoCentre date range.
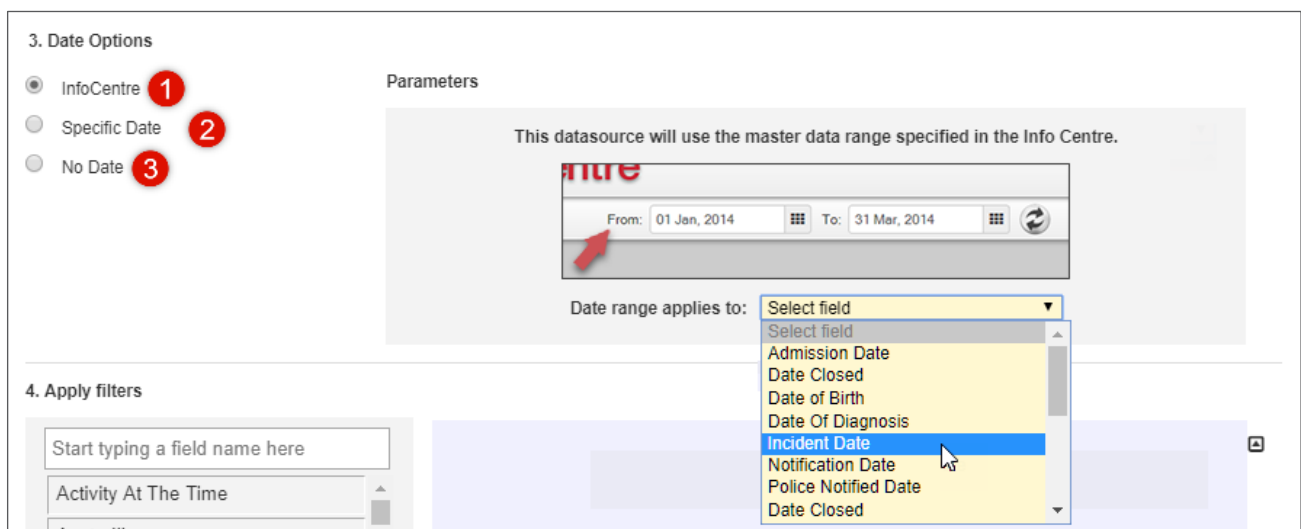
If **InfoCentre** or **Specific Date** is selected, you will need to enter your desired date range, and also select the date field in the **Date Range Applies** dropdown list.

Apply Filters

Filtering allows you to filter your data based on pre-defined fields. For example, you can specify that the Datasource will only display patient incidents, or complaints in the feedback register. Applying filters to a Datasource is **not mandatory**. If you want a gauge that shows the total of ALL records from a register in the organisation within a specified date range, for example, you would not add a filter.

Creating Conditions: The Basics

For the purpose of explaining the basics of conditions, let's assume that the Datasource we are creating is to count the total number of worker injuries.

You should always carefully consider the information being captured in the (incident) form that would count as a record you want to report on. We recommend opening a blank incident entry form to as a reference to assist identifying which fields will need to be in your filters. In the case of our example, we've decided we'll need to create conditions for two fields:

We want to test that:

❶ the subject affected was a **Worker**, and

❷ that the level of harm sustained was **Injury/illness**

We need to create a condition for each of those fields.

Adding Conditions

Conditions work like this:

❶ The field on the form that you are testing   ❷ The test being performed   ❸ The expected value
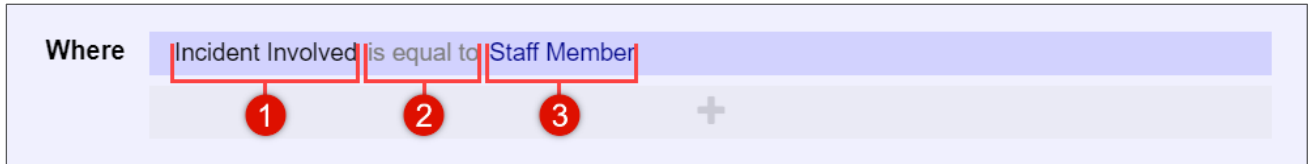
Once you have identified the name of the field you need to test, ❶ start typing the name of desired the field in the filter box. The list of fields will show the fields that match what you type.

❷ Identify the field name you want, click and drag the field name to the ❸ **Drop Zone**:
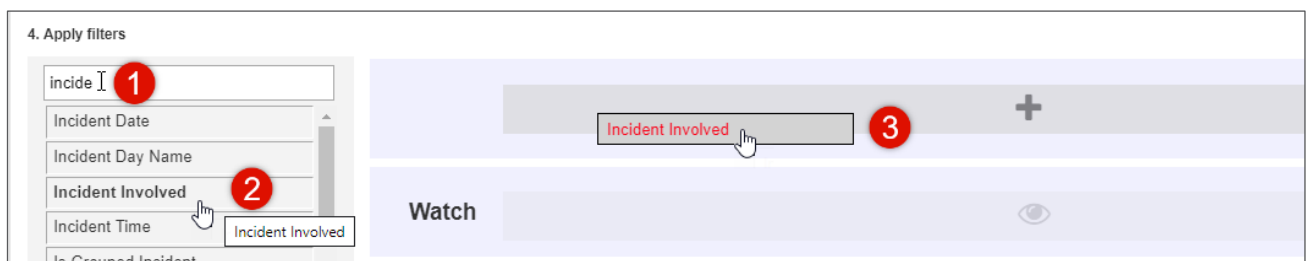
Once you have the placed the field in the Drop Zone, you need to select the type of test you need to perform:

❶ Click **[select a test]**: The Comparison Operator options will display in the pop-up list. Choose the test you want to use (**is equal to** is used in this example):

Then you need to select the value that you want for your test. ❷ Click **[select an option]**:

The values from the field you have selected will appear. Choose the value you are testing for (**Staff Member** is used in this example):
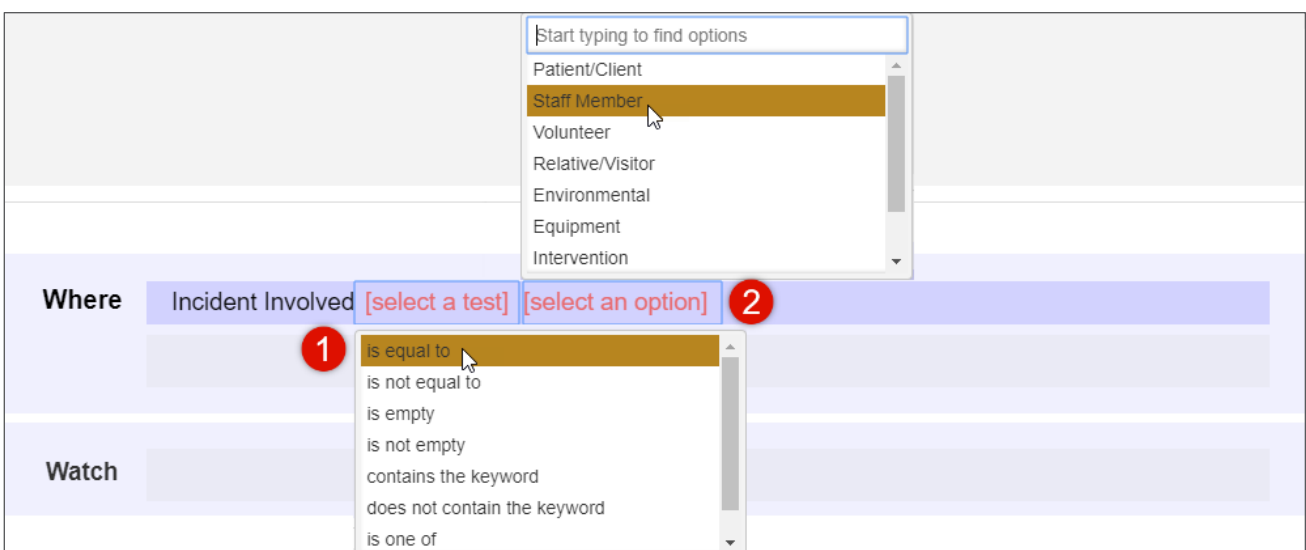
When trying to add a filter condition with a large list, you can:

❶ start typing the value you want, and the system will display all the matching list values to select from

❷ At any point, you can opt to click the **Click here to load all items** option to display a full list of all items

If you opt to retrieve all the values in a larger list, there might be a few seconds' delay. However, a "loading" icon will be displayed during that time, so that you know the request is being processed.
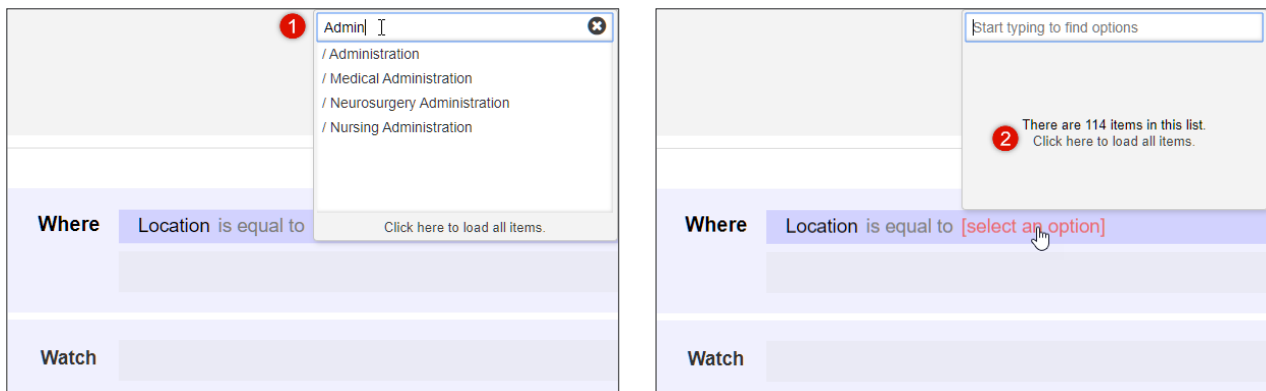
We now have to add our second condition. Follow the **Adding conditions** process to find the field you need to test:
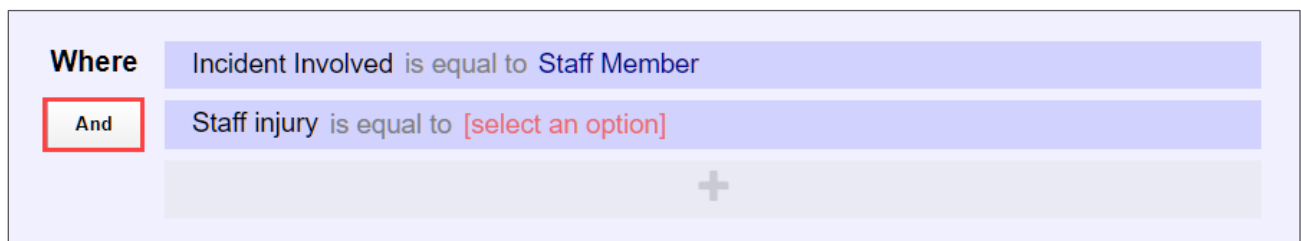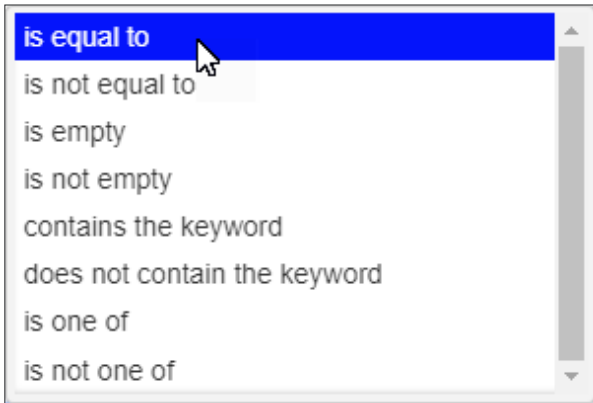

Note that for each subsequent field you add as a condition, there is a button at the start of each condition Drop Zone which contains the operator **And** (highlighted above). This allows you to stipulate whether <u>both</u> conditions need to be met in order for a record to be included, or if <u>either</u> of those conditions can allow a record to be included (click the button to change between **And/Or**).

So, for our example, a record will only be counted by this Datasource if the subject affected was a **Staff Member**, **And** the Staff Member sustained an **Injury**.
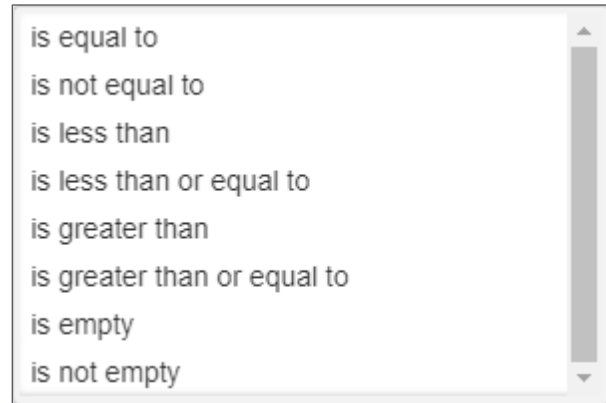
What Types of Tests Can Be Conducted?

Depending on the field that you select to add to your condition you will have different options to chose from.

List Field or Text Field

is equal to
is not equal to
is empty
is not empty
contains the keyword
does not contain the keyword
is one of
is not one of

Number Field

is equal to
is not equal to
is less than
is less than or equal to
is greater than
is greater than or equal to
is empty
is not empty

| Test name	Field Type	Description
Is equal to	Text	Tests for the specified value to be in this field
Is not equal to	Text	Tests for the stated value to be absent from this field, but any other value is accepted
Is empty	Text	Tests for a field that contains no data
Is not empty	Text	Tests for a field containing ANY data
Contains the keyword	Text	Tests the field for a keyword or particular string of text. **%** symbol can be used as a 'wildcard'
Does not contain the keyword	Text	The field you are testing does not contain a keyword or particular string of text. **%** symbol can be used as a 'wildcard'
Is one of	Text	More than one value being present in this field can be selected to specify this test
Is not one of	Text	More than one value being present in this field can be selected to be *excluded* from this test
Is less than	Number	Tests for a number less than the value specified. Can only be used on date, time, and numeric fields
Is less than or equal to	Number	Tests for a number equal to or less than the value specified. Can only be used on date, time, and numeric fields
Is greater than	Number	Tests for a number greater than the value specified. Can only be used on date, time, and numeric fields
Is greater than or equal to	Number	Tests for a number equal to or greater than the value specified. Can only be used on date, time, and numeric fields

Test Examples

| Is equal to	Incident Day Name is equal to Monday
Is not equal to	Specific location is not equal to Car park
Is empty	Closed on is empty
Is not empty	Date of birth is not empty
Contains the keyword	Action taken at time contains the keyword police
Does not contain the keyword	Occupation does not contain the keyword nurse
Is one of	Specific location is one of 4 selected
Is not one of	Incident Day Name is not one of 2 selected

Multi-Test Conditions

There will be times where you want to create conditions with more than one test. There are two main scenarios:

- Your condition tests one field for more than one possible value
- Your condition comprises of two or more different fields being tested

Testing **one field for more than one possible value** is straightforward. Select the field you wish to test, add it to the drop zone, and change the test type to **is one of**:
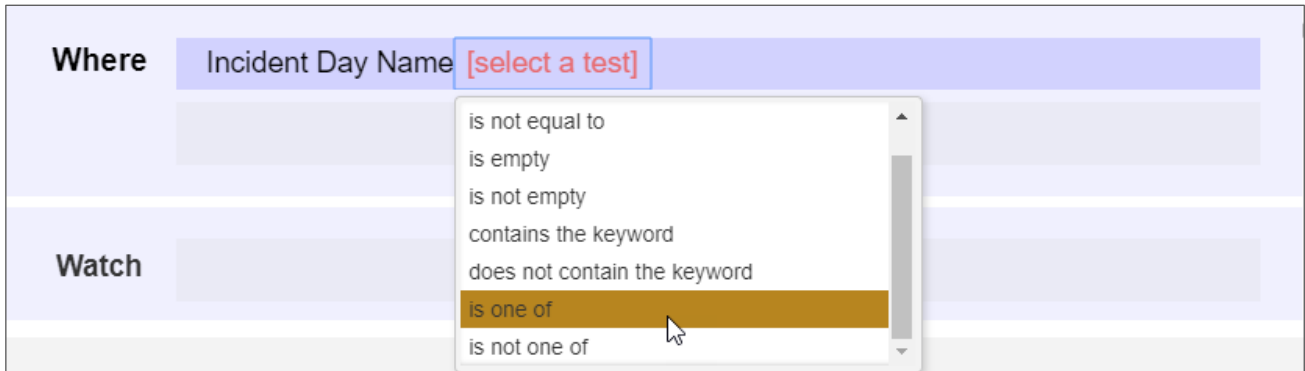
You can then go and select multiple values from the list:
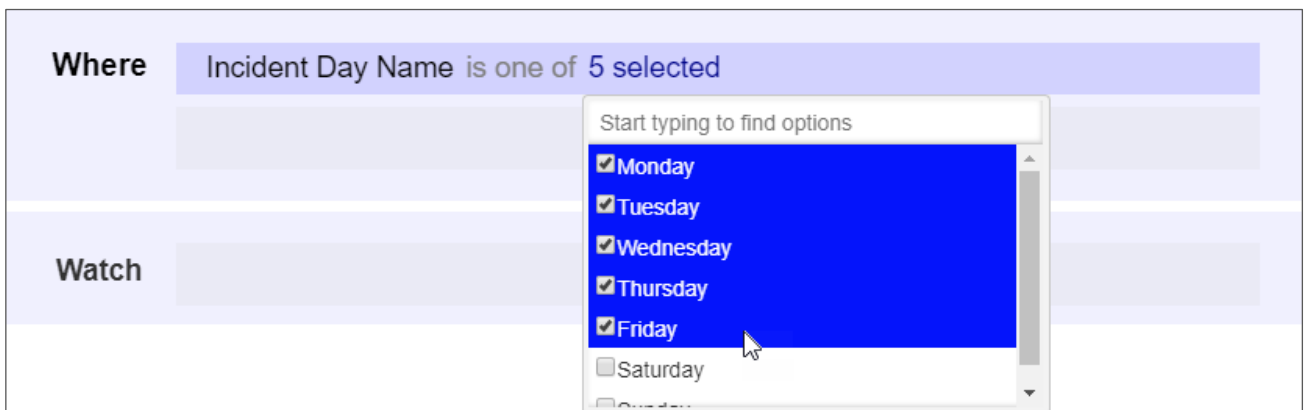
If you wanted to achieve the opposite, you could use the **is not one of** test (usually because it's more efficient):
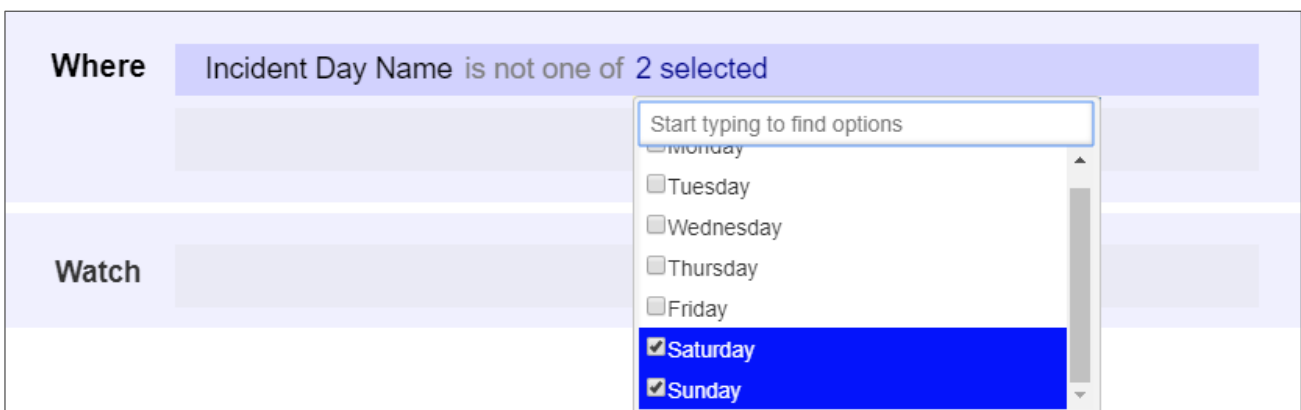
When your condition requires the **testing of two or more fields**, there are two distinct scenarios. The first is when that condition is the only one you require for your datasource.

Use the **And/Or** button to determine whether all tests must be passed, or whether just one could satisfy the condition:

Where	
And	Incident Involved is equal to Patient/Client
	Type Of Injury is equal to Mental disorders (95)
	+

In the above example, we've chosen **And** to ensure that a record will not be counted unless both of the tests we have added are passed.

In a lengthier example, we have said that a record should only be counted if all of these tests are passed:

Where	
	Incident Involved is equal to Patient/Client
And	Type Of Injury is equal to Mental disorders (95)
And	Facility is equal to Acacia Private
And	Location is equal to / Emergency Department
And	Mechanism Of Injury is equal to Exposure to mental stress factors (18)
And	Patient Status is equal to Private
	+

But what if we wanted a record to be counted based on two *unrelated* conditions, and each of these conditions tested multiple fields?

Let's use the following example: We want a record to be counted if **either** they were:
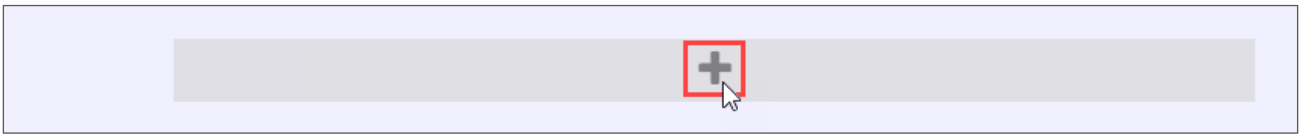
- **Worker incidents** that happened on **Saturdays** and **Sundays**
  OR
- **Relative/Visitor incidents** that happened in the **Emergency Department**

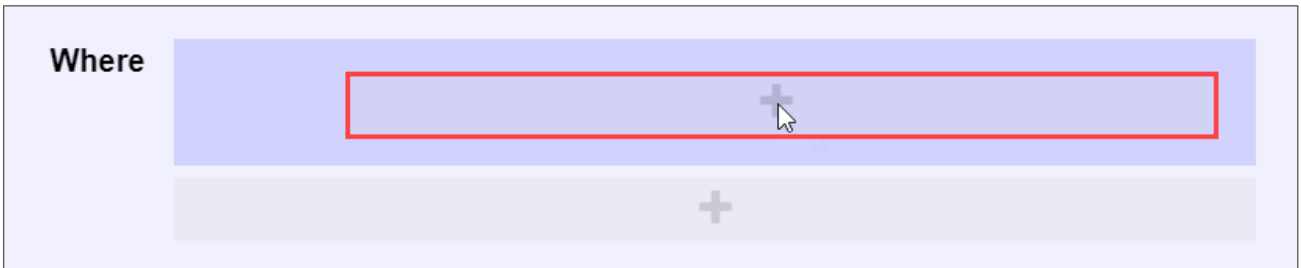We have two distinct sets of conditions there; each condition has its own sub-tests.

In this situation, you need to create **two separate conditions** in the drop zone.
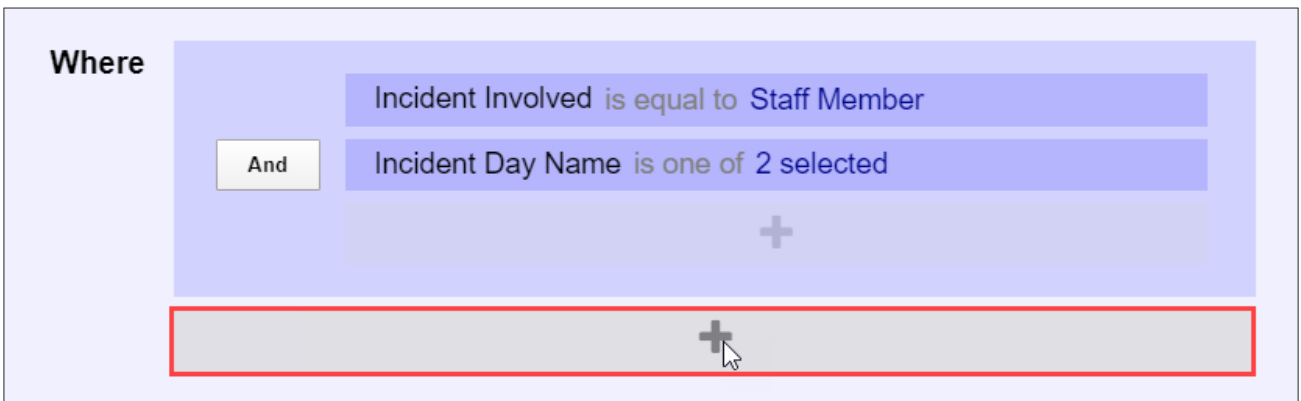
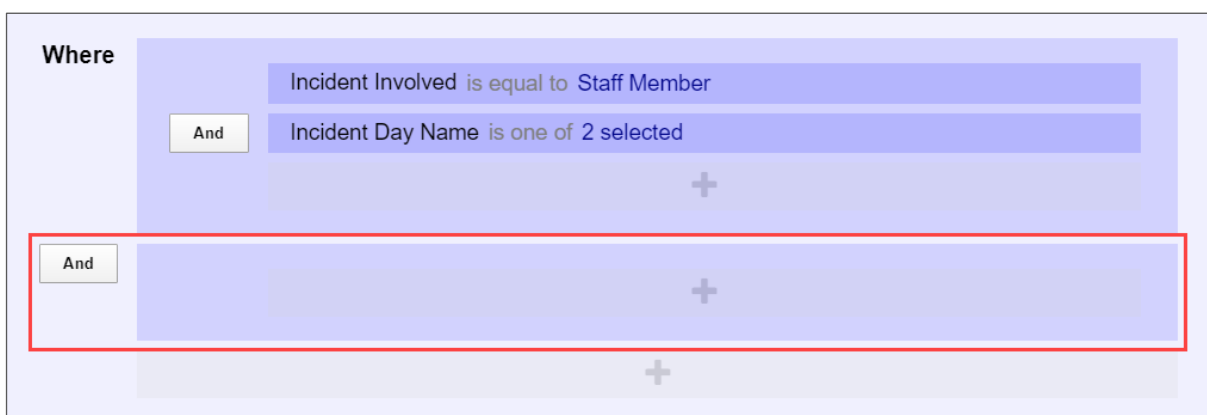Click the [+] button in the drop zone to do this:

Note the new darker-blue box, with its own additional drop zone.

This drop zone is where you can go and add the tests which make up the first condition listed above in our example:

You can now click the outer-most drop zone to add a second distinct condition. Note the new **And/Or** button:

Once we add in the tests required for our second, unrelated condition, it looks like this:

The red boxes in the image above denote that there are two completely separate conditions for this Datasource; each condition has two tests which must be met before a record would be counted.

There is the ability to make even more complex conditions (which contain conditions within conditions), you can find examples of these complex conditions in the Alert Examples Supplement.

Deleting Tests

Deleting tests is simple. When you hover your mouse over any test, you will note the ✕ icon at the end of the row:
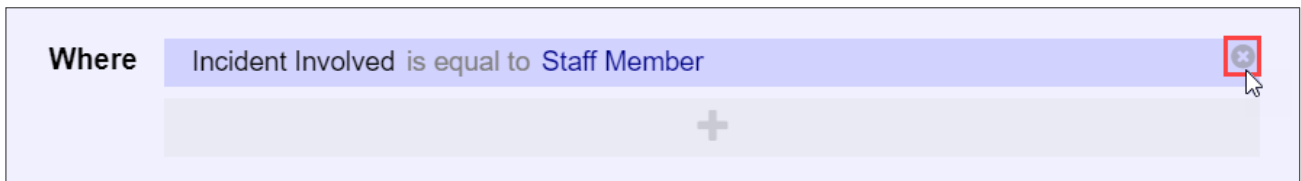
Click the ✕ icon to delete the test. You will not be prompted to confirm this action.

Note: It is not possible to build conditions based on mixed field types, for example; conditions that including sub form field data (RiskCat classifications, contributing factors, etc.). Datasources with mixed field types can be provided on request. For more information contact Riskman Support.

Broadcast And Watch

The Broadcast and Watch functions allow Datasources to send and receive data between Widgets.

This acts as a filter. For example: If a Widget Broadcasting **Facility** data has the **Cabell Huntington** heading selected, then the Datasource will send out a filter condition based on the **Cabell Huntington** selection. This will allow any Widget that is Watching for **Facility** data to filter its display data to only show data filtered by **Cabell Huntington**.

Broadcast

User variables may be broadcast between the widgets in the same group. These variables are broadcast when the user clicks on a Widgets data headings.

Watch

Watch variables for the group may be watched by the group's widgets. A watch is triggered when a broadcast value is detected. Watched values can be used to apply filter values to the watching Widget.

For more information about the Broadcast and Watch functions please see the **Broadcast / Watch Functions User Guide**.

Saving A Datasource

Once you have configured your Datasource, it is time to save it! If you have forgotten any mandatory fields, the system will prompt you to fill them in. To save your Datasource, click on the **Build it!** button:

After you have saved the Datasource, some additional fields will appear:

- **Build it! –** This is the equivalent of the 'save' button. Whenever an additional edit is made to an existing Datasource, you should click on **Build it!** to save these changes.

- **Reset –** This allows you to reset the information in the Datasource and start again

- **New Datasource –** Click here to build a New Datasource

- **Delete Datasource –** Click here to delete the current Datasource

- **Clone Datasource –** Click here to clone the current Datasource. This will clone all details from the original Datasource and carry them over to a second Datasource. All details in the second Datasource will be the same with the exception of the name which will be empty. The second Datasource will need to be given a new name before you can save it.

- **Exit –** Click here to exit the Datasource builder and return to the Datasource selection dialog.

- **Permissions** – Click the green Permissions button to modify which users are able to see this Datasource. If you don't share this Datasource with anyone, only you will have access to it. Keep in mind that when another person uses a Datasource you have created, it will only return the data on which they have permission to report.
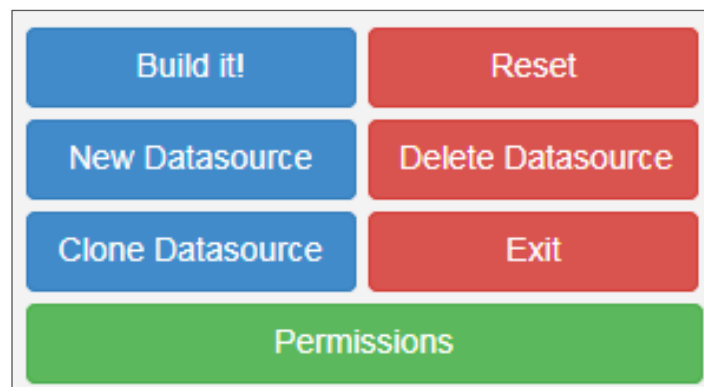
Sharing A Datasource

❶ **Share with all users:** Shares this Datasource with all users who have permission to use the InfoCentre/Homepage

❷ **Share with specific users:** Start typing a username in the text box. The system narrows your search as you type. When you find the desired user, click **Grant Permission**. Their name will appear on the right under **Users with permission to view**

❸ **Share with an entire Template of users:** First, select the Register which contains the Templates of users with whom you want to share the Datasource. Select that **Template** from the **Select a Template of users** drop down. Then click the **Grant Permission** button. The Template names appear on the right under **Templates with permission to view**

❹ Click **Save** to save any changes you have made. Click **Close** to exit without saving

Advanced Mode

Users with the appropriate permissions will see the **Advanced Mode** tab:

You would usually use the Advanced Mode tab to create complex filters, or create a Datasource which otherwise cannot be created using Builder Mode. Advanced Mode allows you to view, edit or write SQL statements for Datasource actions in the Action/Query section. In addition, the Settings section gives you the ability to connect Datasources in a 'chain' and manage the presentation of the information. Please contact support if you need assistance.

The Advanced Mode screen will look like this:

Selecting A Saved Datasource To Create A Widget
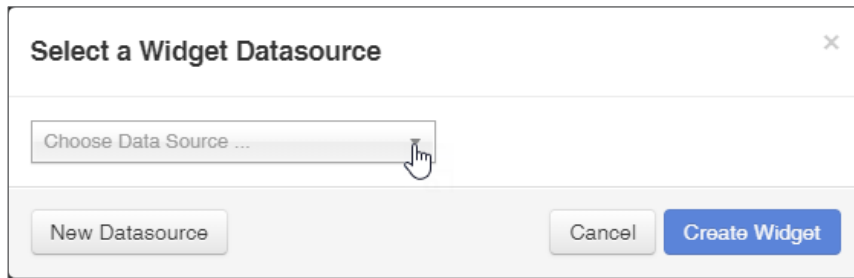
Once you have saved a Datasource, it will appear in your list of Datasources that you can add to the InfoCentre or Homepage.

Click the **Create Widget** button to add the Widget to your InfoCentre Group.
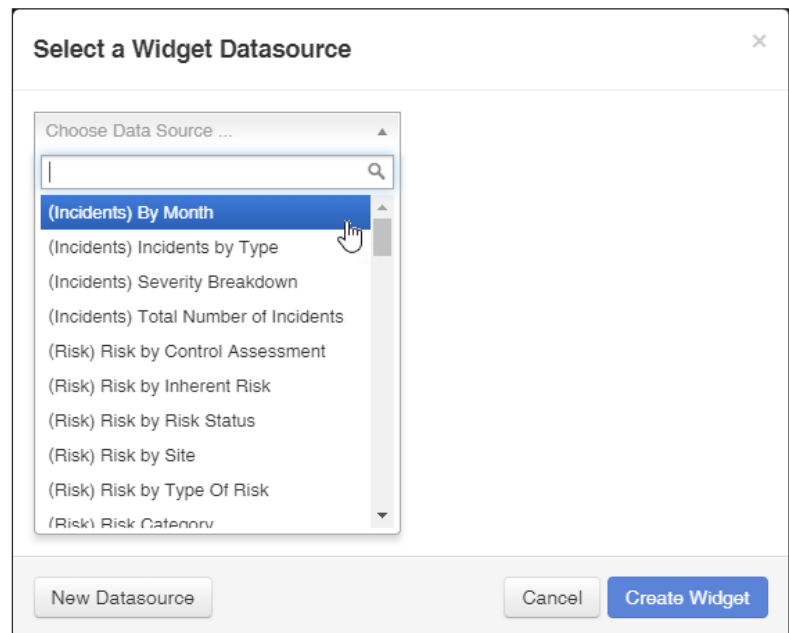
How To I Edit An Existing Datasource?

Select the relevant Datasource. Click on the ✎ icon to open the Datasource Builder to edit it as described in the **Building A Datasource** section of this guide.
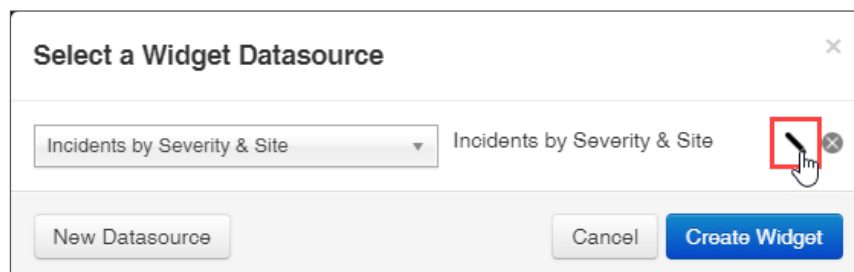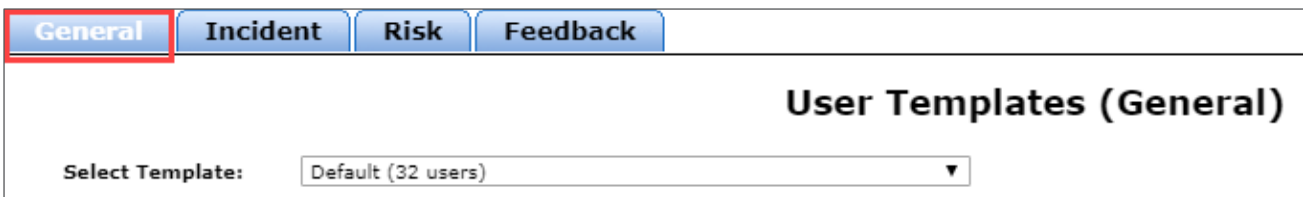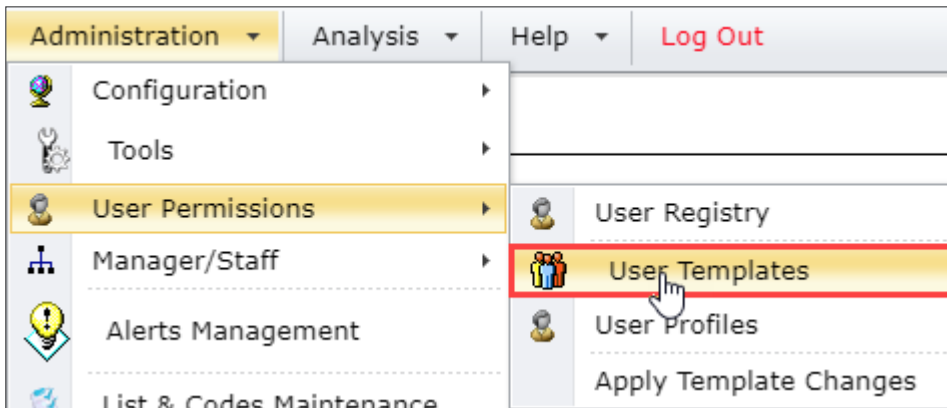
ADMINISTRATION OF THE DATASOURCE BUILDER

To allow a user access to the InfoCentre and to edit Datasources the System Administrator must give the user permission in the User Templates (preferred option) or under the Users Profile.
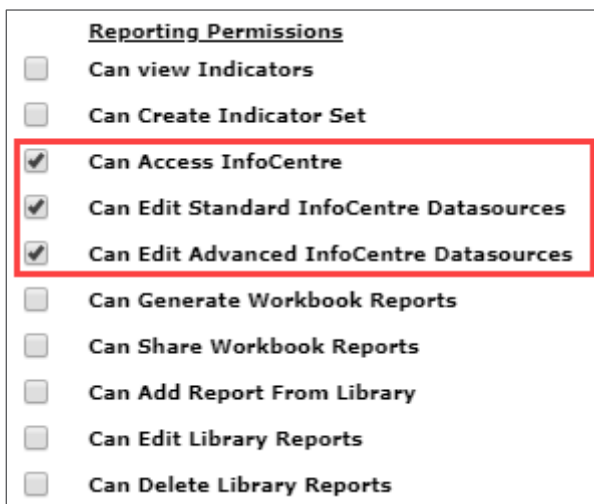
InforCentre permissions are found under the General Register Template.

General Tab > Reporting Permissions

The following permissions need to be enabled.

- Can Access InfoCentre
- Can Edit Standard InfoCentre Datasources
- Can Edit Advanced InfoCentre Datasources

ADDITIONAL INFORMATION & TIPS

At present, it is possible to share Datasources with other users; meaning that users can choose a Datasource to display as a widget either on their Homepage or in the InfoCentre. However, there is currently no ability to force users to display particular widgets. We plan on having this kind of functionality in a future version of the system.

RELATED TOPICS

Broadcast / Watch Functions User Guide

Homepage Widgets & Datasources

Alert Example Supplement User Guide

Homepage Administration Guide

InfoCentre End User Guide