

- Datasource Guide Supplement -

BROADCAST AND WATCH FUNCTIONS

FOR RISKMAN VERSION 2206

Last reviewed June 2022

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PREFACE

This Supplementary User Guide is intended to provide additional information related to the InfoCentre Datasource Builder.

This document aims to provide examples of the various types of Broadcast and Watch Datasources that can be configured in RiskMan in order to provide filtered data in your Widget Groups.

When reviewing the examples of Datasources in this document, please keep the following points in mind:

- It is intended that this document is used in conjunction with the InfoCentre End User Guide & Datasource Builder Guide. This document provides examples of alert setup and configuration, whereas the Alerts Management Guide explains the actual functionality in-depth.
- The Datasource examples provided in this document were created in various system configurations. Every RiskMan client configures RiskMan differently, so while some of the fields, registers, or functionality shown in the examples may not match your own system, what is more important is understanding the concepts behind the functionality. You can then transplant the examples into your own system, being sure to make adjustments to fit your own datasets, system functionality, etc.
- Most of the examples in this document are centred on the Incident Register. This is because the Incident Register is far and away the most commonly used register by RiskMan clients. Again, the concepts that are used can be applied to basically any other register in RiskMan.
- For each example Datasource provided, we quite deliberately do not exhaustively show every single setting or piece of configuration. Doing so would likely make it more difficult to read, and many settings are consistent or are up to you to decide.
- RiskMan International wants to ensure when you are setting up InfoCentre Datasources that you "measure twice and cut once". With that in mind, please do not hesitate to contact RiskMan Support if you have any questions about setting up an alert, or if you would like us to double-check the setup of an alert you have created before you switch it on.

Advised prerequisite knowledge:

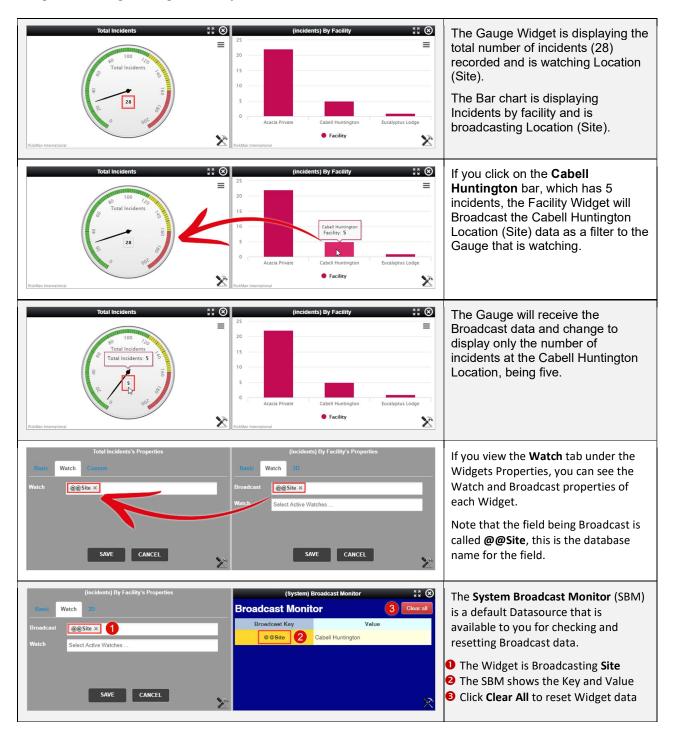
InfoCentre End User Guide

Datasource Builder Guide

INTRODUCTION

The InfoCentre Broadcast / Watch functions allows InfoCentre Widgets to send and receive data to each other.

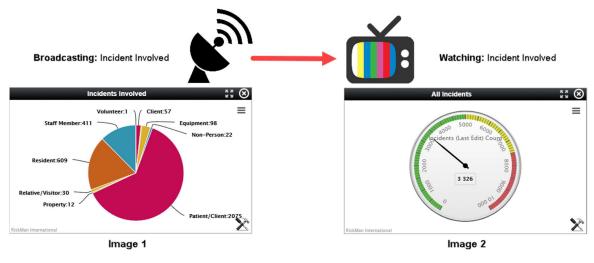
The effect of this is that a user can click on an element in one Widget and the data in a different Widget will change, being filtered by the user's selection.



BROADCAST / WATCH FUNCTIONS

Basics

The Widget pictured (Image 1) is set to broadcast **Incident Involved** data to *any* other Widget that is watching for that information. The Widget pictured (Image 2) is set to watch for **Incident Involved** data being broadcast by *any* other Widget.



Broadcast Function

A Widget set to **Broadcast** is sending out data to *all* other Widgets in the same InfoCentre group. However, only the Widgets set to **Watch** the data that is being **Broadcast** will receive that data and display the results.

A Widget set to **Broadcast** will send its broadcast data when a user clicks on an element in the chart or graph that relates to the data. Above the pie chart will broadcast when one of the active Group headings or segments are selected.

Example (using the images above)

The Widget (Image 1) is displaying the total number of incidents by **Incident Involved**. This Widget is broadcasting the **Incident Involved** data. When any of the Incident Involved headings are clicked by a user the Widget will broadcast the data matching that selection.

Action:

The user clicks on the heading or pie segment **Patient/Client**. The pie chart will animate to show that segment moving away from the pie. The displayed data will not change. The **Patient/Client** data will be broadcast.

Watch Function

When a Widget is set to **Watch** for data, it will watch for data coming from *any* Widget that is **Broadcasting** the data that it is watching for. A Widget that is watching will only receive data from a Widget that is Broadcasting the *same* data that is being watched.

Once a Widget that is watching for data has received data, it will change its display to show the original data filtered by the data that was received.

The Widget (Image 2) is displaying the total number of incidents (3326). This Widget is watching for **Incident Involved** data. When the Widget receives **Incident Involved** data from a broadcasting Widget it filters the total number of incidents by the **Incident Involved** data that was selected in the Broadcasting Widget.

Effect:

The data displayed by the gauge is filtered to match the data that was broadcast by the user's selection of **Patient/Client** in the pie chart. The gauge display will change from 3326 to **2075**

Uses of Broadcast / Watch

The Broadcast / Watch functions can be used to filter, clarify, focus, and visualise the data in your Riskman Registers.

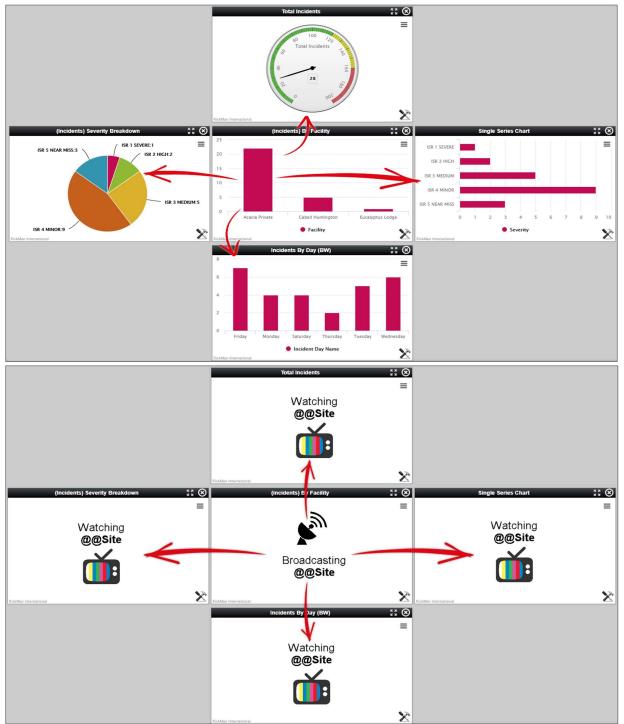
A simple example of how Broadcast / Watch can focus in on data is pictured below. The **Total Incidents Widget** is **1** watching @@Site (Facility) and you can see this in the Widgets Properties under the Watch tab. The (**Incidents**) **By Facility** Widget is set to **2** Broadcast @@Site (Facility).

When the ⁽³⁾ Graph bar titled **Acacia Private** is clicked the **(Incidents) By Facility** Widget broadcasts the **Acacia Private** selection and the **Total Incidents** Widget picks up the **Acacia Private** selection and ⁽⁴⁾ changes its display to show only the count of incidents at the Acacia Private facility.

Total Incidents's Properties	Total Incidents	:: 🛞
Basic Watch Custom	1 100	≡
Watch 1 @@Site ×	60 Total Incidents 60 Total Incidents 60 Total Oct 71 28 0 72 0 72 0 72 0 72 0 73 0 74 0 75 0 75 0 76	
	RiskMan International	X
(incidents) By Facility's Properties	(incidents) By Facility	:: (2)
Basic Watch 3D	25	≡
Broadcast @@Site × 2	20	
Watch @@Outcome ×	10	
	s 3	
	0 Acacia Private Cabell Huntington Eucalyptus Lode	ge
SAVE CANCEL	Facility RiskMan International	X

In the below example the Widget located in the centre of the group is Broadcasting **@@Site** (Facility) and the surrounding Widgets are Watching **@@Site** (Facility).

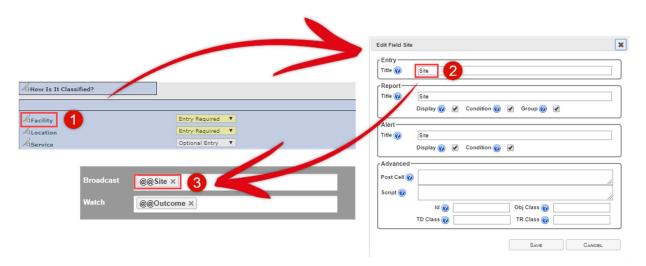
When the **Acacia Private** bar is selected in the centre Widget the surrounding Widgets change to display only data based on the **Acacia Private** filter that has been applied.



The example above shows one central Widget changing the data displayed in the four surrounding Widgets. The Watching Widgets will display only data for the Location that was selected in the Broadcasting Widget.

Form Headings vs Database Field Names

You may have noticed that some of the fields in the Incident Form might have different names from the ones displayed in the Broadcast/Watch fields. When assigning data fields to Broadcast or Watch it is helpful to be familiar with the database field naming conventions in your system.



As shown above you can see that the field in the Template form with the heading **1** Facility has the database ID name **2** Site. This is the name that the InfoCentre Datasource Builder will see and use for the Broadcast/Watch conditions **3** @@Site.

WATCH

The Watch function allows you to set a condition where the Widget will receive any matching Broadcast condition and change its displayed data based on the received Broadcast data. You can assign multiple Watch conditions to a Widgets properties.

Autorefresh

Autorefresh is a default Watch condition that is automatically loaded with most Widgets. Autorefresh automatically refreshes the Widgets Datasource every **five** minutes.

This function can be useful for Widgets that you want to update regularly and display new record data as it is added into the system. You can select the **@autorefresh** condition by displaying a Widgets Properties, **1** clicking on the Watch tab, then **2** click on the **Watch** field, select **3**

@autorefresh from the dropdown list, and ④ save the changes. Once you have selected

@autorefresh it will appear in the Watch field

Risk by Type Of Risk's Properties Basic Watch 3D	Risk by Type Of Risk's Properties
Watch 2 @autorefresh 3	Watch @autorefresh ×
SAVE CANCEL	4 SAVE CANCEL

The Widget will display a wait spinner every time it refreshes the data.



The Autorefresh Watch condition displays as @autorefresh.

BROADCAST

The Broadcast function allows you to set a condition where a Widget is sending out data to any other Widget that has a matching Watch condition. A Watching Widget will change its displayed data based on the received Broadcast data. A Widgets Broadcast properties are based on the Group or Groups that you have selected for **Step 2** in the Datasource builder.

Below, the Groups that were chosen for the chart have been automatically added as the Widgets Broadcast conditions.

2. Source of data Incidents (Last Edit	t) v
	ation 🔹 erity 🔹
Basic W	Location Severity's Properties atch Custom 3D
Broadcast	@@Incident_Location × @@Outcome ×
Watch	Select Active Watches
	SAVE CANCEL

BUILDING BROADCAST / WATCH WIDGET SETS

To create a pair of Widgets that use the **Broadcast** and **Watch** conditions do the following:

First, we need to build a Widget to Watch for a specific Value. Then we need to create a Widget that is Broadcasting the Value that the first Widget is Watching for.

Build a Watch Widget

- **1** Select the Output (chart type) that you want to use as your Watch Widget
- 2 Choose the source of data, Incidents (Last Edit) for example
- Set the Date Options
- **4** Type **Facility** in the Apply Filters search field and drag the Location field onto the Watch box

Click the Build It! button and add the Widget to a Widget Group

Builder Mode	Advanced Mode	
1. Output 1 BASIC COUN	2. Source of data 2 Incidents (Last Edit)	
SINGLE SERIES C	 InfoCentre Specific Date No Date 	
CHART	4. Apply filters 4 Iocation Employee Location Location	
PIE CHART	Pressure Ulcer Location Watch Cocation Location	

Now you can see the Widget in your Group, check the Watch Properties of your Widget by clicking on the **X** Tool icon and note the name of the **Watch** Condition.

Watch = @@Site (This is the database ID name of the Facility field)

	BW 1's Properties	
Basic	Watch Custom	
Watch	@@Site ×	
	SAVE CANCEL	×



Build a Broadcast Widget

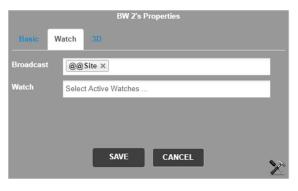
- 1 Select the Output (chart type) that you want to use as your Broadcast Widget
- 2 Choose the source of data, Incidents (Last Edit) for this example
- B Select Facility for the Group
- 4 Set the Date Options

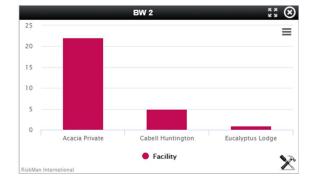
Click the Build It! Button and add the Widget to a Widget Group

Builder Mode Advance	d Mode	
1. Output	2. Source of data Incidents (Last Edit) • 2 Group #1 Facility • 3 This is the Broadcast condition 3. Date Options • InfoCentre Parameters	2500 2500
	Specific Date No Date	This datasource will have no date restrictions applied.
MULTIPLE SERIES CHART	4. Apply filters	
	Start typing a field name here Activity At The Time Acute lifness	-
PIE CHART	Additional Reference Watch	۲
	Admission Date	

Now you can see the Widget in your Group check the Broadcast Properties of your Widget by clicking on the \bigotimes Tool icon and note the name of the Broadcast Condition.







The (System) Broadcast Monitor

The Broadcast Monitor is a Widget that monitors all broadcast data inside a specific Widget Group.

Select a Widget Datasource	×
(System) Broadcast Monitor	This is a system datasource that may be used as a widget whilst developing widgets that use broadcast and watch.
New Datasource	Cancel Create Widget

The Broadcast Monitor can be loaded into a Group from the Select a Widget Datasource menu. You can use the Monitor to test and clear Widgets with Watch conditions.

The Broadcast Monitor is a standard Widget and is included in the Datasource selector by default.

(System) Broadcast Monitor	53 ×
Broadcast Monitor	3 Clear all
Broadcast Key	Value
1	2

There are two columns of data displayed.

- **1** The **Broadcast Key** displays the Field Group that the Widget is broadcasting
- 2 The Value displays the Group data that is being broadcast
- The Clear all button will clear the Broadcast Monitor data and reset all the Widgets that are broadcasting or that have received watched data

The example below shows that there is a Widget with the Group **Facility** (@@Site) that is broadcasting the Value **Acacia Private**

Broadcast Monit	Clear all		
Broadcast Key	Value		
@@Site	Acacia Private		

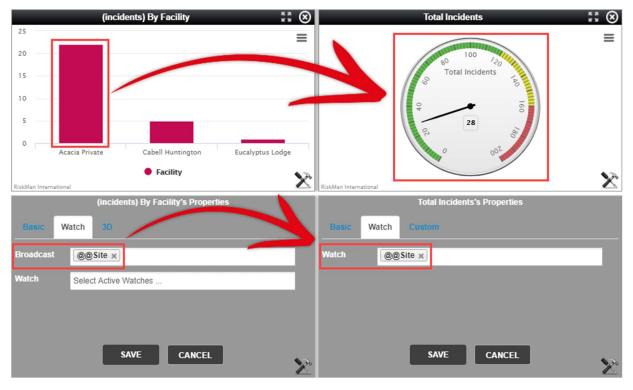
When you select a filter Value by clicking on an active element in a Widget, the filter will remain active until it has been replaced by another value that you click on or the **Clear all** button has been clicked to clear all Broadcasts.

			The Broadcast Monitor is displaying a Value of Patient/Client .	
			This informs you that all Widgets Watching @@IncidentInvolved will	
Broadcast Key	Value		display only the values for Patient/Client .	
@ @ IncidentInvolved	Patient/Client	*	For example, a Widget displaying Severity and Watching for @@IncidentInvolved would only display the Severity of Patient/Client records. This filter will be active until it has either been changed by selecting another IncidentInvolved Value or the Clear all button is clicked.	
(System) Broadcast Monitor			The Broadcast Monitor is displaying multiple Values of: Site , Outcome , Patient_Status , IncidentInvolved .	
Broadcast Monit	or	Clear all	This informs you that all Widgets	
Broadcast Key	Value		Watching any of these Broadcast Keys will display the values for the Key that it	
@ @ Site	Acacia Private		is Watching.	
@ @Outcome	ISR 3 MEDIUM			
@@Patient_Status	Private			
@ @IncidentInvolved	Client			
		×		

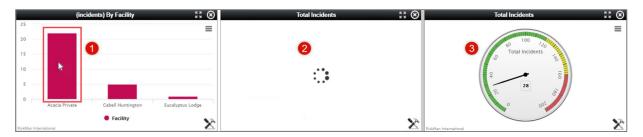
Test the Broadcast/Watch Widgets

You will now have two Widgets on your Group stage. One Single Series Chart and one Gauge.

Have a look at the properties of these two Widgets as they sit side by side in the Group. Notice how the chart has a **Broadcast** condition and the Gauge has a **Watch** condition. When you click on a Bar in the Single Series Chart, the Widget will Broadcast the Acacia Private data. The Gauge will pick up the Acacia Private Broadcast and change its display to reflect only Acacia Private filtered data.



- 1 Click a Bar in the chart that you created
- 2 The Gauge will pick up the Broadcast data and update its display
- **6** The Gauge will display a new total based on the Acacia Private data in the system



This is an example of a simple Broadcast and Watch Widget group.

Advanced Broadcast/Watch Widgets

You can have two Widgets Broadcast and Watch each other. In the example below you have a **Pie Chart** with **Severity** as the group and a single series **Bar Chart** with **Facility** as the group.

You can refer to the Build A Watch Widget section on Page 9 for the Datasource Builder interface.

- Create the Output Pie Chart and the Bar Chart below
- 2 Give each Widget Datasource the correct **Watch** conditions (Builder mode settings below)

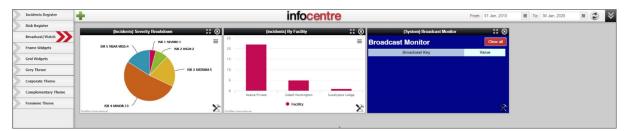
Pie	Chart		Bar Chart		
Step 1)	Output:	Pie Chart	Step 1)	Output:	Single Series Chart
Step 2)	Source of Data:	Incidents (Last Edit)	Step 2)	Source of Data:	Incidents (Last Edit)
	Group #1:	Severity (@@Outcome)		Group #1:	Facility (@@Site)
Step 3)	Date Options:	No Date	Step 3)	Date Options:	No Date
Step 4)	Apply Filters:	None	Step 4)	Apply Filters:	None
	Watch:	Facility (@@Site)		Watch:	Severity (@@Outcome)

- 3 Once you have built the Widgets, check their Broadcast/Watch properties
- 4 Test the Widgets to confirm that the Broadcast/Watch functions are working



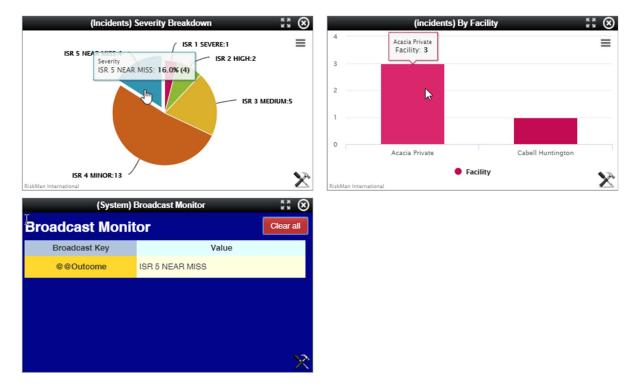
Testing the Advanced Broadcast/Watch Conditions

In your Widget Group you should now have the two widgets that you built and the Broadcast Monitor placed within your group, as in the image below.



Now let's test them.

Advanced Conditions Test 1



Click on one of the **Pie Chart** segments.

The Bar chart will refresh and display the total number of IRS 5 Severity incidents at all Facilities. In this example there are four. Three at Acacia Private and one at Cabell Huntington.

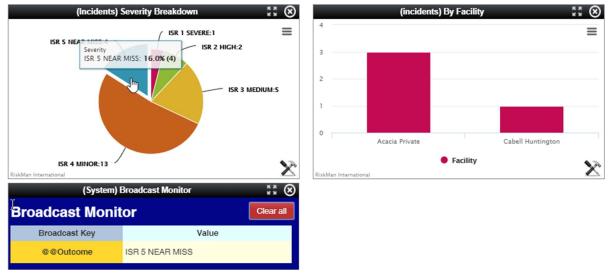
You can see that the Broadcast Monitor is displaying the details of all broadcasts in the Group. In this example **ISR 5 NEAR MISS** is being broadcast.

To reset the Widgets and clear the Broadcast data click on the Clear all button.

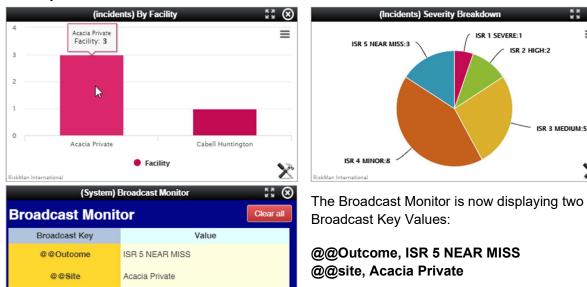
Advanced Conditions Test 2

Now let's test how you can filter the data in the Broadcast and Watch Widgets.

Step 1: If we click on the ISR 5 NEAR MISS Pie Chart segment the Bar chart changes to display the two Facilities that have ISR 5 NEAR MISS incidents.



Step 2: Now if we click on the Acacia Private bar in the Facility Chart the Pie Chart will change to display ALL incidents at Acacia Private by their ISR Severity. Notice that the ISR 5 NEAR MISS now says three.



Look at the Broadcast Monitor; The first Value (ISR 5 NEAR MISS) is being displayed by the Bar Chart. Only Acacia Private and Cabell Huntington have ISR 5 incidents to display.

The second Value (Acacia Private) is being displayed by the Pie Chart.

When we clicked on the Pie segment we set the first Value. Then when we clicked on the Bar we set the second Value.

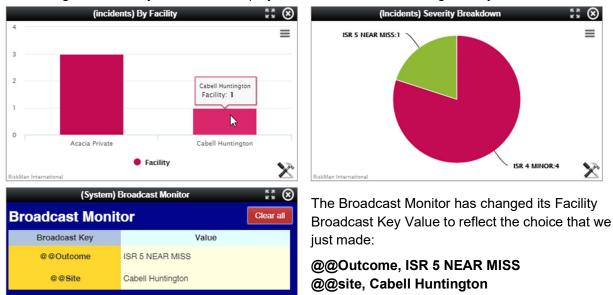
Both values are being broadcast. Any Widget watching either of those Values will change accordingly and display the filtered Value.

.. ×

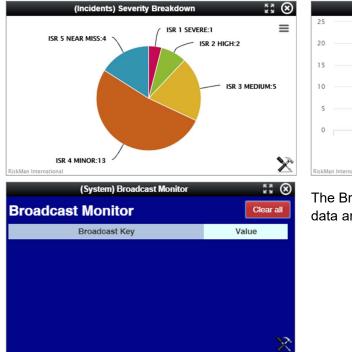
=

Now let's test how you can further filter the data in the Broadcast and Watch set of Widgets.

Step 3: If we click on a different Bar Chart segment, the Pie chart will change again to display the Severity data for the Facility that we have selected. By Clicking on the Cabell Huntington bar we can change the Severity Pie chart to display ISR data for Cabell Huntington only.



Step 4: Now if we click on the **Clear all** button the Broadcast Monitor will reset and the Widgets will return to their default displays.





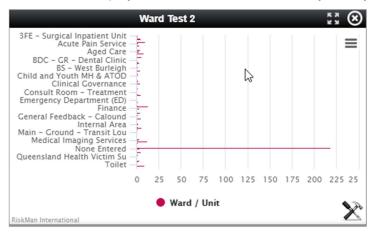
The Broadcast Monitor has cleared all broadcast data and the Widgets are reset to default display.

USING FILTERS TO FOCUS DATASOURCE RESULTS

Some Datasource fields may contain unneeded categories or too may results to be useful. This can cause the Widgets to display data that:

- A. You don't want to see
- B. That causes the data to be confused or difficult to view

Example: In the example below, the Group **Ward / Unit** resulted in so many values that the Widget is not able to display all the data. In cases like this you may want to filter the values.

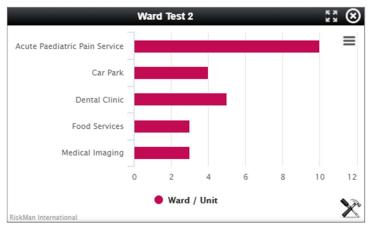


In the Datasource Builder you can filter your values in the Apply Filters section.

In this example the Ward / Unit value has been filtered to display only five of the large number of wards in the **Ward / Unit** list.

4. Apply filters			
Ward / Ward / Unit	Where	Ward / Unit is one of 5 selected	۵
Worker ward / unit		+	
	Watch		

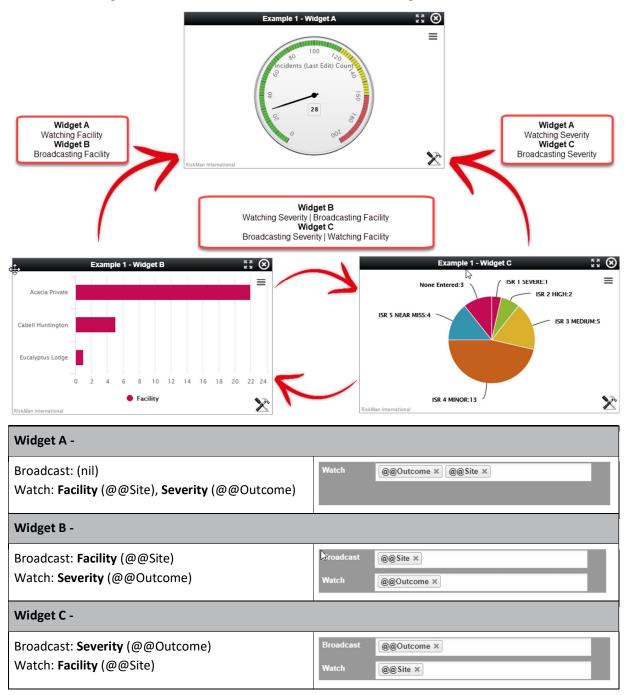
The result is a smaller, more concise list.



BROADCAST / WATCH EXAMPLES

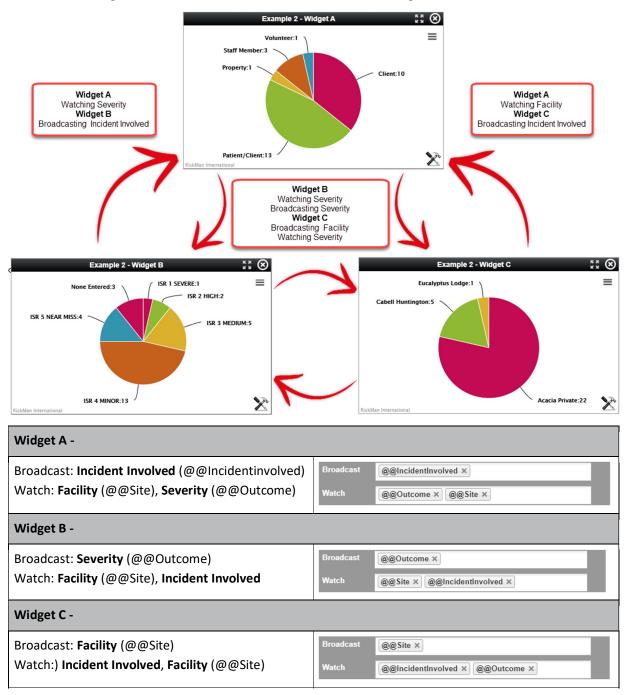
Example 1

Three Widgets. The Gauge is Watching the Values from the Bar Chart and the Pie Chart. The Bar Chart is Watching the Pie Chart Values. The Pie Chart is Watching the Bar Chart Values.



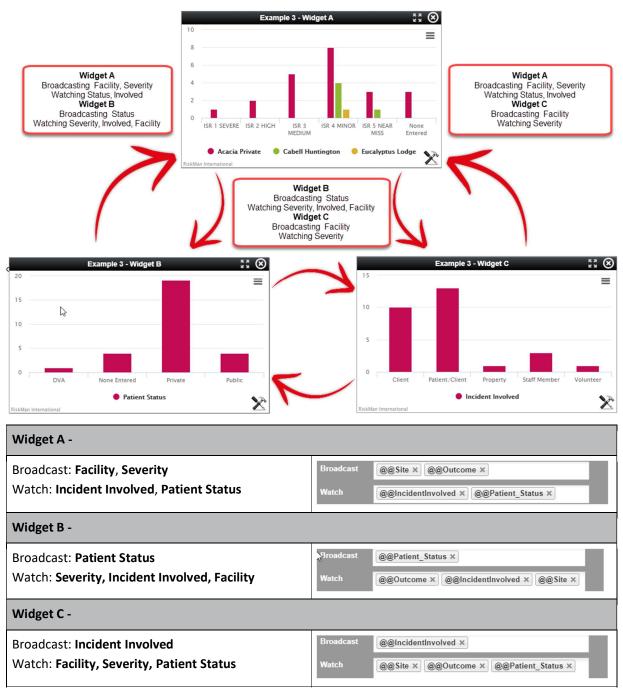
Example 2

Three Widgets. The Gauge is Watching the Values from the Bar Chart and the Pie Chart. The Bar Chart is Watching the Pie Chart Values. The Pie Chart is Watching the Bar Chart Values.



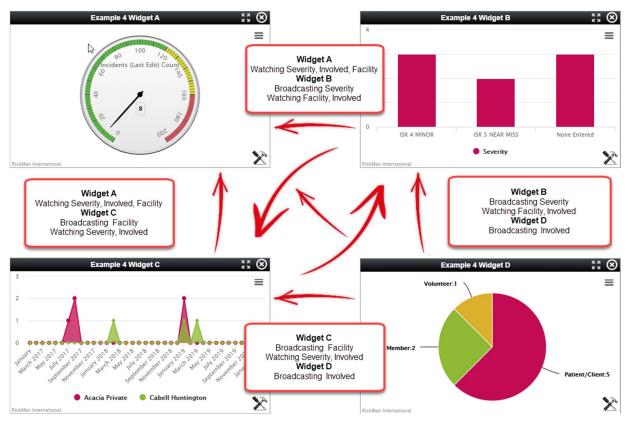
Example 3

Three Widgets. The Multiple Series Chart is Watching the Values from the two Single Series Bar Charts. The Bar Charts are Watching the Multiple Series Chart Values.



Example 4

Three Widgets. The Gauge is Watching the Values from the Bar Chart and the Pie Chart. The Bar Chart is Watching the Pie Chart Values. The Pie Chart is Watching the Bar Chart Values.



Widget A -					
Broadcast: (nil) Watch: Facility, Incident Involved, Severity	Watch	@@Site × @@IncidentInvolved × @@Outcome ×			
Widget B -					
Broadcast: Severity Watch: Incident Involved, Facility	Broadc as t Watch	@@Outcome × @@IncidentInvolved × @@Site ×			
Widget C -					
Broadcast: Facility Watch: Incident Involved, Severity	Broadc as t Watch	@@Site × @@IncidentInvolved × @@Outcome ×			
Widget D -					
Broadcast: Incident Involved Watch: (nil)	Broadcast Watch	@@IncidentInvolved × Select Active Watches			