



The Radiology Information Solution

CRIS Analytics

User Manual

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Introduction

Purpose

The purpose of this document is to detail core functionality and usage of CRIS Analytics in context to Radiology.

Audience

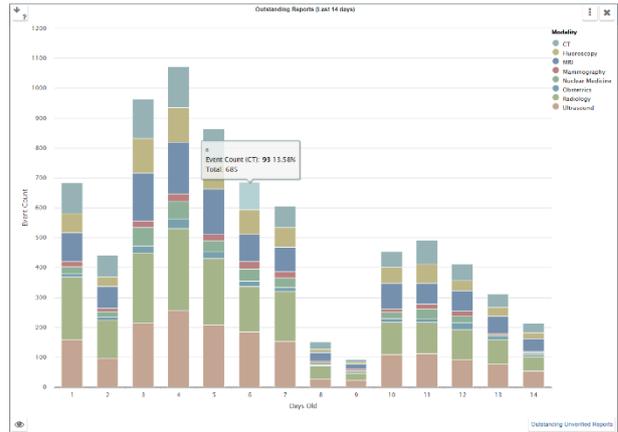
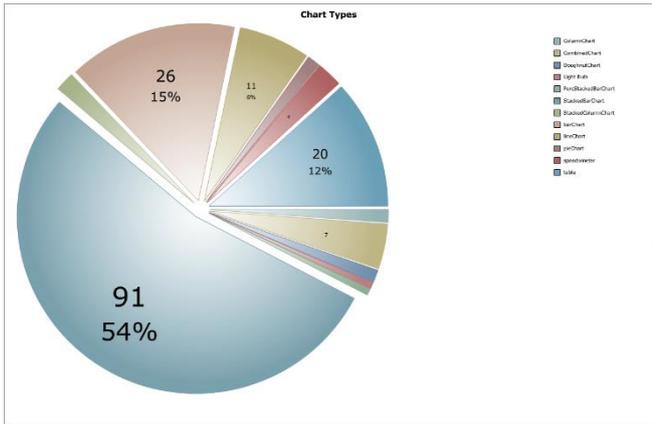
The intended audience for this document is anyone engaged in reviewing or using CRIS Analytics.

CRIS Analytics - EXPLORE

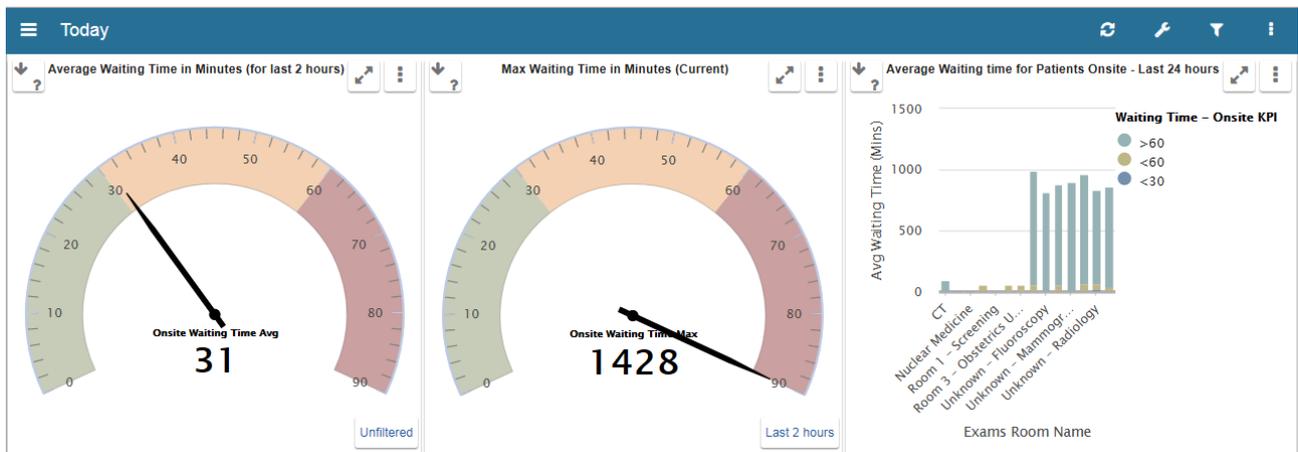
Analytics is a browser-based application. There are two screens: EXPLORE, where you can view and edit charts, and CREATE, where (if you are an administrator) you can configure categories (dashboards), roles, and users.

1.1 OVERVIEW

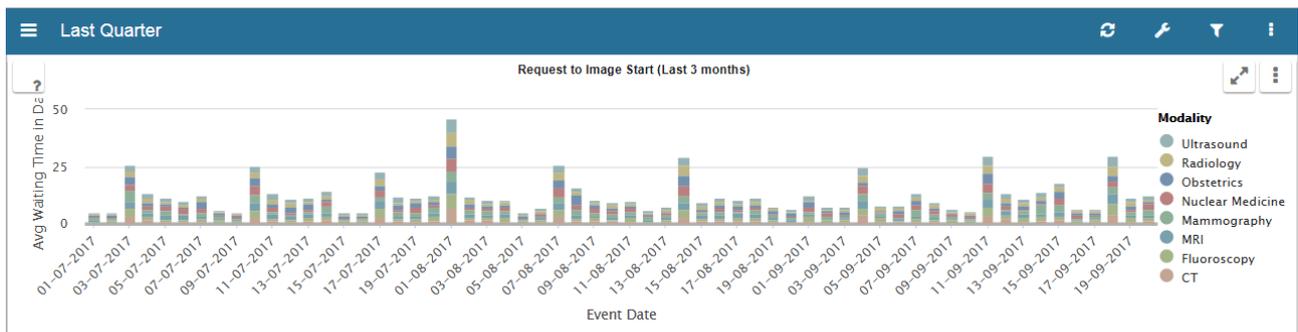
Analytics takes information from the CRIS (Radiology Information System) database and produces easy-to-read charts displaying, for example, current waiting times in the department, or number of outstanding reports.



Analytics displays a selection of related (e.g. waiting times) charts on customised dashboards. See [1.3 DASHBOARDS](#)

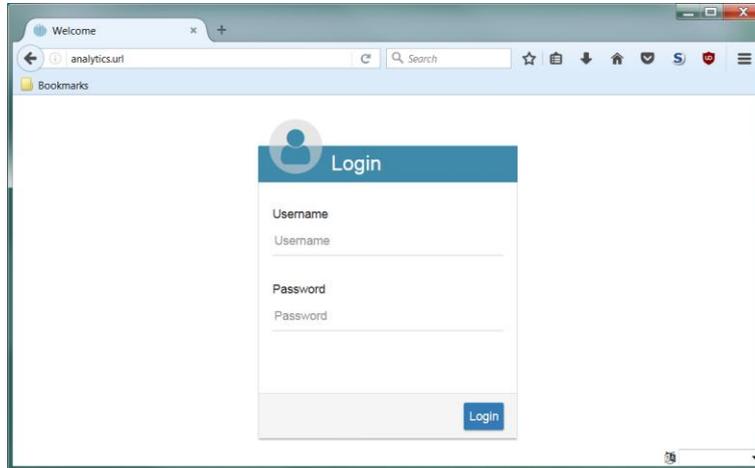


Charts can be filtered, enabling you to display more detailed information. Most charts also allow you to ‘drill down’ into the chart to view the raw data i.e. individual patient records. See [1.6 FILTERS](#)



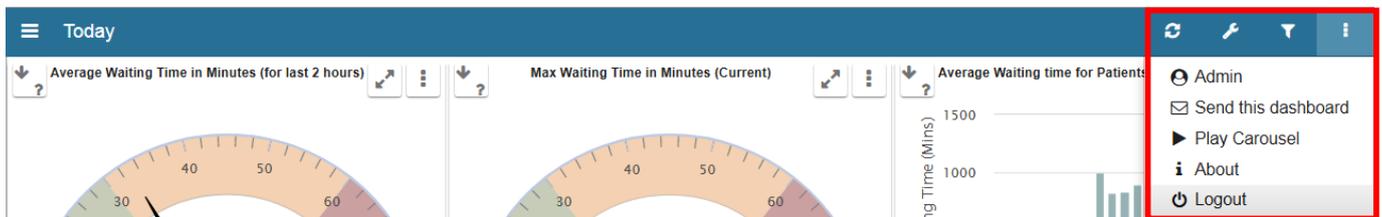
1.2 LOG IN

When you go to the Analytics EXPLORE URL, the Login dialog appears. When you first log in, you may be asked to enter a new password. Passwords must be at least 6 characters long. NOTE: Passwords are case sensitive.

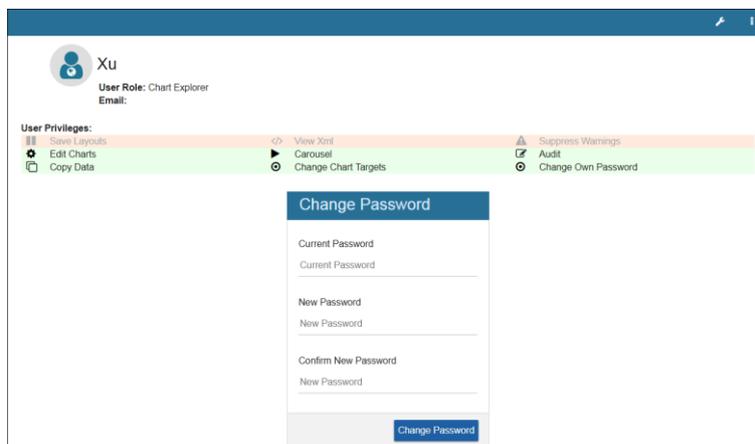


- If you enter incorrect login details more than once, it will tell you how many times you have been unsuccessful. It will also inform you of a short period of time you have to wait before you can attempt to login again
- If you try to use a password that has previously been used, you will see an error message
- If you forget your details, contact an administrator
- If your session times out, refresh the page to log in again

To log out click the ellipsis (three dots) icon at the top right of the dashboard, and click Logout

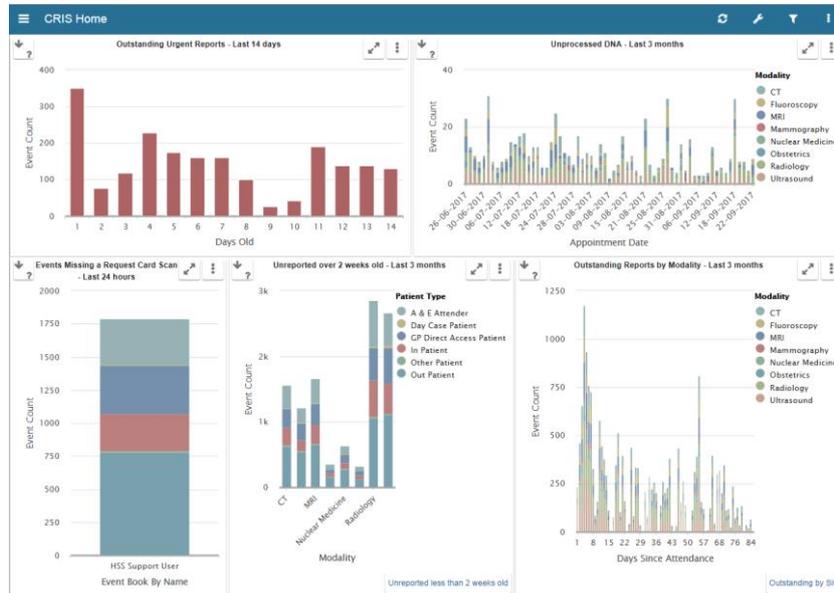


To change your password click the ellipsis (three dots) icon at the top right of the dashboard, and click your name. You can also view your user information here. To leave this page without making any changes, just click back in your browser.

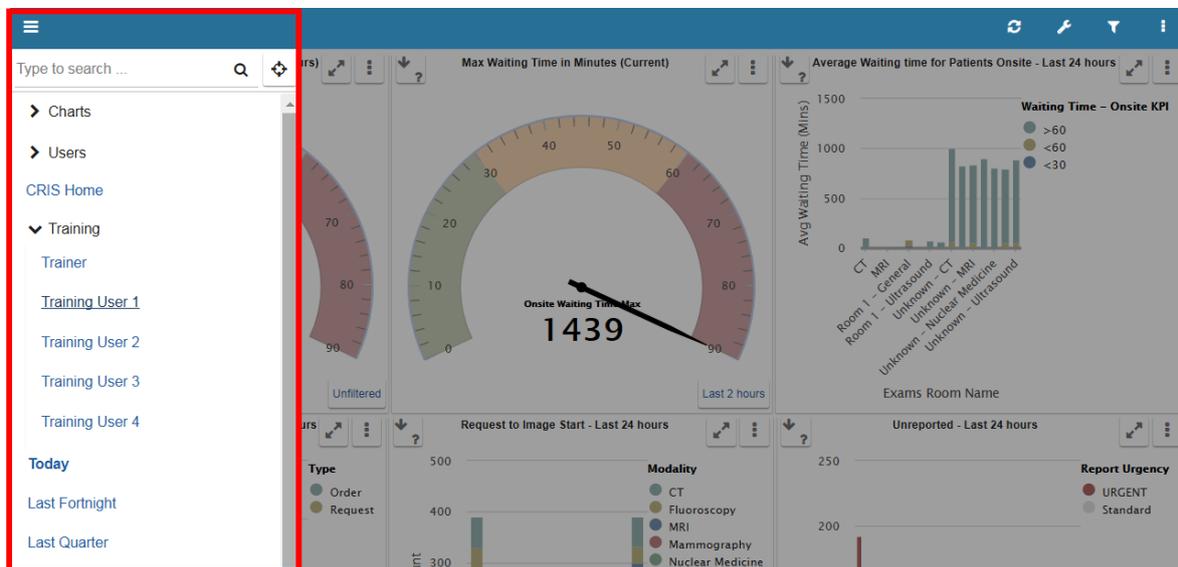


1.3 DASHBOARDS

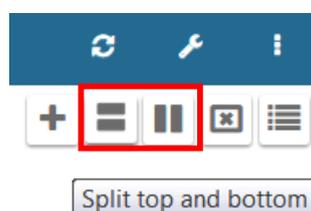
Analytics opens at your Home dashboard. There will be a selection of charts. An administrator can configure which dashboards you see, and which charts appear on them.



To see which dashboards are available to you, click the three line (burger) icon. The menu will expand to display a list of dashboards. Dashboards in black text can be expanded by clicking the arrow icon. Dashboards in blue text are clickable links. Bold text indicates the dashboard you are currently viewing.



Charts are contained within 'cells' on the dashboard. If you have user permission to create cells, you will see the Split icons, and can click them to add new cells to the page.



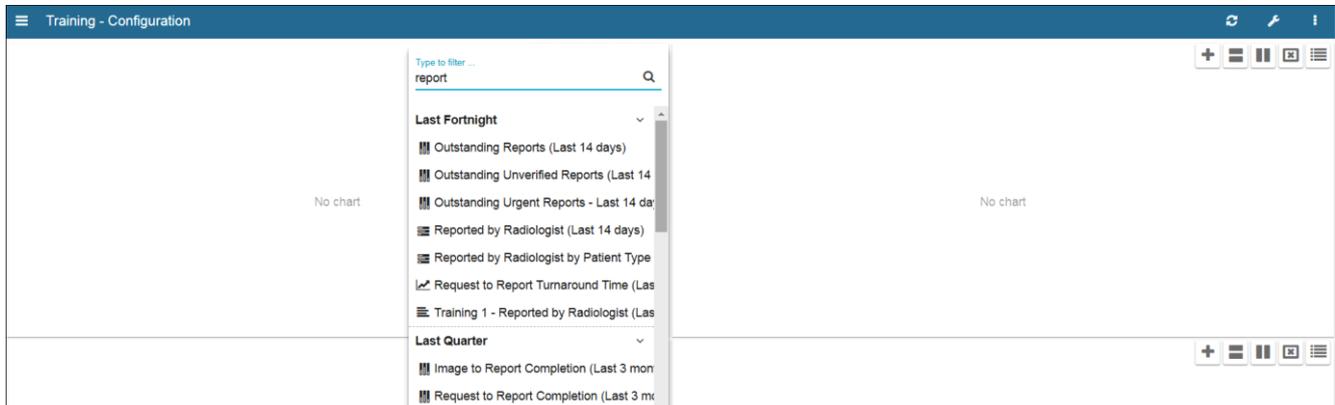
1.4 CHART AND DASHBOARD ACTIONS

A selection of icons will be available to you, based on your user account permissions, and whether you are in dashboard or full screen view. Chart actions are only visible when they can be used.

Dashboard icon	Description	Chart icon	Description
	Burger Menu containing list of all dashboards.		Info Help text and chart information.
	Search Locate an active category by entering a keyword.		Full screen Expand this chart to full screen.
	Expand Expand dashboard category to show sub-categories.		Close Close full screen view.
	Filter Apply filters to all charts on the current dashboard.		Ellipsis Menu containing the following items:
	Refresh Refresh the current dashboard to update data.		Drill to top Return to original chart (top level).
	Spanner Open CREATE (configuration page for administrators).		Drill up Drill up one level.
	Ellipsis Menu containing the following items:		Export Export chart data to an Excel spreadsheet.
	User View user information and change password.		Cog Open the Edit Chart screen.
	Send Send a link to this dashboard by email.		Refresh Refresh the data for this chart.
	Carousel Rotate the display between this dashboard and any sub-categories, showing each one for a specified time.		Remove Remove this chart cell from the dashboard. NOTE: the chart will not be deleted, and will still be available in the Chart Library.
	About Technical information about this dashboard.		Split Create a new cell by splitting the current cell horizontally or vertically.
	Logout Log out of the Analytics application.		Create Create a new chart.
			Library Selection of charts available to be added to dashboards.

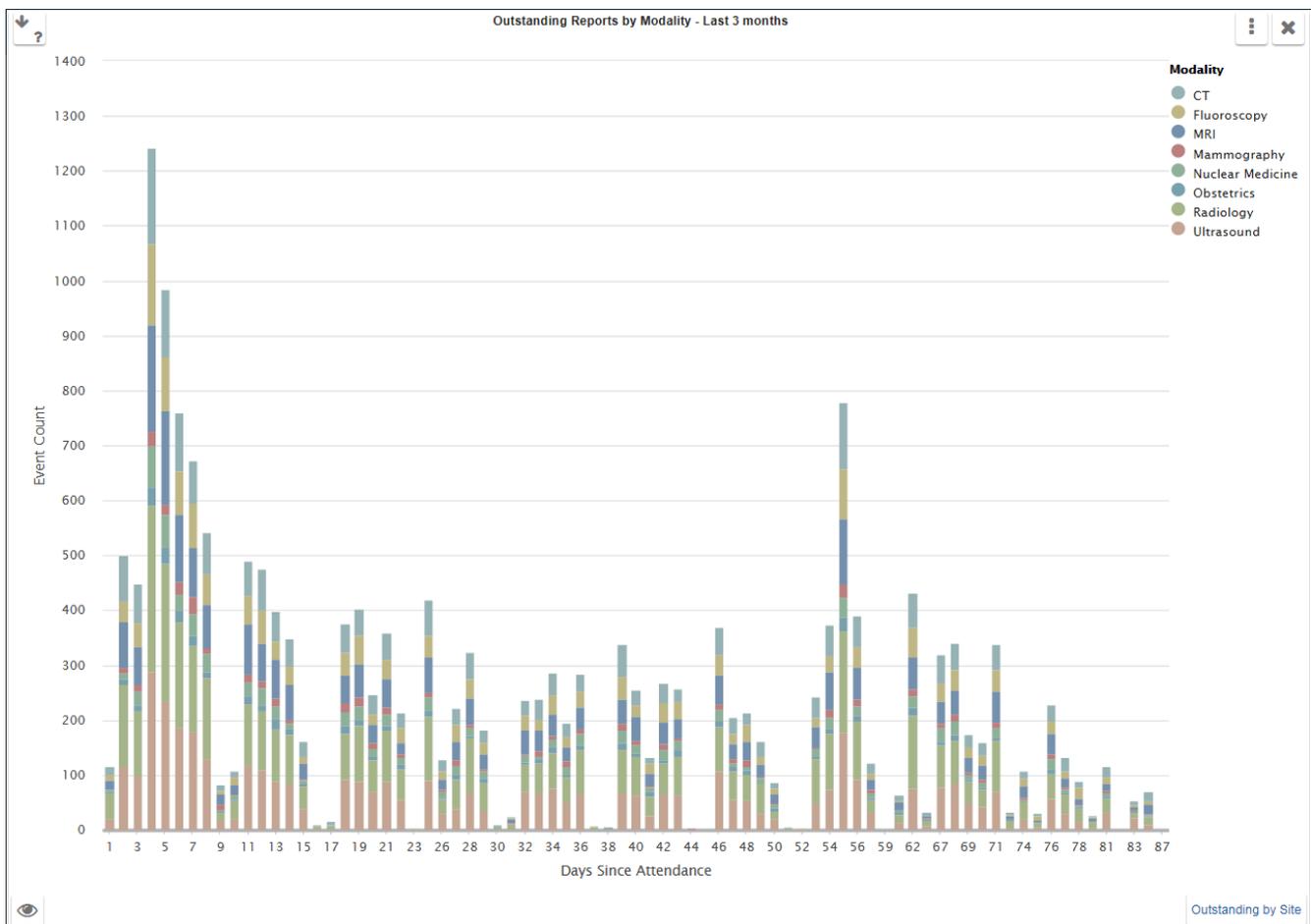
1.5 ADD A CHART

To add a chart to an empty cell, or replace an existing chart in a cell, click the Chart Library  icon. A list of available charts opens. You can enter a keyword to help find a chart.



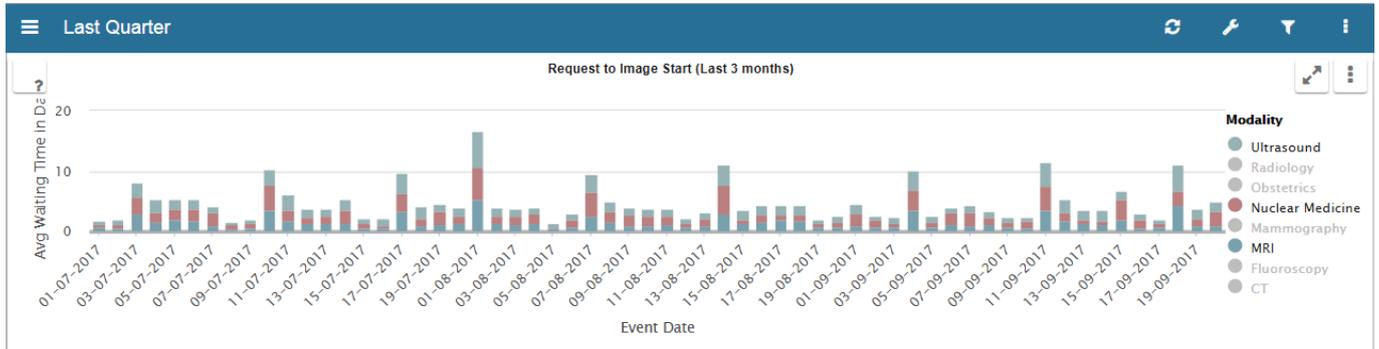
This chart, *Outstanding Reports by Modality – Last 3 Months*, displays a count (number of unreported events from the last 3 months) on the Y axis. Data is ordered by the X axis value (number of days since attendance). Data within each day is also grouped (by modality).

Each of these items can be edited to produce a new chart, for example you may wish to see exam count instead of event count, or group the data by patient type instead of modality.

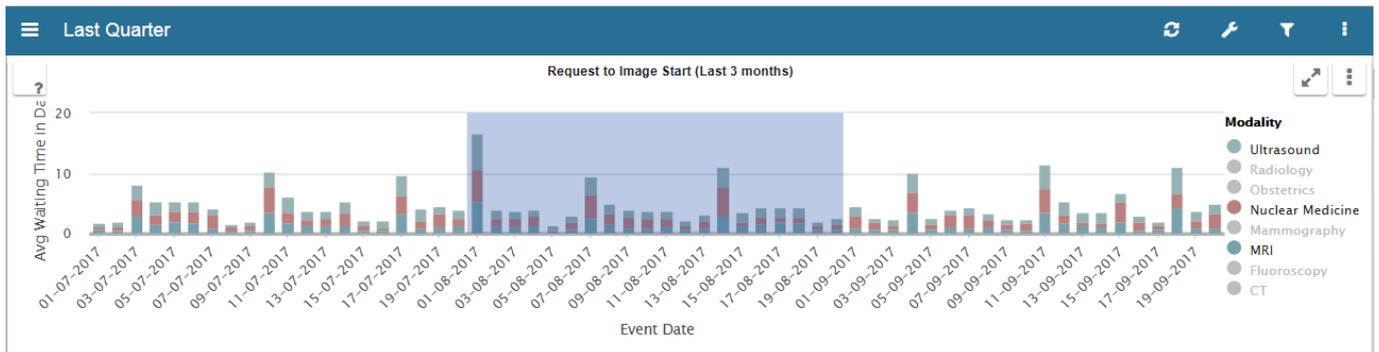


1.6 FILTERS

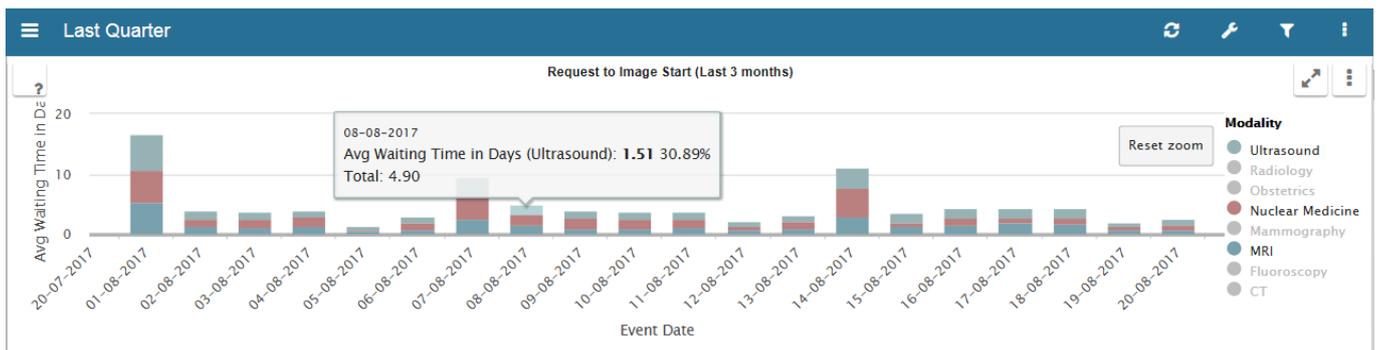
You can apply filters to a chart to view a smaller set of data. Any filters applied in the following ways do not affect other users, and only remain for this session, or until you reset the chart. Clicking one or more items in the legend shows only those events. Deselect items to return to the full chart.



Dragging the cursor across a section of a chart zooms into the selected range. Click the Reset Zoom button to undo.



Hover over the data to see more information about that group of events.

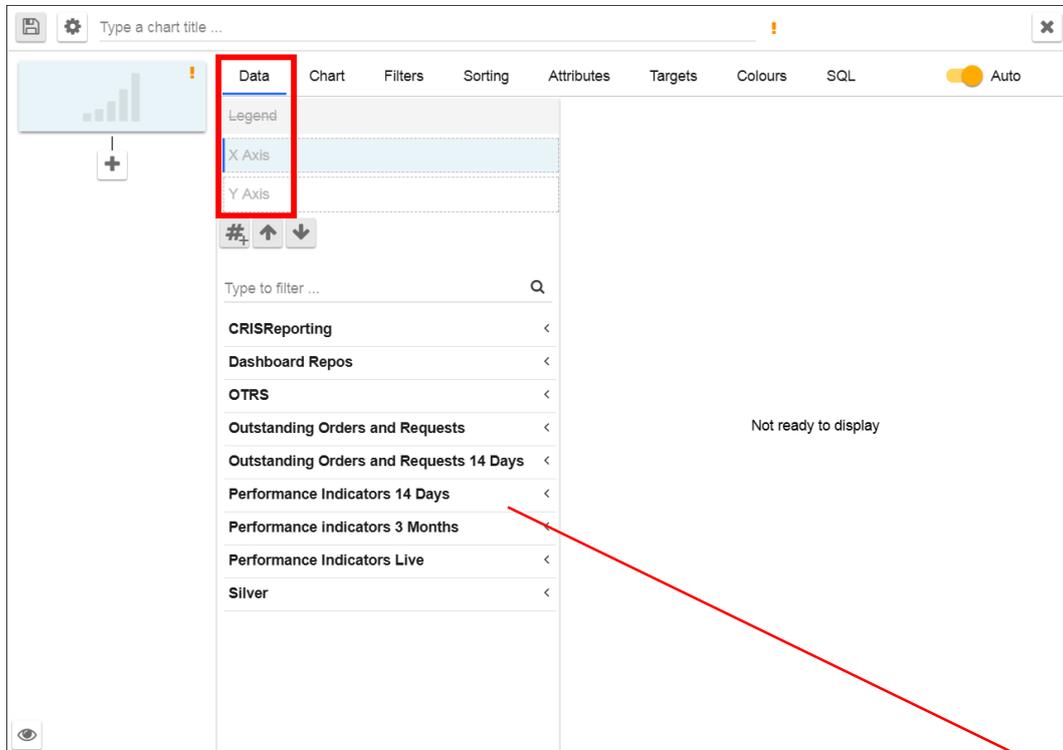


Click on the data to drill down to individual events. Click the Drill Up  icon to return to the original chart.

Event Key	Appointment Date	Examination(s)	Referring Location Name	Referrer Name	Speciality Description
75222	27-06-2017	US Thorax and pleural cavity	General Practice	MOORE CJF	GENERAL PRACTICE
75364	27-06-2017	US Doppler iliac and femoral artery Rt, US Spine	Early Pregnancy Assessment Unit	CHANDRASEKAR S	GENERAL SURGERY
109887	17-07-2017	US Doppler lower limb arteries Both, US Guided biopsy liver	General Practice	BABBS DJ	GENERAL PRACTICE
124829	25-07-2017	US Pelvis	Maternity Outpatients	CHANDRASEKAR S	GENERAL SURGERY
125439	25-07-2017	US Doppler carotid artery Rt	Early Pregnancy Assessment Unit	CHANDRASEKAR S	GENERAL SURGERY
180362	28-08-2017	US Salivary glands submandibular	Outpatient Department	SMITH A	GENERAL SURGERY

1.7 CREATE A CHART

To create a new chart click the Create new chart  icon. The New Chart screen opens at the Data tab. This is where you choose items for the X and Y axes, and a legend, if required.



Available items are called data connections because they connect to data in CRIS. Items are arranged in groups to help you choose the right ones. When you select your first item, subsequent items must be selected from the same group of data connections. Only that group will be visible once you make your first selection.

To add a Y axis value, click to select the field. It will be highlighted in blue when selected. Because Y axis connections have to be a number, only counts will be displayed.

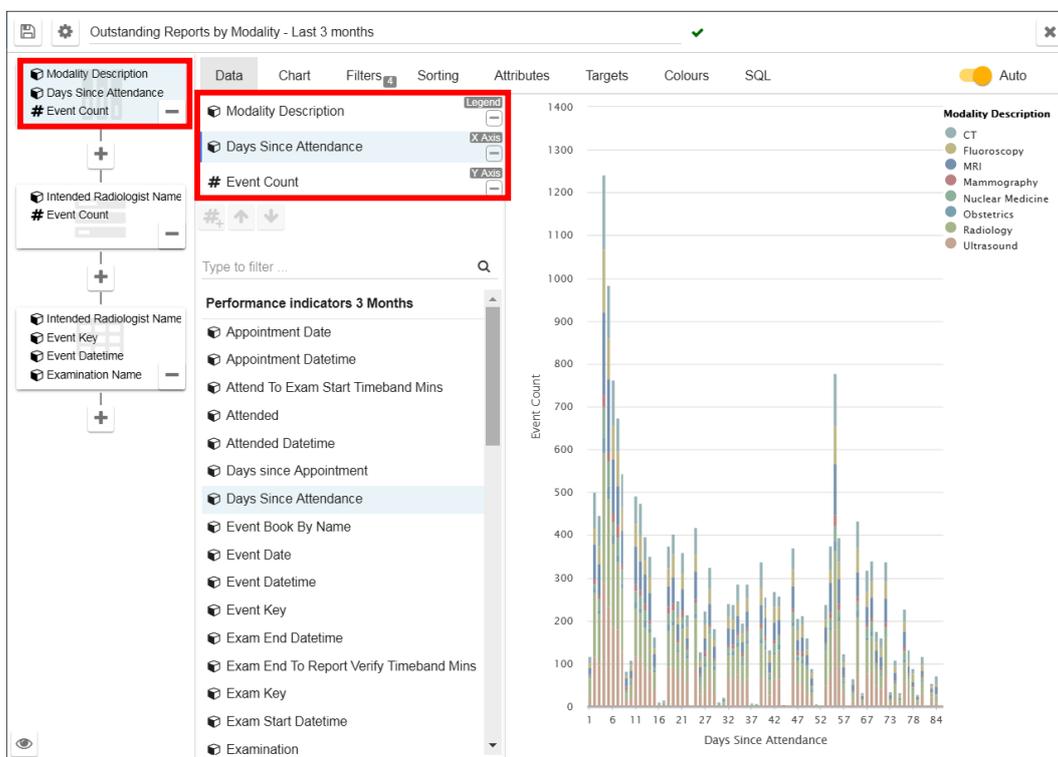
To add an X axis value, click to select the field. It will be highlighted in blue when selected. X axis connections can be a number, or any other type of data like a date or exam key. All available connections will be displayed.

To add a legend value, click to select the field. It will be highlighted in blue when selected. Data can be grouped by any available connection. Some connections are more suitable than others, for example modality is a good choice because it sorts data into a limited number of groups. Event key may not be a good choice because there could be a large number of events and the resulting chart will present too much information.

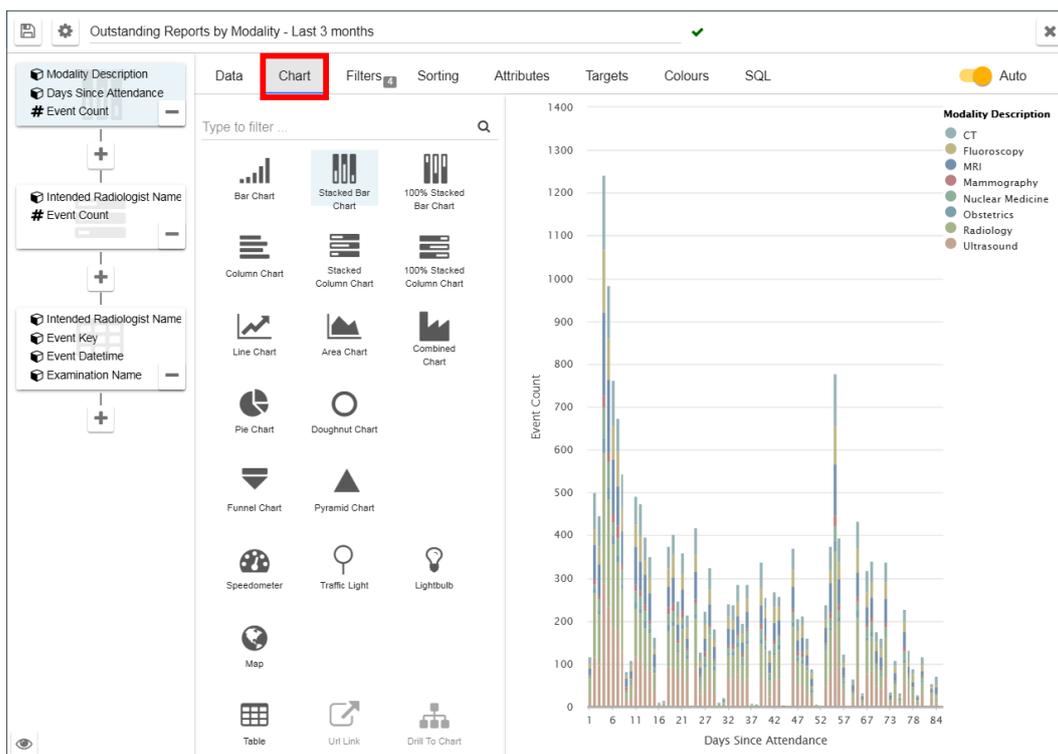
To create the chart *Outstanding Reports by Modality – Last 3 Months*, you could choose the following items from the *Performers Indicators 3 Months* group:

Y axis	Event Count
X Axis	Days Since Attendance
Legend	Modality Description

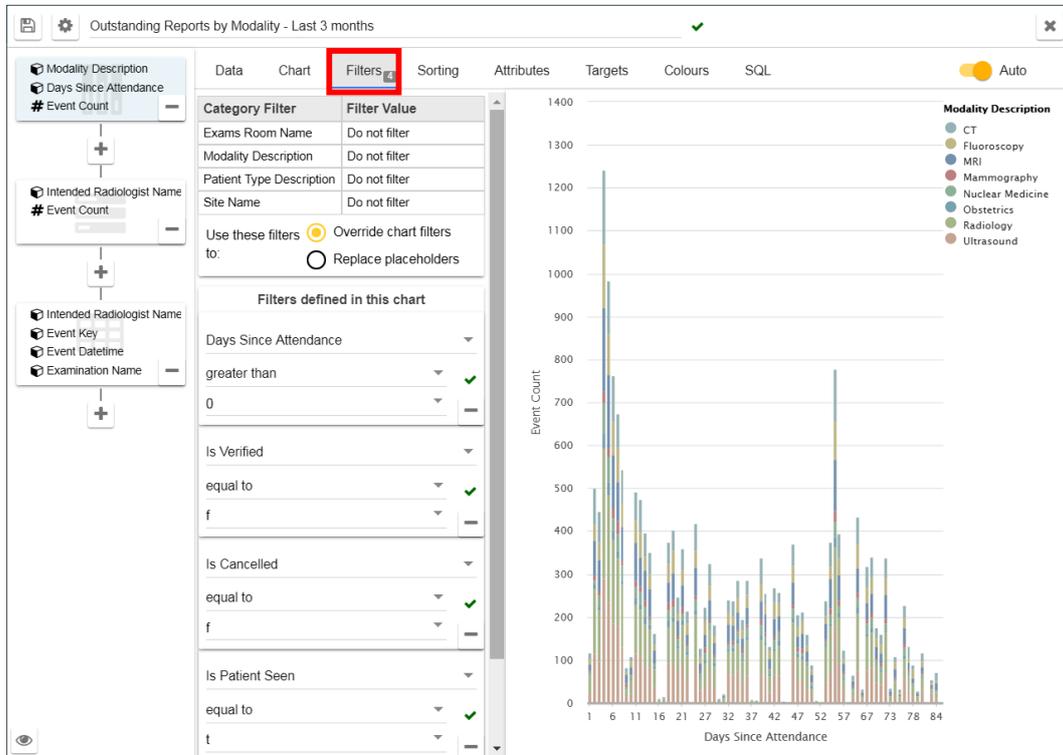
Once you choose values, the new chart is displayed in the preview panel on the right. The panel on the left shows the 'drill path' of this chart – the charts that will be displayed as you drill into the data. The currently displayed (top level) chart is highlighted in blue.



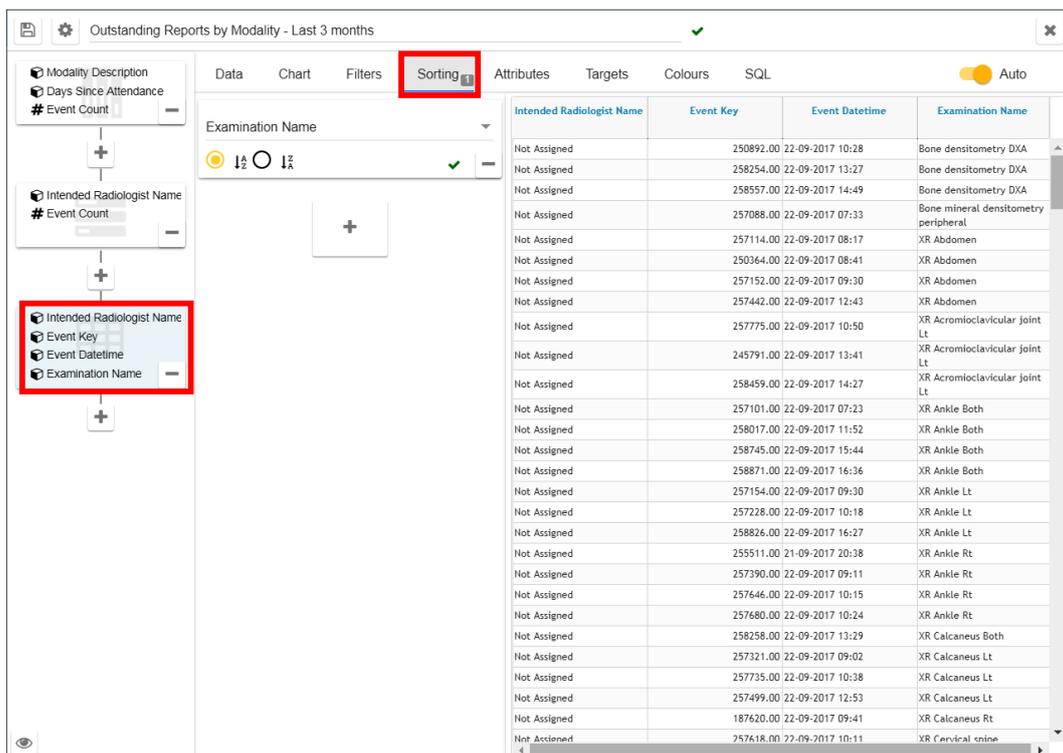
You can choose a chart type on the Chart tab. Bar and column charts can display single and multi-dimensional data. Pie charts are good for displaying relative sizes. Pie charts are effective with a single dimension. Changing from a bar chart to a pie chart will remove the legend item. Speedometers are useful for real-time monitoring of waiting times.



Filters can be applied on the Filters tab. Unlike session filters, these will be saved and applied permanently, unless they are removed by editing the chart. A number icon indicates how many filters exist. Filters are created using data connections, with an operator and a value. For example, you could add *Is Verified = f* (false) if you want to see unverified reports. To remove filters, click each minus  icon.

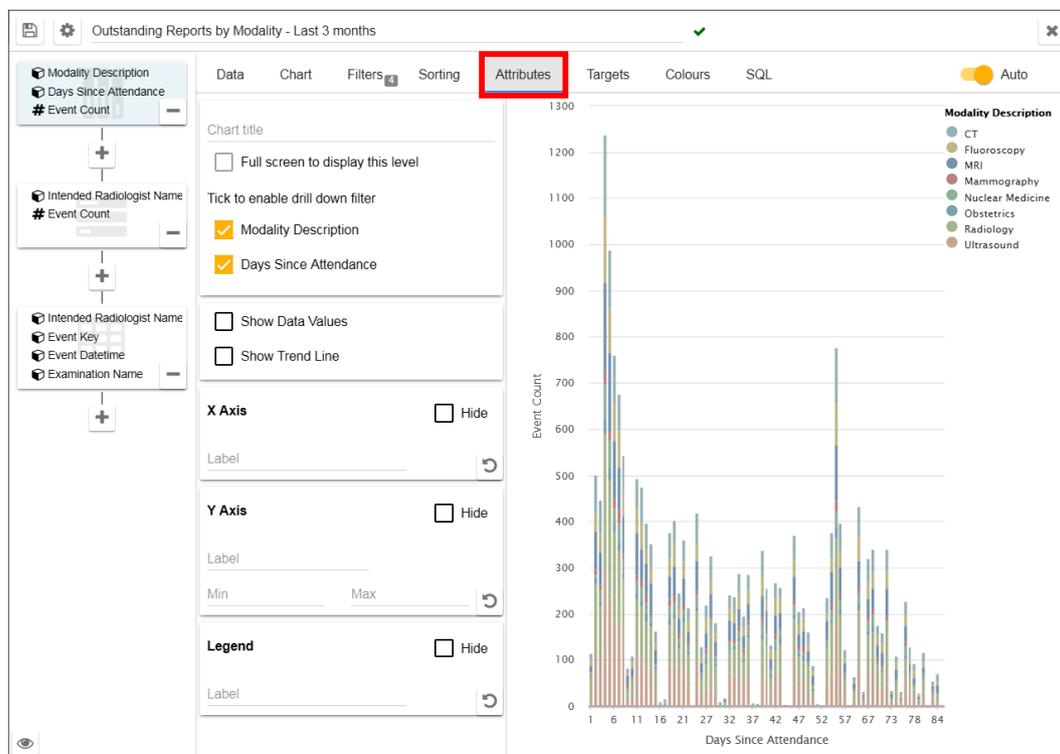


Data tables (often the last level of the drill path) can be sorted, by any column values, on the Sorting tab. A number icon indicates how many sorts exist. In the image below, data is sorted alphabetically by examination name. To remove sorts, click each minus  icon.



Intended Radiologist Name	Event Key	Event Datetime	Examination Name
Not Assigned	250892.00	22-09-2017 10:28	Bone densitometry DXA
Not Assigned	258254.00	22-09-2017 13:27	Bone densitometry DXA
Not Assigned	258557.00	22-09-2017 14:49	Bone densitometry DXA
Not Assigned	257088.00	22-09-2017 07:33	Bone mineral densitometry peripheral
Not Assigned	257114.00	22-09-2017 08:17	XR Abdomen
Not Assigned	250364.00	22-09-2017 08:41	XR Abdomen
Not Assigned	257152.00	22-09-2017 09:30	XR Abdomen
Not Assigned	257442.00	22-09-2017 12:43	XR Abdomen
Not Assigned	257775.00	22-09-2017 10:50	XR Acromioclavicular joint Lt
Not Assigned	245791.00	22-09-2017 13:41	XR Acromioclavicular joint Lt
Not Assigned	258459.00	22-09-2017 14:27	XR Acromioclavicular joint Lt
Not Assigned	257101.00	22-09-2017 07:23	XR Ankle Both
Not Assigned	258017.00	22-09-2017 11:52	XR Ankle Both
Not Assigned	258745.00	22-09-2017 15:44	XR Ankle Both
Not Assigned	258871.00	22-09-2017 16:36	XR Ankle Both
Not Assigned	257154.00	22-09-2017 09:30	XR Ankle Lt
Not Assigned	257228.00	22-09-2017 10:18	XR Ankle Lt
Not Assigned	258826.00	22-09-2017 16:27	XR Ankle Lt
Not Assigned	255511.00	21-09-2017 20:38	XR Ankle Rt
Not Assigned	257390.00	22-09-2017 09:11	XR Ankle Rt
Not Assigned	25746.00	22-09-2017 10:15	XR Ankle Rt
Not Assigned	257680.00	22-09-2017 10:24	XR Ankle Rt
Not Assigned	258258.00	22-09-2017 13:29	XR Calcaneus Both
Not Assigned	257321.00	22-09-2017 09:02	XR Calcaneus Lt
Not Assigned	257735.00	22-09-2017 10:38	XR Calcaneus Lt
Not Assigned	257499.00	22-09-2017 12:53	XR Calcaneus Lt
Not Assigned	187620.00	22-09-2017 09:41	XR Calcaneus Rt
Not Assigned	257618.00	22-09-2017 10:11	XR Cervical spine

A drill path can be created on the Attributes tab. You can choose which information from the chart you want to keep when you drill. In the image below *Modality Description* is selected. This means that when you click the chart to drill, you will only see the modality you clicked on. If *Modality Description* is unselected, it doesn't matter where you click on the chart, all modalities will be displayed.



Each chart on the drill path can be given its own display title. The top level chart will keep its original name, which is the name you see in the Chart Library, even if you give it a display title. Lower level charts will display the original name, unless you give them a display title in the Chart Title field.

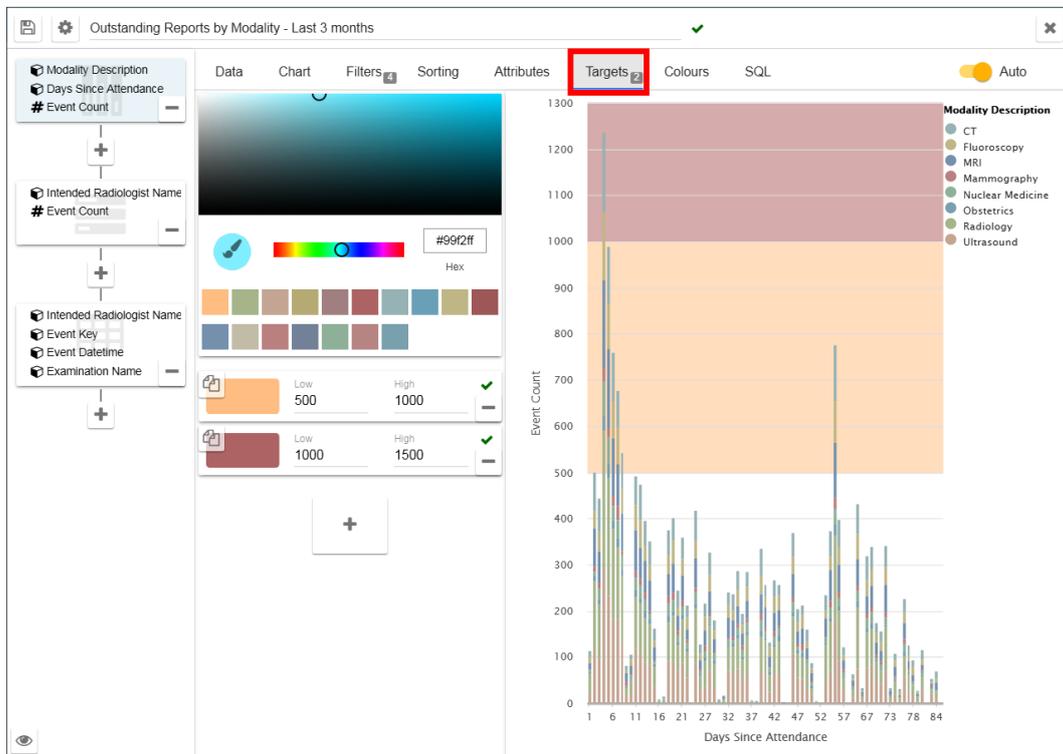
NOTE: If you edit a chart and save it with a new name (not chart title), you should also check your drill chart titles, as they will retain their titles from the original chart.

Display titles can be dynamic - changing according to the value you have drilled. For example, the following title will change depending which modality you drill: *Outstanding {{Modality Description}} Reports – Last 3 Months*. Curly brackets denote a variable value, in this case modality. Drilling into CT would display a chart with the title *Outstanding CT Reports – Last 3 Month* and drilling into MRI would display a chart with the title *Outstanding MRI Reports – Last 3 Months*.

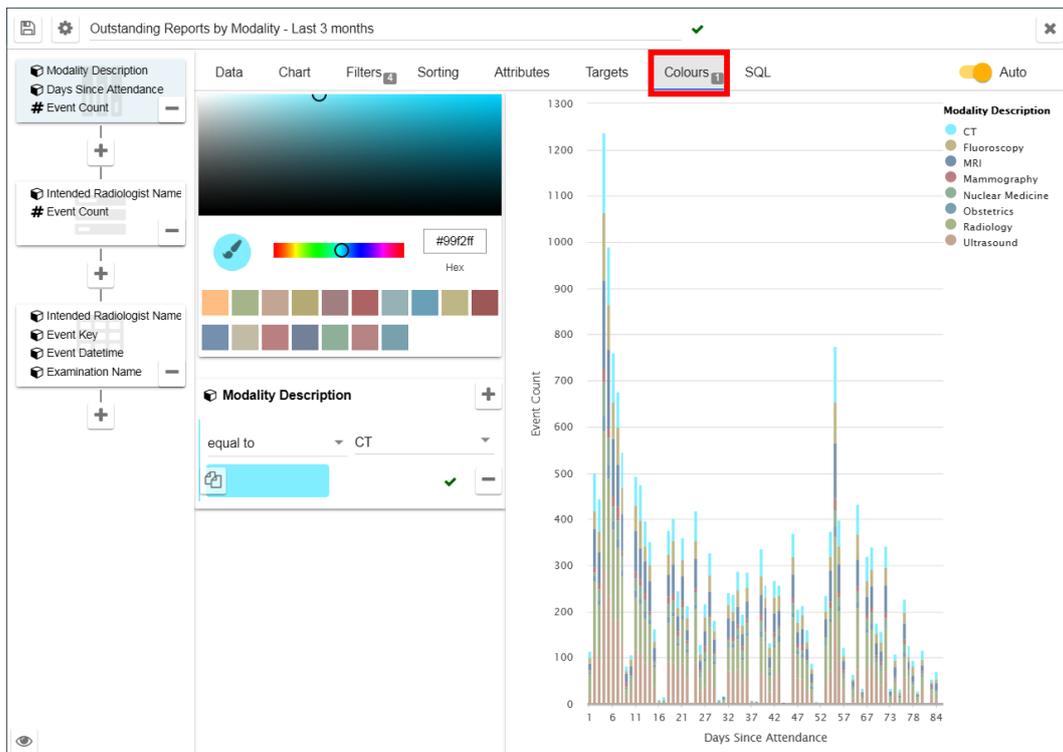
You can choose to display Data Values (numbers on each column of data) or a Trend Line (a line showing the direction of change).

You can change the labels that are displayed on the axes and legend. The data connection remains the same, and is not renamed. Labels can be hidden by selecting the tick box.

On the Targets tab you can add colours to display behind the chart for specified data ranges. A number icon indicates how many targets exist. These targets are a visual guide to when personal targets are reached. To remove targets, click each minus  icon.



On the Colours tab you can choose colours for each of the legend items. A number icon indicates how many colours have been changed. To return to the default colours, click each minus  icon.



When you have created a new chart click the Save  icon. If you edit a chart click Refresh  to see changes.

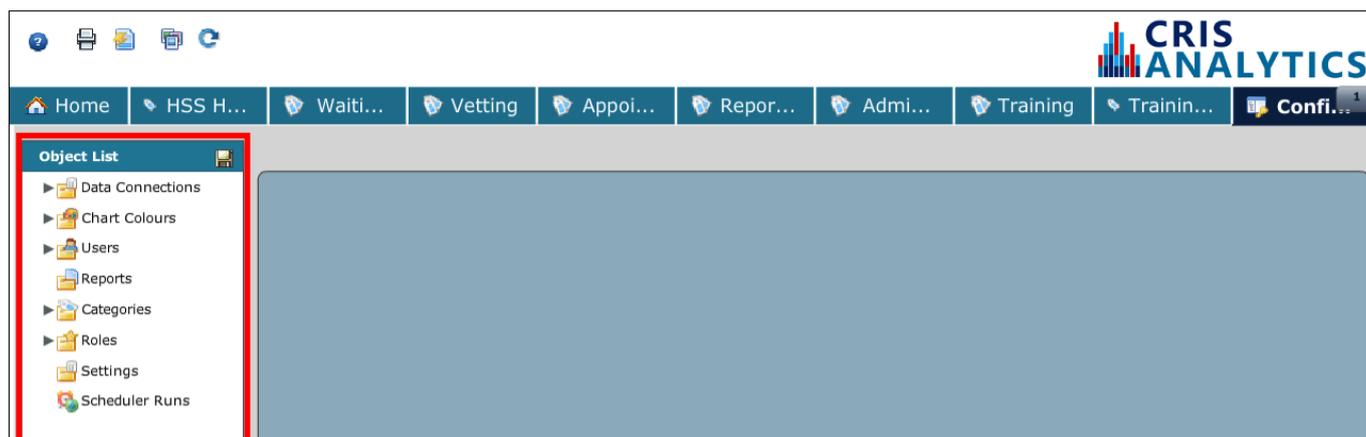
CRIS Analytics - CREATE

Analytics is a browser-based application. There are two screens: EXPLORE, where you can view and edit charts, and CREATE, where (if you are an administrator) you can configure settings.

2.1 OVERVIEW

In CREATE, categories appear as tabs rather than links. The Object List in the Configuration tab contains:

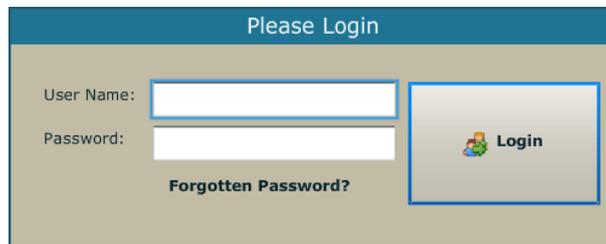
Data Connections	Add data connections to categories to create filters. To edit data connections, please contact HSS.	2.5 CATEGORY FILTERS
Chart Colours	Set default chart colours	2.10 DEFAULT COLOURS
Users	Create new users and edit permissions	2.7 CREATE USERS
Reports	To create reports, please contact HSS.	
Categories	Create categories to display as user dashboards	2.5 CREATE CATEGORIES
Roles	Create roles to apply the same settings to a group of users	2.6 CREATE ROLES
Scheduler Runs	View all scheduled runs of charts being sent to users	2.9 SCHEDULING



Dashboard icon	Description
	About Shows the current version of the dashboard software.
	Print Print all charts on the current tab.
	Rebuild Reset the dashboard to its default settings without logging out. This removes temporary filters from charts.
	Carousel View all charts as an animated carousel. The carousel can be paused and restarted using the video buttons, and closed by clicking the X button.
	Refresh Refreshes the current category by re-interrogating the data. It also marks other categories as 'stale' which means that next time you go into a stale category it will refresh immediately. Clicking this will reveal additional options to parameterise how often the data will be refreshed. Click the Cycle tabs tickbox to move between category tabs in turn on refresh rather than just refreshing the current tab.
	Query Click or hover to view droplist filter information.

2.2 LOG IN

You can access Analytics CREATE by clicking the spanner icon in EXPLORE. CREATE opens in a new tab. You can bookmark this URL and go directly to it for all configuration tasks. If you go directly to the CREATE URL, the Please Login dialog appears. If your session times out, refresh the webpage to log in again. To log out, just close the page. If you logged via EXPLORE, go to the EXPLORE URL and click the ellipsis (three dots) at the top right, then Logout.



The 'Please Login' dialog box features a blue header with the text 'Please Login'. Below the header, there are two input fields: 'User Name:' and 'Password:'. To the right of these fields is a 'Login' button with a user icon. Below the 'Password:' field is a link labeled 'Forgotten Password?'.

If this is a brand new installation, then the credentials to log in are: User Name: admin Password: dashboard
 At the first log in after installation, you may be asked to enter a new password as the existing one has expired. The new password must be at least 6 characters long. NOTE: Passwords are case sensitive.

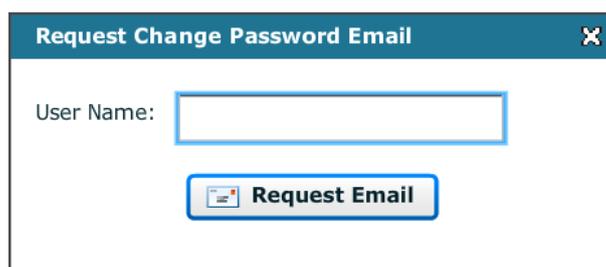


The 'Change Password' dialog box has a blue header with the title 'Change Password' and a close button. It contains two tabs: 'Change Passwo...' and 'Preferences'. The 'Change Passwo...' tab is active and shows three password input fields: 'Old Password:', 'New Password:', and 'Confirm Password:'. Each field contains a series of asterisks. A 'Confirm' button is located at the bottom of the dialog.

If you enter incorrect login details more than once, it will tell you how many times you have been unsuccessful. It will also inform you of a short period of time you have to wait before you can attempt to login again. The period of time will increase in relation to the number of times you have incorrectly entered login details.

If you try to use a password that has already been used within the last 3 times you have changed the password, you will see an error message. The reuse limit of 3 is a global parameter accessed by double-clicking Users in the Object List on the Configuration category (last tab on the right).

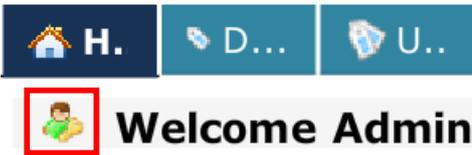
If you forget your details, contact the administrator, or click [Forgotten Password?] to request a change. The dashboard should be configured to use an SMTP server in the Configuration tab Server settings, and ensure your users have an email address in the Configuration tab User Details. See [2.7 CREATE USERS](#)



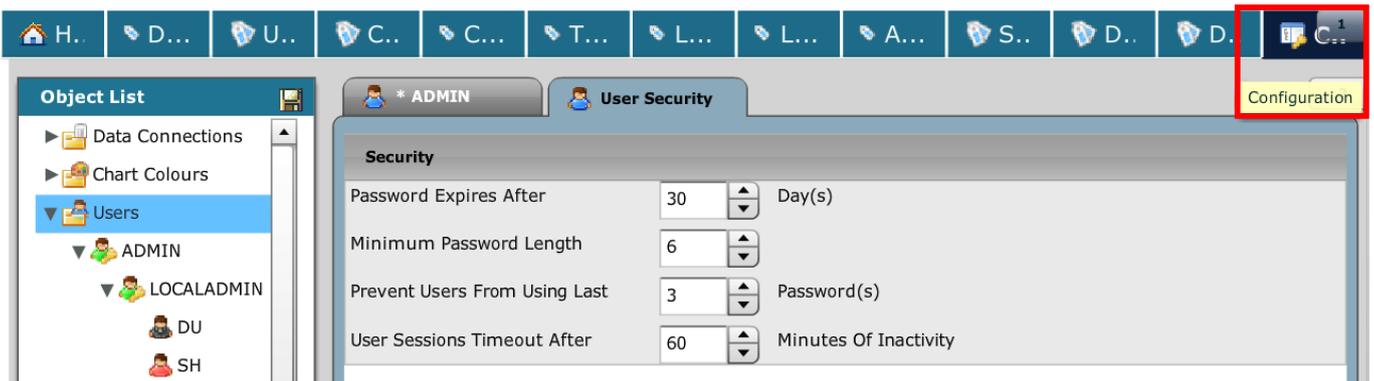
The 'Request Change Password Email' dialog box has a blue header with the title 'Request Change Password Email' and a close button. It contains a single input field for 'User Name:'. Below the input field is a button labeled 'Request Email' with an envelope icon.

2.3 MANAGE PASSWORDS

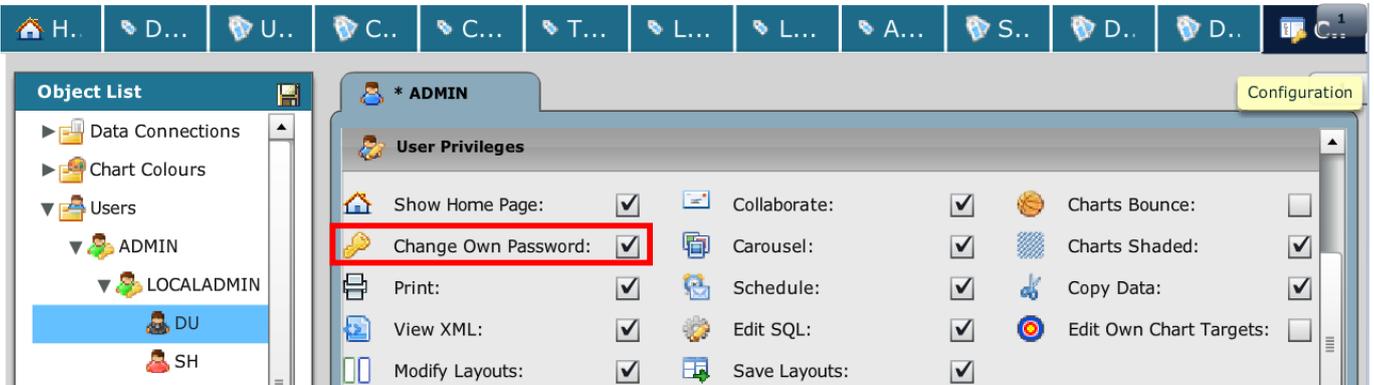
To open the Change Password window, click the User icon  on the Home tab. If you do not have access to the Home tab, you can also change your password by clicking the Change Password icon  in the Toolbar.



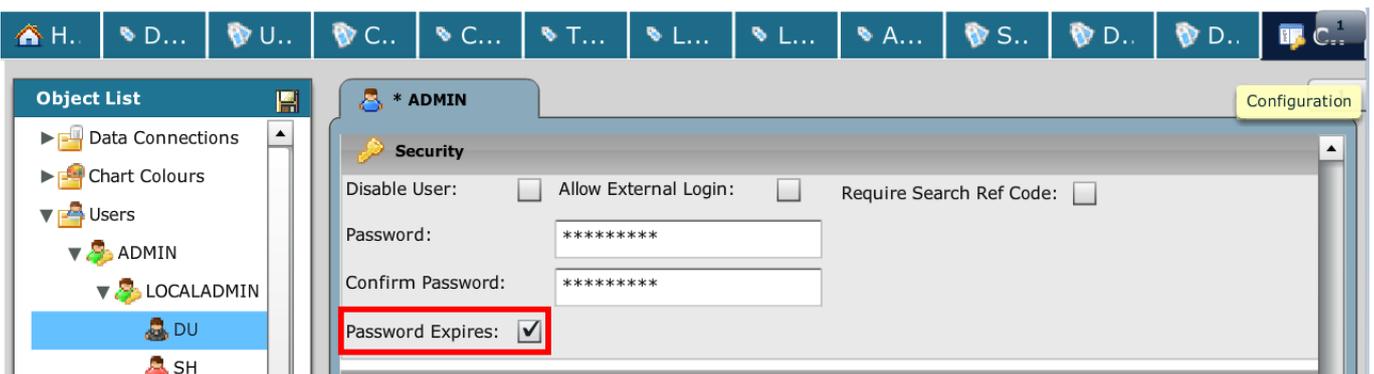
Global parameters for passwords can be set in the Configuration tab. Double-click the Users folder.



The ability to change your own password is also set in the Configuration tab. This can be applied to an individual user, or to every user with a particular Role. Double-click a username or role to open their settings tab.

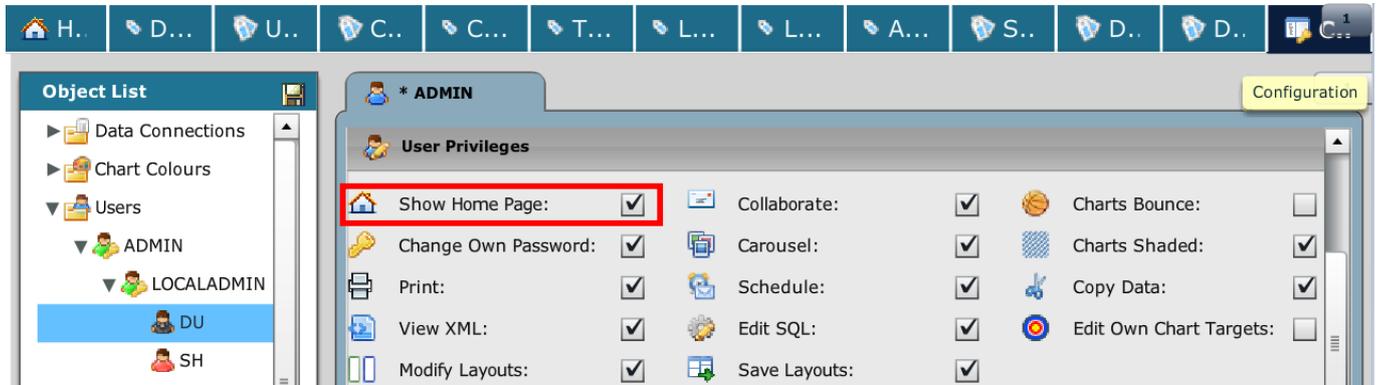


An administrator can set user passwords to expire in the Configuration tab. This can be applied to an individual User, or to every user with a particular Role. If a user forgets their password and does not have an email address in their User Details an Administrator will need to set the new password manually.



2.4 DASHBOARDS

Analytics opens at the Home dashboard, if the user has access to it. An administrator can choose to hide the Home dashboard from users. They may choose to do this if a user does not have any access rights to KPIs or reports.



Displayed on the Home dashboard are the Glance Panel and several charts. Other charts can be arranged into categories, and can be viewed by selecting the category tab.



There are two pre-configured categories, Home and Configuration, but other categories can be added and edited. Categories can also have further sub-category tabs within them in order to make it easier to organise charts within the dashboard into suitable sub-groups.

Access to categories and sub-categories is controlled by the administrator. An administrator can decide who has access to which categories, and how they are nested. The administrator also controls the default position of the tabs. If you wish to (and your access role is not a chart viewer) you can change the order of the tabs by dragging and dropping them to a new position. You can also arrange tabs in category settings. See [2.5 CREATE CATEGORIES](#)

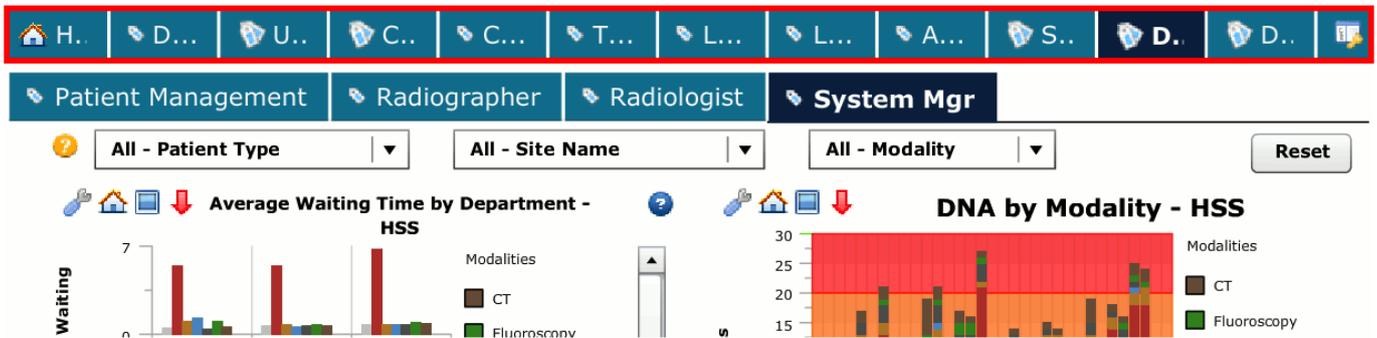
A small red arrow will appear to show where you are about to drop the tab. There are exceptions to this:

- You cannot move the Home tab. It always appears as the first tab
- You cannot move the Configuration tab. It always appears as the last tab
- If your role is a chart viewer, your dashboard is returned to the default when you next log in

To add charts to the dashboard see [1.5 ADD A CHART](#) and [2.8 SAVE A CHART](#)

2.5 CREATE CATEGORIES

In CREATE, categories form the tabs along the top of the screen. They always start with the Home tab and end with the Configuration tab. The order of all categories can be changed, as long as the user has permission, except for the Home and Configuration tabs.



Categories can be visible or hidden dashboards, and are used both to display charts and to apply security settings. A parent category cannot display charts of its own if it has child tabs, but its category can still be used for security.

Both charts and users can have categories assigned to them. A chart can belong to a parent category and also appear on multiple dashboards. A user only has access to categories added to their Allocated Roles and Categories panel. See [2.7 CREATE USERS](#)

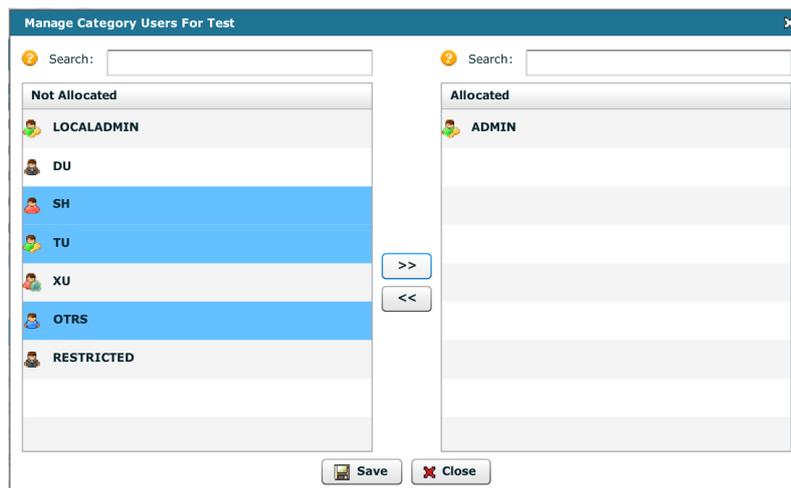
- Click the Configuration tab (last tab on the right)
- Click ►* next to Categories in the Object List
- Give your new category a description (hover text) and a label (name which appears on the tab)
- Choose a parent category from the droplist*
- Click to save
- Either press F5 to refresh the page (requires logging in again) or click to rebuild the Dashboard

The screenshot shows the 'Category Details' form. The 'Category Description' field is empty. The 'Label' field is empty. The 'Parent Category' dropdown is set to 'Home'. The 'Category' dropdown is set to '1'. There are checkboxes for 'Use as display tab' (checked) and 'Lock' (unchecked). Below the form is a section titled 'Can Allocate the Following Object Types' with checkboxes for Charts, Connections, Reports, Filters, Objects, and Layouts, all of which are checked.

*NOTE: You can also create a parent category by dragging and dropping categories onto a folder in the Object List.

Category detail	Description
Category Description	Appears only in tab hover text (Label plus Category Description).
Label	Text that appears on the tab. You can reuse this label on child categories. For example, you can have a sub-tab called Today on Radiographer <i>and</i> Radiologist tabs.
Use as display tab	Select if you want this category to be visible. Deselect if you only want to use this category for security purposes.
Lock	Prevent other users making changes to this category.
Parent Category	Can be used to move the category to or from a parent category.
Default Position	The order the tab will appear unless a user has dragged it to their own position.
Manage Category Users	Click  to assign users to a category in the Manage Category Users window.

Any category you create is automatically assigned to you. If you want other users to see it, select one or more users in the Manage Category Users window.



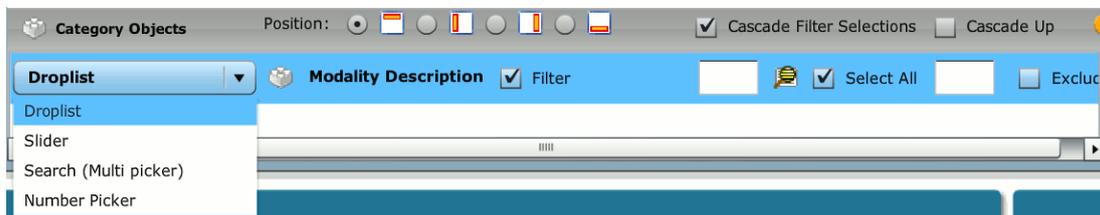
NOTE: At this point other users will see a blank dashboard. If you also want users to see charts you place on the dashboard, you need to make that layout available to them. See [2.12 PUBLISH A LAYOUT](#)

Category Filters

You can use category filters to apply the same filters to all charts on a dashboard. In EXPLORE you can access category filters by clicking the Filter  icon. In CREATE, you can add droplists or sliders to the top of the dashboard.

- Double-click to open the category
- Click ► to expand the  Data Connections folder in the Object List
- Drag and drop a Data Connection into the Category Objects panel
- Select a filter type from the droplist
- Click  to save

For example, if you add the Data Connection *Modality* and select Droplist, this will create a droplist that filters by modality on the category tab in CREATE. Cascade Filter Selection means when you select an option from one droplist, the next list is limited. For example, if you choose Modality = CT, you can only choose a Radiologist who reports CT from the next droplist.



Droplists will be seen by all users who have access to that category. Droplists allow you to apply a filter to all available charts (highlighted in blue when you click a droplist) on the dashboard. To filter all charts (not including KPI speedometers), select from the available droplists, for example Patient Type, Site, or Modality.

Filter Category Tab

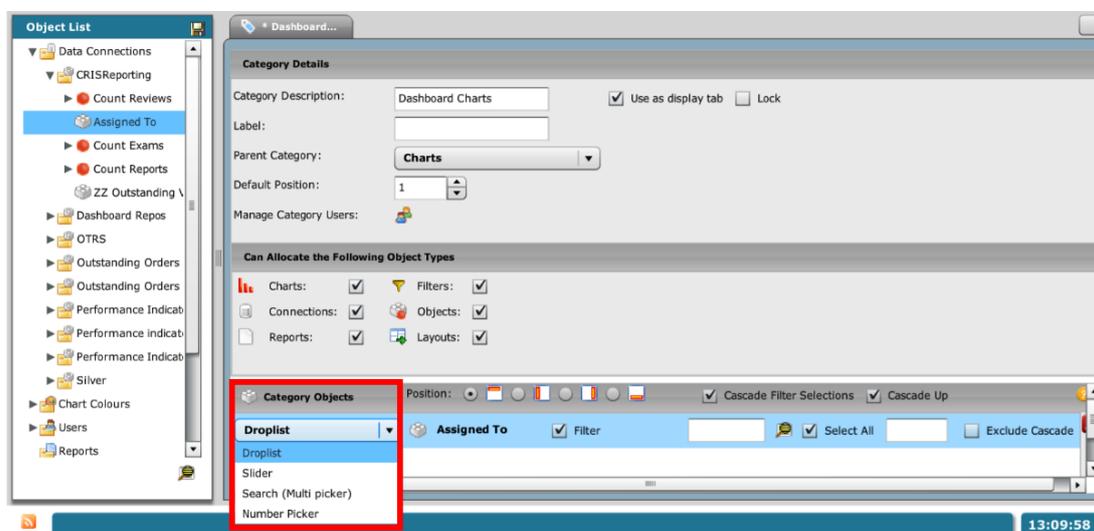
The droplists can be used to constrain any charts.

The value you select in the droplist is applied to all charts on the page. You may notice that as you hover over the droplist some charts will be highlighted in blue. This means that the object being used by the droplist comes from the same data connection as the chart and therefore the chart will be filtered when the droplist value changes. The Dashboard will still try to apply a filter to all the other charts on the page but will only succeed if there is an object with a matching name in the data connection used by that chart.

These droplists are added through the edit category option in the Configuration tab.

NOTE: Droplist filters are not applied to KPI Speedometers.

By default category objects display as droplists. You can change a droplist to a slider, search list, or number picker. A slider allows you to select a range of values. This is particularly useful for date ranges, but can be used for any object type.

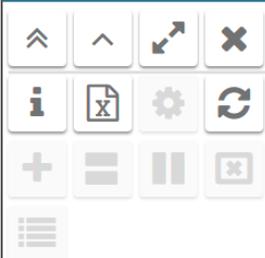
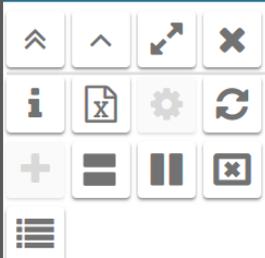
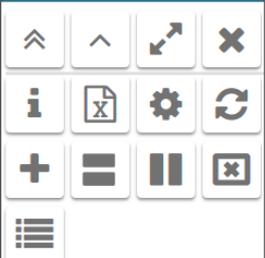
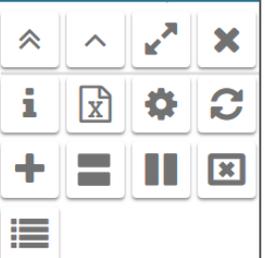


2.6 CREATE ROLES

There are five default roles, with increasing order of authority.

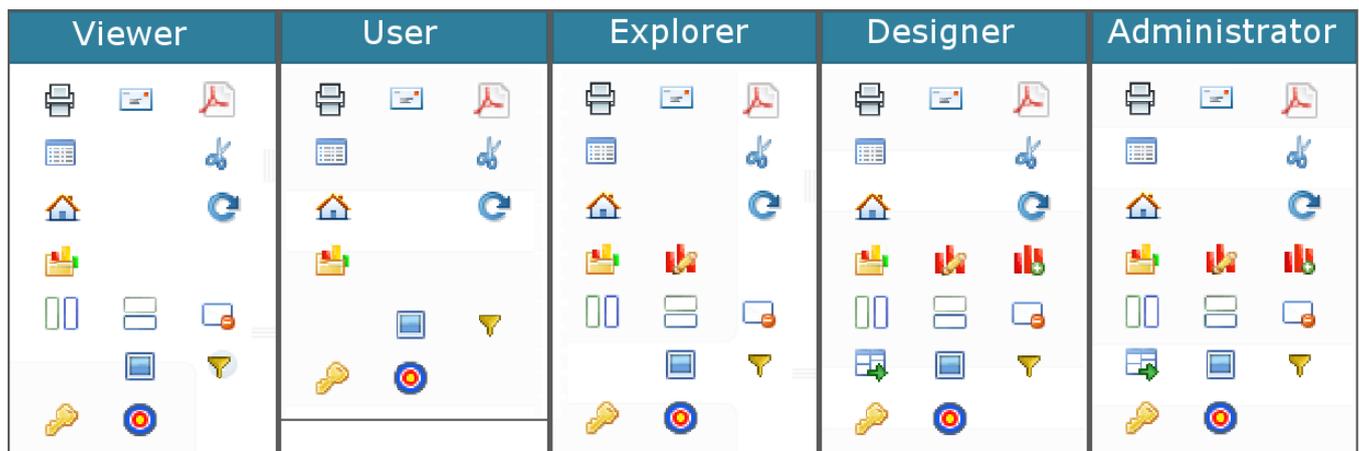
Role	Description
 Viewer	Can view, drill down, and apply session filters. No changes are saved.
 User	As Viewer, and can add new cells and charts. Changes to layouts are saved for next time the user logs in.
 Explorer	As User, and can also edit, but not save, charts.
 Designer	As Explorer, and can create new charts, and alter existing charts.
 Administrator	As Designer, and can set up and alter Configuration parameters. Only users with this role will see the Configuration category.

Roles determine which icons a user has in their tools menu in EXPLORE.

Viewer	User	Explorer	Designer	Administrator
				

Viewer	User	Explorer	Designer	Administrator
Drill Up				
Full screen				
Close	Close	Close	Close	Close
Information	Information	Information	Information	Information
Copy (to Excel)				
Edit Chart				
Refresh	Refresh	Refresh	Refresh	Refresh
New Chart				
Split	Split	Split	Split	Split
Delete Cell (not chart)				
Chart Library				

The tools menu can also be accessed in CREATE. See [2.8 CHART TOOLS](#) for full descriptions.

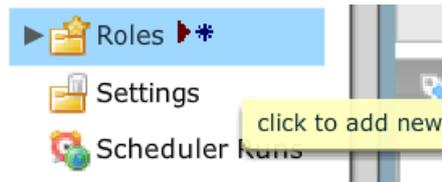


Viewer	User	Explorer	Designer	Administrator
Print	Print	Print	Print	Print
Send	Send	Send	Send	Send
Export to PDF				
View Data/Chart				
XML/SQL	XML/SQL	XML/SQL	XML/SQL	XML/SQL
Copy (Excel)				
Home	Home	Home	Home	Home
Down/Up Arrows				
Refresh	Refresh	Refresh	Refresh	Refresh
*Library	Library	Library	Library	Library
Edit	Edit	Edit	Edit	Edit
Create	Create	Create	Create	Create
*Split cell	Split cell	Split cell	Split cell	Split cell
*Remove	Remove	Remove	Remove	Remove
Publish	Publish	Publish	Publish	Publish
Full screen				
Return	Return	Return	Return	Return
Filter	Filter	Filter	Filter	Filter
Key	Key	Key	Key	Key
Target	Target	Target	Target	Target

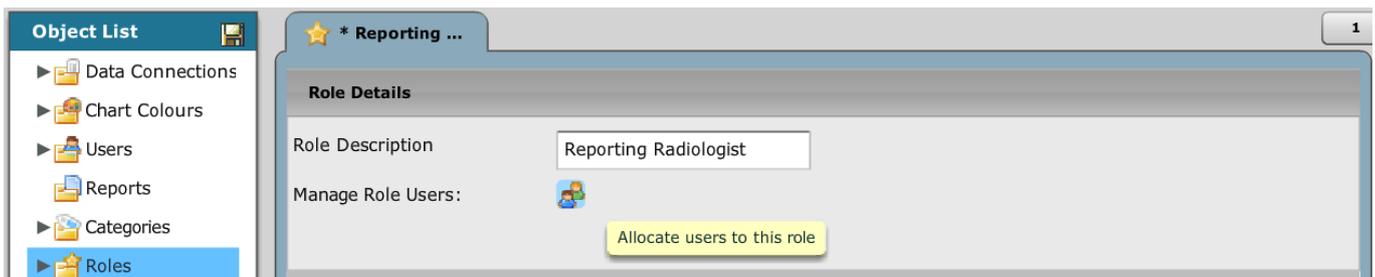
*These options are available in CREATE but not EXPLORE.

As well as being able to assign a particular role to a user which dictates the level of their authority (Administrator, Chart Designer, Chart Explorer, User, or Chart Viewer) via the droplist on the user tab, you can also create and assign one or more custom roles to a user. Roles are defined groups of categories and user privileges.

- Click ►* next to ► Roles in the Object List
- Enter a Role Description
- Drag and drop all relevant categories into the Allocated Categories and Roles panel, and select User Privileges
- Click  to save



You can then assign the role to multiple users via the Manage Role Users  button. A role can also be assigned when creating new users. One or more roles can also be applied to a user by dragging the role into the user's Allocated Categories and Roles panel. See [2.7 CREATE USERS](#)



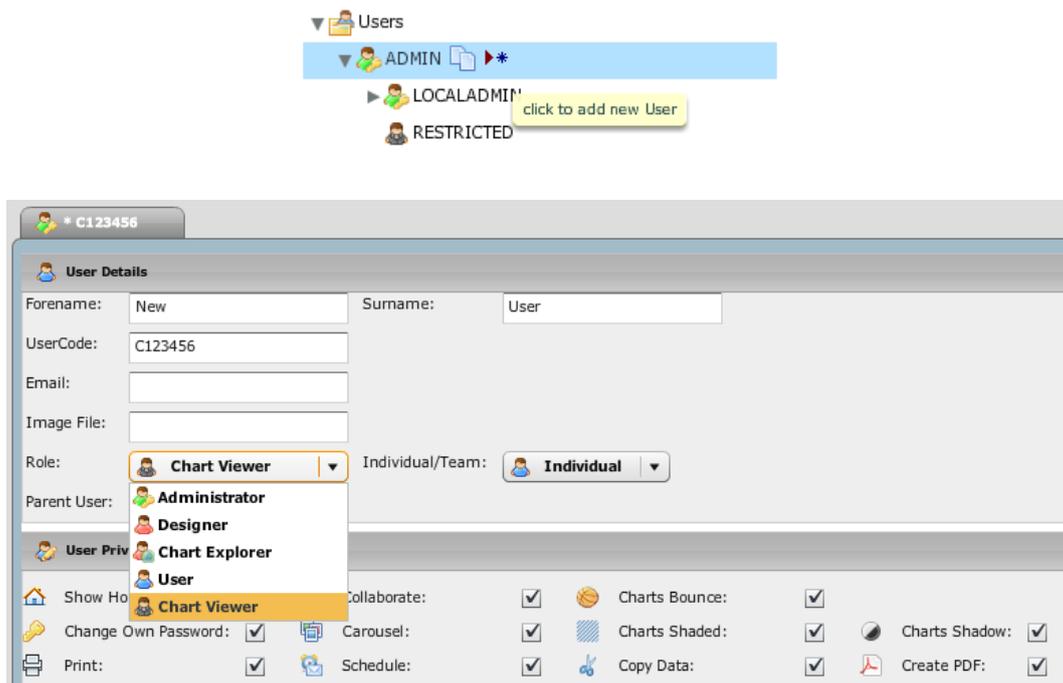
For example:

- Create a role called Reporting Radiologist
- Add all the categories (reporting dashboards) you want reporting radiologists to see
- Select the User Privileges you want this role to have
- Add all reporting radiologists to this role in the Manage Role Users window

2.7 CREATE USERS

An administrator can create user accounts with relevant access permissions. You can configure user hierarchy and roles. All users are created under the root user Admin. You can also create a 'parent' user (for example Local Admin) then save users under that parent. A user can only have the permissions available to their parent user.

- Go to the Configuration tab and click to expand ► Users
- Click ►* next to ► ADMIN (or other parent user), in the Users folder, to add a new user



User Details field	Description
--------------------	-------------

Forename, Surname	Both fields are mandatory.
UserCode (login name)	UserCode is not case sensitive. It cannot be changed once a user has been created.
Email	Enter an email address if you want the user to receive charts (including scheduled).
Image File	Image File is optional. Enter the name of the file, which should be available in your Analytics image folder.
Role	See 2.6 CREATE ROLES
Individual/Team	This is a description and does not change any functionality.
Parent User	Optional. Assigning a group of users to a Parent User enables default values to be passed down.

User Privileges

Only an administrator can grant or remove privileges from a user account. However you are only able to grant or remove the privileges that you have access to yourself i.e. if you do not have View XML privilege then you will not be able to grant this privilege to another user account.

User Privilege	Description
 Show Home Page	Displays home page.
 Change Own Password	Change own password before it expires.
 Print	Print charts on the dashboard, either individually or all.
 View XML	See the XML used to build any chart to help with diagnosing any problems, and within that, the ability to see a performance chart which details how the chart is being built, and where the time in milliseconds is being spent.
 Modify Layouts	Add/delete cells.
 Save Filters	Save filter choices in your selected sub-folder of the Defined Filters folder in the Object List.
 Edit Data Connections	Not available. Please contact HSS for any data connection queries.
 Edit Charts	Change and save existing charts.
 Edit Users	Create, duplicate, edit, delete, move, and synchronize users. You must also be an administrator to be able to do this. This option also allows you to edit general user configuration.
 RSS Bar	Access to the RSS bar and any news feeds assigned to your dashboard. Please contact HSS for any RSS queries.
 Edit Categories	Create, edit, or delete categories. You must be an administrator to do this.
 Edit Server Settings	Modify server settings. You must be an administrator to do this. Please contact HSS for any server queries.
 Set Charts Anonymous	Set charts to be anonymous. You must be a chart designer to do this.
 Collaborate	Email charts via the dashboard. The user account must have a valid email address and the SMTP server settings should be configured to match your local email settings. Please contact HSS for any collaboration queries.
 Carousel	View charts on a moving carousel which rotates across the screen. This can be used where charts are displayed in a public area.
 Schedule	Configure schedule for charts. Allows you to define the email subject, message, frequency of the schedule, and recipients of the chart. There are options to modify the font and colour of the text and define the size and height of the chart as a jpeg image.

User privileges are applied using the positive of either users or roles i.e. if on in User Privileges, and off in Role, the privilege is on. If off in Users, and on in User Privileges, the privilege is also on. If you want privileges to always be applied from Roles, turn off all User privileges. Select checkboxes to assign or remove privileges.

User Privilege	Description
 Edit SQL	Not available. Amend the SQL on individual charts and change the database query being used to build the chart. Please contact HSS for any SQL queries.
 Save Layouts	Save a dashboard layout to make it available to other users.
 Apply Saved Filters	Apply a saved filter from the Defined Filters folder.
 Edit Default Colours	Change and add default chart colours.
 Edit Reports	Create, edit, or delete links to external reports and RSS feeds. You must also be an administrator to be able to do this. Please contact HSS for report queries.
 Edit Variables	This privilege should only be given to Admin users as it allows them to add, delete and edit User Variables, on the Configuration category, from the user variables section of a profile as shown below. Unless a user has also been given the ability to Edit Users this privilege will not work.
 Edit Roles	Amend, create, and delete Roles in the Configuration category. Roles are specified groupings of categories which can be assigned to users.
 Audit	Access to the Audit category to audit other users of the dashboard and the charts created in the Audit category.
 Charts Bounce	Enable or disable the bouncing of charts when a user first logs into the dashboard, when the entire dashboard is refreshed and when any changes are made to charts.
 Charts Shaded	Enable or disable the chart shading effects that give all charts a three-dimensional appearance
 Charts Shadow	Enable or disable the shading on all charts on the dashboard for that user.
 Copy Data	Copy the raw data or numbers that sit underneath a chart onto a clipboard and then paste that information into another piece of software, such as an email, Word or Excel. Can be configured to save automatically as an Excel file.
 Create PDF	Export tables as a PDF documents. This privilege will only work with tables. Charts can be exported from the dashboard as jpeg images and scheduled with the email privilege (Collaborate). PDF documents can be customised with user level or globally defined header logos to tie them into your branding.
 Edit Own Chart Targets	Ability to set targets on a chart without editing the chart itself. The targets will recolour the plain background of the chart, behind any bars or lines. This ability can be assigned to any level of user but targets will only stick on those charts where the user has the appropriate privileges to make changes (Admin, Designer, Chart Explorer, and User).
 Suppress Warnings	

Security

An administrator can configure user security settings.

Security

Disable User:
 Allow External Login:
 Require Search Ref Code:

Password:

Confirm Password:

Password Expires:

KPI Links and Chart Targets

An administrator can drag Data Connections into here from the Object List and then add the applicable user code. Used to personalise KPIs. For example, if this user is only to see reporting KPIs related to their own performance.

KPI Links and Chart Targets	
Connection	User Code

Allocated Categories and Roles

An administrator can drag categories and roles into this panel from the Object List. This determines which categories (dashboards) this user is allowed to view, and which roles they are allocated. You can also drag categories into a role, making it easier to add multiple categories to a user, rather than adding them individually.

Allocated Categories and Roles

★ **Dashboard Admin**

🔑 **User Home**

🔑 **CRIS Reporting**

🔑 **Radiologist Workload**

User Restrictions

An administrator can drag items into here, from Data Connections in the Object List, and then enter a restriction value. This can be used so that a user only sees information for their own role/department without having to create separate charts for each of these areas.

NOTE: Where the administrator wishes to restrict the user on a number of different values in the same field then four colons should be used as the delimiter, for example January:::March

User Restrictions	
Object	Value
Silver.Modality Code	C

User Variables

An administrator can edit user variables, for example to apply a new style.

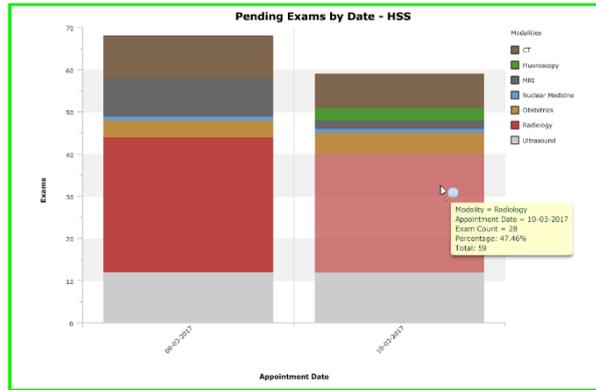
User Variables		
System Variable	Name	Value
false	STYLE_SHEET	NewStyle.css

2.8 CREATE AND EDIT CHARTS

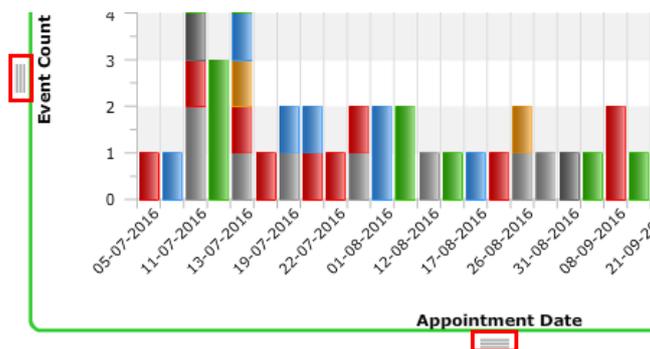
Using CREATE to edit a chart offers an administrator advanced options which are not available in EXPLORE.

Chart Actions

A chart is contained within a chart cell. Selecting a chart by clicking it will highlight the cell with a green border.



To resize a chart for easy viewing, click and drag the horizontal  and vertical  resize bars.

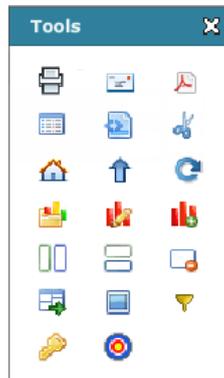


On each chart cell there are a set of buttons in the top left corner. Which buttons are available depends on the chart and data. Click  to make a chart full screen and view a selection of the following options:

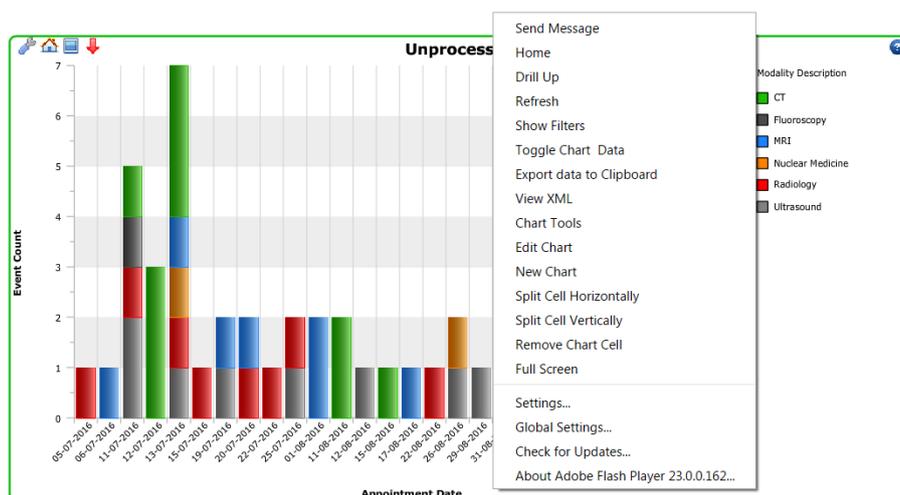
Chart icon	Description	Chart icon	Description		
	Spanner	Open/relocate Toolbar.		Blue Query	View chart information.
	Home	Return to default chart.		Copy	Copy data to clipboard.
	Refresh	Refresh chart.		Funnel	View chart filters.
	Full screen	Full screen window.		Edit	Edit selected chart.
	Return to chart	Exit full screen view.		Create	Create a new chart.
	Down/Up Arrows	Drill down/up a level.		XML	View XML data.
	View chart data	Toggle view.			View SQL data.
	Print	Print selected chart.		Send	Send chart by email.
	PDF	Export raw data.		Target	Set own targets.

Chart Tools

Click the spanner icon to open the Toolbar for the active chart. Once open the Toolbar will slide to any selected chart. All popup windows like the Toolbar can be dragged around the screen, and closed by clicking the X button.



A selection of chart actions will be available to you, based on your user account permissions, and whether you are in Chart or Data view. Chart actions are only visible when they can be used. Click a chart to select it, then right-click anywhere in the chart to open the Speed Menu. This contains the same options as the Toolbar.



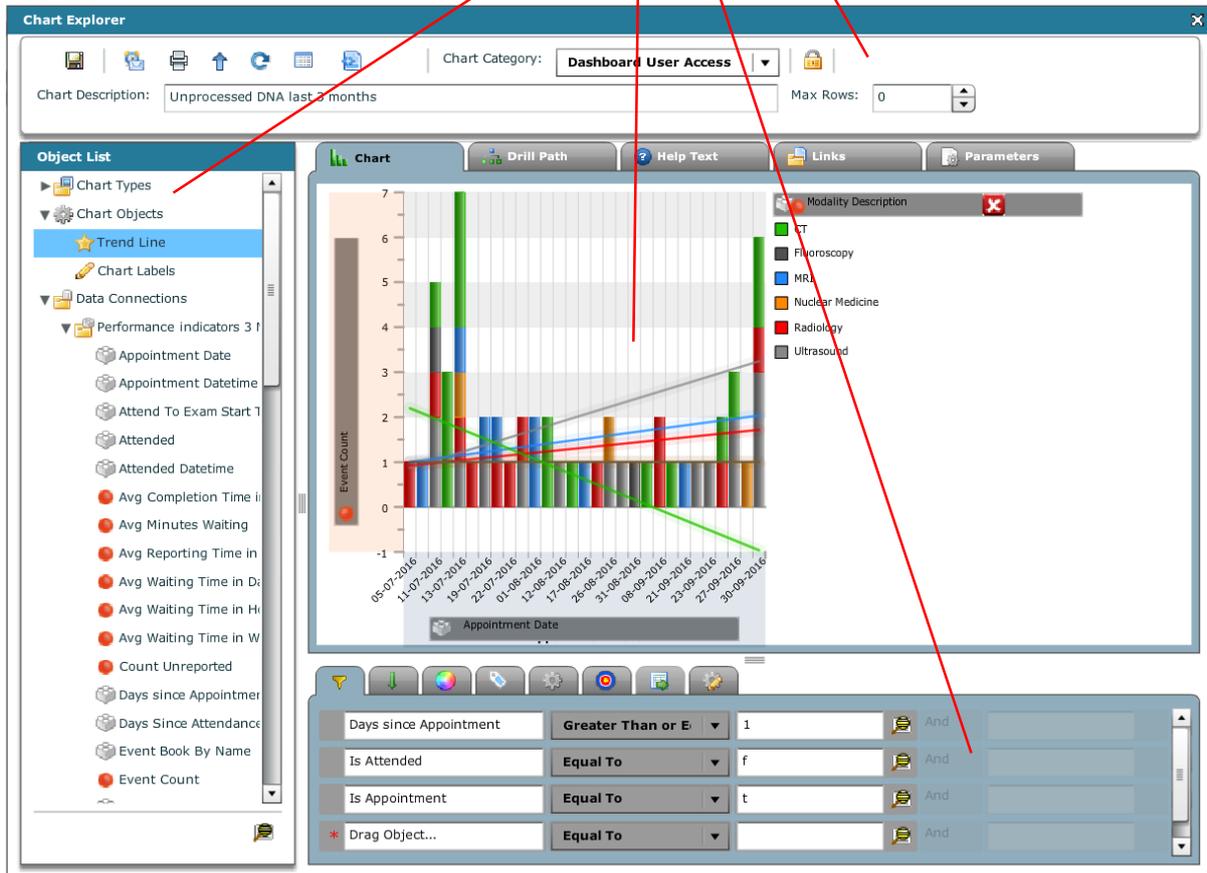
Toolbar icon	Action	Toolbar icon	Action
	Print		Edit selected chart.
	Send		Create new chart.
	Export to PDF		Add new cell to the right/below.
	View Data/Chart		Split cell
	XML		Remove chart cell.
	View SQL data.		Publish chart layout.
	Copy		Full screen window.
	Home		Exit full screen view.
	Down/Up Arrows		Show filters.
	Refresh		Change password, preferences.
	Library		Set own targets.

Chart Explorer

All features of charts - type, objects, axes, labels, title, filters, and drill path - can be customised.

Click Edit Chart  in the Toolbar, full-screen Chart, or Speed Menu to open the Chart Explorer window.

The Chart Explorer window has four panels: Object List, Chart, Edit, and Main Menu.



Object List

Contains items you can drag and drop onto your chart, including Types, Objects, Data Connections, and Defined Filters to add to your chart e.g. change from a bar chart to a pie chart.

Chart

Preview your chart and see more detailed information: Drill Path, Help Text, and Links. Drag and drop objects here e.g. change X axis value from Appointment Date to Attended Date.

Edit

Customise your chart e.g. change group colours, set visual target guides. You can also drag and drop objects here.

Main Menu

Includes Save, Configure Schedule, Print, Drill, Refresh, change PDF Preference, choose Category, and Lock chart.

To create a new chart, click  in the Toolbar or Speed Menu. Chart Explorer opens the Chart Panel at the Chart tab

Items from the Object List can be dragged and dropped into the Chart or Drill Path tabs. If an item cannot be dropped into a particular area an X icon will display next to the pointer: 

Click Search  in the Object Panel to toggle the search function. Enter full stop, asterisk, keyword e.g. **.*vetting**

Chart Types

- Click ► to expand the Chart Types folder
- Click to select a chart type e.g. Stacked Bar Chart, Speedometer, Data Table
- Drag and drop the chart type into the Chart tab

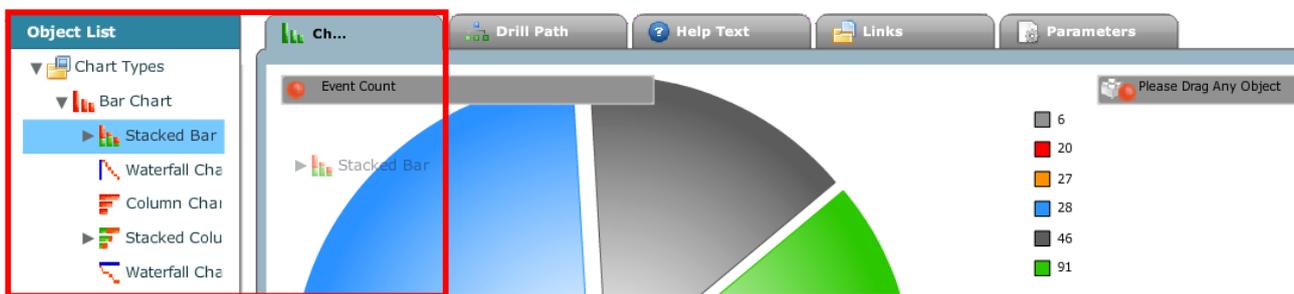


Chart Types

 Bar charts and column charts can utilise single and multi-dimensional data.

- | | |
|--|---|
|  Bar Chart |  Column Chart |
|  Stacked Bar Chart |  Stacked Column Chart |
|  100% Stacked Bar Chart |  100% Stacked Column Chart |

 Waterfall charts are single dimensional and combine values of all objects and add them together to redraw the Y axis. The actual value of the item will not change. The objects will be rearranged to flow downwards.

- | | |
|---|---|
|  Waterfall Chart |  Waterfall Chart |
|---|---|

 Pie charts are good for displaying relative sizes. This chart type is effective with a single dimension.

- | | |
|--|---|
|  Doughnut |  Pie Chart |
|--|---|

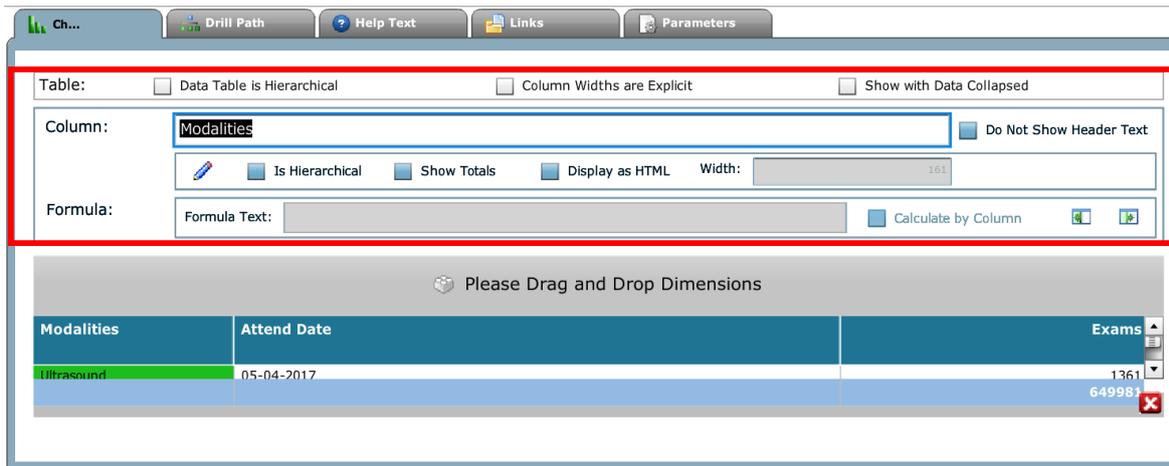
 Combined chart (line chart with bar chart) allows you to have two measures on the same chart.

- | | |
|---|---|
|  Speedometer (see below) |  Traffic Light (see below) |
|  Gauge |  Cylinder |
|  Vertical Gauge |  Light Bulb |
|  Funnel |  Map |
|  Pyramid |  Data Table (see below) |
|  Line Chart |  Form |
|  Area Chart | |

DATA TABLE CHART

Displays data as a table instead of a graph. Can be exported to Excel.

- Select a chart on the dashboard
- Click Edit Chart  in the Toolbar, full-screen Chart, or Speed Menu
- Click a column header. This opens an editing panel above the table



Description

Table

Data Table is Hierarchical	When this tickbox is selected, you can select each column individually and specify if it is hierarchical and if you want to show the totals for that column.
Column Widths are Explicit	When this tickbox is selected, you can enter a value in the Width field.
Show with Data Collapsed	Includes the number of items that have been collapsed, next to each of the objects.

Column

Do Not Show Header	Select to hide the Header name.
Is Hierarchical	When this tickbox is selected, you can expand and collapse a column. When setting columns as hierarchical there is the option to Show with Data Collapsed. This allows you to build up the table into groupings where data in the first column will be grouped as appropriate in relation to data in the second column and so on.
Show Totals	Select this tickbox to show totals for all numeric columns.
Display as HTML	
Width	This value is retained when you save the chart. Saved column widths are a percentage of the total size of the screen. The grid will still resize and apply proportional widths from the saved column widths. If the table is larger than the available space, scrollbars will be created. If a table only fills part of the screen it will show the remaining area as white space.

Formula

Formula Text	
Calculate by Column	
Insert a Formula	Insert a formula column to the left or right of the selected column.

SPEEDOMETER CHART

The Speedometer can be used as a chart type, independent of KPIs. It requires two objects - a measure and a dimension. The dimension can be any, but you will notice that this is used to build the spark line, and therefore it is typically a time series, although this is not essential. A spark line is a good way to illustrate, for example, waiting time fluctuations over a 24 hour period.

- Drag and drop a measure onto the measure label field
- Drag and drop a dimension onto the spark line hit area



The Speedometer can be placed into or have its own drill path. You can drill by clicking on the dial.

The trend point for the speedometer is the average of all the points found on the spark line (excluding the latest or last value). If a dimension is not provided for the trend line, or there is only one value found, then a spark line will not be shown.

If the measure is a KPI then the targets of the KPI will be used. Otherwise you can create or override the targets using the Targets tab on the bottom of the screen.

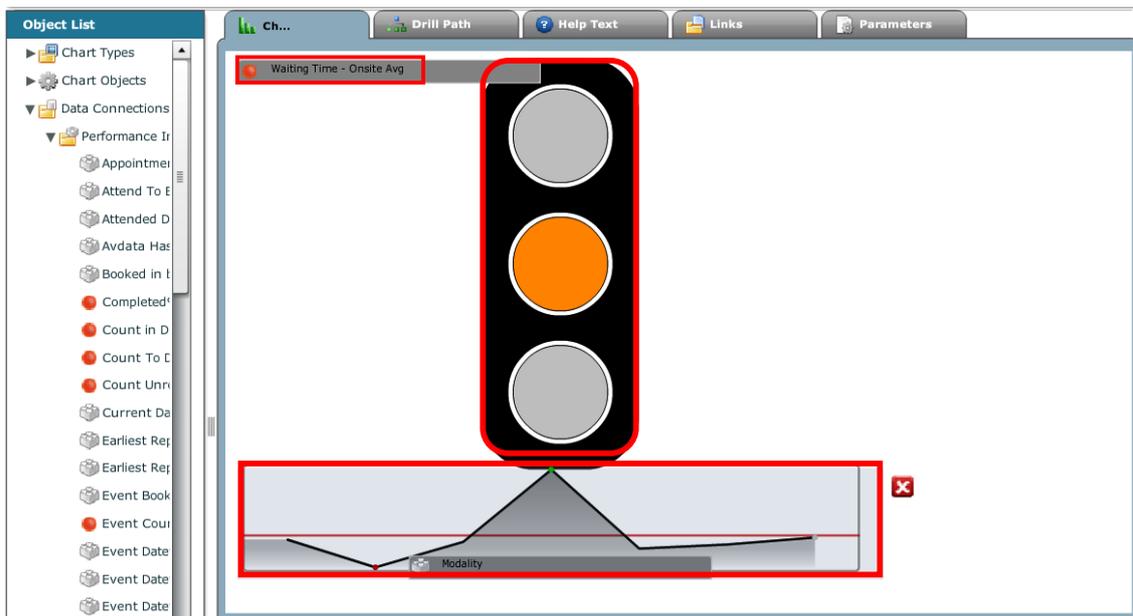
TRAFFIC LIGHT CHART

This chart type is a version of the Speedometer chart type and behaves similarly to other gauge type charts, however when swapping to or from this chart type there are particular factors which need to be considered.

The chart will accept one measure object - this is the value which is tested against targets to decide which colour is displayed on the traffic light - and one (or no) dimension object - this is the value used to create the spark line. Typically this object would be a date, but this is not essential.

Targets are related directly to the chart itself. Any targets set up in the Edit Chart window are applied at a global level and will be the same for all users who have access to the chart. If the measure object used in this chart is also defined as a KPI, even if the user who views the charts has specific targets created against that KPI, the Traffic Light chart's targets are used instead. The Chart Colours, Labels and Object tabs do not relate to this chart type and will therefore not be available.

Drag and drop a measure onto the measure label field, or the gauge, and a dimension onto the spark line hit area.



Swapping from another chart type to a Traffic Light

If the chart type is another gauge type, then the swap is direct and no additional changes are required. If the chart contains a single dimension then the swap does not require any modification; the measure is used for the value, and the dimension for the spark line. If a second dimension (i.e. legend/group object) is present then it is discarded on the swap. In this case the dimension present on the X axis of the chart is used to produce the spark line.

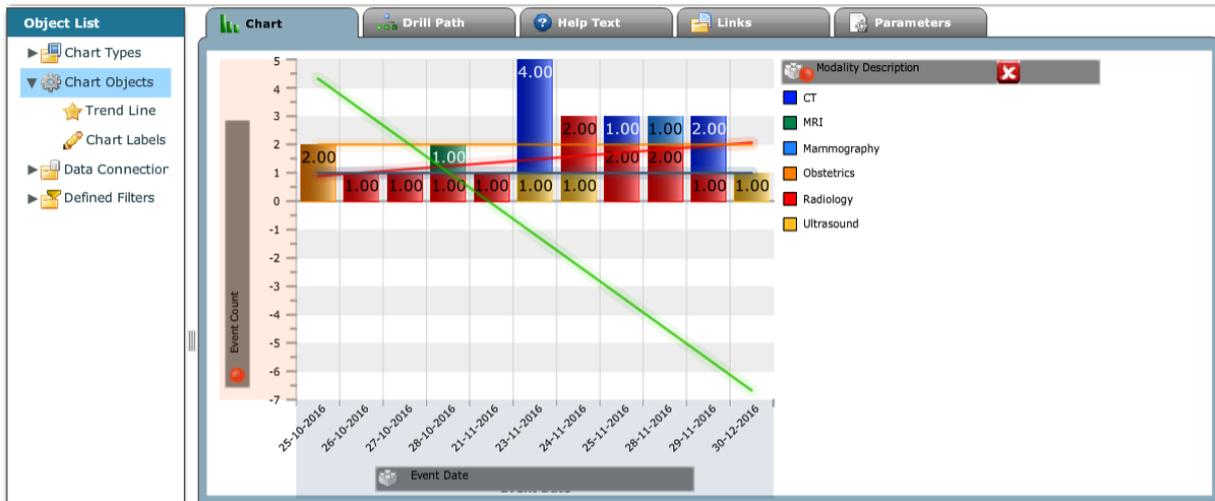
Swapping from a Traffic Light to another chart type

The resultant chart will always be drawn as a single dimensional chart, and no item will be placed in the legend. If no dimension is present in the traffic light then the full chart will not be drawn but will instead be in a state waiting to accept the drop of a dimension.

Chart Objects

- Click ► to expand Chart Objects folders
- Click to select a chart object - Trend Line or Chart Labels
- Drag and drop the object into the Chart tab

Trend Lines show the direction of change in value over time, for each legend item. In the chart below (DNAs), for example, the MRI trend is downwards and the Radiology trend is upwards. Chart Labels are a count of that group's content. In the chart below, four CTs were performed on 23-11-2016.



The Object tab displays any objects added to a chart. To remove an object, select the object, then click 

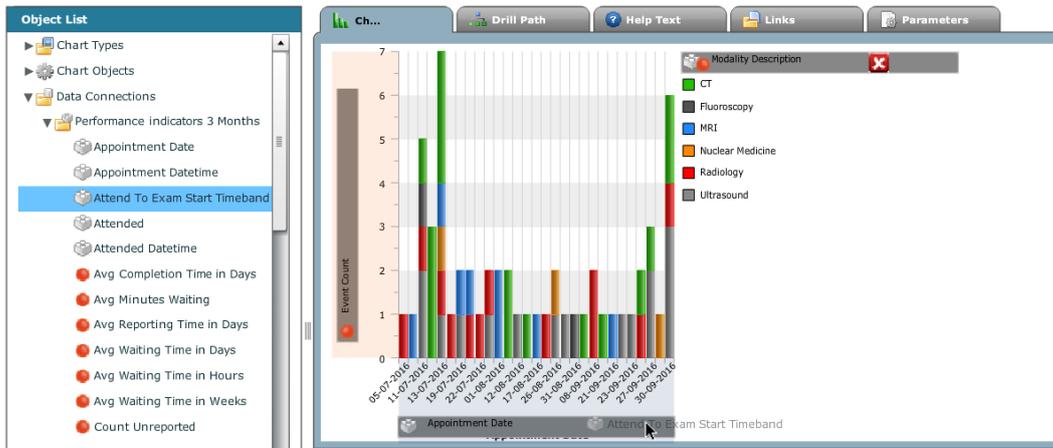


Data Connections

Data connections are the statistical values available from the CRIS database that can be used to populate a chart. Data connections are arranged in groups to help you choose the right ones. When you select your first item, subsequent items must be selected from the same group of data connections. Only that group will be visible once you make your first selection.

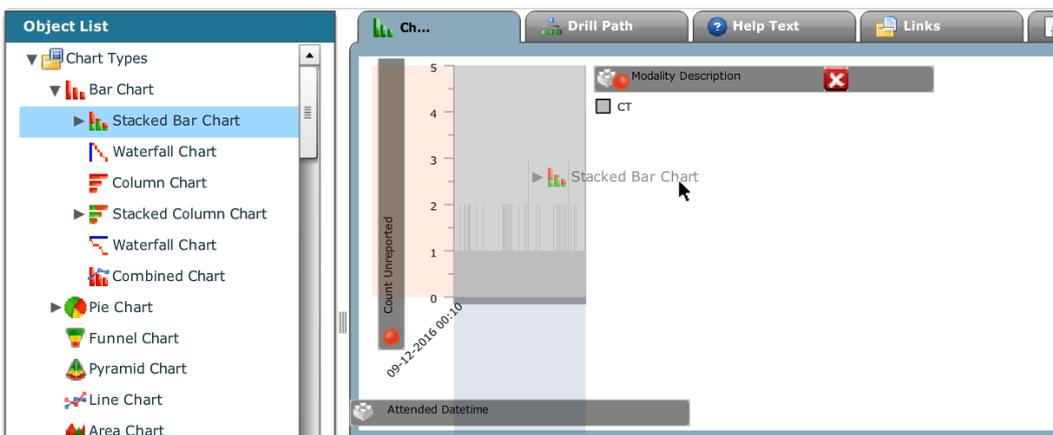
- Click ► to expand the Data Connections folder
- Click ► to expand a sub-folder (organised by type of data) in the Data Connections folder

Choose a measure (count e.g. Event Count) for the Y axis, a dimension (type of data that can be split into segments e.g. Appointment Date, Radiologist) for the X axis, and item for the legend (group e.g. Modality).



- Drag and drop a Data Connection, with a red circle (a measure), from the Object List onto the Y Axis
- Drag and drop a Data Connection, with a grey block (dimension), from the Object List onto the X Axis
- Drag and drop a Data Connection (either type) from the Object List onto the legend title
- Click ► to expand the Chart Types folder
- Enter a Chart Description, and select a Category from the droplist
- Click to save

EXAMPLE: Y axis: *Count Unreported*, X axis: *Attended DateTime*, Legend: *Modality Description*, Type: *Stacked Bar*



NOTE: A Data Connection with a red circle and an eye denotes a measure which is being monitored i.e. KPI.

Chart Filters

Defined Filters

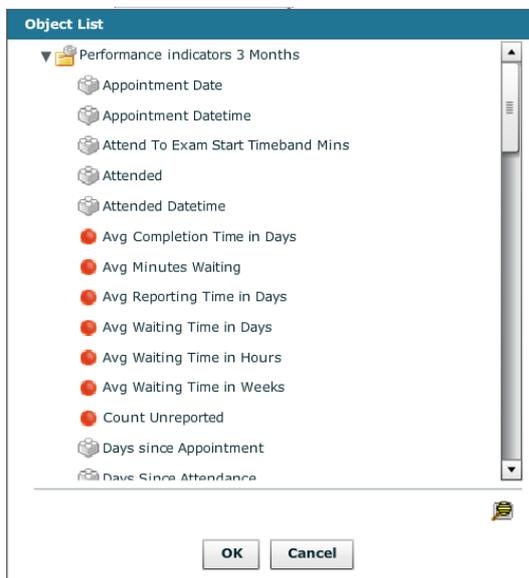
Defined filters are created on the dashboard in CREATE. You can save your filter choices to apply again, to this or other charts. Filters are saved in your selected sub-folder of the Defined Filters folder in the Object List. Any filters you add can be cleared by clicking Home  This will not remove permanent filters. See [PERMANENT FILTERS](#)

- Click Show Filters  in the Toolbar or Speed Menu

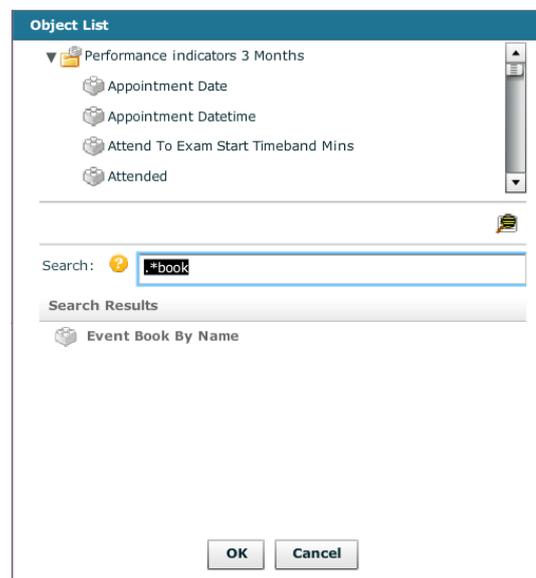


- Click Delete  to delete a filter
- Click Add  to add a new Object field, then choose an object from the Object List window
- Click Search  to find an item in the Object List. Search will start displaying results from the first letter you enter. To find a word in the middle of an object name, enter a full stop and asterisk before the search term.
- Click [OK]

OBJECT LIST WINDOW



SEARCH OBJECTS



- Choose an operator from the droplist e.g. Greater Than
- Enter a value in the Value field or click Search  for a list of values to choose from
- Click [Apply]
- Click [ Save] to save your filters
- In the Save Filters window, enter a name and description, and choose a category (tab)

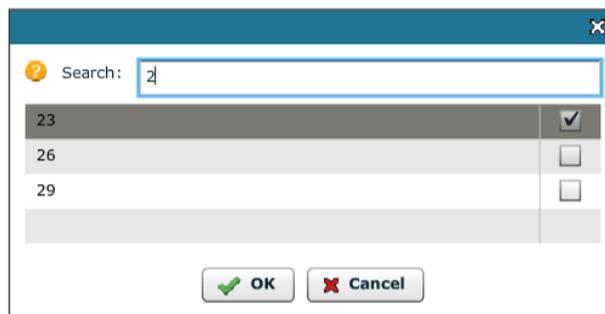
Permanent Filters

You can apply filters to the top level of a chart in the Filters tab of the Chart Explorer window. Any changes applied here will remain in place once you save this chart, and will not be affected by [SESSION FILTERS](#) or [DEFINED FILTERS](#).

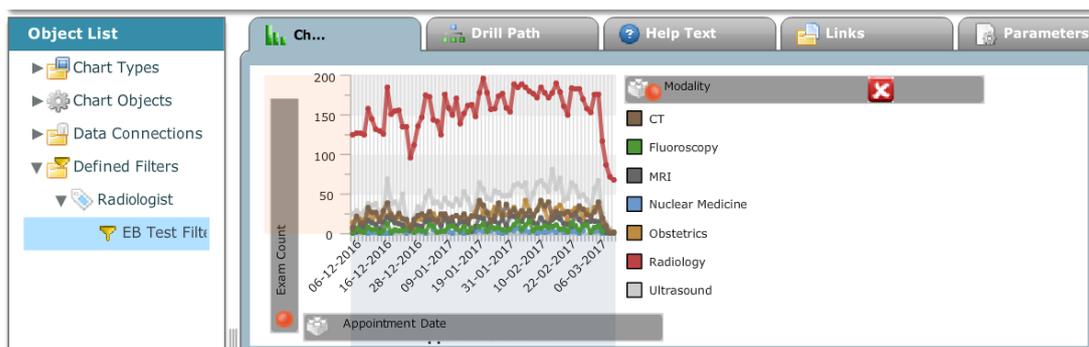
- Click Edit Chart  in the Toolbar, full-screen Chart, or Speed Menu
- Drag the resize bar to expand the Edit panel at the bottom of the screen, and view the Filters tab
- To edit an existing filter field, drag an object from the Object List panel into the field you wish to replace
- To add a new filter field, drag an object from the Object List panel into the field with a red asterisk
- Click Delete  to delete a filter
- Choose an operator from the droplist e.g. Equal To, Between, Greater Than



- Enter a value in the Value field, or click Search  to select from available values in the Search window
- Select one value's checkbox
- Click [OK]
- Click Refresh  in the Main Menu panel to view your changes
- Click [ Save] to save the edited chart



NOTE: If certain operators are applied to a measure or KPI object, then the value will be evaluated on the aggregated value. The aggregate consideration applies to Less Than, Greater Than, and Between.



Edit Filters

You can edit filters in the Filters tab of the Chart Explorer window. Any changes applied here will remain in place once you save this chart, and will not be affected by [SESSION FILTERS](#) or [DEFINED FILTERS](#).



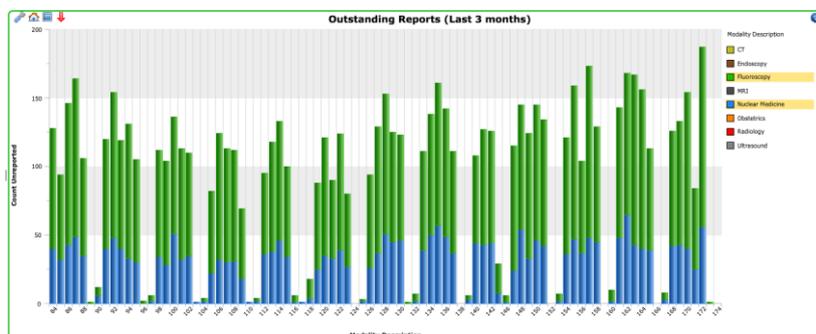
- Enter a value in the Value field, or click Search  to select from available values in the Search window
- Select one value's checkbox
- Click [OK]
- Click Refresh  in the Main Menu panel to view your changes
- Click [ Save] to save the edited chart

Filter operator	Description
Equal To/Different From	Returns values where there is/is not an exact match. Case sensitive.
Less Than	Returns values where the value is less than/less than or equal/greater than/greater than or equal to the entered criterion. Applies to dates and numbers .
Less Than or Equal To	
Greater Than	
Greater Than or Equal To	
Between	When using Between/Not Between an extra field becomes available to enter both the required criteria. Includes/excludes rows that fall within the range specified.
Not Between	
In List	Type a list of criteria that the value should match/not match. The list must be in brackets. Criteria should be in single quotes, separated by a comma. For example ('Verified','Unverified','Unprocessed')
Not In List	
Like	Type an underscore or asterisk as a wildcard. For example _verified would return verified and unverified. *ABDO* would include/exclude CABDO and CABDOC.
Not Like	
Top	Returns the top X axis values. For example if the X axis is clinicians and the Y axis is the number of unreported events, selecting 5 will return the top 5 clinicians by their number of unreported events.

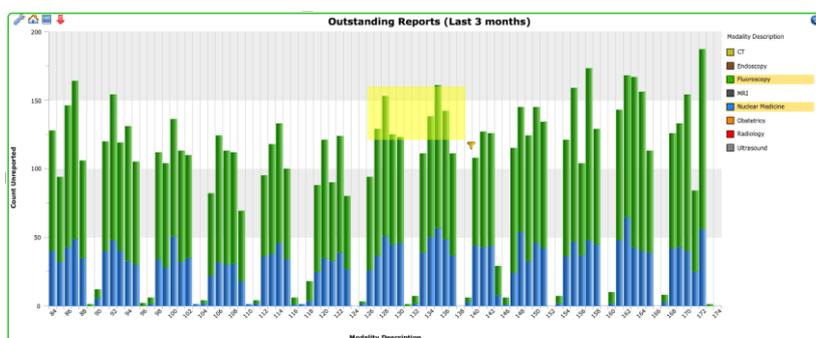
- To apply a previously saved Defined Filter to your chart, click ► to expand the Defined Filters folder in the Object List
- Drag and drop a Defined Filter onto your chart

Session Filters

Session filters are not saved. To filter a chart by group, click single or multiple legend values e.g. Fluoroscopy and Nuclear Medicine. To remove filters and return to the original chart, click Home 



To filter by the X axis value, click in an unoccupied part of the chart. The pointer changes to a funnel . Drag the funnel across the section of data you wish to view. The yellow box indicates your selected range of data.



When you stop dragging, the chart zooms to your selected range. Hover over any part of the data to view more detailed information. The pointer changes to a magnifying glass  to show that you can drill down into this chart.



Click any part of the data to drill down to the next level. The final level is the raw data which populates the chart. Click Up  to go up one level in the drill path, or Home  to return to the original chart.

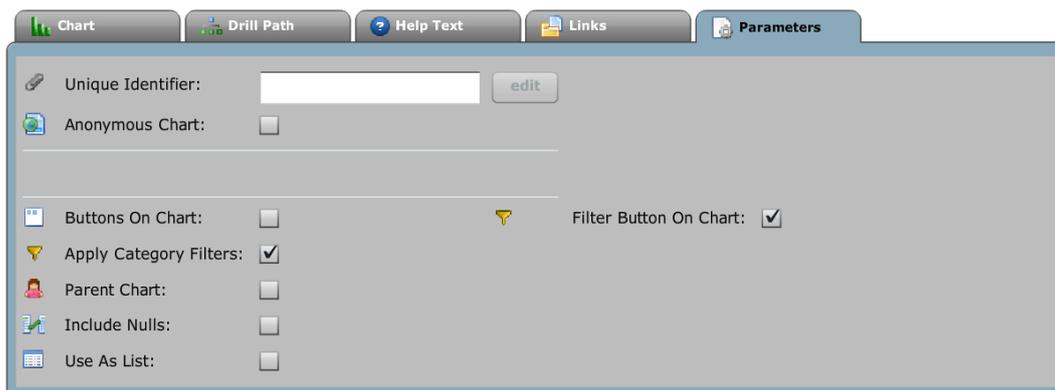
Waiting time for All for All and Routine						
Waiting Time	Event Key	Appointment Date	Request Date	Examination Description	Referral Source Type	Referring Location Name
2	996681	04-11-2015	02-11-2015	XR Chest	Consultant Source	WARD D3
2	996837	04-11-2015	02-11-2015	US Elbow Lt	Consultant Source	B9 WARD
2	996853	04-11-2015	02-11-2015	XR Pelvis	Consultant Source	B4 WARD
2	996949	04-11-2015	02-11-2015	XR Foot Lt	Consultant Source	B2 WARD
2	996985	04-11-2015	02-11-2015	CT Head	Consultant Source	WARD C4
2	997043	04-11-2015	02-11-2015	XR Acetabulum Rt	Consultant Source	M2 WARD
2	997337	04-11-2015	02-11-2015	NM Bone whole body	Consultant Source	INTENSIVE CARE

Another way to temporarily filter data shown in a chart is to drag a section, or a particular segment from a pie chart, onto another chart. For example, drag a name from *Reported by Radiologist* to *Outstanding Reports by Modality*.

Parent/Child Filters

Instead of dragging a data element from one chart to another to filter it, you can set a chart to be a parent chart, and by interacting with it, it will apply filters to all other charts on the category (tab).

- Click Edit Chart  in the Toolbar, full-screen Chart, or Speed Menu
- Select the Parameters tab in the Chart Panel
- Select the Parent Chart checkbox

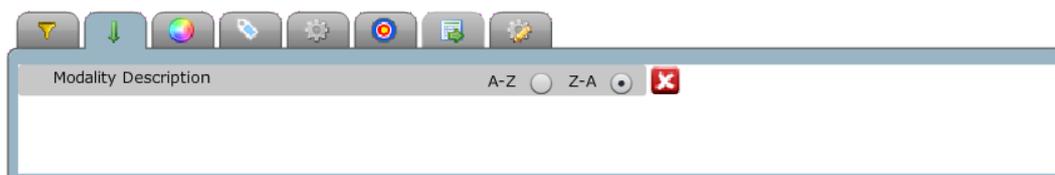


NOTE: Once a chart has been defined as a parent chart, its drill path is not taken into account. When you click on a section of a chart, or slice of a pie chart, or a row if it is a data grid, then the selected item will be applied as a filter to all of the other charts shown on the dashboard.

When a chart is a parent chart as it will have the Parent  icon in the chart cell. When you apply filters to this chart, they will be applied to other charts on the dashboard. You can create as many parent charts as you like on a page, and use combinations of charts and tables. If the parent chart contains a legend item, then you can click on the legend to filter all other charts. To remove filters click Home  on the parent chart.

Sorts

- Drag and drop an item (a dimension i.e. X axis or legend) from the Data Connections folder in the Object List
- Select the A-Z or Z-A button
- Click Refresh  to sort the order of the grouped items



Colours

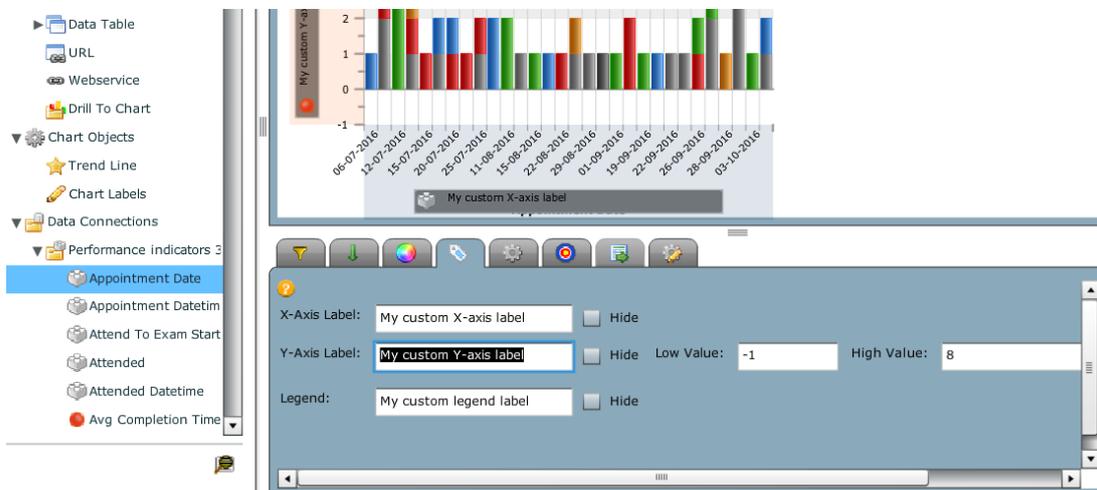
This tab displays data groups (the chart legend), and the colours assigned to them. You can edit both the legend items and their colours. See also [2.10 DEFAULT COLOURS](#)

- Choose an Object (the legend name) from the droplist e.g. Modality Description
- If you just want to edit the colours of existing groups, click the colour buttons to choose a colour for each group. The same colour can be used for multiple groups, if required e.g. both Fluoroscopy and Interventional modalities could be the same colour
- If you want to edit which groups appear on the legend, click Search  to select a value from the list of available options for each field
- Change an operator if required e.g. Equal To, Between, Greater Than
- Click  Refresh to apply your changes



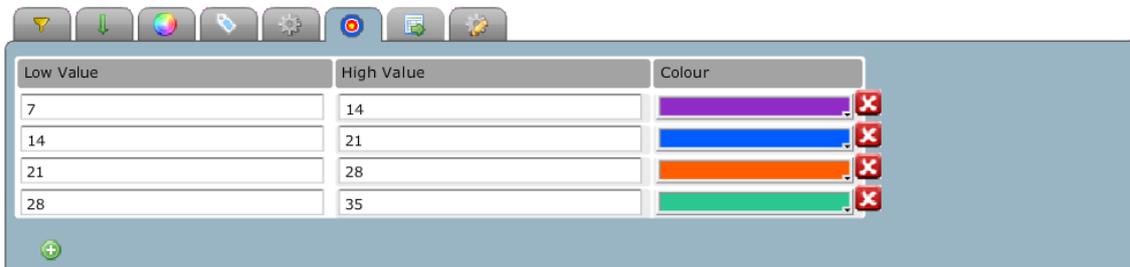
Chart Axis Labels

This tab displays any custom axis labels added to a chart. The value (data connection name) remains the same, but the display name can be changed. In the image below the value = Appointment Date, but the label = 'My custom X axis label'. If you select the Hide checkbox, the custom label is displayed in Chart Explorer, but not on the dashboard.



Targets

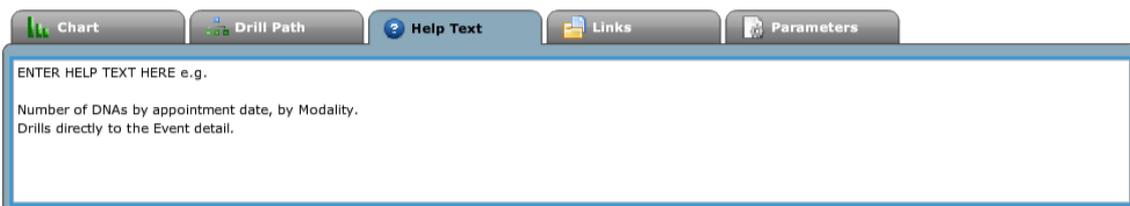
This tab displays any targets added to a chart. You can set targets for reporting, appointing etc. These display behind the data in a chart. Targets can be just a visual guide, or you can schedule an email to share your chart when a target is reached e.g. when there are over 100 unreported exams. See also [1.7 CREATE A CHART - TARGETS](#)



Low Value	High Value	Colour
7	14	 X
14	21	 X
21	28	 X
28	35	 X

Help Text

In this tab you can enter the text that displays when you hover over, or click, the blue query button on a chart. It could display, for example, a description of the chart's output and its drill path.



ENTER HELP TEXT HERE e.g.

Number of DNAs by appointment date, by Modality.
Drills directly to the Event detail.

Links

This tab allows you to link associated charts together via buttons on the chart. For example, you could have eight charts in a category, but only display four on the dashboard at a time, and click buttons to toggle between them. Remember that when you link chart A to chart B, you must also create a link from chart B back to chart A so that each chart has a button. When you have created the links, select *Buttons on Chart* in the Parameters tab. See [PARAMETERS](#) below.

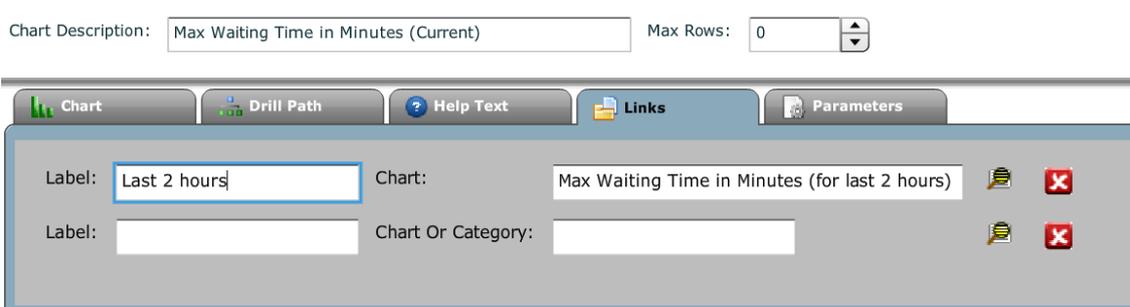


Chart Description: Max Rows:

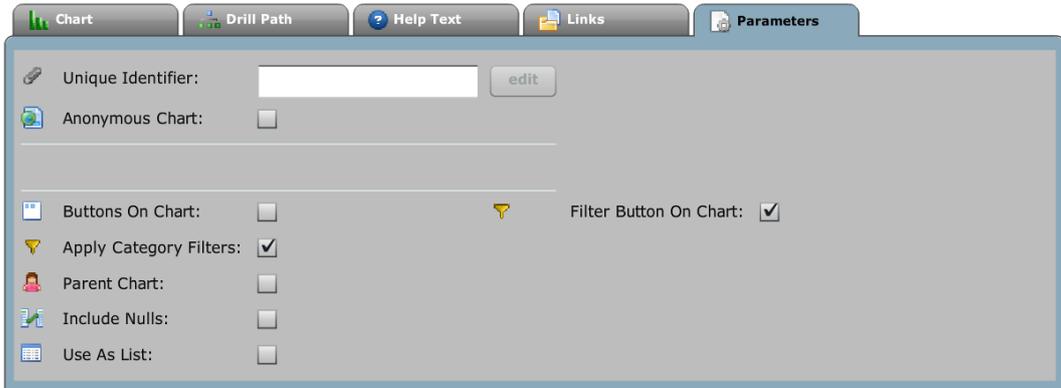
Chart | Drill Path | Help Text | **Links** | Parameters

Label: Chart: X

Label: Chart Or Category: X

Parameters

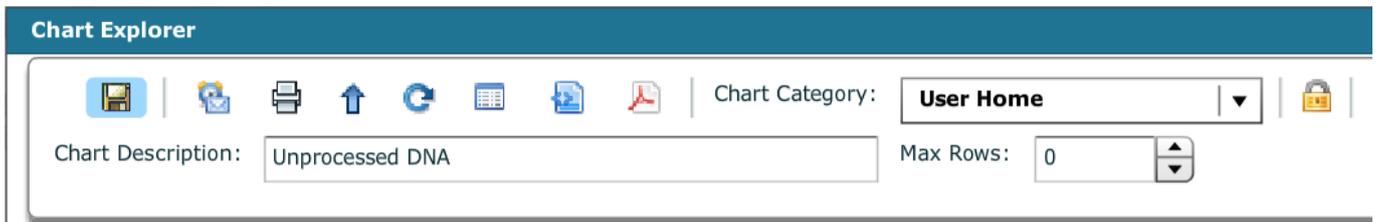
This tab allows you to set chart parameters. See table below.



Parameters item	Description
 Unique Identifier	Click [edit] to change the chart's unique number/name.
 Anonymous Chart	Select the tickbox to make this chart anonymous.
 Buttons On Chart	Add a Links buttons to the bottom of the chart.
 Filter Button On Chart	Add a Filter button to the top of the chart.
 Parent Chart	Select to make this a Parent Chart. Defined Filters applied to this chart will be applied to other charts on the same dashboard. See PARENT/CHILD FILTERS
 Include Nulls	
 Use As List	

Main Menu

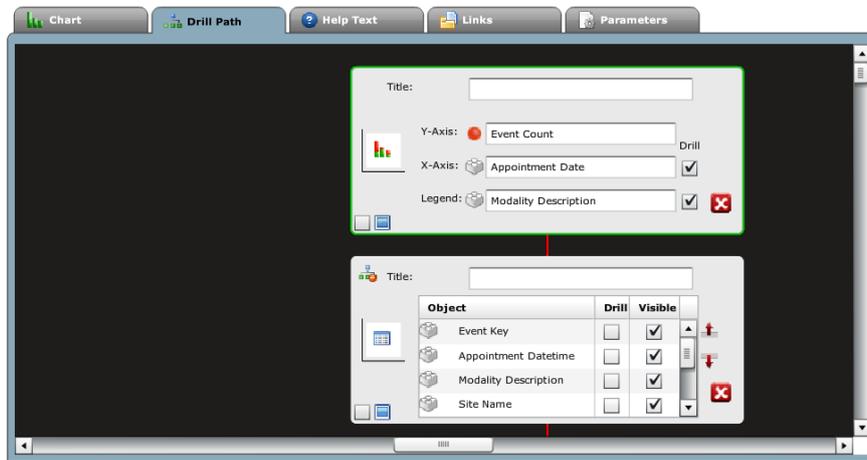
There are further chart options in the Main Menu panel.



Main Menu item	Description
	Floppy disk Save a chart, and any changes made.
	Schedule Send a chart via email to one or more recipients, either once, or at regular intervals. See 2.9 SCHEDULING
	Print Print the Chart tab.
	Down/Up Arrow Drill down or move up one level.
	Refresh Refresh chart data. To update to the latest data from the RIS, or to see the results of changes made to the chart e.g. new filters applied.
	Data/Chart Toggle between chart and data views.
	XML View XML data.
	View SQL data.
	PDF Select PDF preference: Portrait or Landscape orientation.
	Padlock Password protect the chart to prevent other users from copying or saving the chart. Select the 'Prevent open' tickbox to prevent other users from viewing the chart.
Chart Category	To move a chart, select a category (tab) from the droplist.
Chart Description	Title which appears above chart.
Max Rows	Limit the rows when designing charts so that the process is faster.

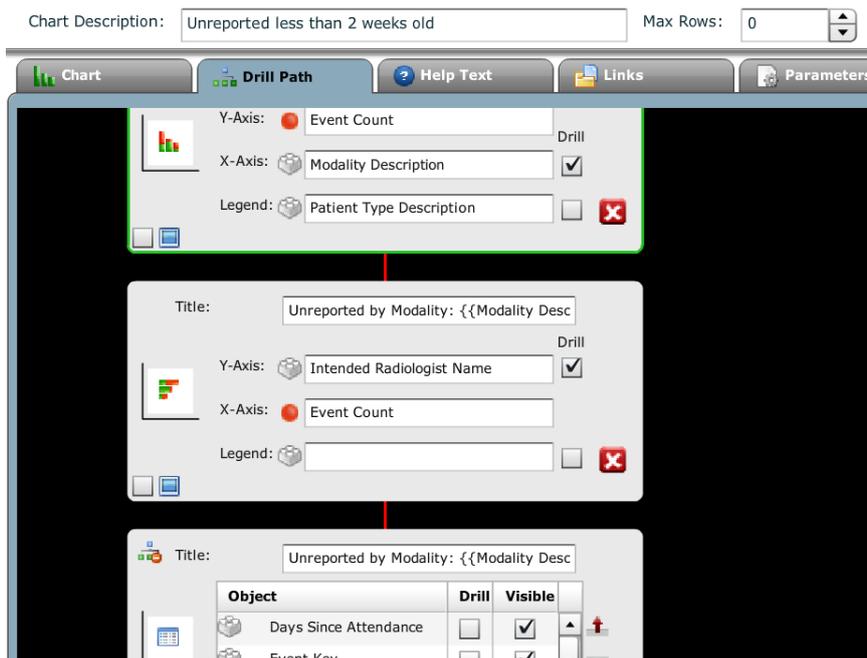
Create a Drill Path

A 'drill path' is the order and type of steps Analytics takes, when you click a chart to drill into the data, to display the results of your query. The Drill Path tab shows how a chart will behave when drilled. Each step (box in the diagram) is called a drill node. The last node contains the columns which are shown at raw data level.



- Drag and drop a Chart Type onto the chart icon . You can choose a different Chart Type for each level
- Drag and drop a Data Connection into any field. A Data Connection can be added as an axis value, a legend value, or a column in the raw data (final node)
- Drag and drop a Data Connection into the Title field. Use `{{Two Curly Brackets}}` to make case-sensitive
- Select the Drill tickbox to include an item in the next step
- Click the  icon to add a new node
- Rearrange columns using the red arrows to the right of the scroll bar
- Select the  icon to make this level open in full screen when you drill down into the chart

In the example below, for the top level chart *Unreported less than 2 weeks old*, the next level drills down to reporting clinicians. The title changes to *Unreported by Modality: {{Modality Description}}* for that level. The final level includes *Intended Radiologist* because the Drill tickbox is selected.



Save a Chart

When you have finished editing or creating a chart, click the Save  icon. If you edited an existing chart but didn't rename it, the Chart Explorer window will close and the chart will be refreshed.

If you edited a chart and saved it with a new name, or created a brand new chart, your new chart will automatically replace any existing chart in the cell. The previous chart will still be available in the Chart Library.

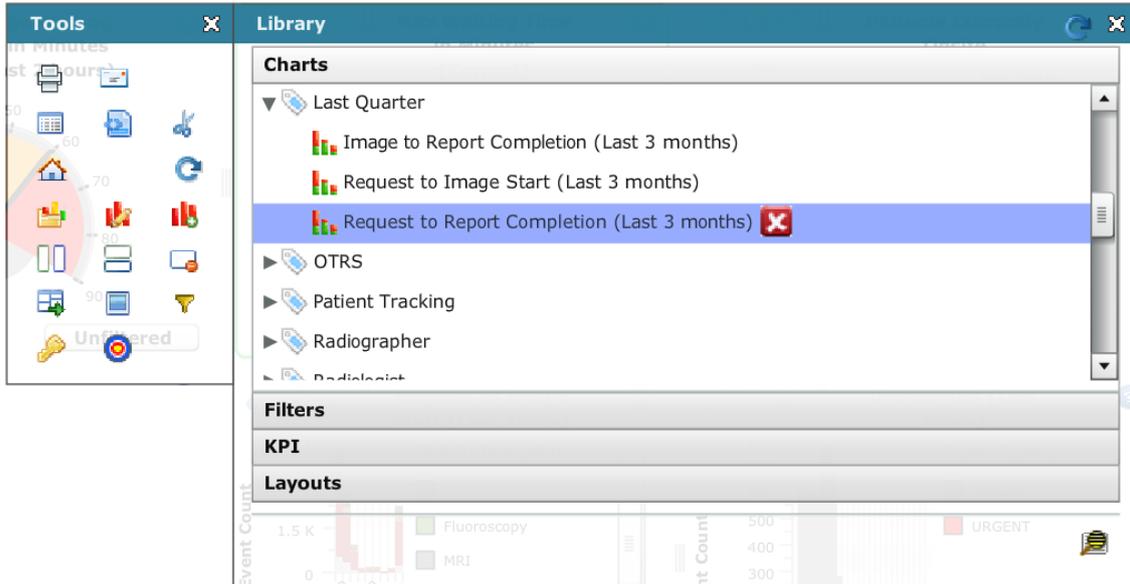
To make charts easier to find and understand, each chart should be given a name in the Chart Name box, and assigned to a category in the dropdown list. This also acts as a security feature as only users who have been allocated access to the relevant category will be able to see and access the chart.

To add your new chart to a dashboard, you can drag it from the Chart Library onto a cell. See also [1.5 ADD A CHART](#)

Delete a Chart

Charts can only be deleted from the Chart Library. You must have Admin user permissions to delete a chart.

- Click Library  in the Toolbar
- Click the Charts accordion bar to display its contents
- Click ► to expand a list, or ▼ to collapse it
- Hover over a chart, then click the icon  that appears



If the chart is in use you will receive a warning message before you confirm or cancel the deletion. For users who were using a chart that you delete there are two possible scenarios:

1. If the user was not logged in at the time then, next time they log in, the chart space formerly occupied by the deleted chart will be filled instead by the first chart published to the relevant page category
2. If the user is still logged in, then the deleted chart will still be on their page. When they try to refresh or use the home button they will receive an error message

2.9 SCHEDULING

You can schedule the sending of a chart via email, for example a weekly list of outstanding reports to clinicians.

- Click Configure Schedule  in the Main Menu panel
- Select the 'Chart schedule is active' checkbox
- Enter a message subject, and the text which will be used as the email message to accompany the scheduled item. This can be formatted using the standard formatting buttons below the field

MESSAGE TAB

SCHEDULE TAB

Schedule Item	Description
Preserve Previous Values	Select how many historic schedules you want to retain.
Refresh Every <i>[number]</i> <i>[frequency]</i>	Define how frequently you want to refresh the schedule.
Between Hours	Drag the sliders to select the hours between which you want the schedule to run.
Days Of Week	Select checkboxes for all the days you want the schedule to run. If no checkboxes are selected the schedule will run every day.
 View graph	View a graph of daily scheduled jobs.
 View this schedule	View the schedule runs for this chart.
 View all schedules	View all schedule runs.

- Add the names of Analytics users you want to send the chart to by selecting some, or all, checkboxes. If you want to email anyone without an Analytics account, please see your system manager
- Click [ Save]
- To view all schedule runs, click the red clock icon  either here or in the Object List panel

RECIPIENTS TAB

Schedule Configuration: Unprocessed DNA

Chart schedule is active:

Message Schedule Recipients

Users:

- ADMIN
- LOCALADMIN
- TU
- XU

Select All:

Email Addresses:

DrWatson@mhs.uk;

Save Close

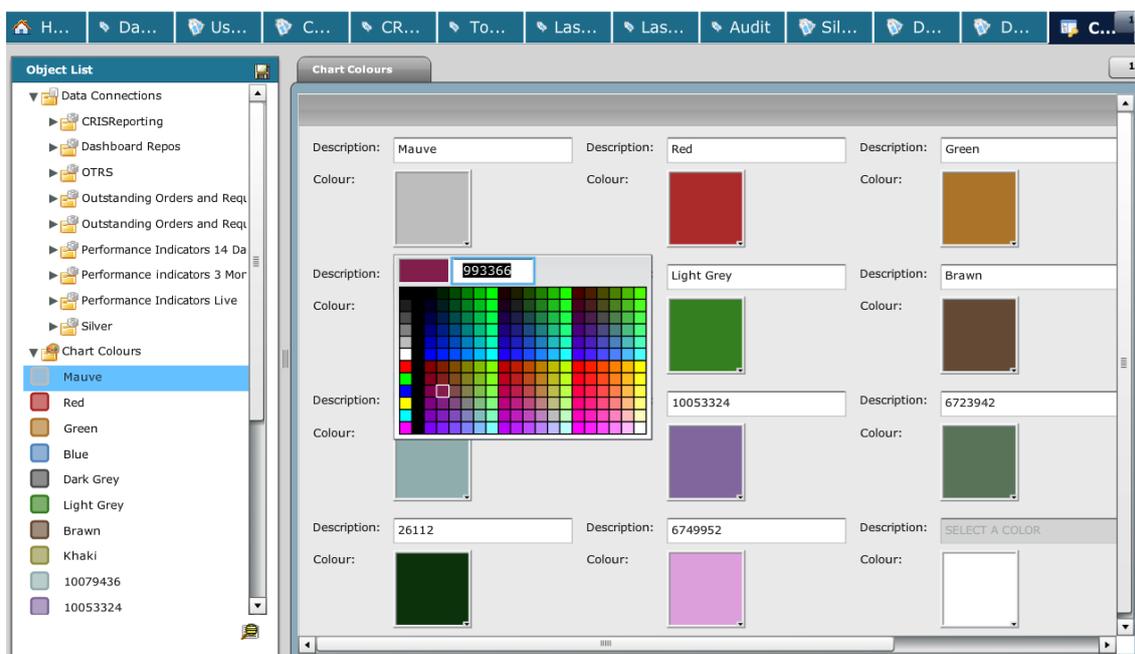
SCHEDULER RUNS

Type	Name	Process Date	Status	Start Time	End Time
Chart Count		7-Oct-2016 11:01:05			
Chart Count		7-Oct-2016 11:01:05			
Chart Count		7-Oct-2016 10:56:05		7-Oct-2016 10:56:05	7-Oct-2016 10:56:05
Chart Count		7-Oct-2016 10:56:05		7-Oct-2016 10:56:05	7-Oct-2016 10:56:05
Chart Count		7-Oct-2016 10:51:05		7-Oct-2016 10:51:05	7-Oct-2016 10:51:05
Chart Count		7-Oct-2016 10:51:05		7-Oct-2016 10:51:05	7-Oct-2016 10:51:05
Chart Count		7-Oct-2016 10:46:05		7-Oct-2016 10:46:05	7-Oct-2016 10:46:05
Chart Count		7-Oct-2016 10:46:04		7-Oct-2016 10:46:05	7-Oct-2016 10:46:05
Chart Count		7-Oct-2016 10:41:04		7-Oct-2016 10:41:04	7-Oct-2016 10:41:05
Chart Count		7-Oct-2016 10:41:04		7-Oct-2016 10:41:04	7-Oct-2016 10:41:04
Chart Count		7-Oct-2016 10:36:04		7-Oct-2016 10:36:04	7-Oct-2016 10:36:04
Audit Count		13-Apr-2016 08:00:00		13-Apr-2016 08:00:07	13-Apr-2016 08:00:16
Chart Count		13-Apr-2016 08:00:00			
Audit Count		13-Apr-2016 08:00:00			
Chart Count		30-Jan-2016 08:00:00		30-Jan-2016 08:00:04	30-Jan-2016 08:00:04
Audit Count		30-Jan-2016 08:00:00		30-Jan-2016 08:00:03	30-Jan-2016 08:00:04
Completed%		1-Oct-2015 10:19:53		1-Oct-2015 10:20:19	1-Oct-2015 10:20:20
Completed%		1-Oct-2015 10:12:05		1-Oct-2015 10:12:53	1-Oct-2015 10:12:56
Completed%		1-Oct-2015 10:04:51		1-Oct-2015 10:05:05	1-Oct-2015 10:05:09

2.10 DEFAULT COLOURS

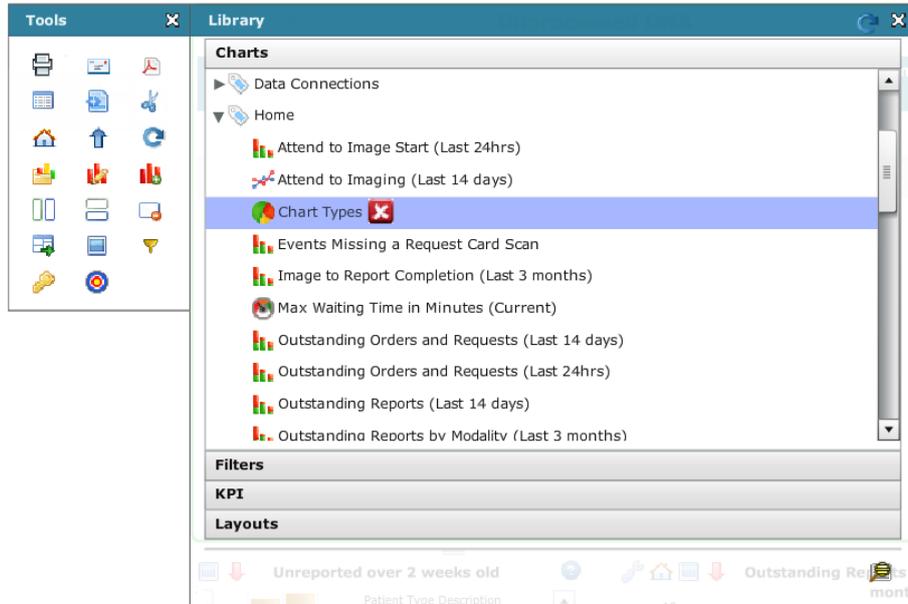
This screen is used to change the default chart colours. Users can also edit their own chart colours without affecting the default colours. See [1.7 CREATE A CHART - COLOURS](#)

- Go to the Configuration tab
- Double click  Chart Colours
- Select a colour, or type a hex value



2.11 ADD A CHART

Click Library  in the Toolbar to display all of your Charts, Filters, KPI, and Layouts, in tree view. Here, you will find a selection of custom-made charts that you can use. If the Library is opened via the Speed Menu, the Toolbar also opens beside the Library window. Toolbar actions are only applied to the selected chart behind this window, not the charts in the library. See also [1.5 ADD A CHART](#)

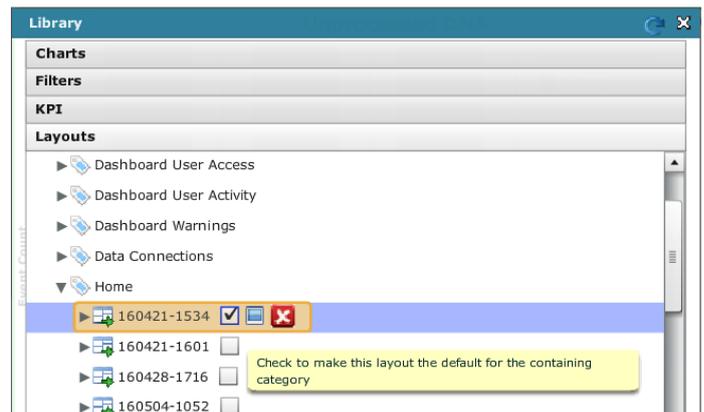
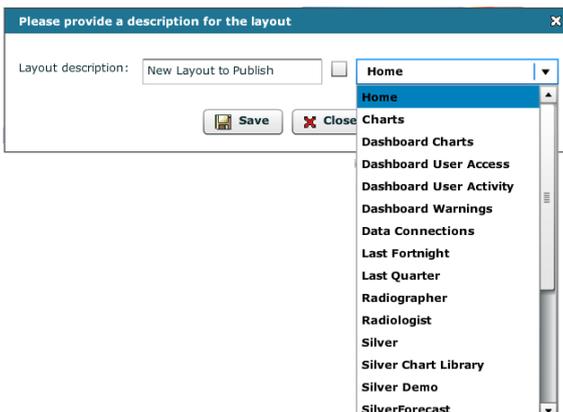


- Click an accordion bar to display its contents
- Click ► to expand a list, or ▼ to collapse it
- Drag and drop an item into any cell, new or occupied
- If you have administrator permissions, you can click  to delete an item

2.12 PUBLISH A LAYOUT

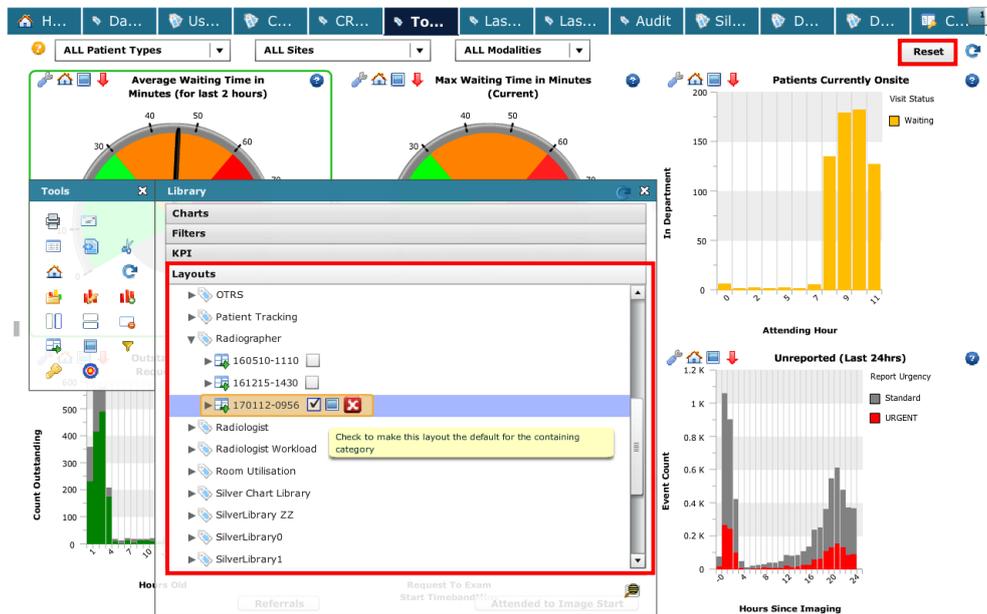
Click Publish  in the Toolbar to publish a new layout (how the charts are arranged on your dashboard). Other users with access to the same dashboard will see the layout if you make it the default. See [2.12 SET AS DEFAULT](#)

- Enter a description, and choose a destination category (tab) from the droplist
- Click [Save] or, to exit without saving, click [Close]



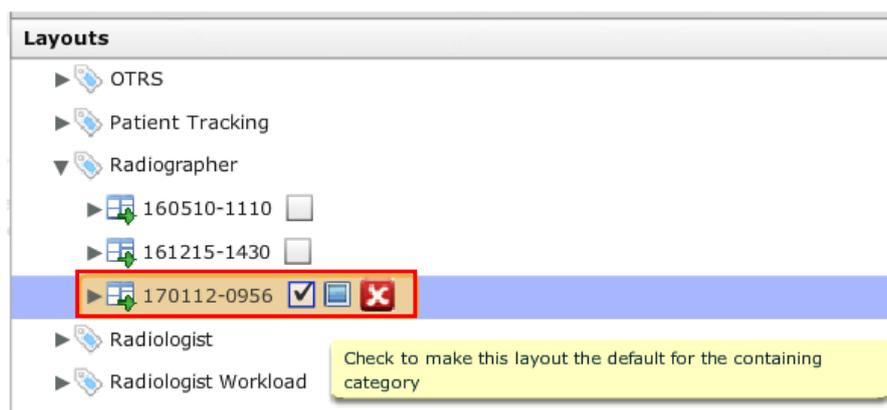
APPLY A LAYOUT

Choose a new layout, to apply to your dashboard, from the Chart Library by dragging an item from the Layouts section and dropping it anywhere on the page. This will overwrite the current layout. To restore the default layout drag the layout with the selected checkbox back onto the page.



SET A DEFAULT LAYOUT

Select the checkbox to set the default layout for this category. Non-admin users with access to the same dashboard will see the layout if you make it the default, otherwise they will see a blank dashboard, or their own layout.



PREVIEW A LAYOUT

Before applying a layout you can view it as it would appear on the category. Click the full screen icon 

DELETE A LAYOUT

If you have admin or chart designer user privileges then you can delete a layout by clicking Delete 

Document Control

Title	CRIS Analytics User Manual EXPLORE and CREATE		
Owner	HSS Training Manager	Date Created	11/07/2017
File Ref.	CRIS_CRIB601_Analytics_Manual_V1.0		
CRIS Version	2.09.10t1e and above		
Analytics version	pi.17.08.06f2867649		
Change History			
Issue	Date	Author / Editor	Details of Change
D1.0	11/07/2017	Emma Brown	Draft Issue. Note: numbering is intentionally manual.
D2.0	23/10/2017	Emma Brown	Revised to separate Explore and Create.
D3.0	07/11/2017	Emma Brown	Revised for pilot
V1.0	21/11/2017	Emma Savage-Mady	Review and release
Review Date	21/11/2019		