



**Snell
Advanced
Media**

User Manual

RollCall Control Panel

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1. Introduction

1.1 Overview

The RollCall Control Panel enables the control of RollCall-compatible units over a network.

Every RollCall-compatible unit has a template that allows control of the device. Control levels can be configured with different access levels (User, Engineer, or Supervisor), allowing only access to those functions and settings required by the current user.

The Control Panel is written in Java and requires the Oracle Java Runtime Environment (JRE) to be installed. JRE 1.7 or later is required.

The Control Panel can be run either as an applet or as an application.

1.2 Software Setup Information

1.2.1 Enabling ClearType Rendering

When drawing text on the screen, the Control Panel (application or applet) uses the currently specified Windows rendering method. For the best appearance, use ClearType rendering.

To enable ClearType rendering on Windows XP:

1. Open the Window properties screen.
2. Select the Appearance tab, and then click on **Effects**. The Effects screen displays.

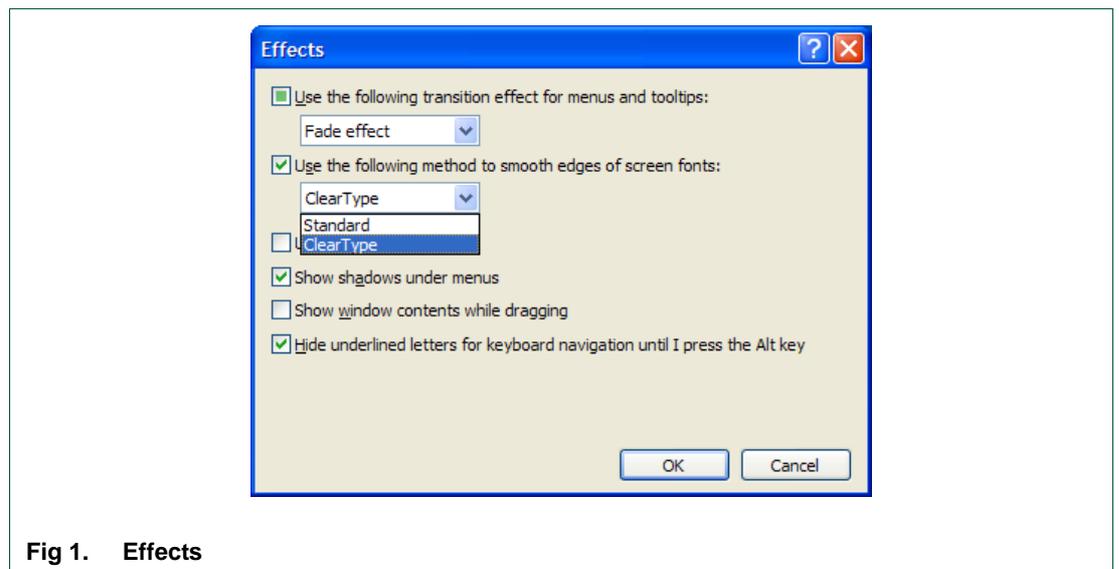


Fig 1. Effects

3. From the **Use the following method to smooth edges of screen fonts** drop-down list, select **ClearType**.

To enable Cleartype rendering on Windows 7:

1. From Windows Control Panel, select Display.
2. From the side tab select Adjust ClearType text. The ClearType Text Tuner screen displays.

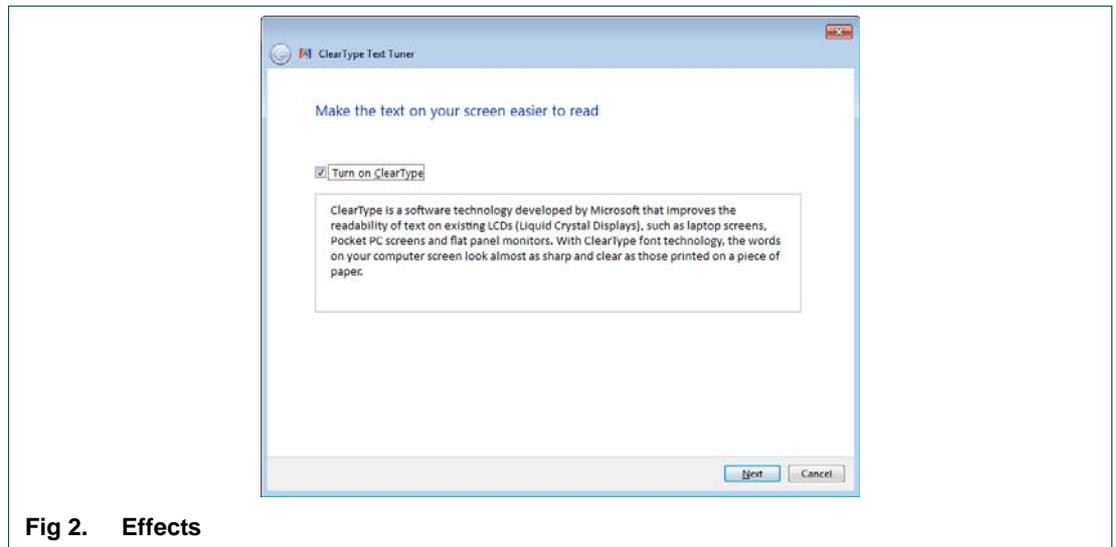


Fig 2. Effects

3. Check the Turn on Clear Type checkbox.
4. Click **Next**.
5. On the next screen, select the screen to tune, or all screens accordingly, and click **Next**.
6. Follow the on-screen instructions to setup the clearest text for the screen.
7. Click **Finish**.

1.3 Running the Control Panel as an Applet

New IQ modular chassis are shipped with a Control Panel applet on board. Details of how to launch the applet are given in the IQ modular chassis documentation.

Note: Some earlier chassis may have been supplied with a V 1.0.0 Control Panel Applet. Documentation for this version was supplied as part of the corresponding IQ modular chassis documentation.

1.3.1 Applet Cross Platform Support

The applet can run on Windows, Mac OS, and Linux operating systems.

Note: When running the applet on either Mac OS or Linux, there is no support for serial network connection, or for upgrading 30 Series Modular Converters.

Some versions of the operating systems require extra actions before running the applet:

Windows XP and 7

- Enable ClearType Rendering (all Windows versions). See Enabling ClearType Rendering on page 5.

Mac OS X

- In Safari 6.1 and above, add the applet website to the White List, and allow it to run in Unsafe mode. It is also necessary to turn off the popup blocker.
- Ensure that Java 1.7 or later is used.

When using the Mac OS, the default Aqua look and feel cannot be changed.

Linux

- The Selinux security manager can prevent the applet from running in Firefox.

1.3.2 Optimizing the Applet's Display

There are Java System properties used to improve aspects of the Applet's performance:

- **Xmx** - Controls the amount of memory allocated to the applet. A minimum of 512MB is recommended
- **sun.awt.noerasebackground** - Controls background erasing during resize. Turning it off prevents flickering while resizing or scrolling.
- **sun.java2d.noddraw** - Controls the use of DirectDraw. In a system where DirectDraw is not properly supported by the hardware, use of DirectDraw can cause screen corruption when scrolling.

To set the Java System properties:

1. Open the Java Control Panel and select the Java tab.
2. Click the **View** button in the Applet Runtime Settings panel.
3. Copy and paste the line below into Java Runtime Parameters:

```
-Xmx512m -Dsun.awt.noerasebackground=true
-Dsun.java2d.noddraw=true
```

1.3.3 Applet Parameters

To launch the applet directly, without navigating to the chassis's home page, type the following into the address bar of a browser:

IP address/ram/applet.htm

Where IP address is the address of the IQ modular chassis.

Use this, in conjunction with query string parameters, to modify the behavior of the applet. The applet recognizes the following query string parameters:

Parameter	Description
Gateway	The IP address to connect to (it defaults to the chassis the applet is loaded from).
Port	The IP port address to use (it defaults to port 2050).
Width	The width of the applet window (the default depends upon the screen resolution).
Height	The height of the applet window (the default depends upon the screen resolution).
Unit	The RollCall address of a unit to auto-connect on startup.

Table 1. Applet Parameters

Examples:

IP address/ram/applet.htm?port=2060 to use a different port number

IP address/ram/applet.htm?width=800&height=600 set the initial width and height

1.3.4 Default Home Directory

The home directory contains many of the files required or created by the Control Panel - for example, log files, savesets, and the menu and template caches.

The default home directories according to each operating system are:

Windows 7	C:\ProgramData\SAM\controlpanel
Windows XP	C:\Documents and Settings\All Users\SAM\controlpanel

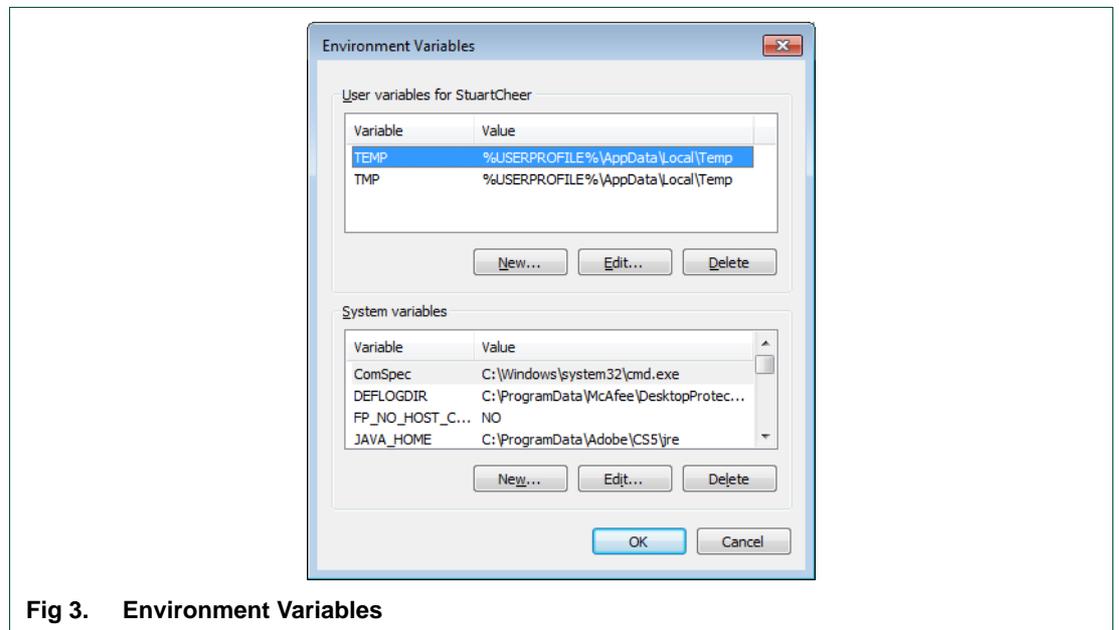
Mac OS ^[1] Users/<user.home>/Library/Application Support/SAM/controlpanel
Linux ^[1] <user.home>/SAM/controlpanel

[1] Where <user.home> is the name of a MAC or Linux user account

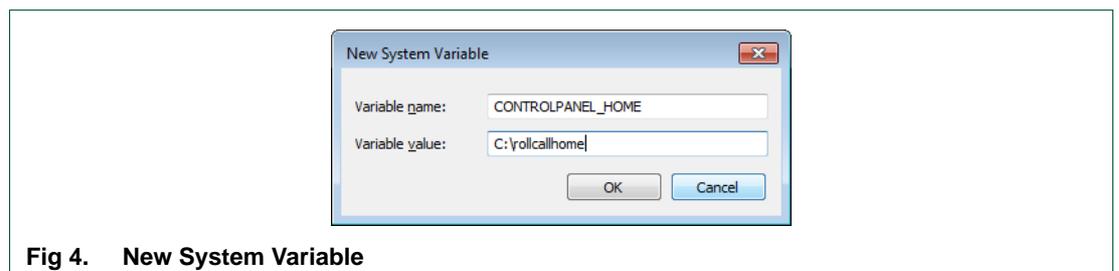
1.3.4.1 Change the Default Home Directory

On Windows, the default home directory is common to all users. However, some organization’s IT policies may restrict access to this directory. In which case, an alternative home directory can be specified using the CONTROL_PANEL_HOME environment variable:

1. Ensure that the RollCall Control Panel is not running.
2. Click the Windows **Start** menu and select Control Panel.
3. From the Control Panel window, open the System properties.
4. Click **Change Settings** (Windows 7 only).
5. Click the Advanced tab, and then click on **Environment Variables**.



6. In the System variables section, click **New**.
7. In the dialog that displays, enter CONTROL_PANEL_HOME in the Variable name field. Then, in the Variable value field, enter the location in which you would like the home directory to be created, for example, C:\rollcallhome.



8. Click **OK** to close the New System Variable dialog, then click **OK** to close the Environment Variables and System Properties dialogs.

Note: When using MAC or Linux the default home directory is fixed and cannot be changed.

1.4 Running the Control Panel as an Application

The Control Panel is also supplied as part of the RollCall Infrastructure Management System (version 4 and above).

1.4.1 Memory

The Control Panel uses a default memory allocation of 512MB.

This can be changed, if necessary, by doing the following:

1. Close Control Panel if it is running.
2. Create an empty text file called 'RollCall Control Panel.vmoptions' in the directory where Control Panel is installed (on Windows 7 this will require admin privilege).

Note: It is important that the empty text file name is exactly as indicated, including spaces.

The default home directory where the Control Panel is installed differs according to the operating system being used. See Default Home Directory on page 7.

3. Copy the following into the file:

```
-Xmx512M
```

This allocates 512MB of memory. Replace "512" with the amount of memory required for allocation.

4. Save the file.
5. Now, when the Control Panel is run, it always uses the memory allocation in the 'RollCall Control Panel.vmoptions' file.

1.4.2 Command Line Arguments

The standalone version of the Control Panel accepts the following command line arguments.

```
[-gateway {ipAddress}] [-port {port}] [-u {unitAddress}] [-r {restoreFilename}] [-i {unitID}] [-runport {port}]
```

-gateway ipAddress	The IP address to connect to.
-port portNumber	The IP port to use. The default port is 2050.
-u unitAddress	The RollCall address of a unit to autoconnect on startup.
-r restoreFile	The full pathname of a backup file (.rct) to restore to the unit specified by unitAddress.
-i unitID	Opens the manual for this unit ID.
-runport portNumber	When run in single instance mode, the application binds to a server socket on port 52054. Should this socket be coincidentally in use by another program, the control panel will fail to run. A different server socket number can be specified using this command line argument.

For example:

```
"RollCall Control Panel.exe" -gateway 170.20.31.30 -u 0000:10:01
```

This connects to the gateway whose IP address is set to 170.20.31.30, and opens the template for the unit whose RollCall address is 0000:10:01

2. Screen Layout

2.1 Screen Components

Fig 1. shows the main components.

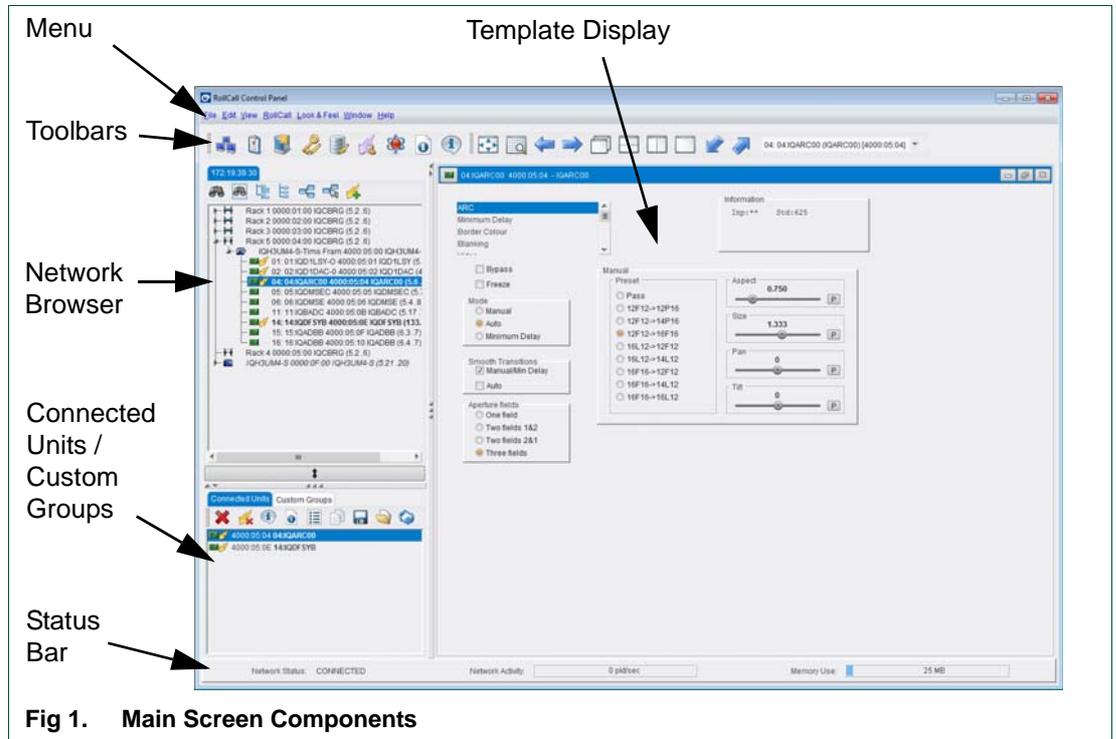


Fig 1. Main Screen Components

- **Menu** - The menu provides access to the functions of the RollCall Control Panel, many of which are also accessible via the toolbars immediately below the menu. See “Main Toolbar” on page 14.
- **Toolbars** - There are a number of toolbars. The main toolbar and template toolbar display in this area below the menu, and perform as shortcuts to the menu functions. Other toolbars form part of other components and are described therein. See “Main Toolbar” on page 14.
- **Network Browser** - This displays a network tree view of all units, enclosures and anything that is connected to the selected network. This component has its own toolbar. See “Network Browser” on page 33.
- **Connected Units** - This tab displays all units that have current control connections. This component has its own toolbar, called the Unit Toolbar. See “Connected Units” on page 44.
- **Custom Groups** - This tab displays groups of units. Units can be collected together into groups, allowing for example: units on different networks to be in separate groups; or distinct parts of processes compartmentalized, such that a group contains units for one part of a process, giving easy access to units where the number of connected units is quite large. See “Custom Groups” on page 48.
- **Status Bar** - The status bar gives useful information about the network, and memory usage. The status bar can be displayed or hidden, set from the View menu. See “View Options” on page 12.
- **Template Display** - This displays opened unit templates. This component has its own toolbar, the Template Toolbar. See “Template Display” on page 40.

2.1.1 Customize the Screen

2.1.1.1 View Options

The following may be displayed or hidden by checking/unchecking the checkboxes in the View Menu.

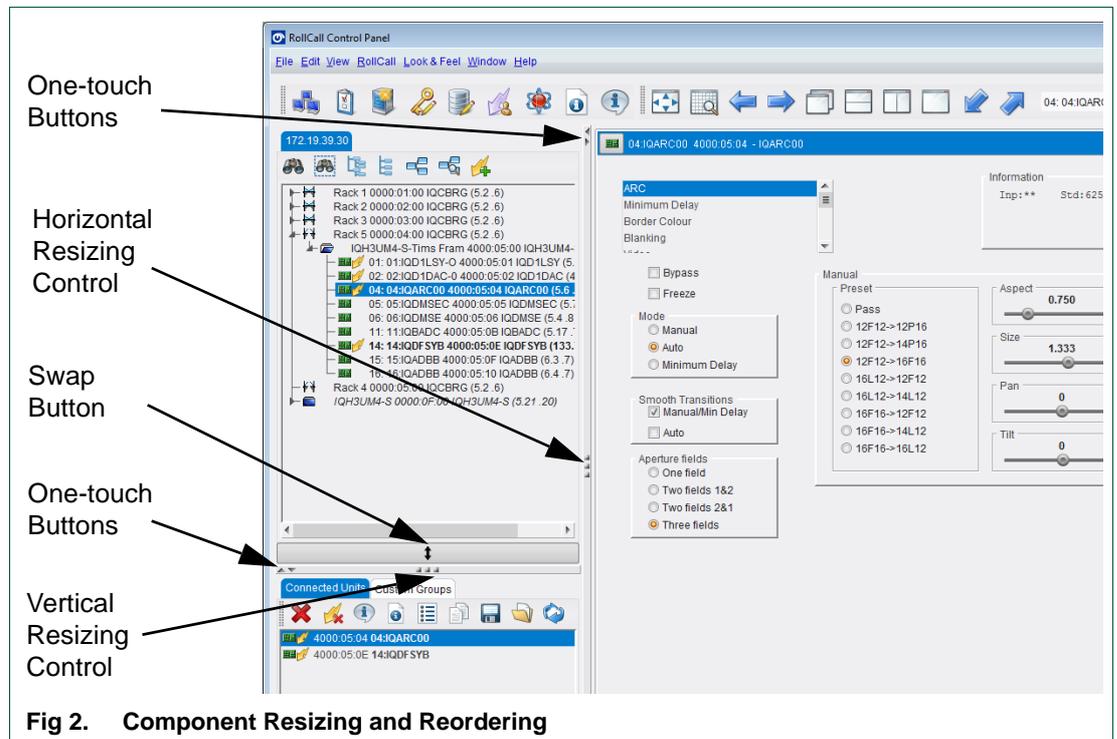
- **Main Toolbar** - Provides shortcuts for many of the main menu functions.
- **Template Toolbar** - Provides shortcuts for the template display options.
- **Status Bar** - when displayed, indicates the network status, activity, and memory usage.

Within the View menu there are also options to view the templates as windows (allowing more than one to display on the screen at once), or as tabs, where each template is selected from the tabs at the top of the template display area.

Templates may also be viewed Fullscreen. Alt-Enter toggles the fullscreen and normal modes.

2.1.1.2 Resize and Reorder Screen Components

Screen components can be reordered and resized to optimize each for operation.



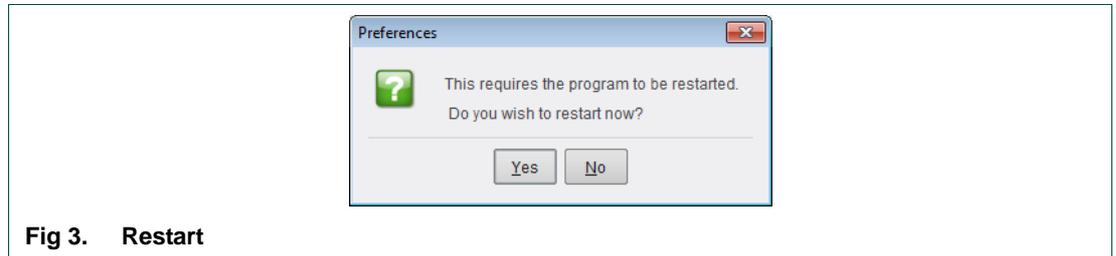
	Use the left and right one-touch arrow buttons to display/hide screen components horizontally.
	Use the up and down one-touch arrow buttons to display/hide screen components vertically.
	Grab and drag this control to resize the components horizontally.
	Grab and drag this control to resize the components vertically.

2.1.1.3 Color Themes

Color themes are available from the Look & Feel menu.

1. From the menu select the appropriate theme.

A dialog box prompting that the application must be restarted displays.



2. Click **Yes** to restart the program with the selected color theme, or click No to cancel.

Important:

All connected units are closed upon restart, and must be reconnected manually. Saving units into a custom group with auto connect enabled, ensures that the units saved in the group are reopened on a restart. See “Add Group” on page 48.

3. Main Toolbar

The Main Toolbar contains the main functions of the Control Panel. These functions are also available through the menus.



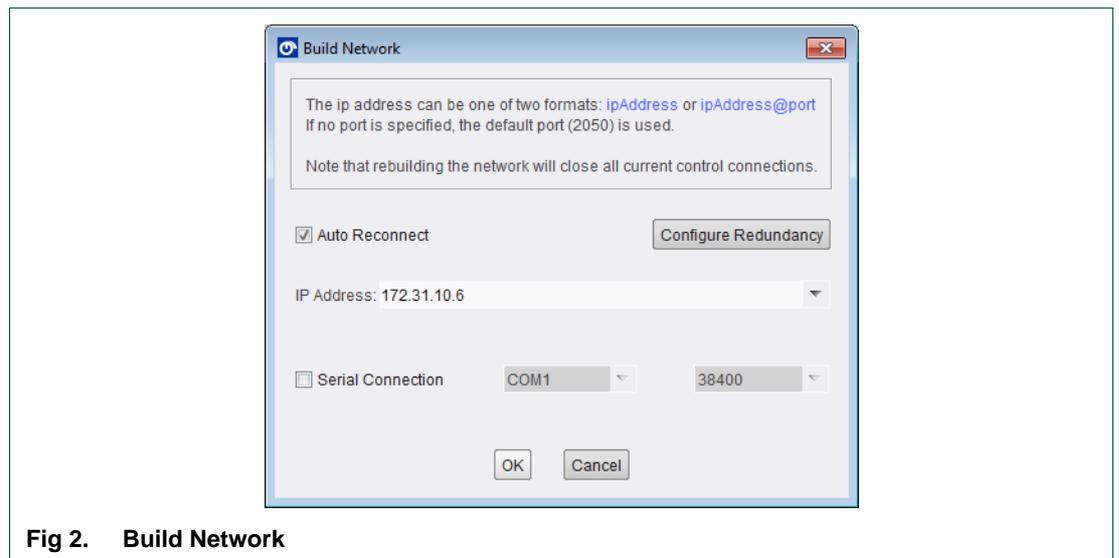
3.1 Build Network

Connect to a network, or directly to a unit, via IP. The units available to connect to from the entered IP address display in the Network Browser. See “Network Browser” on page 33.

If the control panel is run as an applet loaded from an IQ modular chassis, the IP address defaults to that of the modular chassis.

If the control panel is run as an application, then the first time it is run, the IP address will be 192.168.151.1.

Note: When the build network operation is confirmed, any currently connected units will be disconnected and, consequently, their templates will be closed.



3.1.1 Build Network Via IP Address

IP addresses are entered in dot-decimal notation or as a DNS entry. The default port number is 2050, which is the default port number of the IQ modular chassis. A different port number may be specified by appending the port number to the IP address, separated by '@'.

Alternatively, select an IP from the drop-down list. The drop-down list is populated with all the IP addresses for which successful connections have been made.

3.1.2 Add Redundancy

Note: The Auto Reconnect check box must be checked to enable redundancy.

Add a redundant (Secondary) IP address to switch to in case of failure of the Primary IP address. The redundant connection is used any time a connection to the specified primary address is lost. After switch over to the Secondary IP address there is no automatic return to the Primary IP address once the failure has been rectified.

1. Click on the **Configure Redundancy** button.

The Configure Redundancy dialog displays.

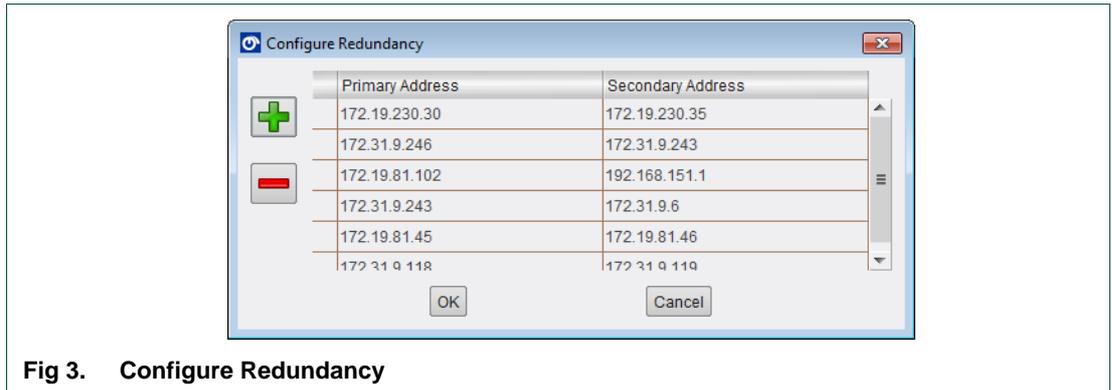


Fig 3. Configure Redundancy

2. Click on the **+** button to add a new entry for the Primary and Secondary IP addresses.
3. Either, type in a Primary IP address, or select an existing address from the drop-down list.
4. Type a Secondary IP address, or select an existing address from the drop-down list.

Any number of such redundancy configurations may be setup by adding extra rows into the Configure Redundancy dialog. Add further redundancy configurations if required.

To remove an entry, select the row and click the **-** button.

5. Once complete, click **OK**.

The Configure Redundancy dialog closes, returning back to the Build Network dialog.

6. Complete the build network operation by clicking **OK**.

3.1.3 Build Network Via Serial Connection

To use a serial connection instead of IP connection, select the Serial Connection check box. Then, from the drop-down lists select a COM port and specify the baud rate. By default the baud rate is 38400.

- Complete the build network operation by clicking **OK**.

3.2 Preferences

The Preferences dialog contains the following five tabs, each providing a different set of user options.

3.2.1 Display Tab

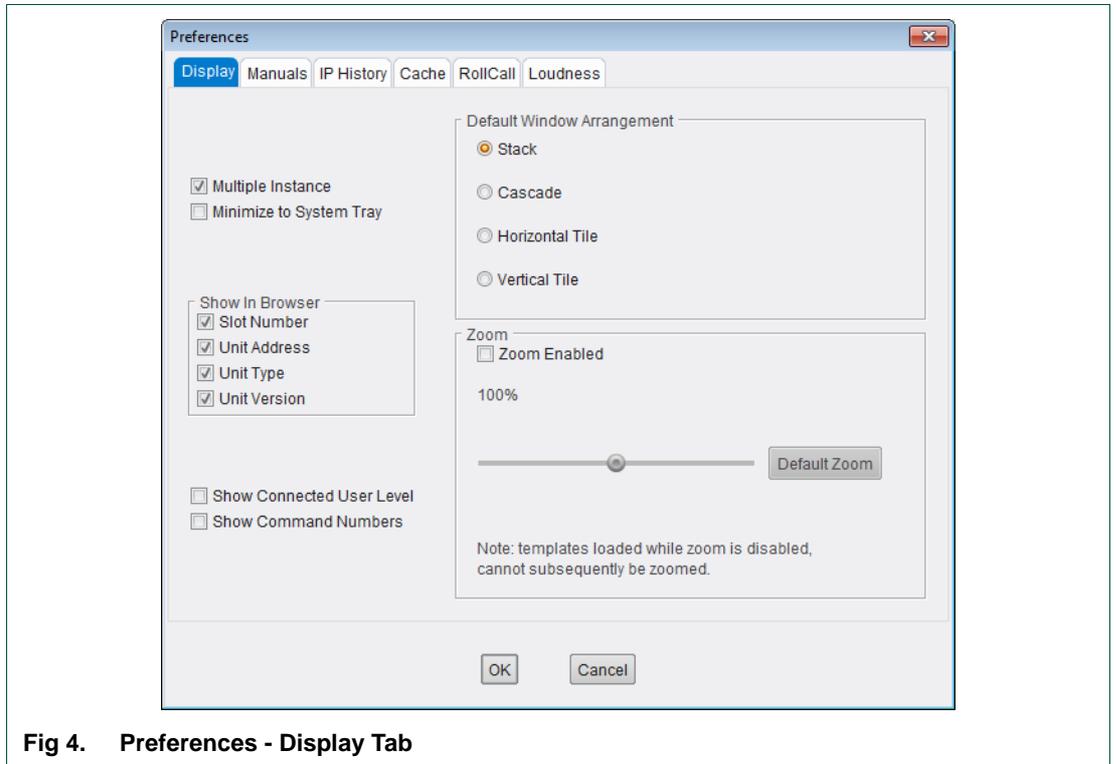


Fig 4. Preferences - Display Tab

- **Multiple Instance** - by default, only a single instance of the RollCall Control Panel can run on a computer. Select this option to allow multiple instances of the Control Panel to run on the same computer.
- **Minimize to System Tray** - when enabled, minimizing the Control Panel puts it in the notification area of the taskbar. The color of the icon indicates whether the Control Panel is connected or not. Blue is connected. Red is not connected. This feature is set to disabled as a default.
- **Show In Browser** - use the check boxes to select and display additional information for each item in the Network Browser.
- **Show Connected User Level** - this will display the RollCall user level alongside the unit name in Connected Units.
- **Show Command Numbers** - this will provide the command numbers associated with template controls, as a tooltip text. Hover the mouse over any control on an opened template and the associated command number will display as a small pop-up.
- **Default Window Arrangement** - select the relevant radio button to determine how multiple templates display as a default. The options are to display as a stack, a cascade, or tiled horizontally or vertically.

- **Zoom** - this option allows the user to zoom in or out of a unit's template.

In order to be able to zoom a template, the Zoom Enabled checkbox must be ticked. This must be done before the template is loaded. Because zooming requires additional system resources, templates are loaded without zoom capability by default.

The zoom range is 50% to 150%.

3.2.2 Manuals Tab

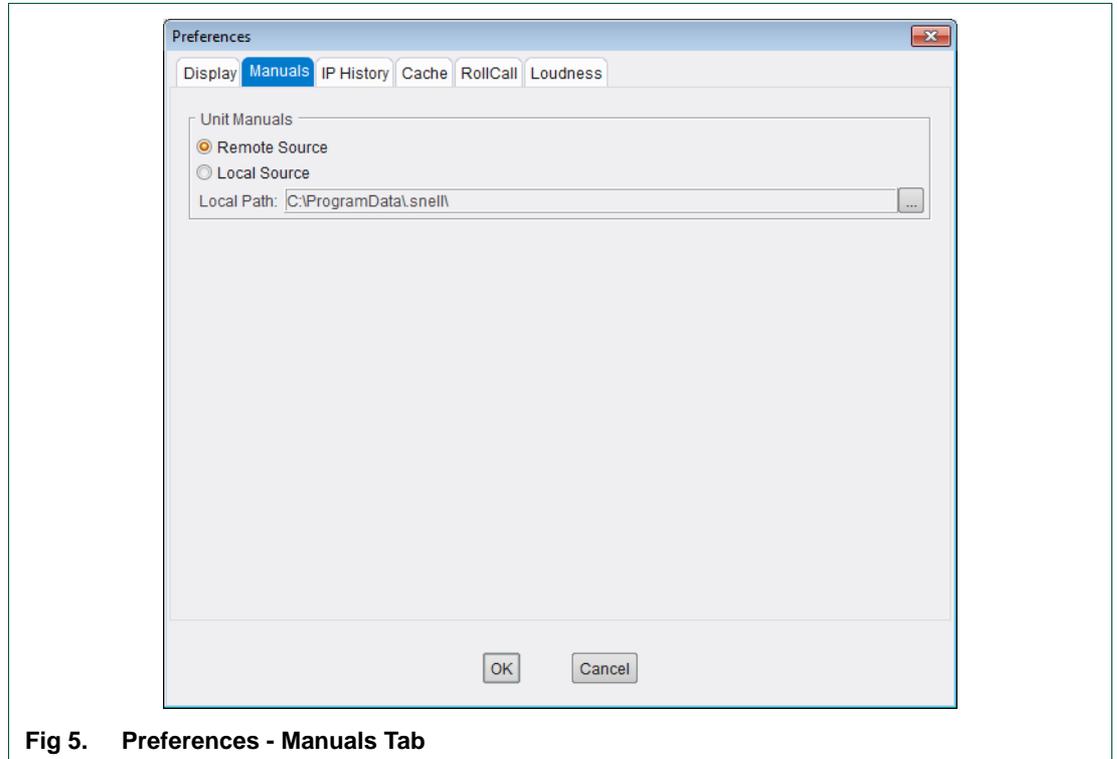


Fig 5. Preferences - Manuals Tab

The RollCall Control Panel can access user manuals for itself and for the units that it is connected to over a RollCall network. These options are to specify the means by which manuals are accessed.

3.2.2.1 Unit Manuals

These options are to specify how the Control Panel accesses unit manuals.

- **Remote source** - Opens manuals via the SAM Web site. If the computer on which the RollCall Control Panel is installed has external internet access select this option to ensure access to the most recent user manuals.
- **Local Source** - Opens the manuals from either a local directory, a network server or from the product CD. If the computer on which the RollCall Control panel does not have external internet access, select this option. Browse to the local path where the unit manuals are stored.

3.2.3 IP History Tab

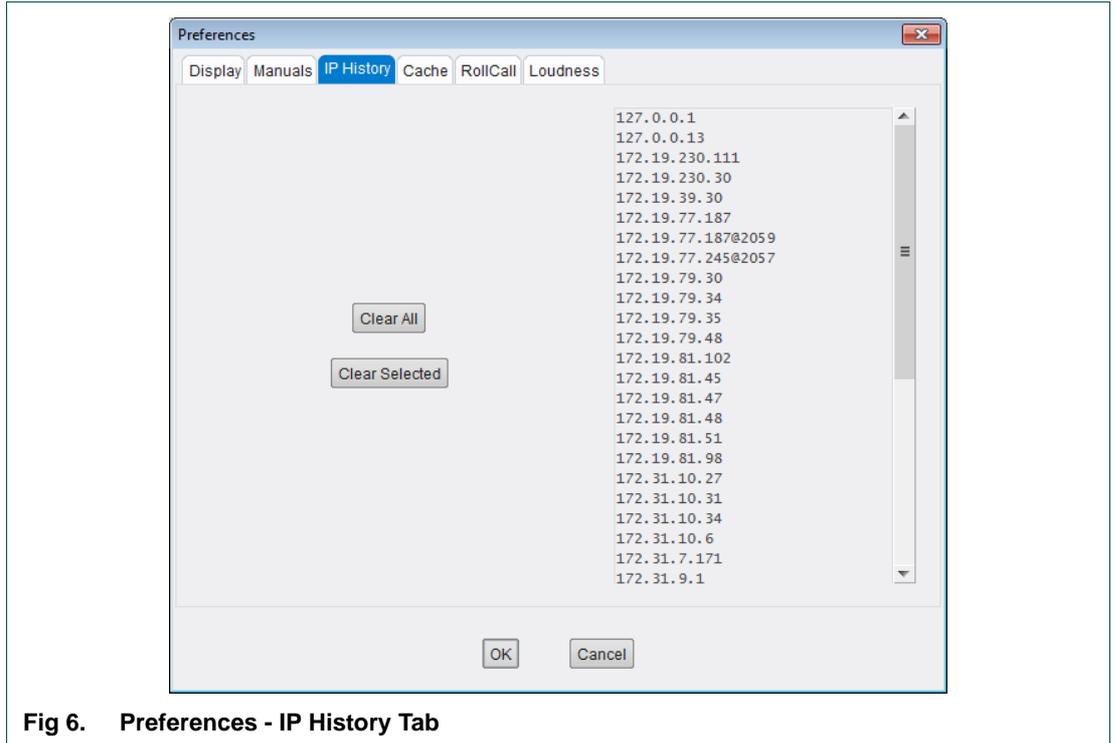


Fig 6. Preferences - IP History Tab

The IP History tab displays a list of IP addresses that the control panel has successfully connected to.

- **Clear All** - Clears the entire history list.
- **Clear Selected** - Clears only the selected IP addresses in the list.

3.2.4 Cache Tab

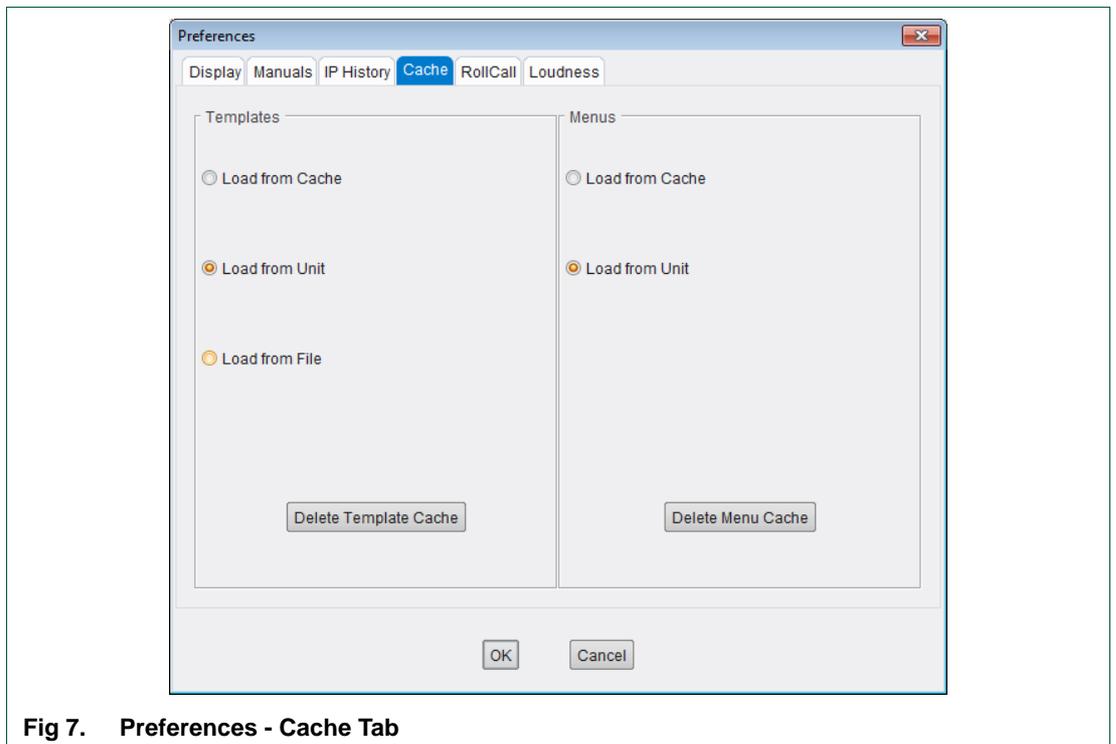


Fig 7. Preferences - Cache Tab

Any unit that can be controlled must have a corresponding template and menu set.

Initially, templates and menus are retrieved from units (when a control connection is made) and are stored in a local cache.

- Templates are stored by unit type and command set version.
- Menus are stored by unit type, command set version and RollCall user level.

3.2.4.1 Templates

- **Load from cache** - Templates will be loaded from the local cache. If no cached copy exists, they will be loaded from the unit being connected to.

This is the default setting.

- **Load from Unit** - Templates will always be loaded from the unit being connected to.
- **Load from File** - A template file is prompted for when trying to connect to a unit. A file browser dialog displays and a .tpl template file must be selected.

This is useful for some legacy units that do not carry a copy of the template.

- **Delete Template Cache** - Pressing this button deletes all cached templates. A confirmation dialog indicates the number of templates that will be deleted. Accept or cancel as desired.

3.2.4.2 Menus

- **Load from cache** - Menus will be loaded from the local cache. If no cached copy exists, they will be loaded from the unit being connected to.

This is the default setting.

- **Load from Unit** - Menus will always be loaded from the unit being connected to.
- **Delete Menu Cache** - Pressing this button deletes all cached menus. A confirmation dialog indicates the number of menus that will be deleted. Accept or cancel as desired.

3.2.5 RollCall Tab

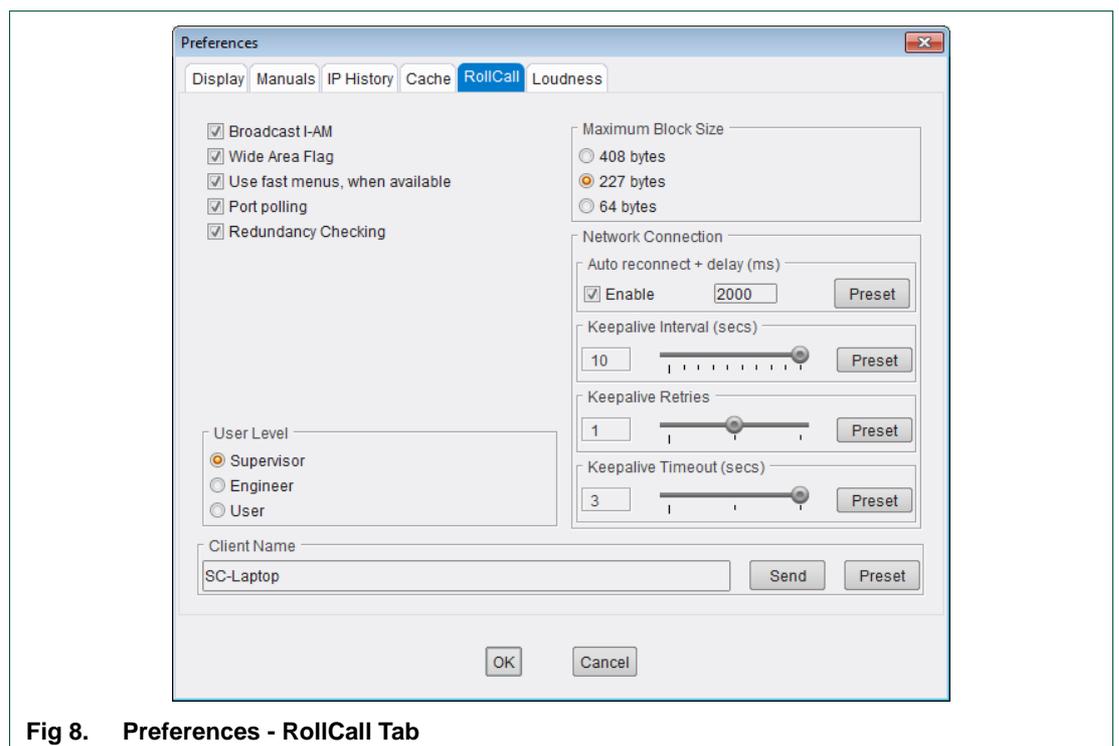


Fig 8. Preferences - RollCall Tab

- **Broadcast I-AM** - enables a gateway to list the Control Panel in its port listing if the Control Panel has an Ethernet (or serial) connection to the gateway.
- **Wide Area Flag** - when selected in conjunction with the Broadcast I-AM option, the Wide Area Flag allows the I-AM message to cross RollNet segment boundaries. This option has no function unless Broadcast I-AM is also selected.
- **Use fast menus, when available** - enables the use of fast menus for gateways that support them. This significantly decreases the amount of time it takes to download a menu from a module. Fast menus, if available, are only available at the supervisor level.
- **Port Polling** - This option is for use with older gateways that do not support connected sessions. It enables the Control Panel to keep module status up-to-date by the use of periodic polling. Only use this feature when necessary because it can generate a lot of additional network traffic.
- **Redundancy Checking** - When this option is selected, the Control Panel checks unit serial numbers during network discovery to determine the actual physical units present on the network, which may differ from the units listed. By doing so, the Control Panel can ensure that the operation requested is only performed once per physical unit.

If the network is configured such that the same physical unit or units can be seen from more than one subnet, selecting this option can eliminate errors that may occur during network discovery in instances where the discovery process attempts to open two or more views of the same unit simultaneously.

By default, Redundancy Checking is not enabled.

- **User Level** - Defines the level of access that a user has in controlling a unit.

Supervisor has the highest level of access, and User has the least, which means that access to some of the unit menu functionality will be bypassed.

Note:

Changing the level does not affect any currently connected units.

- **Maximum Block Size** - Defines the maximum "file packet length" used in file transfers between the control panel and units on the network. This setting should not be changed unless advised by SAM engineering.
- **Auto Reconnect** - When this option is selected, in the event of failure, the network connection will be retried. The default setting for this feature is on.

To change the delay in milliseconds between each retry attempt, enter a value in the Auto Reconnect delay box. The range is 0 to 15000 ms. The default value is 2000 ms, which can also be entered by clicking the **Preset** button.

- **Keepalive** - Checks that the network connection is good. Periodically, a Keepalive message is sent to the server at the current IP address. The server is expected to respond with an acknowledgement.

The Keepalive settings determine how quickly a bad network connection is detected. If a rapid failure is required, for example when using dual redundancy, the Keepalive settings should be set to the minimum values.

Keepalive Interval determines how frequently the Keepalive message is sent, and can be set from one second to ten seconds (default setting).

Keepalive Retries sets how many attempts should be made to re-send the Keepalive message in the event that no response has been received from the server.

Keepalive Timeout is the duration in seconds (default three seconds) that a response is waited for from the server, before re-sending the Keepalive message, if further Keepalive Retries have been selected

- **Client Name** - this is the name by which the control panel is seen on the RollCall network. The client name can be changed to a unique identity. The default setting is "ControlPanel".

To change the client name, type the new name in the text box, click **Send**, then click **OK**.

To return the control panel to the default setting, click **Preset** and the client name will be reset to "ControlPanel".

3.2.6 Loudness Tab

For modular units that have Loudness Metering the colors of the graph elements (loudness levels, background, lines, and text) may be changed, and custom color themes saved.

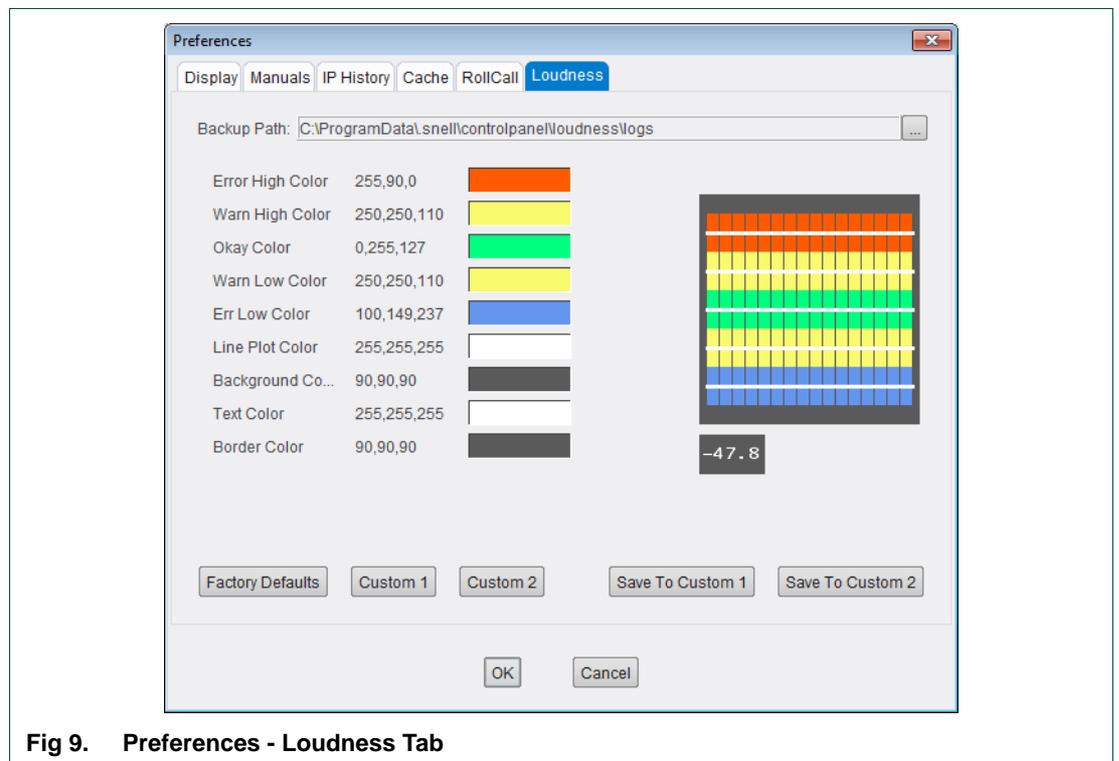


Fig 9. Preferences - Loudness Tab

3.2.6.1 Change Graph Element Colors

To change the color of a loudness band:

1. Click on the colored rectangle representing the element to be changed.
The Select Color dialog opens.

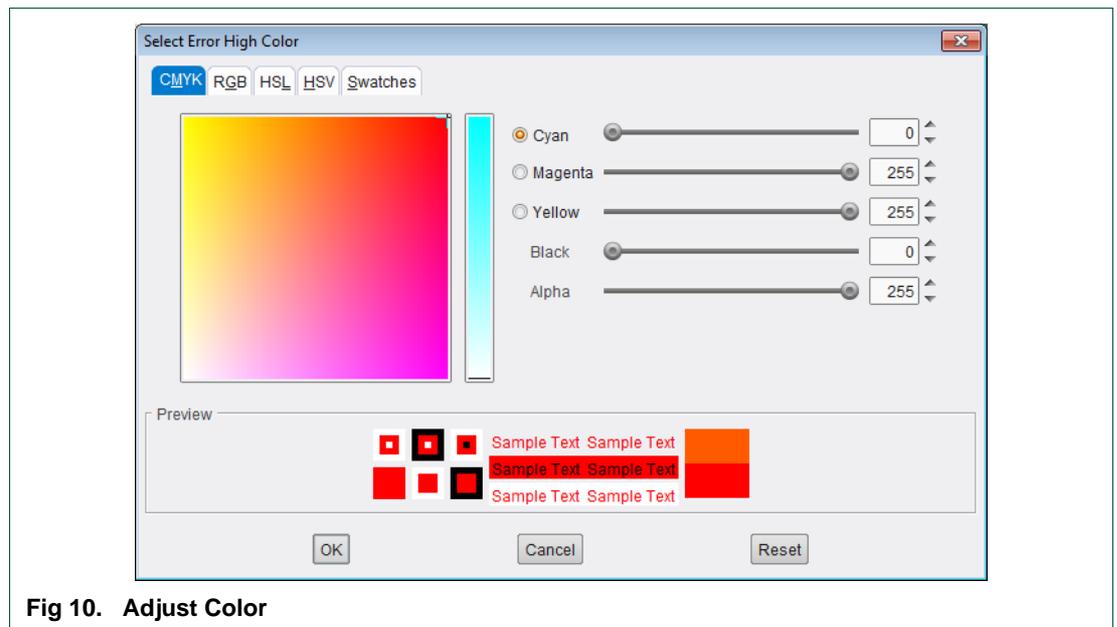


Fig 10. Adjust Color

2. Select the relevant color space tab.
3. Adjust the sliders to change the color characteristics, or click directly on the variable color square.
4. Click **OK**.

3.2.6.2 Custom Color Themes

To save a theme:

1. Adjust one or more colors, then click on either of the **Save to Custom...** buttons.
A dialog prompting to save the colors to that particular custom button display.
2. Click **Yes** to Save, or **No** to discard.

To use a saved custom color scheme:

- Click on the **Custom 1** or **Custom 2** buttons to select a saved color scheme. Or, click on the **Factory Defaults** button to return to the original default colors.

3.3 Import new Upgrades

1. Save the supplied upgrade package(s) to a network location that can be accessed by the Control Panel. Upgrade packages are supplied in a compressed file format (.zip) and they should not be extracted.
2. Click on the Import new Upgrades button () in the main toolbar.

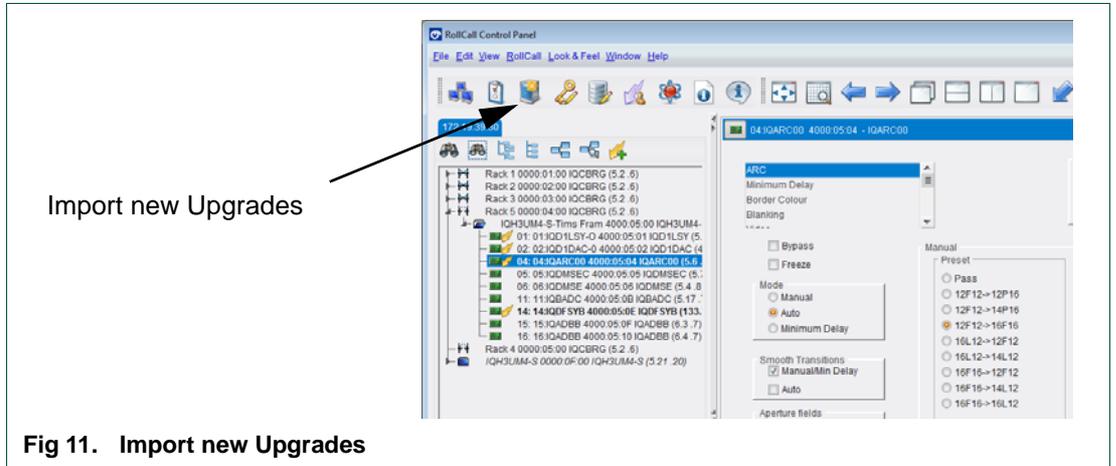


Fig 11. Import new Upgrades

The RollCall Upgrade Packages dialog displays. The left-hand panel displays all currently available upgrades, grouped by unit type.



Fig 12. Upgrade Packages

3. Click on the **Import Upgrade Package** button.

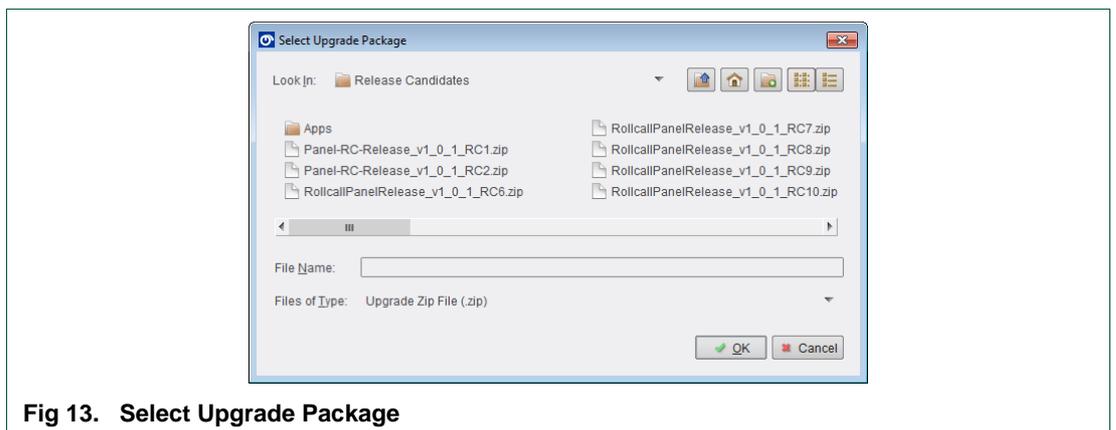


Fig 13. Select Upgrade Package

4. Browse to the folder containing the upgrade package.
5. Select the upgrade package and click **OK**.

When the package has been imported, it is added to the list of available upgrades, and units may be upgraded accordingly. See “Upgrade a Unit” on page 52.

3.4 Licenses

Some IQ Modular and Conversion products have additional features that can only be used if they are licensed. Use the License Viewer to manage the licenses that these products require. Each platform has a tab at the top of the License Viewer, and the licenses relevant to a platform display in the appropriate tab.

3.4.1 Importing Licenses

License files are contained in .zip archives. Before you can import license files, you must first obtain them from SAM and then store them in a network location that can be accessed by the Control Panel.

To import license files:

1. Open the License Viewer.
2. Click **Import Licenses** and then browse to the location of the license files.
3. Select the license files, and click **OK**. A summary dialog displays.
4. Click **OK** to close the summary.

After importing licenses, they can be installed to individual units using the Unit License option. For more information, see “Unit License” on page 38

3.4.2 Removing Licenses

Licenses are stored by the Control Panel in an internal database. You can remove license files from the database if they are no longer required.

To remove license files:

1. Open the License Viewer.
2. Select the license or licenses to be removed, right-click on them and click **Remove**.
3. A confirmation dialog displays. Click **Yes** to remove the license or licenses. Click **No** to cancel the operation. A summary dialog displays.
4. Click **OK** to close the summary.

3.4.3 Example Licences

If a feature is enabled on a license, a check mark displays in the column below the feature.

3.4.3.1 Modular Licenses

IQ Modular products that support licensed options can have two license types:

- **3G** - A 3G license will enable 3Gbps features on certain modules.
- **Option Licenses** - An option license will enable any or all of several features on certain modules.

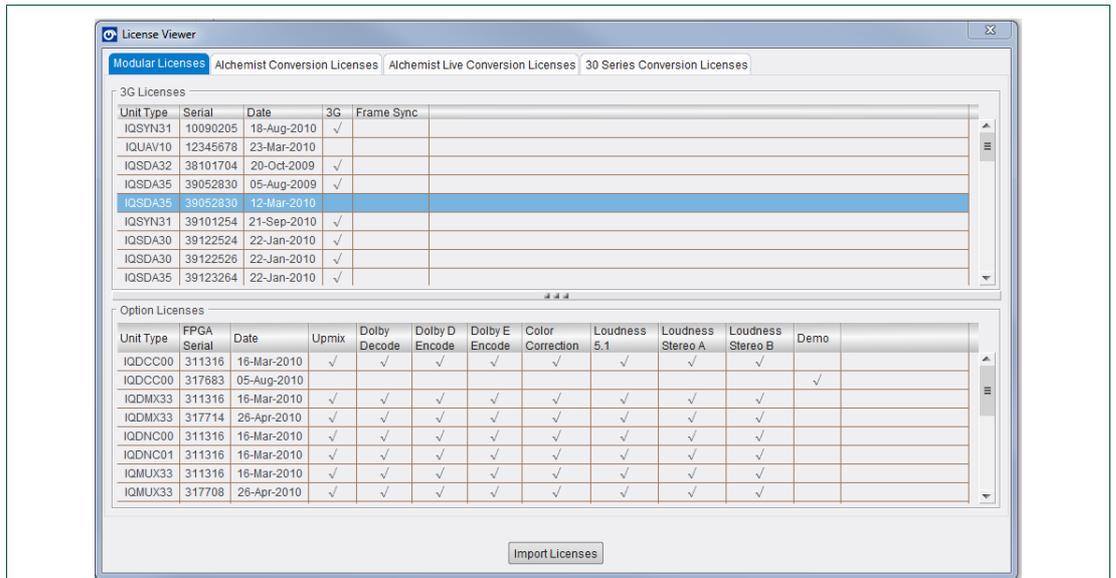


Fig 14. Modular Licenses

3.4.3.2 Alchemist Licenses

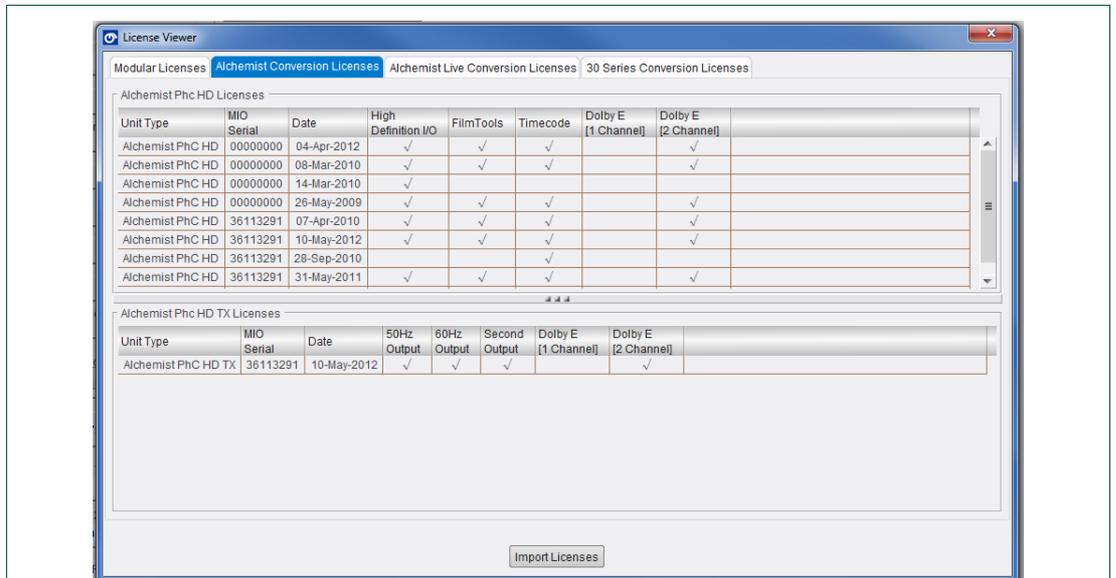


Fig 15. Alchemist Licenses

3.4.3.3 Alchemist Live Licenses

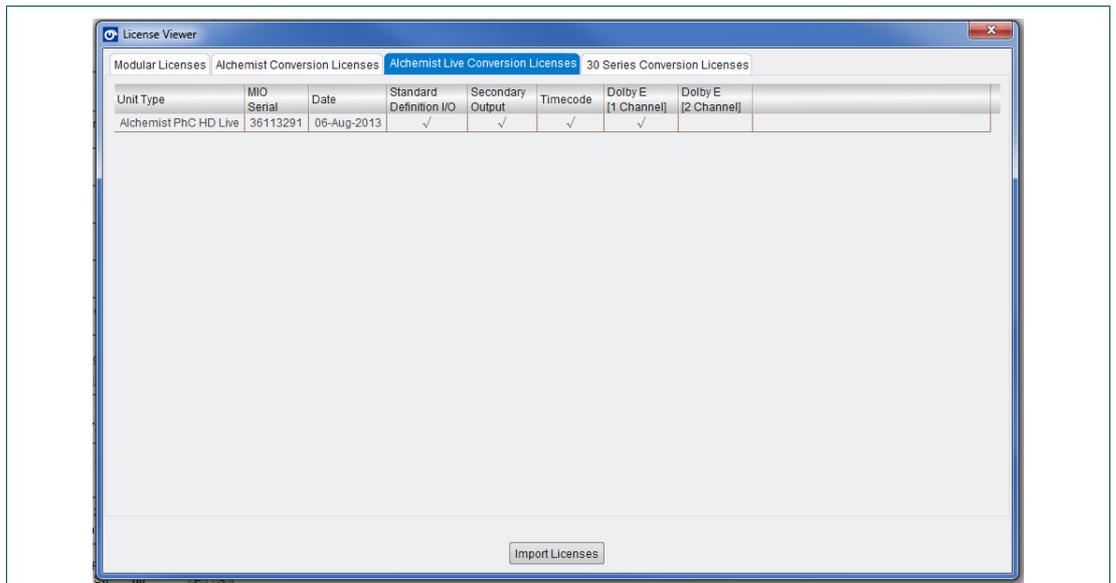


Fig 16. Alchemist Live Licenses

3.4.3.4 30 Series Licenses

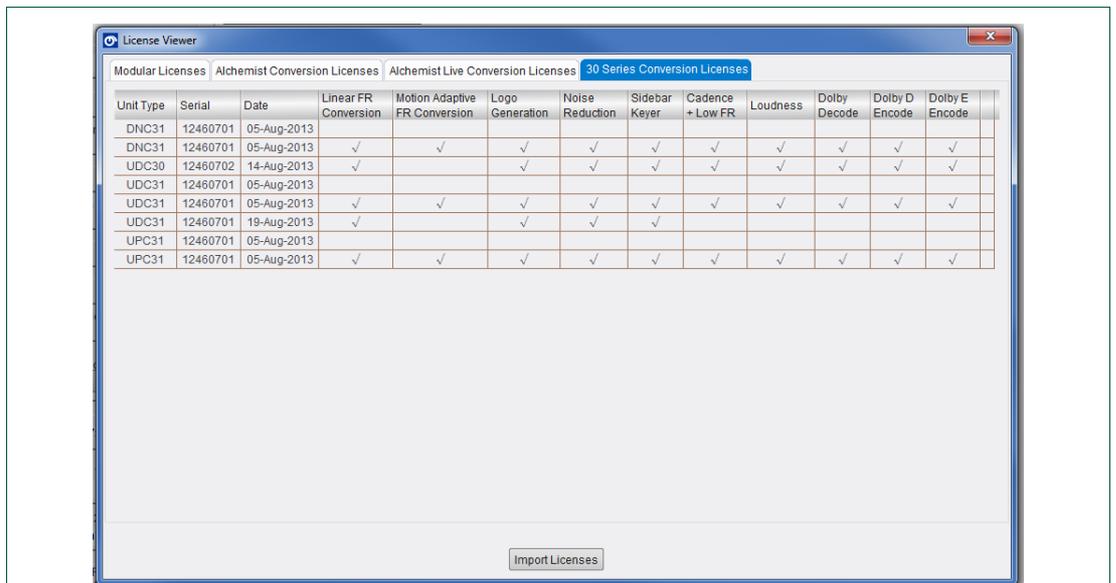


Fig 17. 30 Series Licenses

3.5 ID Database

The ID database is an internal database that holds information about how RollCall IDs relate to unit type names, information about unit manuals, and other information for the use of SAM customer support. The **Import RollCall IDs** option enables you to import the most recent version of the RollCall IDs file, ensuring that your database remains up-to-date.

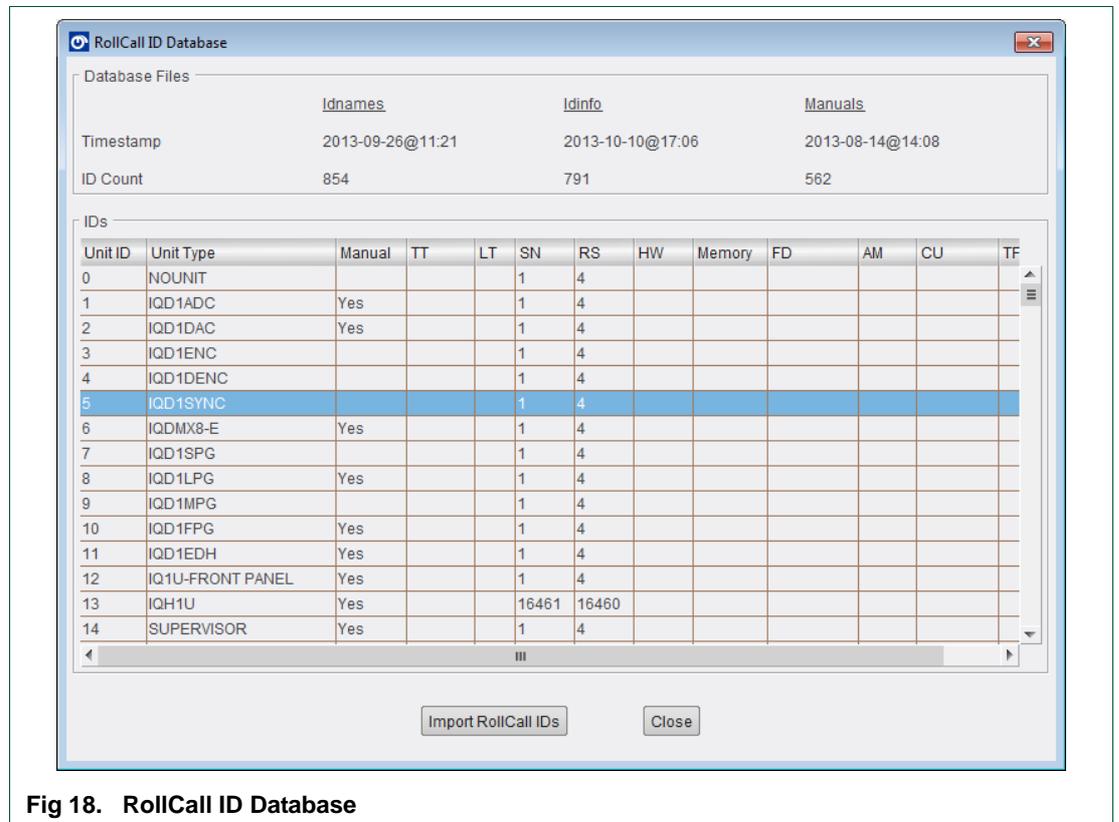


Fig 18. RollCall ID Database

The ID Database comprises the information in three files:

- **Idnames** - This file defines the relationships between the Unit ID and the Unit Type name. For instance, in the example above, Unit ID 522 (in column 1) is translated to IQOTX34 (in column 2).
- **Idinfo** - This file contains information about each unit ID that is used, for example, during unit upgrade, backup, restore, and licensing.
- **Manuals** - This file provides Unit ID to manual name translation. The third column in the table indicates whether a manual is present or not.

To import a new RollCall IDs file:

1. Obtain a new RollCall IDs file (distributed as a .zip file) from SAM and store it in a network location that can be accessed by the Control Panel.
2. Click **Import RollCall IDs** and browse to the location of the file.
3. Select the file and click **OK**.
4. A confirmation dialog displays.

After updating the RollCall ID Database, restart the Control Panel for the changes to take effect.

3.6 Template Demo

The Template Demo function enables you to open a template file in the Control Panel without being connected to a RollCall network. The template will not be 'live' and any changes made to the controls and settings will not affect the physical unit. To open a template in demo mode, the template file must be accessible from the Control Panel (for example, in the template cache).

To open a template in demo mode:

1. Click **Template Demo** in the toolbar. The Template Selector displays, listing all cached templates.

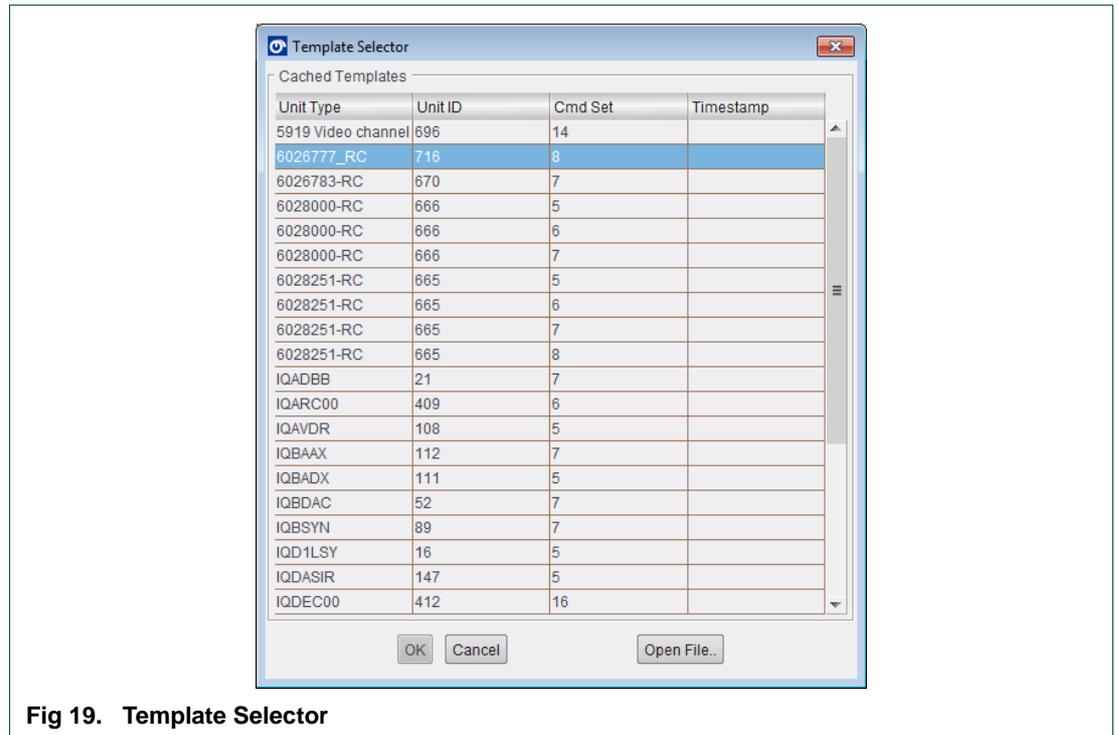


Fig 19. Template Selector

2. Select a template to open and click **OK**. Alternatively, click **Open File** and browse to the template file you want to open. The template opens in demo mode, as shown below.

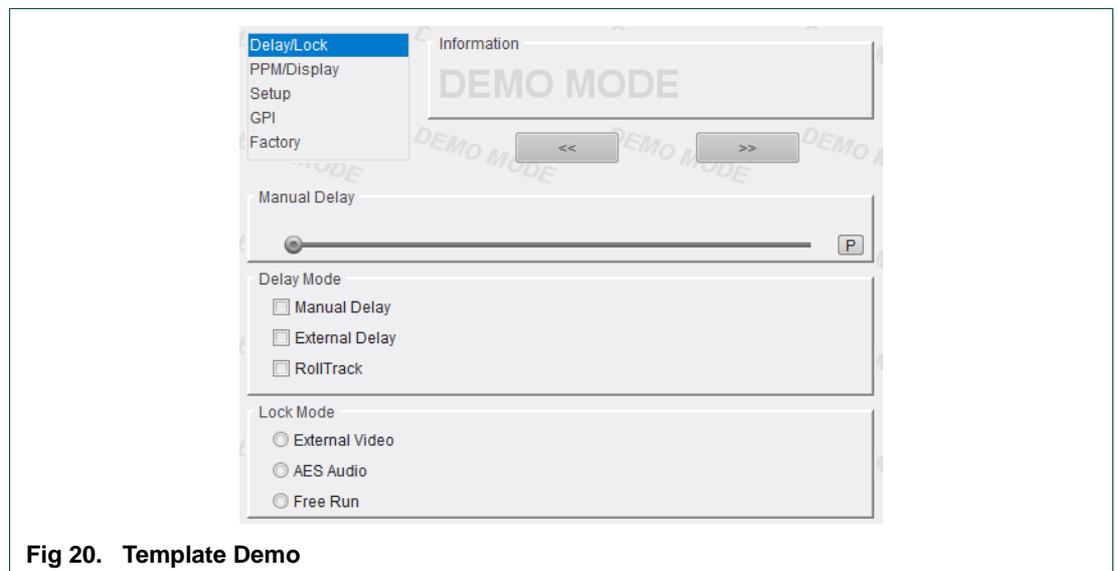


Fig 20. Template Demo

3.7 Comms Window

The Comms Window monitors RollCall packets (messages) transmitted from and received by, the control panel. It is used to help diagnose communication problems in a particular RollCall network.

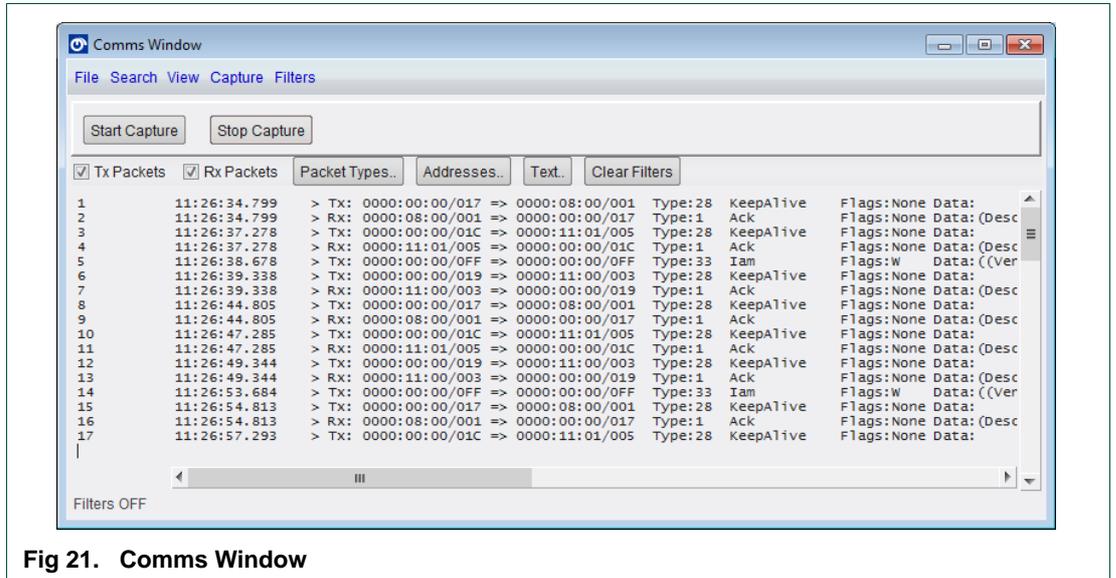


Fig 21. Comms Window

The fields in the Comms Window are:

Timestamp	When the packet was received or transmitted.
TxIP / RxIP	Transmitted / Received by the Control Panel.
Src	The source RollCall address. This is the address of the sender of the packet. The RollCall address format is net/unit/port/index.
Dest	The destination RollCall address. This is the address of the recipient of the packet. The RollCall address format is net/unit/port/index.
Type	The RollCall packet type.
Packet Name	As defined by the packet type.
Flags	B - back channel packet / W - wide area packet.
Data	Specific to the packet type.

3.7.1 Comms Window Control

Use the **Start Capture** and **Stop Capture** buttons to take a snapshot of the messages transmitted.

- **Tx** - enables/disables monitoring of transmitted packets.
- **Rx** - enables/disables monitoring of received packets.
- **Packet Filters** - Allows selective monitoring of specific RollCall packet types for both transmission and reception. In the Packet Filters dialog, select the packet types to be monitored. **Select All** and **Deselect All** toolbar buttons are also available.

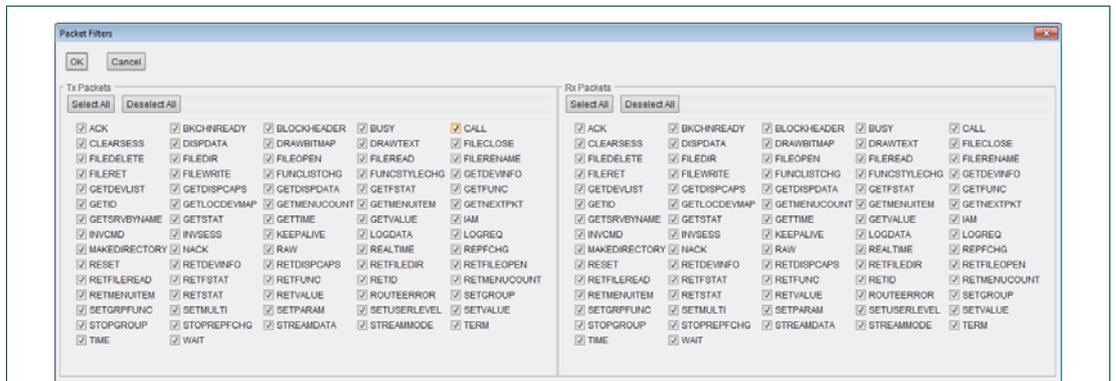


Fig 22. Packet Filters

- **Address Filters** - Allows selective monitoring of packets to and from RollCall units. In the Address Filters menu compile a list of addresses to monitor.

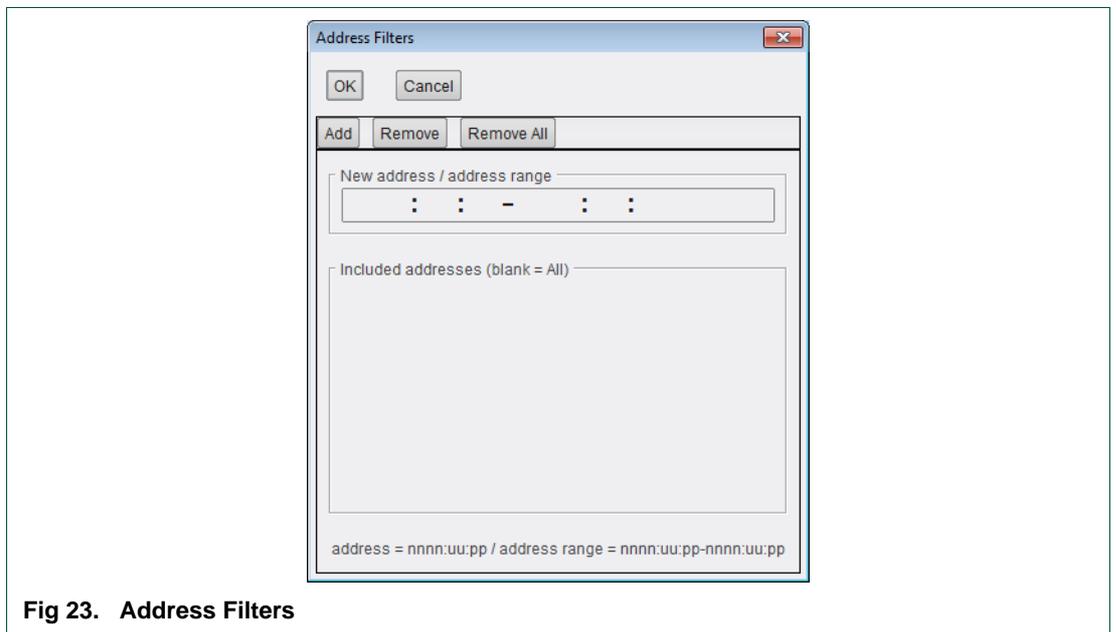


Fig 23. Address Filters

- Type either a single RollCall address or address range in the New address / address range box.
 - Click **Add** to add it to the list. Repeat this as required.
- Selectively remove addresses or address ranges from the list by highlighting the item in the list and clicking **Remove**. To monitor all addresses (the default) click **Include All** to remove all addresses from the list. An empty list means monitor all addresses.
- **Copy All** - Copies the current contents of the Comms Window to the clipboard.
 - **Clear** - Deletes the contents of the Comms Window.
 - **Always on Top** - Keep the Comms Window in front of all other windows. This is useful when using a single computer monitor and needing to watch the Comms Window while interacting with the control panel.

3.8 Control Panel Manual

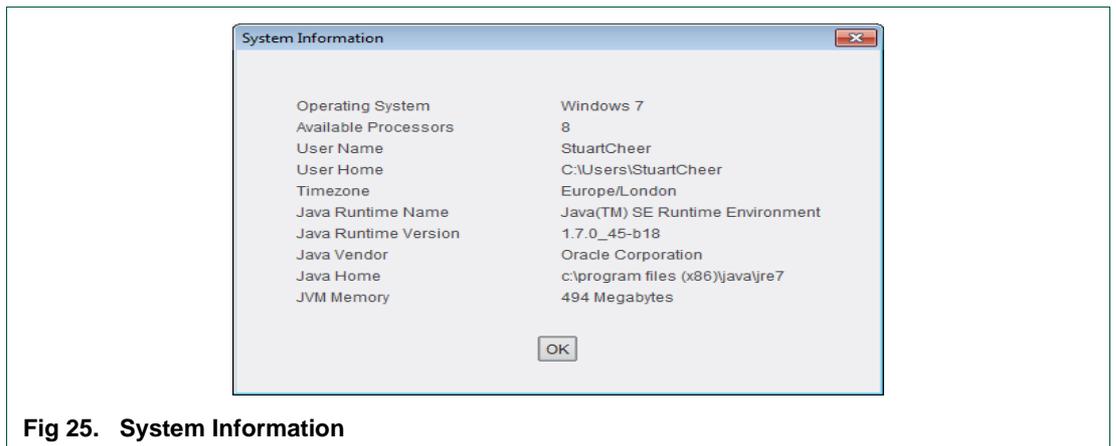
Displays this User Manual. A PDF viewer, such as Adobe® Acrobat® will be needed to view this, and all product manuals.

3.9 About

The About dialog contains information relating to the Control Panel software release, System Information (the computer being used) and Acknowledgements.



- **Release Version** - The release version of the Control Panel.
- **Components** - Internal component versions.
- **Release Information** - Highlights the new functions, features and options that apply to the software.
- **System Information** - Information contained in this dialog relates to the computer that the Control Panel software is being used on.



- **Acknowledgements** - Lists the third party libraries used in the Control Panel and provides copies of their licenses.

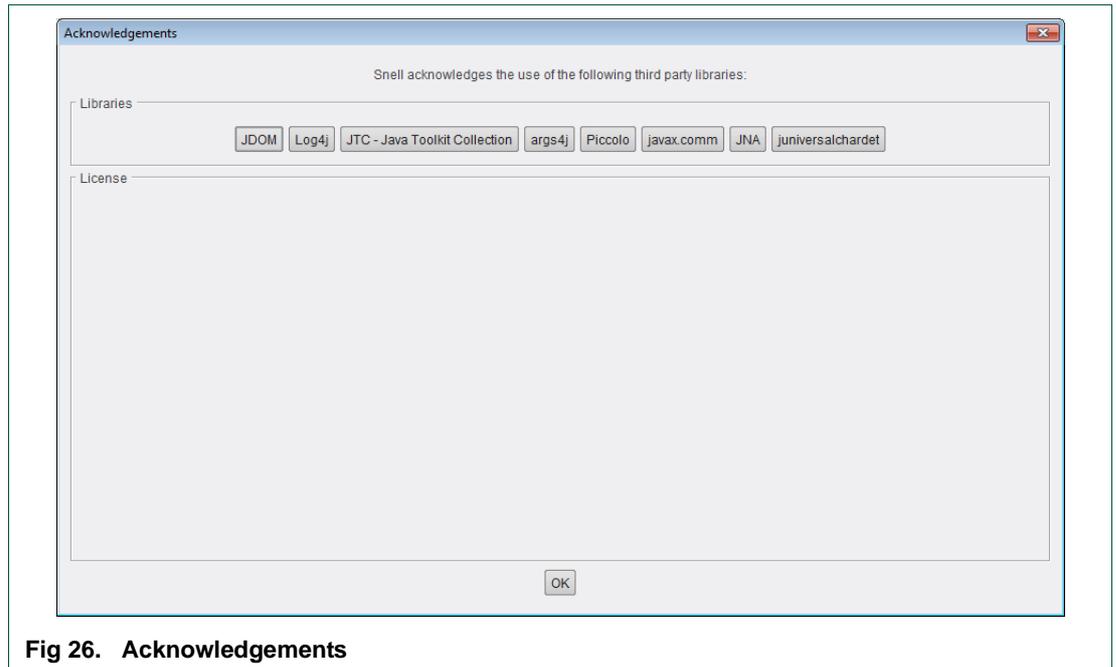


Fig 26. Acknowledgements

4. Network Browser

When a network connection is initially established, the Network Browser will show the top level nodes in the network.

A node displayed in italics, indicates that the unit is serving as the IP connection for the Control Panel.

A node displayed in bold, indicates that it has an open template.

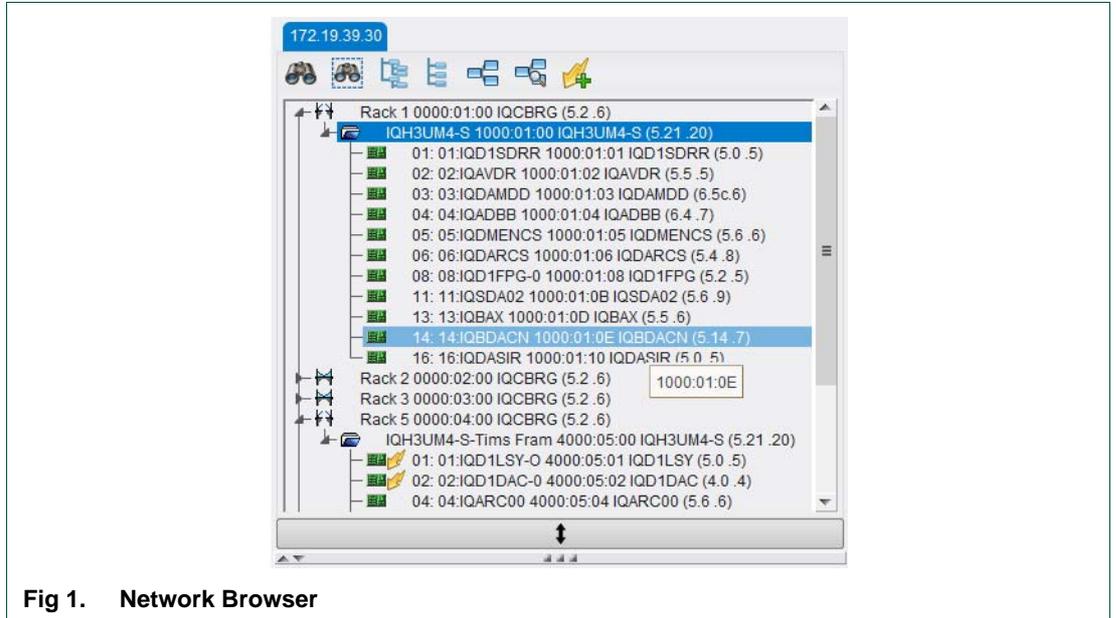


Fig 1. Network Browser

4.1 Browser Icons

The following icons are used to graphically illustrate the components of the RollCall Network:

-  Bridge unit, which links to another RollCall network. This may be a physical bridge device, or a virtual bridging element such as the RollCall IP Proxy.
-  Bridge unit - expanded
-  Unit with sub-units, for example, modular chassis
-  Unit with sub-units - expanded
-  Unit with sub-units - non controllable state
-  Unit with sub-units - non controllable state - expanded
-  Module
-  Module - non controllable state
-  Stand-alone unit with no sub-units
-  Stand-alone unit - non controllable state
-  This icon indicates that the unit is being controlled by a remote control panel, and is available for other control panels to connect to (multi-session)
-  This icon indicates that the unit is being controlled by a remote control panel, but is not available for other control panels to connect to (single-session)

4.2 Discover Network

When the RollCall Control panel initially connects to a RollCall network, only the top level nodes display. The Control Panel does not display any of the units below the displayed level, until the units are discovered. This is done to improve the performance of the Control Panel by reducing the amount of information that needs to be gathered about the network - some of which may not be needed by the user.

For example, in the case of an extremely large network, it may take up to several minutes for the RollCall Control Panel to gather the information to fully display the network. However, the user may only wish to view a single unit on the network. In this instance, it is not necessary for the Control Panel to discover the entire network; instead, the Control Panel only needs to be aware of the unit to which the user wants to connect (and naturally those that are above it in the tree structure). Therefore, it is useful to be able to only discover, and subsequently display, parts of a network.

Once a network component has been discovered, it will remain so for the remainder of the currently connected RollCall Control Panel session.

Note: If the network is configured such that the same physical unit or units can be seen from more than one subnet, it is possible that during the network discovery process the Control Panel may attempt to open the same physical unit (on different subnets) simultaneously, causing an error to occur. Enabling the Redundancy Checking option in the RollCall preferences can prevent this error from occurring.

4.2.1 Manually Discover a Network

Any node with a ▶ sign next to it can be discovered and expanded, either by clicking on the ▶ sign or by double-clicking on the name. The figure below shows a partially expanded network.

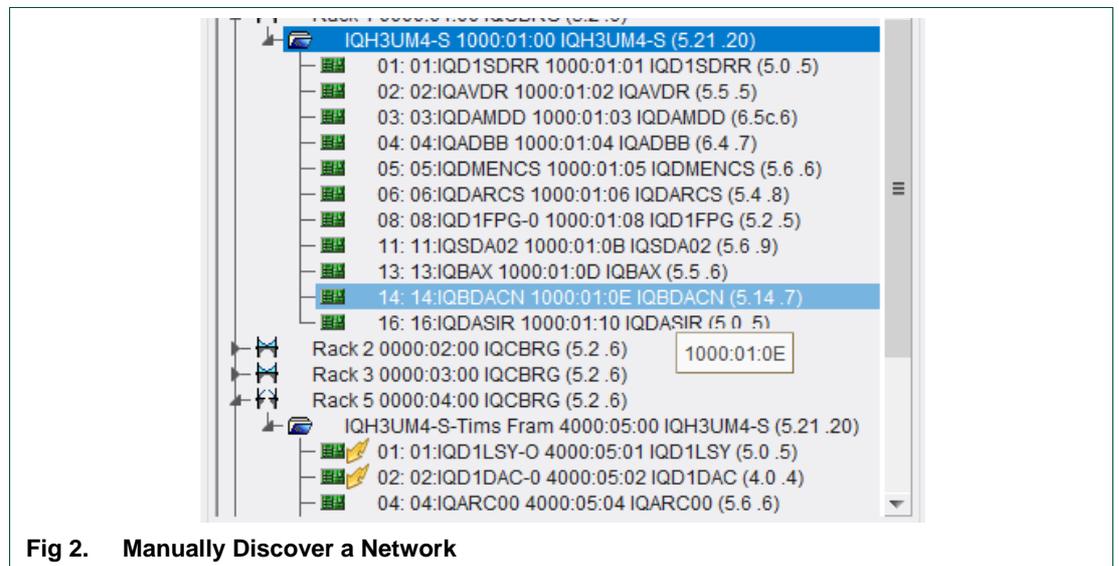


Fig 2. Manually Discover a Network

There are two toolbar buttons at the top of the network browser that are used to discover the RollCall network.

4.2.2 Discover Network - All Units

The **Discover Network - All Units** button (large binoculars) polls the entire RollCall Network and gathers information about everything that is connected to it. Depending on the size of the RollCall network, this process can take several minutes to complete.

Click the **Cancel** button while the discovery process is running to interrupt the discovery process, if required.

After a network has been discovered, the network tree displays fully expanded.

4.2.3 Discover Network - Gateways Only

The **Discover Network - Gateways Only** button (small binoculars) polls the RollCall Network tree and gathers information down to the Gateway level. Anything below the Gateway level must be discovered by manually expanding the relevant Gateways. This option does not take as much time as Discover Network - All Units.

Click the **Cancel** button while the discovery process is running to interrupt the discovery process, if required.

After a network has been discovered, the network tree is displays fully expanded.

The **Expand Tree** and **Collapse Tree** buttons do not perform any function with regard to network discovery. Their only purpose is to change the visual representation of the network tree view.

4.2.4 Expand Tree

This button fully expands all of discovered network components in the view. Before a network node can be expanded, it must first be discovered.

4.2.5 Collapse Tree

This button fully collapses the network view. Any units that have already been 'discovered' will remain so for the remainder of the currently connected session.

4.2.6 Create Snapshot of Tree

Records a snapshot of the current state of expanded and collapsed components in the network tree.

4.2.7 View Snapshot of Tree

Recalls the last recorded snapshot of the network tree, and changes the network tree so that it displays as it was when the snapshot was created. If no previous snapshots have been created this button is not enabled.

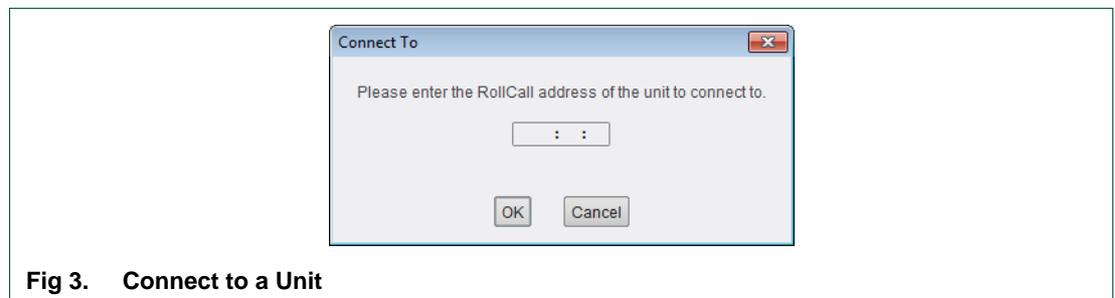
Note: Rebuilding the network deletes any existing snapshot.

4.2.8 Connect To

To directly connect to a unit using its RollCall address:

- Click the **Connect To** button, and enter the address of the unit.

This is an alternative mechanism to connecting to a unit via the network browser.



4.3 Opening a Template

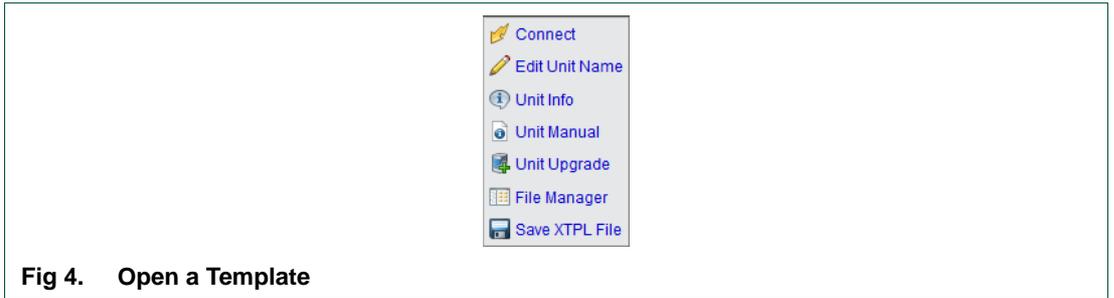
A template for a unit can be opened by using its context menu.

- Right-click on a unit to show its context menu as a pop-up, and click on **Connect**.

If the unit is currently busy, denoted by , the Busy Unit dialog box displays.

- Click **OK** to disconnect the current user of the unit and open the template, otherwise click **Cancel**.

The context menu display options available for the specific unit type. For example, the **Unit License** option is only shown if the unit supports licensed options.



- To connect to modules and units with no sub-units, double-click on them.

The context menu of a connected unit is shown below:



Many of the functions in the context menu of a connected unit are replicated in the Unit Toolbar which is described in the Connected Units section. See “Connected Units” on page 44.

4.4 Edit Unit Name

The name of any gateway or module in the Network Tree can be edited.

To edit the name of a unit:

1. Right-click on the unit in the Network Tree and click on **Edit Unit Name**. Alternatively, select the unit and press the **F2** key.

A text entry box displays in place of the unit name.

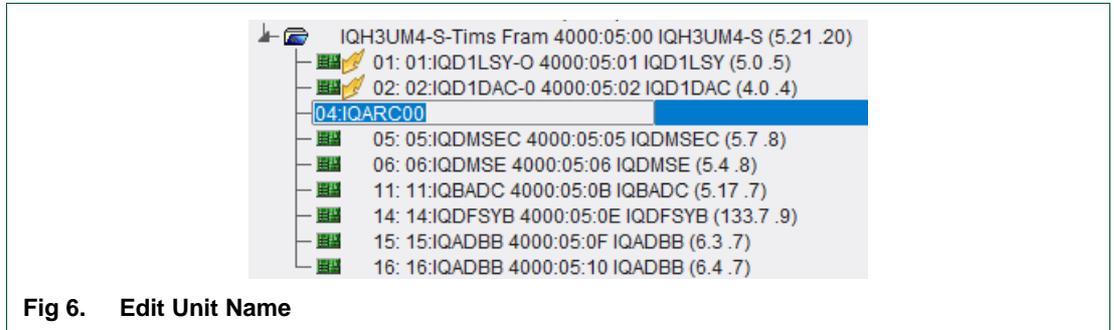


Fig 6. Edit Unit Name

2. Type a new unit name in the text box and press the **Enter** key to accept; or, press the **Esc** key to cancel the action. Names have a maximum length of 19 characters.

To return a unit to its default name:

- Delete all of the text in the text entry box and press the **Enter** key.

When a gateway is also acting as a bridge, it displays as having two nodes in the network tree. One node is shown as the gateway  and the other is shown as the bridge . By default, both nodes share the same unit name.

To alleviate confusion, a naming convention exists to allow separate names to be given to the gateway.

If the unit name contains a tilde (~) character, the text before the ~ will be used as the gateway name and the text after the ~ will be used as the bridge name. (Note that the 19 character length restriction still applies).

For example, the name Gateway~Bridge, displays:

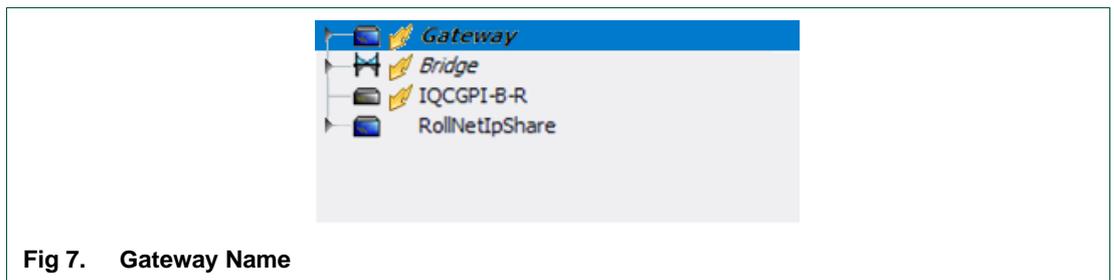


Fig 7. Gateway Name

4.5 Unit License

If a unit supports licensed options, right-click on the unit, and click on **Unit License** to open the Unit License dialog.

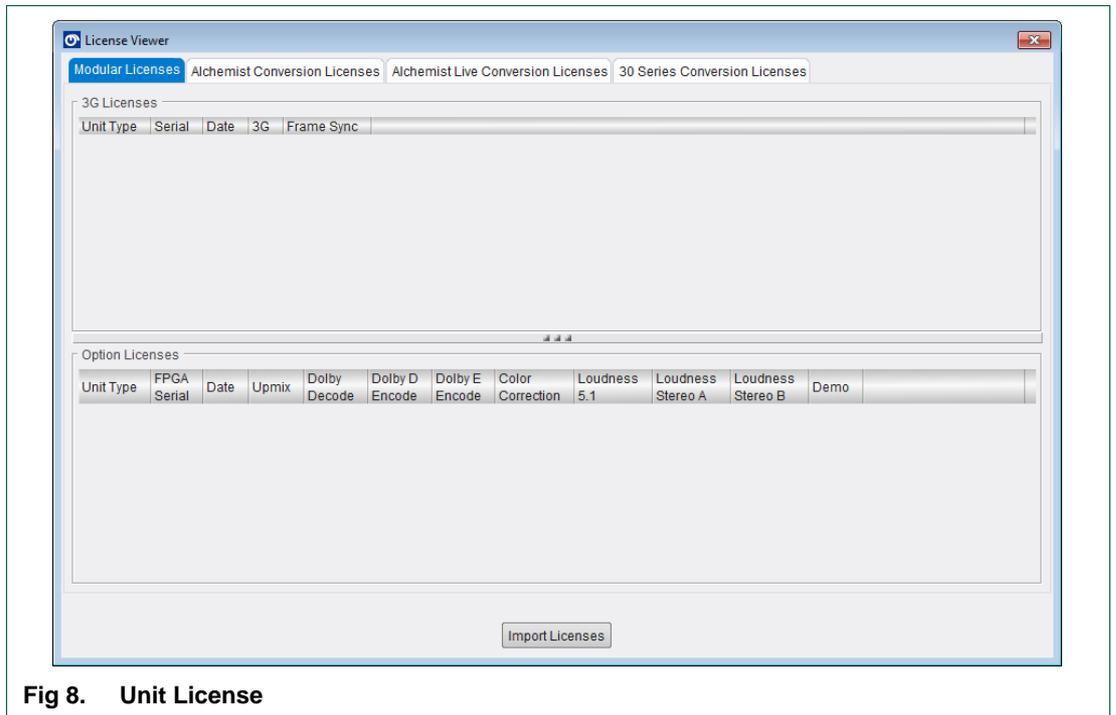


Fig 8. Unit License

The Unit License dialog displays the currently installed licenses for both 3G and Licensed Options as well as any available licenses in the licensing database.

Before installing a license, first import it to the license database. For more information, see Licenses on page 20.

In the above example, the IQMUX33 does not have any licensed options enabled. However, two licenses are available, one for 3G and one for up-mixing, Dolby® decoding and Dolby® encoding.

To install licenses:

1. Select the licenses to install and click on **Install Licenses**.
2. In the confirmation dialog that displays, click **Yes** to install the licenses. To cancel the operation, click **No**.

A confirmation dialog displays, prompting for the module to be restarted. The licenses will not be valid until the module is restarted.

3. Click **Yes**.

The Unit License dialog closes. When the unit has restarted the new licenses will be active.

4.6 Additional Context Menu Items

The following menu items are also displayed for some SPI and GPI modules:

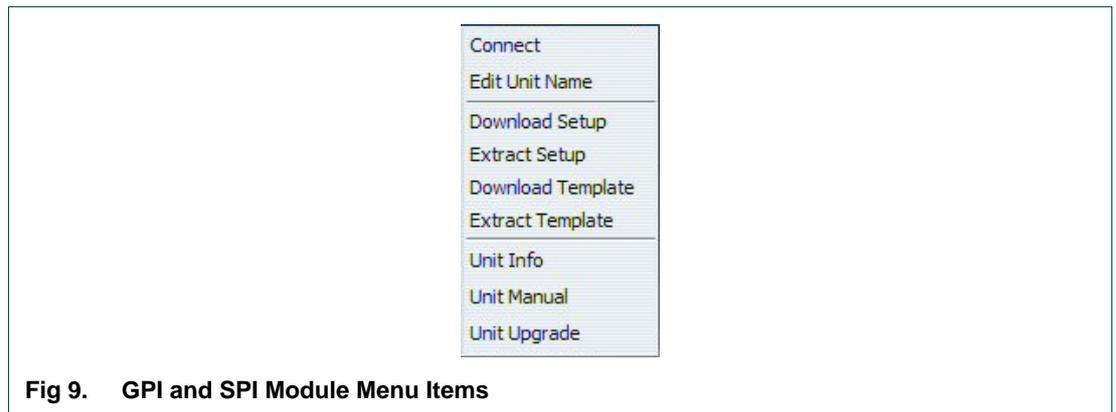


Fig 9. GPI and SPI Module Menu Items

Download Setup - Load a previously saved Setup File to the current module.

Extract Setup - Save the current configuration of a module as a Setup File.

Download Template - Load a previously saved Template File to the current module.

Extract Template - Save the current module template as a Template File.

5. Template Display

This is the main area in which open templates display. The template toolbar above the main area provides functions affecting how templates display. This is particularly useful when multiple templates are open. These functions are also available through the menus.

5.1 Templates

When a unit from within the network browser has been connected to, a template for this unit displays in the Template Display. The template provides all the controls relating to the unit.

5.1.1 Navigating Template Pages

The template, depending on the type of unit, may have a number of pages, each of which can be selected from the list at the top left of the display area.

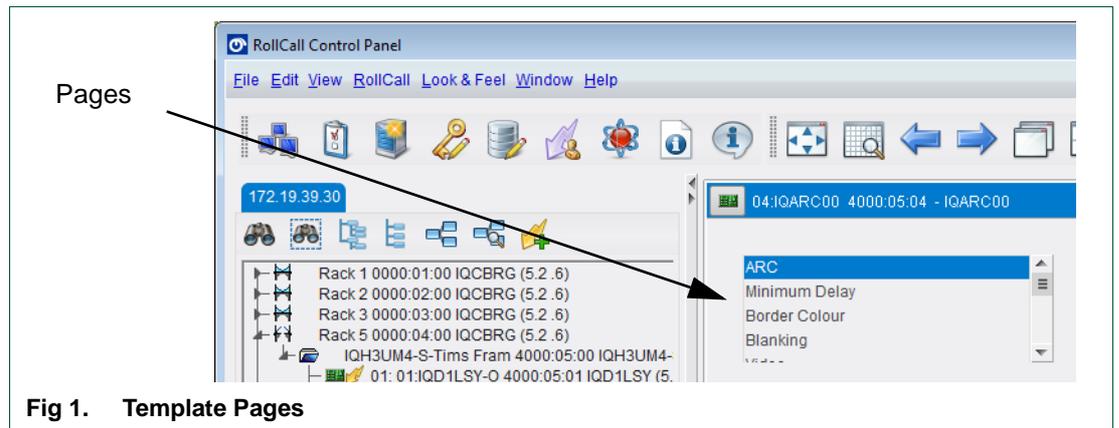


Fig 1. Template Pages

5.1.1.1 Rapid Page Selector

Right-click in any part of an opened template, to display a pop-up providing quick access to all of the template pages.

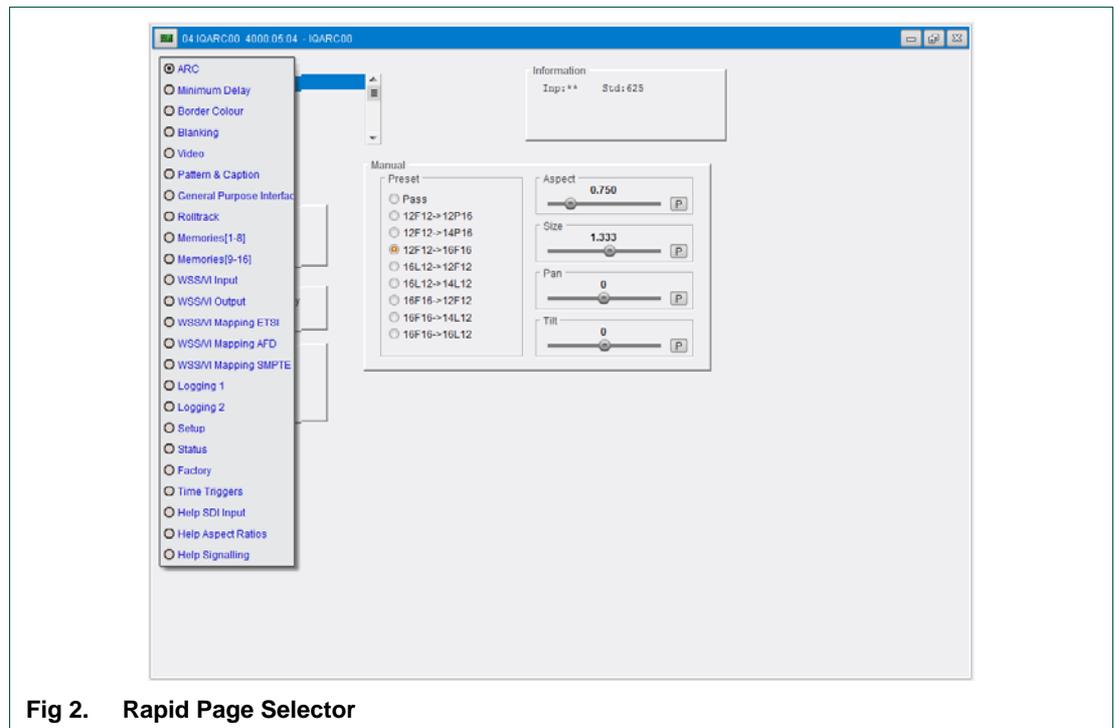


Fig 2. Rapid Page Selector

5.2 Template Toolbar

The following toolbar is provided for the template display.

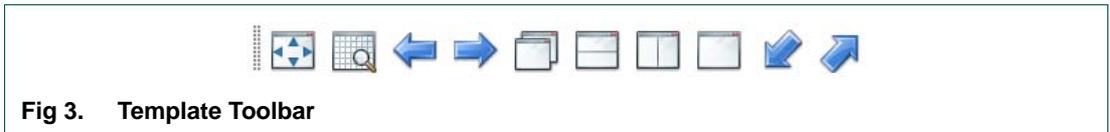


Fig 3. Template Toolbar

5.2.1 Fullscreen

This button which switches the Template Display to fullscreen mode. In fullscreen mode, the Template Display occupies the full RollCall Control Panel window - the toolbars, Network Browser and Connected Units are obscured.

To return to normal mode, select Full Screen from the View menu. Alternatively, use the keyboard shortcut Alt-Enter to toggle between fullscreen mode and normal mode.

5.2.2 Tabbed View

This is a toggle button which switches between windowed view and tabbed view. In tabbed view, opened templates display as a sequence of tabs running along the top of the template display, as shown below.

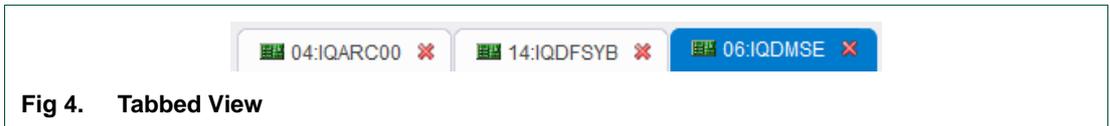


Fig 4. Tabbed View

5.2.3 Previous/Next

Selects the previous or next non-minimized template. The order of selection is the same as the order in which the templates were opened.

5.2.4 Cascade

Displays all non-minimized templates as a cascade. This is the default setting.

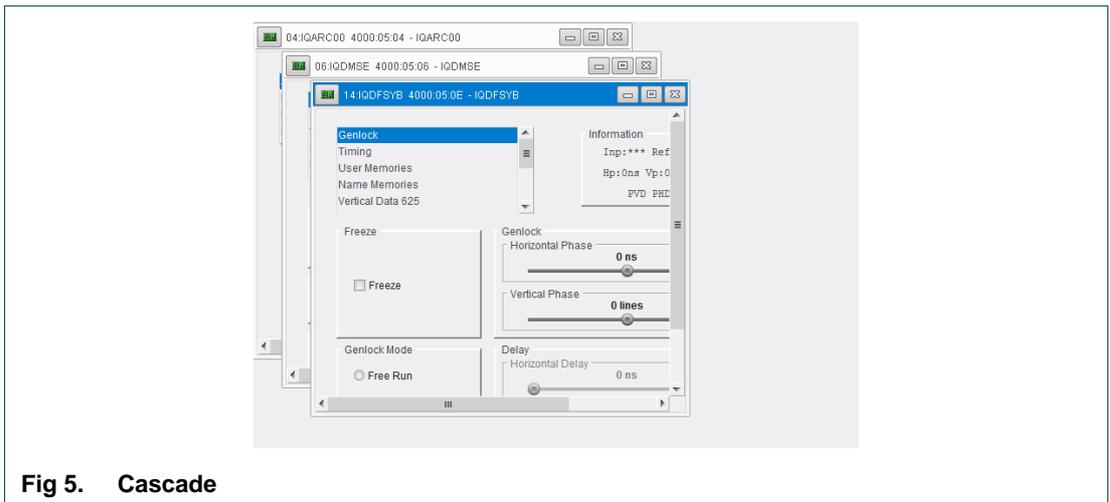


Fig 5. Cascade

5.2.5 Tile Horizontally

Displays all non-minimized templates in a horizontal tile.

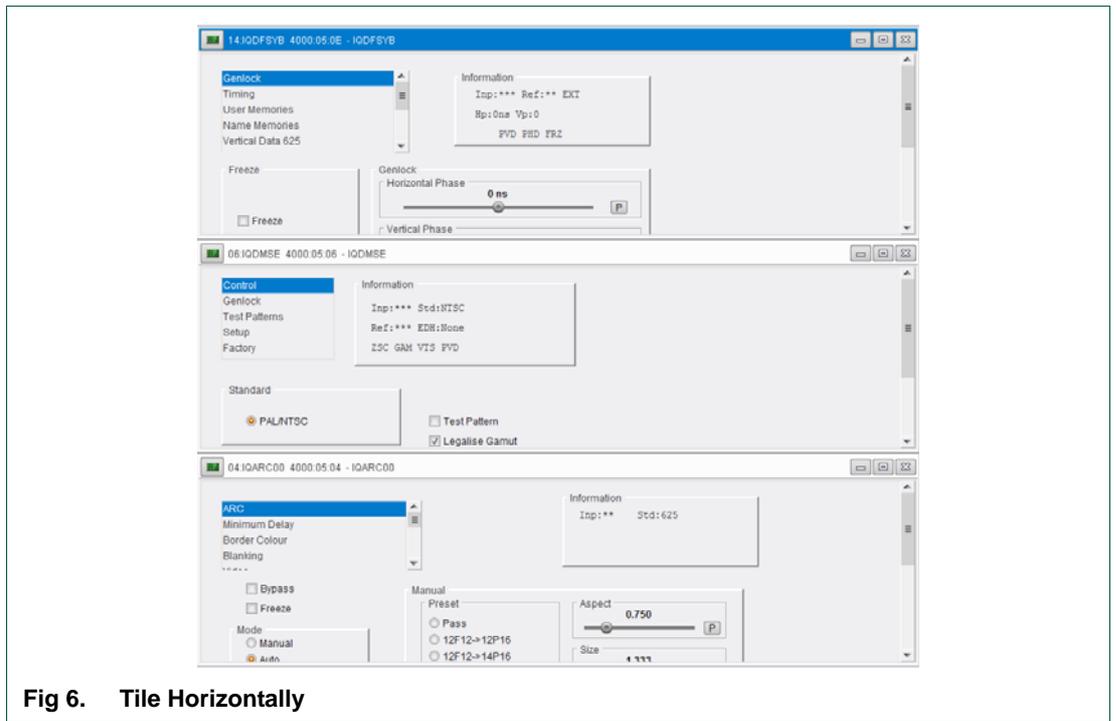


Fig 6. Tile Horizontally

5.2.6 Tile Vertically

Displays all non-minimized templates in a vertical tile.

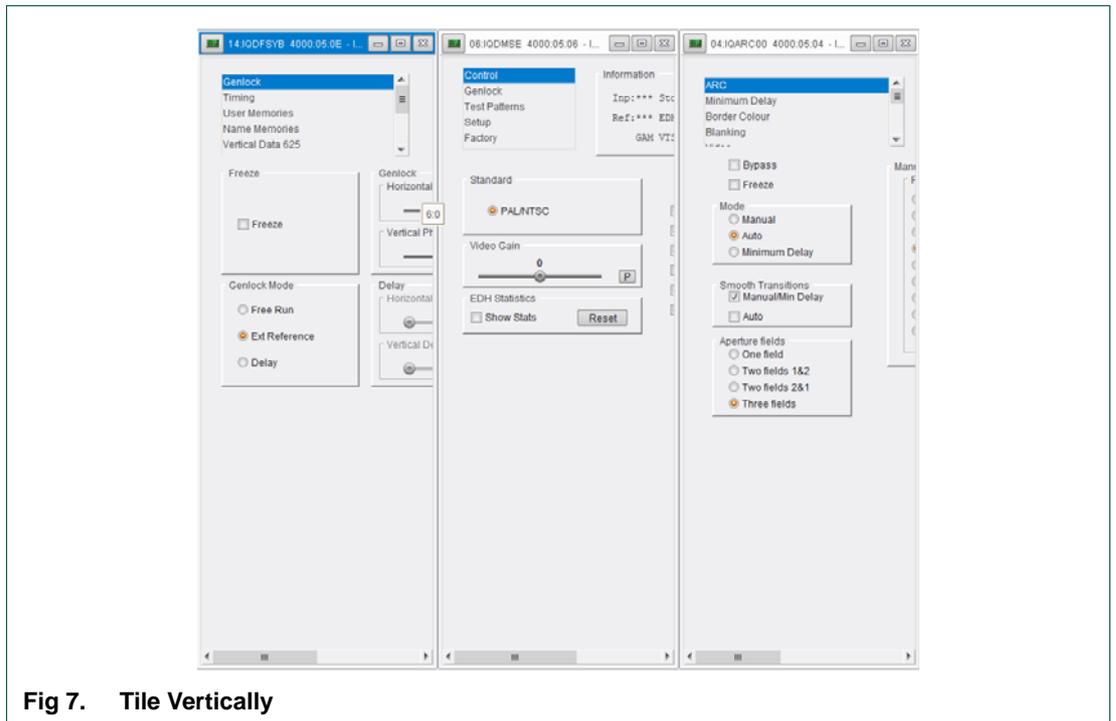


Fig 7. Tile Vertically

5.2.7 Stack

Maximizes all non-minimized templates. Only the active template is visible. Use the template selector to switch between templates.

5.2.8 Minimize/Un-Minimize

Minimize - minimizes all opened templates.

Un-Minimize - restores all opened templates.

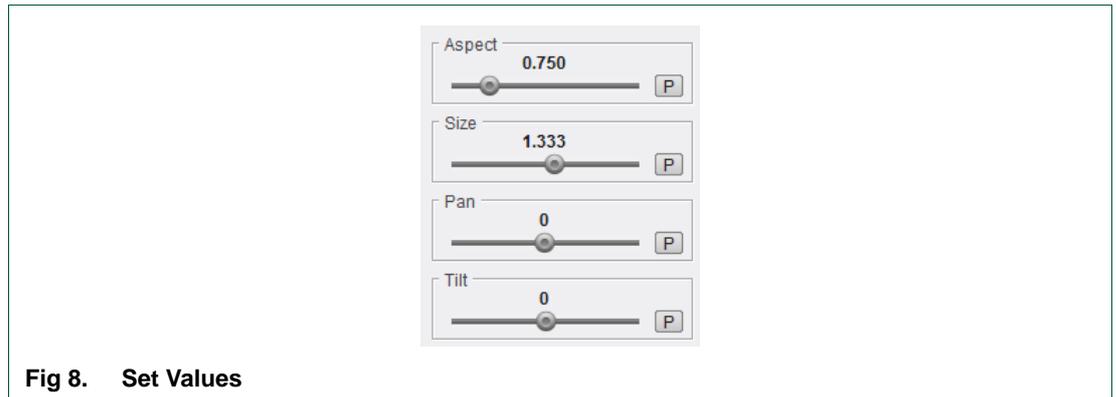
5.2.9 Template Selector

This drop-down list (available when one or more templates are open) allows for quick switching between open templates.

Select the required template from the drop-down list, and that becomes the active template, irrespective of how the templates are displayed, or if the template has been previously minimized.

5.3 Set Values

Many of the settings within the templates have values, either numerical, or textual.



Numerical values are set by using the associated slider to position the pointer at the value required. Alternatively, clicking directly on the value opens that field for editing. The current value may be deleted, and a new value entered.

When setting a value in a field the value, whether text or a number, must be set by pressing the Enter key (or by clicking on the  button, if available).

To cancel the edit, either press the **Esc** key, click on the background panel, or click on another control.

Clicking on an associated  button returns the value back to the factory default setting.

6. Connected Units

This tab displays all the units that have control connections; that is, have templates opened in the Template Display.

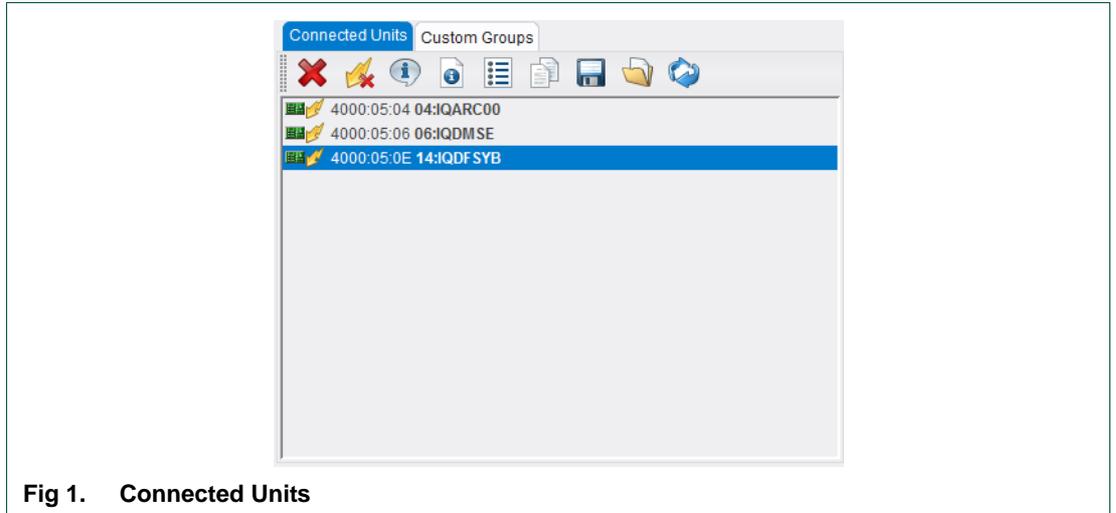


Fig 1. Connected Units

Each entry in the list displays the unit address, the unit name and optionally the RollCall user level it is connected at. Each entry also has an icon to denote the unit class and an icon to denote the unit status (see the Network Browser section for more details on icons).

Each unit has an associated context menu. Right-click on an entry to show its context menu in a pop-up.

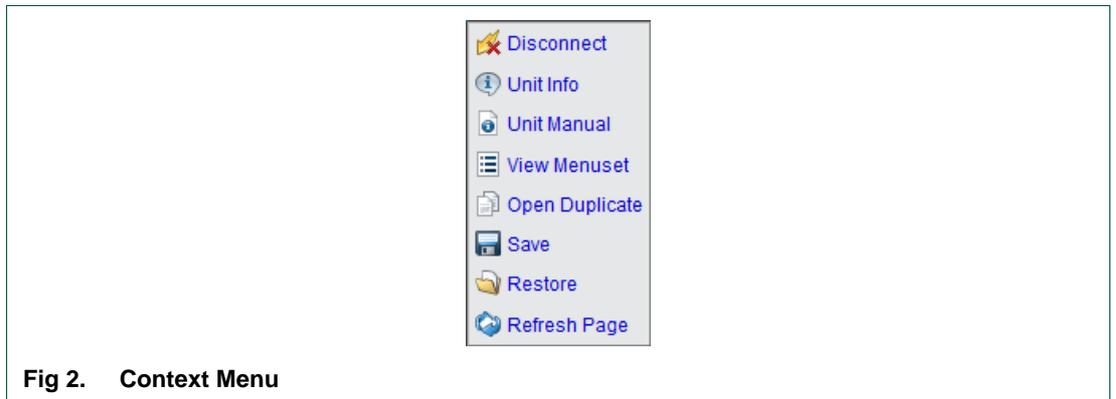


Fig 2. Context Menu

The functions in the pop-up menu are replicated in the Unit Toolbar.

6.1 Unit Toolbar

This toolbar is active when one or more units display in the Connected Units list. The toolbar functions are described below.

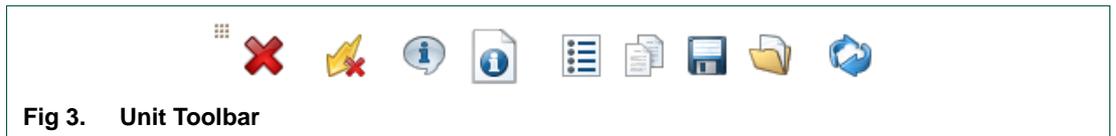


Fig 3. Unit Toolbar

6.1.1 Disconnect All

Terminates control connections for all units. Closes all currently opened templates.

6.1.2 Disconnect Unit

Terminates the control connection for the currently selected unit, and closes its template.

6.1.3 Unit Information

Displays information related to the currently selected unit.

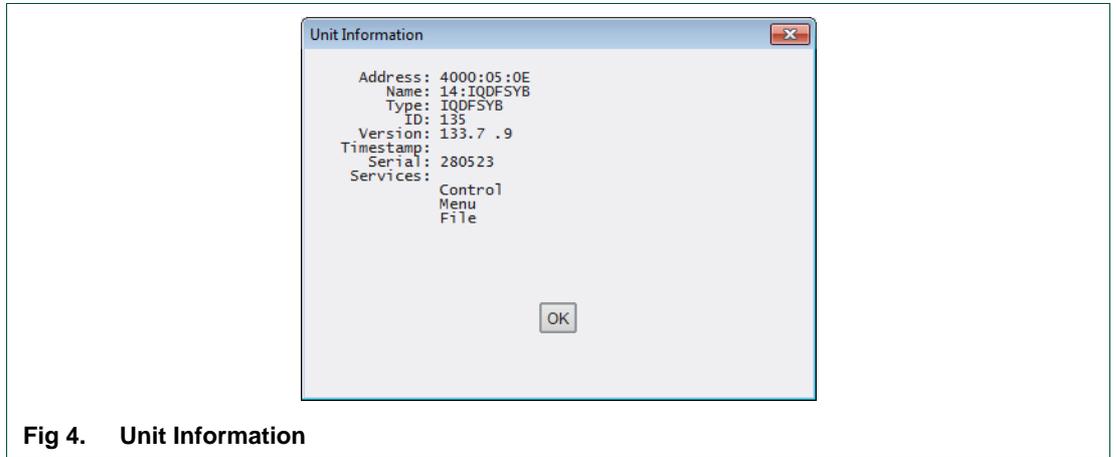


Fig 4. Unit Information

Note: A + symbol shown next to Menu indicates that the unit supports fast menus.

6.1.4 Unit Manual

Displays the manual for the currently selected unit.

6.1.5 View Menuset

Displays the menu set for the selected unit.

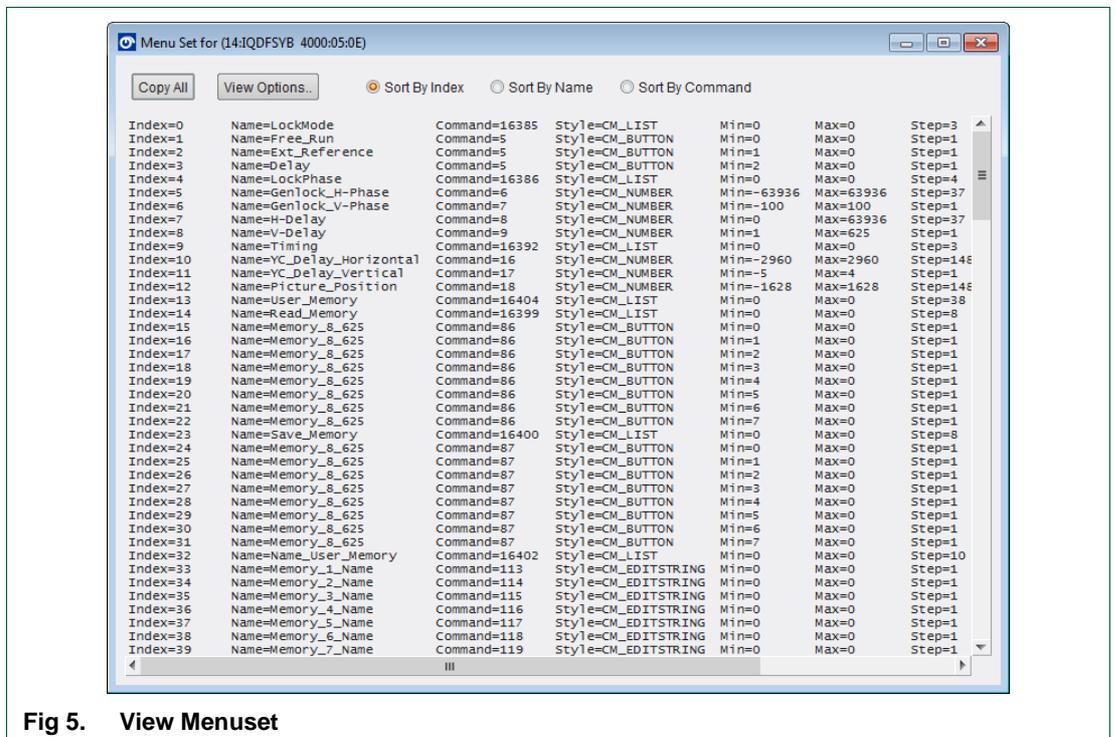


Fig 5. View Menuset

- **Index** - Unique line number for the menu entry.
- **Name** - The name displayed.

- **Command** - The command number.
- **Style** - What kind of menu entry, for example, number, checkbox, display, etc., or a structural entry.
- **Min** - The minimum value that the entry can take.
- **Max** - The maximum value that the entry can take.
- **Step** - The size of the increment for a numeric control.
- **Scale** - The scaling for a numeric control.
- **Format** - The formatting for a numeric control.
- **Cacheable** - Whether this menu entry can be cached or not.
- **Hidden** - The current visibility of the menu entry.
- **Disabled** - The current enabled state of the menu entry.
- **Wraps** - Whether the control value should wrap around when it has reached its maximum or minimum.

Note: Not all menu entries correspond to controls. There are those that only impart structure to the menu set.

6.1.6 Open Duplicate

This opens a duplicate template for the currently selected unit.

6.1.7 Save

To save the state of the currently selected unit:

- Click on the **Save** button to save the unit state to the default backup folder, or
- Click the **Save To** function to save the state of the unit to a named file in a selected directory.

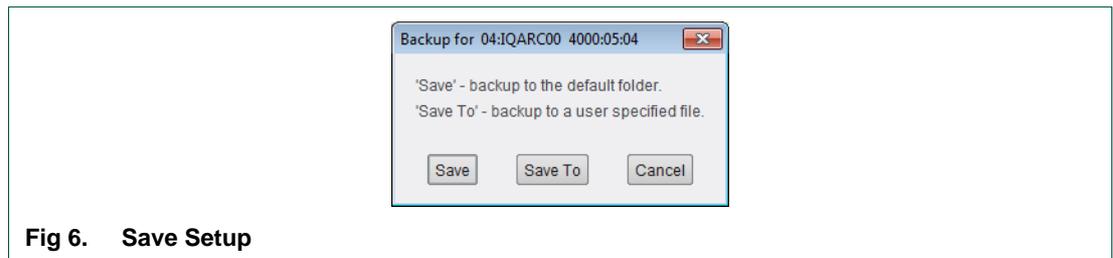
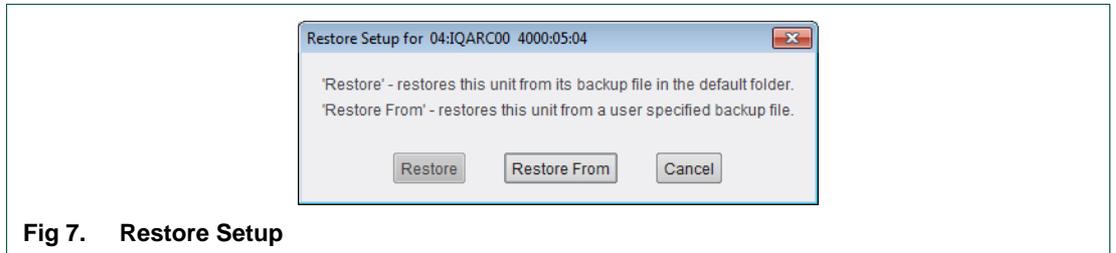


Fig 6. Save Setup

6.1.8 Restore

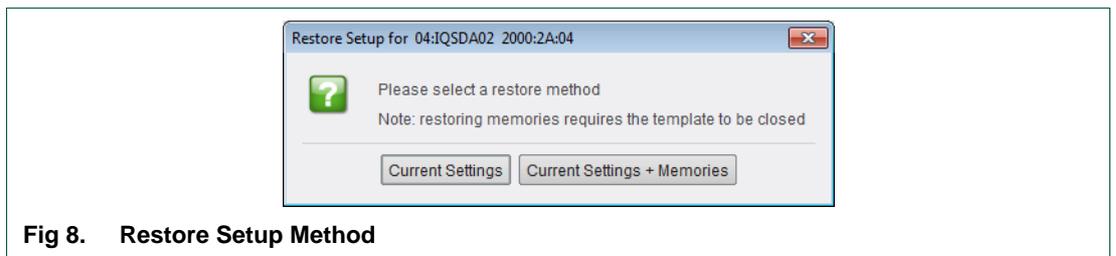
To restore the state of the currently selected unit:

- Click on the **Restore** button to restore the unit state from the default backup folder. If the **Restore** button is not enabled, the unit does not have a backup file in the default folder, or
- Click on the **Restore From** button to restore the state of the unit from a named file in a selected directory.

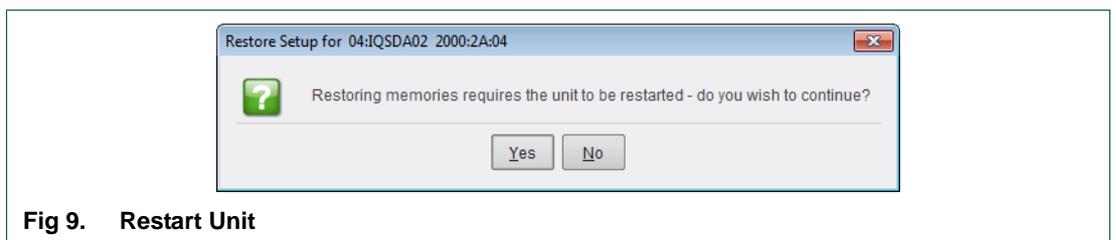


Many unit types support user defined memories. For such unit types, the user memories may be restored or not, as required.

Note: Some older unit types do not support restore of user memories.



Note: Some unit types require a restart to complete the restore.



It is possible to clone units using the restore function, for example, to copy current settings and user memories from one unit to another. Certain conditions have to be met, such as whether the unit types match and possibly the command set versions.

Copying user memories requires copying the entire state of a unit, including factory data such as serial number and calibration. The Control Panel makes sure that factory data is not overwritten but for a unit that requires a restart, **the clone process will not be complete until the unit comes back online.**

6.1.9 Refresh Page

Re-acquires all of the command values on the current page of the template, for the currently selected unit.

7. Custom Groups

Units can be allocated to groups to represent a specific workflow so that they can be accessed quickly. Groups can also be created from different networks.

- Click on the Custom Groups tab.

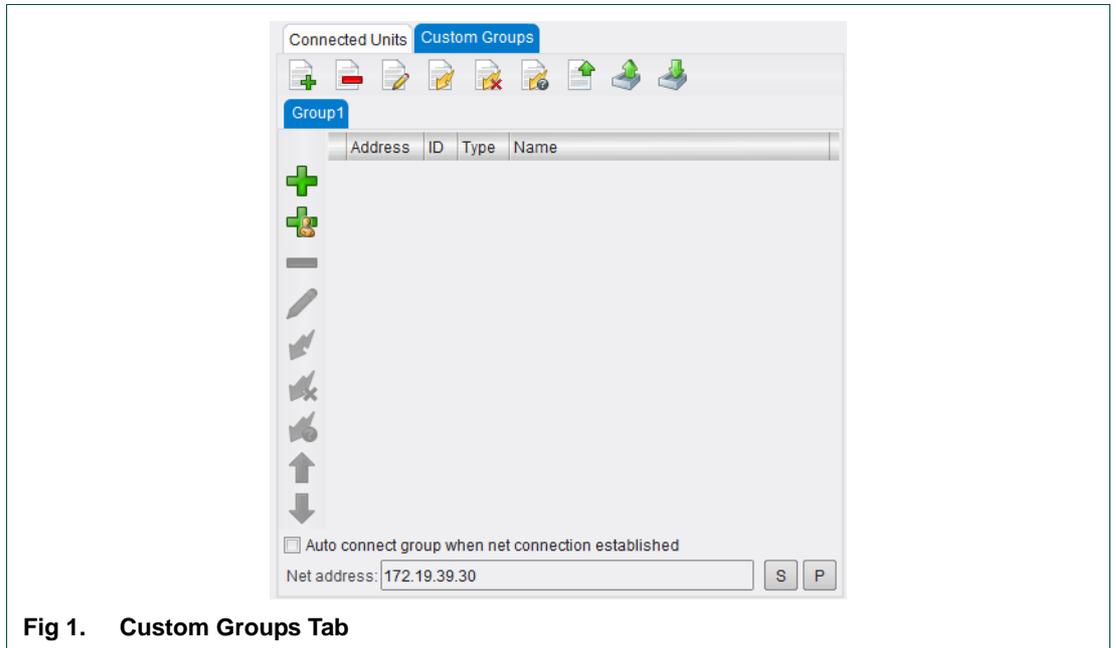


Fig 1. Custom Groups Tab

7.1 Group Toolbar

This toolbar is applicable to all units in the current Custom Group.



Fig 2. Group Toolbar

7.1.1 Add Group

Adds a new group. The Add Group dialog displays.

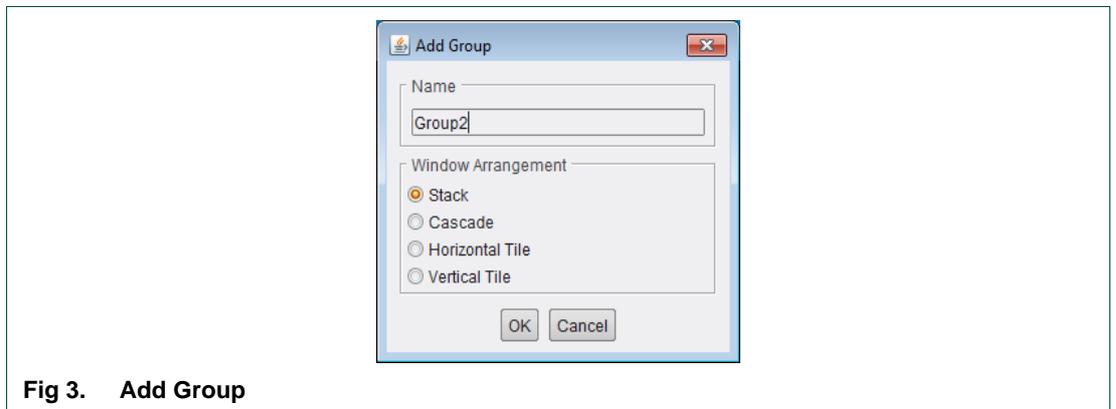


Fig 3. Add Group

1. Enter a name for the group, and select the Window Arrangement preference for when the group is relaunched.

Each new group displays as a tab underneath the Group Toolbar.

- To add units to a group, either drag and drop from the Network Browser, select demo units from the Template Demo dialog, or select **+** from the Unit toolbar.

Note: Drag and drop functionality is not available when running on MAC OS X.

- Add the IP address for the network on which the units reside.
- If required, check the Auto connect group when net connection established checkbox.

Example 1: Units from a network based on the Payout Channel

Channel 1, Channel 2, TV2, TV2+1, Channel 1 North, Channel 1 South

Example 2: Units based on functionality

Down Converters, Distribution, Synchronizers, ARCs, UDCs, Emergency Switches

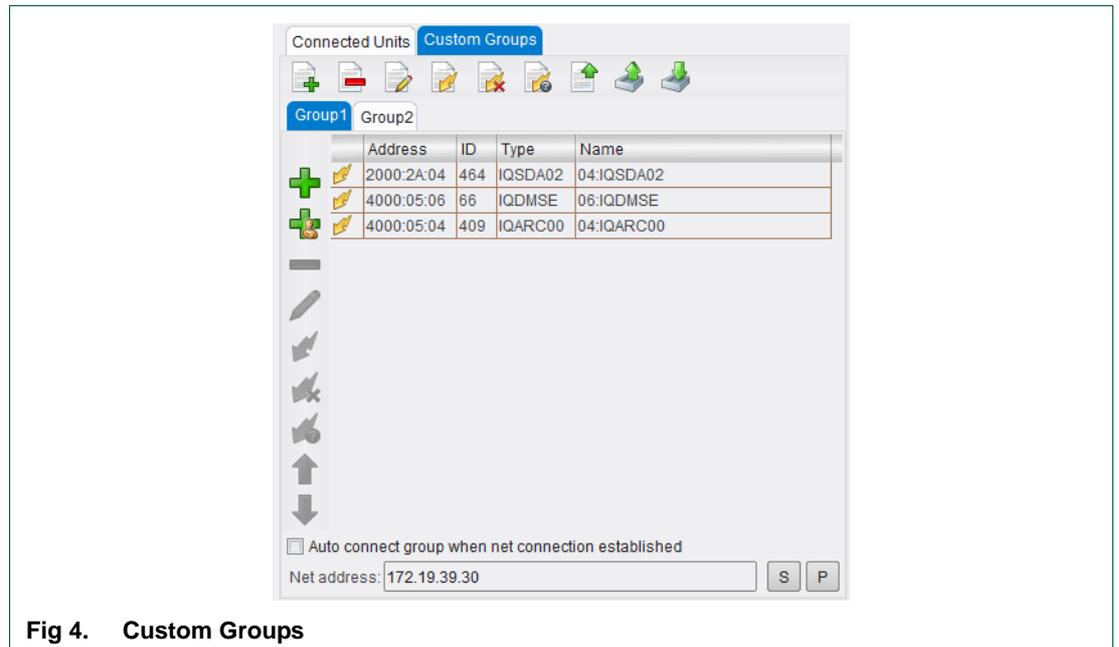


Fig 4. Custom Groups

Each entry in the list displays the unit address, ID, type and the unit name. If the unit is connected, the connected icon () displays in the left column.

An invalid unit, for example a selected unit that is not on the same network as the group, displays red.

7.1.2 Remove Group

Deletes the current group. The units within the group are still available from the other views within the RollCall Control Panel.

7.1.3 Edit Selected Group

Displays information related to the currently selected group.

- Edit the Group name and Window Arrangement accordingly, and click **OK**.

7.1.4 Connect Units

Connects all units in the current group.

7.1.5 Disconnect Units

Disconnects all units in the current group.

7.1.6 Refresh

Refreshes the status of all units in the current group, giving an up-to-date health check on all units in the group.

7.1.7 Export Group to File

Exports the current group to a file.

7.1.8 Export All Groups to a File

Exports all groups to a file.

7.1.9 Import All Groups From a File

Imports groups from a previously saved file.

Note: Exporting Groups to a file provides a backup of the group configuration, and gives the ability to import the groups to another client.

7.1.10 Move Groups

Groups can be reordered by dragging and dropping the group name tab.

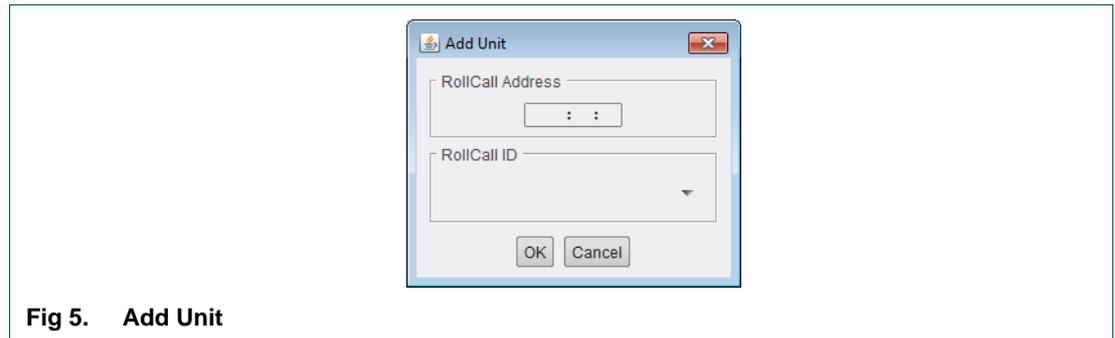
Note: Drag and drop functionality is not available when running on MAC OS X.

7.2 Unit Toolbar

This tool bar is applicable to the individual units within a group. The toolbar functions are described below.

7.2.1 Add Unit

Displays the Add Unit dialog.



- Enter the RollCall Address for the unit, and select the RollCall ID from the drop-down list. Click **OK**.

7.2.2 Add Demo Unit

See "Template Demo" on page 28.

7.2.3 Remove Unit

Remove the currently selected unit from the group.

7.2.4 Edit Unit 

Edit the currently selected unit.

7.2.5 Connect Unit 

Connect the currently selected unit.

7.2.6 Disconnect Unit 

Disconnect the currently selected unit.

7.2.7 Refresh Unit 

Refreshes the currently selected unit, and updates its status.

7.2.8 Move Unit Up 

Moves the currently selected unit up one place in the list.

7.2.9 Move Unit Down 

Moves the currently selected unit down one place in the list.

8. Upgrade Units

Units can be upgraded when a newer version of software exists. Upgrade packages are supplied by SAM.

8.1 Upgrade a Unit

A unit can only be upgraded if an appropriate upgrade package is available. See “Import new Upgrades” on page 23.

1. Right-click on the unit name in the Network Browser.
2. The unit menu displays.

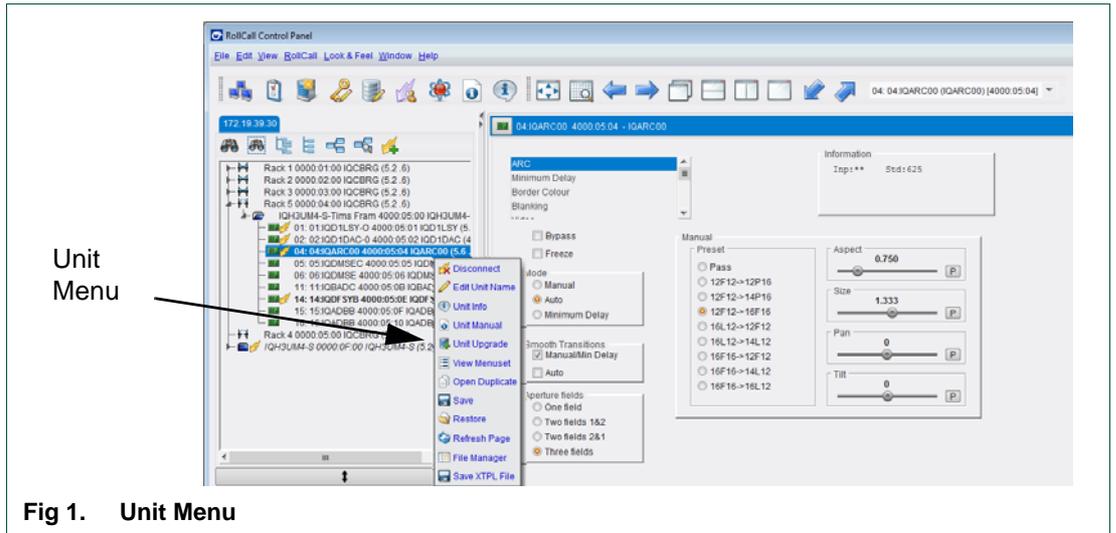


Fig 1. Unit Menu

3. Click on **Unit Upgrade** from the unit menu.
- The Unit Upgrade dialog displays.

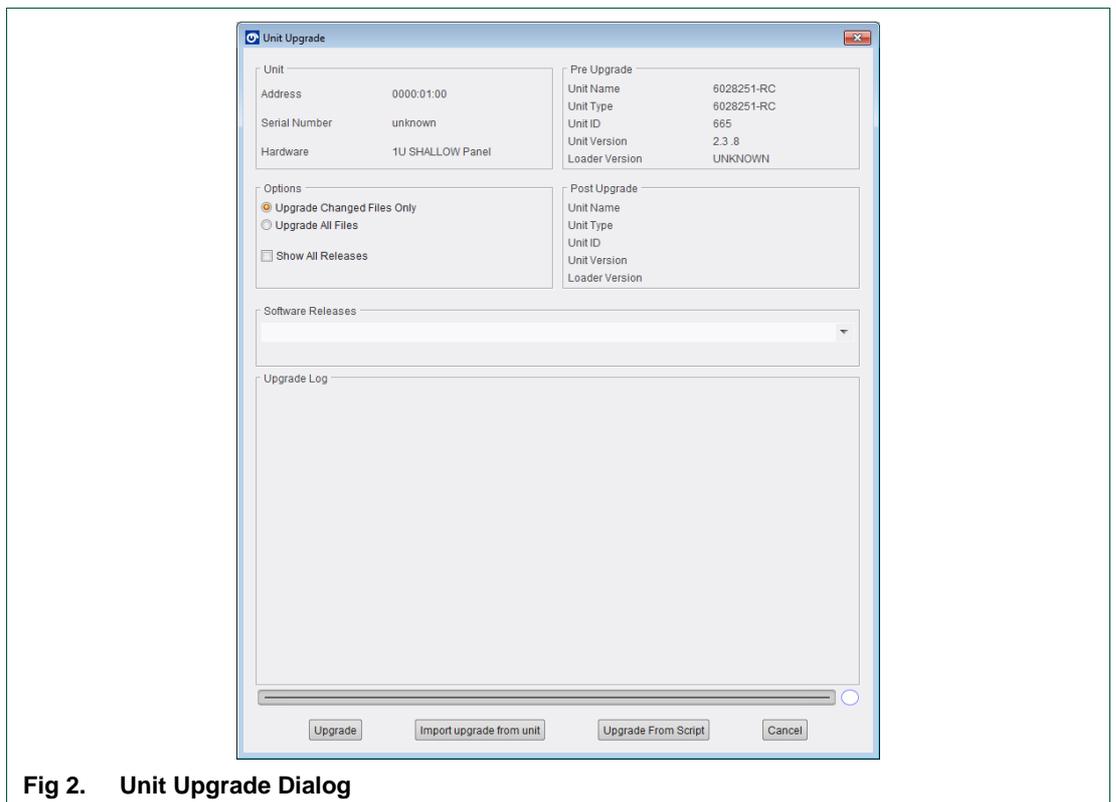


Fig 2. Unit Upgrade Dialog

The following elements and options are available:

- **Unit** - This panel displays the unit address, serial number, and hardware version (if available).
 - **Pre Upgrade** - This panel displays the unit name, unit type, unit ID, unit version and loader version of the unit before the upgrade.
 - **Options** - Choose to either upgrade only the files that have changed or to upgrade all files. It is recommended that the Upgrade Changed Files Only setting is used to ensure a fast upgrade. However, some units may ignore this setting, and always upgrade all files.
 - **Post Upgrade** - After completion of the upgrade, this panel displays the new unit name, unit type, unit ID, unit version and loader version.
 - **Software Releases** - This drop-down list shows all of the software releases available for the unit type. Note that before any releases can be shown, software releases must be imported using the Import new Upgrades function available from the main toolbar.
 - **Release Notes** - If release notes are available, clicking this button displays them. If release notes are not available, this button is not displayed.
 - **Upgrade Log** - This displays the progress of the upgrade.
 - **Cancel** - This closes the Unit Upgrade dialog. If an upgrade is in progress, confirmation of this action is requested.
 - **Upgrade** - If a software release has been selected, this starts the upgrade process. Prior to the upgrade process beginning, a check is made to see whether the unit's current version is available in the list of software releases. If not, a dialog displays prompting to save the unit's current software release before upgrading.
- If the unit is providing the IP connection then the network is temporarily lost, but is restored on completion of the upgrade.
- **Import upgrade from unit** - This creates a software release from the version currently on the unit. Note that this option is only displayed if the unit's version is not already in the list of software releases.

Note: The control panel cannot be used while performing an upgrade.

At the end of the upgrade, if the unit does not come back online, a dialog displays.

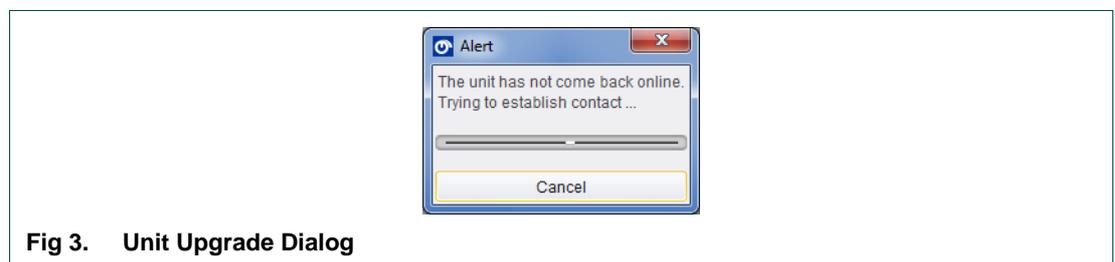


Fig 3. Unit Upgrade Dialog

Further attempts are made to establish contact with the unit until it either, comes back online, or the **Cancel** button is pressed.

Cancelling this operation has no effect on the success or otherwise, of the upgrade operation.

Note: It is currently not possible to detect the true completion of an upgrade to a 30 Series Modular Converter. At the point where upgrade appears to be complete, the unit is starting to create and install the new version. This can take some time to complete (at least five minutes, probably longer); after which time, the unit will automatically restart itself. For this reason, the Post Upgrade information always displays as Unknown.

8.2 Upgrade History

Every time an upgrade is performed, whether successful, aborted or cancelled, an entry is made into the upgrade history file. This file is a record of upgrades and cannot be edited.

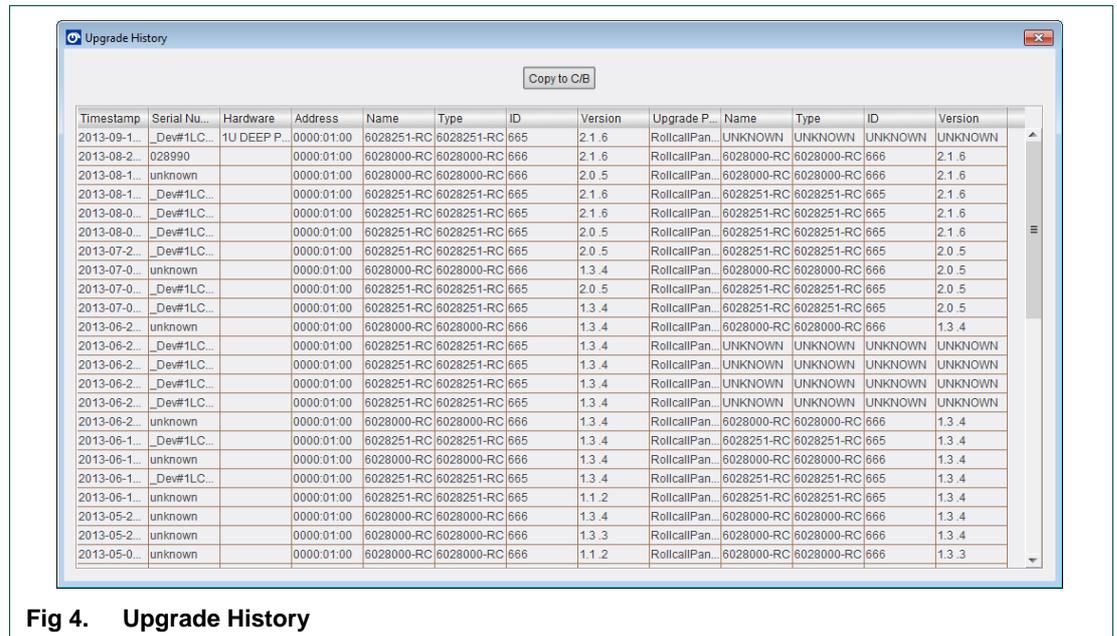


Fig 4. Upgrade History

Each entry contains the following information:

- Timestamp
- Serial Number
- Hardware version (if available)
- RollCall Address
- Unit Name pre-upgrade
- Unit Type pre-upgrade
- Unit ID pre-upgrade
- Unit Version pre-upgrade
- Upgrade Package, this can be one of the following:
 - The name of the original .zip file from which the release was imported.
 - The RollCall address of the unit from which the release was imported.
- Unit Name post-upgrade
- Unit Type post-upgrade
- Unit ID post-upgrade
- Unit Version post-upgrade

Appendix 1. XY Panel

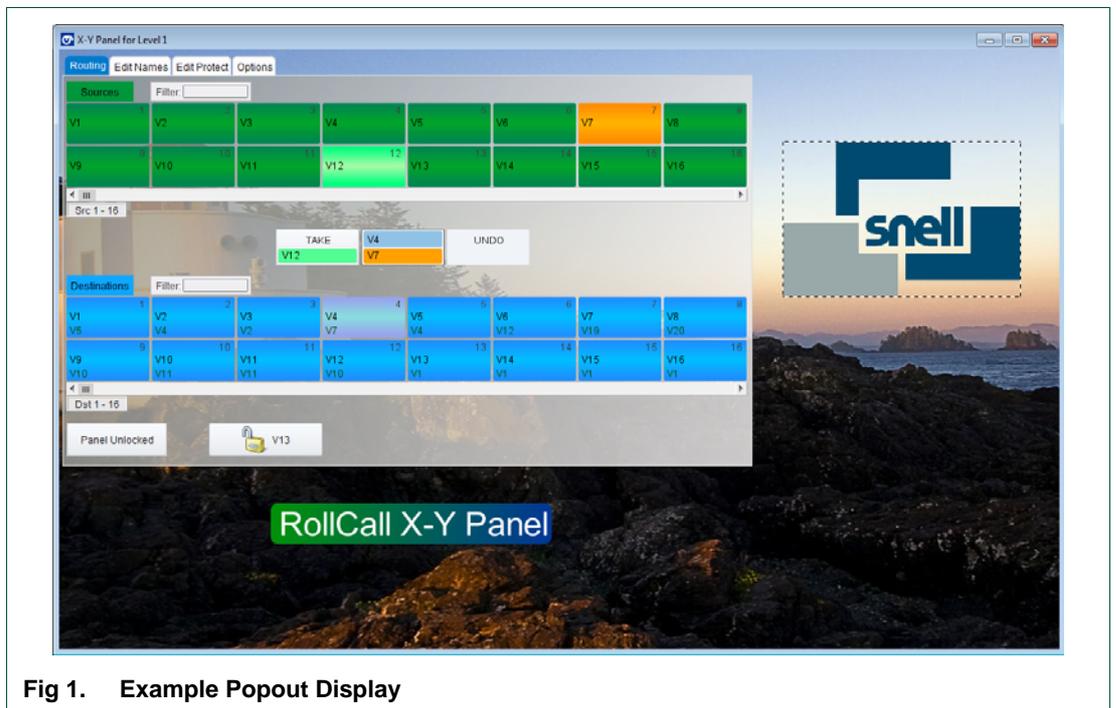
1.1 XY Panel Control

The XY Panel is a RollCall Control Panel screen for setting up and changing routes on a connected router, or a device with a router behavior, for example, an IQSPI00 card configured to act as a router controller, or simulator. The XY panel described here is the default configuration and may vary according to the device that is connected. Also, the means of access to this XY panel may differ according to the implementation of the device.

The Routing tab is the default display when opening the XY Panel. See “Routing” on page 55.

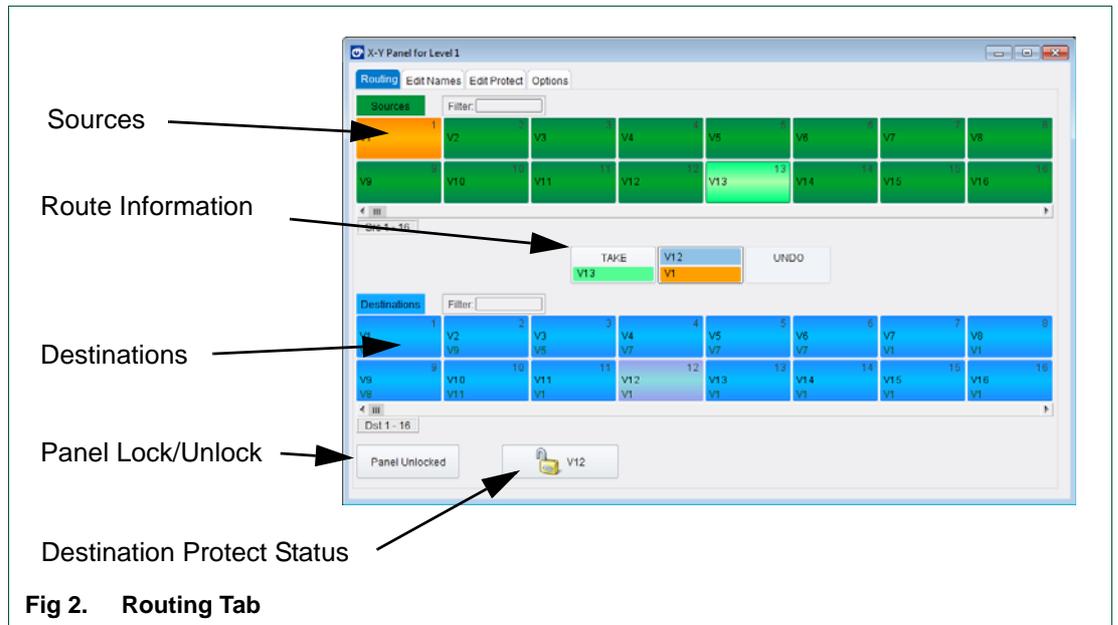
1.1.1 Popout

The Popout button  removes the XY Panel from the RollCall Control Panel and displays it in a new window, according to the configuration set in the Popout Display options. See Popout Display on page 62.



1.1.2 Routing

The Routing tab is used to set up routes from sources to destinations.



Routes can be set up to either occur immediately as soon as the route is made, or upon the click of a **Take** button.

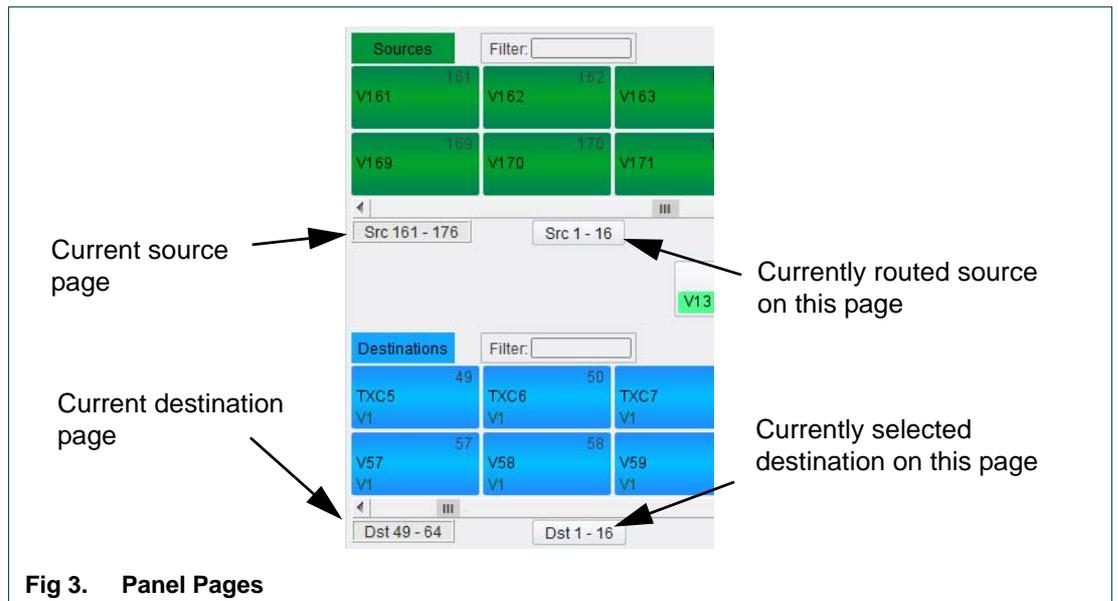
An **Undo** button can be added to the display so that a route may be undone. When the **Undo** button is set up an Undo Timeout is included. The timeout specifies the duration after routing in which it is still possible to revert back to the state before the route was made.

The **Undo** button is available whether routing immediately or when using a **Take** button.

The **Take** button, **Undo** button and Undo Timeout are set up in the Options tab. See Router Functions on page 61.

1.1.2.1 Navigating the Routing Tab

Use the slider bars under the source and destination panels to navigate forward and reverse through the pages.



Navigating to another page of sources or destinations, displays a button indicating on which page the currently routed source or selected destination is on.

- Click on the button to navigate directly to the page of the currently routed source or selected destination, as applicable.

1.1.2.2 Filter the Router Display

Filters can be applied to destinations and sources limiting the number viewed. The filtering is switched on in the Options tab. See Router Display on page 61.

To apply a filter to either destinations or sources:

1. Hover over the Filter text entry box.

The Filter functions display.

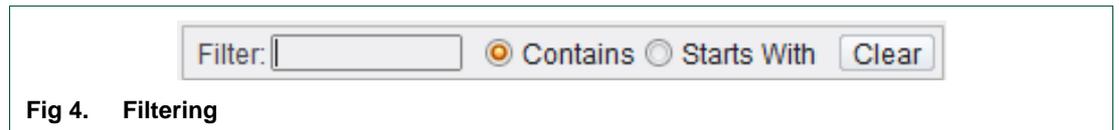


Fig 4. Filtering

2. Click on the appropriate **Contains** or **Starts With** radio button.
3. Type in the desired filter text in the text entry box. The display changes accordingly as characters are typed.

To clear the filter:

- Click on the **Clear** button.

1.1.2.3 Set a Route

To set a route:

1. Click on a destination button.

The destination, and current source, if previously set, display in the Route Information area.

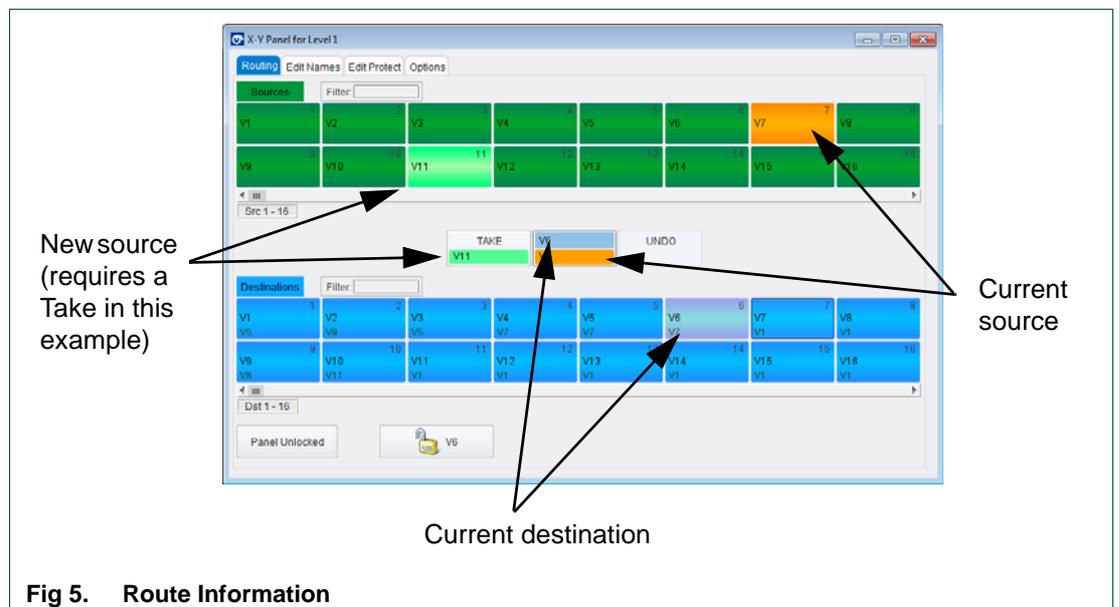


Fig 5. Route Information

2. Click on the source button from where to route.
3. Click on the **Take** button, if displayed.

To set another route, click on another destination button.

Clicking on the currently selected destination deselects the destination and returns the display to the default state.

Note: Deselecting a destination does not affect its routing.

1.1.2.4 Destination Protect

Destinations may be protected so that a new route cannot be applied to that destination without the protection first being removed.

To protect a single destination:

- Click on the destination button to protect, and click the **Protect Dest** button.

The closed padlock symbol displays on the button indicating that the destination is protected.

In addition a padlock icon () displays on the destination button when in protected state.

To unprotect a destination:

- Click on the destination button, and click the **Unprotect Dest** button.

The open padlock symbol displays on the button indicating that the destination is unprotected.

The padlock icon on the destination button is removed.

To protect multiple destinations:

- See Edit Protect on page 59.

1.1.2.5 Panel Lock

The panel can be locked to prevent further routing.

To lock the panel:

- Click the **Panel Unlocked** button.

To unlock the panel, allowing routes to be set:

- Click the **Panel Locked** button.

1.1.2.6 Button Maps

Button maps are used to control access to certain parts of a router.

By default the button map view is set to off, and all of the router is accessible. To use button maps they must be enabled in the Options tab. See Router Functions on page 61.

Once enabled, the button map selector displays at the top of the tab. The button map selector also displays at the top of the Edit Names and Edit Protect tabs.

Until a button map is created the button map selector is empty, and no part of the router is visible. To create one or more button maps, see "Button Maps" on page 66.

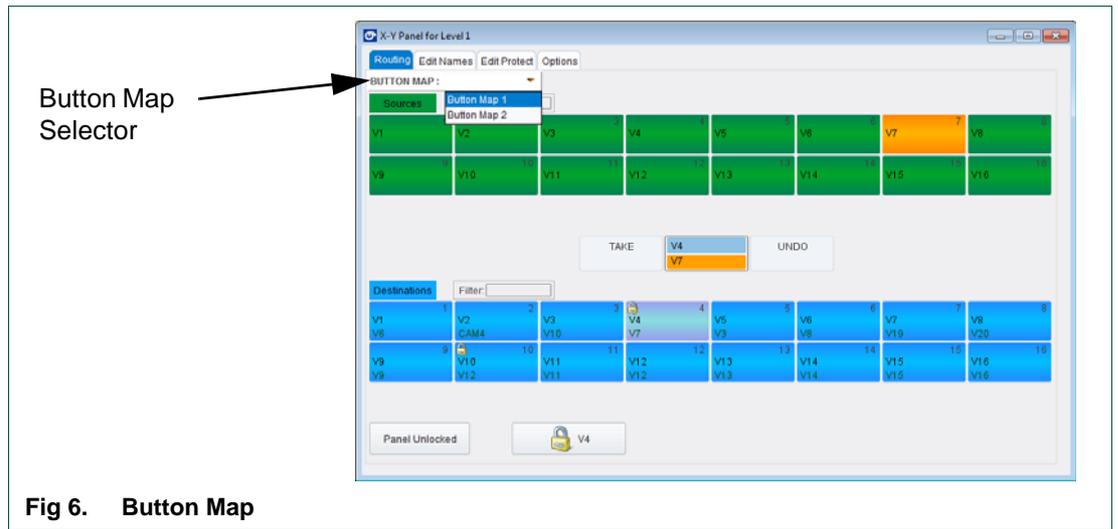


Fig 6. Button Map

If the XY panel starts up with button map view enabled, a button map must be selected from the button map selector. If there is only a single button map defined then this is automatically selected, and the view displays accordingly.

1.1.3 Edit Names

Use the Edit Names tab to assign names to the sources and destinations.

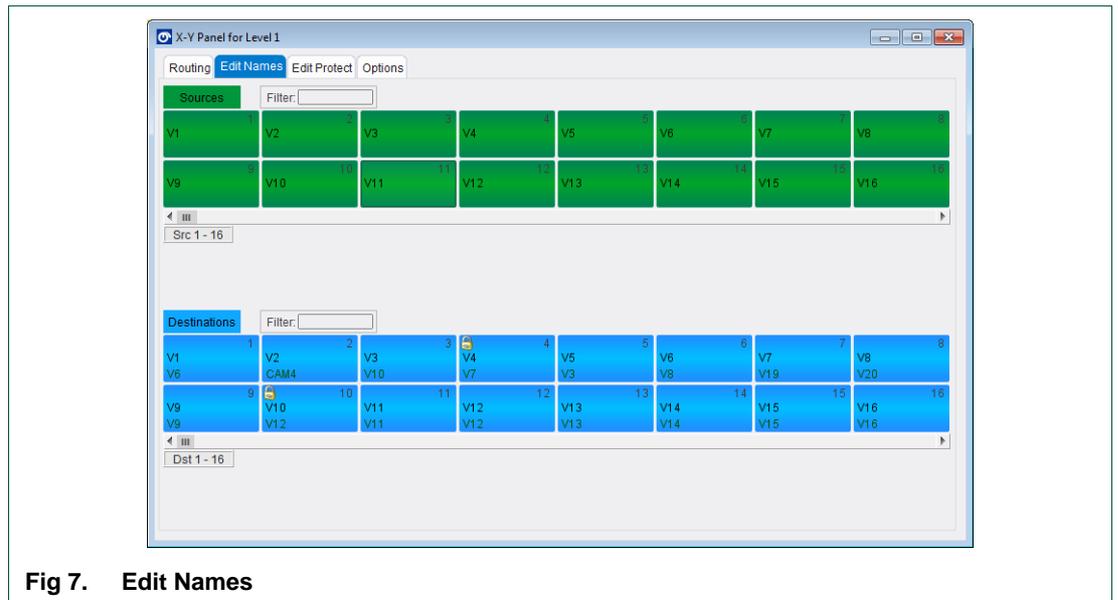


Fig 7. Edit Names

To edit the names of the sources and destinations:

1. Click on the Edit Names tab.
2. Click on a button.
3. Type a new name, and press the **Enter** key.

Pressing the <Esc> key will cancel an edit.

1.1.4 Edit Protect

Define destinations to protect or unprotect in the Edit Protect tab.

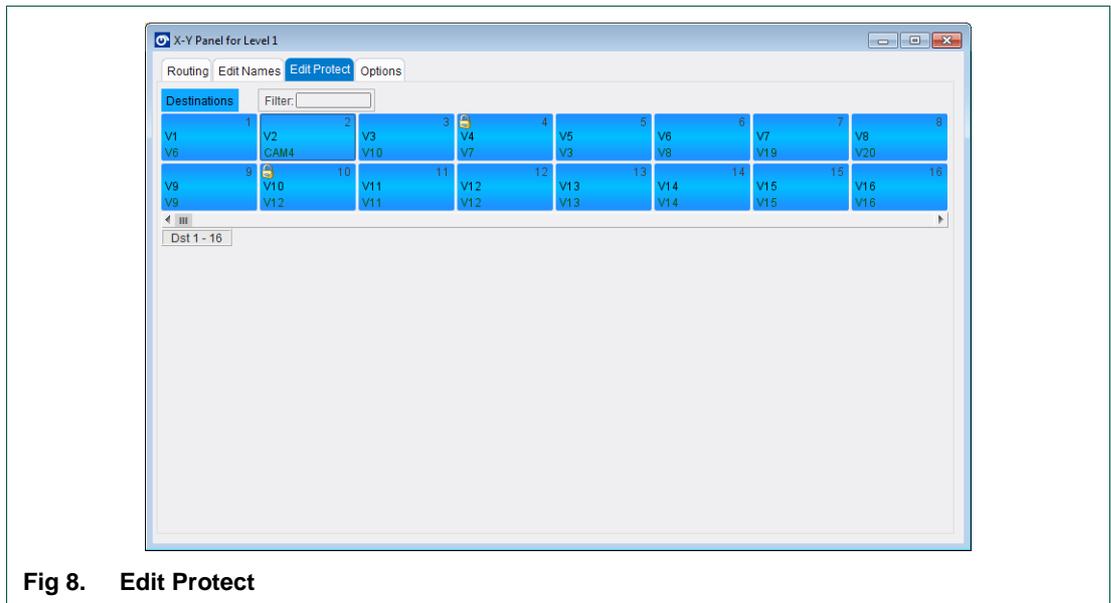


Fig 8. Edit Protect

To protect/unprotect destinations:

1. Click on the Edit Protect tab.
2. Click on a destination button to toggle the protect state. A padlock icon (🔒) displays on the button when in protected state.

1.1.5 Options

The Options tab provides settings for customizing the display of the XY panel.

Note:

Settings are store per client. They are not stored between clients.

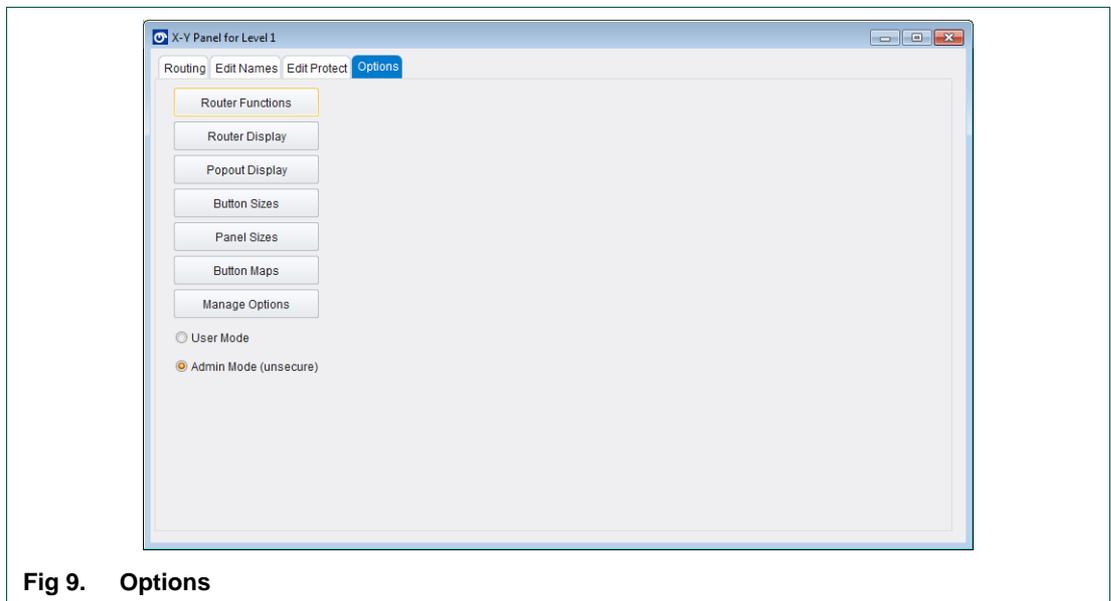


Fig 9. Options

The Options tab has two modes: User Mode and Admin Mode, as indicated by the radio buttons at the bottom of the screen.

The features in the Options tab are only available when in Admin Mode.

When connecting to a unit the XY panel always starts in User Mode.

1. Click on the Admin Mode radio button to gain access to the options.

Initially, Admin Mode is unsecure (no password). If required, a password can be set for Admin Mode, see “Manage Options” on page 71. The Admin Mode radio button then indicates that it has password protection.

2. If a password is requested, enter the password, and click OK.

Note: Once in Admin Mode, the Options tab remains in this mode unless User Mode is re-selected, or the unit is disconnected.

1.1.5.1 Router Functions

Define **Take** and **Undo** buttons to be included in the Routing page.

- Check the **Preselect with a Take button** checkbox to add a **Take** button to the Routing page.

If no **Take** button is added, routing takes place immediately on selection of a source.

- Check the Undo checkbox to add an **Undo** button to the Routing page.

Add a timeout to the Undo by moving the slider. The time set is the period after performing a Take operation (with or without a **Take** button) in which an Undo operation is possible, returning to the previous route before the Take. Once the timeout time has elapsed the Undo operation is no longer possible.

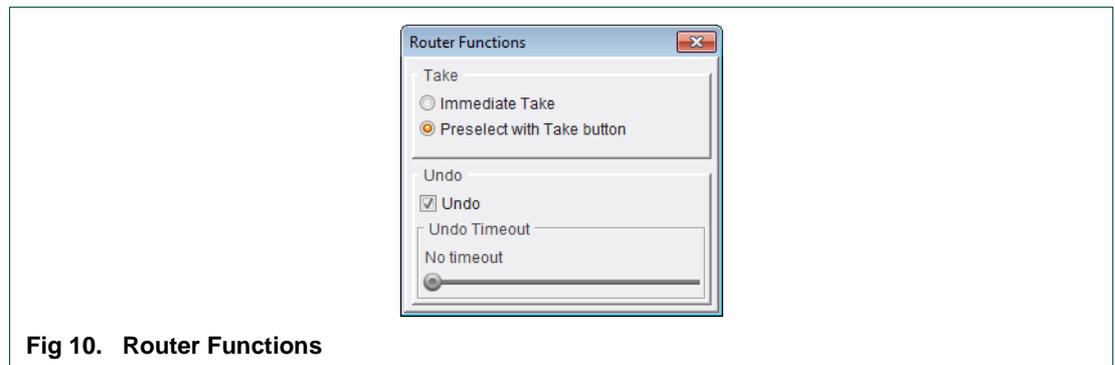
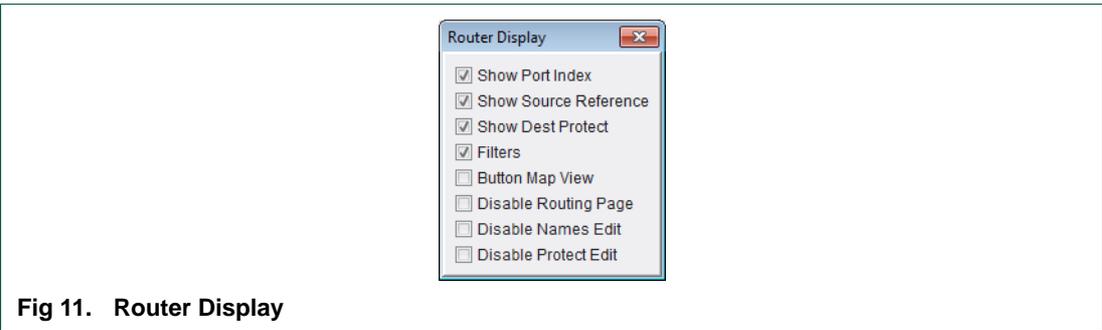


Fig 10. Router Functions

1.1.5.2 Router Display

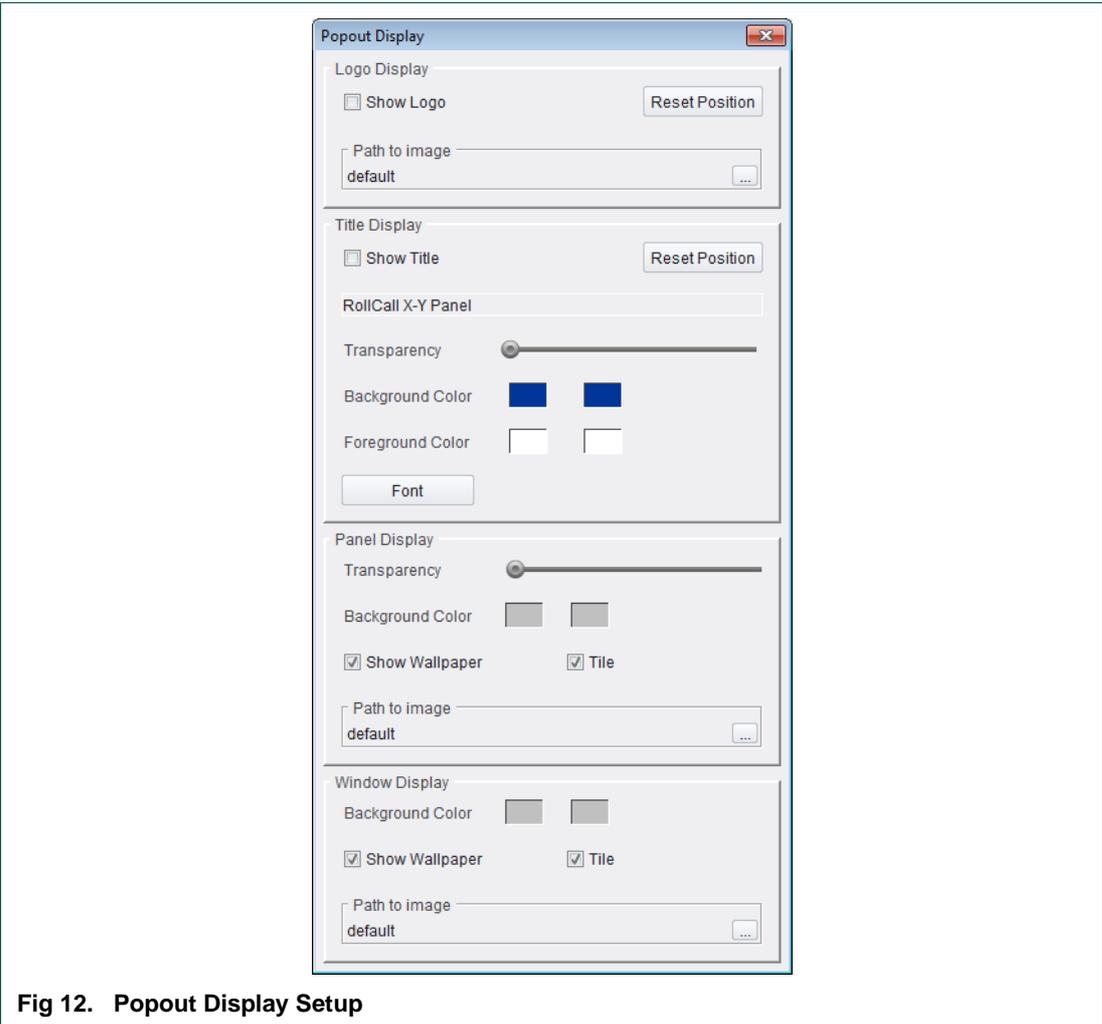
Define which additional information displays on the source and destination buttons in the Router page.

- **Show Port Index**—Displays the Port Index number on each button.
- **Show Source Reference**—Displays reference input standard information about the data type, for example, the format of the source.
- **Show Dest Protect**—A padlock icon (🔒) displays indicating that a destination is protected.
- **Filters**—Displays the Filtering functions on the Routing page.
- **Button Map View**—Enable Button Map View. Button Maps can then be created and selected from the Routing Page. See “Button Maps” on page 66.
- **Disable Routing Page**—Disable the Routing tab so that further routes cannot be made. This feature is not available on modular products.
- **Disable Edit Names**—Disables the Edit Names tab, so that source and destination names cannot be edited by users.
- **Disable Protect Edit**—Disable the Edit Protect tab, so that destination protects cannot be edited by users.



1.1.5.3 Popout Display

Customize the display of the XY Panel for when it is used as a popout.



The following aspects of the display can be customized:

- **Logo Display**—a floating logo that can be repositioned anywhere within the window, excluding the area of the Panel Display.
- **Title Display**—a floating title that can be defined and repositioned anywhere within the window, excluding the area of the Panel Display.
- **Panel Display**—the background of the XY Panel can be setup with a semi-transparent color or image.
- **Window Display**—the background of the window can be setup with a semi-transparent color or image.

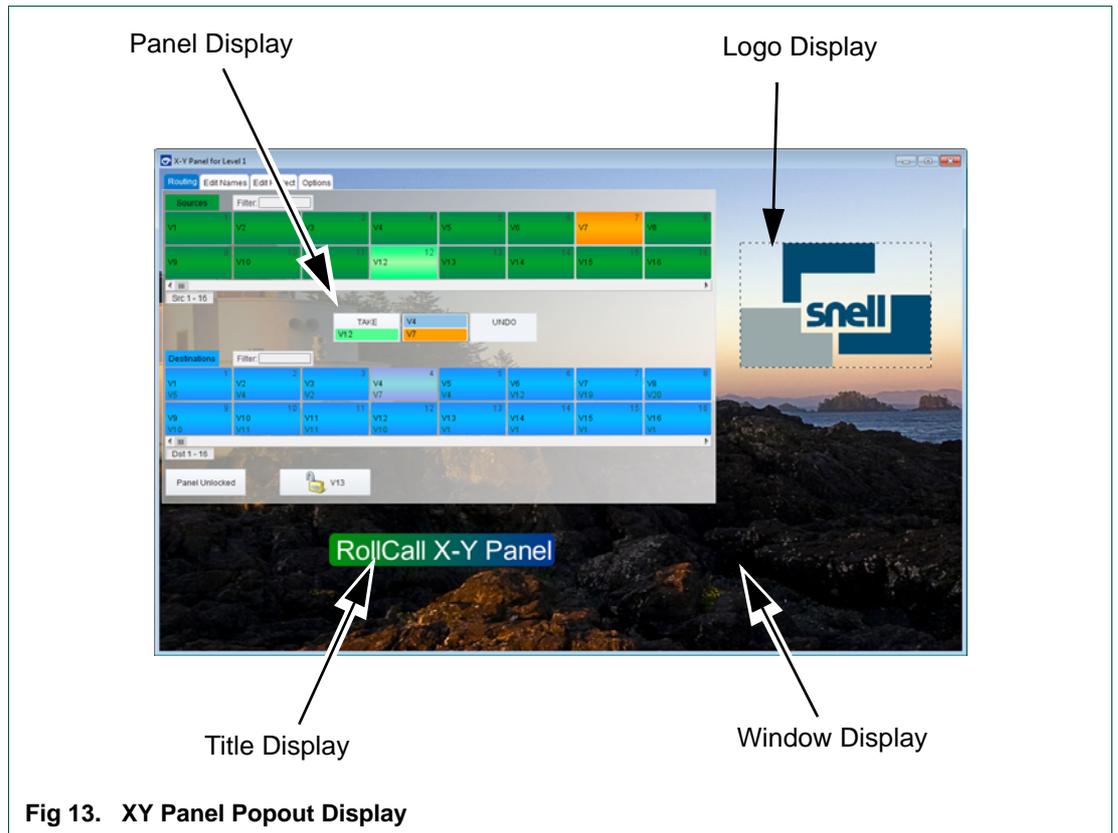


Fig 13. XY Panel Popout Display

Logo Display

To add a logo:

1. Click the **Browse** button () and navigate to the logo image.
2. Check the Show Logo checkbox.

The logo displays next to the top right of the Panel Display.

To move the logo:

- Double-click on the logo and drag to another position.
The logo cannot be positioned on the Panel Display.
- Click on the **Reset Position** button to move the logo back to the original position.

Title Display

To add a title:

1. Edit the text to name the panel.
2. Check the Show Title checkbox.
The title displays to the right of the Panel Display.
3. Click on the **Font** button to change the font, size, and style of the text.

To move the title:

- Double-click on the title and drag to another position.
The title cannot be positioned on the Panel Display.
- Click on the **Reset Position** button to move the title back to the original position.

To change the color of the title:

1. Click on a color box.
2. Select the desired color from dialog box that displays.
3. Click **OK**.

The four color boxes define the colors for the text background and the text itself (foreground). Choosing two different colors for either the background or foreground displays a gradation between the two colors selected.

4. Use the Transparency slider to determine the opacity of the background color.

Panel Display

To change the color of the panel background:

1. Click on a color box.
2. Select the desired color from dialog box that displays.
3. Click **OK**.

Choosing two different colors for the background displays a gradation between the two colors selected.

4. Use the Transparency slider to determine the opacity of the background color.

To add a background image to the Panel Display:

1. Click the Browse button () and navigate to the image.
2. Check the Show Wallpaper checkbox.
3. Check the Tile checkbox, if required.

Adding a background image overrides the background color and transparency settings. The image cannot be made semi-transparent.

Window Display

To change the color of the panel background:

1. Click on a color box.
2. Select the desired color from dialog box that displays.
3. Click **OK**.

Choosing two different colors for the background displays a gradation between the two colors selected.

To add a background image to the Panel Display:

1. Click the **Browse** button () and navigate to the image.
2. Check the Show Wallpaper checkbox.
3. Check the Tile checkbox, if required.

1.1.5.4 Button Sizes

From this dialog, the source and destination buttons in the panel display can be resized, the fonts for the button text changed, and the sample channel naming display set.

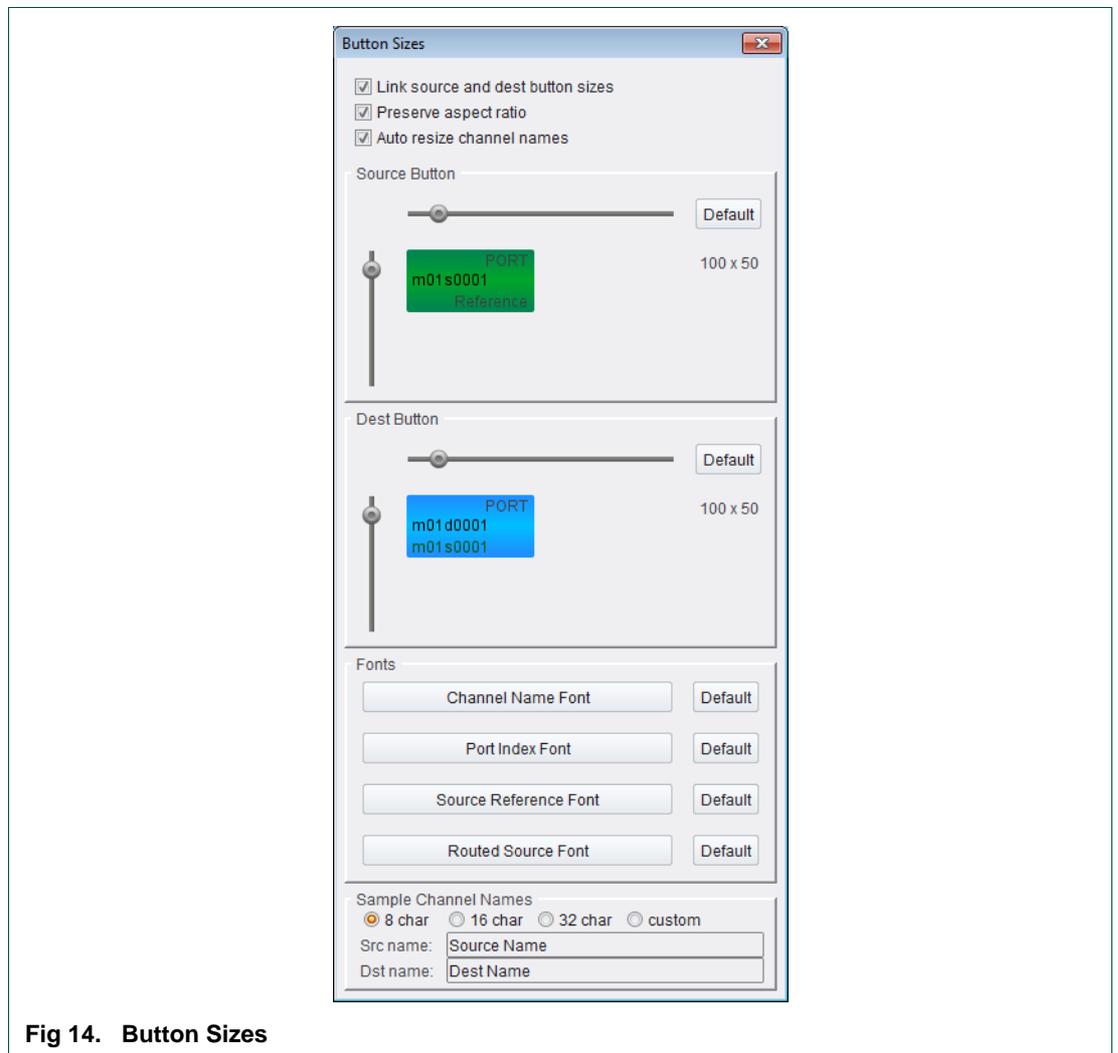
To change button sizes:

- Use the horizontal and vertical sliders to increase/decrease the button sizes.

The display changes accordingly, graphically showing the actual size and shape of the buttons.

The following options are also available:

- Checking the Link source and dest button sizes checkbox makes the source and destination buttons increase/decrease at the same time, with a matching size.
 - Checking the Preserve aspect ratio checkbox allows the button sizes to be changed using either the horizontal or vertical slider to alter the size of the buttons in both axes, whilst maintaining the current shape of the buttons.
 - Checking the Auto resize channel names checkbox ensures that as the size of the button increases/decreases the channel name font size changes dynamically to fit the name inside the current size of button, to a minimum of 9pt, and up to the maximum of the font size selected.
- Click the **Default** button to return a button to default size.



To change fonts:

1. Click on one of the text element font buttons.

The Fonts dialog displays.

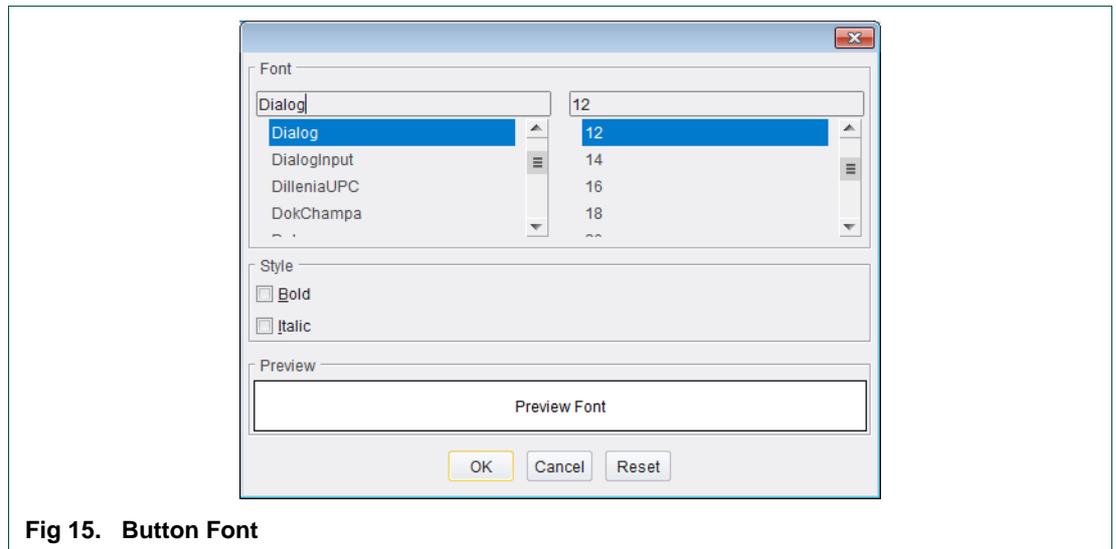


Fig 15. Button Font

2. Select the font name and size as required.
3. Click **OK**.

The Fonts dialog closes, and the buttons are updated accordingly.

- Click on the **Default** button adjacent to a font to return to the default values.

To set the display of sample channel names:

- Select the appropriate radio button to select the channel name length to display. Choose from 8-character, 16-character, 32-character, or a custom name.
- If the custom names are used, the sample names for sources and destinations can be edited in the fields at the bottom of the dialog.

1.1.5.5 Panel Sizes

Adjust the number of columns, rows and the size of the gaps between the buttons, for both the source and destination panels, either individually or both together.

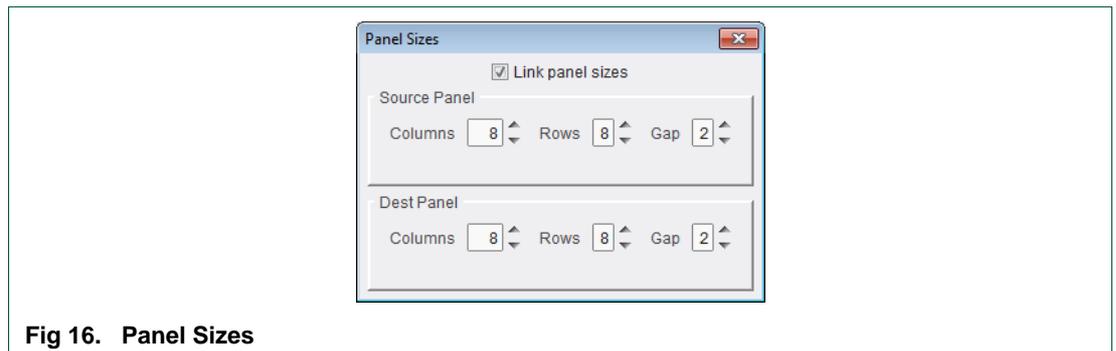


Fig 16. Panel Sizes

1.1.5.6 Button Maps

Use button maps to define alternative mappings of the source and destination buttons. Map some or all of the buttons to limit the number of source and destination buttons visible on the router displays, and/or the order in which they are displayed.

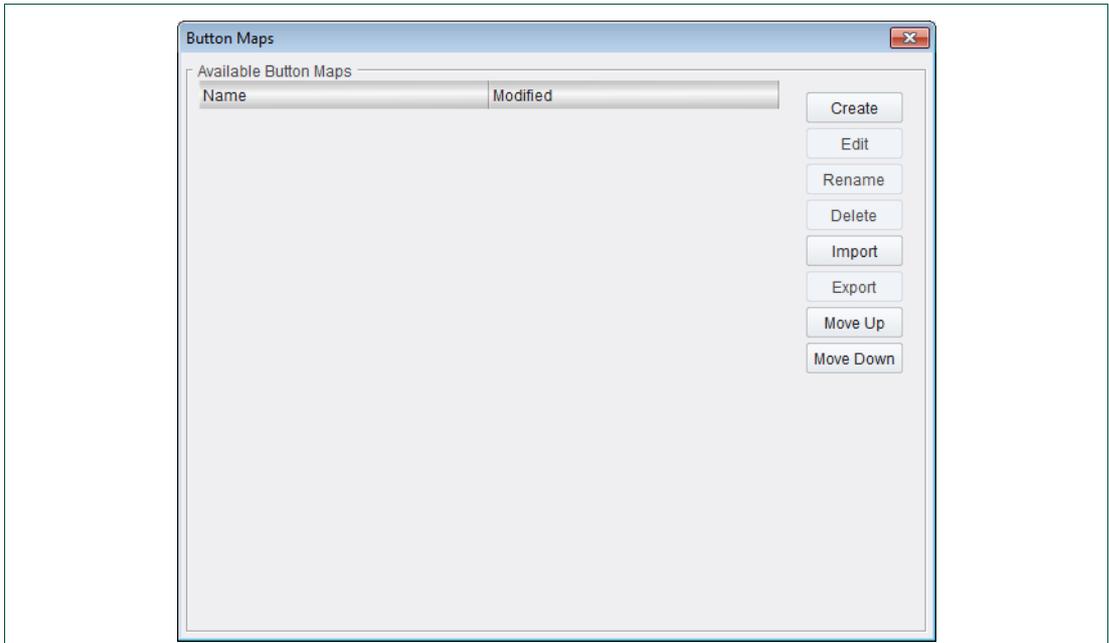


Fig 17. Button Maps

Create a Button Map

1. From the Button Map dialog, click on the **Create** button.
2. Enter a name in the Input dialog.



Fig 18. Input Name

3. Click **OK**.

The Create Button Map dialog displays.

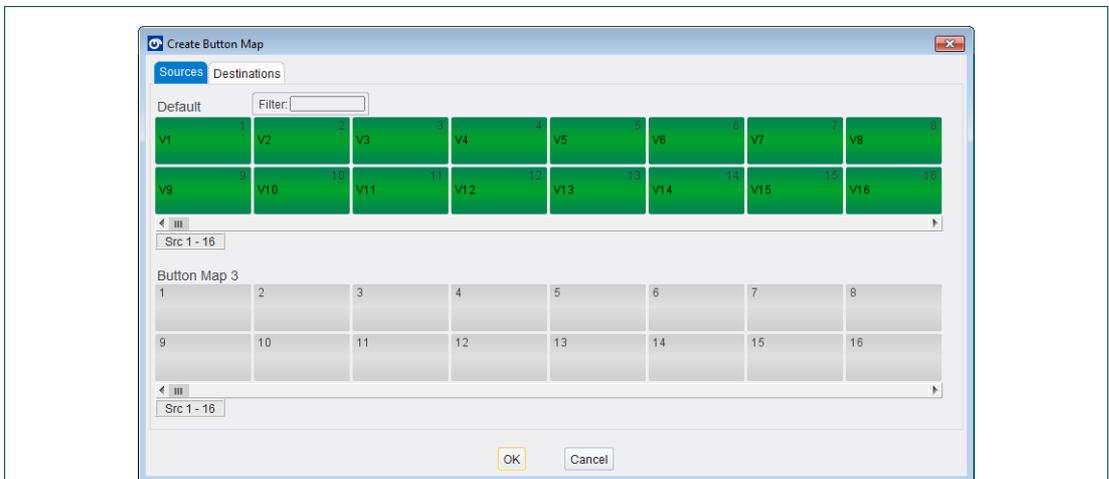


Fig 19. Create Button Map

- Map a button by first selecting the desired position in the custom set of buttons (the lower set), then select a button from the default set of buttons (the upper set).

A copy of the default button displays at the new custom position. After assignment, the next custom button is automatically selected - this is to allow rapid assignment of a sequence of buttons.

Any custom buttons that remain unmapped will not display when the button map is in actual use.

Note: A default button cannot be assigned to more than one custom position.

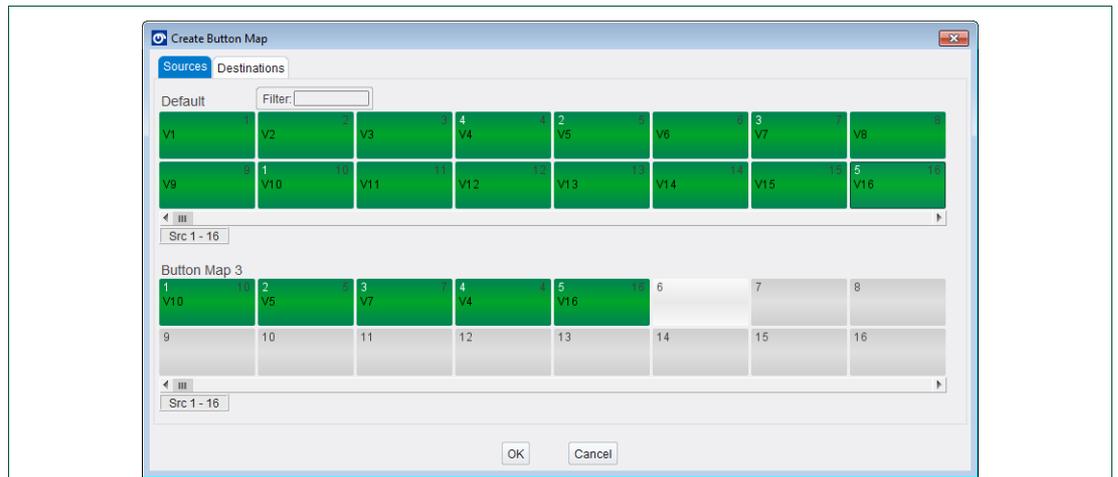


Fig 20. Mapped Buttons

To edit the button mappings, either:

- Right-click on a mapped button, and the following menu options display.

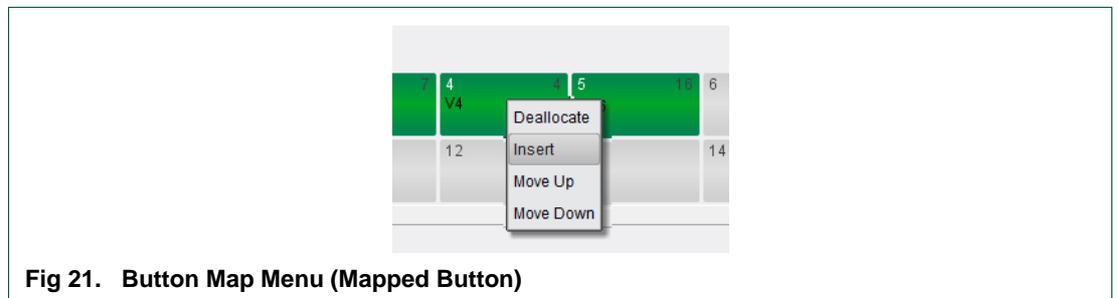


Fig 21. Button Map Menu (Mapped Button)

Deallocate—Remove the mapping from the selected button, allowing the button to be remapped.

Insert—Inserts a new unmapped button at the current position. Mapped buttons from the current position onwards are moved up one position.

Move Up—Moves the selected button up one position.

Move Down—Moves the selected button down one position.

or,

- Right-click on an unmapped button, and the following menu options display:

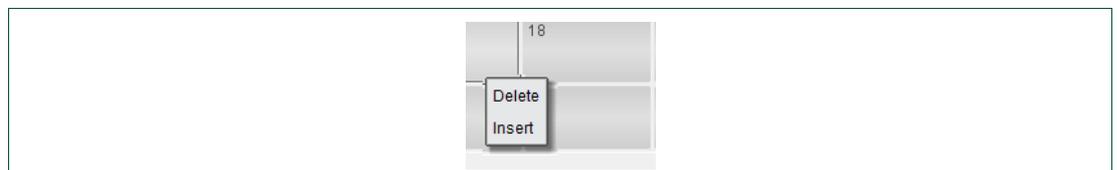


Fig 22. Button Map Menu (Unmapped Button)

Delete—Removes the unmapped button at the current position. Mapped buttons from the current position onwards are moved down one position.

Insert—Inserts a new unmapped button at the current position. Mapped buttons from the current position onwards are moved up one position.

5. Click **OK** to finish the button map creation and return to the Button Map dialog.
Button maps are stored locally on the client.

Edit a Button Map

- From the Button Map dialog, select a button map name and click on the **Edit** button.
The Edit Button Map dialog displays, and the mappings can be adjusted in the same manner as described when creating a button map.

Rename a Button Map

1. From the Button Map dialog, select a button map name and click on the **Rename** button.
2. Type a new name, and click **OK**.

Delete a Button Map

- From the Button Map dialog, select a button map name and click on the **Delete** button.

Import a Button Map

1. From the Button Map dialog, click on the **Import** button.
2. From the Import Button Map dialog that displays, navigate to, and select, the appropriate button map file (in the form of a .ini file).

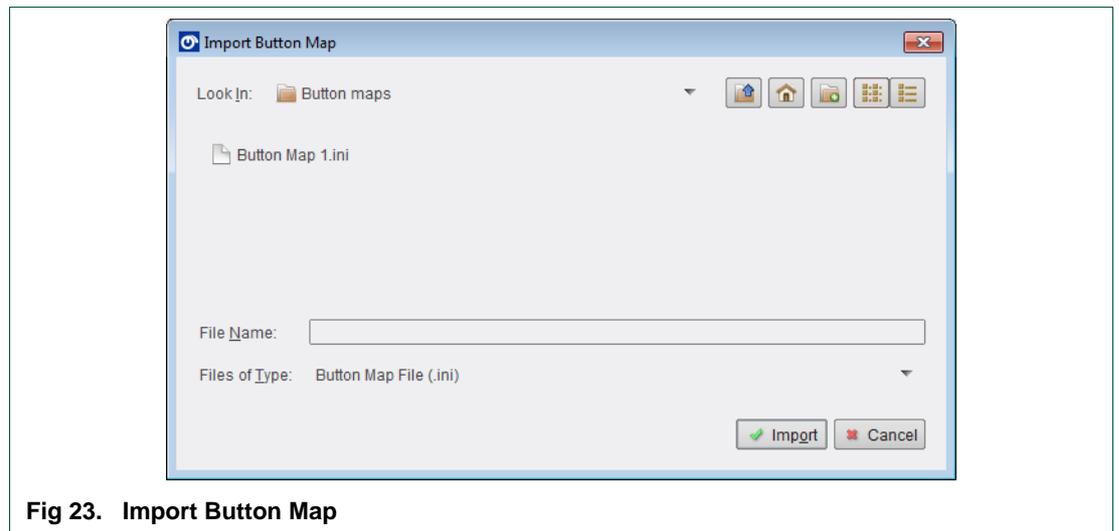


Fig 23. Import Button Map

3. Click on the **Import** button.

Export a Button Map

1. From the Button Map dialog, select a button map name and click on the **Export** button.

2. From the Export Button Map dialog that displays, navigate to the appropriate folder to save the button map to.
3. Type a File Name.
4. Click on the **Export** button.
5. The button map is exported as a text file (.ini) containing the relevant mappings.

Move Up

- From the Button Map dialog, select a button map name and click on the **Move Up** button.

This moves the selected button map up one position in the list.

Move Down

- From the Button Map dialog, select a button map name and click on the **Move Down** button.

This moves the selected button map down one position in the list.

Remote Storage

Some unit types support the ability to store button maps on the routing device itself. In this case, an additional **Show Remote >>** button displays on the Button Maps dialog.

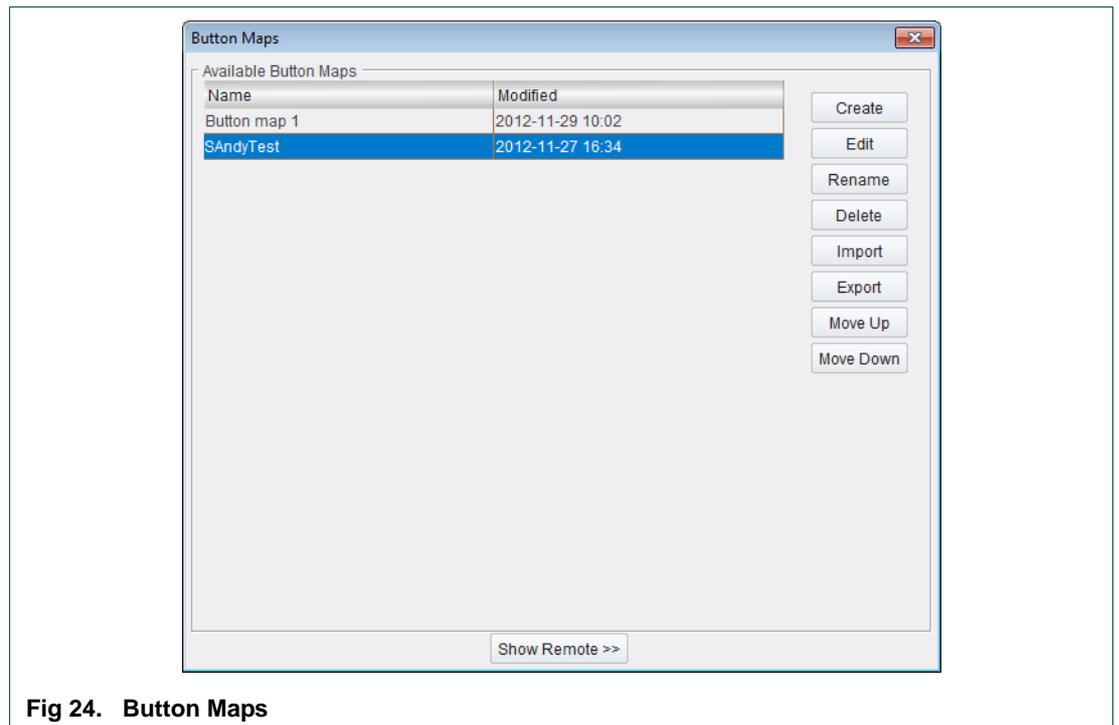


Fig 24. Button Maps

- Click on the **Show Remote >>** button to display the button maps saved on the routing device.

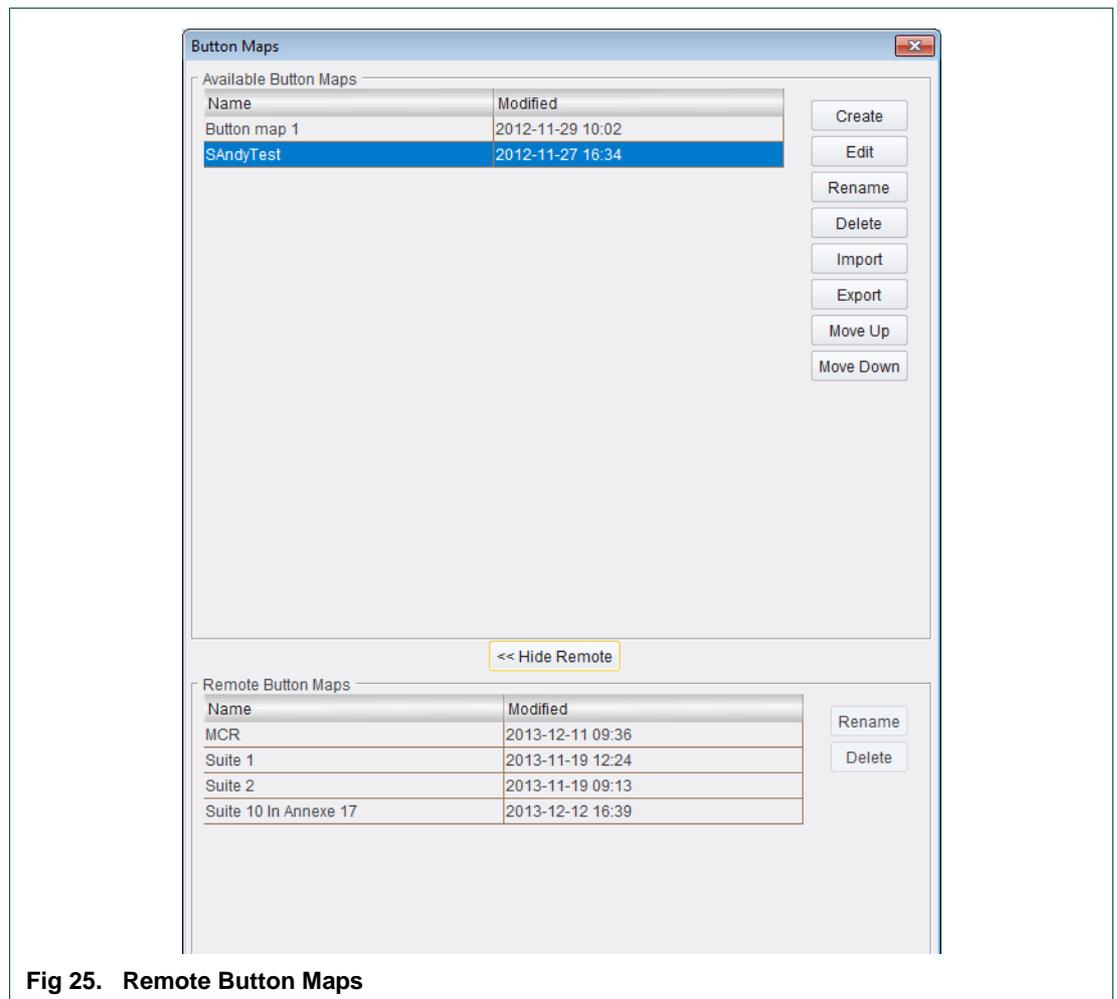


Fig 25. Remote Button Maps

Button maps that display in the Available Button Maps list can be copied to the routing device's remote storage area by dragging it into the Remote Button Maps list and dropping it there. Button maps can also be copied from the remote storage area to the Available Button Maps list in a similar way.

Button maps stored remotely can be renamed or deleted. Remote button maps cannot be edited directly. To edit a remote button map it must first be copied locally.

Note: On a dual-redundant system remote button maps are not replicated between the two controller cards. In the instance of a failover the router device can be repopulated with button maps from the local client.

1.1.5.7 Manage Options

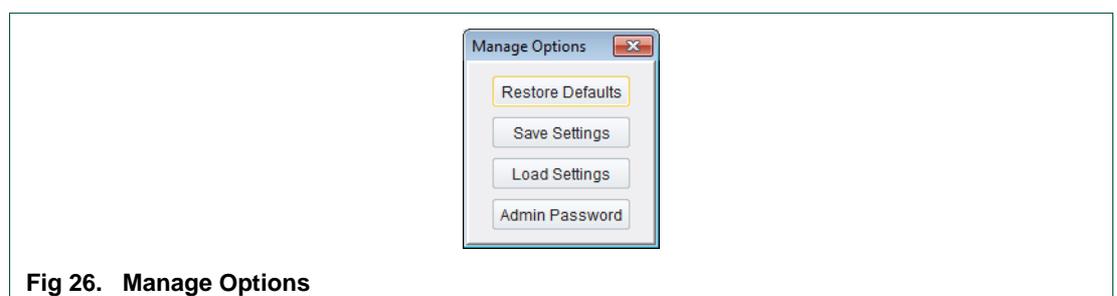


Fig 26. Manage Options

- Restore all settings back to the factory default settings.
- Save the current settings to a file.

Note:

When running on Windows, all users share the same the settings file. On both Mac and Linux each user has their own settings file.

- Load a settings file previously saved.
- Add or change the Admin Mode password for gaining access to the features in the Options tab. If the password is deleted here, Admin Mode returns to being unsecured, and will be indicated as such on the radio button in the Options tab.