Colledia Control
PQ Panel Document

September 27, 2006

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Preface

These documents are supplied to BBC Scotland users of the Colledia Control system installed in Pacific Quay for Playout. They are intended as an operational guide to the client applications, or panels.

This document is designed to help a user unfamiliar with the Colledia Control panels and assume that the user is knowledgeable about how the Playout system works in PQ.

It is not intended as comprehensive document describing every detail or scenario in Playout. The Colledia Control Software Functionality (SF) documents provide the detailed requirements to what has been delivered and the Software Description (SD) documents describe how it has been delivered.

All the Colledia Control Panels are accessed using Panel Manager, which runs on all user client machines. Panel Manager is also known as Panelman.

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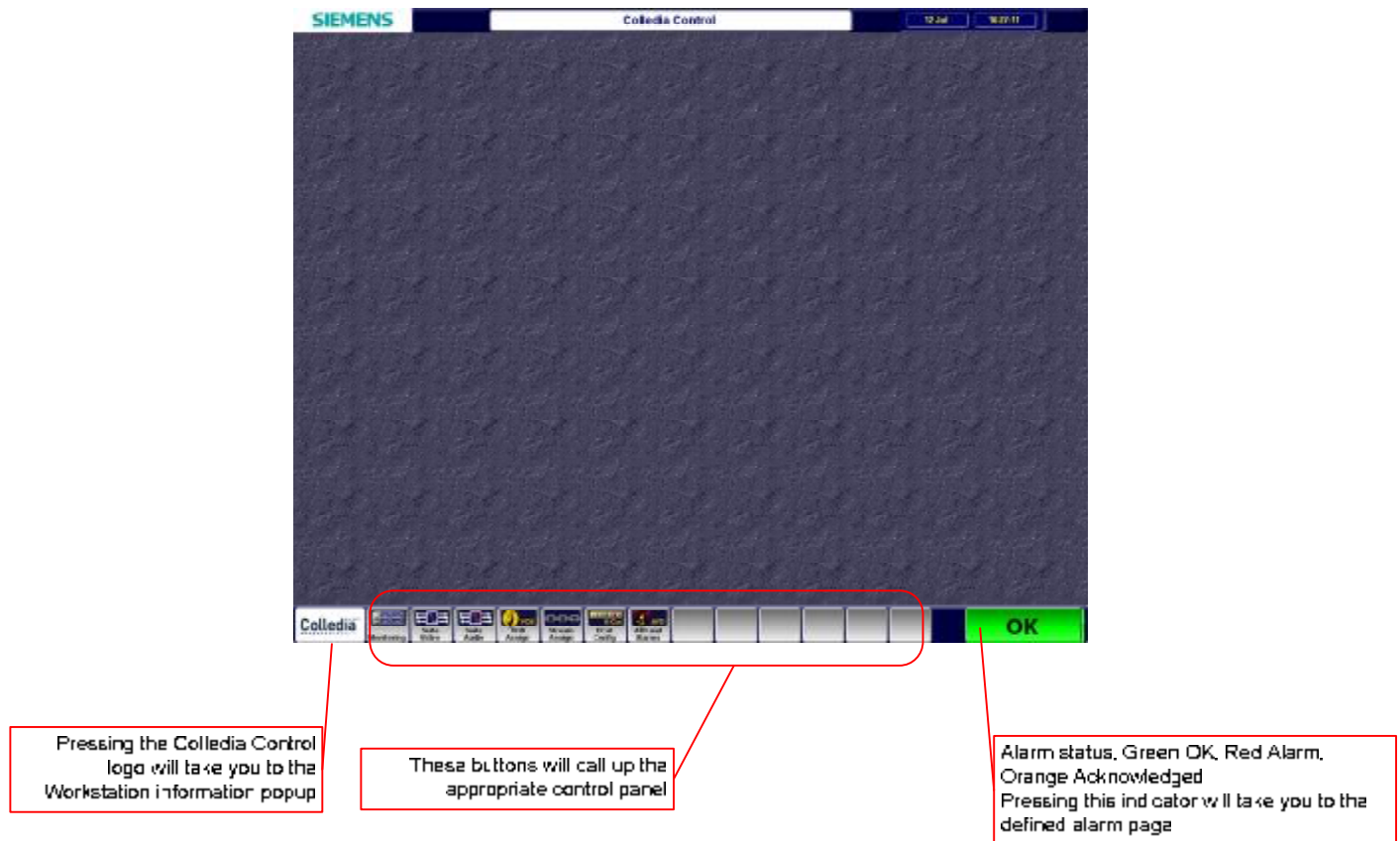
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1 Panel Manager

Figure 1. Panel Manager with no "panels" running

1.1 Introduction

Panel Manager is used to call up a sub set of panels that are available on your system. This sub set is defined in the Colledia Control file "Panel Sets" and is edited using one of the standard Colledia Control tools.

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1.2 Functionality

- Navigation to the panels assigned to your workstation
- Navigation to the alarm system
- Navigation to the workstation information popup
- Displays the time and Date at all times

General information about the workstation that Panel Manager is running on

Pressing this control will, via a "enter pin number screen, will present you with an alternative "engineering" panelset for this user

Pressing this control invoke a screen that will allow you to clean the screen. It is timed for 15 seconds

This will call the touch-screen calibration software that is defined on a per workstation basis

This will close down all panels

This will close down panel manager

Figure 2. Panel Manager with workstation info displayed
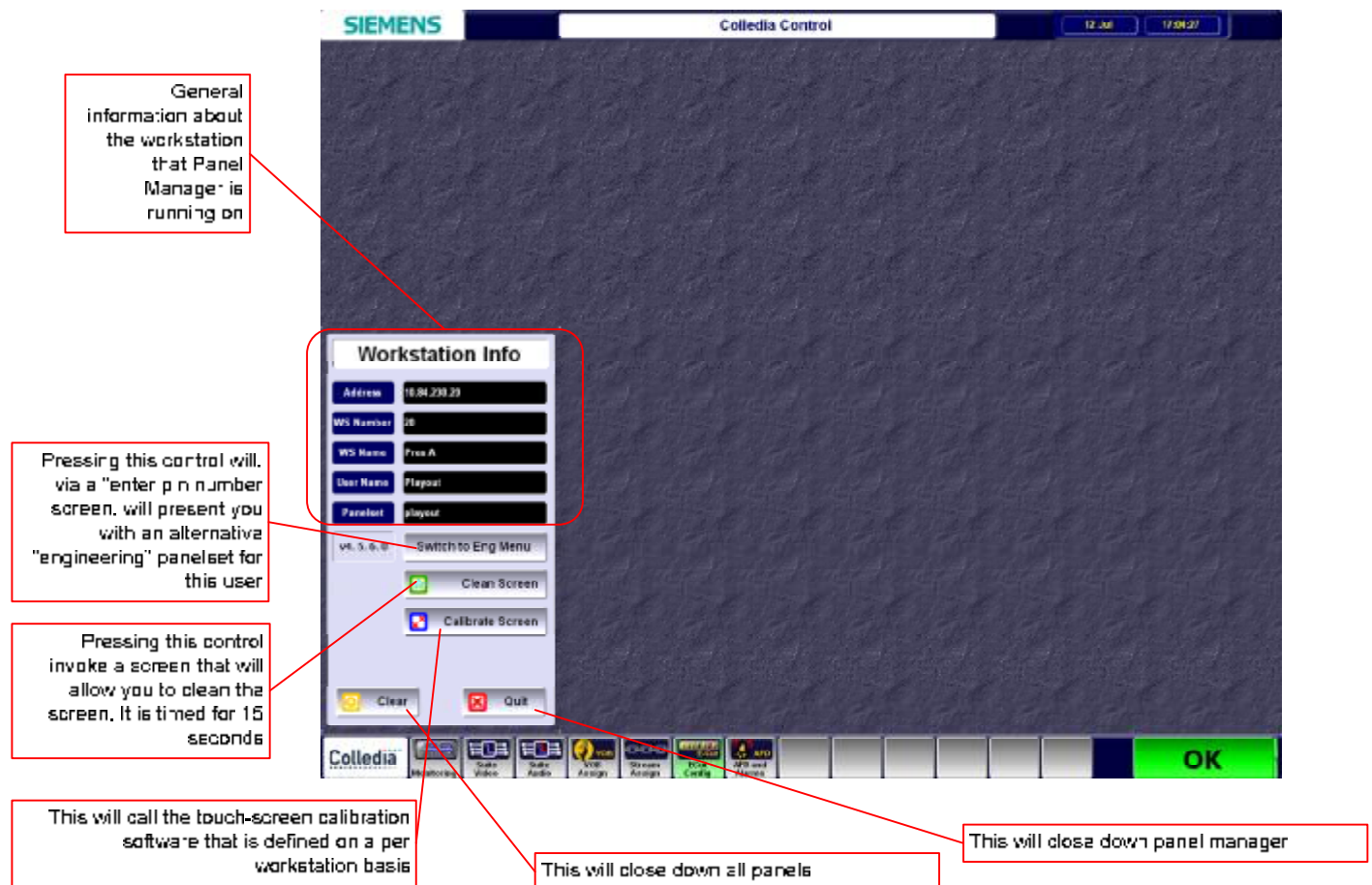
1.2.1 Functions

- Changing the panel set to the Engineering menu (PIN number protected)
- Quitting Panel Manager
- Clearing "closing" all open panels
- Launching the touch-screen calibration software
- Calling a blank screen that allows the screen to be cleaned and calibrated for width and phase, using the grill as a visual indication of correct calibration.

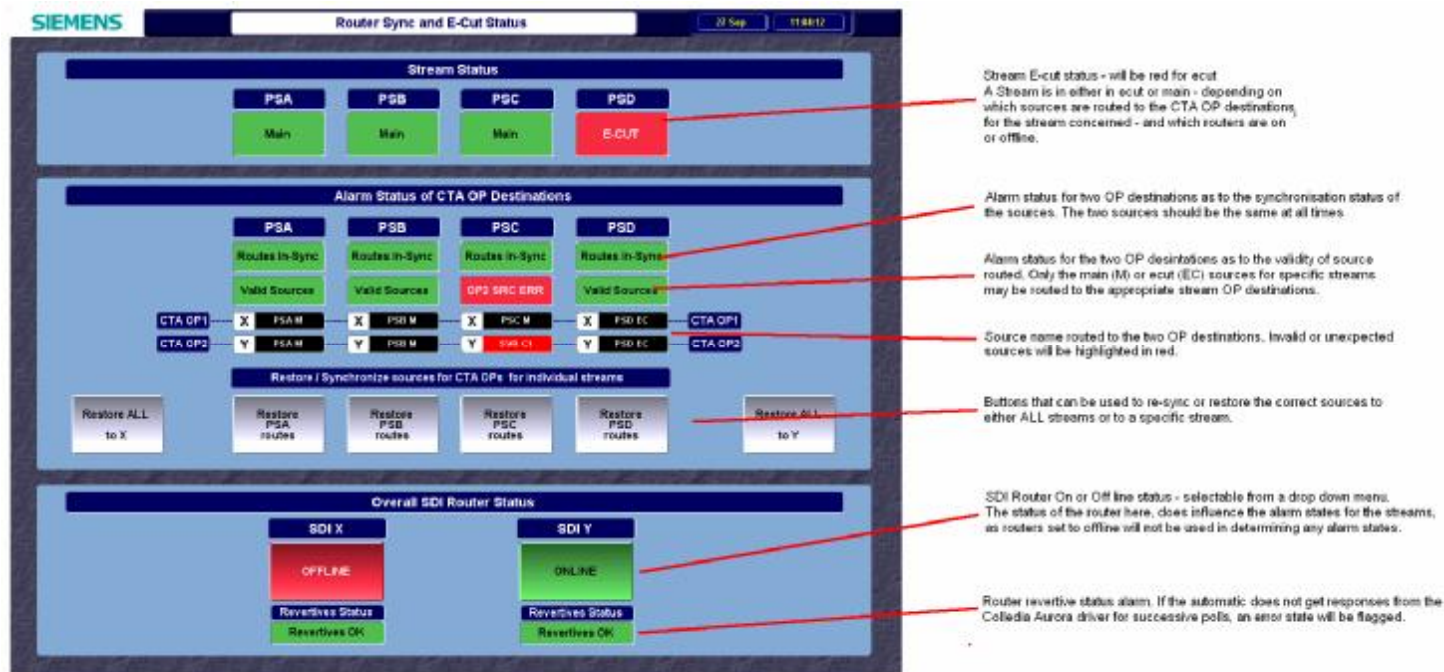SIEMENS

2 Router Sync and ECut Status Panel

Figure 3. The Router Sync and ECut Status Panel

2.1 Introduction

This panel shows the Emergency Cut (ECut) status for the four main streams as well as the status of the CTA Output (O/P) destinations for these streams. When the status of the streams and two SDI routers is OK then all status labels on this panel are green. Alarm states are shown in red and will generate an Alarm messages to the alarm system see section 12.

The top section of the panel shows if a stream is in main or emergency cut, this is determined by which sources are routed to the O/P destinations for the stream — indicated by the black labels in the middle of the panel. In normal conditions, the two sources for any of the streams must be the same source – either the main source or the ECut source. Any other source may generate an error – as shown for Stream C in the example above.

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2.2 Functionality

Buttons to restore routes for a stream –
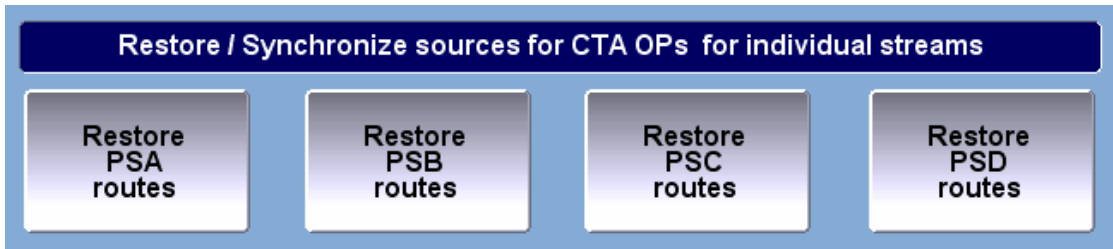
The row of buttons across the centre of the panel will restore the correct routes for a stream for the two O/P destinations. If, the stream is in ECut then the ECut source will be routed to both CTA O/P destinations for that stream, otherwise the two main sources for that stream will be routed to the appropriate CTA O/P destinations.

These buttons require a double press for the action to complete.

Restore All buttons –

The two buttons will restore all of the main streams in line with either the X SDI router or the Y SDI router. Restoring all to X makes routes on the Y router the same as the X router, and restoring all to Y makes routes on the X router the same as the Y router.

These buttons require a double press for the action to be initiated.
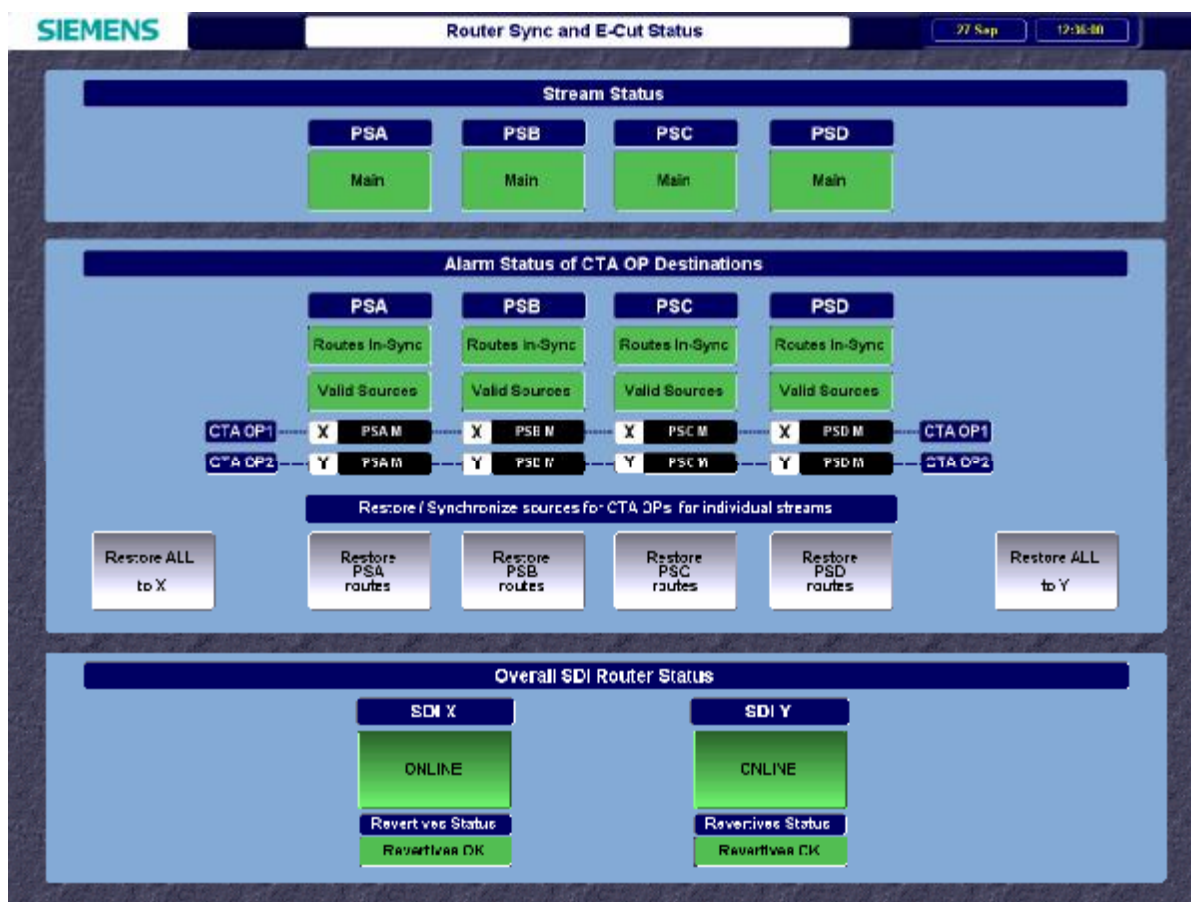
Online / Offline buttons at the base of the panel –
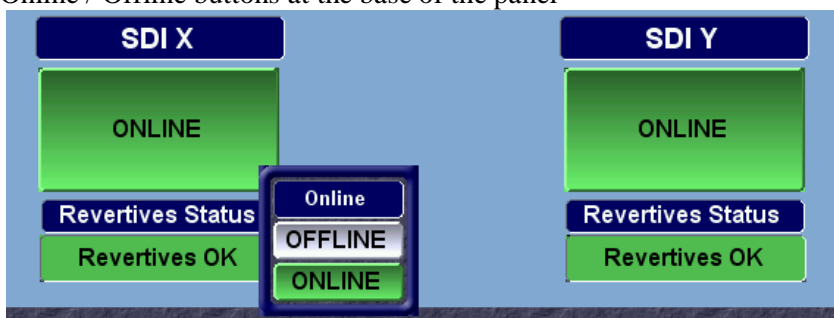
These buttons present the user with a pop-up menu enabling a user to take a router offline or bring a router back online. This is only a logical association, in that if either router is taken offline then the Automatic responsible for Router-Sync and ECut will not make routes on that router, nor will it take any routes into consideration with respect to Routes being InSync or if the source is Valid or not for any alarm states.

The Router ' offline' setting is only an indication to the Colledia Control system to change its rules when dealing with router sync and ECut status. If a router status is set to 'offline' it will continue to receive instructions from Omnibus automation and hence may operate normally as far as maintaining programme stream output is concerned. The router will also continue to receive commands from any Colledia Control panels and action them.

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The panel as it will appear when all is functioning ok:

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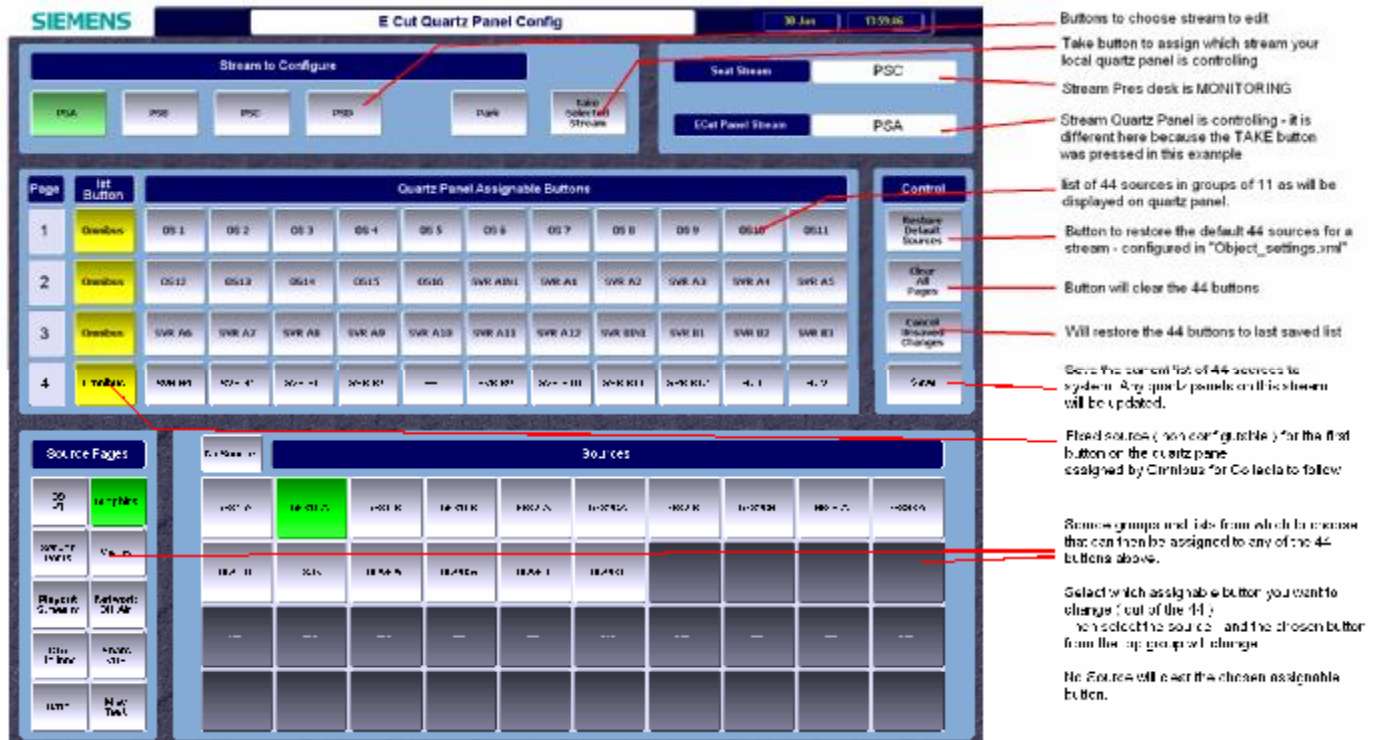# 3   Quartz 16 Button ECut Config. Panel

Figure 4. The ECut configuration Panel

3.1   Introduction

This panel shows the source configuration panel that sets up which SDI sources will be available on the 16 button Quartz hardware panel on each of the three Presentation (Pres.) desks. These Quartz panels are set to the Stream that the desk is controlling – as defined by Omnibus. This Colledia panel has two functions – to assign which SDI sources are available for Network Directors to route to the Emergency Cut destination, linked to the monitored stream, and secondly to be able to assign the Quartz panel to another stream, temporarily, to carryout some function.

The 16 button Quartz hardware panel has the following layout:
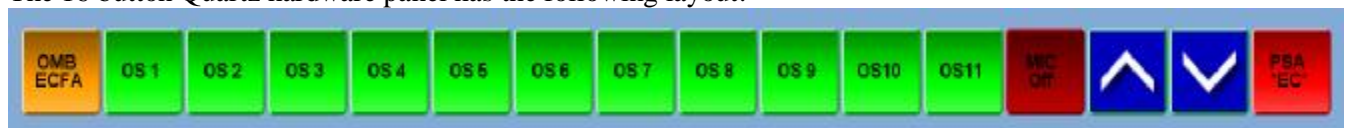
The first, left hand, button is the Omnibus assigned source, it will always select the source that is currently routed to the Stream output.

There are then 11 configurable sources for which the Colledia panel (Figure 4) is primarily designed. Configuration of these sources is described below.

The 13th button will enable / disable the MIC for the Pres. desk. – Bright red for enabled, dark red for disabled.

The 14th and 15th buttons will scroll the source buttons through the 4 rows of 11 assigned sources according to the order laid out in the top section of the Colledia panel.

The last button on the Quartz panel is used to take a Stream into or out of Emergency Cut. The button is bright red when a stream is in ECut and dark red when it is not.

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3.2 Functionality

3.2.1 How to configure sources for a stream.

Firstly,
Choose the stream you wish to configure by pressing the button in the top row for the desired stream.
E.g. pressing PSA will then result in the current list of 44 sources for this stream filling the 4 rows of 11 buttons in the centre of the panel.

Secondly,
Choose from the source groups and list of sources in the lower section of the panel in the example above the "Graphics" group has been chosen and then "GFX1KA" source selected.

Thirdly,
Select which of the 44 buttons you wish to be assigned to this source – the name of your chosen source will appear in the selected button.

Repeat the 2nd and 3rd steps until all choices are made, and then double press SAVE button (located on the far right of Colledia panel).

Other buttons on the far right of this panel include buttons to clear all the 44 configurable buttons – to start afresh, to Cancel any alterations made and return the 44 buttons to the previously saved set, or to reassert the 44 buttons to a preconfigured list of sources.

3.2.2 How to change stream.

At the top of the panel are the buttons to enable which Stream to Configure. In the top right are two labels showing the stream the Pres. desk is monitoring as a result of Omnibus ("Seat Stream") and the current stream controlled by the Pres. desk Quartz Panel ("ECut Panel Stream these two will, generally, always be the same stream. However, using this Colledia panel a Network Director can change the Quartz panel ECut stream.

Firstly,
Select the stream required, or PARK, from the top buttons,

Secondly,
Double press the "TAKE Selected Stream" button.

The ECut Panel Stream label will change to the chosen stream and the Quartz hardware panel will be coloured and labelled to reflect this choice. From here it is possible to change the ECut state for the new stream or which source is routed to the ECut destination for the stream.

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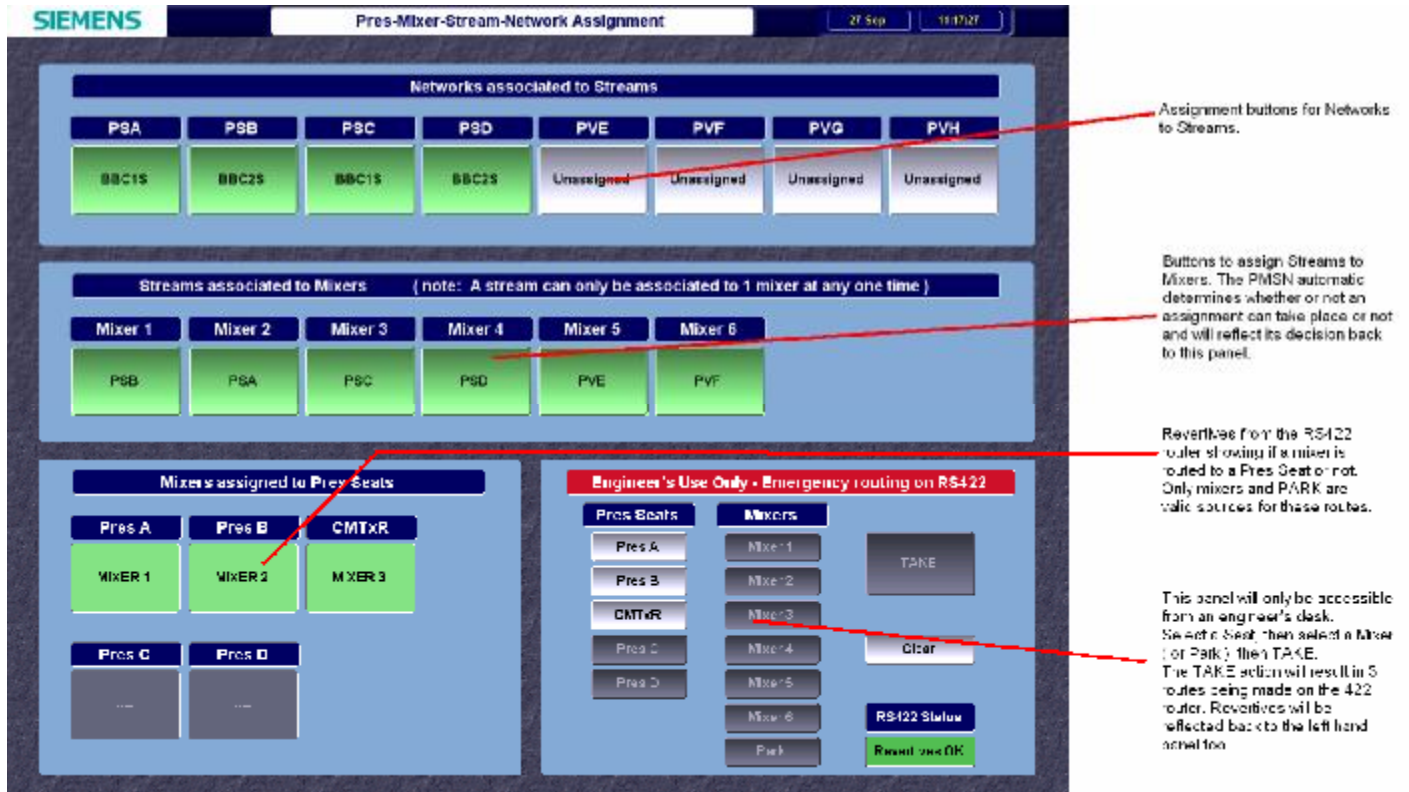# 4 Pres. Seat Mixer Stream Network Panel

Figure 5. The full function Stream Panel – as found at the CMTxL desk

4.1 Introduction

This panel defines the relevant associations between mixer and stream and stream to network.

When pressed the two rows of buttons for these associations will produce a pop up box with appropriate entries for a user to select. Selections made are flagged to a Colledia Control automatic which, alone, determines if the selection is valid or not. If the selection is OK the panel will reflect the new state otherwise it will remain on its current setting.

Note: This is especially true of the Stream to Mixer assignment where there is a strict 1:1 rule.

Figure 5 shows the fully functional panel as used by operators at the CMTxL position. The panel for the Network Directors, at Pres A, Pres B & CMTxR, does not have the bottom right buttons (under the heading "Emergency routeing"). Also, Network Directors will only be able to view the Mixer to Stream Associations (middle row of buttons in Figure 5). These associations are only made at the CMTxL position.

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4.2 Functionality

4.2.1 Top row of Buttons

All users of this panel can make Network to Stream associations, in reality, these will rarely change.

This is a purely logical association for Colledia applications, used to define which talkback is routed to a seat etc. A small pop-up window is produced when any of these buttons are pressed. The pop-up provides three choices: BBC1S, BBC2S or Unassigned (no Network association).
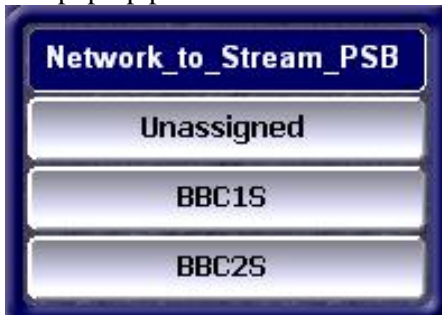
The chosen association will be reflected in a change of text on the button. Unassigned buttons are light grey, assigned are green.

4.2.2 Middle row of buttons

These buttons enable operators to link mixers to streams, they are used to inform Colledia Control of the assignment Omnibus have made in their resource pool. The buttons will present the user, when pressed, with a list of eight streams; four are main streams and four are preview streams. An assigned button will be green and show the stream name. Only one stream can be associated with one mixer at any one time, the association set here must be the same as that set within the Omnibus configuration. This association will generally only be changed as part of the response to equipment malfunction.

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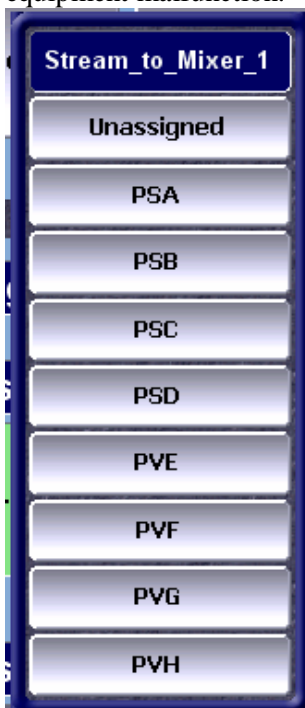
4.2.3 Lower section of the panel

The mixers assigned to seats are labels only and show the Pres. seats (destinations) on the RS422 router.
Valid routes are any of the 6 mixers or "Park" (unassigned) on the router. Any other route is invalid and therefore an error state.
The Omnibus control system primarily controls the 422 router, but the CMTx L position can make the required routes using the lower right section, the panel is coded to take account of this. When the association between a seat and a mixer is changed the panel will send the required commands (3 routes) directly to the RS422 router. Before a mixer can be assigned to a new seat it must be parked first and there must be a 2 second gap between changes for any destinations, the panel will not be active until this time has passed. This ensures that the mixer control surface reflects the status of the mixer crate being controlled. This function is only used during a fault condition, under normal operation the stored Omnibus configuration determines which mixer is being controlled by the mixer buttons panel at each seat

The bottom right panel also shows if the Colledia Control automatic receives or fails to get revertives from polling the 422 router.

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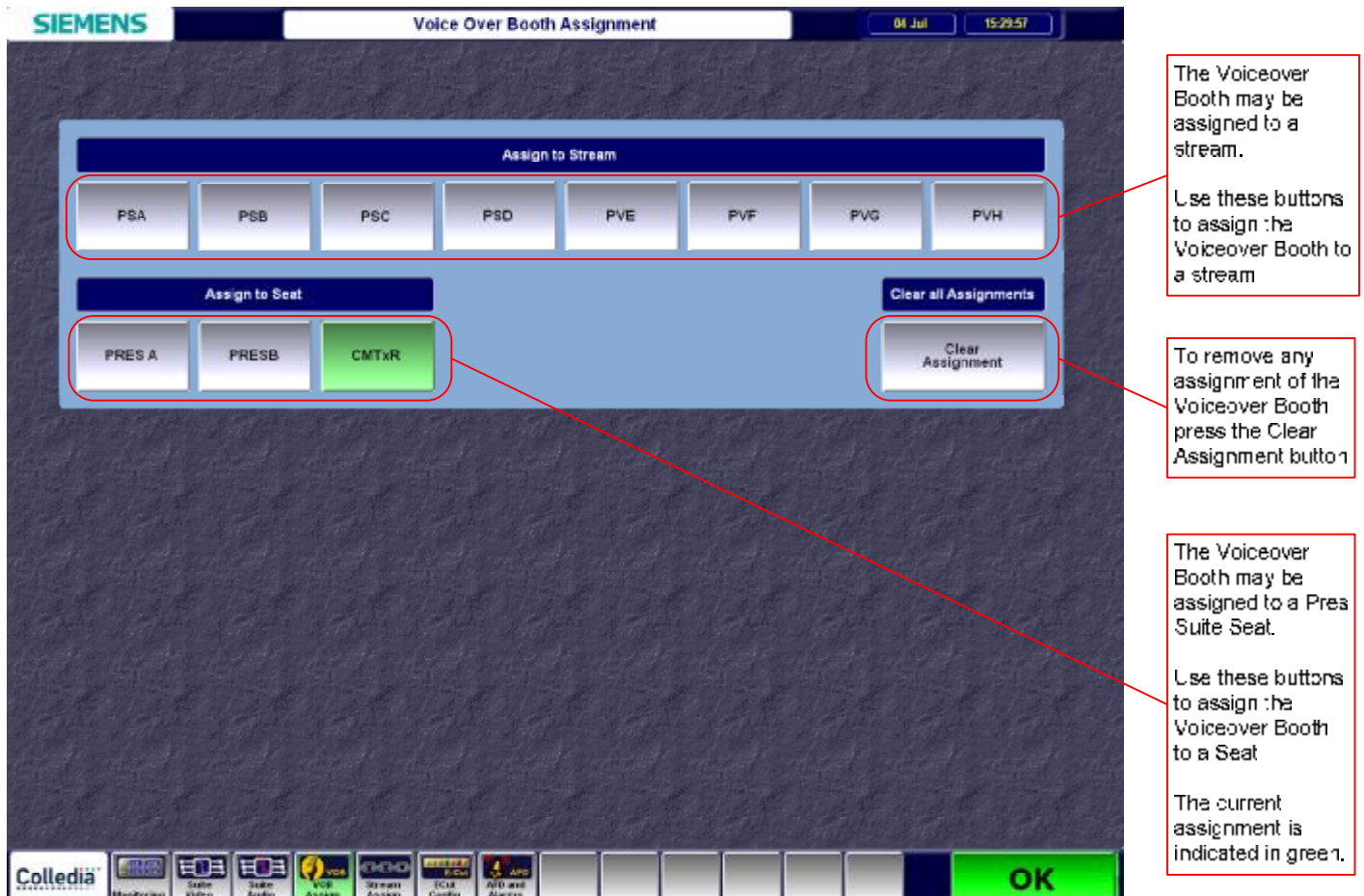# 5   Voiceover Booth Assignment Panel

Figure 6 Voiceover Booth Assignment Panel

5.1   Introduction

This panel sets the assignment of the Voiceover Booth.

The Voiceover Booth can be assigned to:

- Any Stream

- Any Seat

- No Assignment

Any assignment that is made automatically clears any previous assignment.

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5.2 Functionality

5.2.1 Assign to Stream Buttons:

To assign the Voiceover Booth to a Stream press the button corresponding to the Stream.

5.2.2 Assign to Seat Buttons:

To assign the Voiceover Booth to a Seat press the button corresponding to the Seat.

5.2.3 Assign to Seat Buttons:

To clear any assignment of the Voiceover Booth press the Clear Assignment Button.

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6 Multiviewer Layout Panel

Figure 7. Typical Multiviewer Panel

6.1 Introduction

This panel allows the user to

1.   Select any source to view on the monitors of the multiviewer.

2.   Change the layout on the multiviewer display.

3.   Fire a named salvo of crosspoints at the multiviewer.

4.   Save the present routing in a named salvo of crosspoints.

To display this page, press the button labelled "Monitoring" on the Panel manager (row of buttons along the bottom of the touchscreen).

6.2 Functionality

6.2.1 Route a source to a multiviewer monitor.

Select your monitor by touching it, then select your source from the selection at the bottom of the panel. You can select pages of sources by touching the page buttons on the left. Touching the required source will make the route.

6.2.2 Change the multiviewer layout

Press the button labelled "Change Layout" and this will give you the available selection of layouts you can use. When one is selected the multiviewer display is updated together with the panel in front of you with the selected layout.

6.2.3 Fire a Named Salvo

For expediency, it is possible to fire a salvo of crosspoints at the multiviewer, rather than manually making all the individual routes to all the monitors.

Currently, there is a salvo associated with each stream (called PSA, PSB, PSC, and PSD) and some user assignable ones (called User01, etc).

6.2.4 Save a Salvo

Caution: If you save changes to a salvo, you will be irreversibly changing the salvos that may have already been thoughtfully configured by someone else. This is **NOT** recommended and you may need to provide a full explanation of why the changes were necessary.

Load the salvo that you wish to save to.

Make the new crosspoints manually until you are happy with the display and press the Save salvo button. This will give you the option to highlight the monitors you wish to include or not in the save (some are prohibited).

When the desired monitors are highlighted to be saved, press the save button again.

If you know the PIN you will be asked to confirm that you are saving a salvo. **Caution!** You are overwriting the previous saved values.

If you saved the salvo at a playout seat, then these salvos will be available to other users at the other seats.

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7 Playout Routing (Video and Audio)

Figure 8. Playout Video Routeing

7.1 Introduction

This panel makes routes on the Presentation Video routers (SDI). There are two of these, X and Y; they are presented to the user as one router (combi router).

As the Suite Audio router panel works in the same way its functionality will not be described here.

Note: There is only one Audio (AES) router

7.2 Functionality

Sources and Destinations are grouped into 10 pages of 40 and 32 respectively; these pages can be configured by the use of the button mapping utility, (See 11 Button Mapping for).

Selecting a source will enter that source into the source window above the Take button. Similarly, selecting a destination will put that into the destination window. Once a valid source and destination are entered the Take button will be enabled, pressing that button twice within 2 seconds will make the route.

Once, the route has been made, and assuming that there was a previous valid routed source to that destination, the "Untake" button is enabled. Pressing the Untake button twice within 2 seconds will "undo" you previous route. The Untake button will remain active for 10 seconds or until you select a new destination.

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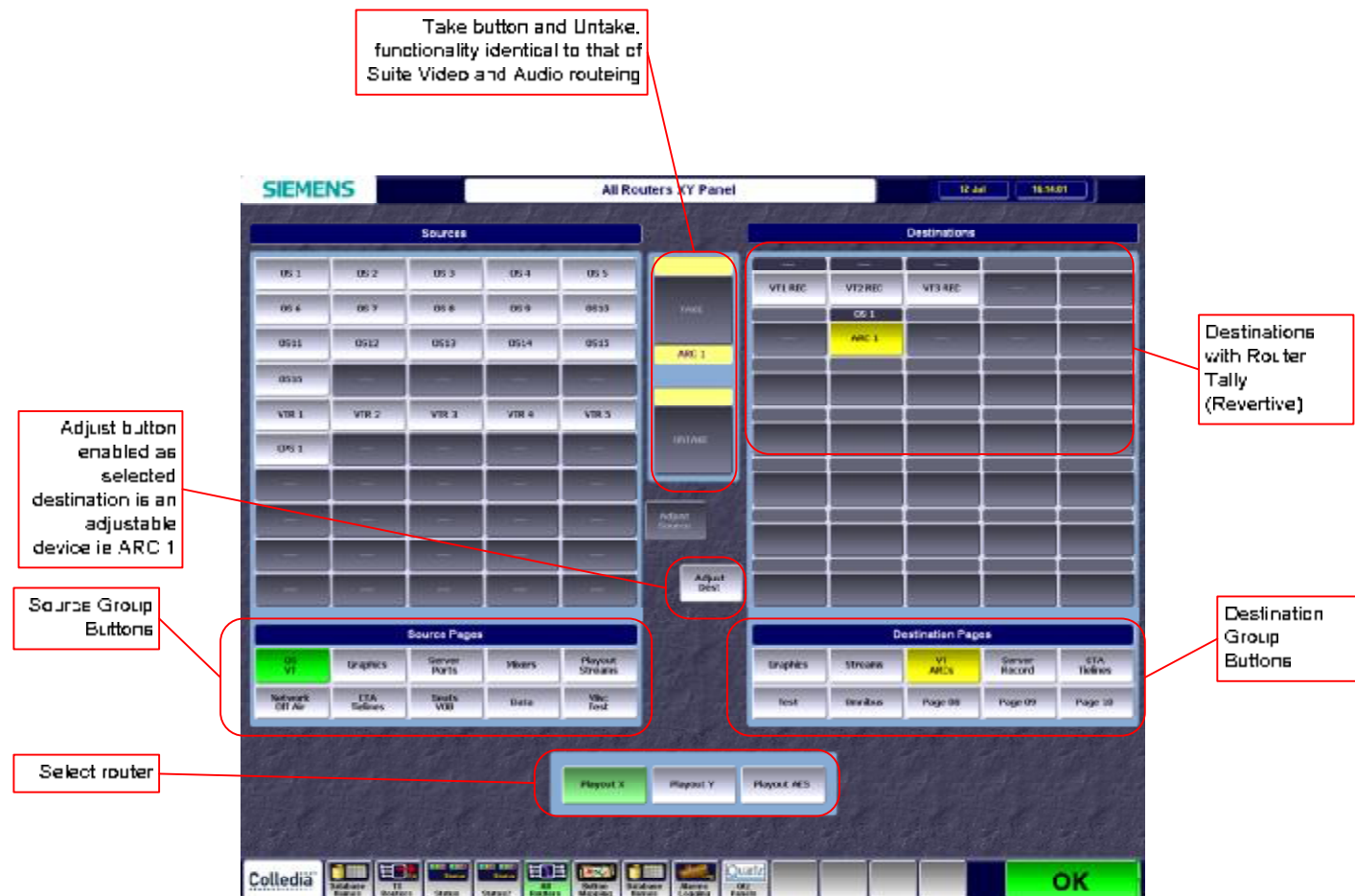
8 All Routers

Figure 9. All Routers

8.1 Introduction

This panel will make routes on the Presentation Video routers (SDI) both X and Y and the Presentation Audio router.

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8.2   Functionality

Sources and Destinations are grouped into 10 pages of 50 and 35 respectively; these pages can be configured by the use of the button mapping utility, (See 11 Button Mapping for all routers)

Selecting a source will enter that source into the source window above the TAKE button. Similarly, selecting a destination will put that into the destination window. Once a valid source and destination are entered the TAKE button will be enabled, pressing that button twice within 2 seconds will make the route.

Once the route has been made, and assuming that there was a previous valid routed source to that destination, the UNTAKE button will be enabled. Pressing the UNTAKE button twice within 2 seconds will "undo" you previous route. The UNTAKE button will remain active for 10 seconds or until you select a new destination.

If a destination, or source, is selected that is adjustable then the ADJUST button is enabled, pressing that will navigate you to the control panel for that device. In the example Figure 7. it is ARC1 which is an Axon ARC type arc20p (See 9 ARC control).

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9 ARC control

9.1 Introduction

This panel is called from the "All Routers" panel when the "adjust source or destination" button for an ARC is pressed.

Note: On the "All Routers" panel this is only enabled when an ARC is the selected source or destination.
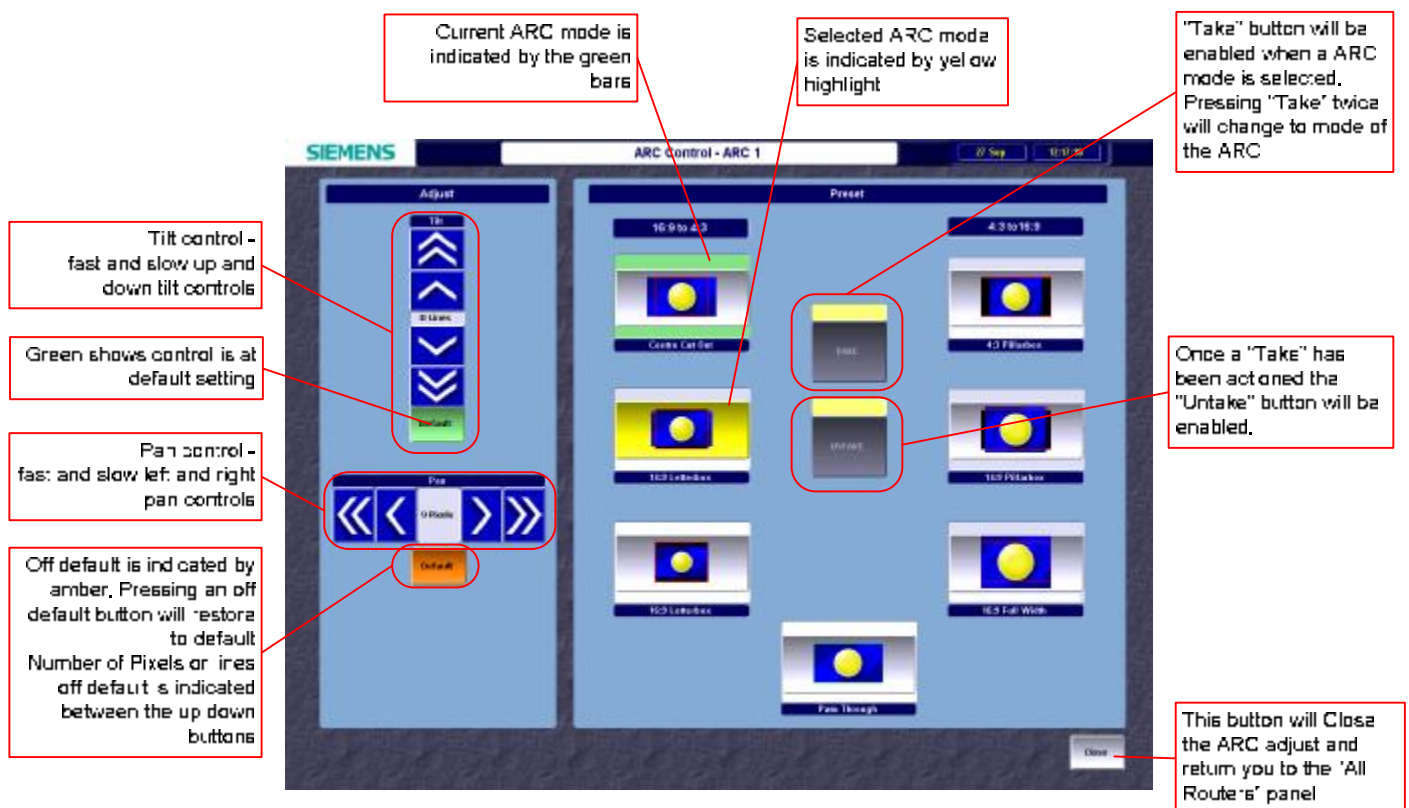
Figure 10. ARC adjust

This screen will initially indicate, by the green bars, the current ARC mode. Select a new ARC mode and the "TAKE" button will be enabled. Pressing this button twice, within 2 seconds, will apply the selected ARC mode to the device. The UNTAKE button will then be enabled and you can return to the previous mode by pressing the UNTAKE button twice within 2 seconds.

Note: For this panel the UNTAKE does not time out.

The user has the ability to pan or tilt the image. Once the image position is off default this will be indicated by the "Default" buttons turning amber. Pressing that button will return the ARC pan and tilt to default (zero pixels and zero lines)

When the user has made the necessary adjustments pressing the "CLOSE" button will return them to the "All Routers" panel.

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10 Database Editor (Superuser Activity)
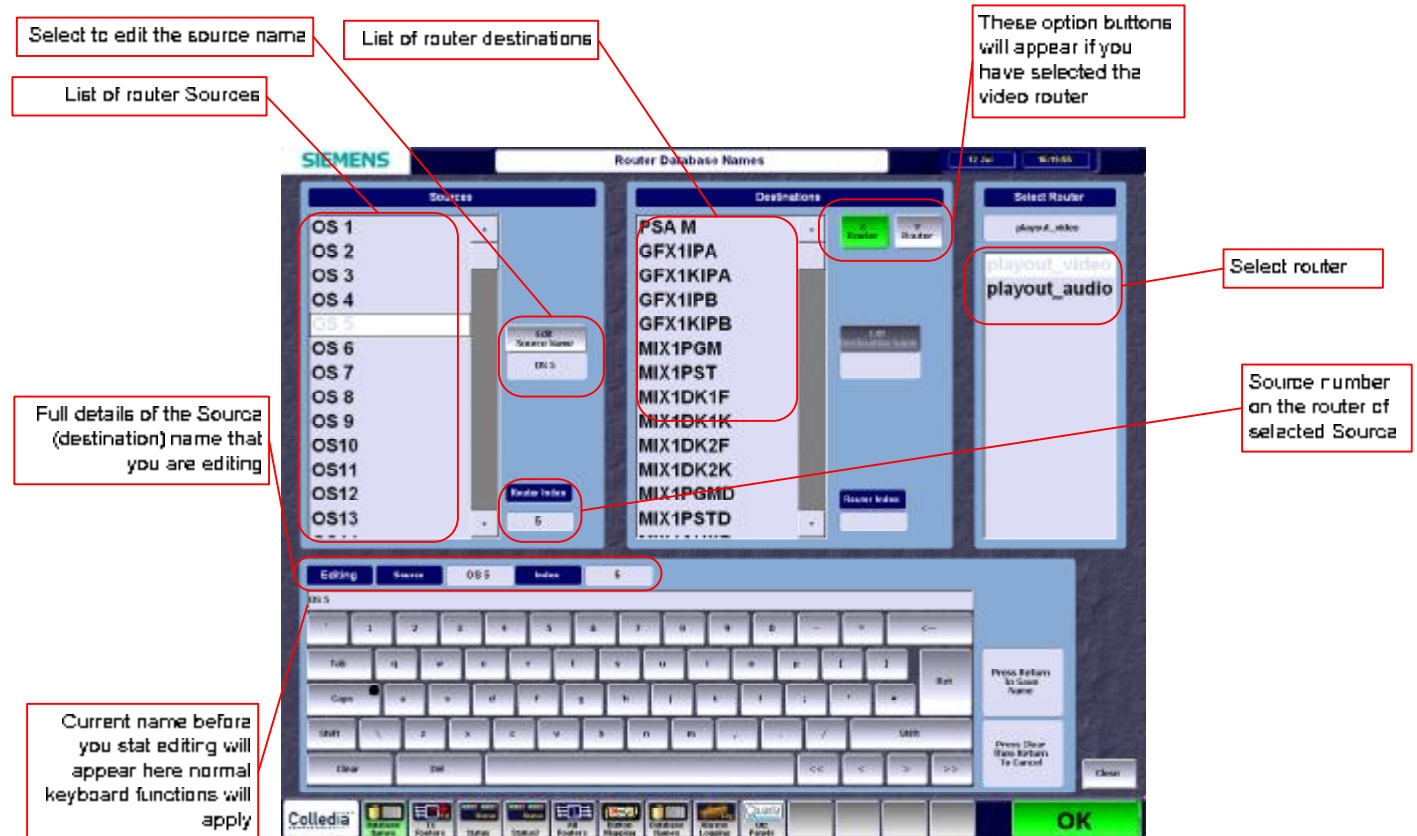
Figure 11. Database Editor

10.1 Introduction

This panel enables the user to edit the names of the sources and destinations of both the AES router and the Video Routers (X and Y). As most of the routeing panels can control, invisibly to the user, both video routers it will also modify the names on this "combined" virtual router.

Note: Sources on both routers are identical, destinations are not.

10.2 Functionality

Select the router whose database names you want to edit, if you have selected a video router then make a further selection as to which, the X or Y router.

From the list boxes displayed select a source or destination. The appropriate "edit source/destination name" button is enabled, pressing that will enable the keyboard and put the current name into the current name window. Edit that name using the **on screen** keyboard with the usual keyboard functions and then press "Ret" to save. If you want to exit without saving your changes then press "Clear" and the "Ret".

If a carriage return is required within the router name then Colledia Control uses a special character "|" to force this.

Note: This "|" is used through out Colledia Control to force carriage returns on buttons etc.

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11 Button Mapping for all Router Panels

11.1 Introduction

This panel enables the mapping of sources, and where appropriate, destinations, on the audio (AES) and Video (SDI X & Y) panel buttons.
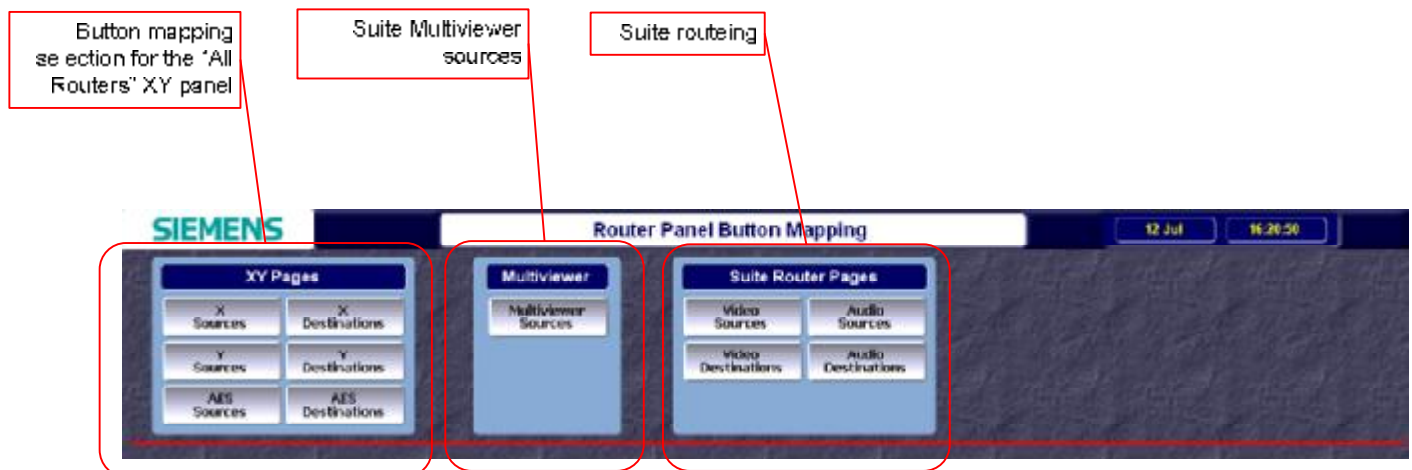
Figure 12. Initial screen to select which panel

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The following screen is displayed, when the "Suite Video Sources" have been selected.
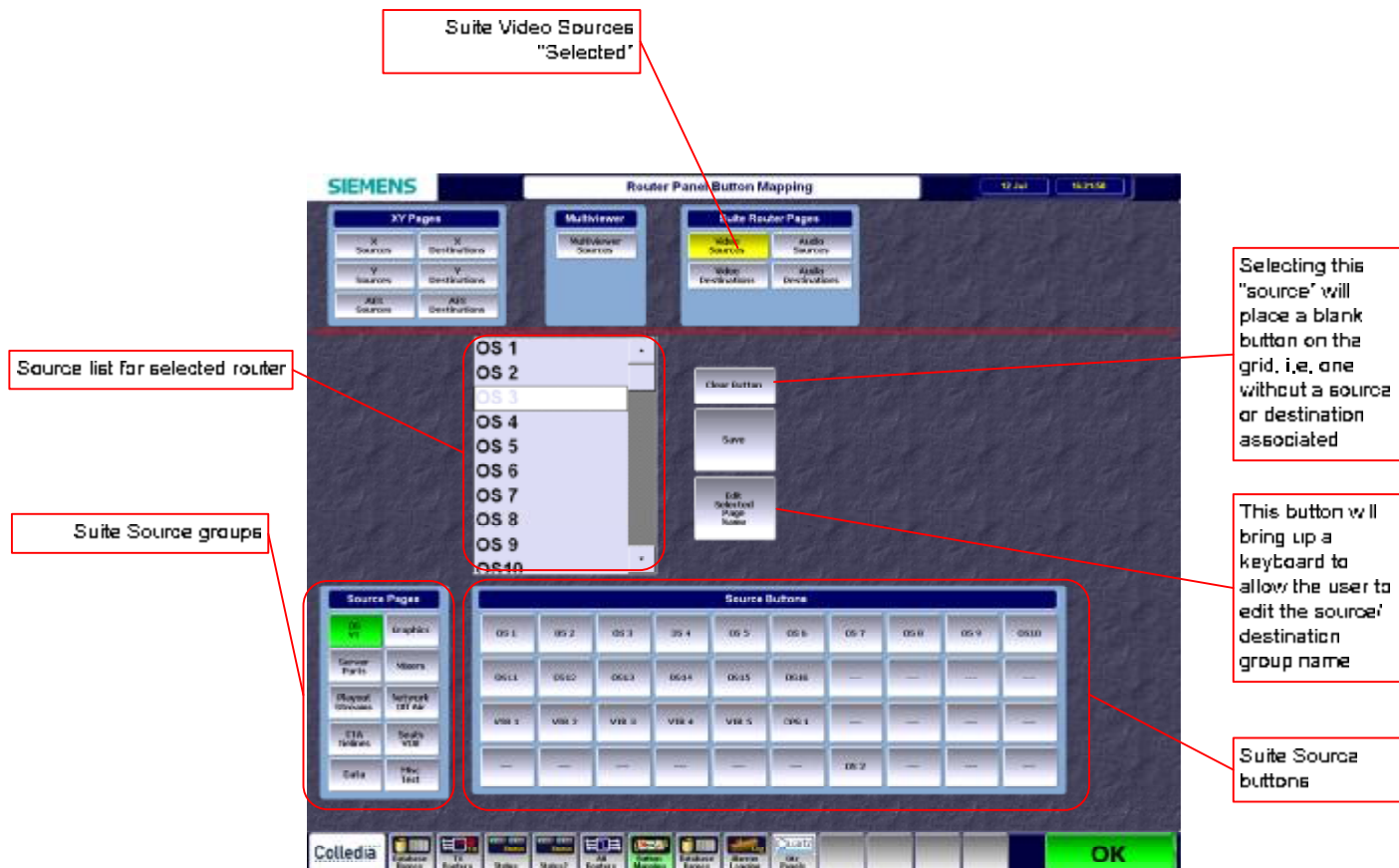
Figure 13. Button Mapping

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11.2 Functionality

Select the source group whose buttons you require to map. Select the required source from the list box, touch the button that you want to allocate that source to, the selected source in the list box will then increment by one source (index), you can then allocate it to another button.

This works in exactly the same way for all panels, sources or destinations.

The group names can be edited by pressing the "Edit Selected Page Name" a keyboard will then pop up (Figure 12).
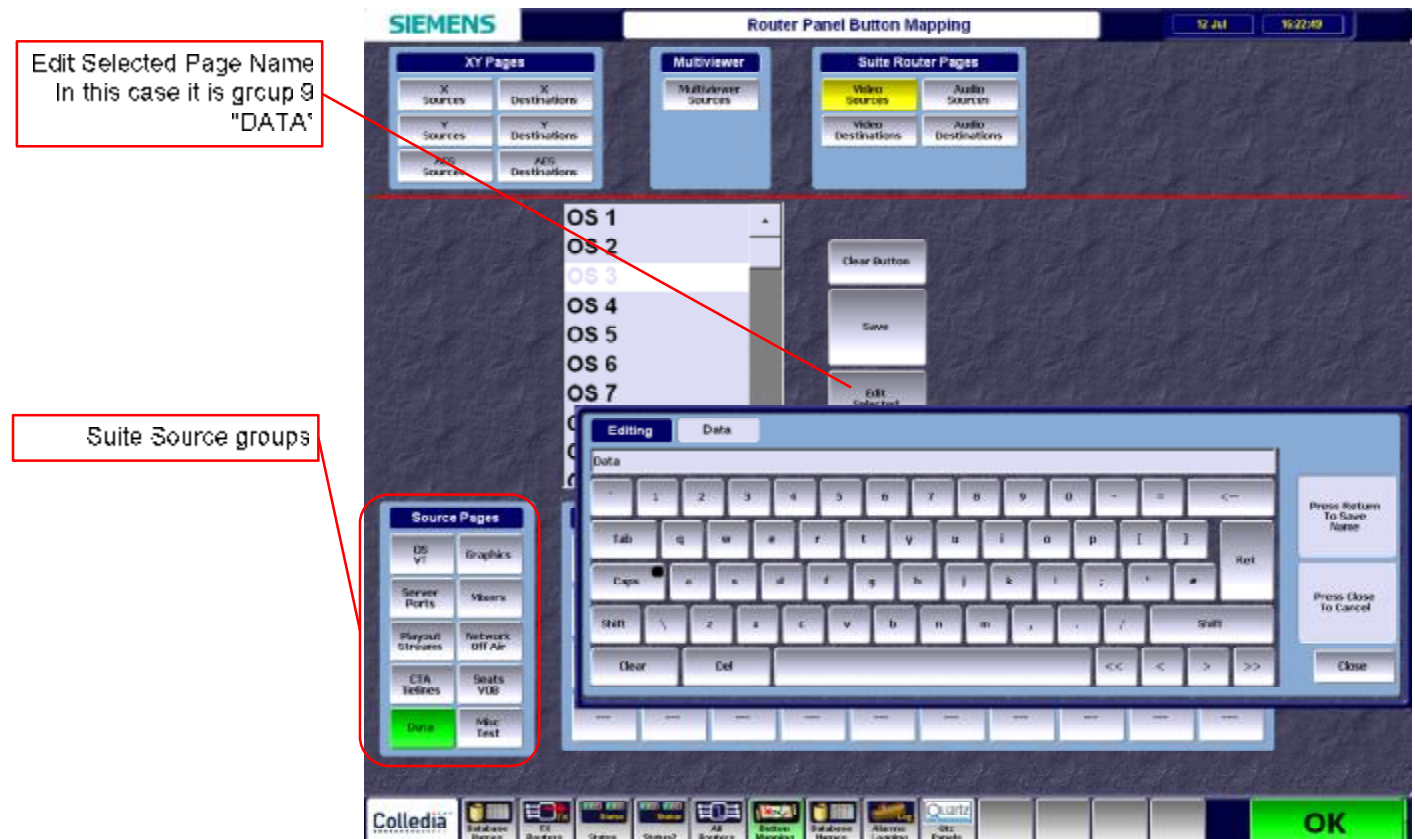
Figure 14. Group Name Editor

Using the **on screen** keyboard with the usual keyboard functions edit the name and then press "Ret" to save. If you want to exit without saving your changes then press "Clear" and the "Ret"

If a carriage return is required within the router name then Colledia Control uses a special character "|" to force this. .

Note: This "|" is used through out Colledia Control to force carriage returns on buttons etc.

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12   AFD and Alarms Panel

Figure 15. Directors AFD and Alarms Panel

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12.1 Introduction

This panel allows the user to:

1. Look at alarms generated within the streams and acknowledge them

2. Set the AFD embedded in the signal for a stream.

3. Acknowledge the Net Recall alarms.

4. See the source routed to the chain.

The panel is arranged with the flow of each stream from left to right.

Each stream can have the AFD selected or switched off.

The main and ECut streams also are alarmed for Black, Freeze AudioGp1 (loss of audio in group1), and (signal) Input.

When this panel is viewed at a particular seat, the stream being controlled at this seat has a yellow background. E.g. In Figure 15 the stream being controlled at this seat is PSA.

You may wish not to be alerted by alarms raised in streams that you are not controlling. Therefore, each stream has a "Stream Included" button that if pressed turns into a "Stream Ignored" button and the alarms from this stream will no longer alarm at this seat until the button is pressed again.

To the right are "Global Alarms" and at the moment there is only one of these, for Net Recall.

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12.2 Directors Stream Alarms

12.2.1 Alarm is triggered

If you are working at a Director's seat (PresA, PresB, CMTxR) and an alarm is triggered you will probably not be looking at the alarms panel at the time. The behaviour is the same for all the stream alarms

E.g. if the video was to freeze on to output of ECut PSA chain you will hear an alarm and the bottom right hand corner of Panel manager will go red (look at the bottom right hand corner of Figure 13).

If you then touch the red button then this will take you to the alarms panel and you will be able to see, highlighted in Red, the cause of the alarm.

At this point there will probably be 2 things you need to do.

1.   Shut off the alarm.

2.   Summon support if the alarm actually is an alarm and not just a Still that has triggered the alarm.

Shutting up the alarm is more technically known as acknowledging and this is done by touching the alarm button or the surrounding area. Touching in this area will acknowledge any of the four alarms for this device.

Background Goes Amber when an alarm is acknowledged

Figure 16. Close up of an acknowledged Freeze alarm

Alarm button on Panelman goes Amber when alarms have been acknowledged

Figure 17. Close up of the Alarm button in the acknowledged state

The alarm needs to be acknowledged once only. This means that if say Pres A acknowledges this Freeze alarm then the other seats will see that it is acknowledged too.

12.2.2 Alarm Clears

When the video is no longer frozen the Freeze alarm will clear. If there are no other alarms from this device then the background will go clear too. If all alarms are clear then the Panel Manager Alarm Button will go green too.

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Freeze Button goes green when alarm clears. Background goes green if none are faulty
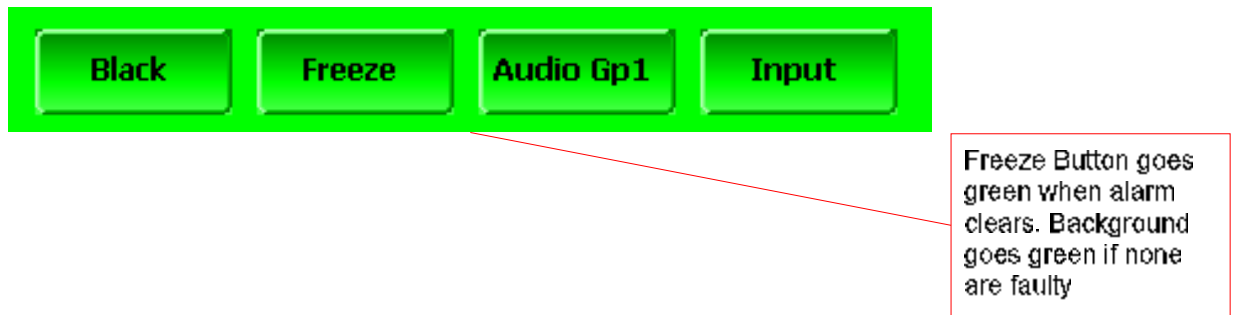
Figure 18. Close up of the cleared Freeze alarm

Note: It is not possible for the user to clear alarms. They will clear when the fault goes away.

12.2.3   Network Recall Alarm

This alarm is treated differently to the Stream Alarms. Each seat, whether director or operator sees its own copy of the Net Recall Alarm and each seat must acknowledge it separately. When it triggers, it makes a different (and more noticeable) sound than the stream alarms.

Figure 19. Close up of the Network Recall alarm – clear state

12.2.4   AFD Control

Both Colledia Control and Omnibus can control this parameter on the sync card (SFS20) in each stream. Under normal circumstances Omnibus will set the appropriate AFD mode in practice, even if the Colledia Control panel has been used to set the AFD Off, Omnibus can switch it on again and change the mode. Therefore, if the user change the mode on the Colledia Control panel, Omnibus will switch it to what it thinks is correct at the next junction.

The four mode buttons will only have an effect if the AFD On/Off is set to AFD On, this on/off is not recognised by Omnibus and it is still able to change the AFD.

This button turns the AFD On or Off

These four buttons change the AFD mode and illustrate current mode.
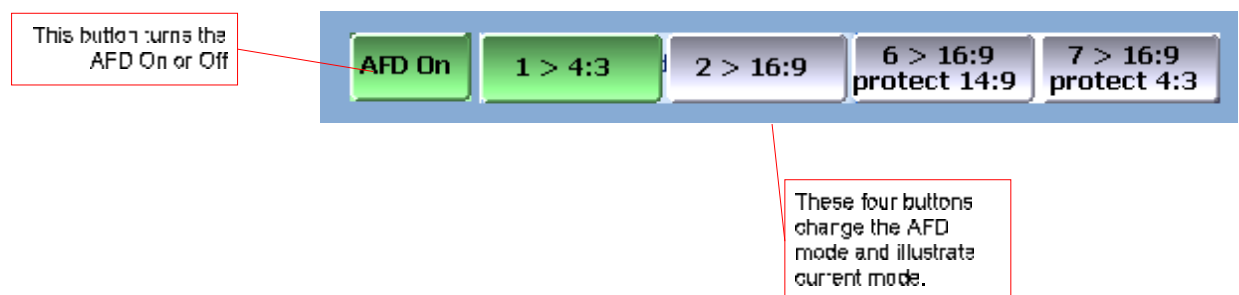
Figure 20. Close up of AFD Control

12.2.5   Operators Alarms Panel

For the Operator's seat, CMTxL, the Network Recall and AFD parts work the same way as the Directors Panel. The Stream alarms are a little different.

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It is possible to include and exclude streams from the sounder as the directors do. This seat has some extra alarms for each stream, namely the Comms alarm for each card.

Figure 21. Operators Alarms panel with some active alarms

There is no border around the Stream Alarms. This is because each alarm has to be acknowledged individually. This done by pressing the appropriate alarm button. A popup appears with several options:

1.   Force On – Makes the alarm appear as fail until cancelled

2.   Force Off – Makes the Alarm appear good until cancelled

3.   Acknowledge – Acknowledges the alarm

4.   Ignored – One shot Force off – only valid until the alarm retriggers

5.   Normal – cancels any Force or Acknowledgement – shows true state

The forced states should be used with caution as the directors will see the results. An example of when you might Force Off an alarm is when there is a faulty card that needs to replaced or taken out of service. In order not to disturb the directors, the operators might Force off the Alarms from one card whilst technical support replace and test the card. When this is complete the Operators should set all the Alarms back to Normal which will show the true states of the alarms.

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12.2.6 Router Sync Alarms

These Alarms are generated by the Router Sync and ECut module. They show sync errors on the Playout routers and if any of the live streams (PSA, PSB, PSC, PSD) has an invalid source routed to it. These Alarms are only available at this seat and are acknowledged in the same way as the stream alarms. The operator should go to the Router Sync panel to see the problem in more detail and to rectify the problem. These alarms can also be forced but no other seat will see the result.

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13 Alarms Logging Panel

Figure 22. Alarms Logging Panel

13.1 Introduction

This panel is only visible from the CMTxL Seat. It allows the user to view the last 500 Alarm events these may be Alarms Triggering or clearing. Alarms triggering appear as white text on a red background and Alarms clearing (going good) appear as green text on a white background as shown in Figure 20.

It is possible to stop the cursor from temporarily scrolling by clicking on an item. It will return to scrolling after 30 seconds.

13.2 Alarms Database

This data is stored in the Alarms System database and can be accessed using standard SQL tools, which are not supplied by Colledia Control.

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