Sierra Automated Systems

SoftPanel Control Suite
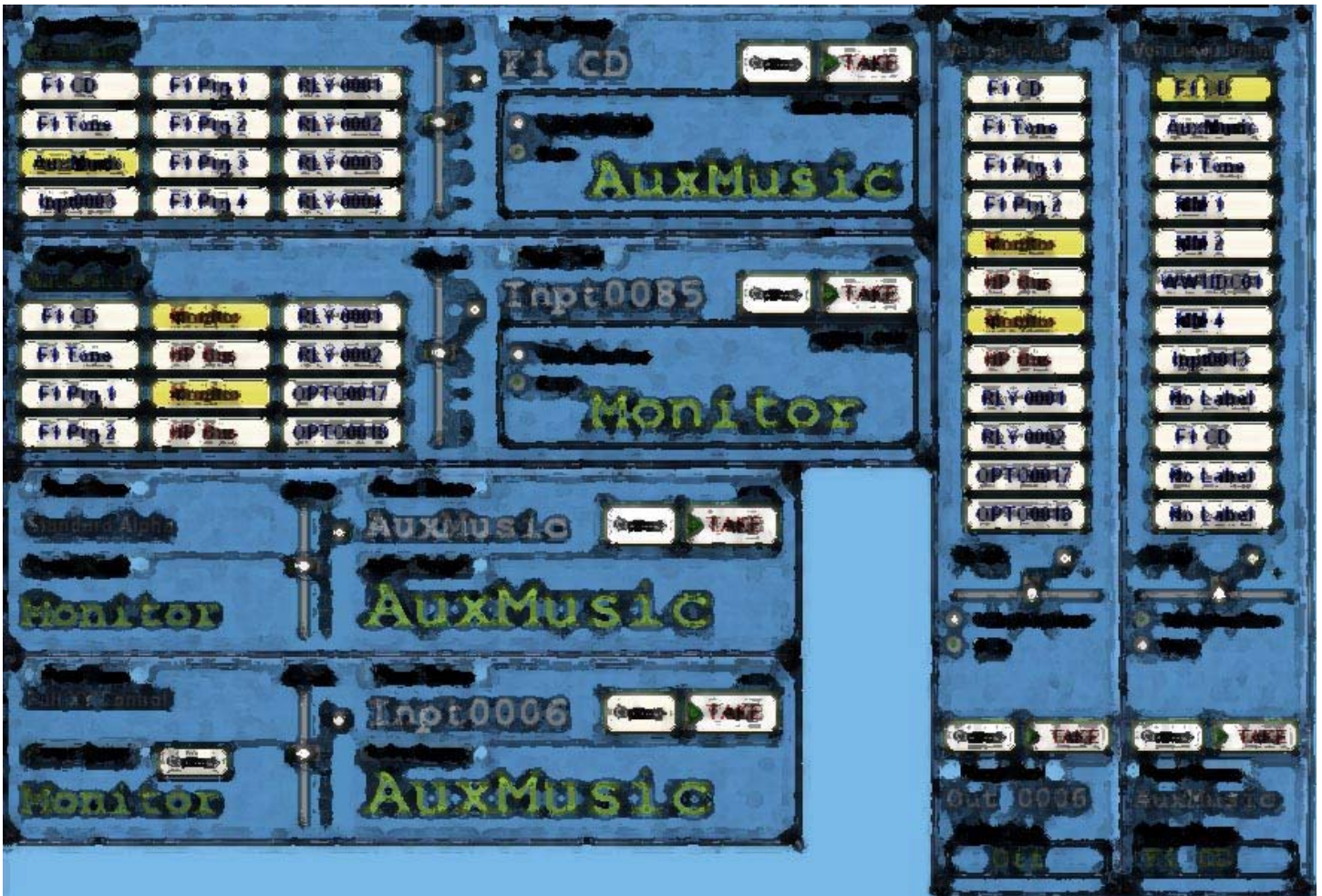
After the SoftPanel application has been successfully installed and licensed it will startup and display the main workbench area. Please refer to the "Installation And Licensing Instructions For The SAS SoftPanel.pdf" document for a complete description of the licensing options. The workbench area is where the individual SoftPanels will be displayed once they have been created. If this is the first time the SoftPanel has been run there will be no control panels present on the workbench (Figure 01).
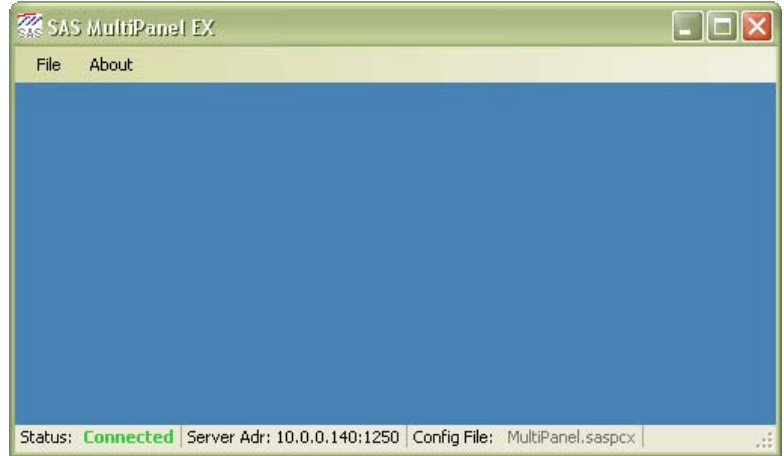

Figure 01

The status bar at the bottom of the workbench displays information about the SoftPanel application.

Status	Indicates the status of the SoftPanel applications connection to the SAS Server Module. *Note that if "(BK)" appears after the status description this indicates that the SoftPanel is currently using the backup server.*
Server Adr	Displays the I.P. Address and Port of the SAS Server Module the SoftPanel is connected to.
Config File	Displays the *.saspcx configuration file currently in use by the SoftPanel application.

Table 01

Before the SoftPanel application can be configured to add panels to the workbench, the SAS SoftPanel Admin utility must have been run and at least one User Group must have been created. The User Groups created by the Admin utility specify which system resources a particular SoftPanel will have access to. These system resources include switcher inputs, outputs, optos and relays that may be controlled, button templates that may be assigned to the panel, and display lists of system source and destination channels that may be selected by panel users during operation.

In order to add a SoftPanel to the workbench (or to re-configure an existing SoftPanel) select "File/Setup Options" and enter the information to log in to the SAS Server Module that the SoftPanel will communicate with to access the switcher (The Server Module must be running to do this). The I.P Address will be the I.P. Address of the computer where the SAS Server Module is installed. The I.P. Port will be the port the SAS Server Module uses to communicate with the SAS Router Control Software. This value is 1250 by default and can be changed by selecting "File/Setup" on the SAS Server Module and setting the "Client I.P. Port" value as desired. The password is specified by the SoftPanel Admin utility and is "SASDefault" by default (The same as the Router Control Software default).

Figure 02

The SoftPanel setup dialog (see Figures 3, 4, 5 & 6) is where the SoftPanels are created, destroyed and configured for desired operation. To create a new SoftPanel click the "Create New Panel" button and choose the desired options from the "Edit Panel Settings" pane. A good first step in creating a new SoftPanel would be to select the desired SoftPanel type by using the "Panel Type" drop down control (this because other available options depend on the type of panel selected).

Panel Type	Panel Type Description
Standard Alpha Control Panel	Panel selects sources from a display list for a single switcher output (SOC Mode) or console module (devID Mode) or panel selects destinations for a single switcher source (SIC Mode)
Standard XY Alpha Panel	Allows the panel operator to select the switcher output to be controlled and then to select sources from a display list for that output
User Programmed Button Panel	Panel that presents user programmable buttons for switcher, relay and opto control (display list channel selection as per the Standard Alpha Panel is optionally available)
User Programmable Button Only Panel	Panel that presents the maximum number of user programmable buttons available for switcher, relay and opto control (display list channel selection is not available)
User Programmed Vertical Button Panel	Vertically oriented modification to the User Programmed Button panel
Opto/Relay Association Alpha Panel	Allows an association between an Opto and a Relay to be established such that the Relay will follow the state of the Opto

Table 02

Once the panel type has been chosen, set the remaining options in the "Edit Panel Settings" pane as necessary for the desired panel operation (Refer to Table 03*).*

Note that as soon as any of the panel settings have been changed the user will be required to either save or cancel the changes before a different panel may be selected or the setup dialog box can be closed.
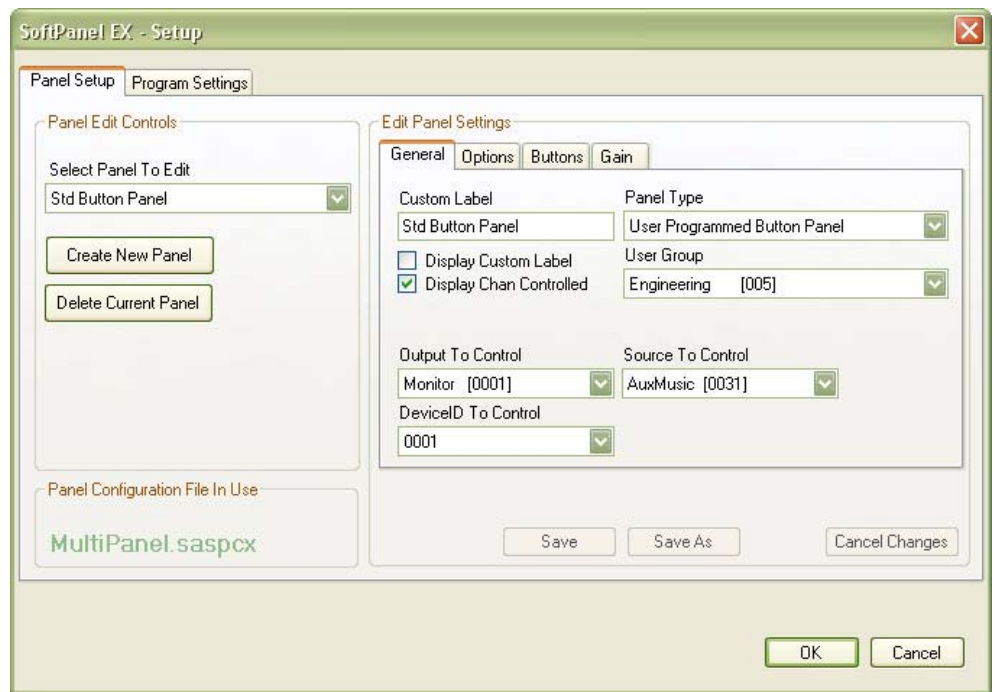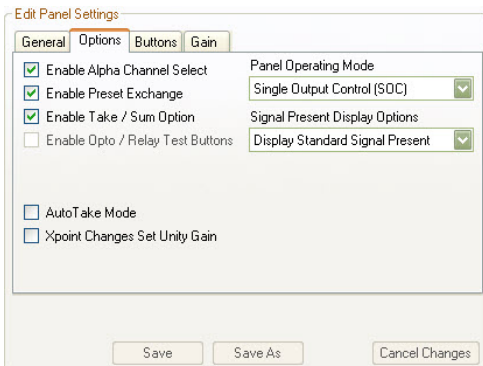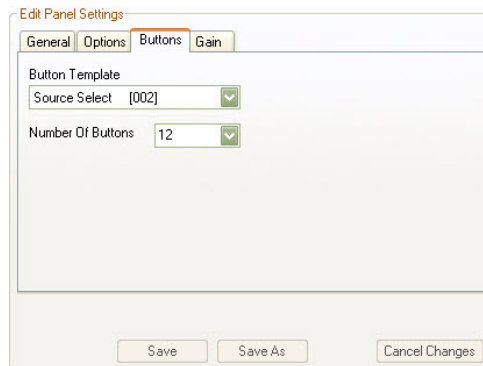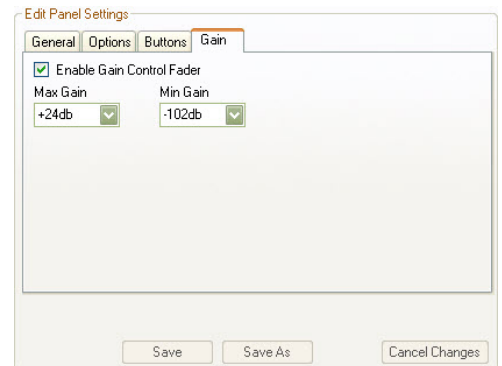

Figure 03

Figure 04

Figure 05

Figure 06

Option Name	Tab	Option Description
Custom Label	General	A name describing the panel for your reference.
Display Channel Controlled	General	Optionally display the switcher audio channel controlled on SOC/SIC Mode panels.
Display Panel Name	General	Optionally display the Panel Name on the panel.
Panel Type	General	Specifies the base type of the panel (see Table 02).
Enable Alpha Channel Select	Options	This option will make a display list type of input or output channel selection available on the button panels in addition to the programmable hot punch buttons.
Enable Preset Exchange	Options	If checked the panel swaps the currently active channel into preset when a Take command is issued. This allows an easy back and forth swap between two channels.
Enable Take / Sum Option	Options	For pushbutton type panels, allow the user to specify if source selection buttons should sum sources on or perform take/replace operations and if output select buttons should connect panel source with a take/replace or sum command.
Enable Opto / Relay Test Buttons	Options	Optionally provide test buttons to activate the selected opto or relay for Opto / Relay Association panels.
Enable Button Sysbols	Options	If checked the panel will display small symbols on the right edge of the button that help define it's function (refer to table 05 for a complete description).
Auto Take Mode	Options	This option causes a switcher crosspoint control command to be issued by the panel as soon as a channel is selected from a display list. If this option is not active the user will need to click the "Take" button once a preset channel has been selected.
Xpoint Changes Set Unity Gain	Options	If checked the panel will issue a command to set the output that the panel is controlling to unity gain whenever a crosspoint change is made from the panel.
Panel Operating Mode	Options	Sets the operational mode of the panel: **Single Output Ctl(SOC) -** Preset/Take section selects sources for a single output **Single Input Ctl(SIC) -** Preset/Take section selects destinations for a single input **DeviceID Ctl (devID) -** Preset/Take section selects sources for a console module
Signal Present Display Options	Options	Specify whether the panel should display signal status for it's assigned output: **Don't Display Signal Present —** Signal present status will not be displayed **Display Standard Signal Present —** Signal present status will be displayed **Display Flashing No Signal Present —** Signal present status will be displayed and the "No Signal" indication will be flashing.
Source To Control	General	Specifies the switcher source channel that will be used for Single Input Control (SIC) type panel operations. This includes the Preset/Take control section and any user buttons programmed as Output Selection type buttons.
Output To Control	General	Specifies the switcher output channel that will be used for Single Output Control (SOC) type panel operations. This includes the Preset/Take control section and any user buttons programmed as Source Selection type buttons.
DeviceID To Control	General	Specifies the deviceID of the console module that will be used for Console Module Support (devID) type panel operations. This includes the Preset/Take control section and any user buttons programmed as Console Source Selection type buttons.
User Group	General	Selects the User Group that will govern the switcher resources available to the panel. This needs to be set before a button template can be selected or an Output to be controlled can be chosen. The user group is defined in the Admin utility to specify which system resources may be controlled or selected by the panel. The system resources include switcher inputs and outputs, display lists, button templates, relays and optos.
Button Template	Buttons	Select the button template that will define what each button does on a User Programmed Button panel. The Button Templates are configured with the SAS SoftPanel Admin utility.

Number Of Buttons	Buttons	The number of buttons the panel should display.
		    Standard Button Panel – 16 buttons maximum
		    Button Only Panel – 32 buttons maximum
		    Vertical Button Panel – 12 buttons maximum

Enable Gain Control Fader	Gain	This option adds a small gain adjustment fader (and level readout) to the panel that allows gain adjustment of the output the panel is controlling. *Note that if the level readout turns red the current gain value is outside the range of the panel fader.*
Max Gain and Min Gain	Gain	Sets the range of control for the optional gain fader.

Table 03

Once the desired options have been set click the "Save" button to save the configuration to the current "Panel Configuration File" (shown as MultiPanel.saspcx in Figures 3 and 8) or "Cancel to cancel any changes made. This single file stores the configuration of the workbench and all the SoftPanels created for it. To save the SoftPanel configuration changes to a different file click the "Save As" button and specify the desired filename. This makes it possible to create

multiple configuration files that can be loaded when required to completely change the operation of the SAS SoftPanel application.

To load a configuration file choose the "Program Settings" tab and click the "Load New" button then select the desired configuration file (see figure 08). The selected file will be used from that point on and will be used when the application is closed and restarted.

To edit the options of an existing panel first use the "Select Panel To Edit" control to select the panel to be modified. Once the panel is chosen it's current configuration will be displayed in the "Edit Panel Settings" panes (See figures 3, 4, 5 & 6). As soon as any change is made to the panels configuration the "Save", "Save As" and "Cancel" buttons will become active and the changes may be saved as desired with the "Save" or "Save As" buttons or canceled with the "Cancel" button.

To delete an existing panel first select the panel to be deleted with the "Select Panel To Edit" control then click the "Delete Current Panel" button and confirm or cancel the operation when the "Confirm Panel Delete" dialog (See figure 7) is displayed.
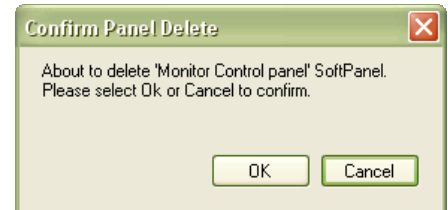

Figure 07

The "Program Settings" tab is where the general program options common to all panels on the workbench are specified. These options include: the type of license the SoftPanel application is operating under (Refer to the "Installation And Licensing Instructions For The SAS SoftPanel.pdf" document for a further description of each license type), the I.P. Address information for the SAS Server Module(s) that all the SoftPanels on the workbench will use for access to the switcher, the option to have the SoftPanel application check the Windows registry at startup to confirm that the *.saspcx file type is associated with SAS SoftPanel application, the option to allow the users to manually swap between the primary and backup SAS servers if a backup server is configured (*Note that the SoftPanel always attempts to use the primary SAS Server at startup*), and the option to allow the users to change the background color of the workbench. Once the program settings have specified as required click the "Ok" button to save the Program Settings to the "PrgConfig.xml" file and close the configuration window. Clicking the "Cancel" button will close the configuration window without saving changes made to the program settings

Refer to Table 04 for a more complete description of each option.

Note: Panel config changes made on the Panel Setup tab will not be canceled or undone by clicking the Cancel button here.
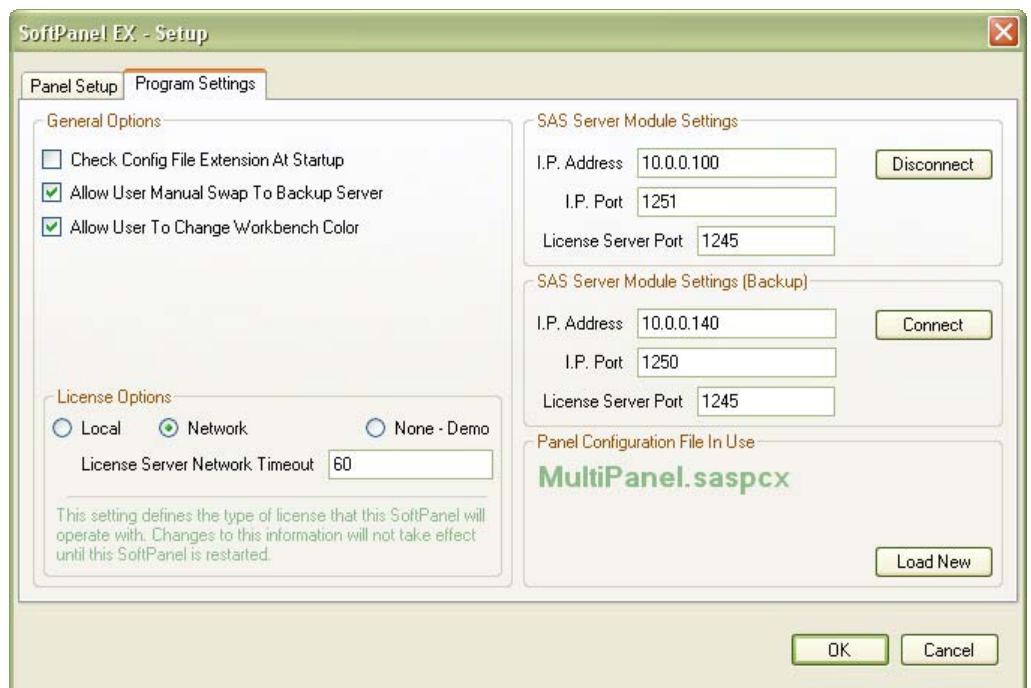

Figure 08

Option Name	Option Description
Check Config File Extension At Startup	Optionally have the SoftPanel application check the Windows registry at startup to confirm that the *.saspcx file type is associated with SAS SoftPanel application (if it is not you will be prompted if you wish to restore this association). This association allows you to double click on a *.saspcx file from File Explorer and have the SoftPanel application run with that configuration file.
Allow User Manual Swap To Backup Server	Optionally allow the user to manually connect to a backup SAS Server if one is configured. If option is not checked the user will still be prompted to swap servers if the connection to the current server is lost and valid backup server info is specified.
Allow User To Change Workbench Color	If checked a File menu item will enabled that allows the user to select the color for the workbench background.
License Options – Local	Choose this option if this SoftPanel is to be licensed for unrestricted operation on this computer only. *Note changes to this info will not take effect until the SoftPanel application is restarted.*
License Options – Network	Choose this option if a Network Key License Server has been installed to provide floating network license keys for the SoftPanels. *Note changes to this info will not take effect until the SoftPanel application is restarted.*
License Options – None / Demo	Choose this option if you wish to operate this SoftPanel unregistered in Demo Mode. Panel will operate normally except switcher control commands will not be executed. *Note changes to this info will not take effect until the SoftPanel application is restarted.*
License Options - License Server Network Timeout	The number of seconds before lost communications with the network license key server will be recognized.
Primary SAS Server I.P. Address	The IP address of the computer hosting the primary SAS Server Module and the primary netkey license server (if network license is used). 127.0.0.1 indicates local machine.
Primary SAS Server I.P. Port	The IP port the primary SAS Server Module is configured to use. *Note 1250 is default.*
Primary License Server I.P. port	The IP port the primary netkey license server is configured to use. *Note this field only applies if the SoftPanel application is configured to use a network license key server. 1245 is default, changes to this info will not take effect until the SoftPanel application is restarted.*
Primary Connect / Disconnect Button	Connect or disconnect to the primary server. Button changes function based on the current connection state. *Note that when clicked the setup dialog will be closed without saving changes as connection to current server is lost.*
Backup SAS Server I.P. Address	The IP address of the computer hosting an optional backup SAS Server Module and the backup netkey license server (if network license is used). 127.0.0.1 indicates local machine.
Backup SAS Server I.P. Port	The IP port the optional backup SAS Server Module is configured to use. *Note 1250 is default.*
Backup License Server I.P. port	The IP port the optional backup netkey license server is configured to use. *Note this field only applies if the SoftPanel application is configured to use a network license key server. 1245 is default, changes to this info will not take effect until the SoftPanel application is restarted.*
Backup Connect / Disconnect Button	Connect or disconnect to the backup server. Button changes function based on the current connection state. *Note that when clicked the setup dialog will be closed without saving changes as connection to current server is lost.*
Load New	Load a new panel configuration file. This file specifies the panels that are to be loaded to the workbench and how they are to be configured.
Ok	Save program settings information to the "PrgConfig.xml" file and close the setup dialog box.
Cancel	Close the setup dialog without saving the program settings.

Table 04

Figures 09 and 10 are examples of a Standard Alpha Control type panel that is configured to display the panel name, Signal Present status for the panels configured output, the output controlled by the panel and a gain fader to control the level of that configured output. Also notice that since there is a "Take" button present, the "Auto Take Mode" option was not selected for this panel and the "Move" label is active so the panel can be moved by clicking the "Move" label and dragging it. The panel in figure 9 is indicating that signal is present on the "Monitor" output while the panel in figure 10 is indicating that "No Signal" is present. Optionally, the "No Signal" indication could be caused to flash if the "Display Flashing No Signal Present" option was selected in the panel setup options screen. The signal present indication is available for all panel types that have been configured with a valid switcher output channel, except the Opto/Relay Association panel.

Note the switcher output must be configured to report signal present information to the SoftPanels using the Router Control Software.
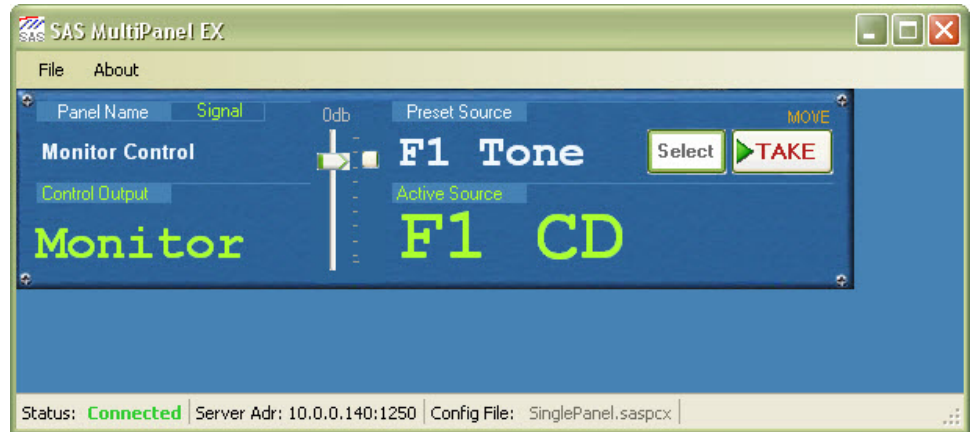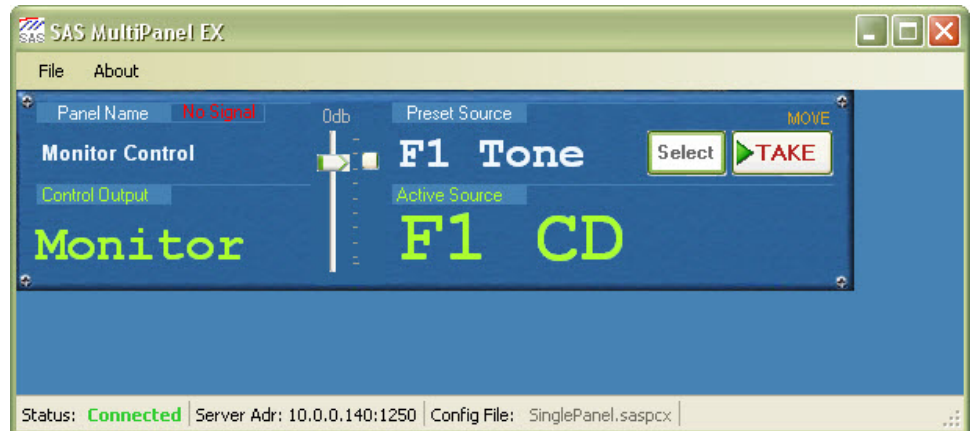

Figure 09

Figure 10

These panels are configured to allow the operator to make source selections for the "Monitor" switcher output (SOC Mode) but could also have been configured to make source selections for a console module (devID Mode) or to make destination selections for a configured source (SIC Mode). The operator would click the "Select" button and select a channel from the Channel Alpha Display Lists (see Figure 11). The contents of the selection window are determined by the Alpha Display Lists that are associated with the User Group the panel is assigned to. The example (Figure 11) shows three source selection display lists (ISDN's, TV's and Phones) in addition to the "Off" selection, which removes all sources from the panels configured output. The source display list "ISDNs" shows five sources that may be selected. These display lists and the User Groups are configured by the SAS SoftPanel Admin utility.

When a channel is selected by clicking on it with the mouse, that channel will be displayed in the "Preset Source" or "Preset Dest" location on the panel. When the "TAKE" button is clicked, a "Take and Replace" style crosspoint command (as opposed to the Sum on/off commands possible with a user button) will be sent to the switcher via the SAS Server Module. When the switcher has completed the crosspoint change a tally message will be returned to the SoftPanel and the "Active Source" or "Active Dest" will be updated to reflect the crosspoint change. *Note that if the "Auto Take Mode" option had been chosen, no "Take" button would be visible on the panel and selecting a channel from the display list (double click required) would have caused the crosspoint command to be issued immediately.* Also, if the "Enable Preset Exchange" option is active for the panel the channel that was displayed as "Active" will be placed in "Preset" This allows the operator to quickly swap back and forth between two channels (Active and Preset) by repeatedly clicking the "TAKE" button.
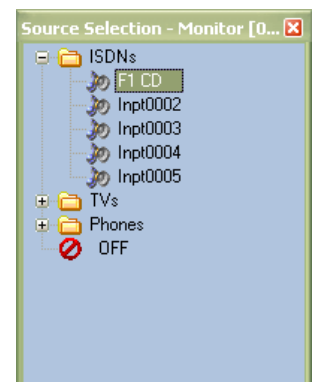

Figure 11

These panels may be configured for console support (i.e. associated with a console modules device ID) instead of single output control. In that case, the chosen source would be selected by all console bus connections made by the console module that the panel is configured to support. All panels, except for the XY panel type and the Opto/Relay Association panel type, may be configured for console support.

These panels may also be configured for Single Input Control (SIC Mode). In SIC Mode, the panel selects from display lists of switcher destination channels and the chosen destination has the panels configured source connected to it. Each time a new destination is selected the panel source is removed from the previous destination. All panels, except for the XY panel type and the Opto/Relay Association panel type, may be configured for SIC Mode operation.

Figure 12 shows the workbench with a second SoftPanel added,the "File/Allow Panel Move" option inactive and Button Symbols enabled. The second panel is an example of a User Programmed Button Panel that is configured to display the panel name "Cue Bus Control" and a gain fader to control the level of the configured output (The Cue Bus). This panel was also configured to include the "Select" and "Take" buttons so that channel selections for the configured output (or input if configured for SIC mode) could be made from the Channel Display Lists assigned to the panel in addition to the control available with the eight hot punch buttons. The buttons functionality (crosspoint control, console source selection, opto or relay control, etc) and channel assignments are configured by creating button templates with the SAS SoftPanel Admin utility. This panel type may be configured with up to 16 buttons. Refer to table 05 for a summary of the basic button types and their associated button symbols.

On this example SoftPanel the "Enable Take / Sum Option" was selected during the panels configuration. Because of this, the operator may choose to add sources with the buttons by summing them on and building a mix, or with the more traditional Take / Replace method (SOC Mode). *Note that this summing option only applies to sources selected with the hot punch buttons*. Sources selected using the Source Alpha Display Lists will be connected with a Take / Replace crosspoint operation. If more than one source is selected to the Cue Bus output, the Active Source display (F1 Tone in the Figure 12 example) will scroll through each active source at a rate of about one source per second.

If this panel had been configured for devID mode, sources selected by the panel would be selected by any bus connections made by the console module the SoftPanel is configured to support. In that mode the Take / Sum option has no effect on console source selections made by user button or with the Select/Take alpha list section window.

If this panel were configured for SIC mode then the display lists presented by clicking the "Preset" button would show switcher output channels where the SoftPanels configured source channel may be routed. In this mode, the Take / Sum option has no effect on destination selections made with the Select/Take alpha display list section or with destination selection buttons. SIC mode crosspoint connections are always made as a summing operation to prevent displacing connections that may already exist on the selected switcher destination channels

Note that all destination selection crosspoint changes are summing. Buttons programmed for both destination selection and source selection (hybrids) will apply the Select/Take option only to the source selection crosspoints.
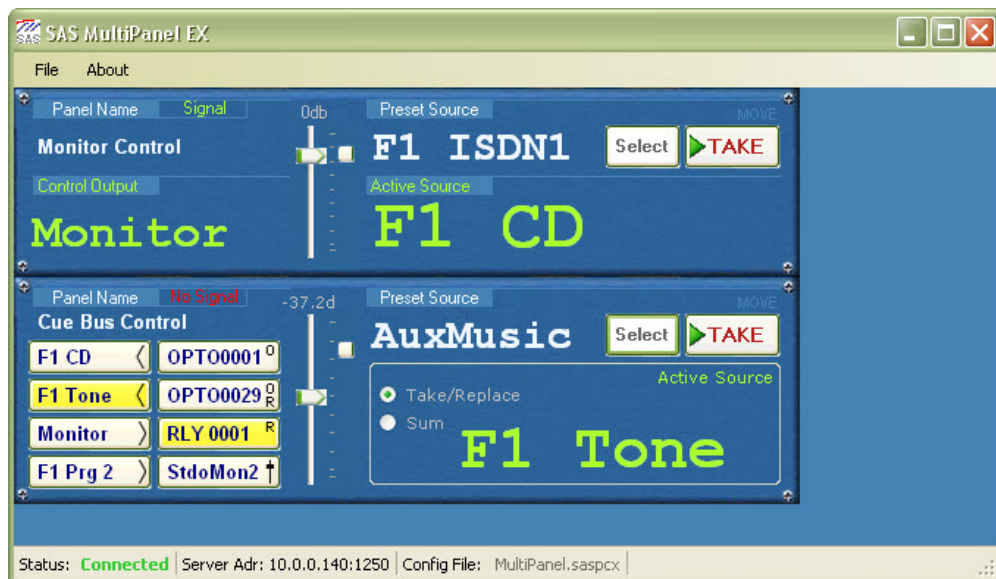

Figure 12

All panel types that support user programmable pushbuttons may be *simultaneously configured for control of a specific switcher output, switcher input and deviceID*. This allows the user programmable buttons associated with SOC, SIC and devID modes of operation to co-exist on a single SoftPanel. The operating mode specified with the "Panel Operating Mode" pulldown menu at the Setup/Options screen primarily effects how the Preset/Select and Take section of the SoftPanel operates and what type of switcher tally is presented in the "Active Source/Dest" section of the panel.

Basic Button Types and Associated Symbols

Button Type	Description	Button Symbol
Source Selection (SOC Operation)	Symbol indicates the button is programmed to represent a system source channel that can be selected to the panels configured output. Button tally is the state of the crosspoint connection as reported by the system (SOC Operation).	(
Destination Selection (SIC Operation)	Symbol indicates the button is programmed to represent a system destination channel that can be selected for the panels configured input. Button tally is the state of the crosspoint connection as reported by the system (SIC Operation)	)
Source/Destination Selection (Hybrid Operation)	Symbol indicates the button is programmed to represent both a system destination channel that can be selected to the panels configured input (SIC Operation) and a system source channel that will be selected to the panels configured output (SOC Operation). Button tally is the state of the SIC crosspoint connection as reported by the system.	◊
Console Source Selection (devID Operation)	Symbol indicates the button is programmed to represent a system source channel that can be selected to the Console Module/devID that the panel is configured to support (devID Operation). Button tally is locally generated based on button operation.	†
Opto Control	Symbol indicates the button is programmed to represent a virtual opto channel that can turned on and off by button operation. Button tally is the state of the controlled opto.	O
Opto Control, Different Opto Tally	Symbol indicates the button is programmed to represent a virtual opto channel that can turned on and off by button operation. Button tally is the state of a second specified opto as reported by the system.	O O
Opto Control, Relay Tally	Symbol indicates the button is programmed to represent a virtual opto channel that can turned on and off by button operation. Button tally is the state of a specified relay as reported by the system.	O R
Relay Control	Symbol indicates the button is programmed to control a system relay by button operation. Button tally is the state of the specified relay as reported by the system.	R
Relay Control, Different Relay Tally	Symbol indicates the button is programmed to control a system relay by button operation. Button tally is the state of a second specified relay as reported by the system.	R R
Relay Control, Opto Tally	Symbol indicates the button is programmed to control a system relay by button operation. Button tally is the state of a specified opto as reported by the system.	R O

Table 05

Figure 13 shows the workbench with the User Programmed Button Panel removed and a Standard XY Alpha Panel added in its place. This panel is configured to display the panel name "Full System Control" and to not display the gain fader.

Operation of this panel is very similar to the Single Output Controller panel. The main difference being that the operator may select the output that is to be controlled from the Output Alpha Display Lists by clicking the "Select" button adjacent to the "Current Output" label at the lower left side of the panel. Which display lists are presented and the output channels in those display lists are specified by the SAS SoftPanel Admin utility. This panel type may not be configured for console support or to operate in SIC Mode.
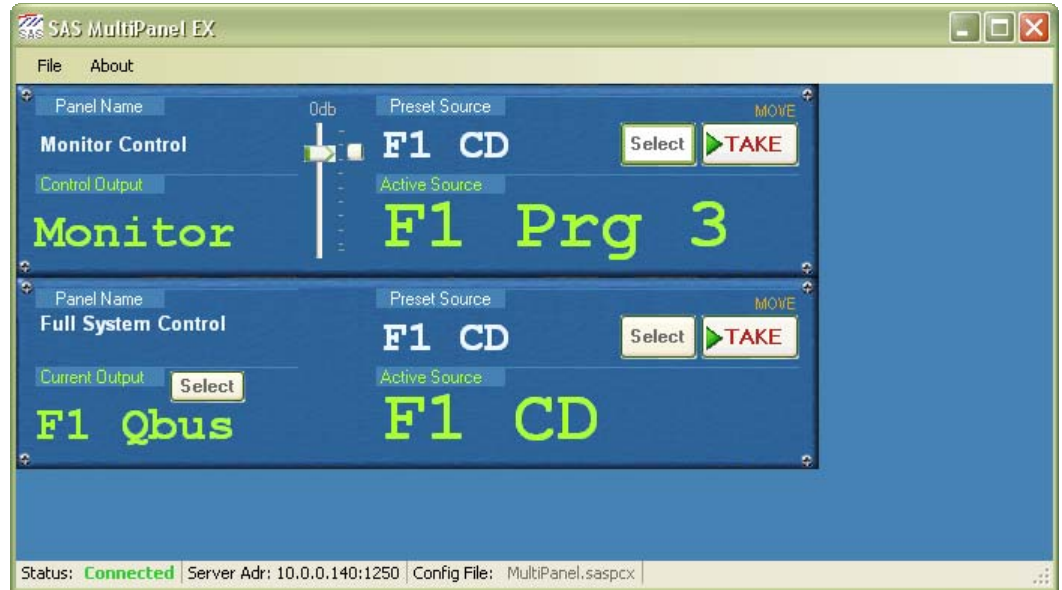

Figure 13

Figure 14 shows the workbench with the Standard XY Alpha Panel removed and an Opto Relay Association Panel added in its place. This panel is configured to display the panel name "Opto / Relay Control" and to include the opto and relay test buttons. These test buttons will send a command to the switcher to turn the currently selected relay (or opto) on or off so that system functions that depend on the state of the relays and optos can be tested. When tally is received from the system indicating that the relay or opto is activated the center section of the test button will light up. The Figure 14 example relay test button shows that system relay "Rlay0031" is currently energized.

Figure 14

The purpose if this panel is to allow the operator to create or remove an association between the state of an opto and a relay. When an opto and a relay are "associated" the relay will change state to mimic the state of the opto. In the Figure 14 example the currently selected relay "Rlay0031" has not been associated with an opto. To create or remove an association the operator would first select the relay using the "Select" button next to the "Current Relay" label. Next the opto that will control the relay is selected using the "Select" button next to the "Preset Opto" label. This will "Preset" the chosen opto (the same as is done for a preset audio source) and when the "Link" button is clicked the command to associate the relay/opto pair will be sent to the switcher. To remove any opto association from the current relay the user would select "Off" in the opto selection window and then click "Link".

This panel type may not be configured to operate in devID mode or in SIC Mode and may not be configured to display the "Signal Present" indication.

Figure 15 shows the workbench with the Opto Relay Association Panel removed and a Button Only Panel added in its place. Operation of this panel is simular to the operation of the standard button panel displayed in figure 12 with the main difference being that the "Select" and "Take" buttons are not available. Because of this, switcher channel selections for the configured output (SOC Mode), input (SIC Mode) or console module (devID Mode) may only be made by using the programmable hot punch buttons. In this example, Button Symbols are disabled and the first three buttons are illuminated to indicate the sources programmed to those buttons are selected to the Cue Bus output (notice the summing option is active). This panel type may be configured with up to 32 buttons.

These panels may be configured for control of a single output (SOC Mode), control of a single input (SIC Mode) or for console support (devID Mode).
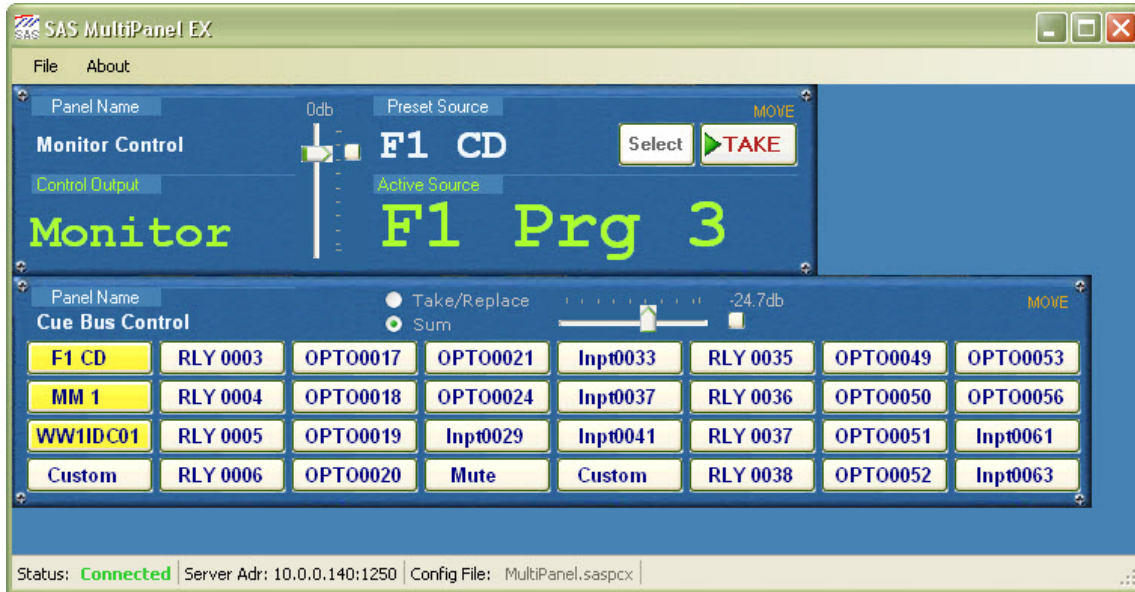

Figure 15

Figure 16 shows the workbench configured with three separate vertically orientated button panels with Button Symbols disabled. These panels are all configured for SOC Mode and to display the outputs being controlled and are all displaying the gain fader with the "Unity Gain" button located just above the fader. Operation of this panel is identical to the operation of the standard button panel displayed in figure 12. This panel type may be configured with up to 12 buttons and for control of a single output (SOC Mode), control of a single input (SIC Mode) or console support (devID Mode).

The location of any panel on the workbench may be adjusted by selecting "File/Allow Panel Move" from the main menu (figure 17). Once this option has been activated, the "Move" label at the top right corner of the panels will turn orange and the panels may be moved by clicking the "Move" label and dragging the panel while holding the left mouse button. The "File/Prevent Panel Overlap" menu choice will prevent the panels from being moved so that they overlap each other.

The entire workbench and all the panels it contains may be instantly re-configured by loading a different configuration file. This may be done from the main workbench (as well as the setup dialog) by selecting "File/Load Panel Config File" and selecting a previously saved panel configuration file. This will cause the entire workbench to be re-configured with the panels specified in the selected configuration file. The background color of the workbench may be changed by clicking "File/Set Workbench Color" and choosing the desired color from the selection dialog that appears. *Note that the default color will always appear as the first choice in the "Custom Colors" section when the color selection dialog is opened.*
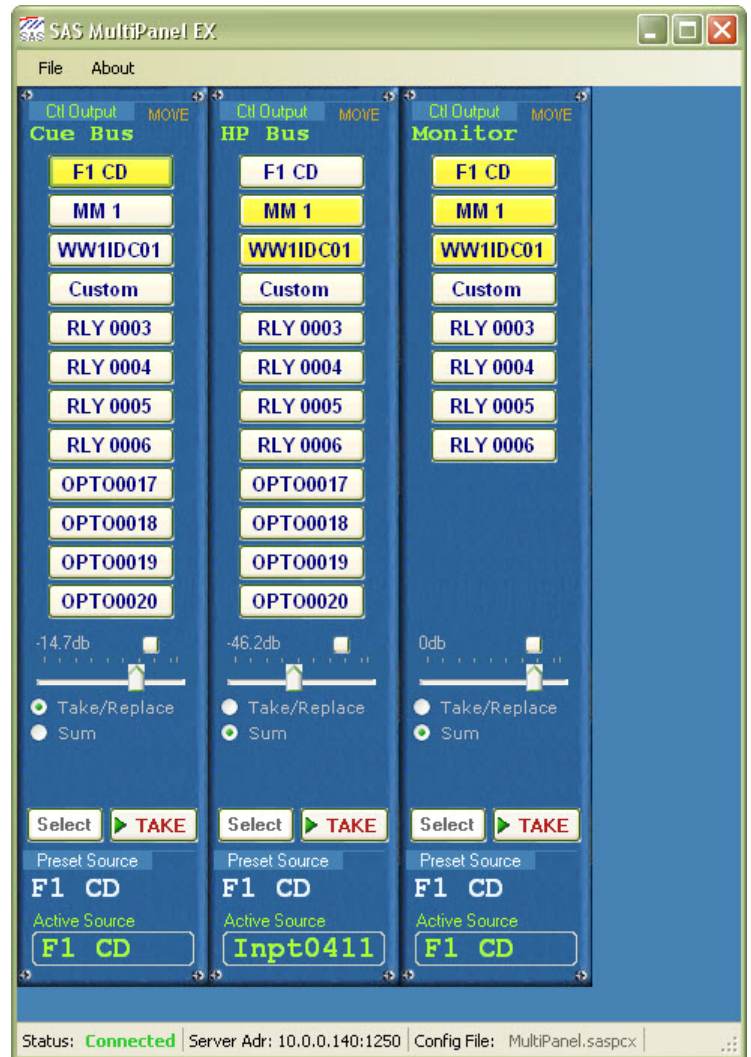

Figure 16

It is possible to force the SoftPanel application to disconnect from the primary SAS Server Module by selecting "File/Disconnect From Primary SAS Server". If the SoftPanel application is currently disconnected from the Server Module then a "File/Connect To Primary SAS Server" menu choice will become available and may be used to instruct the SoftPanel application to attempt to connect to the primary Server Module at the configured I.P. Port and Address. The same connection choices will be available for the backup server if one is configured and the setup options allow it. *Note that if a connection attempt fails (either at startup or by user command) the SoftPanel application will not continue to re-attempt a connection. Once the reason for the failure is corrected, the user should either restart the SoftPanel application or command a connection attempt from the file menu.*
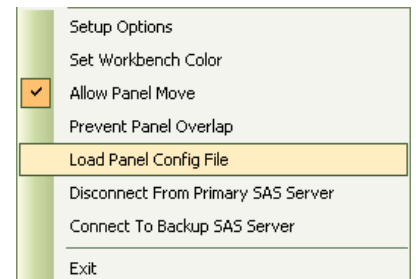

Figure 17

Comparison chart of features and options available on the various SoftPanel types

Panel Type	SOC Mode	SIC Mode	DevID Mode	User Buttons	Take / Sum	Alpha Chan Selection	Gain Control	Signal Present
Standard Alpha Control Panel	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Standard XY Alpha Panel	No	No	No	No	No	Yes	Yes	Yes
User Programmed Button Panel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Programmed Button Only Panel	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
User Programmed Vertical Button Panel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Opto/Relay Association Alpha Panel	No	No	No	No	No	Yes	No	No

Table 06