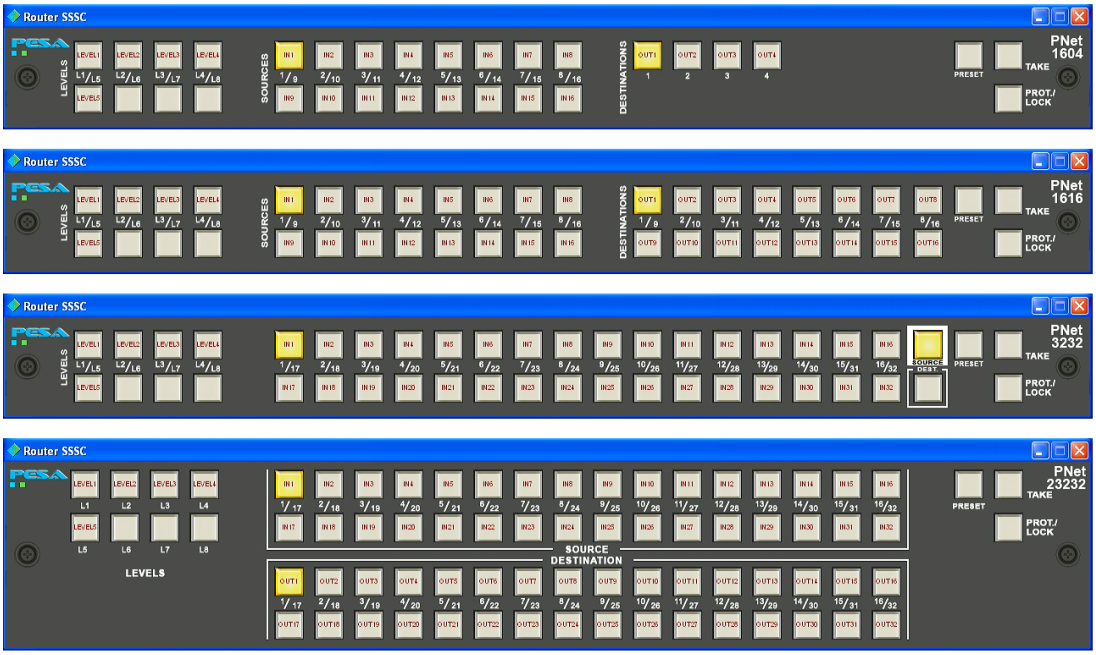
INSTALLATION & USER GUIDE

PNET soft panels

ROUTER CONTROL SOFTWARE APPLICATION FOR WINDOWS® BASED PCS



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Our commitment is to continue earning the trust and confidence of our customers throughout the industry by incorporating cutting-edge technology into the highest quality, most cost effective products on the market. And we would like to invite you to tell us how we're doing. If you have any comments or suggestions concerning your PESA equipment, please contact our Customer Service Department.

Again, thank you for choosing PESA and we look forward to a long-term partnership with you and your facility.

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Chapter 1 Introduction

1.1 DESCRIPTION

PESA's PNet Soft Panel PC-based router system control panels emulate functionality of the family of PNet hardware panels, and allow control of PESA routers such as the Cougar3 from virtually any computer in your facility. Soft panels are installed and activated through ***Router Panel***, a software application that installs on PCs running the Microsoft Windows® XP, Vista or Windows 7 Operating System. Router Panel software must be loaded and resident on each host computer on which you wish to activate a soft panel. Soft panels operate exclusively with routers equipped with PESA's Small Scale System Controller (SSC) and offer a convenient, cost effective alternative to hardware panels. A SSC controller can support up to 80 PNet panels in any combination of soft panels and hardware panels.

The Router Panel application supports software emulation of any of the hardware PNet panel variants, and allows you to select the panel that best fits the needs of an individual control station requirement from the following available panel types:

- **PNet Soft 1604** – Allows you to control up to 16 sources on up to 4 output destinations.
- **PNet Soft 1616** – Allows you to control up to 16 sources on up to 16 output destinations.
- **PNet Soft 3232** - Allows you to control up to 32 sources on up to 32 output destinations with a single set of numeric keys that are shared for source and destination entry and status monitoring.
- **PNet Soft 23232** - Allows you to control up to 32 sources on up to 32 output destinations with a separate set of numeric keys for source and destination entry, allowing simultaneous status monitoring of both the active source and destination.

PNet soft panel instances are controlled under license management configured through PESA's Cattrax system control software application. The Router Panel application may be loaded onto as many computers as desired and you may use any soft panel type or multiple types. Through Cattrax menu screens you obtain the soft panel device license from PESA, and then apply a device key to the selected small scale system controller to which you wish to interface soft panel control. The SSC stores the device license key which determines the maximum number of licensed soft panels allowed to concurrently operate with the system controller. Soft panel licenses are offered in a variety of quantity configurations.

Whenever soft control panel emulation is initiated on a host computer, it contacts the SSC and, if a license is available (meaning there are less soft panel instances currently on-line than the maximum number allowed by the license), the SSC allows the soft panel to operate and provides configuration information for that panel. Remember that every individual active, on-line panel instance, even if opened on the same host PC, requires a separate license issued by the SSC controller. Before a soft panel instance can be activated, it must be configured through Cattrax just as any hardware PNet panel.

All PNet panels, both soft panels and hardware panels, communicate with the system controller over an Ethernet interface, either through a closed-loop Ethernet configuration or with full integration into the facility network. With soft panels, each PC running the panel application communicates with the system controller using the IP address and other network parameters of the host computer.

PNet soft panel instances may be activated in any of several panel configurations that vary the number of sources and destinations each can control, but all panels provide the following common capabilities:

- All-level, audio-follow-video (AFV) switching
- Breakaway switching on up to 8 switching levels
- Operate in hot-take or preset panel modes
- Destination protect and lock features
- Source and destination key channel assignments configurable through Cattrax
- Single button “Take” for preset switches
- Each source, destination and switching level key for which there is a valid definition through the data key list is displayed with the ID name assigned to the signal or level during configuration inserted into the pushbuttong graphic

Figure 1-1 illustrates screen display of the various available soft panel types.

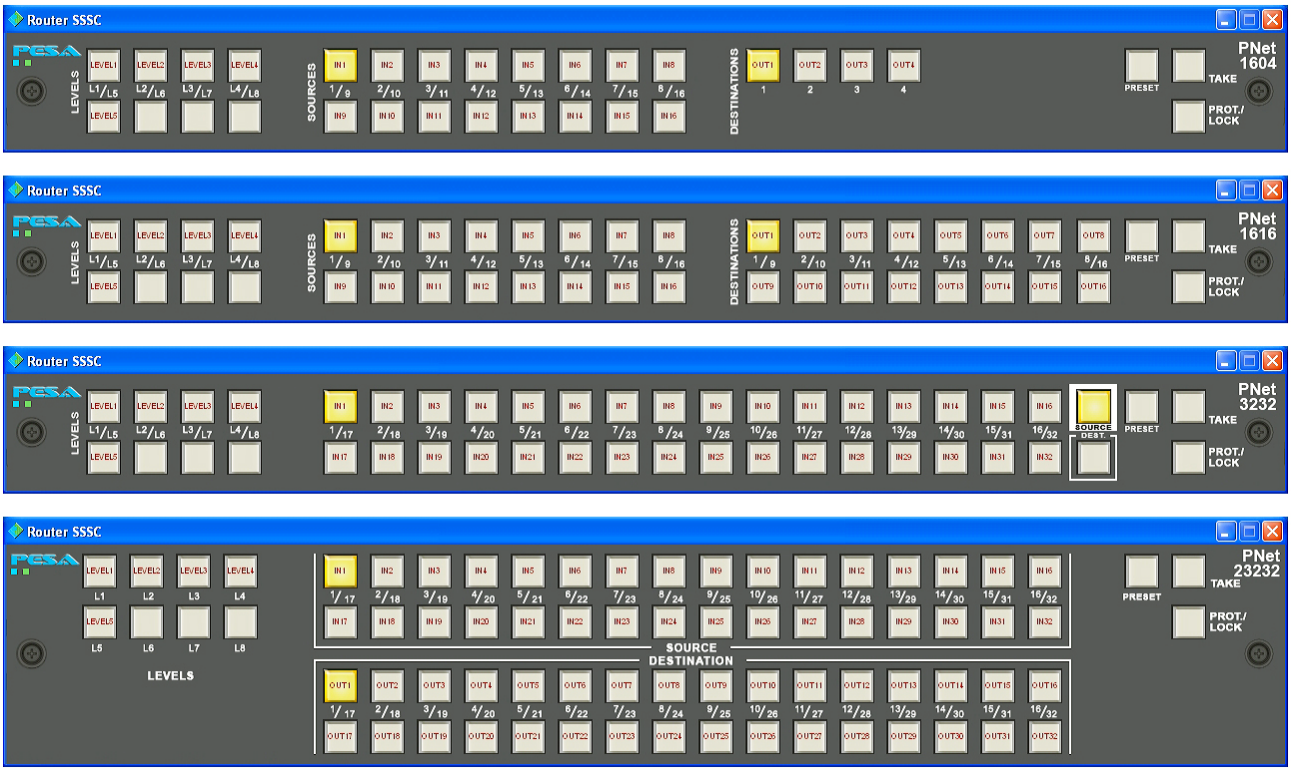


Figure 1-1 PNet Soft Panels – Display Examples

Chapter 2 Software Installation and Licensing

2.1 LICENSING PNET SOFT PANELS

Prior to creating or configuring PNet soft panels, you must install the ***Router Panel*** software application on every computer you intend to use as a host PC for a soft panel instance. You must also obtain and install a license key to the SSC system controller in the router by using menu screens of the Cattrax system control application. Once you have the panel license installed, you may create, configure and operate soft panels on as many host computers as you wish, and use any type of soft panel available through the software – up to the number of panels allowed by the license. Each active, on-line soft panel requires a license be available through the SSC. Licenses, however, do not follow a particular panel; but are dynamically issued only to active panels for the time the panel is on-line. If any panel should ever be taken off-line, another soft panel may use the available license vacated by the off-line panel.

2.2 30 DAY EVALUATION PERIOD

PESA offers a trial version of PNet soft panels that allows you to evaluate the application for a period of 30 days. All panel types are fully functional with the trial version, and you can load the application onto as many host computers as you wish. With the trial version, however, the system controller will only allow three simultaneous on-line panel connections. The trial version may be upgraded at any time during or after the trial period by obtaining a license activation key from PESA.

2.3 SYSTEM REQUIREMENTS

In order to use PNet soft panels with your router you **must** have the following:

- Cattrax V2.4.2 or higher installed on a host PC communicating with the SSC in the router.
- Small Scale System Controller installed in the router frame, running operating system V1.6 or higher.

In addition, it is **highly recommended** that you have:

- Internet access
- Valid e-mail address

However, if you do not have either of these items, there is a process for manually obtaining and entering license management, refer to Paragraph 2.XX.

2.4 DOWNLOAD AND INSTALL ROUTER PANEL APPLICATION

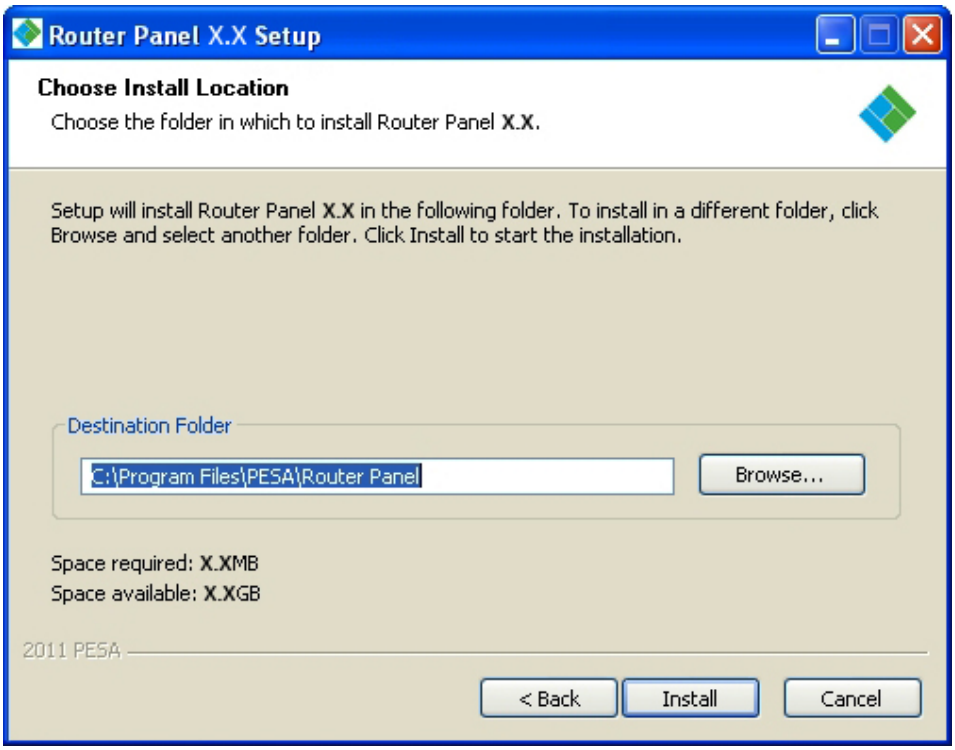
PNet Soft Panels are activated through PESA's Router Panel software application installed on a standard PC running the Microsoft Windows® XP, Vista or Windows 7 Operating System.

The application contains an auto-run file that guides you through the installation process. Examples of the pop-up screens you will see are shown below with the appropriate step. Notice the "X" used in place of actual values on each example screen presented here. During installation the release number of Router Panel software you are installing is displayed.

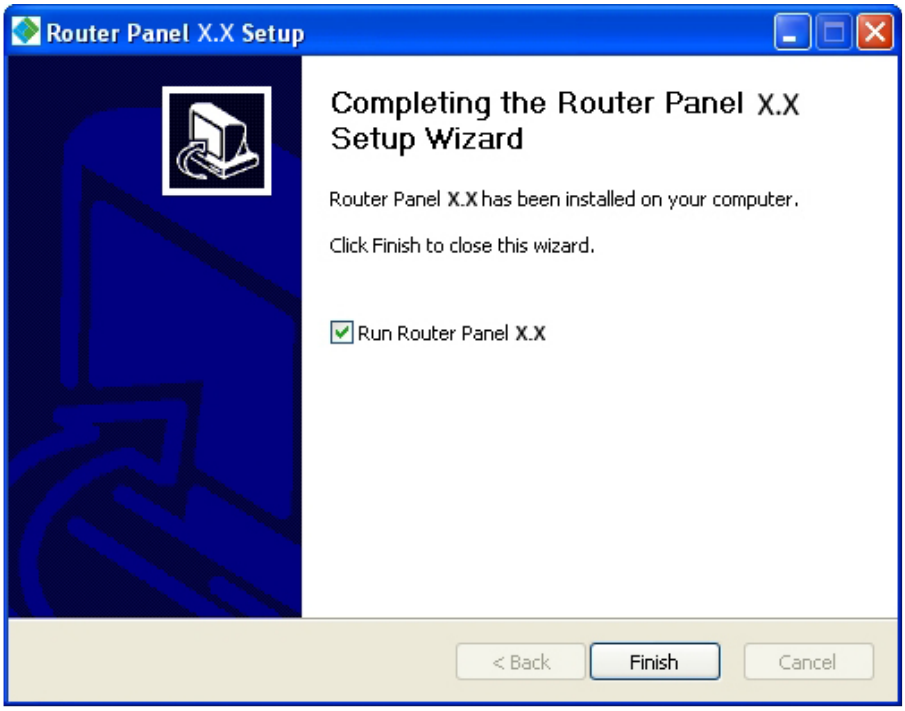
Install Router Panel application as follows:

- Download Router Panel software installation file from the PESA website to a convenient directory folder on the host PC. You may download the trial version or permanent version from the website.
- On completion of download, a zipped file is copied to the folder which contains a PDF file with soft panel license information and an auto-run executable file for Router Panel installation.
- If the auto-run function does not automatically launch, navigate to the directory of the disk drive containing the zipped file, unzip the file to a convenient directory and double click the **Router Panel-Setup.exe** file. The banner shown below should be displayed on the desktop. Click **Next** to begin installation.

- By default auto-install creates the folder shown below for the Router Panel application. If you wish to install the software in a directory or folder other than the default, click **Browse** and navigate to the destination. Click **Install** to continue installation.



- During installation, an indicator bar tracks progress of software load. Upon completion of installation, an "Installation Complete" prompt is displayed. An example completion screen is shown below.



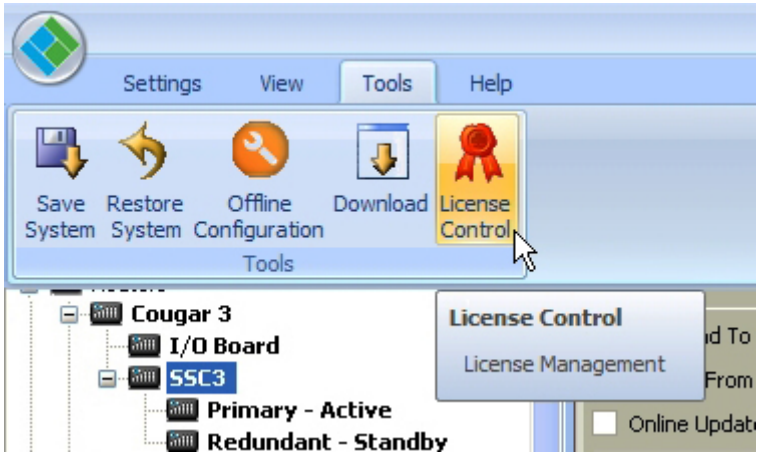
- Click **Finish** to exit the installation process. During installation a shortcut icon to access the soft panel configuration box is automatically placed on the desktop. If the box next to "Run Router Panel X.X" is checked, the application will start immediately.

2.5 LICENSE INSTALLATION AND ACTIVATION

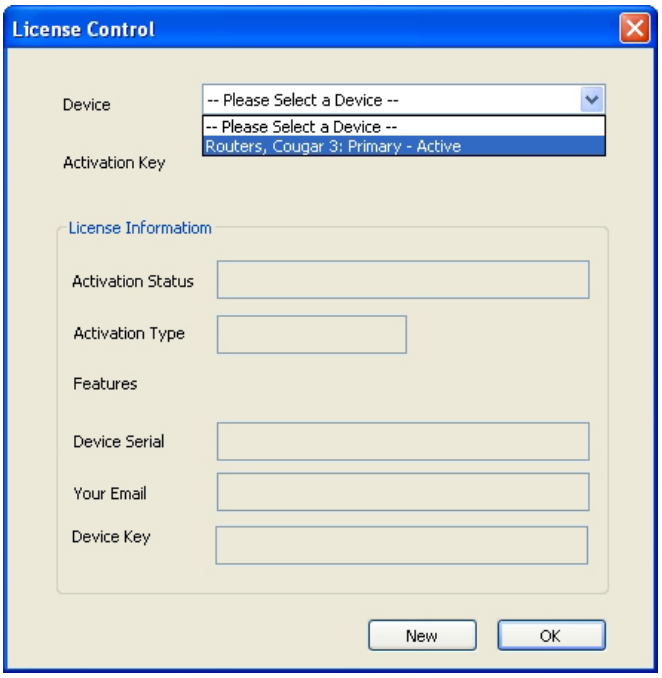
Soft panel licenses installed and activated through Cattrax license management process never expire, and you can create and configure as many soft panels on as many host computers as you wish. However, the number of simultaneous active, on-line panel connections permitted is determined by the license quantity provided by the management package installed to the system controller.

The following steps guide you through the process of obtaining and installing panel device license management:

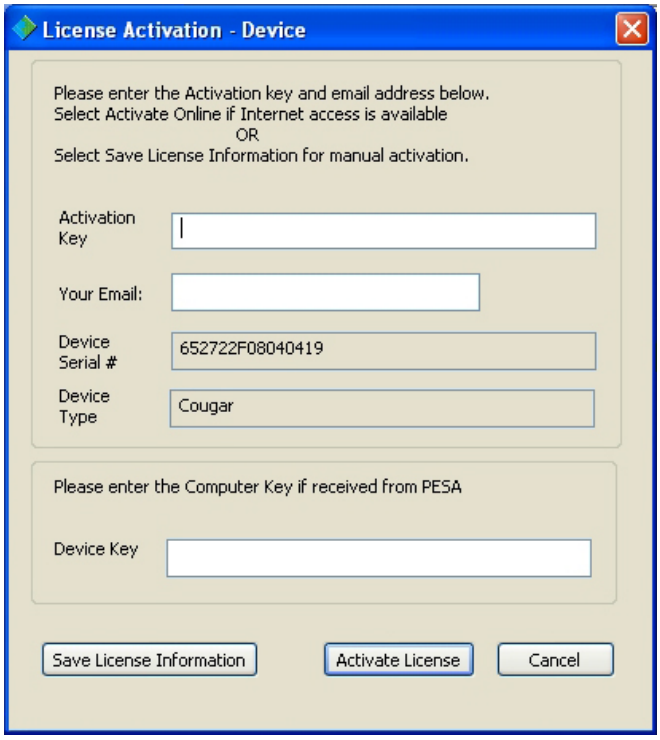
1. Decide the quantity of soft panels you need and purchase the desired PNET-SOFT license pack.
2. PESA will generate and e-mail you a Soft Panel License Management Activation Key. The activation key is a quite lengthy computer-generated character string. You may use the Windows® copy and paste function to copy the characters from the e-mail you receive to the key entry form in Cattrax.
3. Start the Cattrax router control program on a host computer actively communicating with the SSC controller in the router frame.
4. From the Cattrax home screen, click the Tools tab on the menu bar and then select the License Control icon in the Tools menu, as shown below.



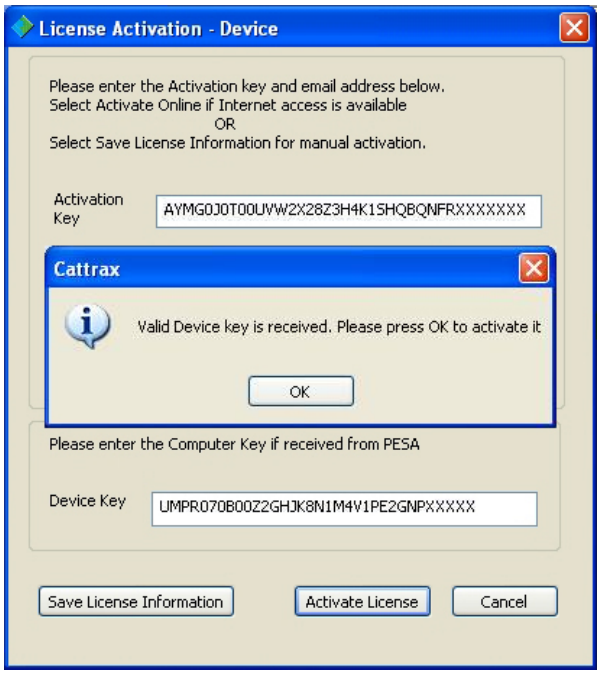
5. The License Control window opens and prompts you to select the SSC controller device on which you wish to install soft panel license management from the pull-down menu, as shown in the following example window.



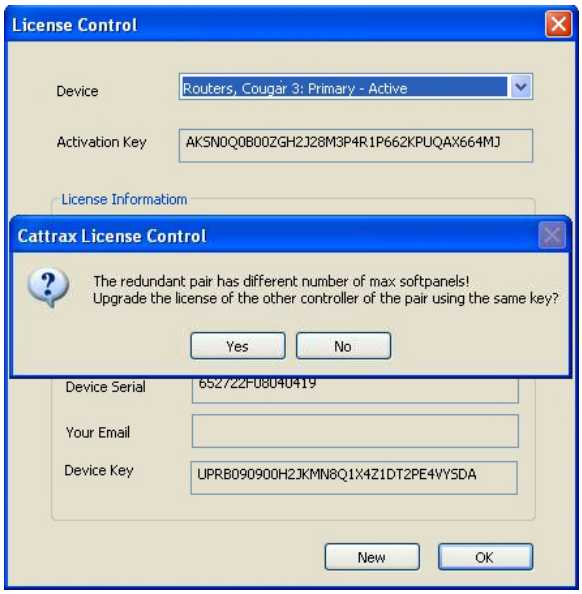
6. Click the New button and the License Activation – Device window opens as shown by the example window below.



7. Copy and paste, or enter, the Activation Key character string you received from PESA in the Activation Key box.
8. Enter a valid e-mail address in the Your Email box
9. The device serial number and type are read from the selected device and entered for you.
10. Click the Activate License button to send the activation request immediately to PESA.
11. If you have an active internet connection, PESA's license management server will process the request and return a Device Key character string. The character string is automatically entered in the Device Key box upon receipt and a dialog box alerts you that the key is received, as shown below.
12. Click the OK button to activate the device license.



13. If the router is equipped with a secondary system controller, a prompt box will alert you that the primary and secondary controllers have different licensing, and ask if you want to update the second controller to the same device key as the primary, as shown below. PESA allows you to install the device key on two controllers so that in a redundant system, the controllers are licensed the same. In most installations you will click Yes to update the secondary controller. If for some reason, you choose not to update the secondary controller, click No to close the prompt box and activate the new device key only on the primary controller.

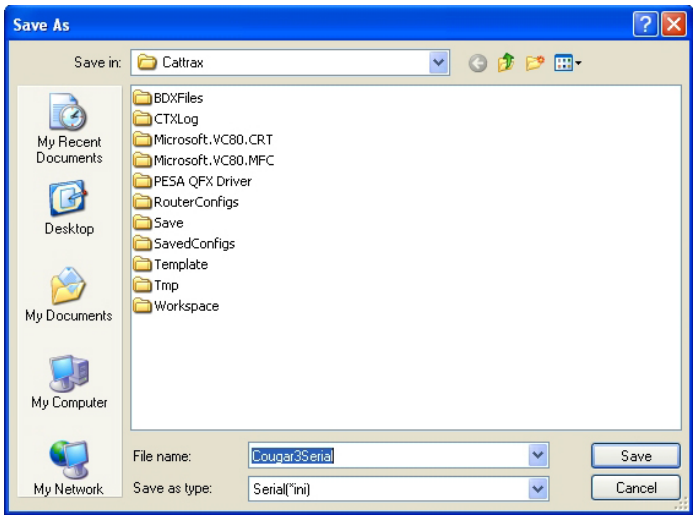


2.6 MANUAL LICENSE ACTIVATION

In the event that internet access to PESA's license server is not immediately available on the panel host PC, you may complete the licensing process through Email communication with PESA.

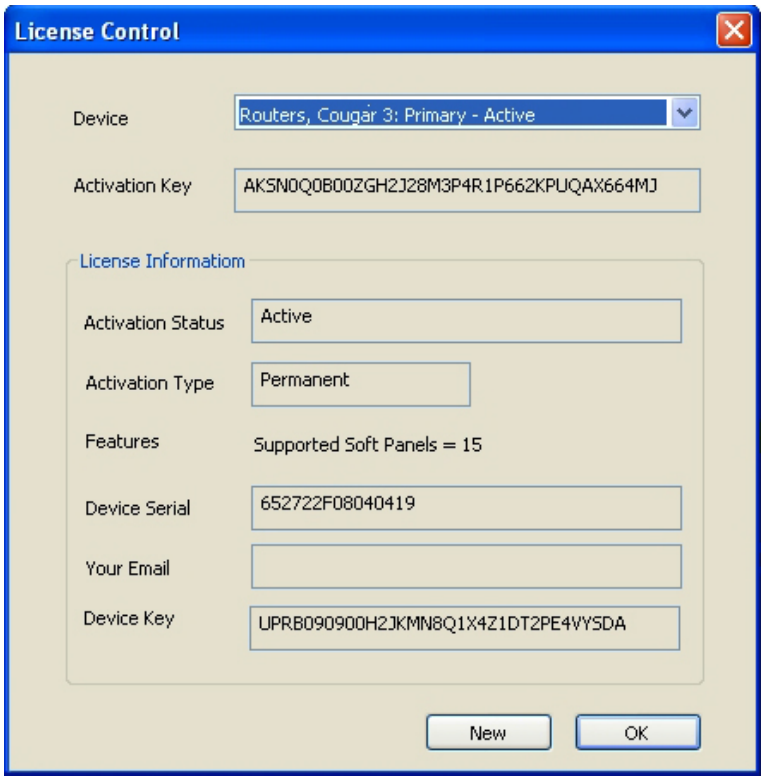
The following steps guide you through the process of manually obtaining and installing panel device license management:

1. Follow Steps 1 – 9 in Paragraph 2.5, above.
2. Click the Save License Information button to create and save a data file used for manual license activation.
3. A Save As dialog box, as shown below, displays with the folder, file name and file type filled in. Click the Save button to write the file to the Cattrax folder.



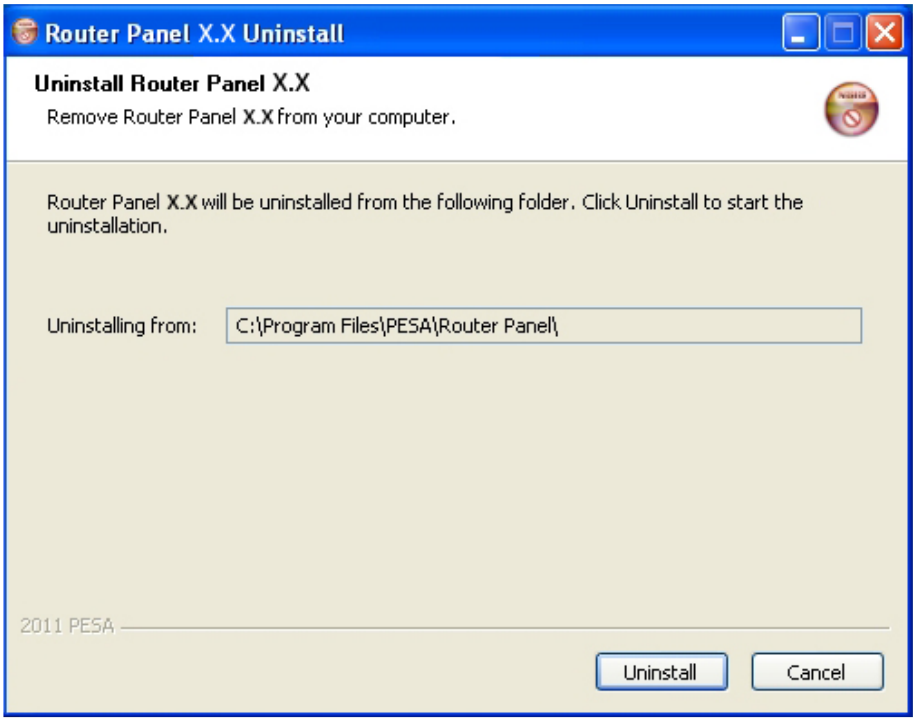
4. Open your Email program and attach the file you just created in the Cattrax folder to the Email and send it to license@pesa.com. This file contains all the system information and activation key needed to issue a device key.
5. A device key will be created and sent to you by Email.
6. Follow Steps 3 – 6 of Paragraph 2.5, above to open the License Activation – Device window.
7. Copy and paste, or enter, the Device Key character string sent to you by Email in the Device Key data entry box at the bottom of the dialog window.
8. Follow Steps 12 and 13 of Paragraph 2.5, above to complete activation of device licensing.

If you ever wish to review the status and key numbers of a license installation, use the License Control icon in the Tools menu to open the License Control window as shown below.



2.7 REMOVING ROUTER PANEL INSTALLATION

Should it ever be necessary to remove the Router Panel software application from a panel host PC, an uninstall command is available through the Start menu of the Windows® operating system. A prompt window as shown below is displayed on the desktop. Click **Uninstall** to complete the command.



- If you have soft panels created and configured, the following prompt appears and gives you the option of uninstalling the configuration application, but retaining the configured panels so that you do not have to re-configure panels when updating or re-installing the panel software. If you wish to remove all instances of created soft panels from the computer, click the **Yes** button.

Chapter 3 PNet Soft Panel Configuration

3.1 CONFIGURATION REQUIREMENTS

In order for a PNet soft panel to be functional, the host computer running the Router Panel application must have established Ethernet communication with the SSC controller in the video router frame, and panel operating parameters must be configured through Cattrax into the system controller configuration file. There are several operating parameters we must define for each soft panel as part of creating the configuration file, including associating a data key list with each soft panel instance. Through the creation of data key lists, we assign specific switching levels, source groups and destination groups to specific pushbuttons on the PNet panel. Also during control panel configuration a Status Level and Default Destination must be specified for each panel. With panel configuration data entered, the configuration file with panel operating parameters must be downloaded and become the active configuration file used by the system controller in order for the panel to be functional.

Adding a PNet soft panel to a router system requires the following procedures be completed:

- Install PNet Router Panel software application on a host PC, see Chapter 2 of this guide.
- Ensure there is functional Ethernet communication between the host PC and the SSC device with which you wish to use the soft panel.
- Determine the panel type, or types, you wish to operate on the host PC from the choices available through the software application.
- Through operator screens of Cattrax, create a system controller configuration file with the PNet soft panel operating parameters added, refer to Paragraph 3.2. An individual panel configuration entry is required for *each* soft panel instance. The newly created controller configuration file must be downloaded and running as the active controller configuration ***BEFORE*** you can set-up panel instances on the host PC.
- Launch Router Panel application on host PC, set-up and activate soft panel instance, refer to Chapter 4 of this guide.

3.2 PANEL CONFIGURATION THROUGH CATTRAX

Before you can activate a soft panel on a host computer, you must first add the panel to the controller configuration file through menu screens of Cattrax. Adding and configuring a PNet soft panel is very similar to configuring a hardware panel, and it is assumed that you are familiar with the steps and procedures required to add a hard panel to the SSC controller configuration file. If you are not already familiar with these procedures, a brief discussion of PESA's control system and the requirements for creating data key lists and configuring hardware PNet panels is contained in Chapter 4 of the User Guide for your router. Please review this information before proceeding with soft panel configuration.

Be sure that the configuration file to which you wish to add the soft panels is loaded into Cattrax, either by uploading the currently active file from the system controller, or retrieving a saved file from a storage device.

3.3 PANELS CONFIGURATION SCREEN

The Panels Configuration Screen, Figure 3-1, allows you to add PNet control panels to the system, program the functionality of each panel, and review the configuration of existing panels. Clicking on the Panels parent entry in the SSC Configuration menu brings up the panels configuration screen.

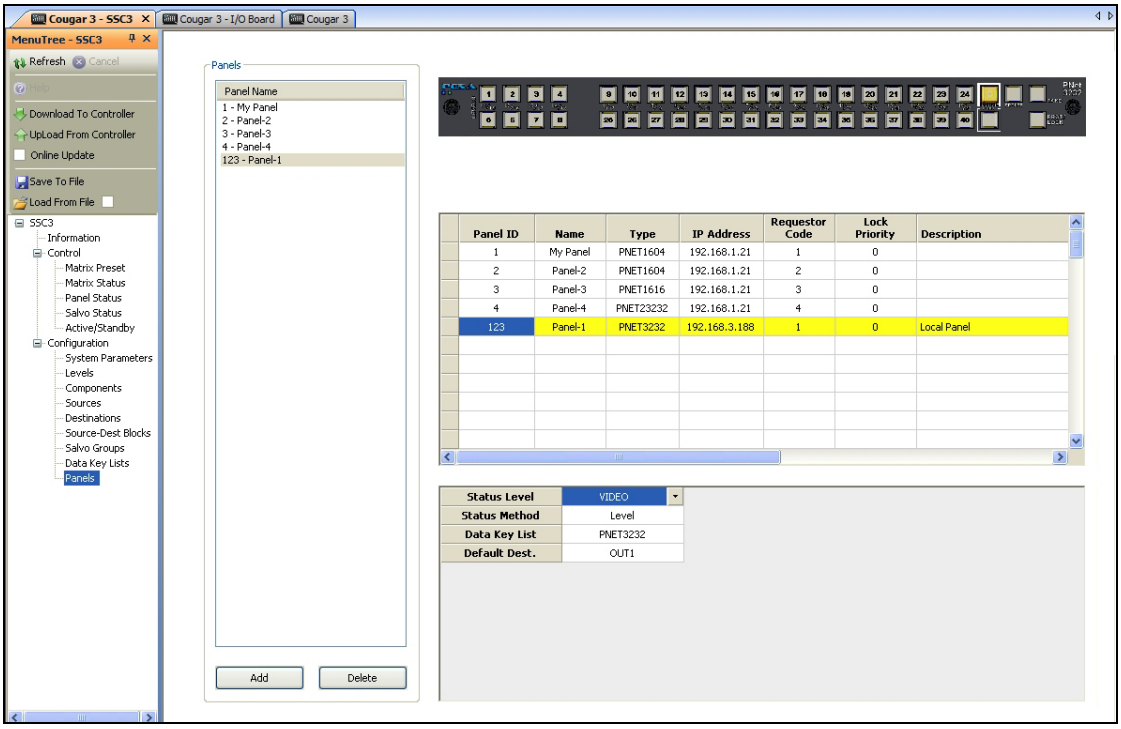


Figure 3-1 Panels Configuration Screen

- **Adding a Control Panel** –To add a PNet soft panel, click the Add button at the bottom of the Panel Name list box. A place-holder name is added to the list name box; however, it may be changed through the configuration set-up entries. Choosing the Add function also creates a data entry row in the panel configuration box for you to enter set-up data for the new panel.
- **Defining a PNet Soft Panel -** In the middle of this screen you will see a spreadsheet format table, Figure 3-2, with an entry for each PNet panel in the system. Anytime a panel entry in the listing window is highlighted, a graphic image of that panel type is displayed at the top of the configuration screen. If you are adding a new panel to the listing, the graphic image of the panel is displayed once the panel type parameter is selected. Displaying a graphic image allows you to verify the panel type as well as provide a visual cue of the features and functions of the specific panel.

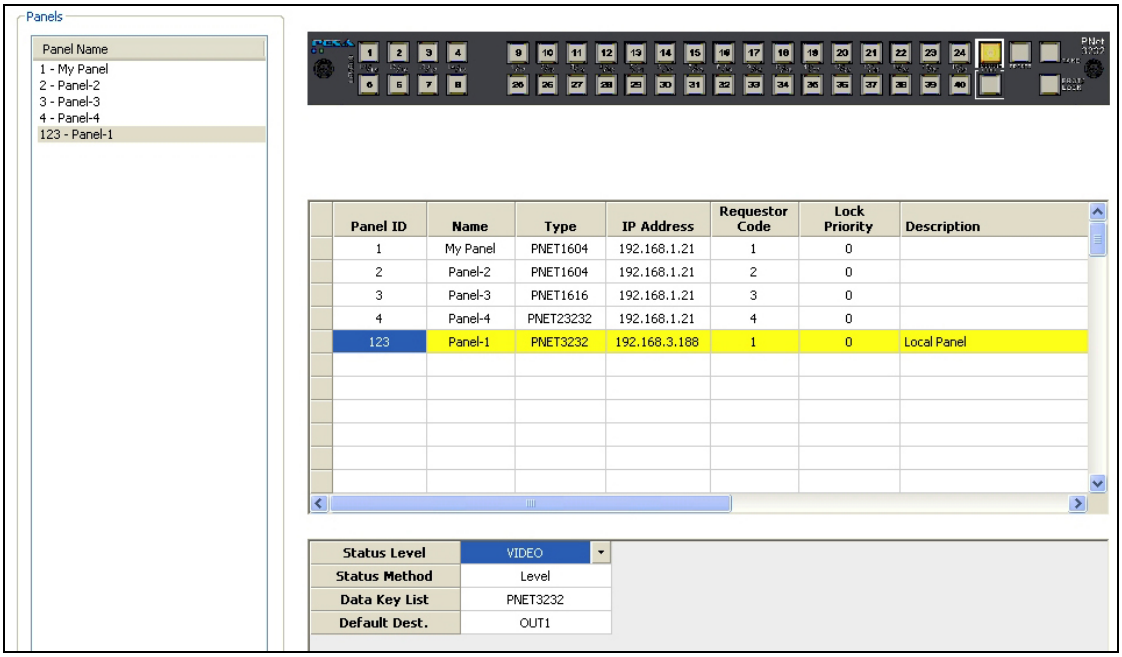


Figure 3-2 Adding a Panel Configuration

- **Enter Panel Configuration Data**
  - **Panel ID** – With PNet soft panels, the Panel ID number creates a unique configuration entry and identifier for the panel; it is not a hardware ID number as with PNet hardware panels, and may be changed to any unused value you wish. Many users create a unique block of numbers that identify the panels in the group as being soft panels. While the soft panel ID entry does not identify a specific piece of hardware, each individual soft panel you configure must have a unique Panel ID entry.
  - **Name** – This entry allows you to assign a name to each panel. If you are adding a new panel, the place-holder name entered by Cattrax will initially appear in this column. You may change the name to a more descriptive panel name if you wish. A panel name may consist of a mix of alphanumeric characters. This is the text string displayed in other configuration and status screens to identify the panel.
  - **Type** – This column allows you to select the soft panel type you will activate on the host PC using a pull-down menu of all available soft panel types. Click in the Type cell and open the pull-down menu. Select the panel type you are configuring and click the entry. The type number appears in the cell and a graphic image of the panel is displayed on the configuration screen.
  - **IP Address** – Each host computer running Router Panel software must be assigned a unique and valid IP address that is compatible with the facility network or closed Ethernet loop. In most cases, IP addresses are issued by the facility network administrator. Enter the IP address of the host PC running the panel you are configuring in this column. Note that if for some reason you are activating instances of different soft panel types on the same computer, you will enter the same IP address for each panel configured on that PC.

- **Destination Protect and Lock Functions**

  These functions are configured and operate identically to hardware PNet panels.

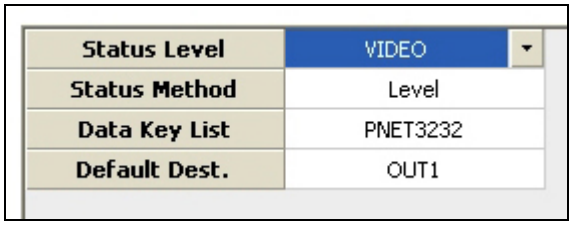
- **Requestor Code and Lock Priority Values**

  These functions are configured and operate identically to hardware PNet panels.

- **Description** –The Description column is a free text field where you can enter a description of the panel and its function or any other data you wish to enter concerning this panel.

- **Enter Panel Parameters**

  - Enter specific operational parameters for the soft panel in the small box located in the lower portion of the window, as shown in the illustration below. Each cell in this table uses a pull-down menu to display the options available. In order to enter or change any selection in the configuration, click in the cell containing the parameter you want to change and click on the pull-down arrow. From the pull-down menu, click on the selection you want to enter for the panel configuration. This table contains the following entries:



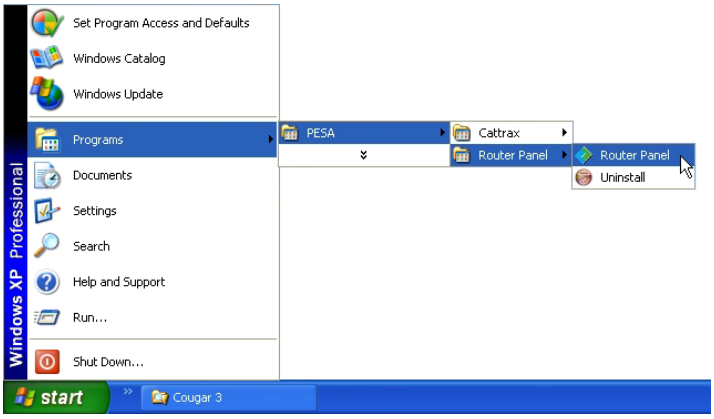
    - **Status Level** – Status Level is the default switching level displayed or controlled by the panel. To assign or edit the Status Level click in the cell and change the level selection from the pull-down menu.
    - **Status Method** – The pull-down menu in this cell should always be set to *Level* in the Cougar3 system application.
    - **Data Key List** – This entry determines the function of the configurable panel keys by assigning a Data Key List to the panel. The desired data key list is chosen from the pull-down menu associated with the cell. Only data key lists which are valid for the panel type are included in the pull-down menu. There is no difference between data key lists for hardware panels and soft panels, and any valid data key list for a panel type may be assigned to either the soft panel or hardware panel.
    - **Default Destination** – This entry assigns the default destination to the panel. In operation, the default destination determines which destination is displayed and controlled when the soft panel is first activated.

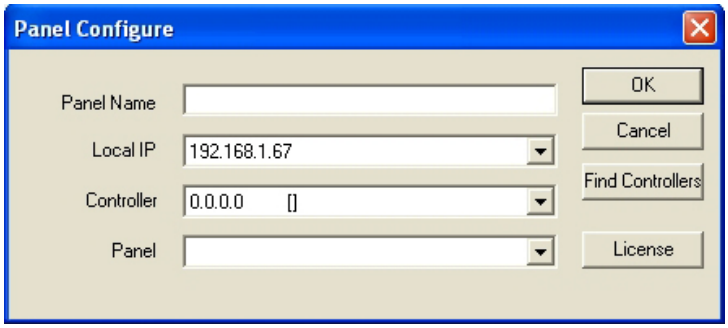
When you have completed adding and configuring soft panels to the controller configuration file, be sure that you download the modified configuration to the controller, and, if desired, save the file to an external storage device. You will not be able to activate soft panels on the host PC until the modified configuration file is running on the system controller.

Chapter 4 Operation

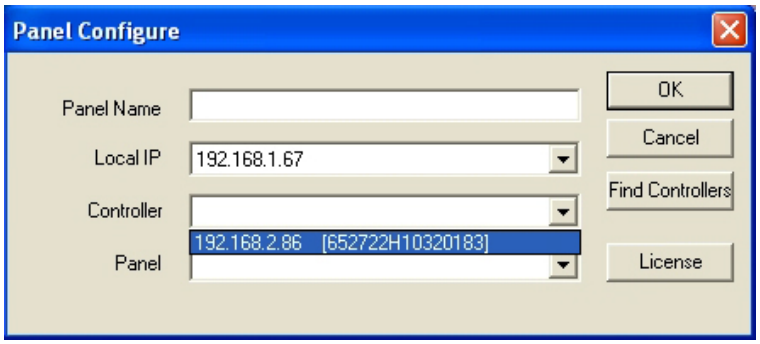
4.1 ACTIVATE PNET SOFT PANEL

Launch the Router Panel application on the host PC. During installation of the software, a Router Panel icon is placed on the PC desktop. You may start the application by clicking on the desktop icon, or through Windows Start menus, as shown below. When the application starts, the Panel Configure window, as shown in the example, is opened. The following steps guide you through the process of activating a PNet soft panel on the host computer. Remember, you must have already added the soft panel(s) you intend to activate to the controller configuration and downloaded the modified file to the system controller.

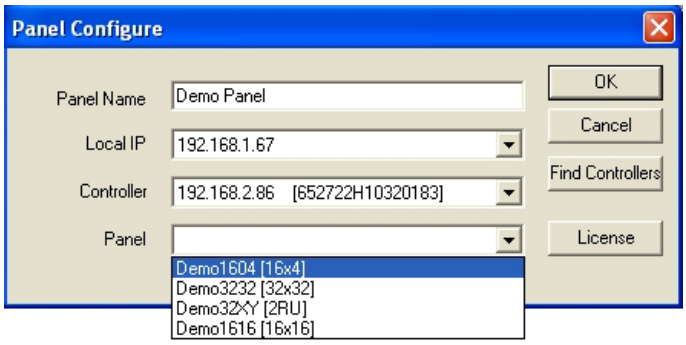




- Enter a Panel Name for the soft panel you are activating. This label is local to the host PC and is displayed in the panel icon on the PC desktop. Entering a panel name is required to activate a panel.
- The IP address of the host PC is displayed in the Local IP box. In most cases, there will only be one entry available in this box; if there is more than one IP associated with the host computer, you may use the pull down list to select the address used for Ethernet communication with the system controller. The IP address displayed in this box **MUST** match the IP address you entered when configuring the soft panels in Cattrax.



- Click the Find Controllers button to initiate a search for all compatible SSC controllers in the network. Upon completion of search, controllers discovered are listed in the pull down list by IP address. In most cases, there will only be one entry available in this box.
- Select the system controller to which you want to add the soft panel from the pull down list.
- Router Panel emulates four types of PNet panel, any, or all, of which may be active on the host PC. You may have only configured a single panel type to run on the host PC, or you may have created a configuration entry for all available panel types and select a different active panel as your requirements change.
- Open the pull down list in the Panel box. The listing identifies by name and panel type all PNet soft panels configured through Cattrax for the host PC. The name displayed in this listing is the panel name assigned through Cattrax and may be different than the Panel Name entered above for the desktop icon. Note that the only soft panels that appear in the pull-down list are the ones you have configured for the IP address of the host PC on which you are working.



- Select the panel type you wish to activate from the pull down list and click the OK button.
- The Panel Configure box closes and the panel emulation graphic opens with panel lights indicating current status of the default destination for the status switching level that you entered for the panel during configuration.
- The soft panel is now fully functional with every feature of the equivalent hardware PNet panel.

4.2 PNET SWITCHING METHODS

ALL LEVELS SWITCH

All-Levels or **Audio-Follow-Video (AFV)** is the default switching method for the PNet soft panel upon initialization, and is the active switching method when *none* of the ***LEVELS*** pushbuttons are lit. When an AFV switch is performed, signals on all switching levels defined for the source are switched simultaneously to all switching levels defined for the destination.

BREAKAWAY SWITCH

A **Breakaway** switch allows you to selectively choose specific sources for each switching level defined for the destination.

4.3 PNET SWITCHING MODES

HOT-TAKE SWITCHING MODE

Hot-Take is the initialization default mode for the soft panel, and is the active mode of the panel when the ***PRESET*** button is **not** illuminated. When Hot-Take is active, anytime you click a ***SOURCES*** button, the input signals on the selected switching levels for that source are routed immediately to the currently selected destination outputs. If no switching level buttons are lit (all-levels mode), source signals from all switching levels defined for the source group are routed to the destination group outputs.

PRESET SWITCHING MODE

Preset mode allows you to pre-define sources for an all-levels or breakaway switch on the selected destination, but not initiate the switch until you click the ***TAKE*** button. Preset is the active switching mode of the panel when the ***PRESET*** button is illuminated. When Preset mode is active, use the ***SOURCES*** buttons and ***LEVELS*** buttons to define sources you wish to route to the selected destination when the preset switch is initiated.

4.4 CONTROL PANEL CONFIGURATION

In order for a PNet soft panel to be functional, it must have Ethernet communication with the SSC3 device in the video router frame and it must be configured through Cattrax into the system controller configuration file. There are several operating parameters we must define for each system control panel as part of creating the configuration file. In addition to defining source and destination groups, we also assign specific switching levels, source groups and destination groups to specific pushbuttons on the PNet control panel through the creation of data key lists.

During control panel configuration a Status Level and Default Destination must be specified for each panel:

- **Status Level** – allows you to specify the switching level that the panel initially statuses by default when a destination is selected, and no specific level has been selected through the ***levels*** keys. This is also the switching level that the panel uses as the reference level when indicating breakaway routing conditions.

- **Default Destination** – defines the router destination for which the panel displays status when initialized or following a reset.

With panel configuration data entered, the configuration file with panel operating parameters must be downloaded and become the active configuration file used by the system controller in order for the panel to be functional.

4.5 PNET PANEL - KEY FUNCTIONS

PNet soft panels, with the exception of the P3232 panel emulation, follow a pushbutton key layout similar to Figure 4-1; Figure 4-2 illustrates layout of the P3232 panel. The function of each key is presented below.

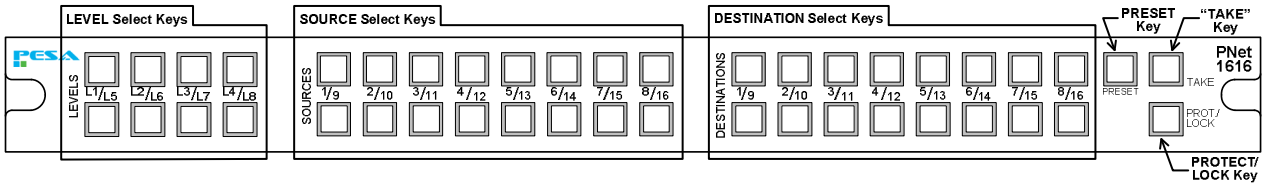


Figure 4-1 PNet Control Panel Layout (Except P3232 Panel)

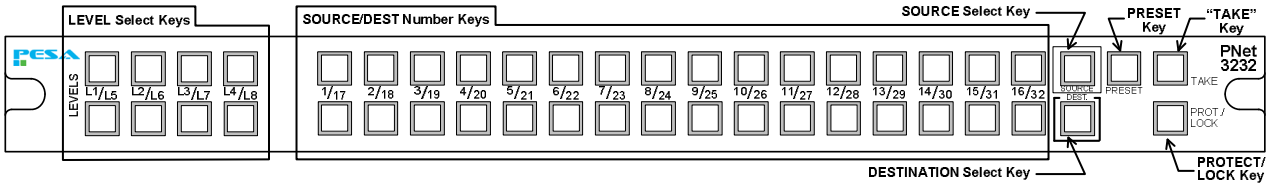


Figure 4-2 PNet 3232 Control Panel Layout

- **Level Keys** - On all PNet panels there are 8 ***Level*** keys that allow you to select the switching level on which you wish to perform a breakaway switch, or display current status of the selected level for a specific destination.
- **SOURCE Select Keys (All panels except P3232)** – Select source group routed to currently selected destination. Illuminated source button indicates selected source group.
- **DESTINATION Select Keys (All panels except P3232)** – Select destination group to which you wish to route a source. Illuminated button indicates currently selected destination group.
- **SOURCE Select Key (P3232 panel only)** – Clicking the ***Source Select*** key places the ***SOURCE/DEST Number*** keys in source select and status mode. When the Source Select key is illuminated, clicking any number key selects the source group routed to currently selected destination.
- **DESTINATION Select Key (P3232 panel only)** - Clicking the ***Destination Select*** key places the ***SOURCE/DEST Number*** keys in destination select and status mode. When the Destination Select key is lit, clicking any number key selects the destination group to which you wish to route a source.

  You may click the ***Dest*** key at any time to display the currently selected destination.

- **SOURCE/DEST Number Keys (P3232 panel only)** – Selects the source or destination, depending on which of the Select Keys is lit.
- **Preset and Take Keys** – The ***Preset*** key allows you to pre-define an all-levels or breakaway switch and manually initiate the switch by clicking the ***Take*** key. If a source selection on one or more switching levels is changed as a "preset" function, when the "Take" key is clicked, those selected levels will be changed to the new source selected in the preset.
- **Protect/Lock Key** – Selects and indicates lock status of currently selected destination. If the key is not illuminated, the destination is available for switching. A momentary key click places the active destination in "Protect" mode, whereby the protected destination can still be switched by the panel which originally placed the destination in "Protect" mode, but is "Locked" to all other panels and Users. When the Protect/Lock key is unlit, clicking and holding the key for approx. 2 seconds causes the active destination to enter "Lock" mode (Lock/Protect Key Blinking). If the Protect/Lock key is blinking, the selected destination is "Locked" for all users and can not be switched to a different source by any panel or other user without first unlocking the selected destination. Clicking the Lock key causes the lock state to toggle for the active destination.

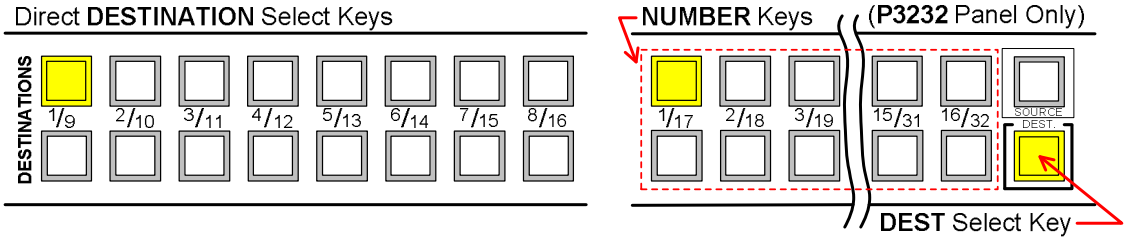
4.6 STATUS AND TALLY FUNCTIONS

Source, destination and level pushbutton keys displayed on the soft panel graphic image are labeled with nomenclature data entered during router configuration. Source and Destination keys display the character string entered in the Panel ID column of the configuration screen, and level keys are labeled with the string entered in the Nickname box on the configuration screen. If a pushbutton key does not contain a label, the key is not defined through the active data key list and is currently non-functional on the soft panel.

Illuminated pushbuttons on the panel display graphic provide a visual indication of the status and operating mode of the channel or panel. Visual status and tally functions are discussed in the following paragraphs:

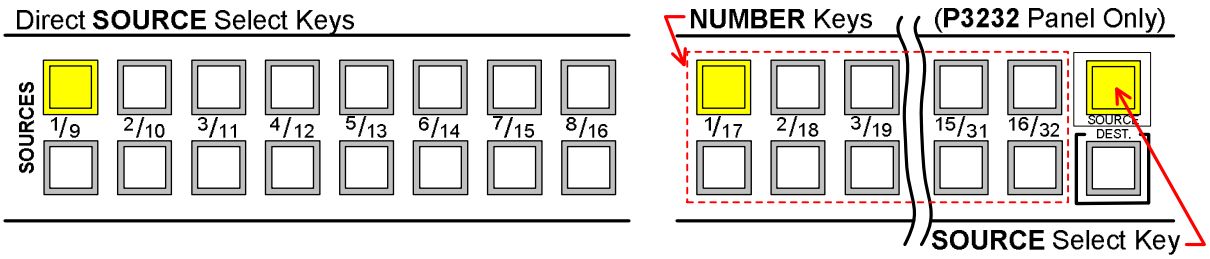
DESTINATION STATUS

Indicates the currently selected destination group either as a direct readout on the ***Destination*** keys, or on the ***number*** keys when the ***Dest.*** Pushbutton is selected (P3232 Only).



SOURCE STATUS

Indicates the currently selected source group routed to the selected destination group, either as a direct readout on the ***Source*** keys, or on the ***number*** keys when the ***Source*** Pushbutton is selected (P3232 Only).

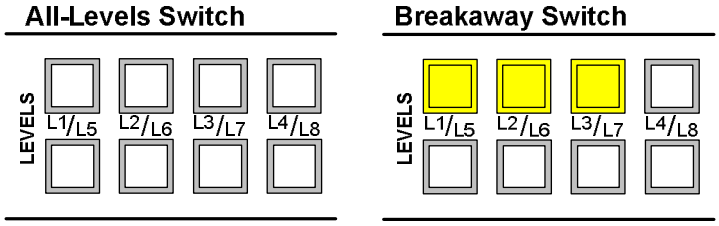


- **Steady Lit Source Button -** Indicates the source group definition is applied to all switching levels.
- **Blinking Source Button** – If none of the ***Level*** pushbuttons are illuminated, a blinking source button identifies the source group currently selected on the switching level defined as *status level* for the panel, and indicates the switching levels are in a breakaway condition – meaning the source selected on one or more of the switching levels is different than the displayed source.

  Selecting any of the ***level*** buttons displays the source currently selected for that switching level - see Switching Levels Status, below.
- **Sources Buttons 1 and 2 Blinking Simultaneously** – This condition indicates Ethernet communication between the host PC and the system controller has been lost.

SWITCHING LEVELS STATUS

Switching ***LEVEL*** buttons select the levels for breakaway switching and level status display with the panel operating in either Hot-Take or Preset modes. Each button is a push-on/push-off toggle function, and is illuminated when the level is selected.



- **No Levels Selected** – Indicates panel is operating in All-Levels Switch mode, and any ***Source*** button you click will select that source on all switching levels of the source group.

  For status tally, when no levels buttons are lit, the illuminated Source button indicates source group currently selected on switching level defined as *status level* for the panel.

- **One or More Levels Selected** – Indicates panel is operating in Breakaway Switch mode, and selects switching levels for the breakaway switch. Any Source button you click selects that source on selected switching levels of the source group.

  Clicking any one of the ***level*** buttons selects that switching level for status display and the corresponding illuminated ***Source*** button indicates the currently selected source for the switching level.

  If multiple ***Levels*** buttons are selected (lit), the illuminated ***Source*** button ALWAYS displays status of the *numerically lowest* (with 1 being lowest and 8 being highest) selected switching level. A blinking ***Source*** button indicates the switching levels are in a breakaway condition – meaning the source selected on one or more of the selected switching levels is different than that of the currently displayed level.

  Remember, when no levels buttons are lit, the illuminated ***Source*** button always indicates source group currently selected on the switching level defined as *status level* for the panel.

4.7 PNET SOFT PANEL OPERATION

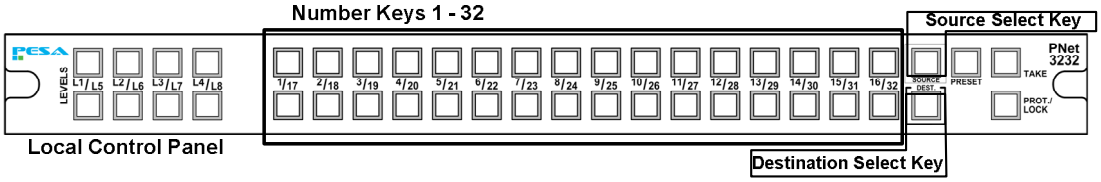
A PNet soft panel instance may be operated through mouse clicks on the graphical pushbutton keys, or by using a touch-screen monitor. Procedures in this paragraph discuss operation of the P3232 panel. With the exception of the Source and Destination select keys, these procedures may be applied to any PNet panel.

PESA routers are destination oriented, meaning that switches are made by first selecting the destination group and then selecting the signal channels, through source groups, that you wish to route to the destination outputs. Default operation for a PNet soft panel on initialization or reset is All Levels and Hot Take.

PERFORMING A HOT-TAKE, ALL-LEVELS SWITCH

To perform an all-levels switch, verify that none of the levels keys are illuminated; if any are lit, the panel is operating in breakaway mode. Click any illuminated ***levels*** keys to toggle the breakaway function off. AFV mode is active when **no** levels keys are lit.

To make switches on all switching levels of a selected input source to a selected output destination, in audio-follow-video (AFV) mode, use the control panel diagram below as a quick reference guide and perform the following steps:



- **Select Desired Output Destination:**

  Click the ***DESTINATION*** Select Key on the panel graphic, the button will light.

  Click the number key (1 – 32) corresponding to the **Destination** (destination group) you want to select. When you select a destination, output ports defined through the destination group assigned to the destination number key are selected; both the DEST key and the selected number key should be lit.

- **Select Desired Input Source for Selected Destination:**

  Click the ***SOURCE*** Select Key on the panel graphic, the source button will light and the number key corresponding to the source selected for the status level of the panel, and *currently* routed to the destination you selected in the previous step will also light. If the button is blinking, this indicates the switching levels are currently in a breakaway condition and one or more of the levels is switched to a source that is different from the source assigned to the status level of the panel.

  Click the ***number*** key (1 – 32) corresponding to the **Source** (source group) you want to route to the destination selected in the previous step.

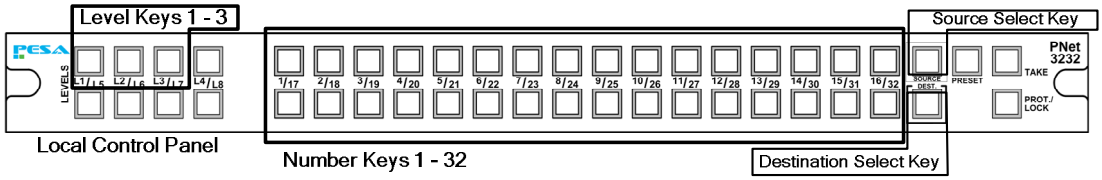
  When you select a source key, input signals defined through the source group assigned to the source number key through router configuration are selected as the individual sources routed to the destination output ports on all switching levels defined for the source group. When a source is selected, the pushbutton lights and the switch immediately occurs.

  When you are switching in AFV mode, ***Levels*** buttons will **not** be lit.

HOT-TAKE, BREAKAWAY SWITCHING

A breakaway switch allows you to switch source signals defined for one or more specific switching levels of a selected source group to the output channels defined for the corresponding switching levels of a selected destination group.

To perform a breakaway switch, use the control panel diagram below as a quick reference guide and follow the steps below:



- **Select Desired Output Destination:**

  Click the ***DESTINATION*** Select Key on the panel graphic, the button will light.

  Click the number key (1 – 32) corresponding to the **Destination** (destination group) to which you want to route sources you specify in the breakaway selection. When you select a destination, output ports defined through the destination group assigned to the destination number key are selected; both the DEST key and the selected number key should be lit.

- **Select Desired Input Source for Selected Destination:**

  Click the ***SOURCE*** Select Key on the panel graphic, the source button will light and the number key corresponding to the source selected for the status level of the panel, and *currently* routed to the destination you selected in the previous step will also light. If the button is blinking, this indicates the switching levels are currently in a breakaway condition and one or more of the levels is switched to a source that is different from the source assigned to the status level of the panel.

  Click the ***Level*** key(s) corresponding to the switching level(s) for which you wish to select source signal(s) to route to the destination output switching levels. You may select any number of switching levels for the breakaway switch. The level button(s) light, and the illuminated number key displays *current* status of switching levels - depending on which level buttons are selected. Refer to Paragraph 4-6 for information on reading the status display.

  Click the number key (1 – 32) corresponding to the **Source** (source group) you want for the breakaway switch on the selected switching level(s) to the destination selected in the previous step.

  When you select a source key, input signals defined through the source group assigned to the source number key are routed to destination outputs on only the switching levels defined for the breakaway switch. When a source is selected, the pushbutton lights and the switch immediately occurs.

PERFORMING A PRESET SWITCH

Preset switching mode is active when the ***PRESET*** button is illuminated – and remains the active mode of the panel until the button is clicked again to cancel. Preset may be used for All-Levels or Breakaway switches and allows you to pre-define a switch operation and execute the switch, when needed, by clicking the TAKE button. Follow steps below to perform a breakaway switch:

- **Select Desired Output Destination:**

  Click the ***DESTINATION*** select key on the panel graphic, the button will light.

  Click the number key (1 – 32) corresponding to the **destination group** for which you wish to configure a preset switch, for example OUT1 corresponds to key 1; now both the DEST key and the selected number key should be lit.

- **Place Panel in PRESET Switching Mode:**

  Click the ***PRESET*** pushbutton on the panel graphic, the key illuminates and the number key select function (Dest./Source) changes to Source. The Source Select button lights and the number key corresponding to the source *currently* routed to the destination you selected in the previous step also lights.

- **Define Sources for PRESET Switch:**

  Following the same procedures used to select sources for an All-Levels or Breakaway switch, use the ***number*** keys and ***level*** keys to define sources you wish to route to the selected destination when the preset switch is initiated.

  With Preset mode active, the switch does not occur as keys are clicked; however, the panel status tally display changes to indicate pre-defined source for the preset switch.

- **Initiate PRESET Switch:**

  Click the ***TAKE*** pushbutton on the panel to immediately perform the preset switch.

  Preset remains the active operating mode of the panel until cancelled by the user.

  When a preset switch is completed, and Preset is still the active mode of the panel, the channel status **prior to the switch** is stored as the next preset definition and displayed as preset status by the illuminated number key.

  In essence, the preset mode may be used as a toggle function, allowing you to return to the previous status of the channel, until a new preset switch is defined, or preset mode is cancelled.

  Remember, when preset mode is active and you have entered a pre-set source definition, the illuminated panel number key displays status of the preset source, **NOT** the currently active source; and will continue to display the preset source until preset mode is cancelled.

- **Cancel PRESET Switching Mode:**

  When active, click the ***PRESET*** pushbutton on the panel to cancel the mode and return the panel to Hot-Take mode. The illuminated number key displays the source *currently* routed to the selected destination.

4.8 APPLYING DESTINATION PROTECT OR LOCK

Applying protection to a destination prevents another user or an accidental key click from switching the current source selection. The ***Protect/Lock*** key is used to apply destination protection, and it also provides a visual status of the current protection status of the selected destination. If the Protect/Lock button is **not** illuminated, there is currently no active destination protection and the source selected for the destination may be switched by any panel in the system allowed access to the destination.

There are two protection methods available, each is introduced below:

- **Destination PROTECT** – A momentary click of the Protect/Lock button places the currently selected destination in “Protect” mode, whereby the protected destination can still be switched by the panel which originally placed the destination in “Protect” mode, but is “Locked” to all other panels and users. When the destination is in Protect mode, the Protect/Lock button is steadily illuminated. Clicking the Protect/Lock key toggles the protect mode of the selected destination.
- **Destination LOCK** – Clicking and holding the Protect/Lock button for approx. 2 seconds places the currently selected destination in “Lock” mode (Lock/Protect Key Blinking). In Lock mode the selected destination is “Locked” for all users and can not be switched to a different source by any panel or other user without first unlocking the selected destination. Clicking the Protect/Lock key toggles the protect mode of the selected destination.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