PanelView 800 HMI Terminals

Catalog Numbers 2711R-T4T, 2711R-T7T, 2711R-T10T

Allen-Bradley
by ROCKWELL AUTOMATION

User Manual Original Instructions

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

Reproduction of the contents of this manual, in whole or in part, without written permission of Rockwell Automation, Inc., is prohibited.

Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

WARNING: Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

ATTENTION: Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.

IMPORTANT Identifies information that is critical for successful application and understanding of the product.

Labels may also be on or inside the equipment to provide specific precautions.

SHOCK HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.

BURN HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.

ARC FLASH HAZARD: Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).

Rockwell Automation recognizes that some of the terms that are currently used in our industry and in this publication are not in alignment with the movement toward inclusive language in technology. We are proactively collaborating with industry peers to find alternatives to such terms and making changes to our products and content. Please excuse the use of such terms in our content while we implement these changes.

Preface

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About This Publication

This manual provides information for configuring the PanelView™ 800 terminal. You can configure the terminal, through a web browser[(a)] on a computer connected to the terminal, or through Connected Components Workbench™ software. This manual also provides information on how to troubleshoot the PanelView 800 terminal.

Download Firmware, AOP, EDS, and Other Files

Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes from the Product Compatibility and Download Center at rok.auto/pcdc.

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Removed appendix Specifications	this manual
Added support for CompactLogix 5380 controllers	throughout
Added statement on firmware support of VNC feature	throughout
Updated list of supported operating systems for Connected Components Workbench software	46
Updated screen captures of Connected Components Workbench software in Figure 2	52
Added section Supported Communication Protocols to Chapter 3	75...85
Updated topic Firmware Installation Using Removable Storage Device	123
Added section Extract RFU Files from the DMK File	124
Updated sections Transfer Firmware to the Storage Device and Install Firmware From the Storage Device	124
Updated topic CompactLogix 5370 and CompactLogix 5380 Controller Cable Charts	133
Updated Appendix D to include support for CompactLogix 5380 controllers	137

Who Should Use this Manual

Use this manual if you are responsible for configuring, operating, or troubleshooting the PanelView 800 terminals.

No special knowledge is required to understand this manual or operate the terminal.

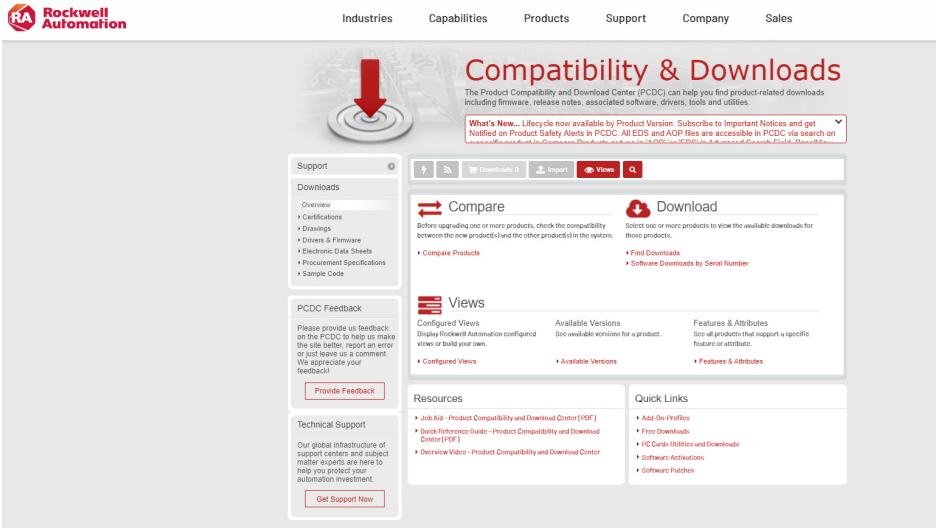
Equipment installers must be familiar with standard panel installation techniques.

(a) The web browser feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards.

Firmware Updates

To receive firmware updates and other downloads for your PanelView 800 terminal:

- Contact your local Allen-Bradley® distributor or sales representative.
- Go to the Rockwell Automation Product Compatibility and Download Center at rok.auto/pcdc.



IMPORTANT You must sign in to the Rockwell Automation website before downloading a firmware revision.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
PanelView 800 HMI Terminals Installation Instructions, publication 2711R-IN001	Provides instructions for installing a PanelView 800 terminal.
EtherNet/IP Network Devices User Manual, publication ENET-UM006	Describes how to configure and use EtherNet/IP™ devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, publication ENET-RM002	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, publication SECURE-RM001	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications.	Provides declarations of conformity, certificates, and other certification details.

Overview

Chapter Objectives

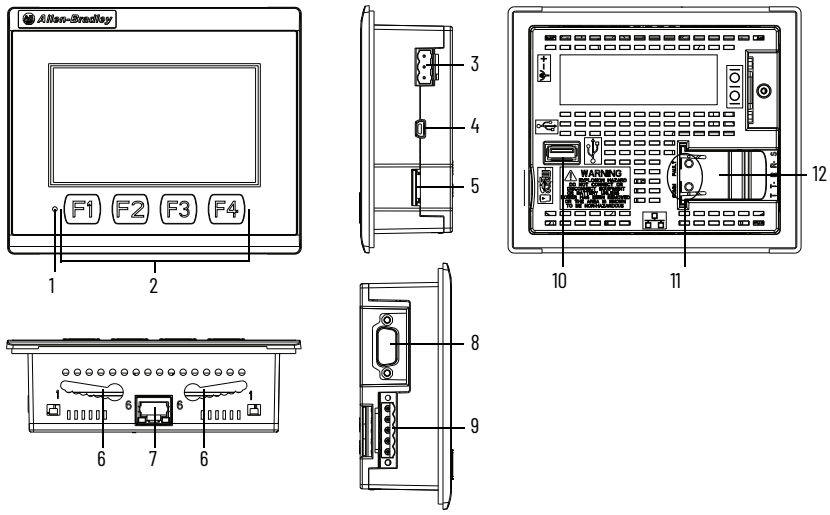
This chapter gives an overview of the PanelView 800 terminals.

- About the terminals
- How to connect browser[a]
- PanelView Explorer[b]
- How to display help
- Peripheral connection
- Catalog number configuration

About the Terminals

PanelView 800 terminals are operator interface devices for monitoring and controlling devices that are attached to a controller. HMI applications are created using Connected Components Workbench software, then downloaded to the terminal.

PanelView 800 Terminal – 2711R-T4T



PanelView terminal 2711R-T4T Description

Item	Description	Item	Description
1	Power status LED[1]	7	10/100 Mb Ethernet port
2	Touch display, function keys	8	RS-232 port
3	24V DC power input	9	RS-422 and RS-485 port

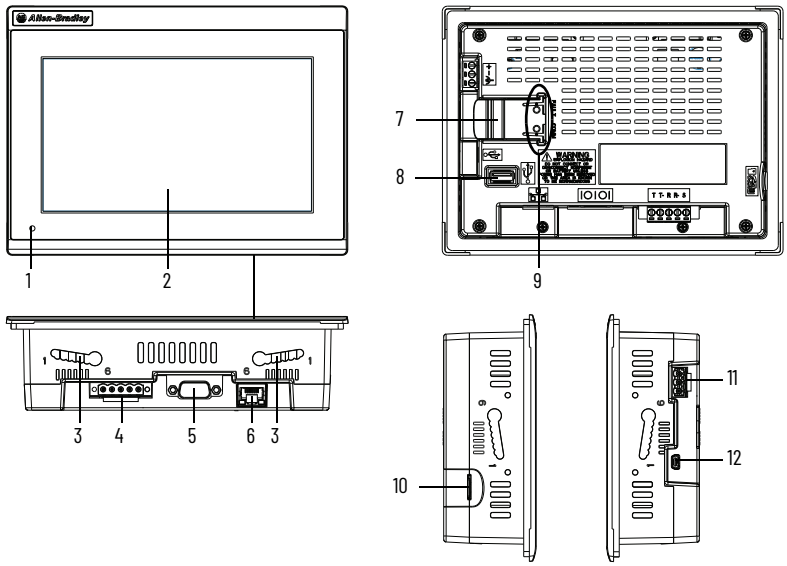
(a) The web browser feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards.
(b) The PanelView Explorer feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards.

PanelView terminal 2711R-T4T Description (Continued)

Item	Description	Item	Description
4	USB device port(2)	10	USB host port
5	microSD™ (Secure Digital) card slot	11	Diagnostic status indicator
6	Mounting slots	12	Replaceable real-time clock battery

(1) The Power status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.
(2) The USB device port is not intended for Customer use.

PanelView 800 Terminals – 2711R-T7T

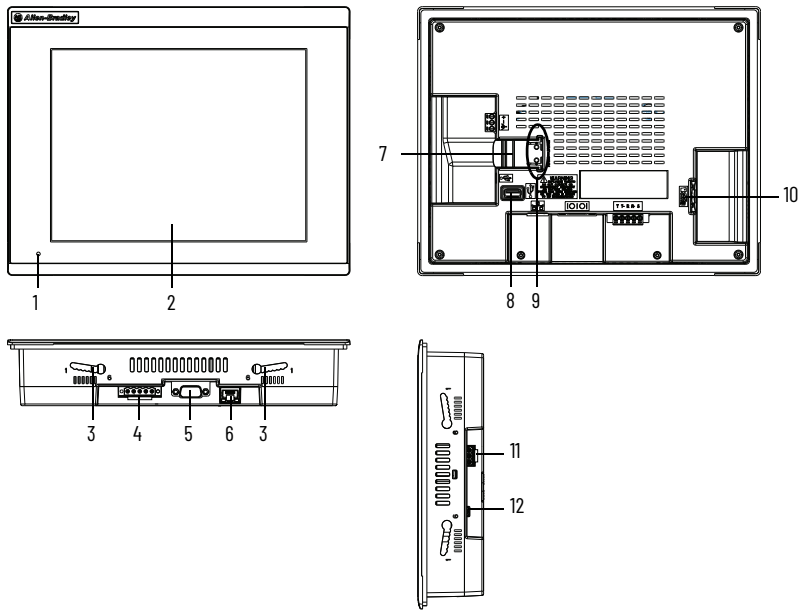


PanelView 800 Terminals 2711R-T7T Description

Item	Description	Item	Description
1	Power status LED(1)	7	Replaceable real-time clock battery
2	Touch display	8	USB host port
3	Mounting slots	9	Diagnostic status indicator
4	RS-422 and RS-485 port	10	microSD (Secure Digital) card slot
5	RS-232 port	11	24V DC power input
6	10/100 Mb Ethernet port	12	USB device port(2)

(1) The Power status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.
(2) The USB device port is not intended for Customer use.

PanelView 800 Terminal – 2711R-T10T



IMPORTANT Analog touch screens are intended for single presses at a time. If the touch screen is pressed in two locations simultaneously, the presses are averaged as one press in-between the two locations

PanelView 800 Terminal 2711R-T10T Description

Item	Description	Item	Description
1	Power status LED(1)	7	Replaceable real-time clock battery
2	Touch display	8	USB host port
3	Mounting slots	9	Diagnostic status indicator
4	RS-422 and RS-485 port	10	microSD (Secure Digital) card slot
5	RS-232 port	11	24V DC power input
6	10/100 Mb Ethernet port	12	USB device port(2)

(1) The Power status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.
(2) The USB device port is not intended for Customer use.

How to Connect Browser

The terminals can be connected to a browser using an Ethernet network connection. You must enter the IP address of the PanelView 800 terminal into the address field of your browser. You can find the IP address on the terminal configuration screen under Communications.

IMPORTANT The web browser feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

USB Device Port

The PanelView 800 terminals have a USB device port to support communication with the terminal using TCP/IP.

IMPORTANT	The USB device port is for maintenance only and is not intended for normal runtime operation. The USB device port is not intended for Customer use.

Ethernet Port

The PanelView 800 terminals have an Ethernet port. The Ethernet port supports both static IP addresses and Dynamic Host Configuration Protocol (DHCP) assigned IP addresses. If using static IP addressing, then you manually set the IP address, the subnet mask, and the default gateway. If using DHCP, then the server automatically assigns an IP address, the subnet mask, the default gateway, and the DNS and WINS server.

IMPORTANT	If a terminal is set for DHCP and is not on a network or is on a network that does not have a DHCP server (or the server is not available), it will automatically assign itself an Automatic Private IP address (or auto IP address). The auto IP address is in the range of 169.254.0.0 through 169.254.255.255. The terminal makes sure that the auto IP address is unique from any other auto IP address of other devices on the network. The terminal can now communicate with other devices on the network that have IP addresses in the 169.254.xxx.xxx range (and a subnet mask of 255.255.0.0).

PanelView Explorer

PanelView Explorer is the browser interface for interacting with PanelView 800 terminals. Through this interface you can configure the terminal settings, transfer files, test, and run applications. See Appendix E for more information on using PanelView Explorer.

IMPORTANT	The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

Peripheral Connection

PanelView 800 terminals have a USB host port. You can power USB peripherals directly from the PanelView 800 terminal. If the USB peripheral is not powered directly from the USB port on the terminal, do one of the following:

- Install the USB peripheral in the same enclosure as the PanelView terminal and make sure it is connected to the same ground system.
- Connect to the USB peripheral through a galvanically isolated hub.

WARNING: If you connect or disconnect the communications cable with power applied to this module or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations.
Be sure that power is removed or the area is nonhazardous before proceeding.

WARNING: If you connect or disconnect the USB cable with power applied to this module or any device on the USB network, an electrical arc can occur. This could cause an explosion in hazardous location installations.
Be sure that power is removed or the area is nonhazardous before proceeding.

ATTENTION: Removing the USB drive or microSD card, from the PanelView 800 terminal, while a firmware update is in process, could corrupt the firmware and make the terminal unusable. Take precautions to help prevent the USB drive or microSD card from being accidentally disconnected. Also, do not power off the terminal while a firmware update is in progress. USB hubs can produce unexpected behaviors and as a result are not recommended.

Catalog Number Configuration

These are the available PanelView 800 terminals.

Cat. No.	Operator Input	Size	Display Type
2711R-T4T	Touch screen and function keys	4 in.	Color TFT
2711R-T7T	Touch screen	7 in.	Color TFT
2711R-T10T	Touch screen	10 in.	Color TFT

Notes:

Configure the Terminal

Chapter Objectives

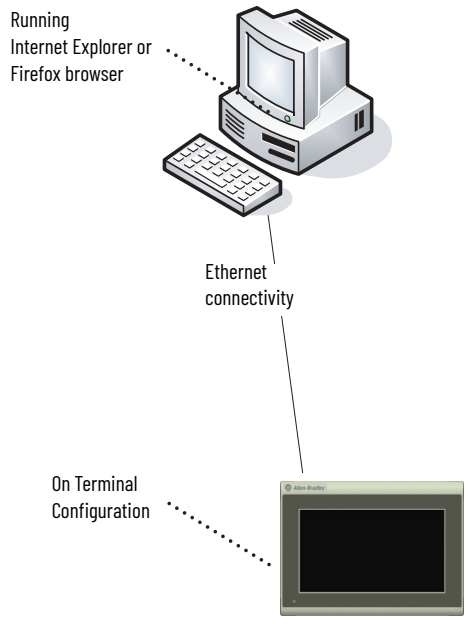
This chapter covers topics that show how to configure your PanelView 800 terminal.

- Configuration interfaces
- Terminal settings
- Managing applications and files
- Creating applications
- Upload and Download applications
- Transferring applications
- Transferring user-defined objects

Configuration Interfaces

The terminal can be configured from either the browser interface[(a)] or the configuration screens on the terminal. The browser interface requires a computer browser that is connected to the terminal's web service through an Ethernet network connection. The configuration data for a terminal refers to the collection of all system interface parameters.

Access to the Terminal's Configuration

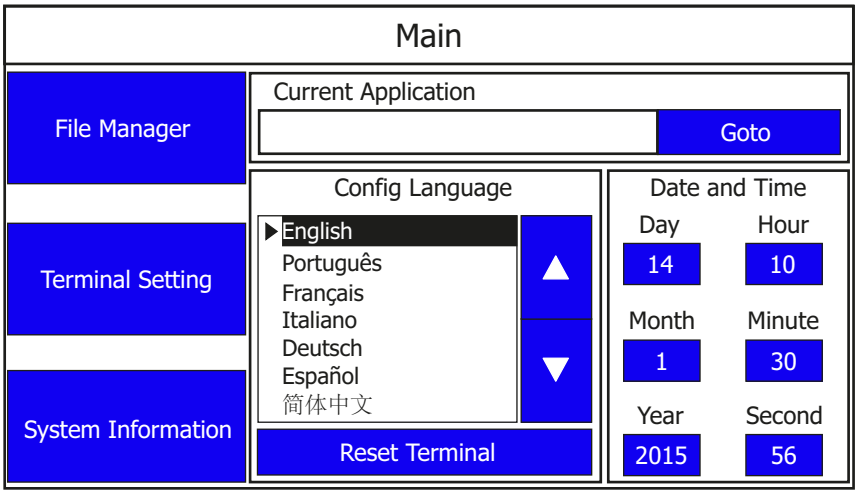


(a) The web browser feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards. For more information about the PanelView Explorer feature, see Appendix E.

Configure Using the Terminal

The on-terminal interface lets you make changes to the terminal settings. The menu is displayed on the left side of the terminal screen. Changes can be made whether an application is running or not running.

Terminal Interface Main Menu



Configure Terminal Settings

Terminal settings can be configured either through the PanelView Explorer browser[(a)] interface or through the on-terminal interface.

Adjusting Settings on the Terminal

From the terminal, you can view and edit the terminal settings. Most settings take effect immediately.

By clicking the menu items on the screen, you can:

- Change the terminal language.
- Change the current date and time.
- Restart or reset the terminal.
- Import or export an application.
- Change the startup application.
- Copy or edit recipes of an application.
- Copy the alarm history of an application.
- Change the controller settings for an application.
- Change Ethernet network settings.
- Change Virtual Network Computing (VNC) settings.[(b)]
- Change communication port settings.
- Change the FTP server settings.

(a) The PanelView Explorer feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards. For more information about the PanelView Explorer feature, see Appendix E.

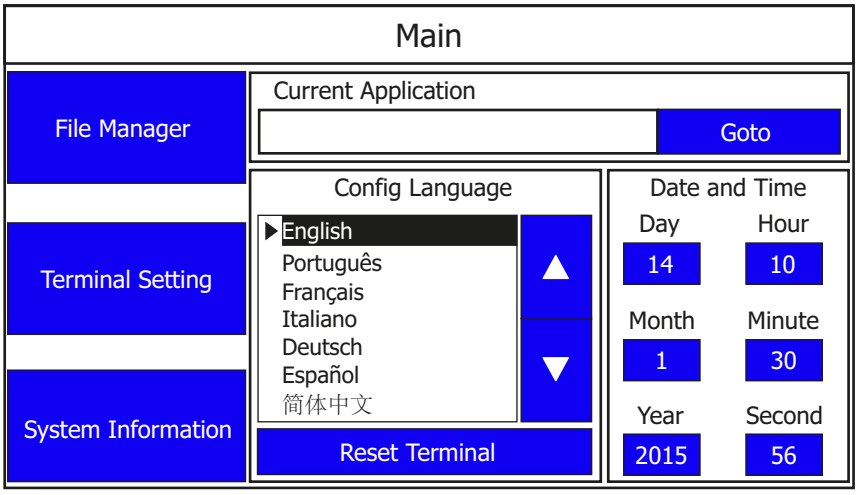
(b) The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011. For more information, contact your local technical support at rok.auto/phonesupport.

- Adjust the display brightness.
- Calibrate the touch screen, if supported.
- Change the display orientation.
- Configure screen saver settings.
- Delete fonts from the terminal.
- Change the error alert display settings.
- Configure print settings.
- View system information.

Main Configuration Settings

You can perform the following actions on the main configuration screen:

- Goto Current Application
- Select a Terminal Language
- Change the Date and Time
- Restart the Terminal



Goto Current Application

The current application field displays the name of the application that is currently running on the terminal. You can press the Goto button to switch to that application. If no application is running, the field is empty.

Select a Terminal Language

You can change the terminal display language. The terminal is shipped with English, Portuguese, French, Italian, German, Spanish, and Chinese fonts installed. Korean is supported but you must first install the Korean font. See Add Fonts to the Terminal on page 63 for information on how to install the font onto the terminal.

IMPORTANT At runtime, diagnostic messages appear in the same language as the application if the application language is English, Portuguese, French, Italian, German, Spanish, Chinese, or Korean. For all other languages, the diagnostic messages appear in the configuration language set on the terminal.

Follow these steps to change the terminal language from the terminal.

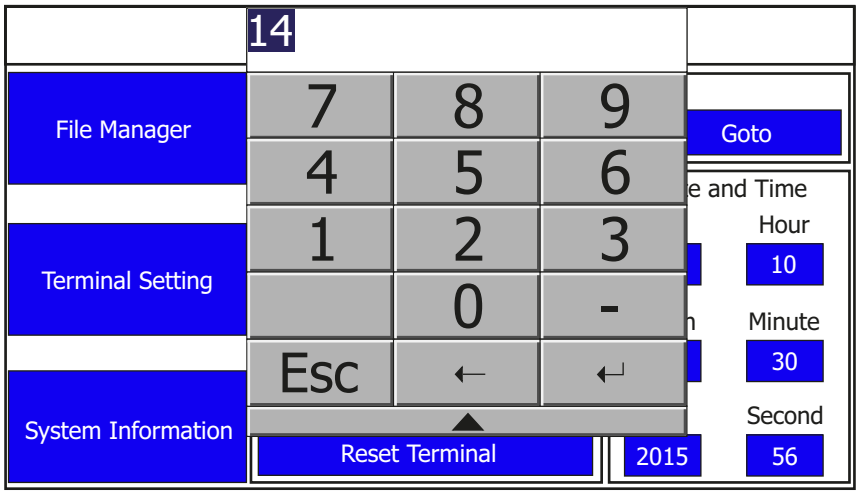
1. Go to the main configuration screen.
2. To select the language, use the up and down arrow keys.
   The change takes effect immediately.

Change the Date and Time

You can adjust the current date and time for terminal operations. The time is set in 24-hour format. If using PanelView Explorer, you can also set the terminal to automatically adjust the time for daylight savings time.

Follow these steps to change the terminal date and time from the terminal.

1. Go to the main configuration screen.
2. Click the number next to what you want to change under the 'Date and Time' section.
   A numeric keypad is displayed.
3. Select the numbers that you want and press the Enter key.



Restart the Terminal

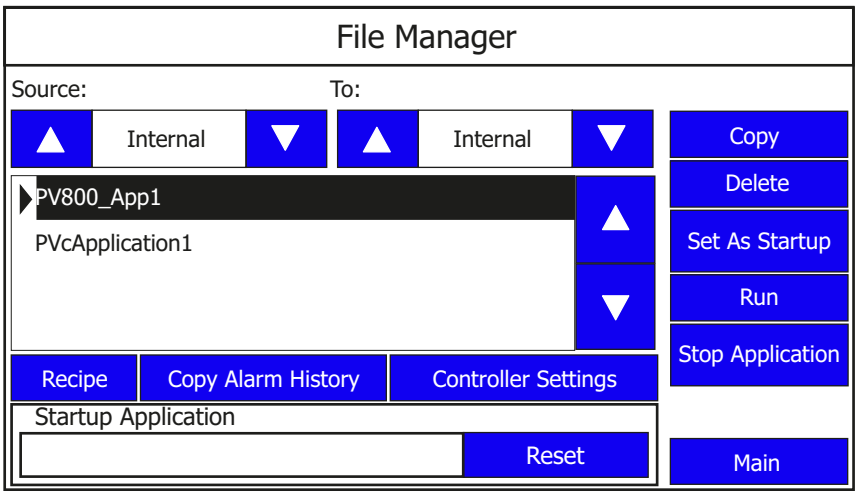
You can restart the terminal without having to disconnect and reapply power. After a reset, the terminal performs series of startup tests and then either enters configuration mode or runs the startup application.

Follow these steps to restart the terminal from the terminal.

1. Go to the main configuration screen.
2. Press Reset Terminal.
3. Press Yes to confirm.

File Manager Settings

On the main configuration screen, press File Manager to go to the File Manager screen.



IMPORTANT The Stop Application button is only available in firmware revision 3.011 onwards.

IMPORTANT The Controller Settings button is only available in firmware revision 4.011 onwards.

You can perform the following actions under File Manager settings:

- Export an Application
- Import an Application
- Change the Startup Application
- Copy or Edit Recipes
- Copy Alarm History
- Change Controller Settings for an Application

Export an Application

During an export, the application file is transferred from internal storage of the terminal to a USB drive or microSD card. The application is saved with its default name and ".cha" file type.

Follow these steps to export an application from the terminal.

1. Go to the File Manager screen.
2. Select Internal as the Source location of the application.
3. Select the location to copy the application from the To list, either USB or microSD card.
4. Select the name of the application from the Name list.
5. Press Copy.

Import an Application

During an import, the application file (.cha) is transferred from a USB drive or microSD card to the internal storage of the terminal. The transfer operation communicates with the terminal to import the file.

You cannot overwrite an application while the application is running. You must unload the current application before overwriting the application. You can import applications while another is running.

Follow these steps to import an application from the terminal.

1. Go to the File Manager screen.
2. Select the source location of the application from the Source list, either USB or microSD card.
3. Select Internal as the To location to copy the application.
4. Select the name of the application from the Name list.
5. Press Copy.

The application is transferred to the internal storage of the terminal.

If an application with the same name exists in internal storage, you are asked if you want to replace the existing application.

Change the Startup Application

You can select or change the application that runs on the terminal each time the terminal starts up. Only applications in the internal storage of the terminal can be run or set as a Startup Application.

IMPORTANT If the application list is empty, the run, copy, delete, and set as startup functions will not perform any action.

Follow these steps to select or change the startup application from the terminal.

1. Go to the File Manager screen.
2. Select Internal from the Source list.
3. Select the name of the startup application from the Name list.
4. Click Set As Startup.

Copy or Edit Recipes

You can copy recipes from a USB device or microSD card to an application on the terminal, or from the terminal to a USB device or microSD card. You can also edit the name of a recipe in an application, or delete the recipe from an application.

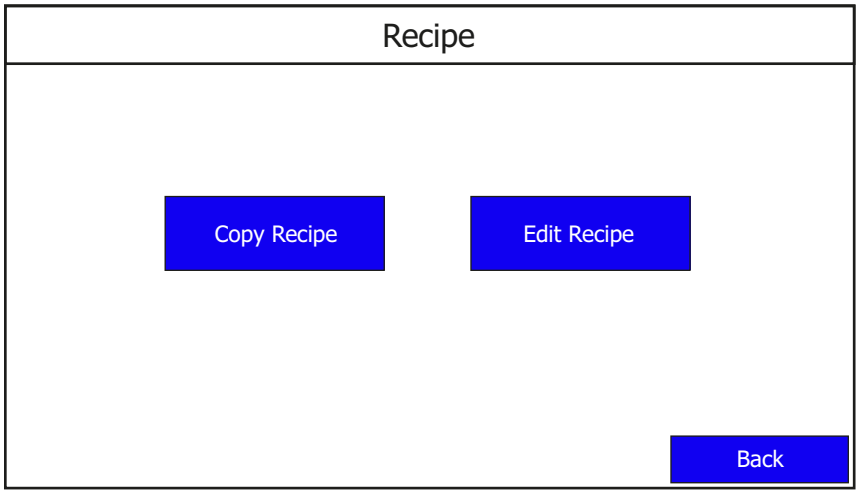
IMPORTANT To perform a copy or edit operation on a recipe of an application, that application must be unloaded or not running.

You cannot perform these actions on a password protected application.

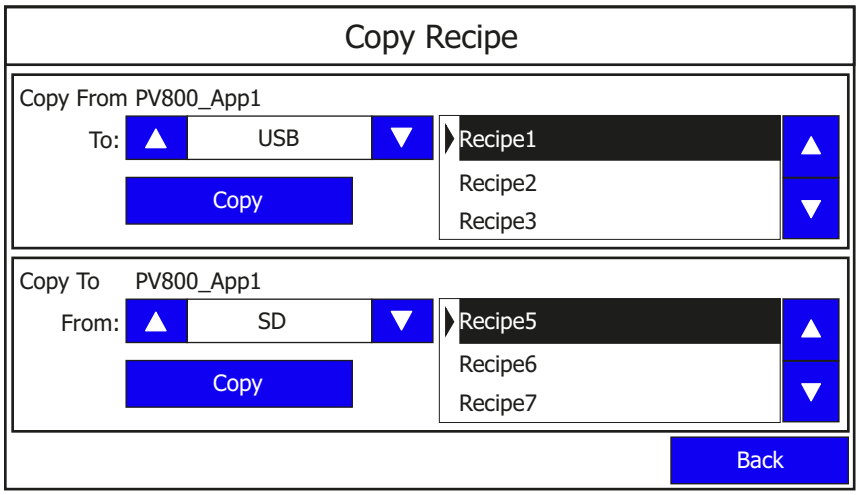
Copy a Recipe

Follow these steps to copy a recipe.

1. Go to the File Manager screen.
2. Select the application that you want to copy the recipe, then press Recipe.



3. Press Copy Recipe.



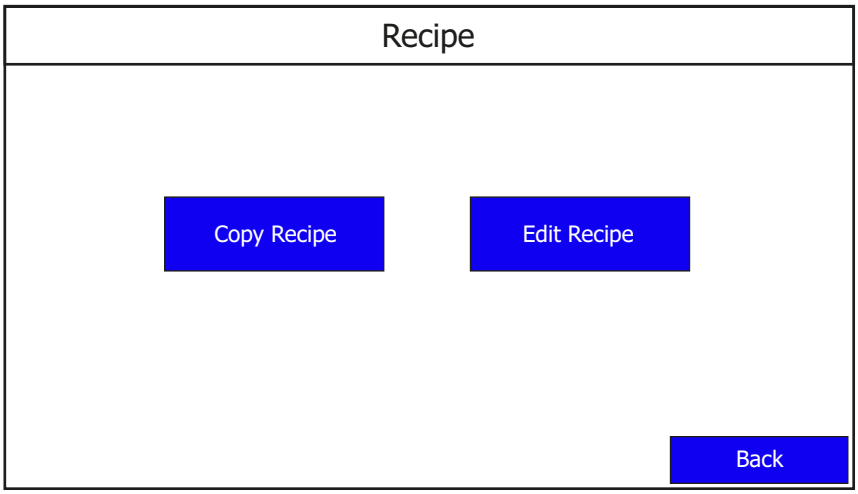
4. Select the location where you want to copy the recipe from, or copy the recipe to.
5. Select the recipe from the recipe list.
6. Press Copy.

IMPORTANT Copying out a recipe from a design secured application is not allowed.

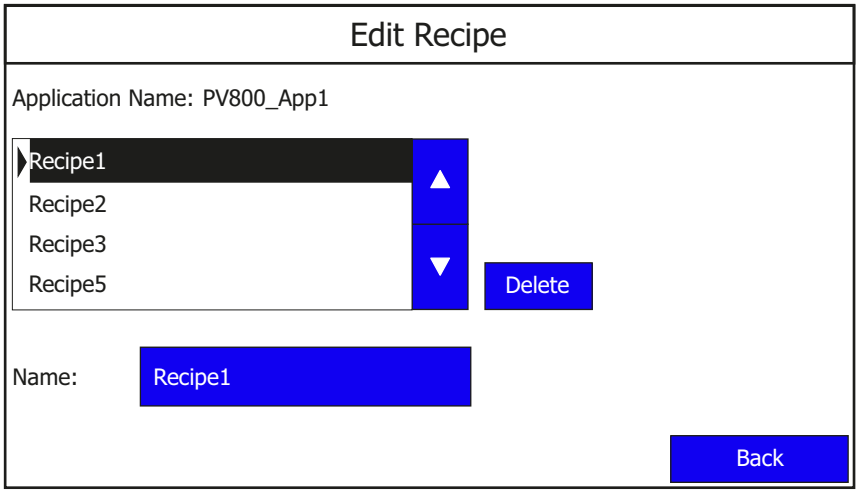
Edit a Recipe

Follow these steps to rename or delete a recipe.

1. Go to the File Manager screen.
2. Select the application that you want to edit the recipe, then press Recipe.



3. Press Edit Recipe.



The name of the currently loaded application is displayed, and a list of the recipes for that application.

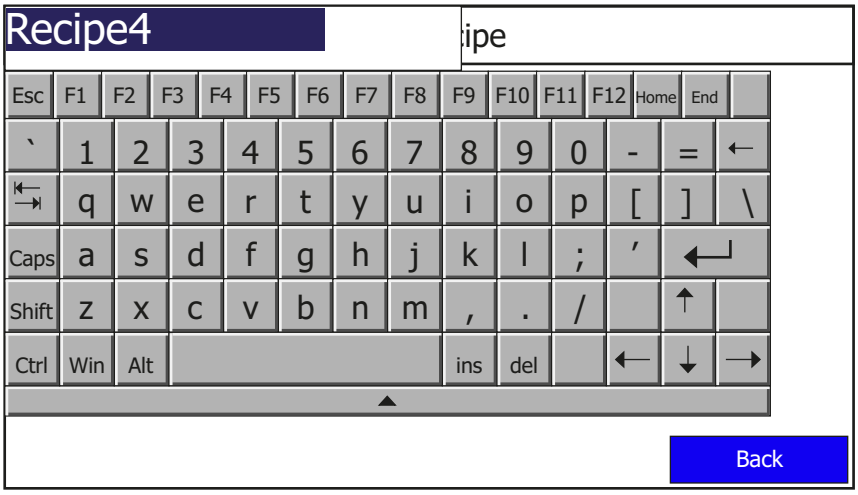
4. Select the recipe from the recipe list.
5. Press Delete if you wish to delete the recipe, then press OK to confirm.

IMPORTANT	Renaming of a recipe in a design secured application is not allowed.

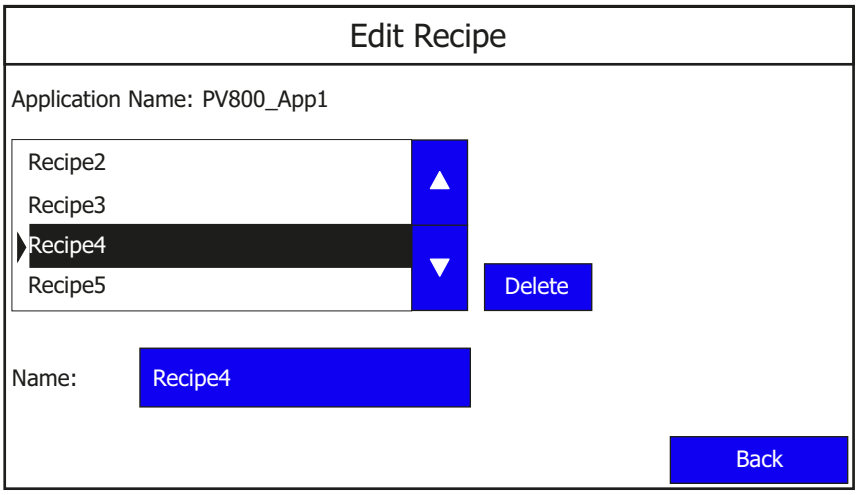
6. Press the blue area next to Name to change the name of the recipe.

IMPORTANT	Deletion of a recipe in a design secured application is not allowed.

7. Type in the desired name using the on-screen keypad, then press Enter.



8. The recipe name is changed and the recipe list is automatically resorted alphanumerically.



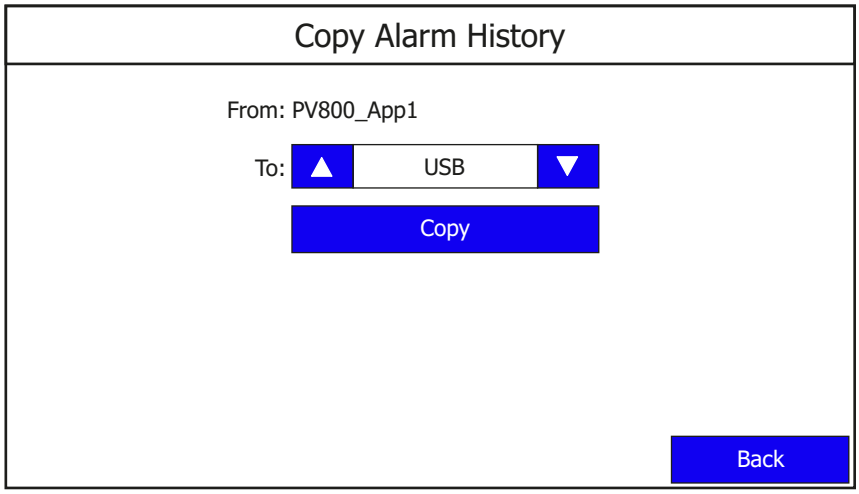
Copy Alarm History

You can copy the alarm history of an application on the terminal into a USB or microSD card.

Follow these steps to copy the alarm history.

1. Go to the File Manager screen.
2. Use the up and down arrow keys to select the application that you want to copy the alarm history from.

3. Press Copy Alarm History.



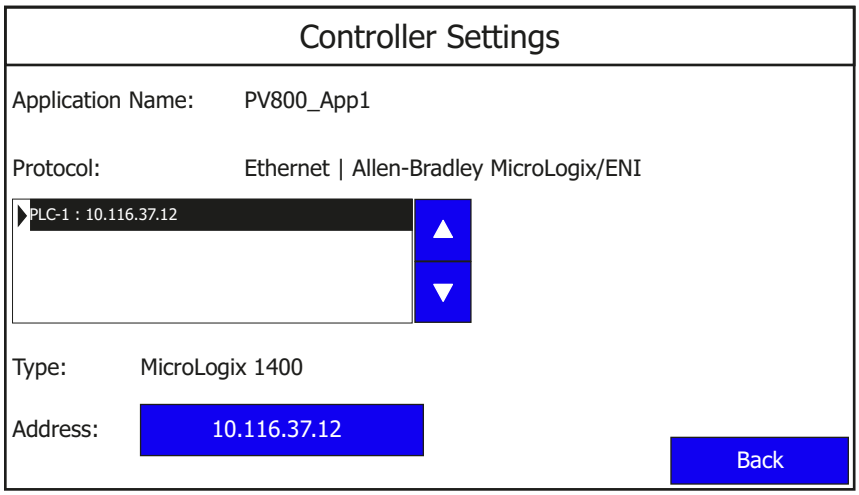
4. Select the location to copy the alarm history from the To list, either USB or microSD card.
5. Press Copy.

Change Controller Settings for an Application

You can change the network address or node address of the controller in your application using the terminal. This feature is available in firmware revision 4.011 onwards.

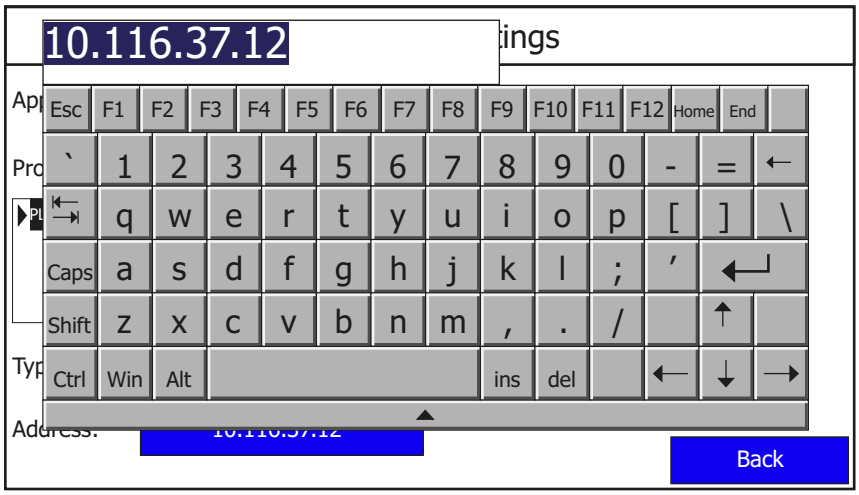
Follow these steps to change the network address or node address of the controller for your application from the terminal.

1. Go to the File Manager screen.
2. Press Controller Settings.



3. Press the blue area next to Address to change the address.

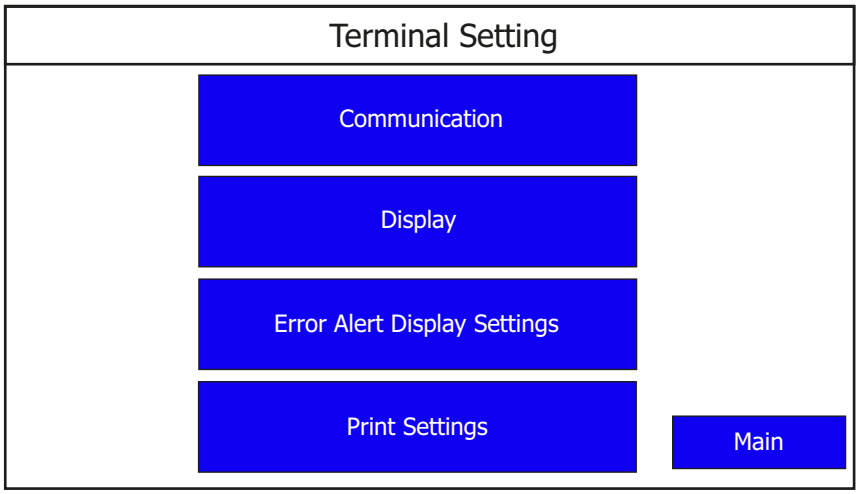
Type in the desired IP address using the on-screen keypad, then press Enter.



IMPORTANT You cannot change the controller setting for an application that is running.

Terminal Settings

On the main configuration screen, press Terminal Settings to go to the Terminal Settings screen.



You can perform the following actions under Terminal Settings:

- Change Ethernet Settings
- Configure VNC Settings (see Configure VNC Settings on page 100)
- Change Port Settings
- Enable the FTP Server
- Adjust the Display Brightness
- Calibrate the Touch Screen
- Changing the Display Orientation
- Configure Screen Saver Settings
- Delete Fonts
- Change the Error Alert Display Settings
- Configure Print Settings

Change Ethernet Settings

You can establish an Ethernet connection between the connected PanelView 800 terminal and computer using the Ethernet port on the terminal.

You cannot change the Ethernet settings from PanelView Explorer. If you want to change this setting, you must do so from the terminal configuration screens.

For the Ethernet port, IP addresses can be set dynamically by the network if Dynamic Host Configuration Protocol (DHCP) is enabled. If DHCP is disabled, the IP addresses must be entered manually.

IMPORTANT If a terminal is set for DHCP and is not on a network or is on a network that does not have a DHCP server (or the server is not available), it will automatically assign itself an Automatic Private IP address (or auto IP address). The auto IP address is in the range of 169.254.0.0...169.254.255.255.

The terminal makes sure that the auto IP address is unique from any other auto IP address of other devices on the network. The terminal can now communicate with other devices on the network that have IP addresses in the 169.254.xxx.xxx range (and a subnet mask of 255.255.0.0).

Ethernet Settings

Parameter	Description
MAC ID	Read-only field that defines the MAC ID of the PanelView 800 terminal. Each Ethernet device has a unique MAC ID. The MAC ID is shown in PanelView Explorer, and the Communication terminal screen from firmware revision 4.011 onwards.
Network Device Name	Unique name that identifies the terminal on the network.
IP address	Unique address that identifies the terminal on the Ethernet network. The format of the IP address is xxx.xxx.xxx.xxx, for example, 10.90.95.30 The range of values for the first set of decimal numbers is 1...255 unless all fields are set to 000. The range of values for the last three sets of decimal numbers is 0...255.
Subnet Mask	Address that must be identical to the server subnet mask. The subnet mask is formatted like the IP address.
Default Gateway	Optional address that is formatted like the IP address.

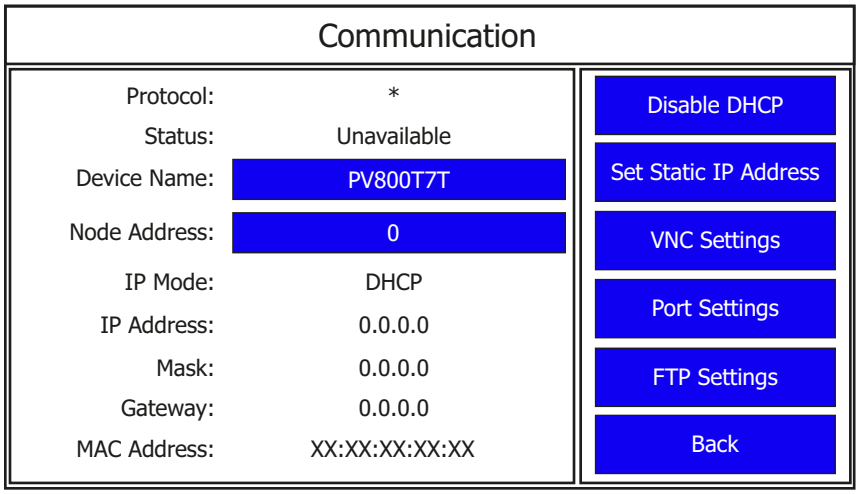
If DHCP is enabled for the Ethernet port, the current fields show the IP addresses assigned by the network. You can assign IP addresses manually by disabling DHCP and entering addresses in the static fields.

IMPORTANT If the Ethernet port is disabled, you cannot set a static IP address for the terminal. The terminal prompts an alert (ID: 2058) when you try to do so.

Follow these steps to set a static IP address for the terminal's Ethernet port from the terminal.

1. Go to the Terminal Settings screen.

2. Press Communication.

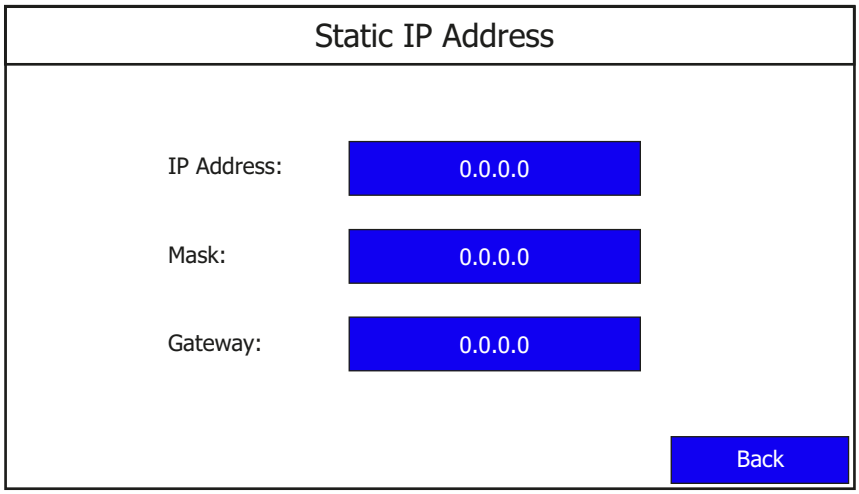


IMPORTANT The MAC address value display is only available in firmware revision 3.011 onwards.

IMPORTANT The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

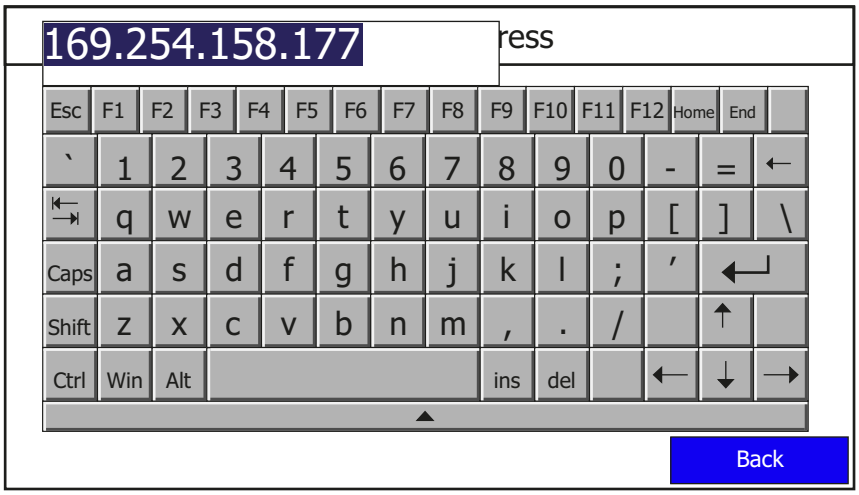
For more information, contact your local technical support at rok.auto/phonesupport.

3. Press Disable DHCP.
The IP Mode now displays the text “Static”.
4. Press Set Static IP address screen appears.



5. Press the blue area next to IP address to enter an IP address in the Static IP address field.

Type in the desired IP address using the on-screen keypad, then press Enter.



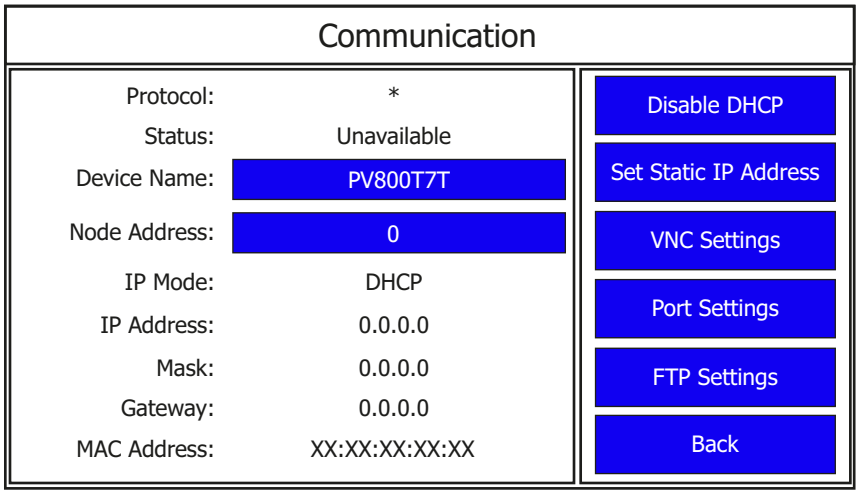
6. Repeat step 5 to enter the address for the Subnet Mask and Gateway Address.

Change Port Settings

You can control access to the terminal through Ethernet or Serial communication by enabling or disabling the respective port.

Follow these steps to enable or disable the communication port on the terminal.

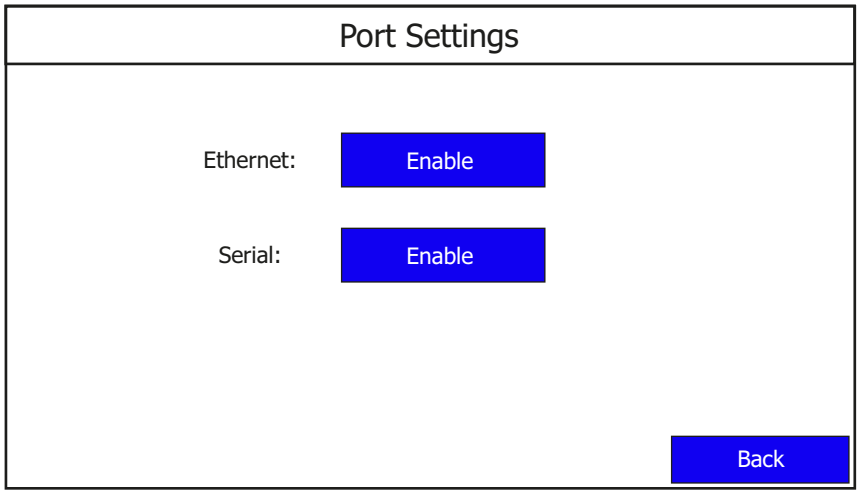
1. Go to the Terminal Settings screen.
2. Press Communication.



IMPORTANT The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

3. Press Port Settings.

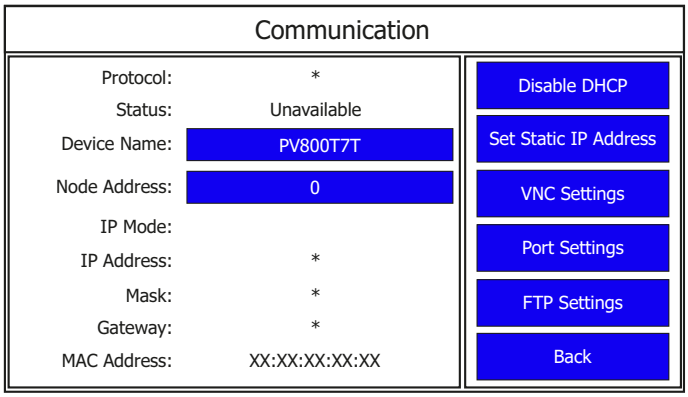


4. The Ethernet and Serial ports are enabled by default. Press Enable for the respective port to disable it, then press OK to confirm.

IMPORTANT From firmware revision 5.011 onwards, the port settings can only be enabled or disabled when no application is running on the terminal.

IMPORTANT If the Ethernet port is disabled, you cannot set a static IP address for the terminal. The terminal prompts an alert (ID: 2058) when you try to do so.

IMPORTANT If the Ethernet port is disabled, the IP address, Mask, and Gateway settings display a "*".



The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

Enable the FTP Server

You can connect to a PanelView 800 terminal using an FTP (File Transfer Protocol) client such as a web browser, PC file explorer, or third-party FTP software. This gives you read-only access to the Alarm History, Datalog, and Recipe folders on the terminal. To access the contents of these folders,

permissions must be configured in Connected Components Workbench software. See Configure FTP Settings on page 57.

The Alarm History folder contains only the alarm history of the current running application on the terminal.

After you have established an FTP connection to the terminal, you can copy the contents of the folders out from the terminal to your PC. The FTP server on the terminal is disabled by default.

IMPORTANT The terminal supports only one FTP connection. If another connection is attempted, it is rejected and no notification is given. The behavior varies from one FTP client to another.

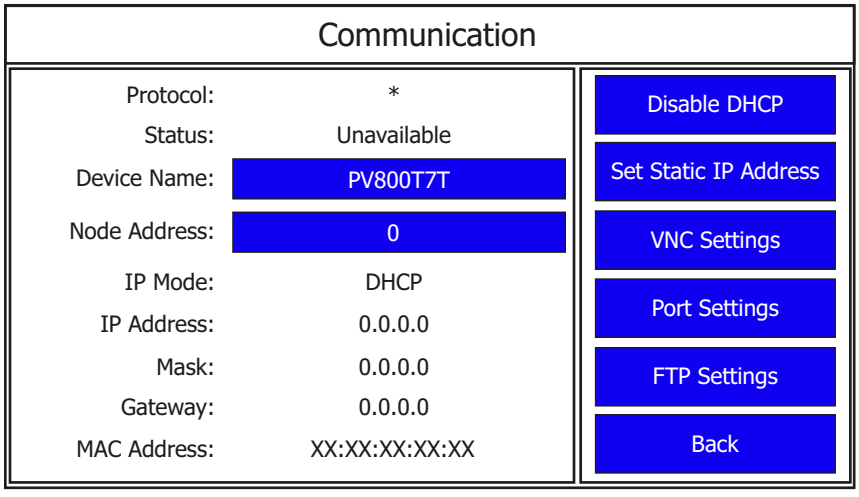
IMPORTANT An FTP connection cannot be established while the terminal is loading an application. Wait until the application has finished loading before connecting to the terminal.

IMPORTANT It is recommended to download files from the terminal one at a time. Also, set the connection inactivity timeout for your FTP client to 60 seconds or longer to avoid unsuccessful file download.

IMPORTANT The FTP server feature is not available for CompactLogix™ 5370 and CompactLogix 5380 controllers.

Follow these steps to enable the FTP server.

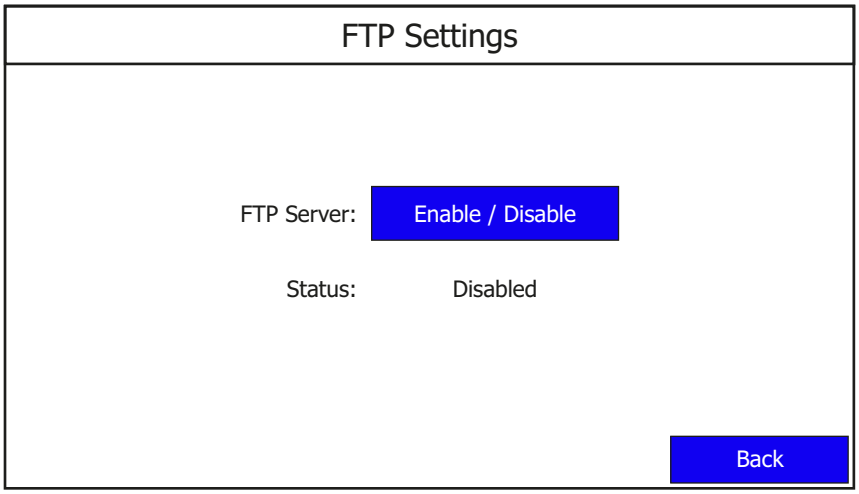
1. Go to the Terminal Settings screen.
2. Press Communication.



IMPORTANT The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

3. Press FTP Settings.



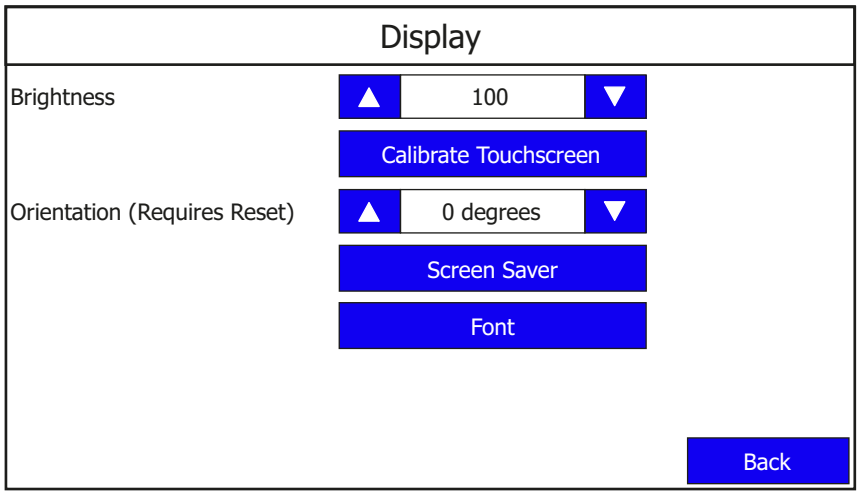
4. Press Enable/Disable to enable the FTP server.
   The Status now displays the text “Enabled”.

Adjust the Display Brightness

You can modify the brightness of the terminal display. You can use the default intensity of 100% for brightness or adjust the intensity for runtime operations.

Follow these steps to change the display brightness from the terminal.

1. Go to the Terminal Settings screen.
2. Press Display.



3. Use the arrow keys to adjust the brightness up or down.

   The change takes effect immediately.

Calibrate the Touch Screen

Over time you may notice that an object on the screen does not respond when touched, or the activation spot of the object is not correct. This is normal with a touch screen and can be easily fixed.

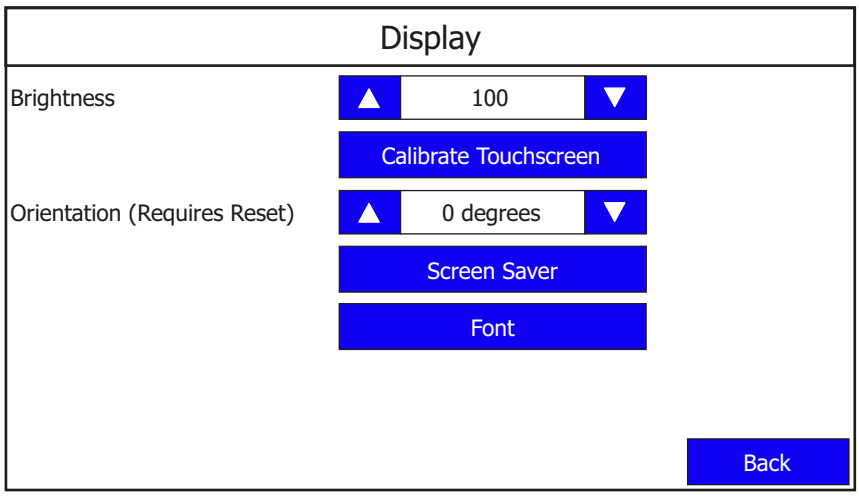
You cannot calibrate the touch screen using VNC or with a mouse. If you have triggered the calibration process, you can press the "ESC" key on the keyboard to cancel the procedure.

The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

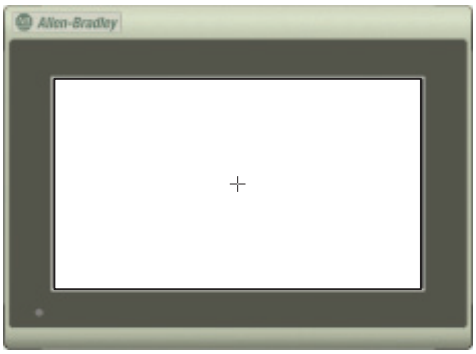
Follow these steps to calibrate the touch screen from the terminal.

1. Go to the Terminal Settings screen.
2. Press Display.
3. Press Calibrate touch screen.

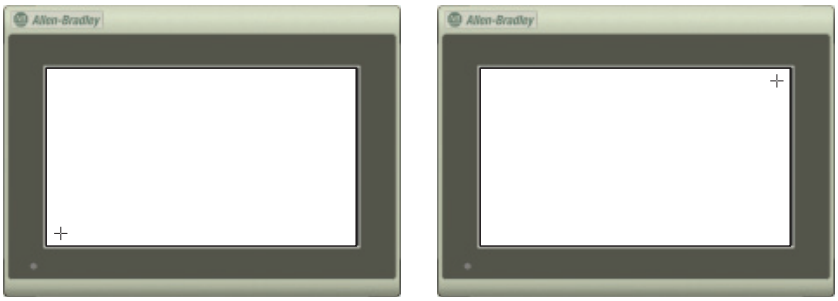


Follow these steps to complete the calibrate touch screen procedure. This process must be done by physically touching the screen. Use a plastic stylus device with a minimum tip radius of 1 mm (0.040 in.) to help prevent damage to the touch screen.

1. With a stylus, tap the center of the target (+) on the terminal screen.



2. Repeat step 1 as the target moves around the screen.



3. Tap OK when the message appears to accept the changes.
If you do not tap the screen within 30 seconds, the calibration data is discarded and the current settings are retained.

Changing the Display Orientation

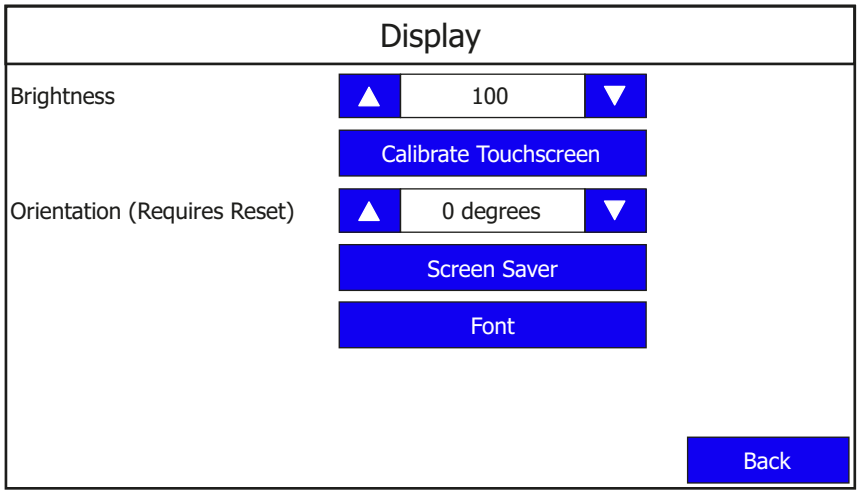
You can change the display orientation of the terminal between landscape and portrait mode.

You cannot change the display orientation from PanelView Explorer. If you want to change this setting, you must do so from the terminal configuration screens.

Follow these steps to change the display orientation from the terminal.

1. Go to the Terminal Settings screen.

2. Press Display.



3. Select the degree of orientation (0 – Landscape, 90 – Reverse portrait, or 270 – Portrait).
4. Press Back to return to the main configuration screen.
5. Press Reset Terminal, then press Yes to confirm.

Configure Screen Saver Settings

You can enable or disable the screen saver on the PanelView 800 terminal. To add a screen saver to the terminal, see Add Screen Savers to the Terminal on page 64. The terminal supports up to 25 screen savers.

The terminal has four screen saver modes: image, dimmer, image and dimmer, or disable.

- Image – activates after the idle timeout elapses using the selected screen saver image. The screen saver deactivates when you touch the screen.
- Dimmer – dims the display from full brightness to the brightness level that you set when the idle timeout elapses. While the display is dimmed, you can still see on-screen activity. When you touch the screen, the display is restored to full brightness.
- Image and dimmer – activates the screen saver and dims the display when the idle timeout elapses.
- Disable screen saver and dimmer – keeps the display on.

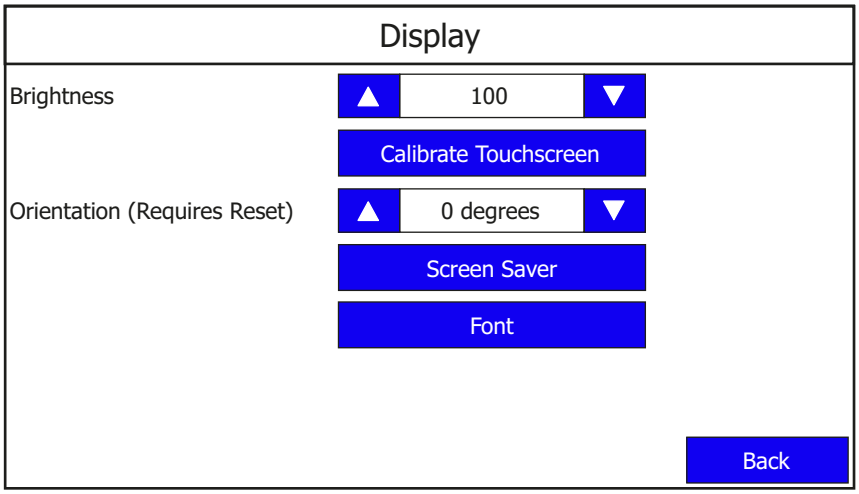
The screen saver timeout is the amount of idle time that must elapse before the screen saver, dimmer, or screen saver and dimmer activates. The idle time can be adjusted between 1…60 minutes.

The brightness intensity of the screen saver or dimmer can be adjusted between 0…100%.

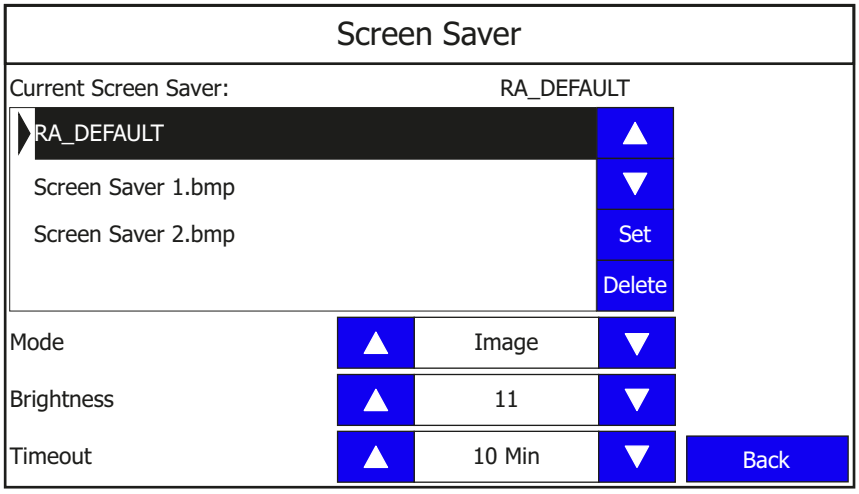
Follow these steps to configure the screen saver from the terminal.

1. Go to the Terminal Settings screen.

2. Press Display.



3. Press Screen Saver.



4. Use the up and down arrow keys to select the screen saver, then press Set to use it or Delete to remove it from the terminal.

"RA_DEFAULT" is the default terminal screen saver and cannot be deleted.

You cannot delete the current screen saver. The terminal prompts and error if you try to do so.

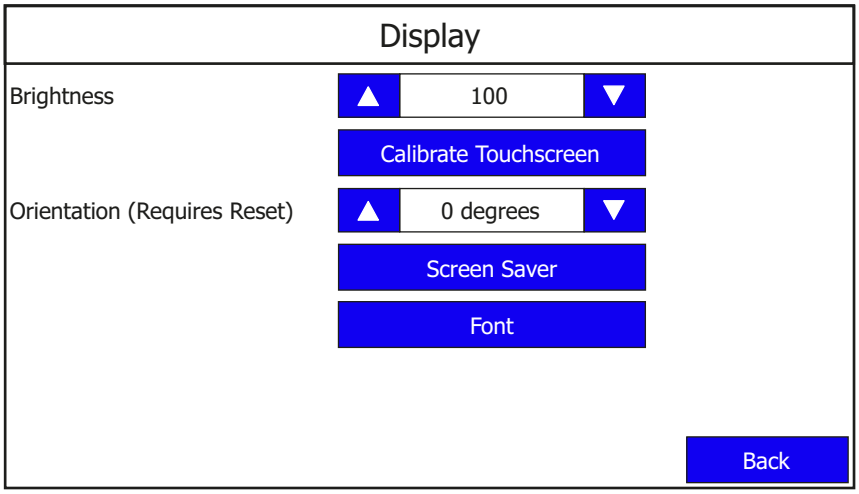
5. Select the Mode.
Mode = Disable, Image, Dimmer, Image and Dimmer.
6. Select the brightness.
Brightness 0...100, increments of 1.
7. Select the idle timeout.
Choices are 1, 2, 5, 10, 15, 20, 30, or 60 min.

Delete Fonts

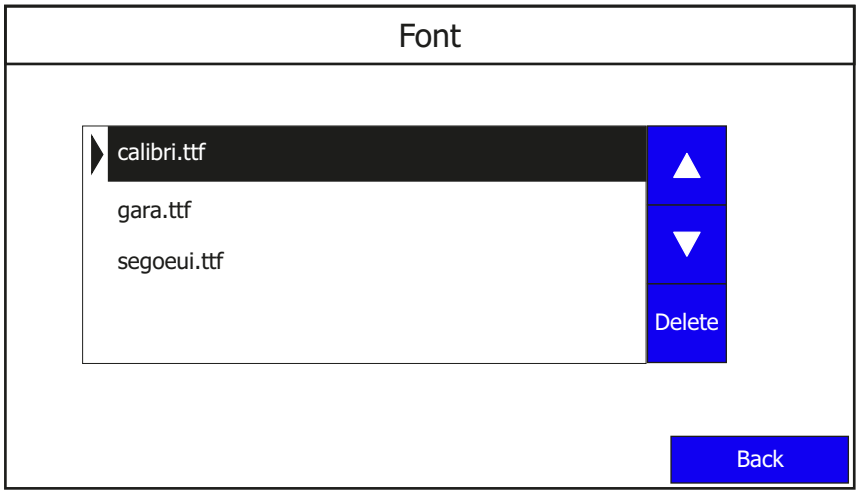
To add fonts to the terminal, see Add Fonts to the Terminal on page 63.

Follow these steps to delete fonts from the terminal.

1. Go to the Terminal Settings screen.
2. Press Display.



3. Press Font.



4. Select the font, then press Delete.

IMPORTANT The Korean language font "Gulim" is treated as a system font. After downloading it to the terminal and restarting the terminal, you can switch the terminal language to Korean by selecting it from the main configuration screen. See Select a Terminal Language on page 19. The "Gulim" font will not appear in the Font screen and cannot be deleted unless you restore or return the terminal to out-of-box condition.

Change the Error Alert Display Settings

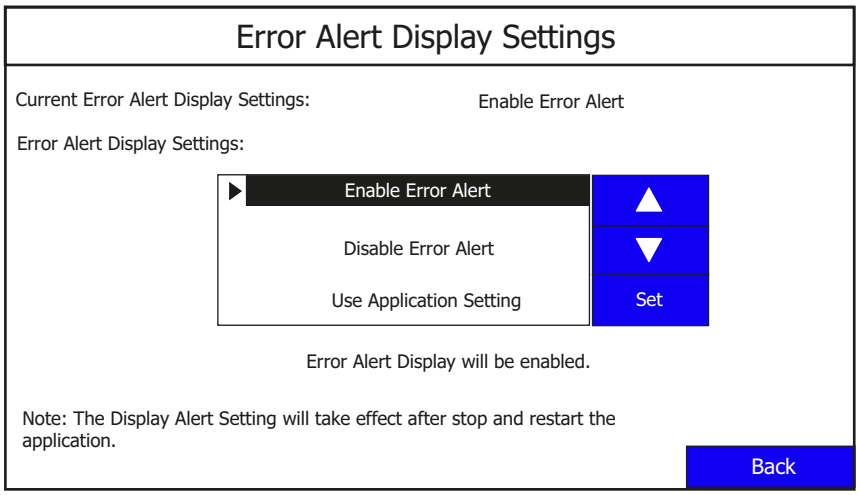
You can set the error alert display behavior from the terminal. You can choose to enable or disable an error alert independent of the application setting or you can use the application setting for displaying an error alert.

Follow these steps to change the error alert display settings from the terminal.

IMPORTANT Make sure that the application is not running before you make any changes.

We recommend that you enable error alerts to allow diagnostics and communications error messages to display.

1. Go to the Terminal Settings screen.
2. Press Error Alert Display Settings.



3. Use the up and down arrow keys to select an option.
4. Press Set.

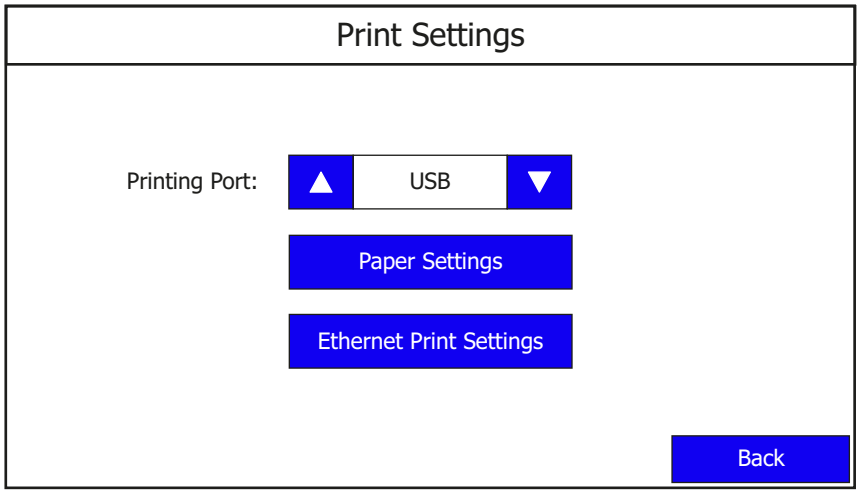
Configure Print Settings

You can choose to print either the current screen or the alarm history of the application that is running on your PanelView 800 terminal. The print command is sent from the terminal either through Ethernet to a print server (for example, a PC), or through USB to a printer connected to the terminal. Only printers that use the PCL 5 protocol are supported. The actual print size depends on the size of the terminal, paper size, orientation, and stretch option.

Follow these steps to configure the print settings.

1. Go to the Terminal Settings screen.

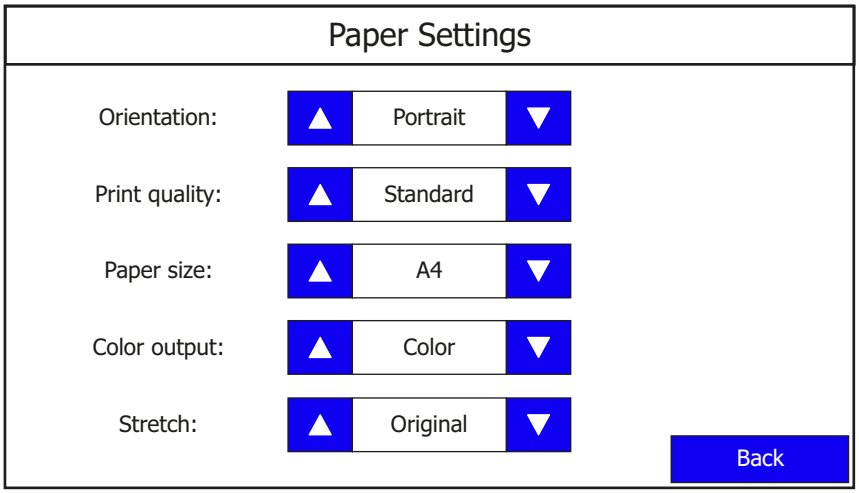
2. Press Print Settings.



3. Select the Printing Port to use (USB or Ethernet).

Configure the paper settings

1. Press Paper Settings.



2. Configure the following settings:
   - Orientation = Portrait, Landscape
   - Print quality = Standard (300 dpi), Draft (150 dpi)
   - Paper size = Legal, Letter, A4, B5
   - Color output = Color, Monochrome
   - Stretch = Original, Stretch to paper

   If the "Stretch to paper" option is chosen, the image is stretched proportionately to fit the selected paper size.

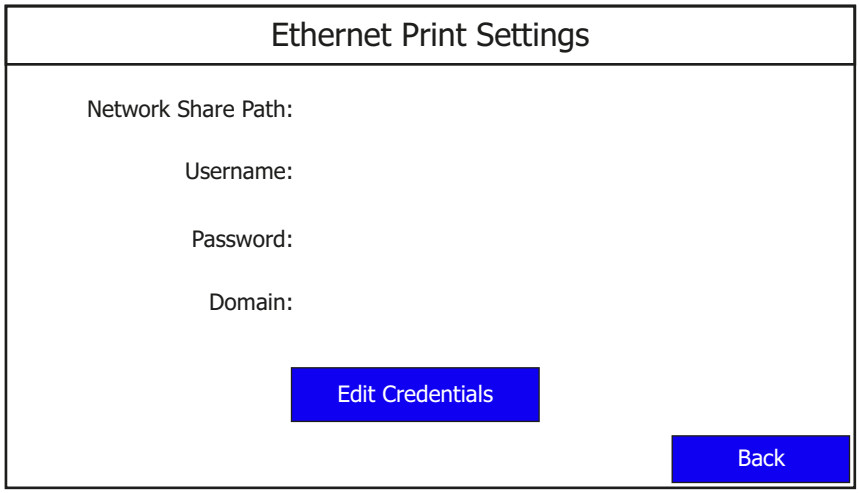
3. Press Back to return to Print Settings.

Configure the Ethernet print settings

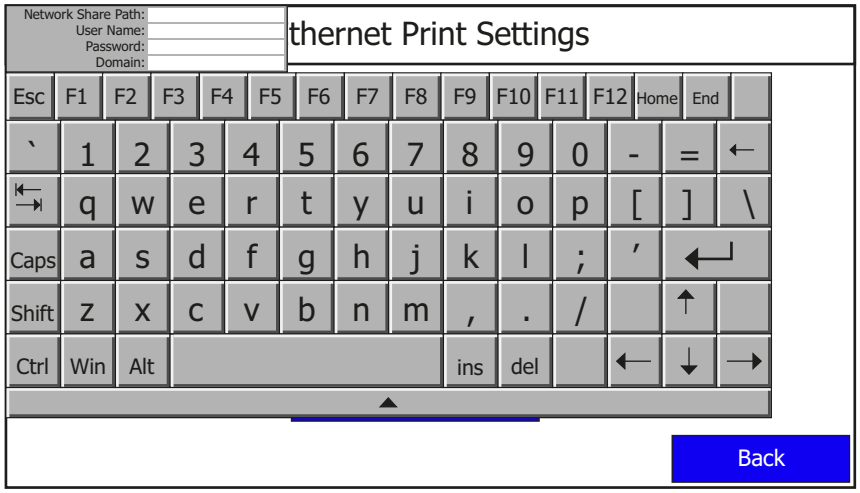
Before configuring the Ethernet print settings, make sure that the print server is available on the PC. To do so, the printer driver must be installed on the PC and the printer must be shared on the network.

It is not necessary to configure the Ethernet print settings if you are not printing through a print server.

1. Press Ethernet Print Settings.



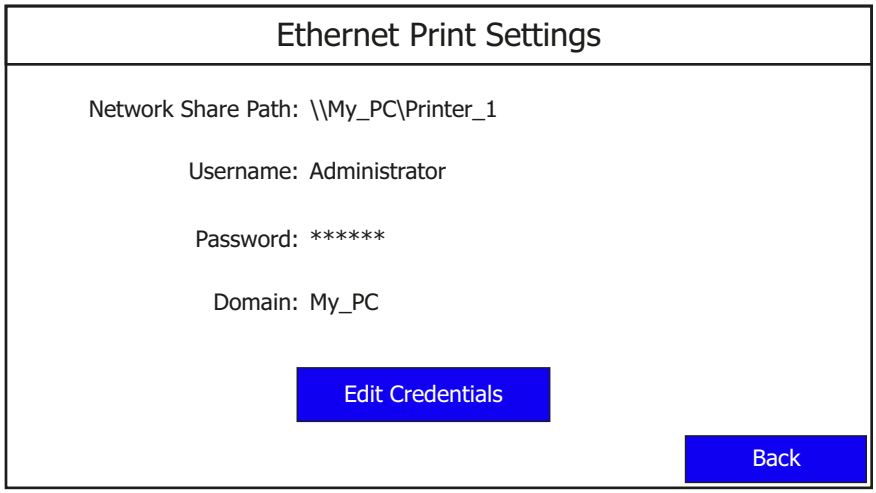
2. Press Enter Credentials.



3. Enter the login credentials for your print server. Then press the Enter key.

IMPORTANT	If your account does not have a password, leave the Password field blank. If your PC is not part of a domain or workgroup, enter the name of your PC in the Domain field.

The following shows an example.



Add a print button to your application

After configuring the print settings on your terminal, you have to add a print button to your application.

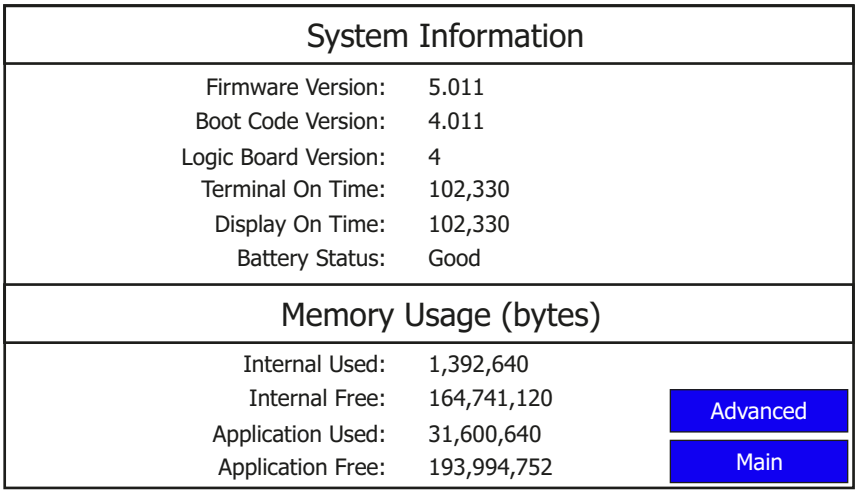
1. In Connected Components Workbench software, double-click a screen for your application where you want to place the Print button.
2. Drag-and-drop a Print button from the Toolbox window to your application screen.
3. Right-click the Print button and select Properties.
4. In the Properties window, configure the Print Type setting.

   Print Type = Print Current Screen, Print Alarm History.

IMPORTANT The portrait and color options are not supported when printing the alarm history. The print settings switches automatically to the landscape and monochrome options.

System Information Settings

On the main configuration screen, press System Information to go to the system information screen.



You can perform the following actions under System Information:

- View System Information
- Change Daylight Savings Time and Timezone

View System Information

You can view system information about your terminal including information about the firmware, boot code, logic board, battery status (if applicable), terminal on time, and memory used.

Follow these steps to view system information from the terminal.

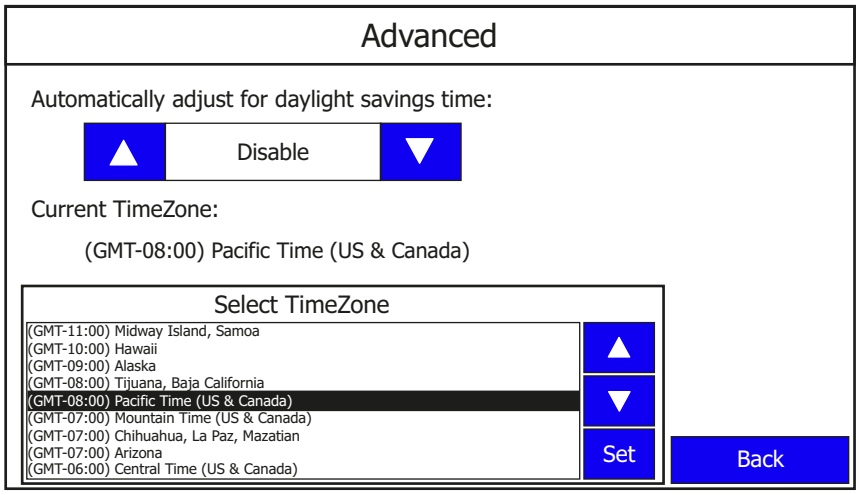
1. Press System Information.

   The system information screen displays firmware revision, boot code version, logic board version, terminal on time, display on time, and battery status.

Change Daylight Savings Time and Timezone

Follow these steps to change the daylight savings time and timezone from the terminal.

1. Press System Information.
2. Press Advanced.



3. Use the arrow keys to enable or disable daylight savings time.
4. Use the arrows keys to select the timezone you want, then press Set.

Transferring Applications

Applications that are created for one PanelView 800 terminal can be used on other PanelView 800 terminals. For example, you might create an application for one terminal and then distribute the application to other terminals for production. An application that is created for PanelView 800 terminals cannot be used on older PanelView Component terminals.

Transferring an application is a two-step process.

- Export the application from the internal storage of the terminal to a USB drive or microSD card.
- Import the application from a USB drive, or microSD card to the internal storage of another terminal.

If the target terminal is another type and size than the source terminal, some aspects of the application are converted and the remaining properties require updates. If trying to run an application, you are warned that the application was not created for the terminal, but you are given an option to continue or cancel unless the differences make it impossible to run the application (for example, an Ethernet application on a terminal without an Ethernet network connection).

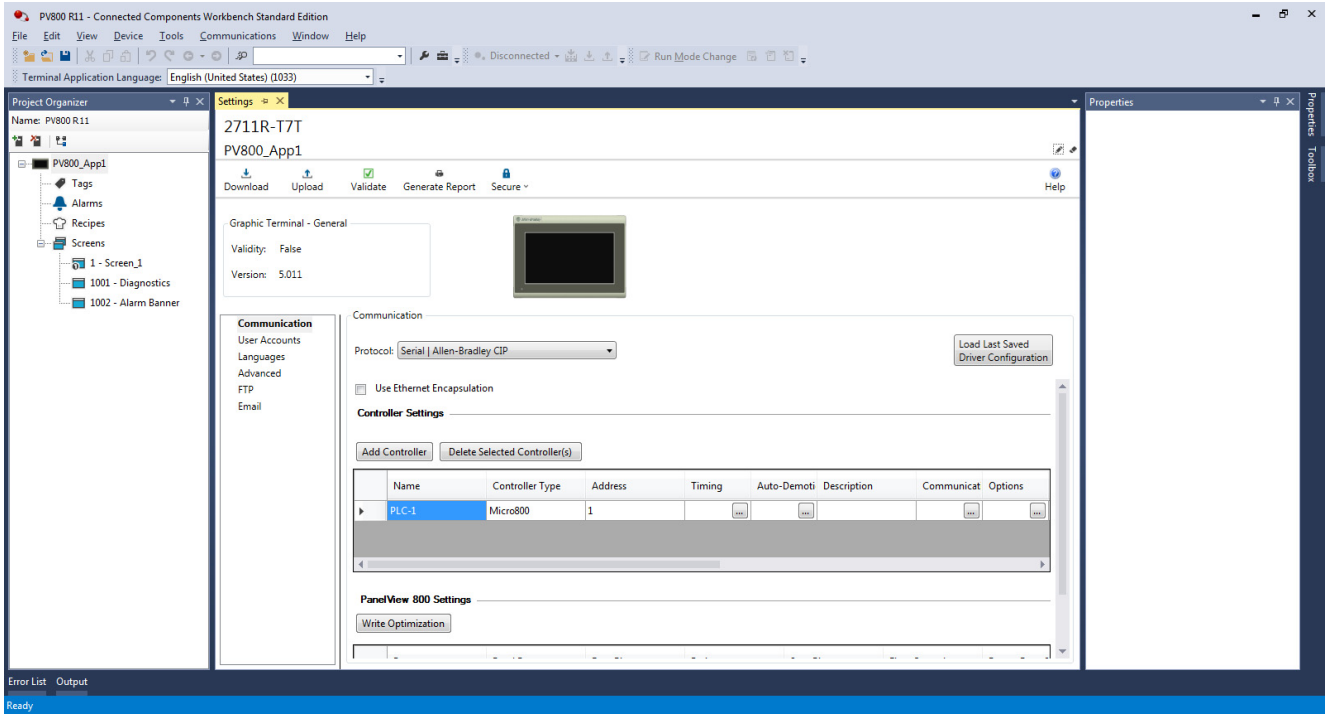
PanelView 800 applications are saved with a ".cha" file type.

DesignStation in Connected Components Workbench Software

DesignStation

PanelView 800 DesignStation is a component within the Connected Components Workbench software that allows you to create applications for PanelView 800 terminals. You can create applications in Connected Components Workbench software without being connected to a terminal but you can only run the application on a physical terminal. Applications that are created with Connected Components Workbench software can be downloaded to the terminal through Ethernet, or transferred using a USB drive or microSD card.

Figure 1 - Connected Components Workbench Software



We strongly recommend that you validate the transferred application using the terminal software before running the application. Non-validated applications, when started on the terminal, display a reminder popup message that the application is not validated. Applications that are designed for CompactLogix 5370™ or CompactLogix 5380 controllers must be validated before running on the terminal.

You can download the latest version of Connected Components Workbench software at rok.auto/ccw.

Install the Software

To use the Connected Components Workbench software effectively your computer should meet the following hardware requirements:

Minimum System Requirements

Component	Requirement
Processor	Intel Pentium 4 2.8 GHz or equivalent
RAM Memory	2 GB
Hard disk space	10 GB free
Optical Drive	DVD-ROM
Pointing Device	Any Microsoft Windows compatible pointing device

Recommended System Requirements

Component	Requirement
Processor	Intel Core i5 2.4 GHz or equivalent
RAM Memory	8 GB or more
Hard disk space	10 GB free or more
Optical Drive	DVD-ROM
Pointing Device	Any Microsoft Windows compatible pointing device

DesignStation in Connected Components Workbench software is supported on the following operating systems:

- Windows® Server 2012[(a)]
- Windows Server 2012 R2
- Windows Server 2016[(a)]
- Windows Server 2019
- Windows 10 IoT Enterprise 2016 LTSB 64-bit
- Windows 10 IoT Enterprise 2019 LTSC
- Windows 10
- Windows 11[(b)]

IMPORTANT All supported operating systems require .NET Framework 3.5 SP1 to be installed.

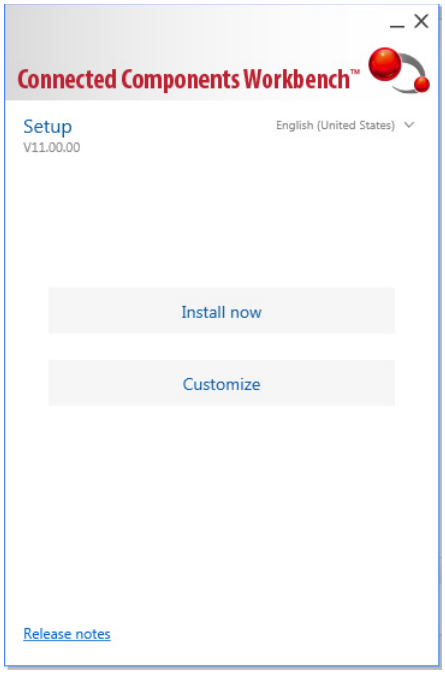
Your computer information can be found by right-clicking My Computer and then selecting Properties.

Follow these steps to install Connected Components Workbench software. Connected Components Workbench software version 11 is used in the following examples.

1. Run the executable file.

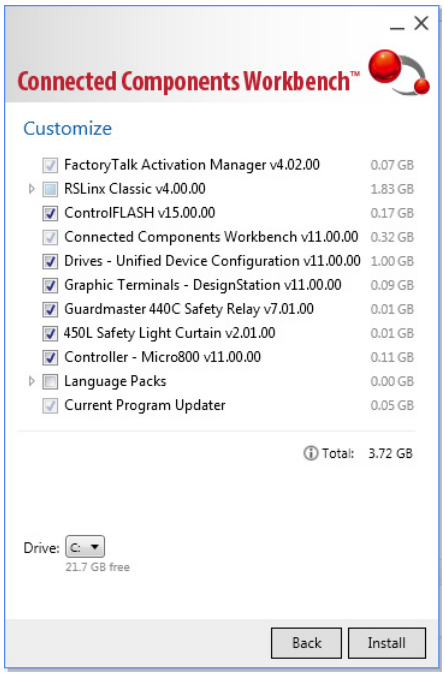
(a) Requires Connected Components Workbench software version 20 or earlier.
(b) Requires Connected Components Workbench software version 20 or later.

2. In the Setup window, choose “Install now” to go with the default installation, or “Customize” to select the individual components to install.

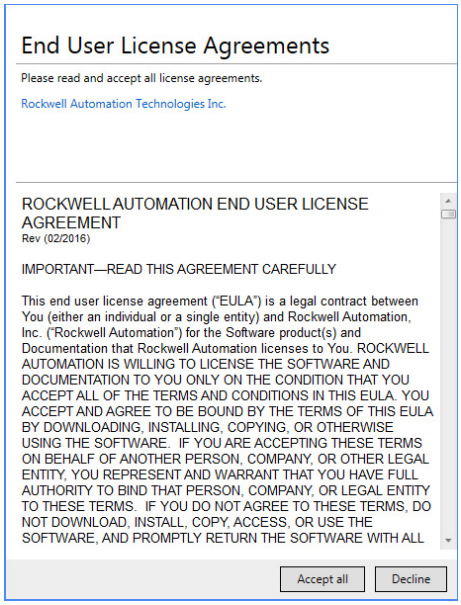


3. If you chose “Customize”, select the components that you want to install, then click Install.

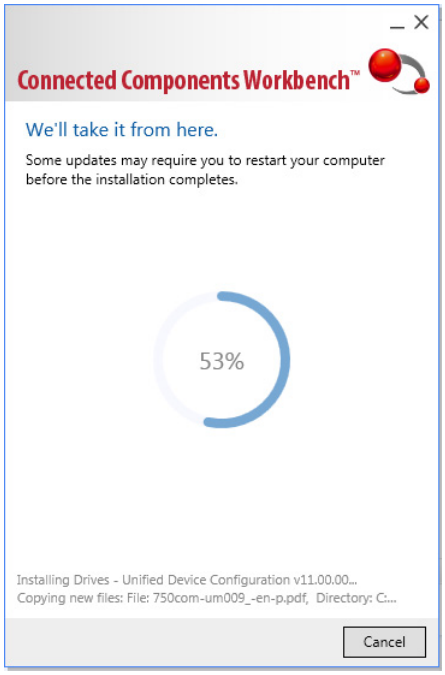
   Certain components are pre-selected for you and cannot be unchecked.



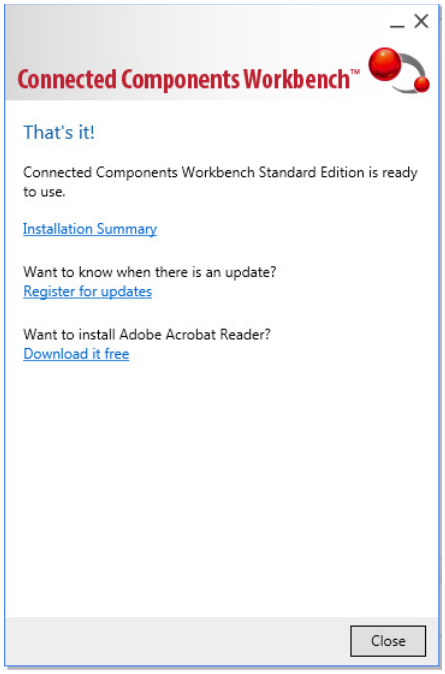
4. Review the license agreement and click Accept all to proceed with the installation.



5. The next screen provides a visual indication of the installation progress.



6. When the installation is successfully completed, a final confirmation screen is shown. Click Close to end the installation process.

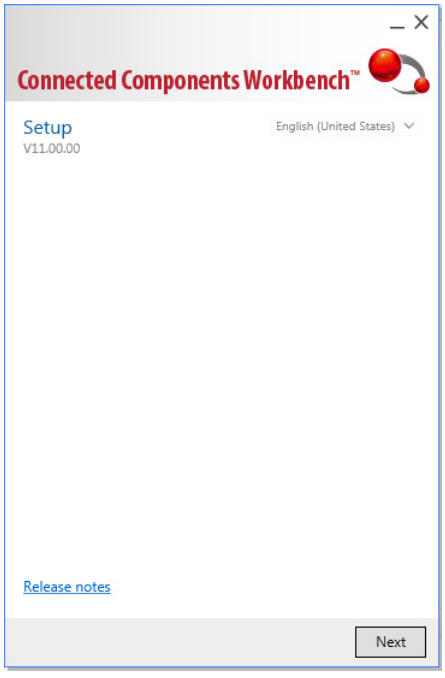


Uninstall the Software

Uninstalling Connected Components Workbench software removes all registry settings, files, directories, and Windows Start menu items that were originally installed with this software.

Follow these steps to uninstall Connected Components Workbench software.

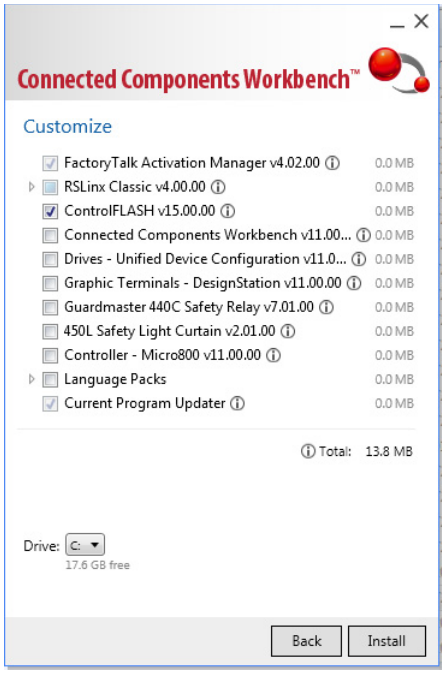
1. Run the same executable file used to install Connected Components Workbench software.



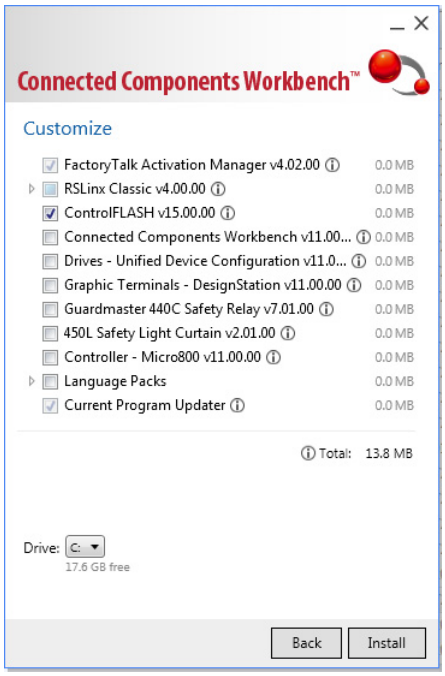
2. Click Next, then select the components that you want to uninstall.

   To uninstall Connected Components Workbench software, you must first unselect the checkboxes for the following components:

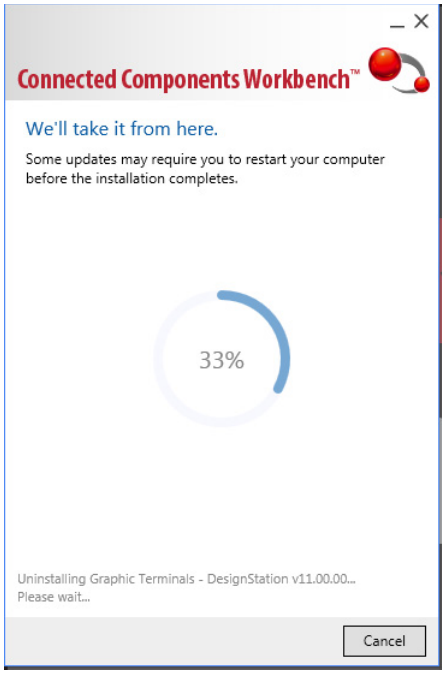
   - Drives - Unified Device Configuration
   - Graphic Terminals - DesignStation
   - Guardmaster® 440C Safety Relay
   - 450L Safety Light Curtain
   - Controller - Micro800



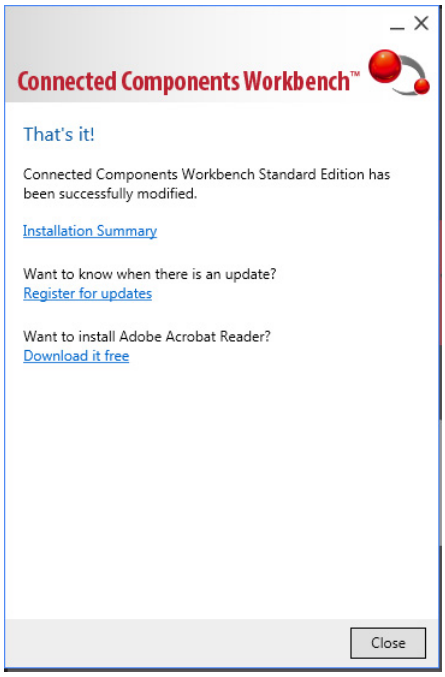
3. After you have unselected the checkboxes of the components that are listed above, you can then unselect the checkbox for Connected Components Workbench software. Click Install to proceed with the uninstallation.



4. The next screen provides a visual indication of the uninstallation progress.



5. When the uninstallation is successfully completed, a final confirmation screen is shown. Click Close to end the uninstallation process.

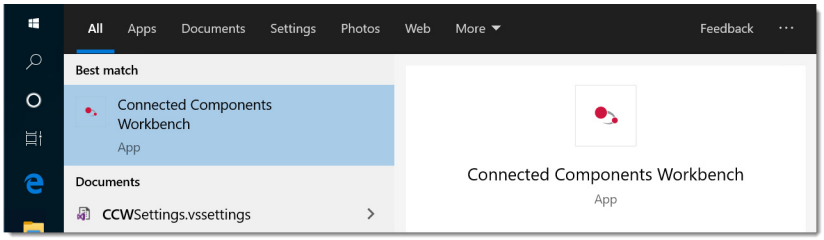


Launch Mechanism

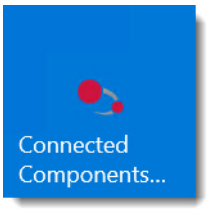
Launch Connected Components Workbench software from the entry in your Windows Start Menu, or by double-clicking the Connected Components Workbench software shortcut on your desktop.

Figure 2 - Example in Windows 10 Start Menu

Search result



Tile



Configure Key Repeat Settings

You can configure key repeat settings for the terminal keys or attached keyboard of the connected terminal.

You cannot change the key repeat settings from the on-terminal configuration screens. If you want to change this setting, you must connect to the terminal through a web browser.(1)

(1) The web browser feature is not supported on PanelView 800 terminals from firmware revision 3.011 onwards.

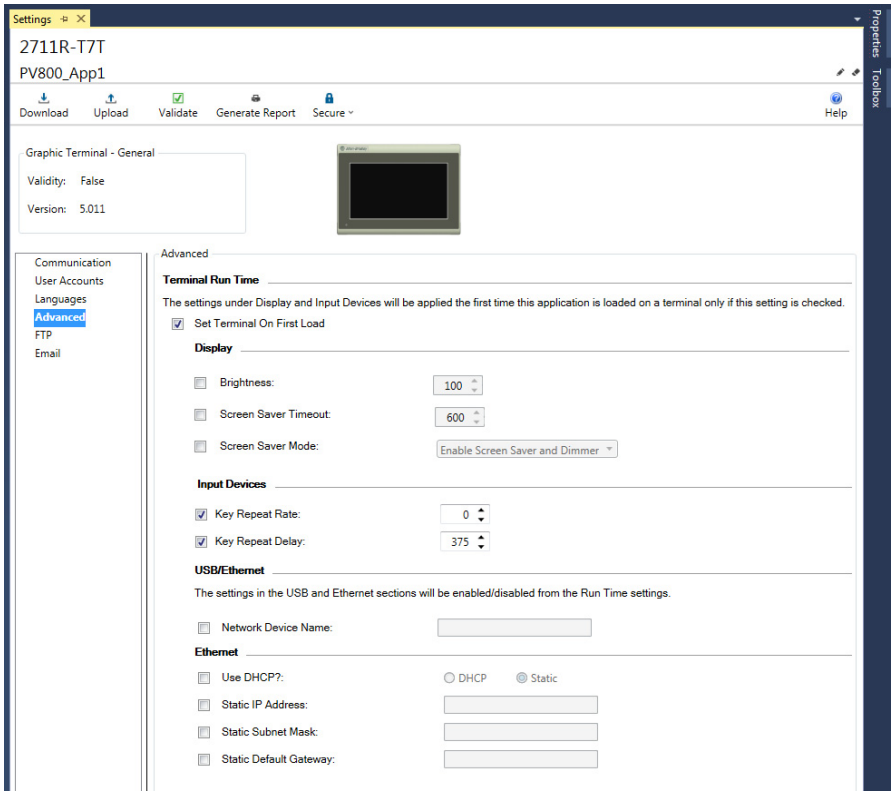
The repeat rate is the speed at which a character repeats per second when you hold down a key. The repeat delay is the amount of time, in milliseconds, which elapses before a character begins to repeat when you hold down a key.

From firmware revision 3.011 onwards, the key repeat settings can be configured in Connected Components Workbench software. This feature also requires Connected Components Workbench software version 9 or later to be installed.

Follow these steps to change the repeat settings for keys using Connected Components Workbench software.

1. Go to the Settings tab for your PanelView 800 terminal.
2. Click Advanced in the settings list.

3. Select the Set Terminal On First Load checkbox.



4. Under Input Devices, select the checkbox for the setting you want to configure.
5. Use the up or down arrows to adjust the value, or input the value directly into the text box.
6. Save the project.

Creating Applications

Applications for PanelView 800 terminals can be created using the Connected Components Workbench software version 8 or later. You can create applications without being connected to a terminal but you can only run the application on a physical terminal.

Downloading Applications

Applications that are created with Connected Components Workbench software can be downloaded to the terminal through the following methods:

- Only for firmware revision 2.020 or earlier
  - PanelView Explorer using Ethernet
- For firmware revision 3.011 or later
  - CIP™ Ethernet
  - CIP Bridge connection through CompactLogix 5370 controller
  - CIP Bridge connection through Micro800™ controller

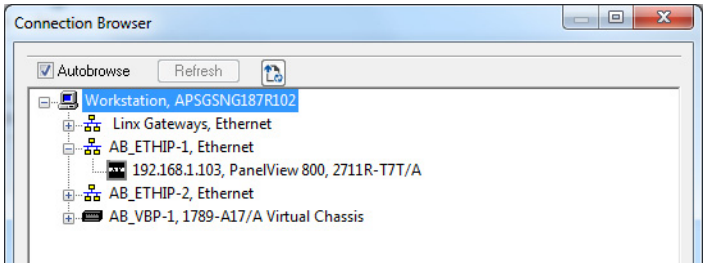
IMPORTANT If the terminal is password protected using Connected Components Workbench software version 10 or later, you cannot download an application to the terminal using Connected Components Workbench software version 9 or earlier. An error message stating the system is busy will be shown in the output window under the Graphic Terminal message list.

If the terminal is password protected, you must enter the password before you can download an application.

Follow these steps to download the application to the terminal.

1. From the Project Organizer, right-click the PanelView 800 terminal, then click Download.
   Alternatively, click the Download icon in the Settings tab of the terminal.

   The Connection Browser dialog box appears.



2. Select the terminal that you want to download the application to, then click OK.

In Connected Components Workbench software version 12 or later, after you have successfully downloaded an application to your terminal, a dialog prompt appears to ask to start the application. This feature also requires firmware revision 5.012 or later.

Uploading Applications

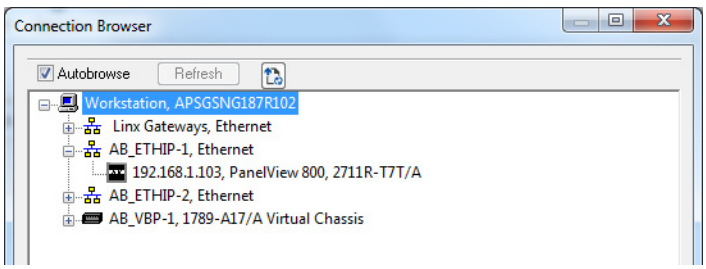
You can upload an application from the terminal into the Connected Components Workbench software. This allows you to edit the application, then download the changes to the terminal. If you have a current project that is opened in Connected Components Workbench software, that project is backed up, then the application from the terminal overwrites the current project.

- The current project is backed up with the string "__bak" appended to the end of the filename. The status message can be viewed in the Output window under the Graphics Terminal message list.
- If the terminal is password protected, you must enter the password before you can upload an application.

Follow these steps to upload an application from the terminal.

1. From the Project Organizer, right-click the PanelView 800 terminal, then click Upload.
   Alternatively, click the Upload icon in the Settings tab of the terminal.

   The Connection Browser dialog box appears.



2. Select the terminal that you want to upload the application from, then click OK.

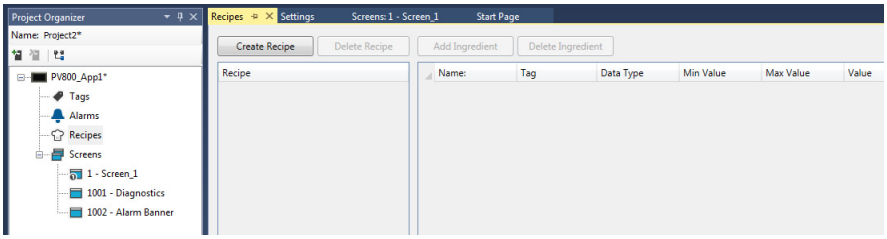
3. Select an application from the list.
4. Click OK.

Create Recipes

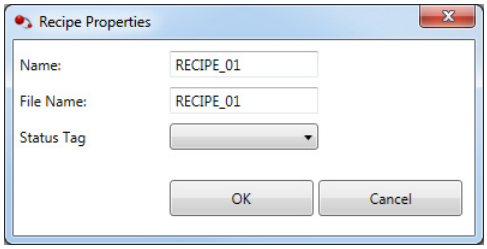
Recipes are created using Connected Components Workbench software and each PanelView 800 terminal application supports up to 50 recipes. Each recipe contains a list of ingredients (up to 50), each with its own tag, and one data set. A data set pairs values with each ingredient.

Follow these steps to create a recipe in Connected Components Workbench software.

1. In the Project Organizer, double-click Recipe to open the Recipe tab.



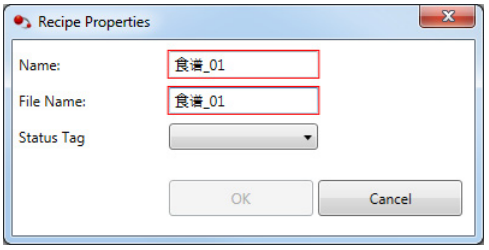
2. Click Create Recipe to add a recipe to the recipe list.
   A recipe is added to the list. The default name is RECIPE_01.
3. You can change the Recipe Name and Recipe Filename by clicking the Recipe Details button next to the Recipe.



IMPORTANT From firmware revision 4.011 onwards, recipe names and recipe filenames are restricted to only English characters (alphanumeric and certain special characters). If you use non-English characters, you will not be able to save the recipe. This does not affect the usability of the recipe, it can still be downloaded to the terminal.

This limitation is due to the new feature that allows you to edit the recipe name in the terminal, which supports only English characters on the terminal keyboard.

If non-English characters are used, the field is outlined in red and the OK button is dimmed.



4. You can optionally assign a Status Tag to monitor the status of the recipe downloads and uploads.

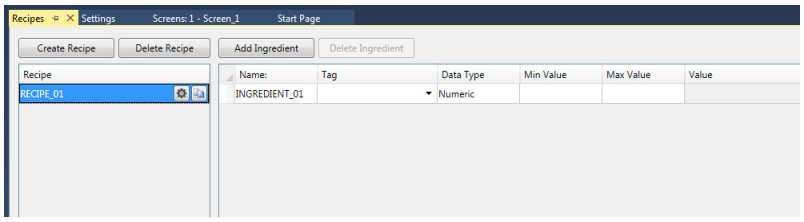
You can now add ingredients to the recipe.

Add Ingredients to a Recipe

A recipe can hold up to 50 ingredients. Each ingredient is created as a separate row in the recipe table. When you create a recipe, a row is automatically added for the first ingredient. Each recipe must have at least one ingredient.

Follow these steps to add ingredients to a recipe.

1. Select a recipe in the Recipe List.

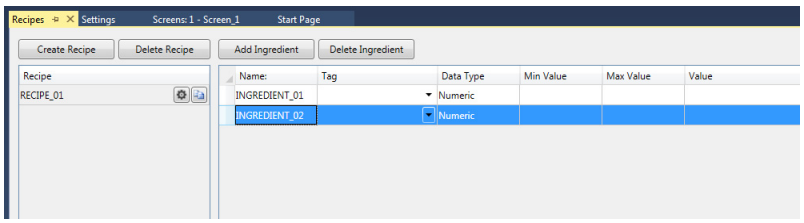


2. Click the Add Ingredient button for each ingredient you want to add to the recipe.
3. For each ingredient:
   a. Change the name of the ingredient if necessary.
   b. Select the tag to store the value of the ingredient.
   c. Select a numeric or string data type for the ingredient.
   d. Enter a minimum and maximum value for the ingredient if the data type is numeric.
   e. Enter a value for each ingredient.

Delete Ingredients from a Recipe

Follow these steps to delete ingredients from a Recipe.

1. Click the space on the left of the ingredient to select the entire row.



2. Click Delete Ingredient.
3. Click Yes to confirm.

Download Recipes

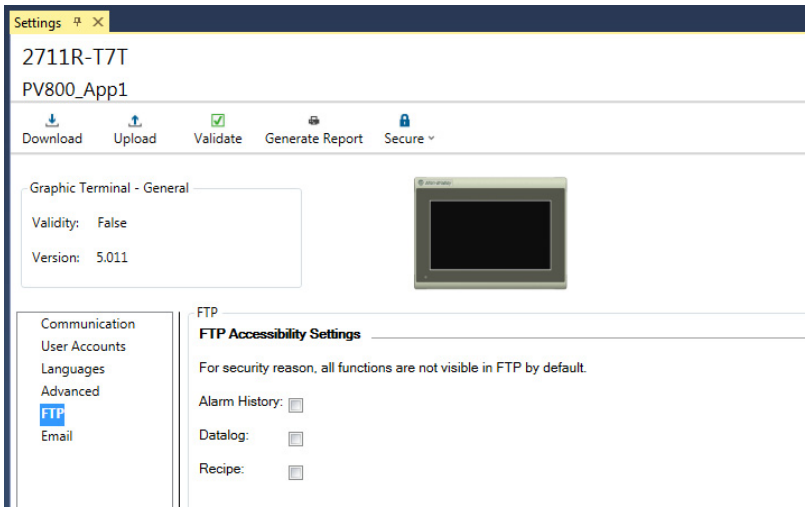
Recipes are downloaded together with the application into the PanelView 800 terminal. See Downloading Applications on page 53 for information on how to download applications to the terminal.

Configure FTP Settings

You can connect to a PanelView 800 terminal using an FTP (File Transfer Protocol) client such as a web browser, PC file explorer, or third-party FTP software. This gives you read-only access to the Alarm History, Datalog, and Recipe folders on the terminal. The FTP server on the terminal is disabled by default. To enable the FTP server, see Enable the FTP Server on page 31.

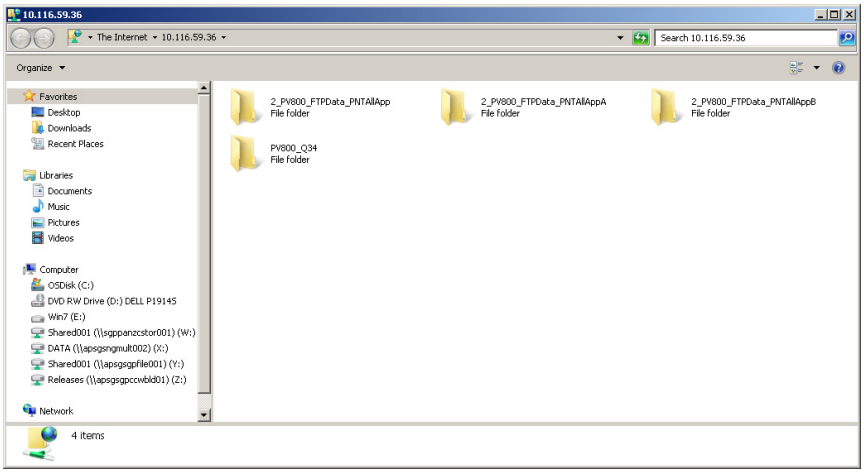
Follow these steps to grant access to the contents of the folders.

1. In Connected Components Workbench software, click the Settings tab for your terminal.



2. Click the FTP item in the menu list.
3. Under FTP Accessibility Settings, select the checkbox for the folders that you want to grant access to. If the checkbox is not selected, the contents of that folder will not be shown. None of the checkboxes are selected by default.

To connect to the terminal, enter the IP address of the terminal in the FTP client. For this example, the PC file explorer is used.



Recommended FTP Clients and Settings

These are the recommended FTP clients that you can use to connect to PanelView 800 terminals.

Recommended FTP Clients and Settings

Device	OS Version		FTP Client	Recommended Settings
PC	Windows	7	FileZilla	Default
			Cyberduck	Change Transfer Files option to "Open single connection".
			Internet Explorer 11	Default
			Firefox (with FireFTP plug-in)	Default
			Windows File Explorer	Default
Tablet	Windows	8.1	FileZilla Free	Default
	Android	6.0	AndFTP	Default
	iOS	9.1	FTP Sprite	Default
Smartphone	Windows	8.1	FTPme	Default
	Android	5.1/6	AndFTP	Default
	iOS	9	FTP Sprite	Default

IMPORTANT Only the user name "anonymous" is supported. If you try to connect to the terminal with another user name, you may receive the following error:
"Critical error: Could not connect to server."

Configure Email Settings

You can configure the PanelView 800 terminal to automatically send an email when an alarm is triggered, and also manually by using an email button in the application. The email can be sent to one or more recipients and you can also choose to send attachments such as a screen capture of the current screen or the datalog file of the application.

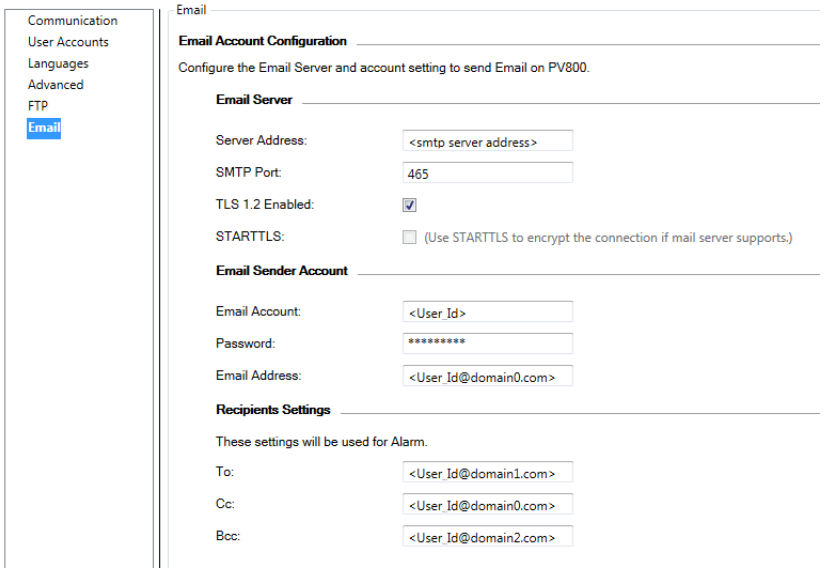
IMPORTANT The Email feature is not available for CompactLogix 5370 and CompactLogix 5380 controllers.

Configure the Email settings

Follow these steps to configure the email settings.

1. In the Connected Components Workbench software, click on the Settings tab for your PanelView 800 terminal.

2. Click the Email item in the menu list.



3. Under the Email Server configuration, enter the following:
   - Server Address = The address of the email server.
   - SMTP Port = The port number of the email server (1...65535, default is 465).

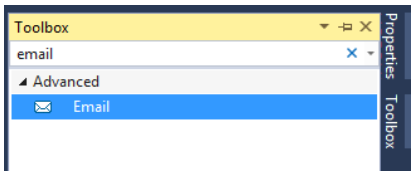
     If an invalid value is entered for the port number, it will not be saved. The port number reverts to the previous saved value when the project is closed and open again.

   - TLS 1.2 Enabled = Select this checkbox if encryption is enabled on the email server.
   - STARTTLS = Select this checkbox to enable STARTTLS if the email security protocol of the email server is of STARTTLS type.
4. Under the Email Sender Account configuration, enter the following:
   - Email Account = The account name of the email service (for example, User_Id@domain1.com)
   - Password = The login password for the email account.
   - Email Address = The “From” or “Sender” email address that is associated with the account when sending an email.
5. Under the Recipients Settings configuration, enter the email addresses of the recipients in the “To”, “Cc”, and “Bcc” fields as required.

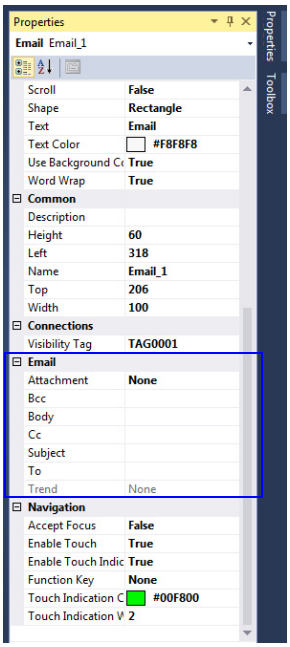
Add an Email button to your application

After configuring the email settings on your terminal, you have to add an email button to your application.

1. In Connected Components Workbench software, double-click an application screen to open it.
2. Drag-and-drop an Email object from the Toolbox onto the screen.



3. Right-click the Email object and select Properties.
   Configure the properties as required.



- Attachment = Select “None”, “screen capture”, or “Datalog” from the pull-down list.
  Only one type of attachment can be sent with the email. The screen capture option sends the current application screen.
- Enter the email address of the recipients in the “To”, “Cc”, and “Bcc” fields as required.
- You can configure the subject and body of the email with text strings, and Date, Time, Number, and String variables.

Email configuration can also be done during runtime through system tags.

Use system tags to configure Email settings

The following system tags can be used to configure the email account during runtime:

- $SysEmailAccount = The account name of the email service (for example, User_Id@domain1.com).
- $SysEmailAddress = The “From” or “Sender” email address that is associated with the account when sending an email.
- $SysEmailPassword = The login password for the email account.
- $SysEmailServerAddress = The address of the email server.
- $SysEmailSMTPPort = The port number of the email server (1...65535, default is 465).

If an invalid value is entered for the port number, it will not be saved. The port number reverts to the previous saved value when the project is closed and open again.

- $SysEmailSTARTTLS = 1 – Enable email STARTTLS encryption, 0 – Disable email STARTTLS encryption.
- $SystEmailTLS = 1 – Enable email TLS encryption, 0 – Disable email TLS encryption.

To change the runtime email configuration of the Email button, memory tags, external tags, or system tags can be used for the runtime format of the email Subject, Body, and To/Cc/Bcc email addresses.

To change the runtime email configuration of alarm triggered emails, only system tags can be used for changing the To/Cc/Bcc email addresses.

Email server configuration examples

The following table shows examples of email server configuration.

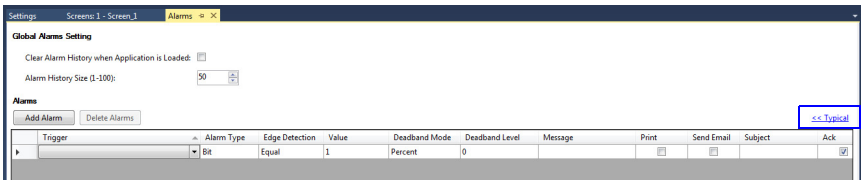
Email Server Configuration

Email Service	Server Address	SMTP Port	TLSL	StartTLS
Gmail	smtp.gmail.com	465	Enabled	Dimmed
Yahoo	smtp.mail.yahoo.com	465	Enabled	Dimmed
Hotmail	smtp-mail.outlook.com	587	Dimmed	Enabled
Outlook	smtp-mail.outlook.com	587	Dimmed	Enabled

Configure the Alarm Settings

You can enable the terminal to automatically send an email when an alarm is triggered by configuring the alarm settings. For more information on configuring the email settings, see Configure Email Settings on page 58.

1. In Connected Components Workbench software, double-click Alarms in your application to open the Alarms tab.



2. If the number of fields that are shown differs from the example above, click the link “Advanced >>” to show additional alarm fields.
3. Configure the following settings:
   - Trigger = Select the tag to be used as the trigger for the alarm.
   - Message = This field is displayed on the terminal when the alarm is triggered and is sent as the body of the email. You can configure the message with Date, Time, Number, and String variables.
   - Print = Select this checkbox to print the current alarm information when the alarm is triggered.
   - Send Email = Select this checkbox to enable the terminal to send an email when the alarm is triggered.
   - Subject = This field is sent as the subject of the email. You can configure the subject with Date, Time, Number, and String variables.

Change Application Font

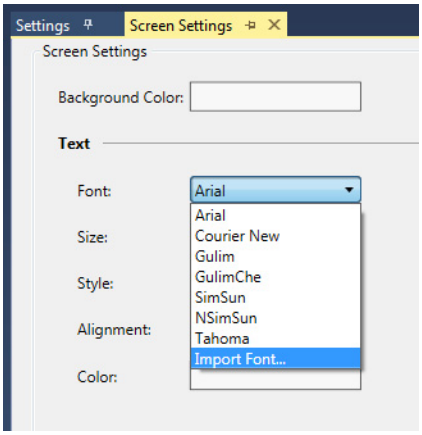
You can change the font that is used in your PanelView 800 application, either for the entire application or for each individual object. You can also import fonts into your application. The font types that are supported are ".ttf", ".ttc", and ".ac3".

IMPORTANT The Korean language font "Gulim" is treated as a system font. After downloading it to the terminal and restarting the terminal, you can switch the terminal language to Korean by selecting it from the main configuration screen. See Select a Terminal Language on page 19. The "Gulim" font will not appear in the Font screen and cannot be deleted unless you restore or return the terminal to out-of-box condition.

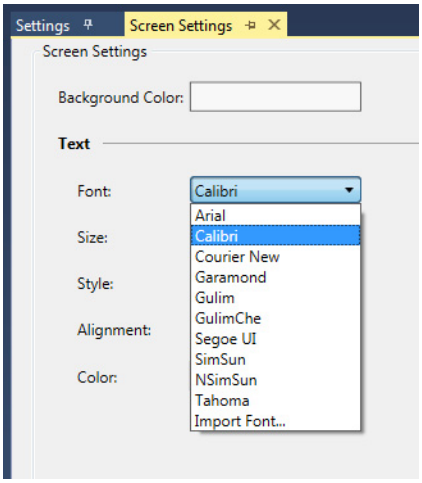
If your application uses a font that is not in the terminal, the font is download to the terminal together with your application.

Follow these steps to change the application font.

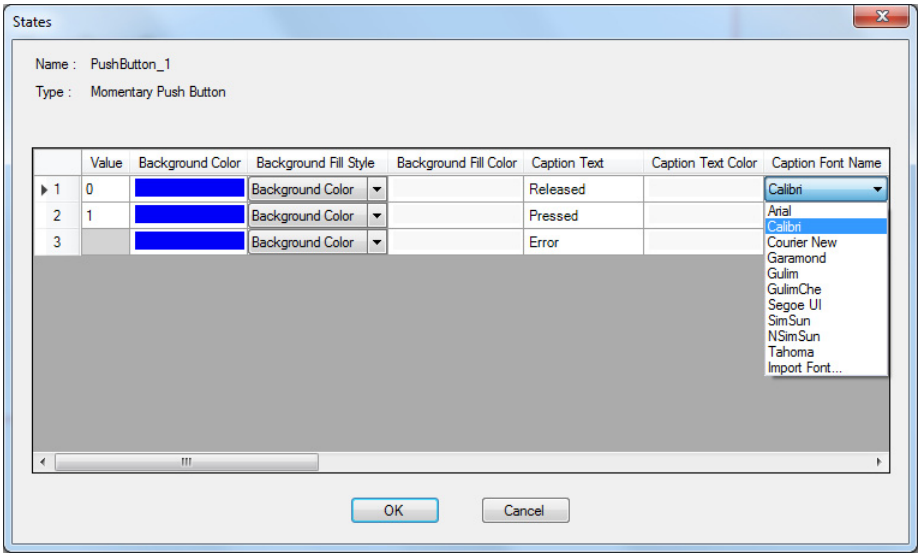
1. In Connected Components Workbench software, double-click Screens in your application to open the Screen Settings tab.
2. Select the font to use from the Font pull-down list. To import a font, select Import Font.

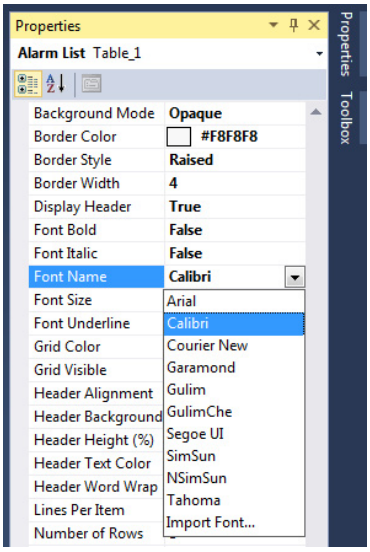


3. Browse your computer for the font, then select it and click Open.
   The font is now imported into your application.



4. To change the font for an individual object, select the font from the object properties. Here are some examples.





Add Fonts to the Terminal

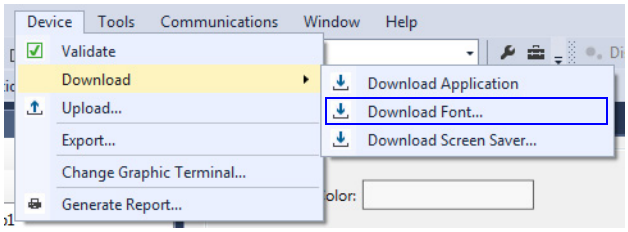
To add fonts to a PanelView 800 terminal, you must first import them into Connected Components Workbench software. The font types that are supported are ".ttf", ".ttc", and ".ac3".

IMPORTANT The Korean language font "Gulim" is treated as a system font. After downloading it to the terminal and restarting the terminal, you can switch the terminal language to Korean by selecting it from the main configuration screen. See Select a Terminal Language on page 19. The "Gulim" font will not appear in the Font screen and cannot be deleted unless you restore or return the terminal to out-of-box condition.

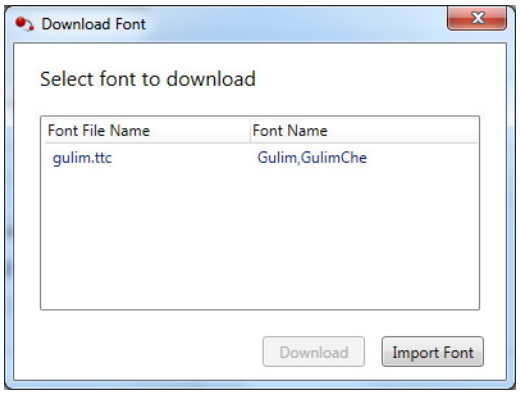
If your application uses a font that is not in the terminal, the font is download to the terminal together with your application.

Follow these steps to download a font to the terminal.

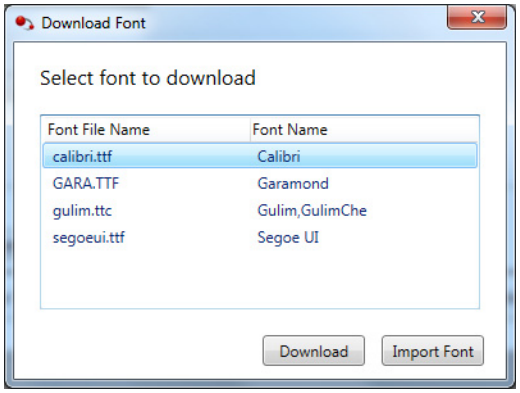
1. In Connected Components Workbench software, click Device -> Download -> Download Font.



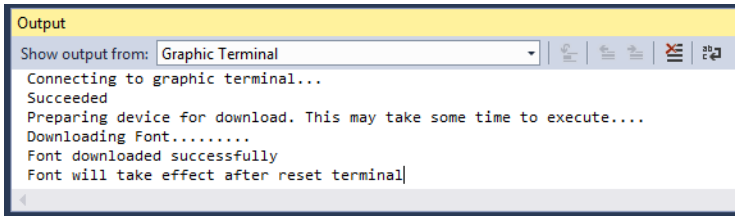
2. If the font you want to download to the terminal is not shown in the Download Font window, click Import.



3. Browse your computer for the font, then select it and click Open. The font is now imported into Connected Components Workbench software.



4. Select the font in the Font window, then click Download. The Connected Components Workbench software connects to the terminal and downloads the font.



To delete a font from the terminal, see Delete Fonts on page 38.

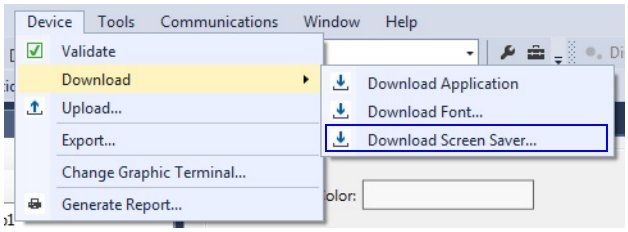
Add Screen Savers to the Terminal

The PanelView 800 terminal comes with a default screen saver “RA_Default”. You can change the screen saver by downloading them to the terminal. The terminal supports up to 25 screen savers and the screen saver has the following requirements:

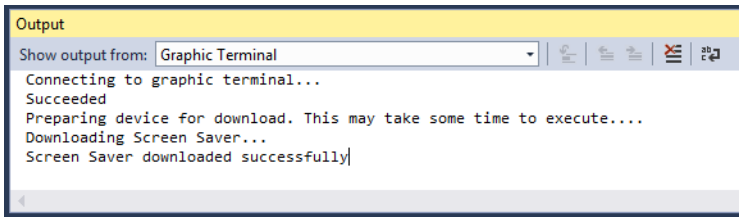
- Maximum resolution of 128 x 128 pixels.
- In bitmap (.bmp) file format.

Follow these steps to download a screen saver to the terminal.

1. In Connected Components Workbench software, click Device -> Download -> Download Screen Saver.



2. Browse your computer for the screen saver, then select it and click Open. The Connected Components Workbench software connects to the terminal and downloads the screen saver.



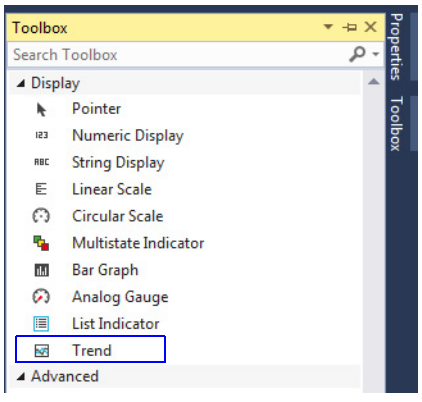
To select and configure a screen saver to use, or delete a screen saver from the terminal, see Configure Screen Saver Settings on page 36.

Trend and Datalog

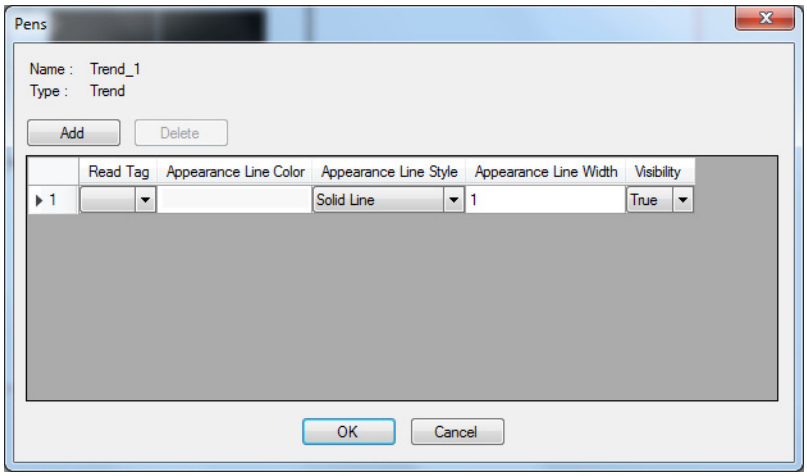
Trends are used to monitor the values of tags over a specific time interval. Only live trends are supported. There is no support to view historical trends. There can be up to 7 trends with a maximum of 20 pens per trend. The values of the tags can be recorded into a datalog file.

Follow these steps to add a Trend object to your PanelView 800 application.

1. In Connected Components Workbench software, double-click an application screen to open it.
2. Drag-and-drop a Trend object from the Toolbox onto the screen.

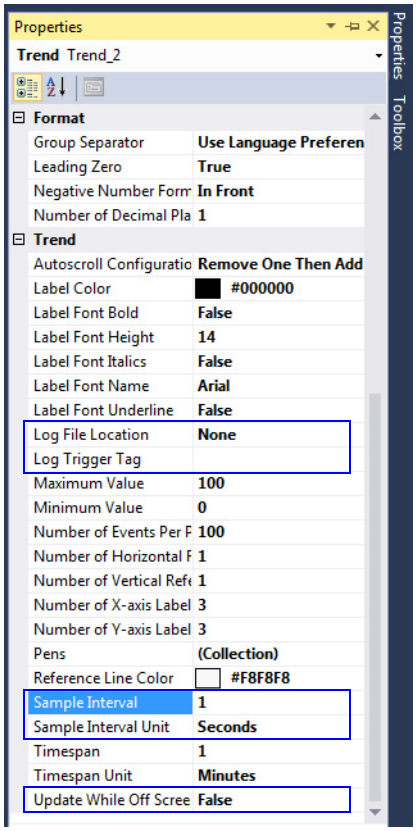


3. Double-click the Trend object.
The Pens window appears.



4. Modify the fields as required.
5. Click Add if more pens are required.
6. Click OK when finished.
7. Right-click the Trend object and select Properties.
Configure the properties as required.

- Sample Interval
- Sample Interval Unit
- Update While Off Screen: False = The trend updates only when the screen with the Trend is shown on the terminal.
True = The trend always updates.
- Log File Location: Select the location where the datalog file is saved.
- Log Trigger Tag: The datalog starts recording when the value of the tag is TRUE.

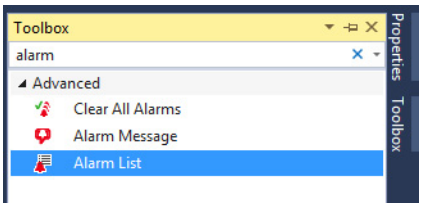


Alarm List Filter

The Alarm List object displays the list of alarms that occurs on the terminal. You can filter the list to display all alarms that have occurred, or only the active alarms.

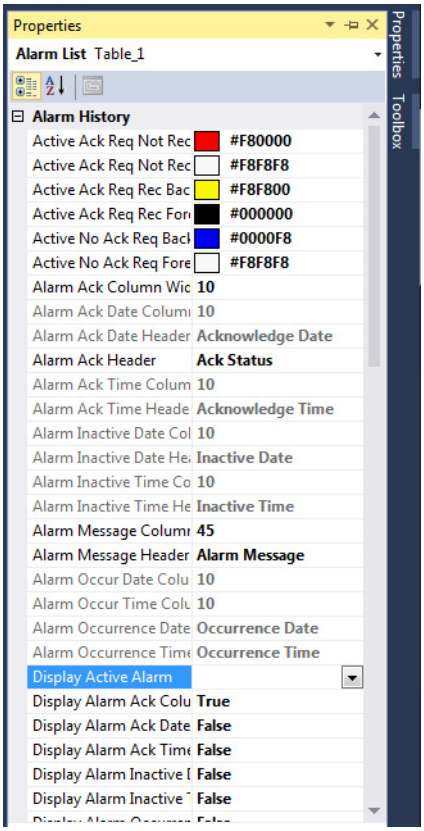
Follow these steps to add an Alarm List object to your PanelView 800 application.

1. In Connected Components Workbench software, double-click an application screen to open it.
2. Drag-and-drop an Alarm List object from the Toolbox onto the screen.



3. Right-click the Alarm List object and select Properties.
   Configure the properties as required.

- Display Active Alarm: By default, all alarms are displayed. When the value of the tag is "1", only the active alarms are displayed.



Import Tags From a Controller

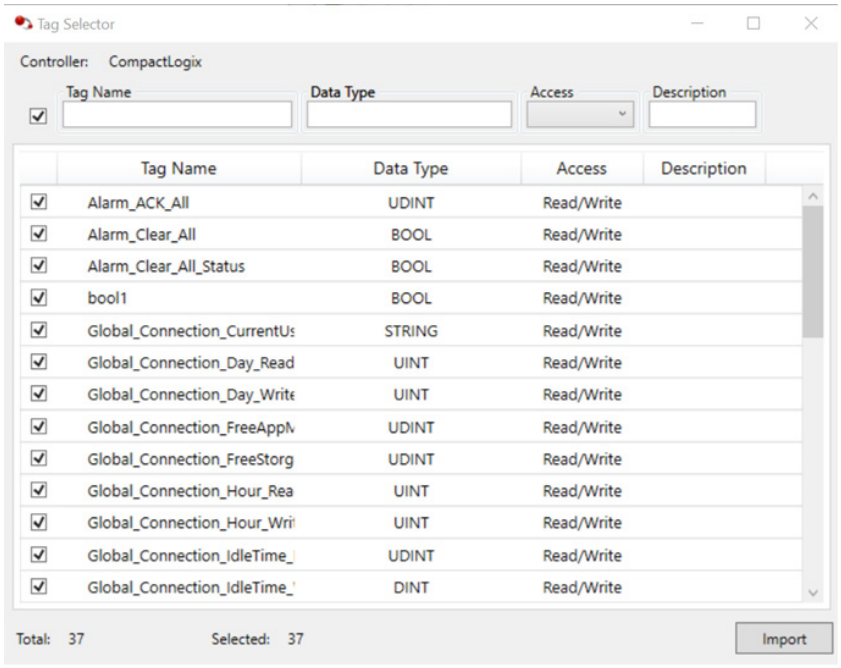
You can import tags from a CompactLogix controller or Micro800 controller into your PanelView 800 application.

IMPORTANT If the data type of a controller tag is not supported by PanelView 800, the tag is not shown in the Tag Selector dialog. However, if the tag contains sub tags that have supported data types, then the main tag and sub tags are shown in the Tag Selector dialog.

Import Tags From a CompactLogix Controller

Follow these steps to import CompactLogix controller tags into your PanelView 800 application.

1. In the Tag Editor tab, click the Import.
2. In the submenu, select CompactLogix.
   The open file dialog appears.
3. Select Studio 5000 Logix Designer® application project file (.l5x), then click Open.
   The Tag Selector dialog appears.



IMPORTANT An error message appears if one of the following conditions is true:

- The file does not have the extension ".l5x".
- The file is damaged.
- The file is from a non-supported version of Logix Designer application.
- The file is a non-supported Logix Designer application project type.

If the tags you want to import exists in your application, a warning message appears. Click Yes to import all selected tags and overwrite existing tags, or No to only import tags that do not exist in your application.

The Import tag result is show in the Output pane.

IMPORTANT After importing a tag with the String data type, you must change "TagName.Data/0" to "TagName.Data/N" where N is the length of the string.

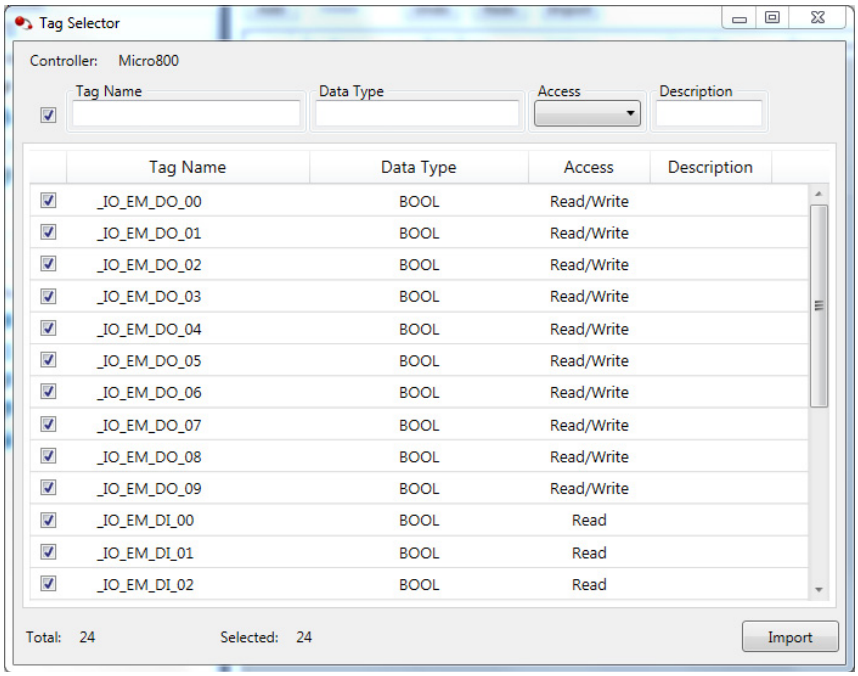
If no default value was set for the controller string tag, the tag is named "TagName.Data/0" by default after it has been imported to your PanelView 800 application.

For more information on the differences in supported data types between PanelView 800 terminals and CompactLogix 5370/CompactLogix 5380 controllers, see CompactLogix 5370 and CompactLogix 5380 Controller Addressing on page 141.

Import Tags From a Micro800 Controller

Follow these steps to import Micro800 controller tags into your PanelView 800 application.

1. In the Tag Editor tab, click the Import.
2. In the submenu, select Micro800.
   The Tag Selector dialog appears.



IMPORTANT An error message appears if there is no Micro800 controller in your project

3. Select the tags that you want to import, then click Import.

If the tags you want to import exists in your application, a warning message appears. Click Yes to import all selected tags and overwrite existing tags, or No to only import tags that do not exist in your application.

The Import tag result is show in the Output pane.

Assign Tags From a CompactLogix 5370 or CompactLogix 5380 Controller

You can assign tags from a CompactLogix 5370 or CompactLogix 5380 controller to your PanelView 800 terminal tags.

IMPORTANT If the data type of a controller tag is not supported by PanelView 800, the tag is not shown in the Tag Selector dialog.

Follow these steps to configure the controller tags and assign them to your PanelView 800 terminal tags.

1. Under Communication settings in the Settings tab, click the ellipses (...) button for Offline File Path.

2. Select a Logix Designer application project file (.l5x), then click Open.

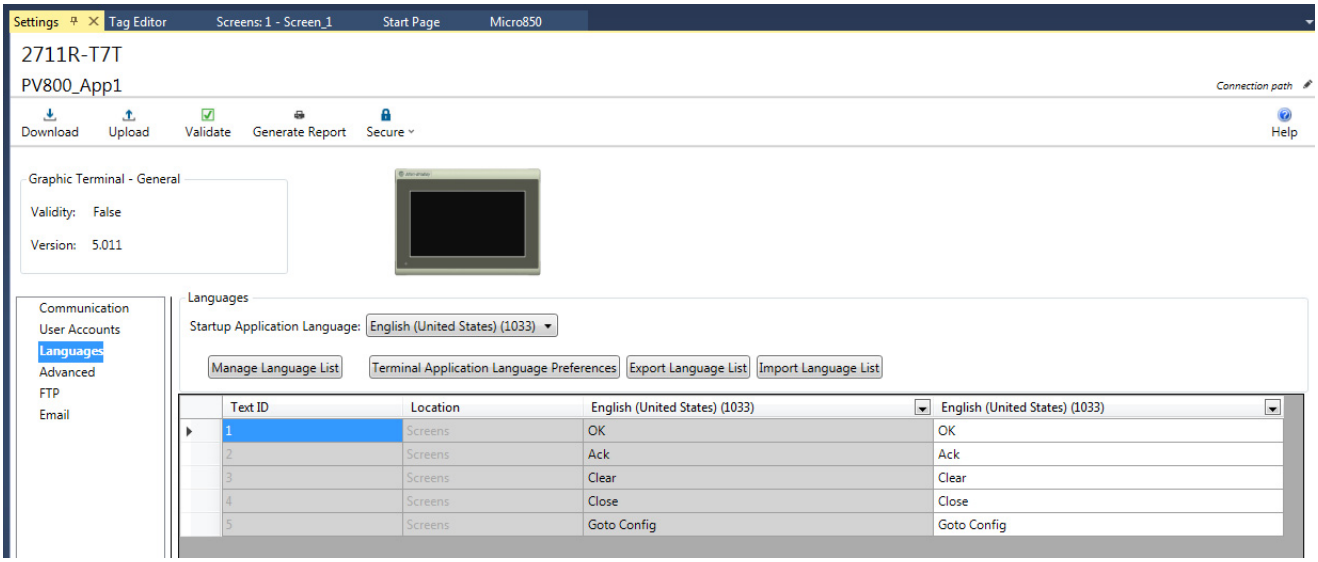
IMPORTANT An error message appears if one of the following conditions is true:

- A valid file path is not provided.
- The file does not exist.
- The file does not reside in the local computer.
- The file does not have the extension ".l5x".
- The file is damaged.
- The file is from a non-supported version of Logix Designer application.
- The file is a non-supported Logix Designer application project type.

3. Select the controller tag that you want to assign, then click Select.

Export and Import a Language List

In Connected Components Workbench software version 11 or later, you can export and import a language list for your PanelView 800 terminal. This makes it easier to translate text strings and update them in your application.



Export a Language List

Follow these steps to export a language list from your PanelView 800 terminal.

1. Under Languages in the Settings tab, click Export Language List.
2. Create a file or select an existing file to save the language list.

IMPORTANT An error message appears if one of the following conditions is true:

- The file does not reside in the local computer.
- The file does not have the extension ".xlsx".
- The file is being used by another application.
- The file is set to "Read-only" access.

If you selected an existing file, a warning message appears. Click Yes to overwrite the existing file or No to cancel the action.

The Export Language List results are shown in the Output pane.

The exported language list is stored in a new worksheet with the name “Language List”. Each data column contains the text information for one language.

Import a Language List

Only language text information is imported. Location information and Text ID are not imported. If the Text ID is not in the current Language List, then the language text information is not imported.

IMPORTANT Note the following:

- The import action is canceled if the selected file is not in the correct format, the name of the worksheet is not “Language List”, or no language information exists.
- If there is duplicate language information in another column, it is ignored.
- If the column contains non-supported language data, it is ignored.
- If the language count exceeds the limit (10), the excess column data is ignored.
- If the language text string length exceeds the limit (255 characters), the text string is truncated.

Follow these steps to import a language list into your PanelView 800 terminal.

1. Under Languages in the Settings tab, click Import Language List.
2. Select the file to import the language list from.

IMPORTANT An error message appears if one of the following conditions is true:

- The file does not reside in the local computer.
- The file does not have the extension “.xlsx”.
- The file is being used by another application.

The Import Language List results are shown in the Output pane.

IMPORTANT Only language text information is imported. Location information and Text ID are not imported. If the Text ID is not in the current Language List, then the language text information is not imported.

Take note of the following:

- The import action is canceled if the selected file is not in the correct format, the name of the worksheet is not “Language List”, or no language information exists.
- If there is duplicate language information in another column, it is ignored.
- If the column contains non-supported language data, it is ignored.
- If the language count exceeds the limit (10), the excess column data is ignored.
- If the language text string length exceeds the limit (255 characters), the text string is truncated.

You can import text information for a language that has not been set on the terminal. Make sure that the column header contains a Language ID and it will be imported to Languages on the terminal.

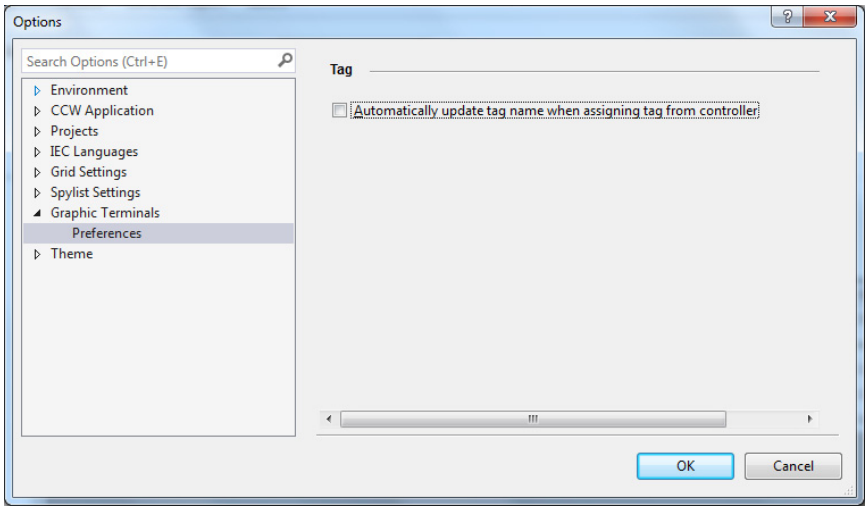
Update Tag Name

In Connected Components Workbench software version 12 or later, you can configure the PanelView 800 application to rename a tag automatically when assigning a CompactLogix 5370, CompactLogix 5380, or Micro800 controller tag as the tag address.

The tag name is updated to match the controller tag name.

Follow these steps to enable the tag name to be updated automatically:

1. From the Tools menu, select Options....
2. Select Graphic Terminals -> Preferences from the list of options.



3. Select the checkbox.
4. Click OK.

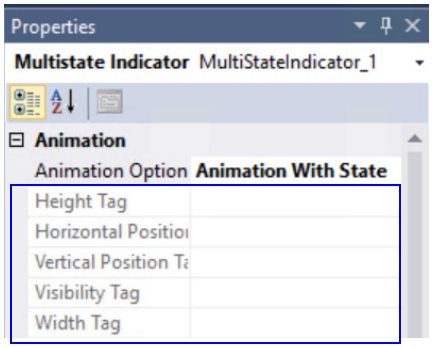
Animation

Connected Components Workbench software version 13 or later adds a new property **Animation Option** to Multistate Indicator objects with the following options:

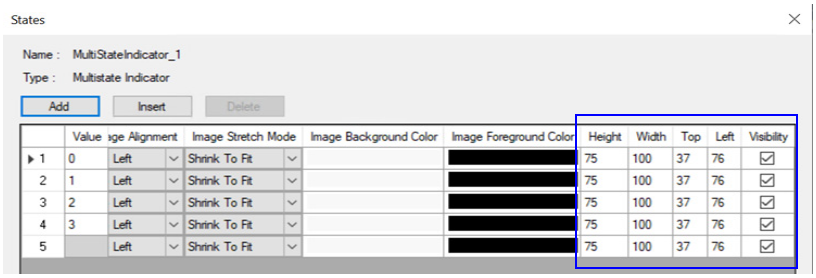
- **Animation With State**
- **Animation With Tag**

If **Animation With State** is selected, the following tags are not configurable:

- Height Tag
- Horizontal Position Tag
- Vertical Position Tag
- Visibility Tag
- Width Tag

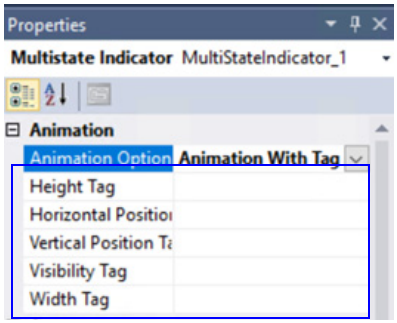


Double-click the Multistate Indicator to display the States Dialog box. From the States screen, scroll to the right to configure the last five properties, if necessary.



If **Animation With Tag** is selected, the following tags are configurable:

- Height Tag
- Horizontal Position Tag
- Vertical Position Tag
- Visibility Tag
- Width Tag



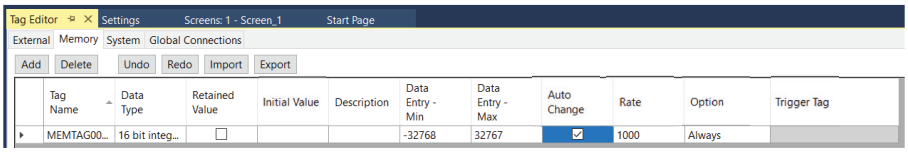
To use Animation With Tag, Connected Components Workbench software version 13 or later adds parameters to memory tags to enhance object animation. See help file for more information on memory tags.

Memory Tags Parameters

Parameter	Value
Tag Name	Name of Memory tag
Data Type	16-bit integer
Retained Value	Retains most recent value when application is shut down
Initial Value	Defines the coordinates of the starting position
Description	Enters a description for the Memory tag
Data Entry - Min	-32768
Data Entry - Max	-32767

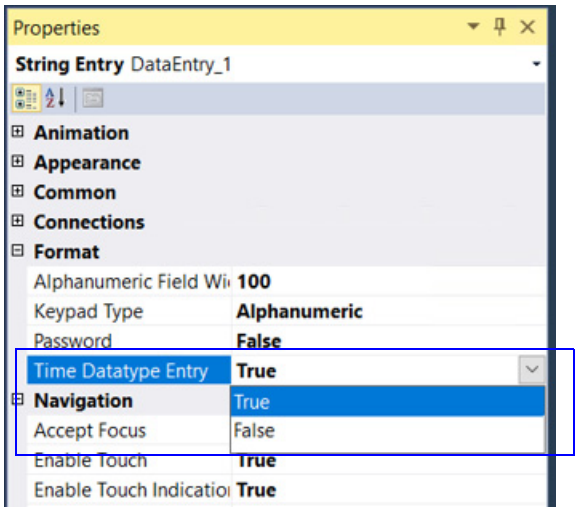
Memory Tags Parameters (Continued)

Parameter	Value
Auto Change	Select to enable automatic update of value based on the rate of change configured.
Rate	Defines the rate if change for automatic updates, in milliseconds. Min value is 1000 ms.
Option	Trigger type for the Memory tag: • Always • Trigger Start • Trigger Start and Stop
Trigger Tag	Assign a tag to trigger this Memory tag.

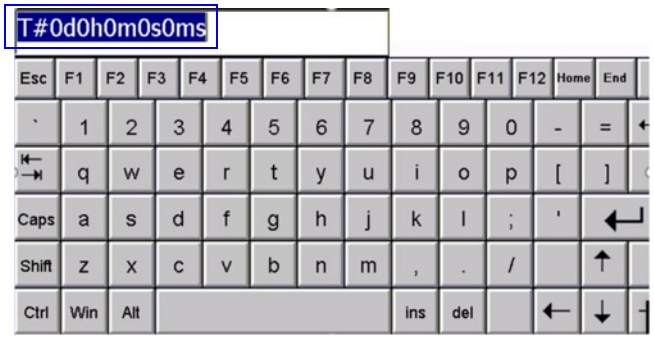


Time Entry Data Type Support

Connected Components Workbench software version 13 or later adds support for the Time data type for Micro800 controllers.



From the Object Properties, click Format, set the attribute **Time Datatype Entry** to True. When changing the time in the application, the value is displayed in the onscreen keyboard.

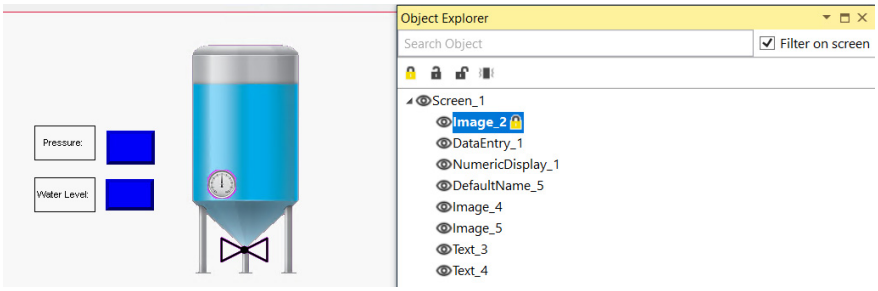


View List of Objects

In Connected Components Workbench software version 13 or later, you can view a list of all objects in your application screens in the Object Explorer window. Use the Object Explorer to help you manage and identify the objects in your application.

To access the Object Explorer window, select it from the View menu. You can dock it within the workspace or as a tab.

The Object Explorer shows a list of the objects that are used under each application screen. Selecting the object in the Object Explorer window selects it in the application screen.



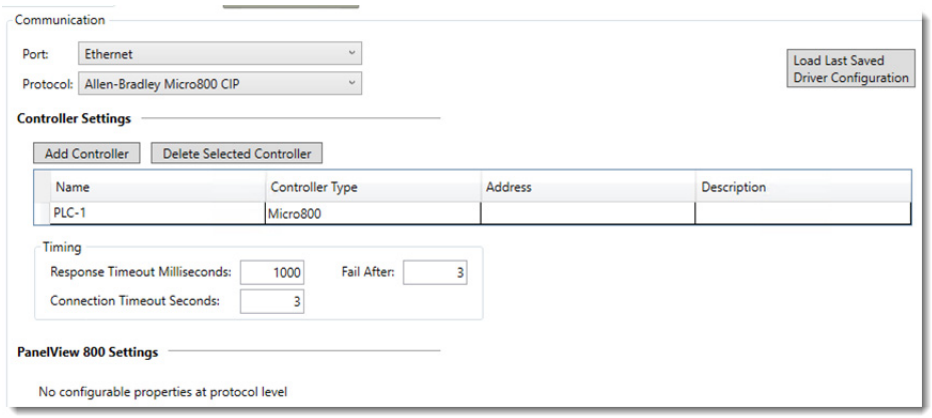
Options	Description
Lock	Locks the selected object. The object cannot be selected in the application screen.
Unlock	Unlocks the selected object.
Unlock all	Unlocks all objects.
Vibrate	Vibrates the selected object in the application screen.
Visibility	Click the eye icon next to the object to Show/Hide the object in the application screen. If an object is hidden, the eye icon is dimmed and struck out, it means that one or more objects in that screen are hidden. Click the eye icon to Show/Hide all objects in that screen.
Search Object	Enter the name of the object to search for it in the list.
Filter on screen	Filters the objects in the application screen that match the name that is entered in the Search Object field.

Supported Communication Protocols

PanelView 800 terminals come with one Ethernet (RJ45) port and two Serial (RS-232 and RS-422/485) ports for communicating with remote devices such as controllers. The following communication protocols are supported in Connected Components Workbench software version 21.01 or later.

- Allen-Bradley Micro800 CIP Ethernet Communication
- Allen-Bradley Micro800 CIP Serial Communication
- Allen-Bradley CompactLogix CIP Communication
- Allen-Bradley MicroLogix CIP Communication
- DF1 Serial Communication
- Modbus Ethernet Communication
- Modbus RTU Communication
- Modbus RTU Unsolicited Communication

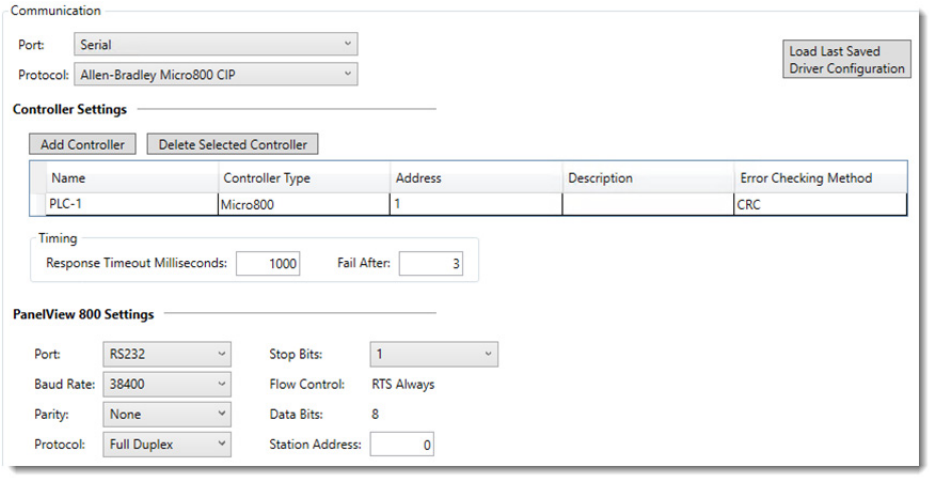
Allen-Bradley Micro800 CIP Ethernet Communication



Allen-Bradley Micro800 CIP Ethernet Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	Micro800 (cannot be changed)
Address	Enter the unique IP address of the controller on the Ethernet network.	xxx.xxx.xxx.xxx Where x is a number from 0...9
Description	Enter an optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Connection Timeout Seconds	Specify how long the terminal waits to establish a socket connection to a remote controller.	1...60
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
PanelView 800 Settings		
No configurable parameters are available for this communication protocol.		

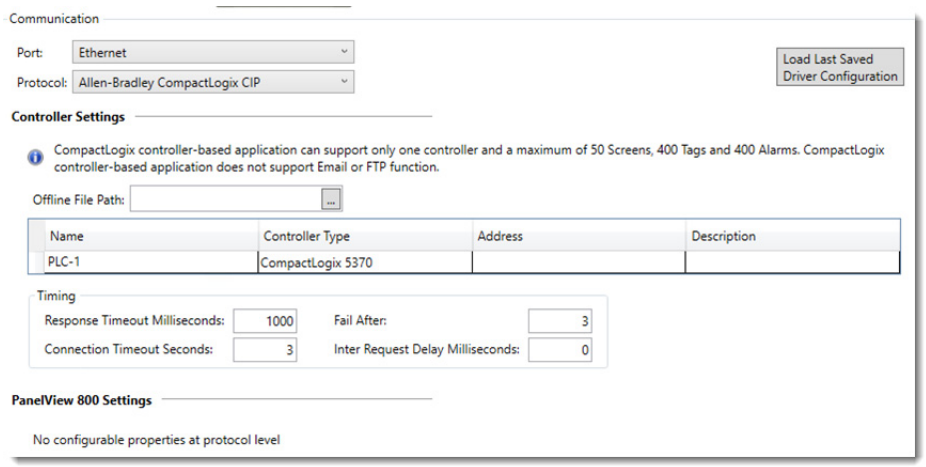
Allen-Bradley Micro800 CIP Serial Communication



Allen-Bradley Micro800 CIP Serial Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	Micro800 (cannot be changed)
Address	Specify the driver-specific station or node of the device. The type of ID depends on the communication driver that is used. For many communication drivers, the ID is a numeric value. Drivers that support a Numeric ID provide the option to enter a numeric value whose format can be changed to suit the needs of the application, or the characteristics of the selected communications driver.	Any numeric value
Description	Enter an optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Error Checking Method	Specify the method of error checking to use, Block Check Character (BCC) or 16-bit Cyclic Redundancy Check (CRC). Choose the checksum method that is expected by the device or the device does not respond.	• BCC • CRC (Default)
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
PanelView 800 Settings		
Port	Select the port on the terminal to use.	RS232, RS422/485 (Half Duplex)
Baud Rate	Select the maximum communication rate.	300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200
Parity	Specify the type of parity for the data.	None, Odd, Even
Protocol	Select the type of serial protocol.	Full Duplex, Half Duplex Master
Stop Bits	Specify the number of stop bits per data word.	1...2
Flow Control	This option asserts the RTSline when the communication port is opened and remains on.	RTS Always (cannot be changed)
Data Bits	The number of data bits per data word.	8 (cannot be changed)
Station Address	Specify the node address of the terminal on the network.	0...255

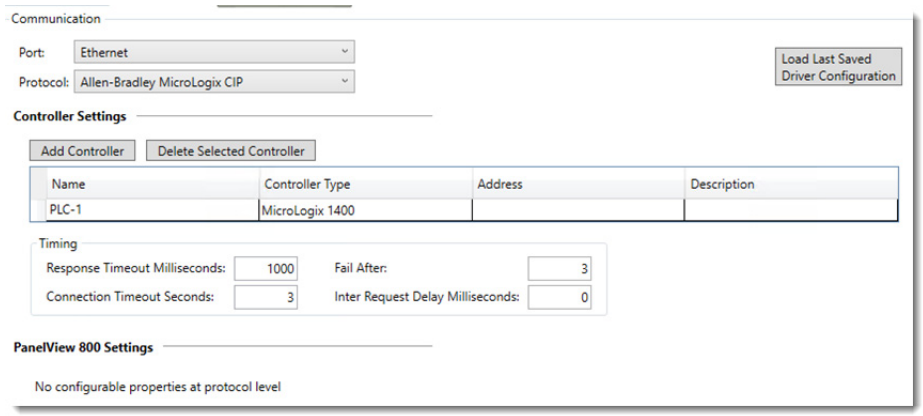
Allen-Bradley CompactLogix CIP Communication



Allen-Bradley CompactLogix CIP Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	• CompactLogix 5370 • CompactLogix 5380
Address	Enter the unique IP address of the controller on the Ethernet network.	xxx.xxx.xxx.xxx Where x is a number from 0...9
Description	Enter an optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Connection Timeout Seconds	Specify how long the terminal waits to establish a socket connection to a remote controller.	1...60
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
Inter Request Delay Milliseconds	Specify how long the terminal waits before sending another request to the controller.	0...300000
PanelView 800 Settings		
No configurable parameters are available for this communication protocol.		

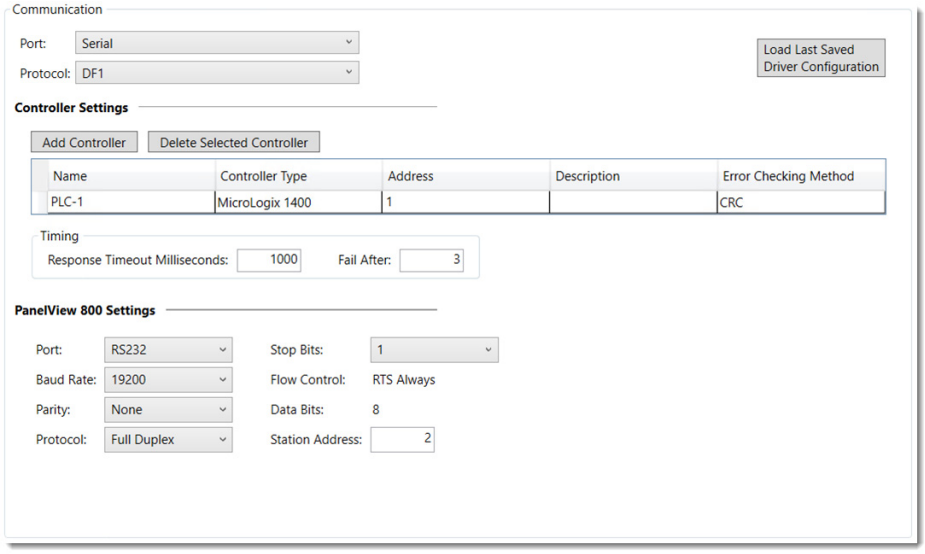
Allen-Bradley MicroLogix CIP Communication



Allen-Bradley MicroLogix CIP Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	MicroLogix 1400 (cannot be changed)
Address	Enter the unique IP address of the controller on the Ethernet network.	xxx.xxx.xxx.xxx Where x is a number from 0...9
Description	Enter an optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Connection Timeout Seconds	Specify how long the terminal waits to establish a socket connection to a remote controller.	1...60
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
Inter Request Delay Milliseconds	Specify how long the terminal waits before sending another request to the controller.	0...300000
PanelView 800 Settings		
No configurable parameters are available for this communication protocol.		

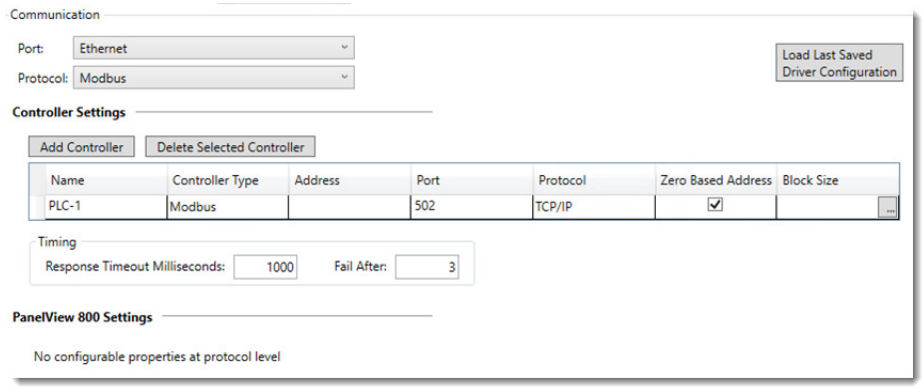
DF1 Serial Communication



DF1 Serial Communication Parameters

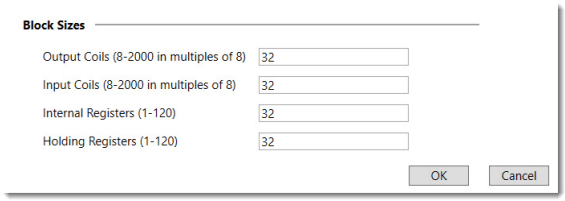
Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	MicroLogix 1400 (cannot be changed)
Address	The DF1 network address is the device ID of the controller.	1
Description	An optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Error Checking Method	Specify the method of error checking to use, Block Check Character (BCC) or 16-bit Cyclic Redundancy Check (CRC). Choose the checksum method that is expected by the device or the device does not respond.	• BCC • CRC (Default)
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
PanelView 800 Settings		
Port	Select the port on the terminal to use.	RS232, RS422/485 (Half Duplex)
Baud Rate	Select the maximum communication rate.	300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200
Parity	Specify the type of parity for the data.	None, Odd, Even
Protocol	Select the type of serial protocol.	Full Duplex, Half Duplex Master
Stop Bits	Specify the number of stop bits per data word.	1...2
Flow Control	This option asserts the RTSline when the communication port is opened and remains on.	RTS Always (cannot be changed)
Data Bits	The number of data bits per data word.	8 (cannot be changed)
Station Address	Specify the node address of the terminal on the network.	0...255

Modbus Ethernet Communication



Modbus Ethernet Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	Any controller that supports the Modbus protocol
Address	Enter the unique IP address of the controller on the Ethernet network.	xxx.xxx.xxx.xxx Where x is a number from 0...9
Port	An optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Protocol	The type of Ethernet protocol.	TCP/IP (cannot be changed)
Zero Based Addressing	By default, user-entered addresses have one subtracted when frames are constructed to communicate with a Modbus device. If the device does not follow this convention, clear the checkbox to disable this parameter.	• Enabled • Disabled
Block Size	See Block Size Parameters on page 81 for more information.	
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
PanelView 800 Settings		
No configurable parameters are available for this communication protocol.		

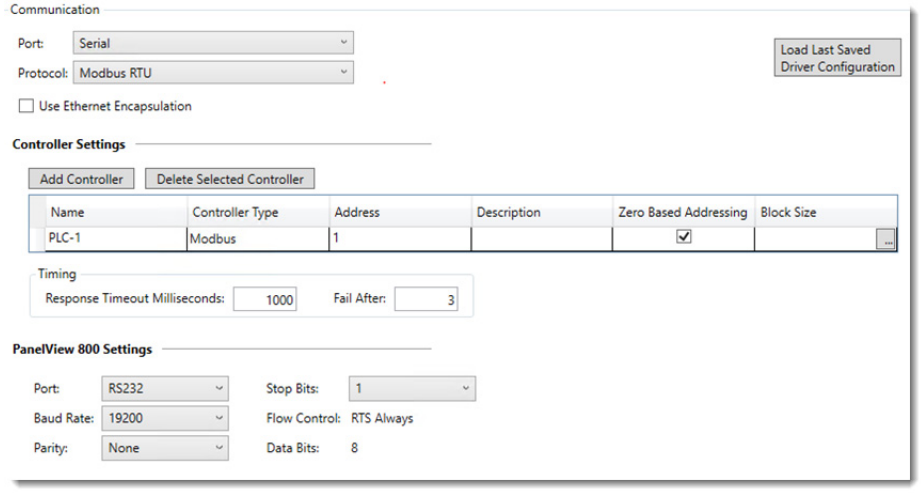


Block Size Parameters

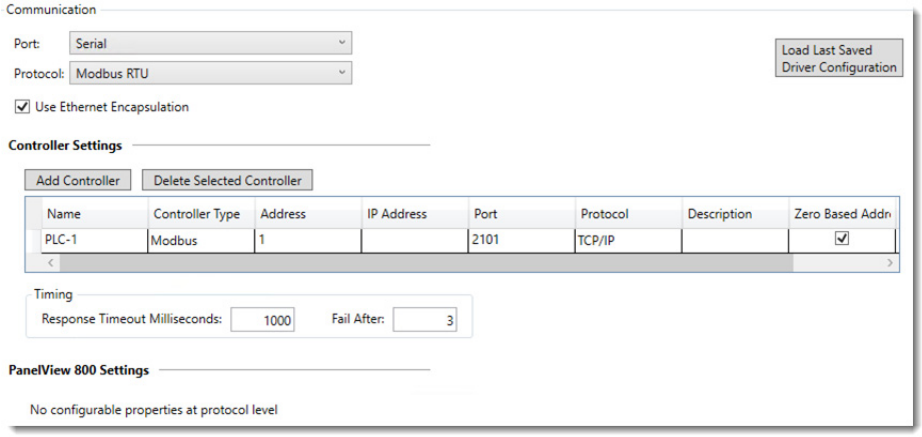
Parameter	Description	Value
Output Coils	Sets the block size of the output coils.	8...2000 (in multiples of 8)
Input Coils	Sets the block size of the input coils.	8...2000 (in multiples of 8)
Internal Registers	Sets the block size of the internal registers.	1...120
Holding Registers	Sets the block size of the holding registers.	1...120

Modbus RTU Communication

Ethernet Encapsulation not enabled



Ethernet Encapsulation enabled

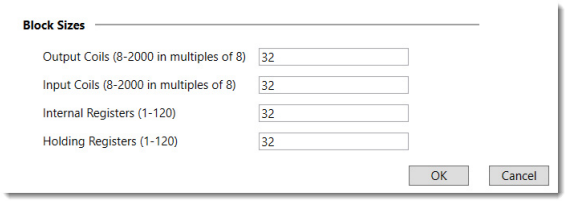


Modbus RTU Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	Any controller that supports the Modbus protocol
Address	Specify the driver-specific station or node of the device. The type of ID depends on the communication driver that is used. For many communication drivers, the ID is a numeric value. Drivers that support a Numeric ID provide the option to enter a numeric value whose format can be changed to suit the needs of the application, or the characteristics of the selected communications driver.	Any numeric value
Description	An optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
IP Address	Enter the unique IP address of the controller on the Ethernet network. Only applicable when Ethernet Encapsulation is enabled.	xxx.xxx.xxx.xxx Where x is a number from 0...9
Port	Specify the port number that the remote device is configured to use. Only applicable when Ethernet Encapsulation is enabled.	0...65535 Default is 2101
Protocol	The type of Ethernet protocol. Only applicable when Ethernet Encapsulation is enabled.	TCP/IP (cannot be changed)

Modbus RTU Communication Parameters (Continued)

Parameter	Description	Value
Zero Based Addressing	By default, user-entered addresses have one subtracted when frames are constructed to communicate with a Modbus device. If the device does not follow this convention, clear the checkbox to disable this parameter.	• Enabled • Disabled
Block Size	See Block Size Parameters on page 83 for more information.	
Response Timeout Milliseconds	Specify how long the terminal waits for the controller to respond to a communication request.	100...30000
Fail After	Specify the number of times the terminal repeats the communication request before the request is considered a failed attempt, and the controller is in error.	1...10
PanelView 800 Settings (only when Ethernet Encapsulation is not enabled)		
Port	Select the port on the terminal to use.	RS232, RS422/485 (Half Duplex)
Baud Rate	Select the maximum communication rate.	300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200
Parity	Specify the type of parity for the data.	None, Odd, Even
Stop Bits	Specify the number of stop bits per data word.	1...2
Flow Control	This option asserts the RTSline when the communication port is opened and remains on.	RTS Always (cannot be changed)
Data Bits	The number of data bits per data word.	8 (cannot be changed)

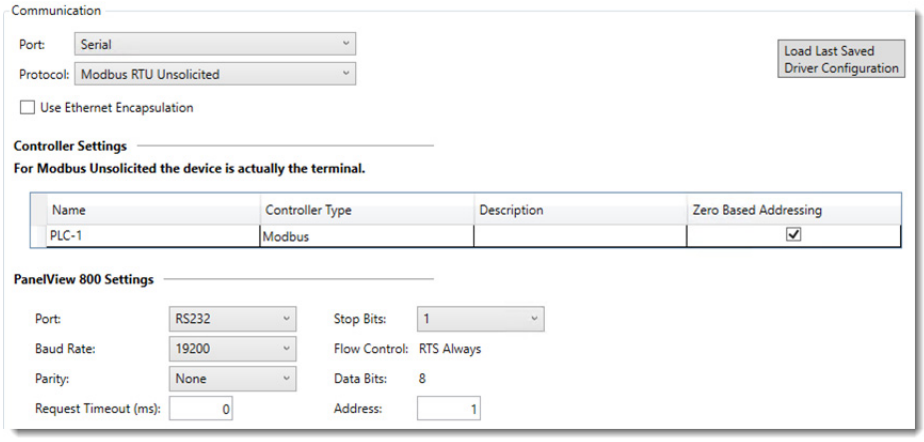


Block Size Parameters

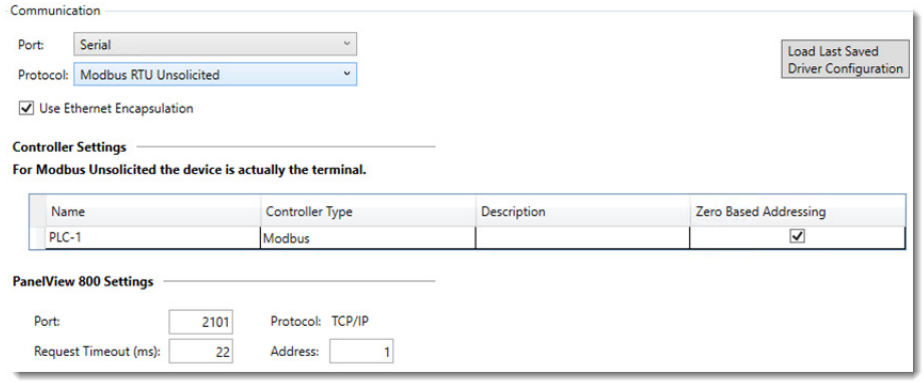
Parameter	Description	Value
Output Coils	Sets the block size of the output coils.	8...2000 (in multiples of 8)
Input Coils	Sets the block size of the input coils.	8...2000 (in multiples of 8)
Internal Registers	Sets the block size of the internal registers.	1...120
Holding Registers	Sets the block size of the holding registers.	1...120

Modbus RTU Unsolicited Communication

Ethernet Encapsulation not enabled



Ethernet Encapsulation enabled



Modbus RTU Unsolicited Communication Parameters

Parameter	Description	Value
Controller Settings		
Name	Enter a unique name for the controller.	Any valid character (a...z, A...Z, and 1...9)
Controller Type	The type of controller to connect to.	Any controller that supports the Modbus protocol
Description	An optional description for the controller.	Any valid character (a...z, A...Z, and 1...9)
Zero Based Addressing	By default, user-entered addresses have one subtracted when frames are constructed to communicate with a Modbus device. If the device does not follow this convention, clear the checkbox to disable this parameter.	• Enabled • Disabled
PanelView 800 Settings (when Ethernet Encapsulation is not enabled)		
Port	Select the port on the terminal to use.	RS232, RS422/485 (Half Duplex)
Baud Rate	Select the maximum communication rate.	300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200
Parity	Specify the type of parity for the data.	None, Odd, Even
Request Timeout (ms)	Specify the amount of time the driver waits for a complete request frame to be received. The elapsed time is calculated from the instant the first byte of a new request is received. If a complete request frame is not received during this time, the driver flushes it received data buffers and assumes the next received byte is the start of a new request. Modify this setting carefully.	0...30000
Stop Bits	Specify the number of stop bits per data word.	1...2

Modbus RTU Unsolicited Communication Parameters (Continued)

Parameter	Description	Value
Flow Control	This option asserts the RTSline when the communication port is opened and remains on.	RTS Always (cannot be changed)
Data Bits	The number of data bits per data word.	8 (cannot be changed)
Address	Specify the node address of the terminal on the network.	All values
PanelView 800 Settings (when Ethernet Encapsulation is enabled)		
Port	Enter the network port number to use.	0...65535
Request Timeout (ms)	Specify the amount of time the driver waits for a complete request frame to be received. The elapsed time is calculated from the instant the first byte of a new request is received. If a complete request frame is not received during this time, the driver flushes it received data buffers and assumes the next received byte is the start of a new request. Modify this setting carefully.	0...30000
Protocol	The type of Ethernet protocol.	TCP/IP (cannot be changed)
Address	Specify the node address of the terminal on the network.	All values

Notes:

Secure the Terminal

Securing Your Terminal

In Connected Components Workbench software version 10 or later, you can configure password protection for PanelView 800 terminals with firmware revision 4.011 or later. Consider adding password protection to help prevent unauthorized End Users from accessing the configuration and programming in your PanelView 800 terminals. Users are required to enter a password before performing actions on the terminal.

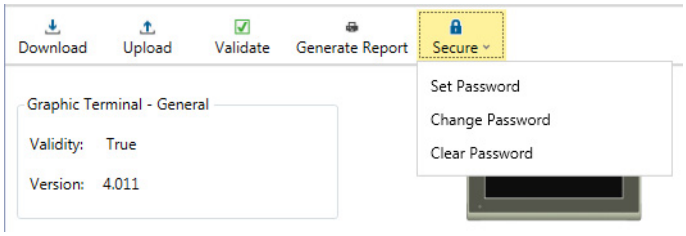
Set Terminal Password

You can create a password for the terminal. Once your terminal is password protected, users must enter the password before they can:

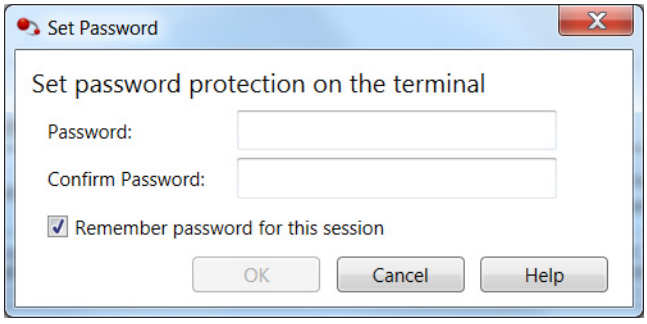
- Change the password.
- Clear the password.
- Connect to the terminal to download or upload applications.

Follow these steps to set a password for the terminal.

1. From the terminal toolbar, click Secure, then click Set Password.



2. Enter the new password in the Password and Confirm Password fields.



Use the following guidelines when creating a password:

- Passwords must be 8...32 characters in length.
- Valid characters are uppercase and lowercase letters, numbers, symbols found on the keyboard and spaces.

3. Click OK.

IMPORTANT If you forget the terminal password, there is no way to recover it. You can perform the restore terminal operation, or return the terminal to the out-of-box configuration. Doing so clears the password and also remove all applications, logs, recipes, user-installed font files, objects, and graphics. See Returning to the Out-of-box Condition on page 113 and Restoring the Terminal on page 114 for more information.

Alternatively, you can update the terminal firmware to the same or later firmware revision. Doing so clears the password and other settings, but your applications, recipes, and fonts are retained. See Update Firmware on page 117 for more information.

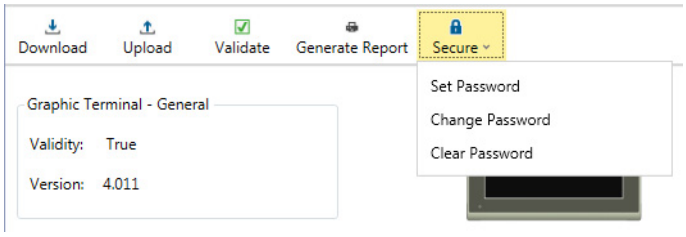
IMPORTANT If the terminal is password protected using Connected Components Workbench software version 10 or later, you cannot download an application to the terminal using Connected Components Workbench software version 9 or earlier. An error message stating the system is busy will be shown in the output window under the Graphic Terminal message list.

Change Terminal Password

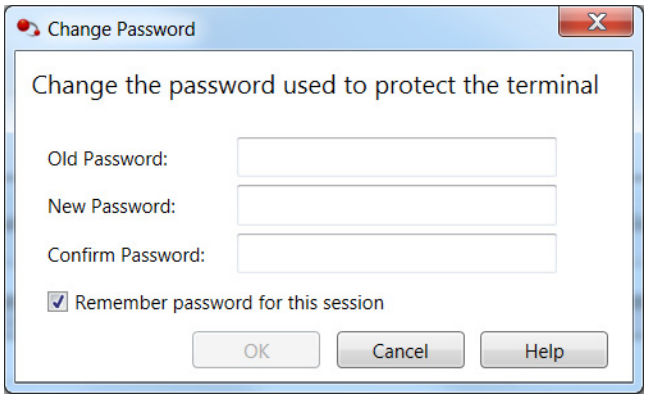
You must know the current password of the terminal to set a new one.

Follow these steps to change the password of the terminal.

1. From the terminal toolbar, click Secure, then click Change Password.



2. Enter the current password in the Old Password field.
3. Enter the new password in the New Password and Confirm Password fields.



Use the following guidelines when creating a password:

- Passwords must be 8...32 characters in length.
- Valid characters are uppercase and lowercase letters, numbers, symbols found on the keyboard and spaces.

4. Click OK.

IMPORTANT If you forget the terminal password, there is no way to recover it. You can perform the restore terminal operation, or return the terminal to the out-of-box configuration. Doing so clears the password and also remove all applications, logs, recipes, user-installed font files, objects, and graphics. See Returning to the Out-of-box Condition on page 113 and Restoring the Terminal on page 114 for more information.

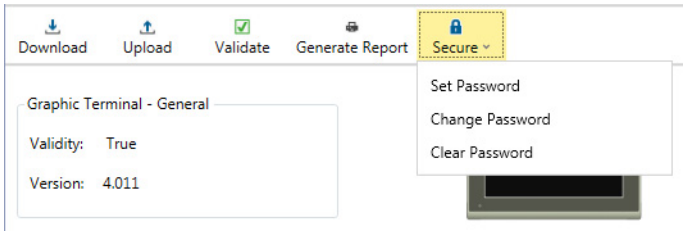
Alternatively, you can update the terminal firmware to the same or later firmware revision. Doing so clears the password and other settings, but your applications, recipes, and fonts are retained. See Update Firmware on page 117 for more information.

Clear Terminal Password

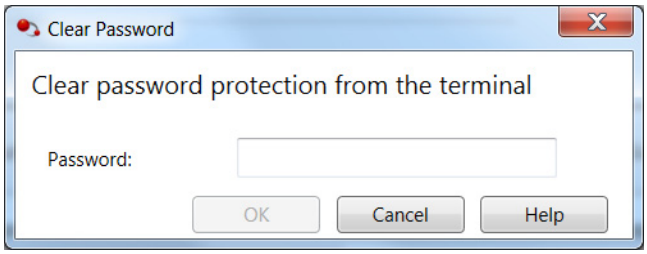
You must know the current password of the terminal to clear it.

Follow these steps to clear the password from the terminal.

1. From the terminal toolbar, click Secure, then click Clear Password.



2. Enter the current password in the Password field.



3. Click OK.

Secure Design Environment

The secure design environment lets you restrict user access to screens in an application and protect the application from unauthorized updates. By default, all users have unrestricted access to the application. This means that any user can access and change the application. They can also access any application screens on the terminal at runtime.

Use the secure design environment to:

- Limit users who have access to the system by configuring user accounts and passwords. The default users (All Users*) do not require a password.
- Create access rights for screens in the application.
- Assign these access rights to users on a need basis. Only users with a need to access a screen should hold access rights to the screen.
- Protect the application from updates by restricting user access to design mode. Only users with design rights are allowed to access and update an application. Initially, all users have design rights to an application.

- Create security buttons that are used at runtime by operators to login or logout, change passwords, reset passwords, or disable security.
- Change the idle timeout that automatically logs the user out from a secured screen to the Startup screen after idle timeout period elapses.

IMPORTANT At least one user must have the design right if you want to allow updates to the application. If no user is assigned this right, no one is able to edit the application. Initially, all users have design rights to an application. This means anyone can edit the application without logging in.

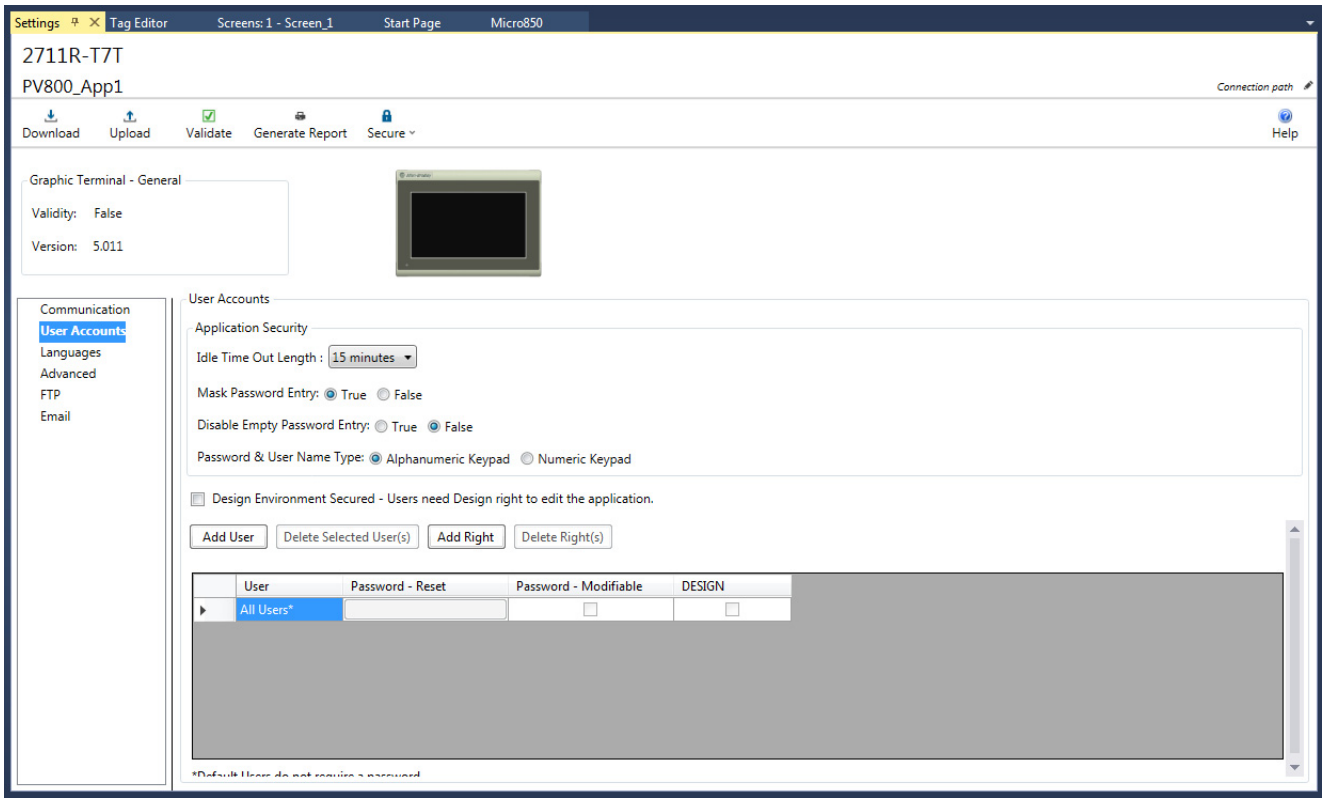
Read the rest of this chapter to learn how to make use of the secure design environment.

Manage User Accounts Settings

Follow these steps to access the User Accounts screen.

1. In the main screen of Connected Components Workbench software, click the Settings tab for your PanelView 800 terminal.
2. Click User Accounts in the options list.

User Accounts Screen



User Account Screen Settings

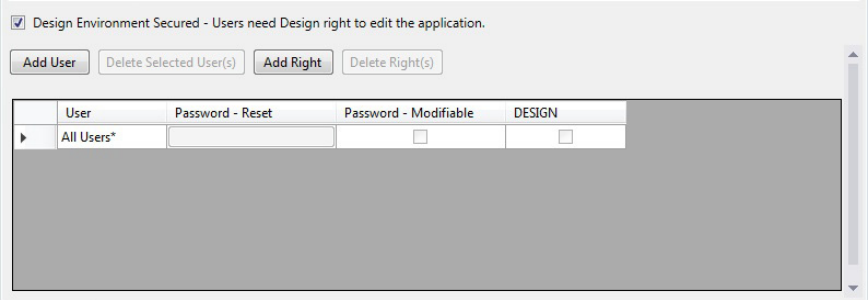
Setting	Description
Idle Time Out Length	Adjust or disable the idle timeout by selecting the value from the pull-down list. If disabled, the application will not transition from a secured screen to the startup screen. The default idle timeout is 15 minutes. If the terminal receives no user input within that 15 minute period, it goes into Idle mode. User input includes key presses, touch screen presses, external mouse, or keyboard input. If the terminal goes into idle mode, the application transitions from a secured screen to the startup screen. The screen does not change if the current screen is unsecured. The current user is logged out and the user must log in again.
Mask Password Entry	Masks a password with a character when it is entered so that it is not visible. To disable this feature, set the option to False. Disabling this feature is not recommended.
Disable Empty Password	Prevents the use of an empty string as a password. If you set the option to True and you have an application that is using an empty password, when you are prompted for screen access, you are asked to change the password and the action cannot be canceled. If you allow empty passwords, you are asked for confirmation when you enter an empty password. If you don't allow empty passwords, a warning is displayed in the Validation result. You can choose to ignore and download the application to your terminal, but you are asked to change the password and the action cannot be canceled. This feature is only available in Connected Components Workbench software version 12 or later. It also requires firmware revision 5.012 or later.
Password and User Name Type	By default, user names and passwords are entered using an alphanumeric keypad at runtime. To use a numeric keypad, set the option to Numeric Keypad. Using a numeric keypad requires numeric user names and passwords.
Design Environment Secured	Protects the application by helping prevent unauthorized access to edit/modify/update an application by users without the proper rights. Create user accounts and assign rights for them to perform these actions. Design rights allow users to update the application, and access rights allow users to view certain screens on the terminal at runtime.

Add Users

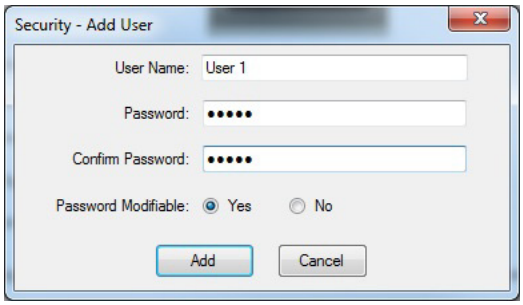
You can add up to 16 user accounts to access the application at runtime. Each account has a user name and password. The account can be an individual user or a group of users, such as maintenance or operators, who share a user name and password.

Follow these steps to add user accounts to the application.

1. Select the Design Environment Secured checkbox.

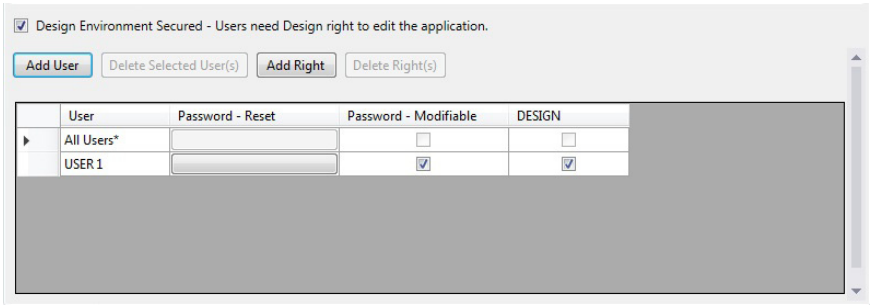


2. Click Add User to create an account.
The Security - Add User dialog appears.



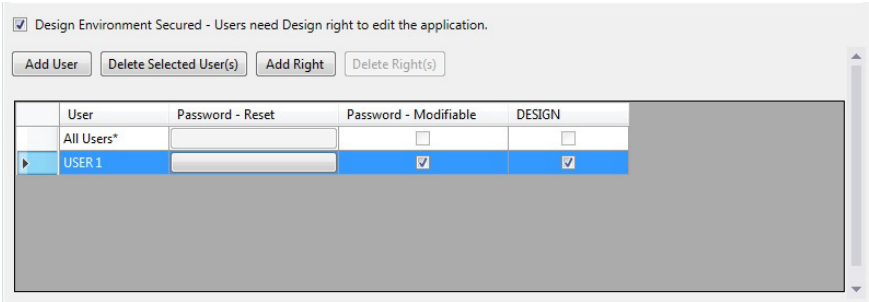
Setting	Description
User Name	Enter a name for the user account. User names can be 15 alphanumeric characters with spaces and must be unique. They are not case-sensitive. For example, Operator, operator, and OPERATOR are considered the same user name.
Password	Enter a password for the user account. Passwords can be 15 alphanumeric characters with spaces and are case-sensitive. For example, Operator10 and operator 10 are two different passwords. Multiple users can share the same password.
Confirm Password	Repeat the password for the user account to confirm the entry.
Password Modifiable	You can specify whether the password can be modified at runtime with a Reset Password or Change Password button. Anyone can modify the password if the user name and password are known.

3. Enter the fields in the dialog box, then click Add to close the dialog and add the new account to the list.

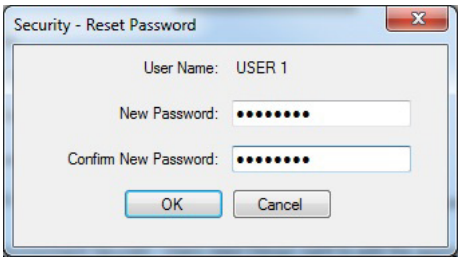


Managing Users

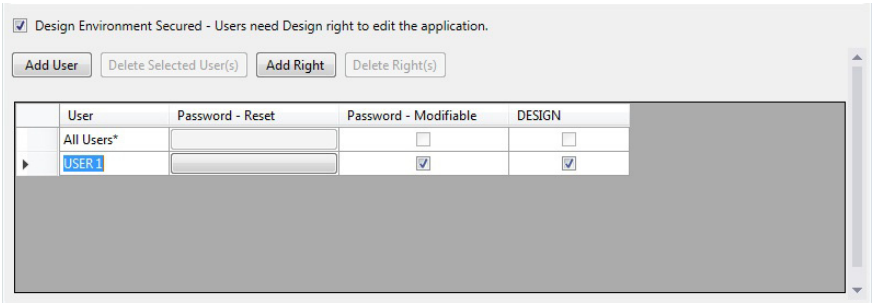
To delete users, click a row to select it and click the Delete Selected User(s) button. To select multiple rows, hold down the CTRL or SHIFT key and click the desired rows. If you delete all users, then you are left with All Users* which gives any user unrestricted access to the application.



To reset a password for any user, click the Password - Reset cell and the Security - Reset Password dialog appears. You can enter a new password without knowing the old password.



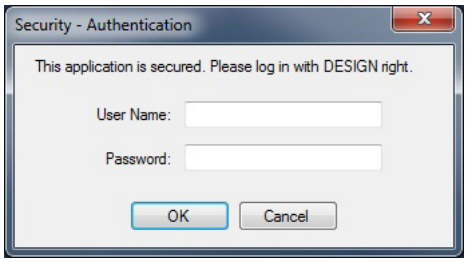
To rename a user, click the User cell to select it, and click again on the user name, then type a new user name.



Assign Design Rights

Design rights allow a user account to edit the application. To assign design rights to a user account, select the checkbox under the DESIGN column for that account.

When design rights are assigned, the next time the application is opened in Connected Components Workbench software, a Security - Authentication dialog appears to prompt the user to enter a user name and password.



Create Access Rights

You can create up to 16 rights for an application. Rights are used to determine the application screens that users can access at runtime. Users can only access screens that have an access right if they have the same right that is assigned to them.

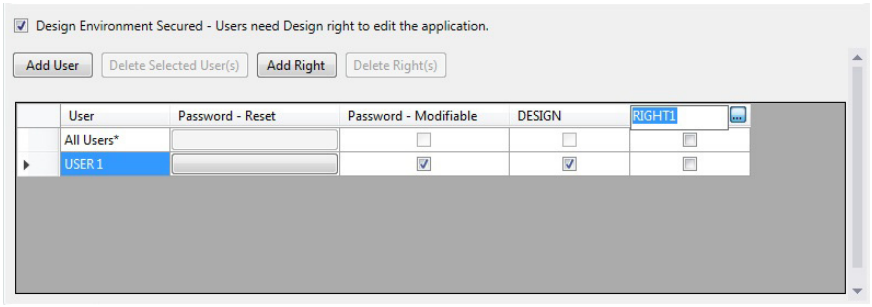
You can create a right for each screen in the application and assign these rights to users based on the screens you want them to access at runtime, or you can create rights by job function. For example, you can assign maintenance rights to users that need to access the maintenance screens at runtime.

IMPORTANT We recommend that you do NOT assign any rights to the Startup screen.

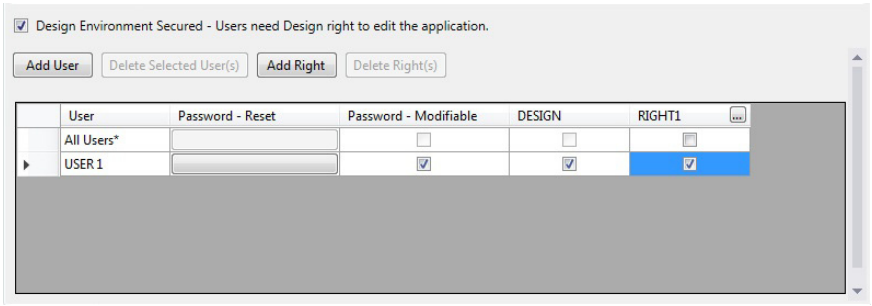
After creating an access right, you need to assign the right to users by clicking the appropriate checkbox, and assign the right to one or more screens.

Follow these steps to add rights to the application and assign them to users.

1. Click the Add Right button and enter a name for the right.

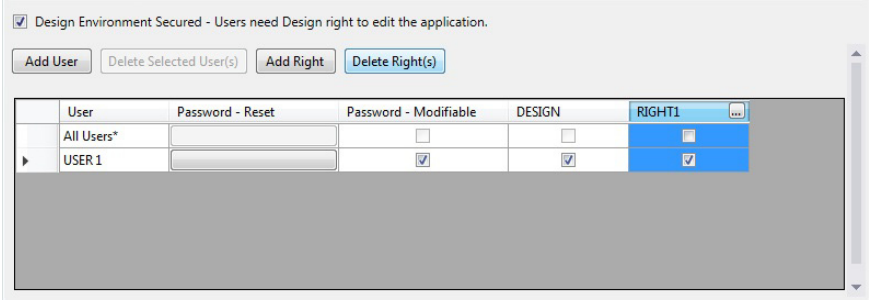


2. Select the checkbox to assign the right to a user account.

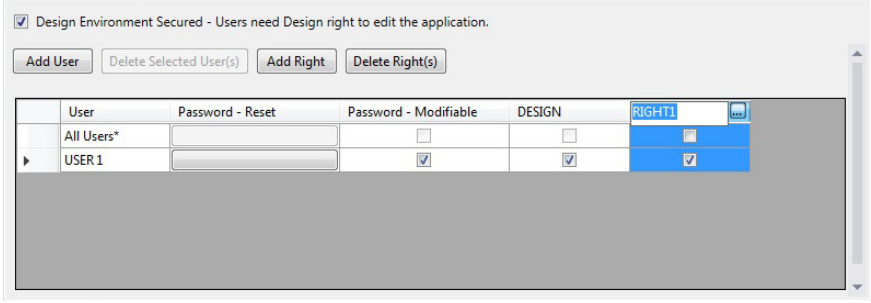


Managing Rights

To delete a right, click the column header to select it and click the Delete Right(s) button. Any assignments of that right to users are also deleted.



To rename a right, click the column header ellipses button and type a new name.



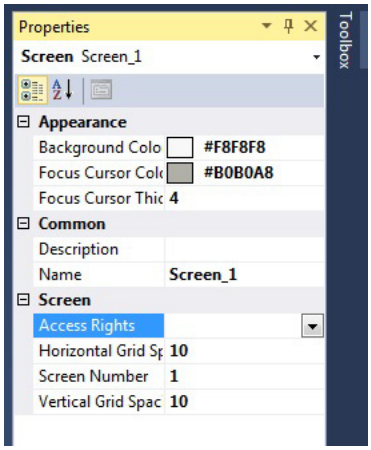
Assign Rights to a Screen

You can secure any screen in an application. To secure a screen, you assign an access right to the screen. Any user or group who holds this access right can access the screen at runtime by entering a user name and password. All other users are denied access to the screen.

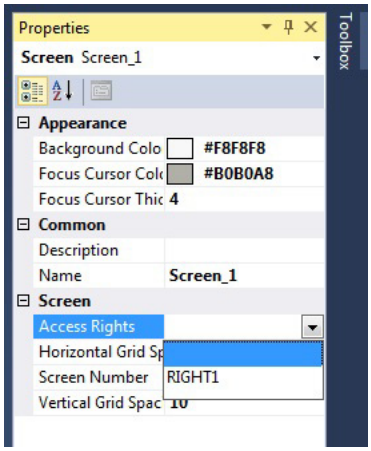
Each screen is limited to one access right.

Follow these steps to assign a right to a screen of your application.

1. In the Properties panel of the screen, locate the Access Rights setting under the Screen category.



2. Click the pull-down arrow and select the right that you want to assign from the list.



IMPORTANT You cannot secure a screen unless rights are defined and assigned to users on the User Accounts screen in the Settings tab.

Changing Terminal Settings

To prevent unauthorized changing of terminal settings at runtime, such as network configuration or the startup application, assign an access right to screens that contain the Goto Config button.

Security at Runtime

The user is prompted to enter a user name and password when logging into the terminal, either by using the login button or when accessing a secured screen.

If the login is successful, the user has access to the application. The application writes the access right and user name of the logged in user to the current access right and current user name tags.

If the user name and password are invalid, the operation is aborted and an error message is generated.

When the user presses the logout button, the application clears the current access right tag and current user name tag.

After logging in, the user can move between secured and unsecured screens for which the user account has access rights. The user is not prompted to reenter the password.

If the user moves to a secured screen that he is not authorized to access, he is prompted to enter a user name and password. If the correct user name and password are entered, the user is granted access. Otherwise, access is denied and a warning message is displayed.

Idle Mode Timeout

If the application does not receive user input within the specified idle timeout, the terminal goes into Idle mode. User input includes key presses, touch screen presses, external mouse, or keyboard input.

If the active screen is unsecured, the screen remains active.

If the active screen is a secured screen:

- The current user is logged off.
- The current access right tag is cleared.
- The application changes to the startup screen.

Resetting the Terminal

After a terminal is reset, the application:

- Displays the startup screen whether the last displayed screen was secured or unsecured.
- Enables security if it was previously disabled.
- Retains changed passwords.
- The current user tag and current user rights tag is cleared when the terminal resets.

Starting the Terminal in Safe Mode

If the terminal is started in safe mode, security is disabled. When the terminal is restarted, security is enabled for the application.

Protected Mode

Protected mode is a feature that enhances the security of a PanelView 800 terminal, and is available from firmware revision 3.011 onwards.

Protected mode restricts certain operations from being performed on the terminal while it is running. This reduces the risk that the terminal may be accessed by unauthorized persons, and disrupt the normal operations of the terminal and other associated devices or processes.

When the terminal is in Protected mode, the following operations are blocked:

- ControlFLASH™ – Users cannot update the firmware of the terminal.
- Remote configuration change – Users cannot change the network configuration of the terminal remotely.
- Remote reset – Users cannot reset the terminal remotely.
- Enable/disable ports – Users cannot enable or disable the communication ports.

Protected mode is automatically disabled when an application is unloaded successfully. When Protected mode is disabled, the operations that are listed earlier can be then performed as normal.

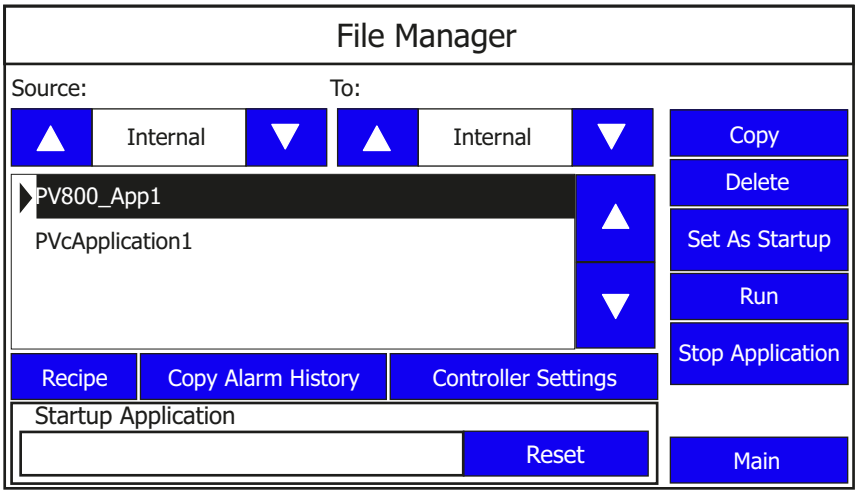
IMPORTANT When a ControlFLASH operation is in progress, issuing a reset command will not reset the terminal until after the firmware update has completed.

The terminal automatically enters and exits Protected mode when certain operations are performed, users do not need to configure any settings.

Terminal Operations and Protected Mode State

Operation	Terminal in Protected Mode
During the boot-up process.	Yes
After the boot-up process and the terminal displays a terminal configuration screen.	No
After the boot-up process and the terminal loads a startup application.	Yes
An application is loaded.	Yes
An application is unloaded successfully and the terminal displays a terminal configuration screen.	No

To exit Protected mode, the running application has to be stopped and unloaded successfully. To unload an application, go to the File Manager configuration screen on the terminal and press the Stop Application button.



IMPORTANT The Stop Application button is only available in firmware revision 3.011 onwards.

Virtual Network Computing

Virtual Network Computing (VNC)

Virtual Network Computing (VNC) allows you to remotely connect to a PanelView 800 terminal, either over the local network or the Internet. With VNC you can interact with the terminal without having to be physically at the terminal location. It transmits keyboard and mouse actions from your computer to the terminal.

IMPORTANT The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

Guidelines for Using VNC

- We recommend that you enable only the view-only access to the terminal. Enabling control access increases the security risk if the password is compromised.
- Only one active VNC connection is supported and the terminal will reject additional connection requests.
- For better performance when using VNC, we recommend that you use a 100 Mbps connection. Using a 10 Mbps connection may result in lower performance, such as a slower refresh rate.
- If you are using a VNC Viewer application that supports configurable refresh rate, set the minimum refresh rate to 500 milliseconds.
- Terminate the VNC connection before performing a firmware update as it may interfere with the process.
- You cannot calibrate the touch screen using VNC. If you have triggered the calibration process, you can press the "ESC" key on the keyboard to cancel the procedure.
- The mouse action "Press and hold" is not supported over VNC.

Recommended VNC Clients and Settings

There are many VNC viewer applications you can use to connect with the terminal. These are the recommended VNC clients for use with PanelView 800 terminals.

Recommended VNC Clients and Settings

Client Name	Remote Connection Type	Recommended Settings
Tight VNC	PC/Laptop – Windows 7	Change Preferred Encoding from "Tight" to "Hextile" for smoother screen switching.

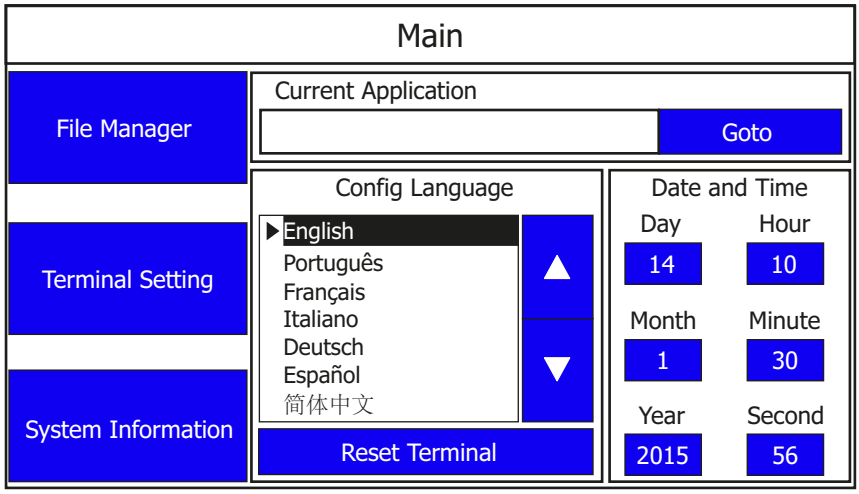
Recommended VNC Clients and Settings (Continued)

Client Name	Remote Connection Type	Recommended Settings
Real VNC	Mobile and Tablet – IOS	None
	Mobile and Tablet – Android	None
	PC/Laptop – Windows 7	• Change Color Level from "pal8" to "Full" for a clearer display. • Change Security Notification Timeout from "2500" to "0" in the client options.
Mocha VNC	Mobile and Tablet – IOS	• Disable the "32-bit color" option in the configuration settings for a clearer display. • Disable "Zoom to Screen height" option for a better screen view.
	Mobile and Tablet – Android	Enable the "8-bit color" option in the configuration settings for a clearer display.
	Mobile – Windows Mobile	
Ultra VNC	PC/Laptop – Windows 7	None

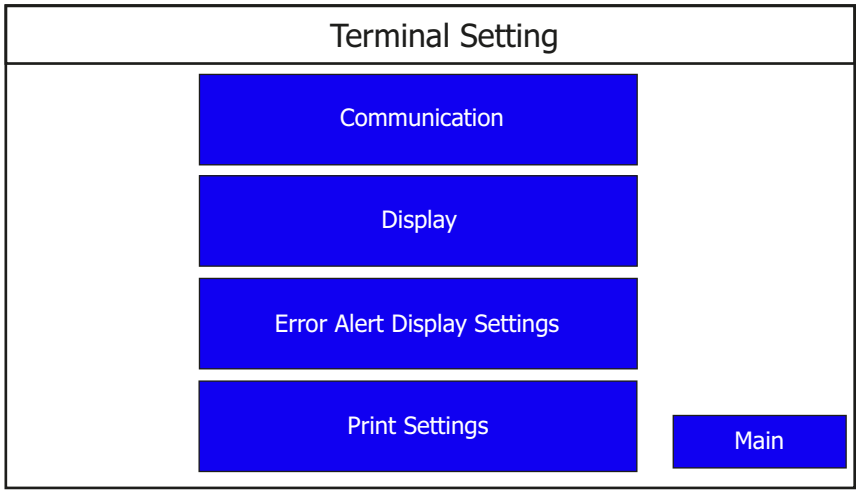
Configure VNC Settings

Follow these steps to configure the VNC settings for your terminal.

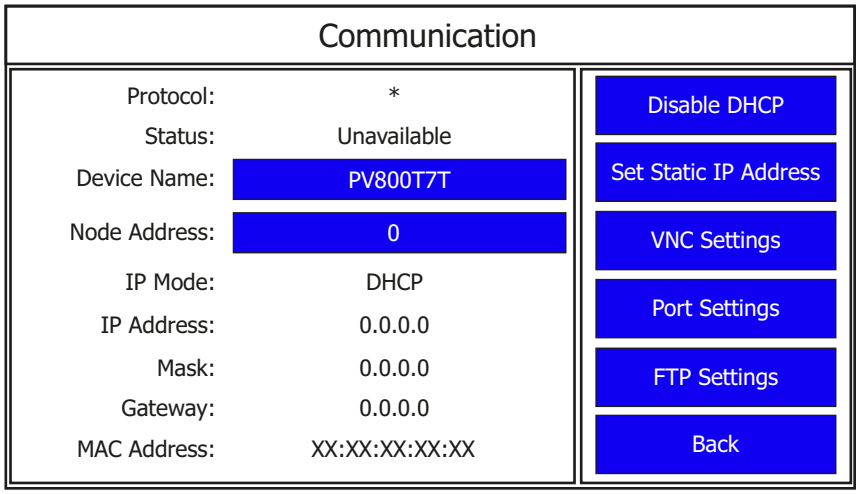
1. Go to the main configuration screen.



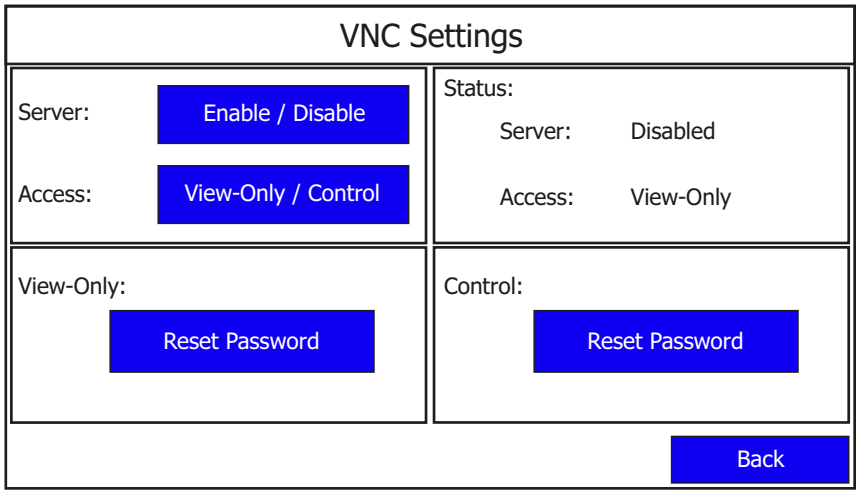
2. Press Terminal Setting.



3. Press Communication.



4. Press VNC Settings.



VNC Settings

Setting	Description	Default
Server	Enables or disables VNC connection to the terminal.	Disabled
Access[1]	Switch between view-only and control access for the VNC connection to the terminal. View-Only – No interaction allowed. Only the current screen on the terminal is displayed. Control – Interaction allowed.	View-Only
View-Only Password	Resets the current password a user must enter when establishing a VNC connection to the terminal for view-only access. The password is a maximum of seven alphanumeric characters (A...Z, a...z, 0...9).	No password[2]
Control Password	Resets the current password a user must enter when establishing a VNC connection to the terminal for control access. The password is a maximum of seven alphanumeric characters (A...Z, a...z, 0...9) and special characters ('_', '$', '-', and '!'). A minimum of one special character is required for the control access password.	No password[2]

(1) We recommend that you enable only the view-only access to the terminal. Enabling control access increases the security risk if the password is compromised.

(2) Once a password is set, you can only change it. You cannot clear a password unless you perform a restore operation or return the terminal to the out-of-box condition. See Returning to the Out-of-box Condition on page 113 and Restoring the Terminal on page 114 for instructions.

IMPORTANT Changing any VNC setting will terminate the current VNC connection to the terminal. For example, if you are connected to the terminal in control access and change the access to view-only, the VNC connection will terminate and the next time you connect to the terminal you will be in view-only access.

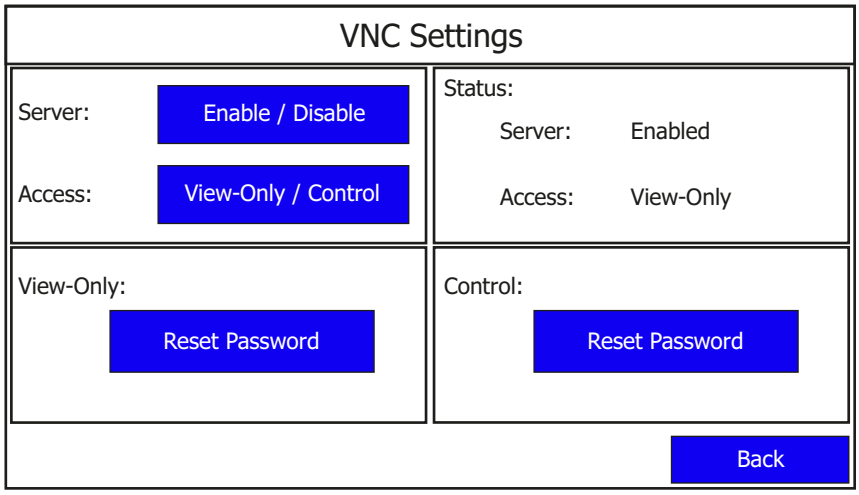
IMPORTANT When you update the terminal firmware, the VNC password and settings will be cleared and reset to their default configuration.

Set the Password for VNC Connection

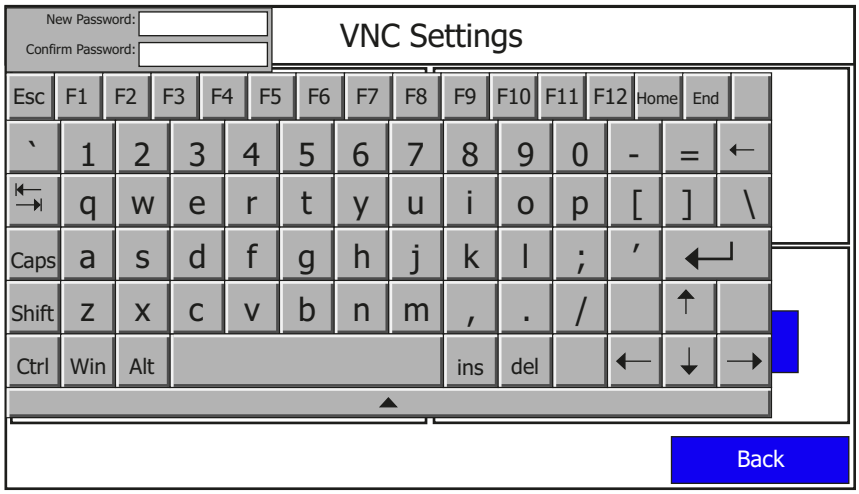
The default VNC settings (no password) prevents you from establishing a VNC connection to the terminal. You must set a view-only or control access password before you can connect to the terminal with the respective access rights.

Follow these steps to set a password for VNC connection to the terminal.

1. Press Enable/Disable to enable the VNC server.
2. Press Reset Password for either View-Only or Control access.



3. Type in the desired password using the on-screen keypad, then press Enter.



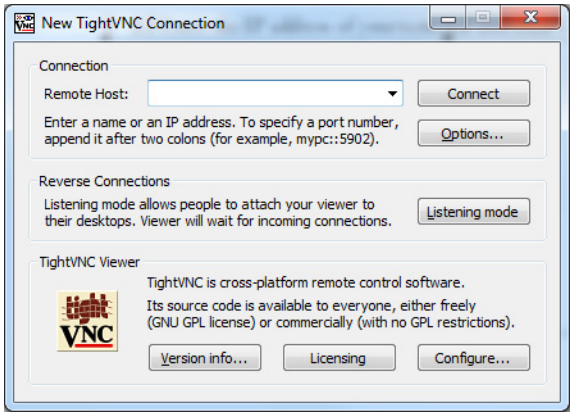
IMPORTANT If you forget the VNC password there is no way to recover it. You can perform the restore terminal operation, or return the terminal to the out-of-box configuration. Doing so will clear the password and also remove all applications, logs, recipes, user-installed font files, objects and graphics. See Returning to the Out-of-box Condition on page 113 and Restoring the Terminal on page 114 for more information.

Alternatively you can update the terminal firmware to clear the VNC settings and reset to their default configuration.

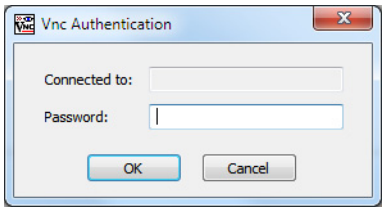
Establish VNC Connection to the Terminal

Follow these steps to establish a VNC connection to the terminal. The TightVNC Viewer is used for the following examples. Your VNC viewer application may have some differences.

1. Launch the VNC Viewer application.
2. Enter the IP address of your terminal and click Connect.



3. Depending on the type of access enabled on the terminal (view-only or control), enter the corresponding password for that access type and click OK.



A window opens on your desktop showing the current screen on the terminal.

4. To terminate the VNC connection to the terminal, simply close the VNC. Viewer application.

Notes:

Troubleshoot the System

Chapter Objectives

This chapter provides information on how to isolate and correct common operating problems with system components.

- View system information
- Alerts
- Troubleshooting

View System Information

You can view current system information for the connected terminal. You should provide this information when contacting technical support.

- Operating system version
- Firmware revision
- Hardware version number
- Status of the battery
- Total power on time
- Memory used in KBytes

Follow these steps to view the system information on your terminal.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the System Information tab.
4. View the information.
5. Click Apply.

Alerts

The terminal displays alerts at times during operation. The alert consists of an ID number and a description. Follow the corrective action to resolve the alert.

PanelView 800 Terminal Alerts

Category	ID	Description	Corrective Action
Communication	2	Data Access Error for Alias /*S:0 Param2*/, Controller /*S:0 Param3*/, Address is /*S:0 Param4*/, Communication Flag is /*S:0 Param1*/ The terminal is having trouble reading the external tag at this controller and address.	Check that the communication network cable is connected. If new ladder logic is downloading to the controller, you could see this message. After the download, communication should run normally. Verify you have good communication to the controller. If a remote device not responding alert was present, then all external tags being actively scanned will generate this alert. Is the address configured in the controller? If so, make sure all addresses of external tags to this controller are configured at the controller. If one address is outside of the range, a block of addresses might show this condition. If the address is configured as write-only at the controller, this address cannot be read. Set this external tag as write-only and remove panel devices from your application that want to display data from this external tag.
Communication	3	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/ Restart the terminal.
Communication	4	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/, P2-/*S:0 Param4*/ Restart the terminal.
Communication	5	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/, P2-/*S:0 Param4*/, P3-/*S:0 Param5*/ Restart the terminal.
Communication	6	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/, P2-/*S:0 Param4*/, P3-/*S:0 Param5*/, P4-/*S:0 Param6*/ Restart the terminal.
Communication	7	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/, P2-/*S:0 Param4*/, P3-/*S:0 Param5*/, P4-/*S:0 Param6*/, P5-/*S:0 Param7*/ Restart the terminal.
Communication	8	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/, P1-/*S:0 Param3*/, P2-/*S:0 Param4*/, P3-/*S:0 Param5*/, P4-/*S:0 Param6*/, P5-/*S:0 Param7*/, P6-/*S:0 Param8*/ Restart the terminal.
Communication	9	Communication Server Error	Contact technical support providing this data. ID1-/*S:0 Param1*/, ID2-/*S:0 Param2*/ Restart the terminal.
Communication	10	Write Error for Alias /*S:0 Param2*/, Controller /*S:0 Param3*/, Address is /*S:0 Param4*/, Communication Flag is /*S:0 Param1*/ The terminal is having trouble writing the external tag at this controller and address.	Verify you have good communication to the controller. Verify that the communication network cable is connected. If new ladder logic is downloading to the controller, you could see this message. After the download, communication should run normally. If a remote device not responding alert is present, then all external tags being written to will generate this alert. Is the address configured in the controller? If the address is configured as read-only at the controller, this address cannot be written to. Set this external tag as read and remove panel devices from your application that can write data to this external tag.
Communication	11	Read Error for Alias /*S:0 Param2*/, Controller /*S:0 Param3*/, Address is /*S:0 Param4*/, Communication Flag is /*S:0 Param1*/ The terminal is having trouble reading the external tag at this controller and address.	Verify you have good communication to the controller. Verify that the communication network cable is connected. If new ladder logic is downloading to the controller, you could see this message. After the download, communication should run normally. If a remote device not responding alert was present, then all external tags being read from will generate this alert. Is the address configured in the controller? If the address is configured as write-only at the controller, this address cannot be read from. Set this external tag as write and remove panel devices from your application that can read data from this external tag.

PanelView 800 Terminal Alerts (Continued)

Category	ID	Description	Corrective Action
Communication	27	Remote Device /*S:0 Param1*/ is Not Responding	Verify that all network connections are correct. Verify that the communication network cable is connected. If new ladder logic is downloading to the controller, you could see this message. After the download, communication should run normally. Verify that the network address of the controller matches the terminal controller address that is configured in the Communication tab. In the Communication tab, verify that the protocol specifications are correct, such as communication rate, data bits, stop bits. These are all protocol specific.
Communication	28	Invalid Data Address /*S:0 Param1*/	This is not syntactically a valid address.
Communication	30	Bad address in block /*S:0 Param1*/ to /*S:0 Param2*/ on device /*S:0 Param3*/	This can occur when a write-only address for a controller has been set for read/write in the external tag of the terminal. Param1 to Param2 specifies the address block having the issue. Somewhere within the range is where the write-only address is defined in a PanelView external tag. Set the external tag to write.
Recipe	1001	Recipe upload started.	This message is for informational purposes. No corrective action needed.
Recipe	1002	Recipe save failed. Cause: Recipe in Table has not been modified.	Make sure that the recipe table is modified before the save operation is done.
Recipe	1003	Recipe save had errors.	This message is for informational purposes. No corrective action needed.
Recipe	1004	Recipe save completed successfully.	This message is for informational purposes. No corrective action needed.
Recipe	1005	Recipe download failed. Cause: Operation canceled.	This message is for informational purposes. No corrective action needed.
Recipe	1006	Recipe download started.	This message is for informational purposes. No corrective action needed.
Recipe	1007	Recipe download completed with errors.	This message is for informational purposes. No corrective action needed.
Recipe	1008	Recipe download completed successfully.	This message is for informational purposes. No corrective action needed.
Recipe	1009	Recipe Download failed. Cause: Unable to write to /*S:0 Param1*/.	Check for: Communication errors. Bad data point specification. The ingredient value that is written is outside the Low EU and High EU limits of the numeric data point assigned. (These are optional OPC defined properties representing data point minimum and maximum values). The ingredient value could not be converted to the type of the data point assigned.
Recipe	1010	Recipe upload completed with errors.	This message is for informational purposes. No corrective action needed.
Recipe	1011	Recipe upload completed successfully.	This message is for informational purposes. No corrective action needed.
Recipe	1012	Recipe restore failed. Cause: Operation canceled.	This message is for informational purposes. No corrective action needed.
Recipe	1013	The status data point for Recipe /*S:0 Param1*/ operation could not be written to. Data Point= /*S:0 Param2*/	Check for: Communication errors Bad status data point specification The status value that is written is outside the Low EU and High EU limits of the numeric data point assigned. (These are optional OPC defined properties representing data point minimum and maximum values). The status value could not be converted to the type of the data point assigned
Recipe	1014	Recipe download failed. Cause: The value /*S:0 Param1*/ is less than the minimum value /*S:0 Param2*/ allowed for ingredient /*S:0 Param3*/	Correct the dataset value.
Recipe	1015	Recipe /*S:0 Param1*/ failed. Cause: No Selector on display.	Add a recipe selector device to the screen.
Recipe	1016	Recipe /*S:0 Param1*/ failed. Cause: No DataSet Selector on display.	Add a dataset selector device to the screen.
Recipe	1017	Recipe /*S:0 Param1*/ failed. Cause: No Table on display.	Add a Recipe Table Panel device to the Screen.
Recipe	1018	Recipe /*S:0 Param1*/ operation was not started because the system is currently busy performing another Recipe operation.	Wait for a recipe operation to complete before starting the next recipe operation.

PanelView 800 Terminal Alerts (Continued)

Category	ID	Description	Corrective Action
Recipe	1019	Recipe /*S:0 Param1*/ failed. Cause: No recipe selected in Selector.	Select recipe and try again.
Recipe	1020	Recipe /*S:0 Param1*/ failed. Cause: Data type of data point /*S:0 Param2*/ is incompatible with ingredient type of ingredient /*S:0 Param3*/.	Change the type of the ingredient to match the type of the data point, or select another data point that matches the type of the ingredient.
Recipe	1021	Recipe /*S:0 Param1*/ failed. Cause: Unable to read from /*S:0 Param2*/	Check the communication settings, and data point specification.
Recipe	1022	Recipe /*S:0 Param1*/ failed. Cause: Unable to read from Tag.	Check the communication settings, and data point specification.
Recipe	1023	Recipe download failed. Cause: The value /*S:0 Param1*/ is greater than the maximum value /*S:0 Param2*/ allowed for ingredient /*S:0 Param3*/	Correct the dataset value.
Recipe	1024	Recipe /*S:0 Param1*/ failed. Cause: Table does not contain a recipe.	Restore the recipe in the table before doing a save operation.
Recipe	1025	Recipe /*S:0 Param1*/ of recipe /*S:0 Param2*/failed. Cause: · Recipe file not accessible.	Try to reload the application to see if the recipe is still there, or restore from a .cha file from your computer or SD card.
Recipe	1026	Recipe Upload Failed.	This message is for informational purposes. No corrective action needed.
Recipe	1027	Recipe operation in progress.	This message is for informational purposes. No corrective action needed.
Alert	2000	Loading.	This message is for informational purposes. No corrective action needed.
Alert	2001	Unloading.	This message is for informational purposes. No corrective action needed.
Alert	2002	Terminal is starting up...	This message is for informational purposes. No corrective action needed.
Alert	2003	Application is currently being edited, user input is disabled.	Put the application into Test or Run mode to enable user input.
Alert	2004	Copying file...	This message is for informational purposes. No corrective action needed.
Alert	2005	Deleting file...	This message is for informational purposes. No corrective action needed.
Alert	2006	Operation failed.	This message is for informational purposes. No corrective action needed.
Alert	2007	Operation succeeded.	This message is for informational purposes. No corrective action needed.
Alert	2008	Cannot run application. Application version incompatible.	Edit, validate, and then save the application with this version and try again.
Alert	2009	Cannot run application. Communication connection not supported.	Terminal does not support the communication connection that is configured in this application. Edit the application and configure communication for the supported connection type.
Alert	2010	This application is not validated. Are you sure you want to run a non-validated application?	If you do not want to run the invalid application, cancel the operation, then edit and validate the application. Correct all validation errors, save the application, and try again.
Alert	2011	Cannot run a modified application.	Save the application and try again.
Alert	2012	Application has been modified. Continue without saving?	Edit the application and save before performing this operation, otherwise changes to the application may be lost.
Alert	2013	Currently loaded application has been modified. All changes are lost by running this application. Continue?	Edit the application and save before performing this operation, otherwise changes to the application may be lost.
Alert	2014	Application was designed for another terminal type and may not appear or operate as intended. Continue?	Edit the application on the terminal type that it is intended for.
Alert	2015	Application is unloaded. Continue?	Click Yes to continue with operation.
Alert	2016	Confirm deletion?	Click Yes to delete the file.
Alert	2017	Confirm restart?	Press Yes to restart the terminal.
Alert	2018	File already exists. Overwrite?	If you do not want to overwrite the file, cancel the operation and rename the file before performing this operation.
Alert	2019	Cannot copy over loaded application. Unload application and continue with overwrite?	Click OK to unload and overwrite the application.
Alert	2020	Cannot copy over loaded application.	Unload application and try again.
Alert	2021	Insufficient space to complete file copy.	Remove files to free space from the destination and try again.
Alert	2022	Source and destination cannot be the same.	Verify that the source and destination are not the same and retry.

PanelView 800 Terminal Alerts (Continued)

Category	ID	Description	Corrective Action
Alert	2023	Application has been left in edit or test mode.	Reconnect the designer or press OK to proceed to the configuration screens.
Alert	2024	File not found.	Verify the location of the file and try again.
Recipe	2025	Copy failed. Only existing recipe files can be updated.	Create the recipe through the designer or rename this recipe to the existing recipe name and try again.
Recipe	2026	Copy failed. Invalid recipe file.	The imported recipe must have the same number of ingredients and data sets as the existing recipe it is replacing.
Alarm	2027	Alarm logs can only be copied from a loaded application.	Load the application into Edit, Test, or Run mode and retry.
Alert	2028	Files can only be copied to a secured application while editing the application.	The application has been secured with design rights. Load the application into Edit mode and retry.
Alert	2029	Files can only be copied from a secured application while editing the application.	The application has been secured with design rights. Load the application into Edit mode and retry.
Alert	2030	Cannot delete a loaded application.	Unload application and try again.
Alert	2031	Files can only be deleted from a secured application while editing the application.	The application has been secured with design rights. Load the application into Edit mode and retry.
Alert	2032	Return to out of box condition?	Press Yes to restart the terminal and return to the out of box condition.
Alert	2033	Source file does not exist.	Make sure that the source file exists and retry.
Alert	2034	Destination folder does not exist.	Make sure that the destination location exists and retry.
Alert	2035	Insufficient disk space. Free disk space and try again.	Remove files to free space by pressing the Delete File button on the File Transfer tab.
Alert	2036	This application is not validated. Are you sure you want to run a non-validated application?	Press Yes to continue running the invalid application, or No to proceed to the configuration screens. Then, edit and validate the application. Correct all validation errors, save the application, and try again.
Aler	2037	This application is invalid. Continue setting as startup application?	Press Yes to continue setting the invalid application as a startup application, or No to proceed to the configuration screens. Then, edit and validate the application. Correct all validation errors, save the application, and try again.
Alert	2038	Cannot change password because password has been marked as unmodifiable.	Edit the application and go to the Security tab. Check the Modifiable? box that is associated with the username and password.
Alert	2039	Cannot change password because no user is logged onto the terminal.	Login as one of the users who are defined in the application and retry.
Alert	2040	Old password does not match the password for the current user.	Enter the current user's password for the Old Password.
Alert	2041	Cannot reset password, this is an unknown user.	Login as one of the users who are defined in the application and retry.
Alert	2042	Cannot change password, new, and confirm passwords don't match.	Verify that the new password matches the confirmed password and retry.
Alert	2043	Access Denied	The username/password is either incorrect or the user does not have the access right for the associated screen.
Alert	2044	Cannot run application while in Safe mode.	Restart the terminal to exit Safe mode and retry.
Alert	2045	Cannot run applications from external storage.	Copy or save to internal storage and try again.
Alert	2046	Passwords cannot be modified while in test mode.	The change password and reset password devices are only enabled while in Run mode.
Alert	2047	File is read-only. Continue?	Choosing to continue will overwrite the read-only file.
Alert	2048	Application has been modified. Continue?	Edit the application and save before performing this operation, otherwise changes to the application may be lost.
Alert	2049	Allow firmware update?	Press Yes to continue with the firmware update.
Alert	2050	The value is not within the minimum and maximum range.	Enter a value within the allowable range. If you do not know the range Edit the application to determine the allowable range for the device.
Alert	2051	Allow Autorun?	Press No to disallow Autorun.
Alert	2052	Application has been modified. Allow Autorun?	Press No to disallow Autorun. Edit the application and save before performing this operation, otherwise changes to the application may be lost.
Alert	2053	Screen switching controlled by external source.	Screen navigation devices are disabled if the screen has been changed to via controller.

PanelView 800 Terminal Alerts (Continued)

Category	ID	Description	Corrective Action
Alert	2054	Cannot reset the terminal in Safe mode.	Terminal restart is disabled on the emulator. Select Flash>Save and then select File>Reset>Hard to restart the emulator.
Alert	2055	Image exceeds maximum resolution of 800x800.	Open file in image editor and reduce the resolution.
Alert	2056	Cannot copy recipe to a loaded application.	Unload application and try again.
Alert	2057	Terminal is running low on application memory (<Available_Virtual_Memory>bytes).	Reset the terminal or this may lead to fatal error.
Alert	2058	Failed setting property: /*S:0 Param1*/::/*S:0 Param2*/, value = /*S:0 Param3*/	Verify the range of the numeric display that uses the external tag as its write tag is within the range of a tag (validation should provide a warning if the range of the tag is greater than the range of a numeric entry). Make sure that the values of the state-based objects that write to an external tag are within the range of the tag. Make sure that the value that written to an external tag matches the tag type (for example, do not write a non-numeric string into a numeric tag). Make sure that the Ethernet port is enabled.
Alert	2059	Failed setting property (/*S:0 Param1*/): /*S:0 Param2*/::/*S:0 Param3*/, value = /*S:0 Param4*/	Verify the range of the numeric display that uses the external tag as its write tag is within the range of a tag (validation should provide a warning if the range of the tag is greater than the range of a numeric entry). Make sure that the values of the state-based objects that write to an external tag are within the range of the tag. Make sure that the value that written to an external tag matches the tag type (for example, do not write a non-numeric string into a numeric tag).
Alert	2060	Terminal is running low on RAM (<Available_RAM>bytes).	Reset the terminal or this may lead to fatal error.
Alert	2061	Out of memory: Terminal cannot continue to run and will be reset.	This is a out of memory critical message. Dismissing this dialog causes the terminal to reset. After the terminal resets, try to edit an application and reduce its size by removing some objects, for example, user controls, screens, tags, or alarms.
Alert	2062	Cannot copy recipe to a loaded application.	Unload application and try again.
Alert	2064	Cannot enter Safe Mode while terminal security is enabled.	Disable terminal security and try again.
Alert	2065	Table has changed. Do you want to continue?	Press Yes to continue with the changed Recipe table.
Alert	2066	Logging Error	Make sure that a microSD card or USB device is connected to the terminal to store the datalog.
Alert	2067	Invalid filename	Make sure that the filename is valid.
Alert	2068	Only one Trend with data logging is allowed.	Make sure that the application only has one Trend with data logging.
Alert	2069	Landscape Orientation. Confirm Restart?	Select No to restart later.
Alert	2070	Portrait Orientation. Confirm Restart?	Select No to restart later.
Alert	2071	Application was designed for a different Orientation and may not appear or operate as intended. Continue?	Press Yes to continue, or No to cancel. Then change the orientation of the application in Connected Components Workbench software to match the terminal and try again.
Alert	2072	Application was designed for a different Platform type and Orientation, and may not appear or operate as intended. Continue?	Press Yes to continue, or No to cancel. Then change the catalog of the application in Connected Components Workbench software to match the terminal and try again.
Alert	2073	Non-validated application is not supported for CompactLogix controller. Validate before loading	Validate the application and correct any validation errors, save the application, then try again.
Alert	2074	Terminal encountered an exception and will reboot	This message is for informational purposes. No corrective action needed.
Alert	2075	Application will be unloaded. Confirm (Y/N)?	Press Yes to unload the application.
Alert	2076	This application does not have at least one Goto Config button. Set as Startup Application?	Press Yes to continue setting the application as a startup application, or No to cancel. Edit the application and make sure that there is at least one Goto Config button.
Alert	2077	Controller Settings cannot be changed for running application.	Stop the application and try again.
Alert	2078	Controller address cannot conflict with PanelView 800 terminal Station Address.	Make sure that the controller address is different from the PanelView 800 terminal station address.
Alert	2079	CompactLogix controller based application must contain valid path.	Make sure that a valid path exists and try again.
Alert	2080	Invalid View-Only password. Password should not contain any special character.	Make sure that the View-Only password does not contain any special characters.
Alert	2081	Old password does not match with terminal.	Make sure that the correct password is entered in the Old Password field.

PanelView 800 Terminal Alerts (Continued)

Category	ID	Description	Corrective Action
Alert	2082[1]	VNC Server error.	Restart the terminal and try again.
Alert	2083	Controller address cannot be larger than PanelView 800 terminal Max Node('31').	Make sure that the address of the controller is smaller than the maximum node of PanelView 800 terminal ('31').
Alert	2084	Password cannot be empty.	Enter valid password.
Alert	2085	Enable Ethernet port. Confirm Restart?	Press Yes to restart the terminal.
Alert	2086	Disable Ethernet port. Confirm Restart?	Press Yes to restart the terminal.
Alert	2087	Enable Serial port. Confirm Restart?	Press Yes to restart the terminal.
Alert	2088	Disable Serial port. Confirm Restart?	Press Yes to restart the terminal.
Alert	2089	Cannot disable both communication port.	Make sure that at least one communication port is enabled.
Alert	2090	Invalid Control password.	Password must contain at least one special character.
Alert	2091[1]	VNC Server is Disabled.	Enable VNC Server to change/reset password.
Alert	2092	Ethernet port is disabled.	Go to Port Settings on the terminal to enable the Ethernet port.
Alert	2093	Serial port is disabled.	Go to Port Settings on the terminal to enable the Serial port.
Alert	2094[1]	Existing VNC client connection will be terminated. Confirm (Y/N)?	Press Yes to terminate the VNC connection, or No to cancel.
Alert	2095	Cannot edit recipe for running application.	Unload the application and try again.
Alert	2096	Recipe with the same name already exists	Make sure that the recipe name is unique.
Alert	2097	Recipe Name cannot contain more than 31 characters. Choose another name.	Make sure that the recipe name does not exceed 31 characters.
Alert	2098	The Name cannot be blank and must contain only alphanumeric characters plus [$'@!()_-].	Make sure that the name contains only alphanumeric characters plus [$'@!()_-].
Alert	2099	Deletion of a recipe in a design secured application is not allowed. See Copy or Edit Recipes on page 22.	Make sure that the application is not design secured.
Alert	2100	Renaming of a recipe in a design secured application is not allowed. See Copy or Edit Recipes on page 22.	Make sure that the application is not design secured.
Alert	3001	Available memory is too low to run the application.	Try to release some memory or this may lead to fatal error.
Multilanguage	8193	Language switch ignored. Application was not configured with new language. An attempt was made to switch to a language that is not configured for this application.	Either add the specified language and associated strings or remove the unconfigured language selection.

(1) The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011. For more information, contact your local technical support at rok.auto/phonesupport.

Troubleshooting

If your terminal does not start up correctly, check for adequate power, observe the splash screen state message and status code, indicator states, or an application that is not running during power-up.

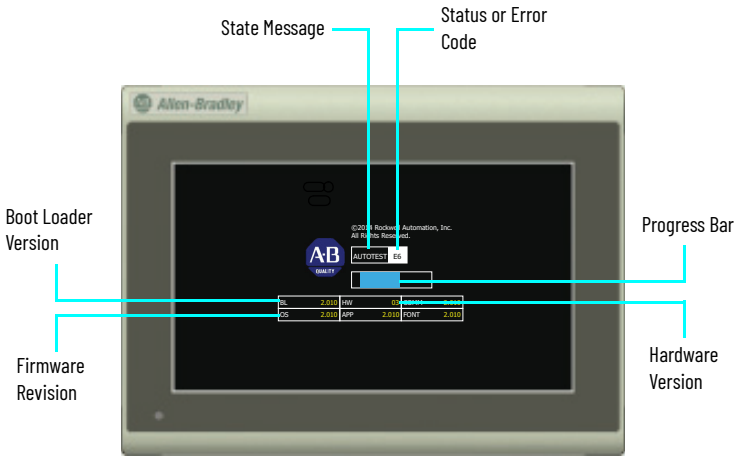
Determine what changed since the last time the terminal ran normally and decide if the change can be reversed.

Check for Adequate Power

A terminal that does not receive adequate power could cause unpredictable behavior. Verify the power requirements in the Specifications table.

Observe Splash Screen

Various actions and status conditions of the terminal are reported on the splash screen, including version information about the hardware and firmware.



These tables describe the state messages and the status or error codes that appear on the splash screen.

Power on Self Test (POST) Failures

Message	State	Code
POST Failed RAM	Fatal	6C
POST Stuck Key	Fatal	31
POST Stuck Touch	Fatal	3 A

Firmware Installation and Loading

Message	State	Code
Load Firmware Image into RAM	Update	1E
Write Firmware Image into Flash	Update	A5
Complete and Successful Firmware Installation	Update	OK
Firmware Image Validation (CRC/Format) Failure	Fatal	1E
Firmware Image Compatibility Failure	Fatal	1F
Firmware Write to Flash error	Fatal	A5
Firmware Read-After-Write Verify	Fatal	D2
Invalid or missing Firmware Image	Fatal	0 A

Other Commonly Observed Status Codes

Message	State	Code
Boot Loader connects to PC via USB Device	AutoTest	0 A
Boot Loader loads Firmware Image into RAM	AutoTest	E6
Boot Loader jumps to Operating System	AutoTest	FF
Operating System startup	Boot	G0
Operating System Initialize	Init	I1...J0
Application Registration and Initialize	Init	N1...N3
Application Load and Execute	Load	N4...N6

POST errors are fatal and most likely due to failed hardware. A fatal error during firmware installation and loading is most likely recoverable by installing the appropriate firmware.

Interpret the LED Indicators at Startup

The PanelView 800 terminals have indicators to isolate operating problems. They can be seen through the battery cover on the back of the unit.

- Comm indicator for communication
- Fault indicator for hardware faults

At startup, the Fault indicator is off, except for a few brief flashes, and the Comm indicator is on. If the indicators remain off, check the power cable. After a successful startup, both indicators are off and controlled by the application running on the terminal.

The table shows indicator states if the terminal stops during startup.

Fault Indicator States During Startup

Fault (Red) Indicator State	Comm (Green) Indicator State	Description	Recommended Action
Potentially recoverable errors			
Blinking	Off	Last firmware download failed.	Reload the firmware.
Blinking	Blinking	EBC boot loader firmware failed or is missing.	Reload the firmware.
Blinking	On	Windows CE OS firmware failed or is missing.	Reload the firmware.
Nonrecoverable or fatal errors			
On	Off	Fatal hardware error.	Replace the terminal.

Returning to the Out-of-box Condition

You may want to return a terminal to the out-of-box condition to refresh the terminal or to recover from severe application misbehavior. There is a special maintenance action that permits you to perform a complete reset and return to the out-of-box condition for the terminal.

Returning a terminal to an out-of-box condition does not affect the terminal firmware revision or the installed font image.

Follow these steps to return your terminal to the out-of-box condition.

1. Connect an external USB keyboard to the terminal and hold the Ctrl and Shift keys simultaneously, while starting up the terminal.

   A dialog box appears with the prompt:
   Return to Out of Box Condition?

IMPORTANT	Keyboards initialize at different times. If the terminal boots normally to the configuration screen or the selected startup application, the keyboard press was not recognized. Restart the terminal and wait until the boot screen displays the INIT code N1, then press and hold the Ctrl and Shift keys until the dialog box appears.

2. Press Yes or F1 to return to the out-of-box condition, or press No or F2 to cancel.

   If you choose to return to the out-of-box condition, the terminal resets. On the subsequent boot, the file system is formatted and removes the contents including applications, logs, recipes, user-installed fonts, objects, and graphics. Most terminal configuration parameters are returned to their default values.

IMPORTANT Returning to the out-of-box condition does not change the current firmware on your terminal. If you upgraded the firmware on your terminal, the upgraded firmware revision remains unaffected. See Firmware Installation Using Removable Storage Device on page 123 for details on what is included in a firmware update.

IMPORTANT If you have forgotten your terminal password or VNC password, you can use this procedure to restore your terminal. Remember, it removes all applications, logs, recipes, user-installed font files, objects, and graphics.

The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

Restoring the Terminal

This function enables you to clear all contents of the terminal and reset certain settings to their default value using the Restore button. This function is similar to returning the terminal to the out-of-box configuration.

IMPORTANT If you have forgotten your terminal password or VNC password, you can use this procedure to restore your terminal. Remember, it removes all applications, logs, recipes, user-installed font files, objects, and graphics.

The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

Settings Cleared or Reset to Default When Using Restore or in Out-of-Box Condition

Setting	Restore	Out-of-Box Condition
Applications	Y	Y
Terminal Startup Application	Y	Y
User-Installed Font Files	Y	Y
Screensaver	Y	Y
VNC Settings[1]	Y	Y
Port Settings	Y	Y
FTP Settings	Y	Y
Print Settings	Y	Y
Network Credentials	Y	Y
Terminal Password	Y	Y
DHCP Option	N	Y
IP Address	N	Y
Subnet Mask	N	Y

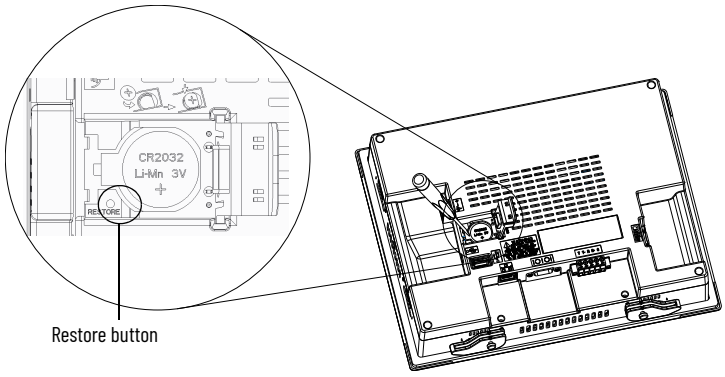
Settings Cleared or Reset to Default When Using Restore or in Out-of-Box Condition (Continued)

Setting	Restore	Out-of-Box Condition
Display Brightness	N	Y
Display Timeout	N	Y
Terminal Name	N	Y

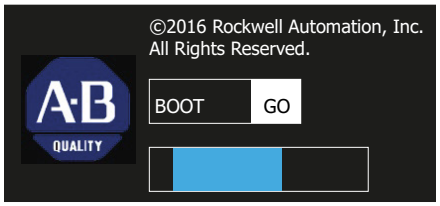
(1) The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011. For more information, contact your local technical support at rok.auto/phonesupport.

Follow these steps to restore the terminal.

1. While the terminal is not powered, use a small pointed object to press and hold the Restore button located underneath the battery cover.



2. Power up the terminal.
3. Wait until the fault indicator lights up steady red, or the text "GO" is displayed on the screen before releasing the Restore button.



4. Wait for a few minutes until the process is completed.
5. When the restore process is completed, the terminal boots into the main configuration screen.

Notes:

Update Firmware

Chapter Objectives

This chapter provides topics on how to update firmware in the terminal.

- Prepare for firmware update
- Update firmware using ControlFLASH
- Update firmware using a removable storage device

The firmware update runs an executable script on a removable storage device such as a USB drive or a microSD card that copies a firmware image into the nonvolatile memory of the terminal.

Prepare for Firmware Update

Follow these steps before starting a firmware update.

IMPORTANT	The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

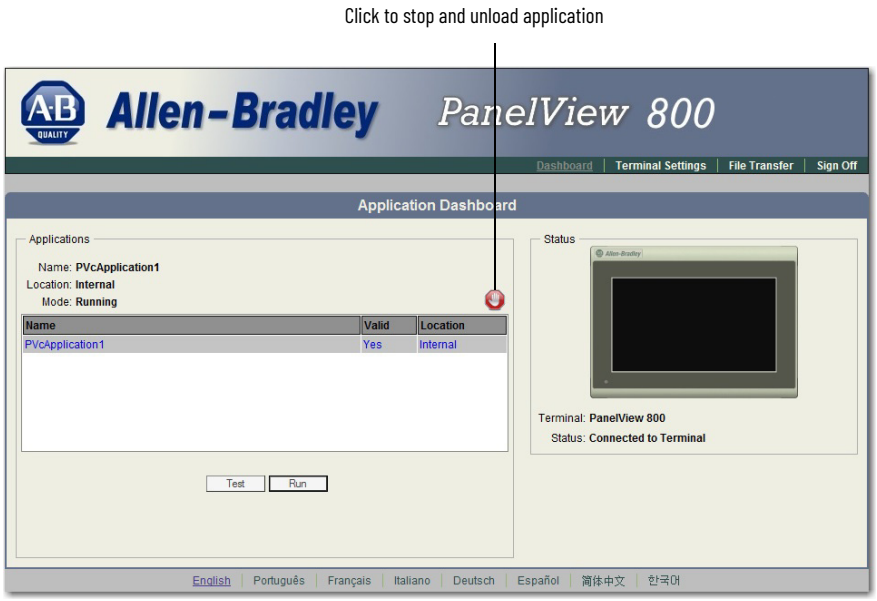
IMPORTANT	From firmware revision 3.011 onwards, the terminal must not be in Protected Mode when performing a firmware upgrade. For more information, see Protected Mode on page 97.

IMPORTANT	When you perform a firmware update, your terminal password, VNC settings, port settings, FTP server setting, and print settings are cleared and reset to their default configuration. The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011. For more information, contact your local technical support at rok.auto/phonesupport.

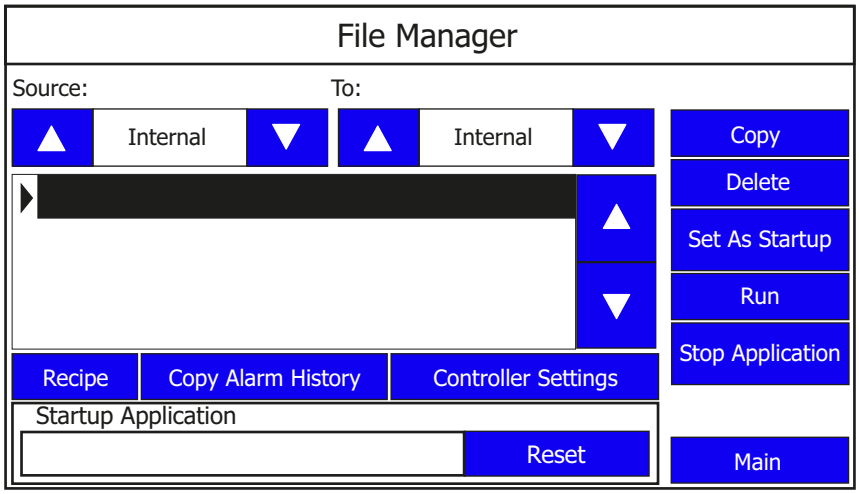
IMPORTANT	Terminate the VNC connection before performing a firmware update as it may interfere with the process. The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011. For more information, contact your local technical support at rok.auto/phonesupport.

1. Backup applications and library objects from the terminal.

2. Click Stop to unload the currently loaded application.
The stop sign is shown when an application is loaded and in Test/Run mode.



To stop an application from the terminal, go to the File Manager configuration screen and press the Stop Application button.

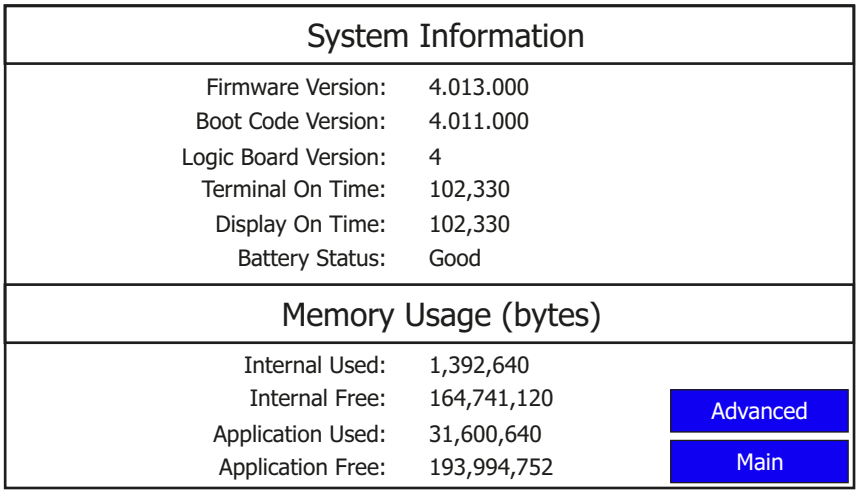


IMPORTANT The Stop Application button is only available in firmware revision 3.011 onwards.

If you have not saved changes to the application, you are prompted to do so. Once the application is unloaded, the terminal displays the Configuration screen.

3. Close the web browser that is connected to the terminal.

4. Verify the existing firmware revision of the terminal by looking in the System Information screen, and compare to the firmware revision of the file to make sure you are performing the desired upgrade.



See View System Information on page 43 for instructions on how to view the current firmware revision.

Upgrading Firmware Using ControlFLASH

The ControlFLASH software is included with the Connected Components Workbench software and can be installed or updated when you install Connected Components Workbench software on your computer. You can also launch ControlFLASH software within Connected Components Workbench software version 11 and later.

ATTENTION: Changing the firmware will likely change the behavior of the terminal. Be aware of the firmware revision for the terminal versus the new firmware that is on the computer, and be informed of the expected behavior after the new firmware is installed on the terminal.

For ControlFLASH version 13.00 or higher, you can save the downloaded firmware, which is in DMK format, in one of the default monitored folders before launching ControlFLASH.

The default monitored folders are typically at:

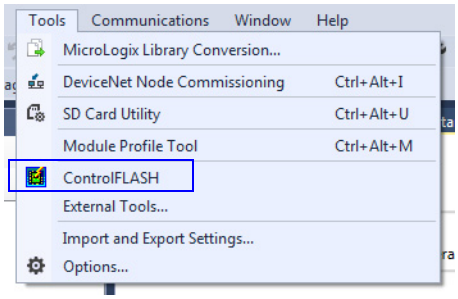
- C:\Progam Files (x86)\ControlFLASH
- C:\Users\(username)\Downloads\RA

If you save the firmware file to another folder, you must add that folder to the list of monitored folders during the upgrade process. See the details in step 4 for more information.

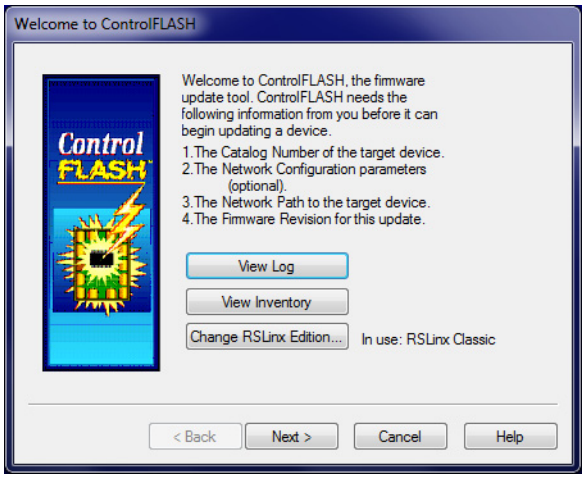
Follow these steps to upgrade the firmware using ControlFLASH.

1. Verify that the terminal is connected to your computer either through Ethernet or USB.

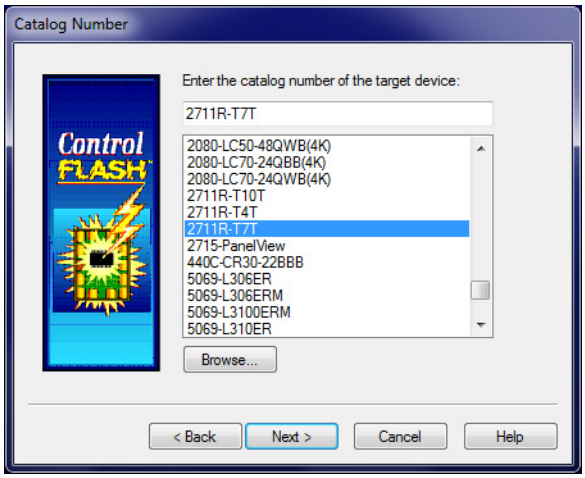
2. In Connected Components Workbench software, click Tools -> ControlFLASH
   Alternatively, launch ControlFLASH.



3. Click Next.



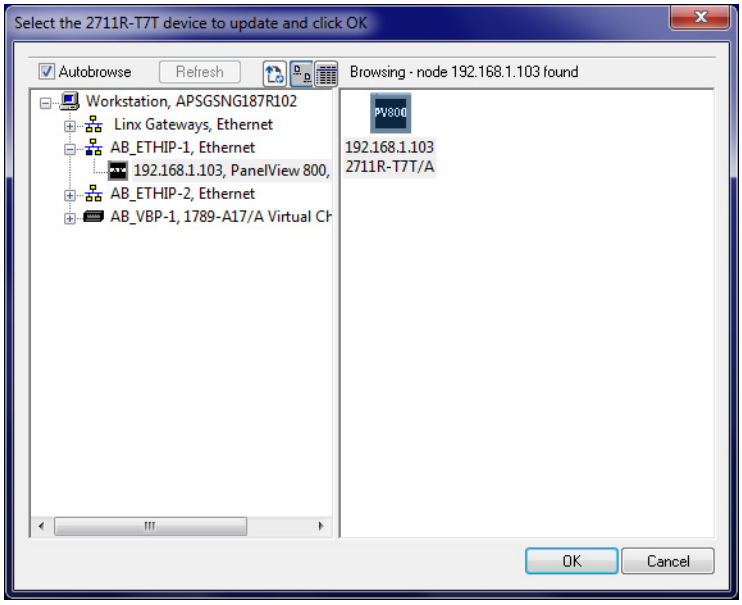
4. Select the catalog number for the terminal that you are updating and click Next.



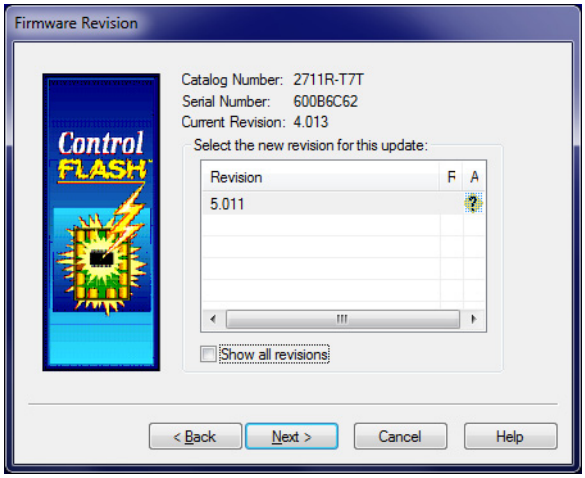
If you are using ControlFLASH version 13.00 or higher and the catalog number is not listed, you may must add a monitored folder for firmware kits. Follow these steps to do add a monitored folder:

a. Click Browse.
   The Firmware Kit Locations dialog box appears.
b. Click Add.
c. Select the folder that contains the firmware DMK file, and then click OK.
d. Click OK to close the Firmware Kit Locations window.

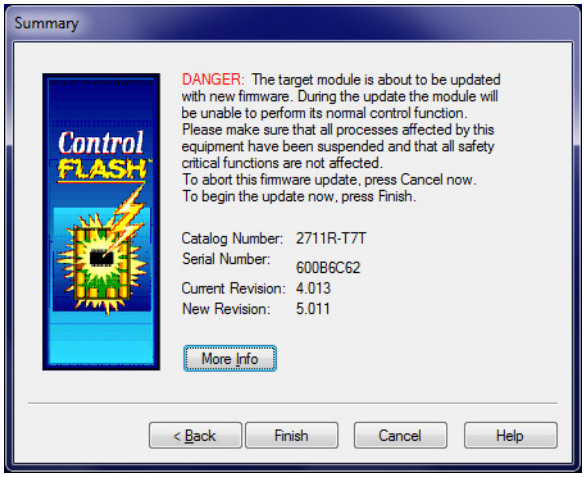
5. Select the terminal in the connection browser window and click OK.



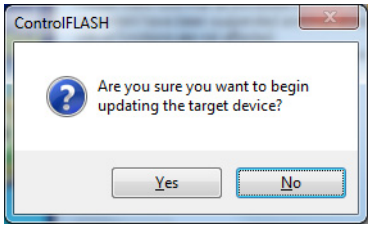
6. Select the firmware revision to update and click Next.



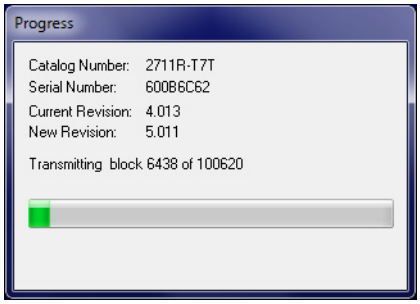
7. Verify your selections and click Finish.



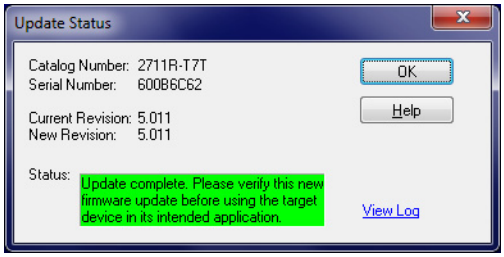
8. Click Yes to start the updating process.



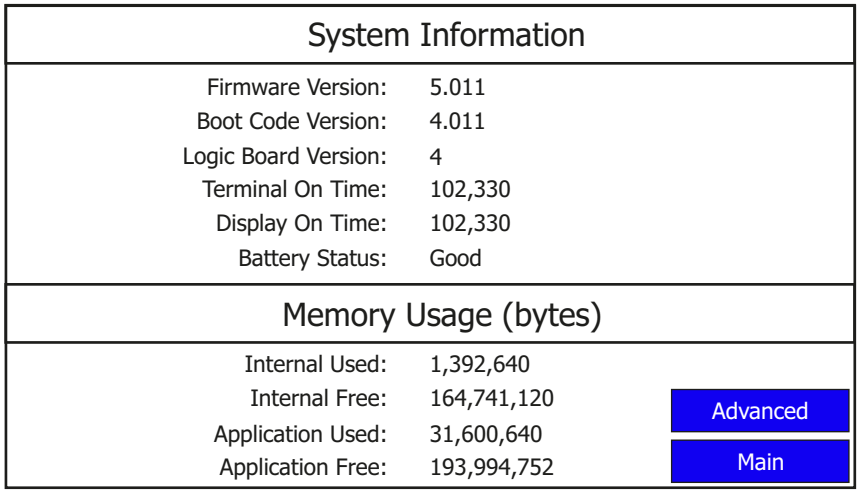
A screen that shows the progress appears.



9. When the update process is complete, the terminal will automatically restart.
10. After the terminal has restarted, a screen showing the update status appears. Click OK to continue.



11. Open the system information screen on the terminal to verify that the new firmware revision is correct.



See View System Information on page 43 for instructions on how to view the current firmware revision.

Firmware Installation Using Removable Storage Device

The terminal can install firmware from a removable storage device; either a USB drive or a microSD card. The firmware consists of an Autorun executable and firmware image. Download the firmware from the Product Compatibility and Download Center (PCDC) at rok.auto/pcdc.

The firmware installation starts when the storage device is inserted either while the terminal is running, or when the terminal is powered on. During the firmware installation, you can upgrade or downgrade the firmware. The firmware image consists of the following components:

- Windows CE operating system
- Application
- Communication
- Asian font (Simsun – Simplified Chinese)

  The terminal has a firmware partition that accommodates one user-installable Asian font. A Simsun Chinese font is factory-installed.

  The currently installed Asian font firmware image is visible in the list of Configuration Languages on the Main Screen.

ATTENTION: Removing the USB drive or microSD card, from the PanelView 800 terminal, while a firmware update is in process, could corrupt the firmware and make the terminal unusable. Take precautions to help prevent the USB drive or microSD card from being accidentally disconnected. Also, do not power off the terminal while a firmware update is in progress, or during the subsequent start up process that follows the firmware update.
ATTENTION: USB hubs can produce unexpected behaviors and as a result are not recommended.

The firmware revision consists of a major revision number, a minor revision three-digit number, and a build revision three-digit number, which is separated by a period (for example, 01.234.567 where 01 is the major, 234 is the minor, and 567 is the build). The build revision number is for internal use only. The firmware revision for the terminal is displayed on the System Information screen.

After updating your firmware, clear your browser cache.

To clear the cache in the Firefox browser, select Tools > Clear Private Data. Verify that the Cache checkbox is checked and click the Clear Private data button.

To clear the cache in the Internet Explorer browser, select Tools > Internet Options. On the General tab, click the Delete button under Temporary Internet Files to delete all temporary Internet files, including offline content.

ATTENTION: Changing the firmware will likely change the behavior of the terminal. Be aware of the firmware revision for the terminal versus the new firmware that is on the computer, and be informed of the expected behavior after the new firmware is installed on the terminal.

Extract the RFU Files from the DMK File

From firmware revision 6.012 onwards, RFU files are not included in the firmware download package. You must extract the RFU files from the DMK file.

Follow these steps to extract RFU files from the DMK file.

1. Launch the DMK Extraction Tool.
   This tool is typically installed along with ControlFLASH.
2. Click Browse and locate the DMK file on your computer.
3. Select the DMK file and click Extract.
   The RFU files are extracted to the following location:
   - 2711R-T4T -> C:\Program Files (x86)\ControlFLASH\0001\0018\0094
   - 2711R-T7T -> C:\Program Files (x86)\ControlFLASH\0001\0018\0095
   - 2711R-T10T -> C:\Program Files (x86)\ControlFLASH\0001\0018\0096

Transfer the Firmware to the Storage Device

Follow these steps to transfer the firmware files to the storage device.

1. Insert the storage device into a USB host port or microSD card slot on your computer.
2. Browse to the firmware files that you have downloaded or extracted on your computer.
3. Transfer the firmware files to the root directory of the storage device.

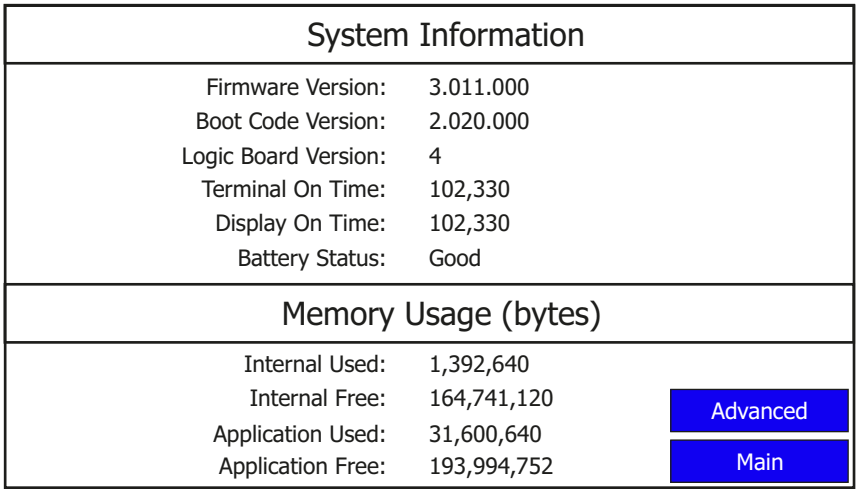
Install the Firmware from the Storage Device

Follow these steps to install the firmware from a storage device.

IMPORTANT During the firmware update process:

- Do not power off the terminal until the message, “upgrade — OK” is shown on the terminal.
- Do not power off the terminal until the Configuration application is shown on first startup after the firmware update is complete.
- Do not remove the microSD card or USB drive during the firmware update. Wait until the process is complete and the message, “upgrade — OK” is show on the terminal.

1. Open the system information screen on the terminal to verify the current firmware revision.



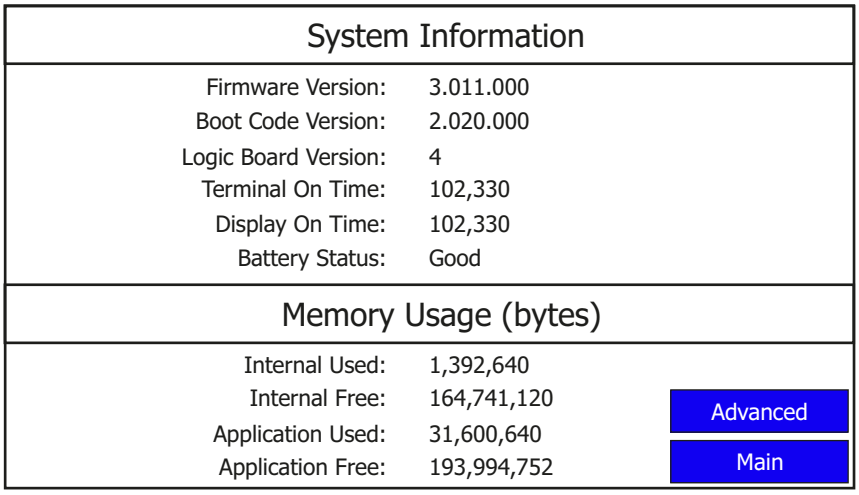
   See View System Information on page 43 for instructions on how to view the current firmware revision.

2. Insert the storage device into the USB host port or microSD card slot on your terminal.
3. When prompted to run the Autorun, press Yes or the F1 key.

   The splash screen appears and the progress bar indicates that a firmware installation is in process.

   When the firmware installation is complete and successful, the progress bar stops with the success code OK.

4. The terminal automatically restarts to complete the process.
5. Open the system information screen to see the firmware revision that is expected after the installation.



   See View System Information on page 43 for instructions on how to view the current firmware revision.

Notes:

Install and Replace Components

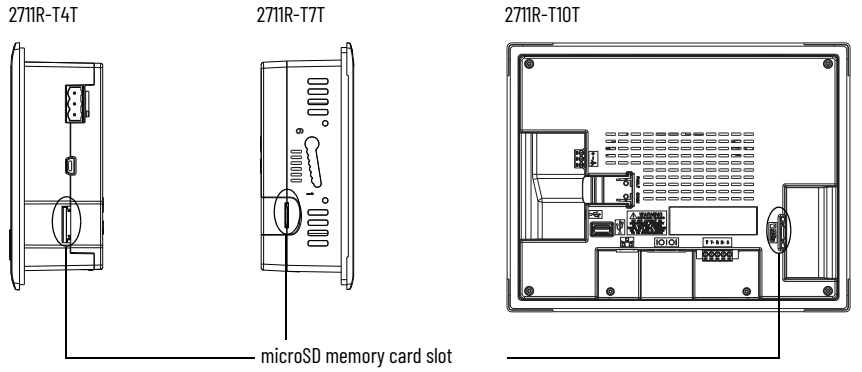
Chapter Objectives

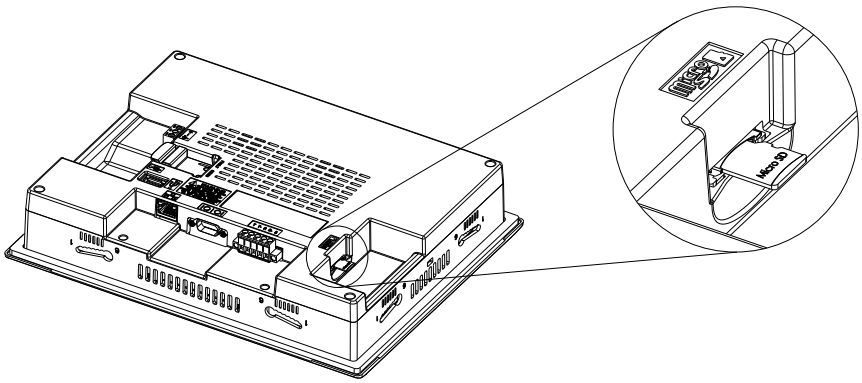
This chapter shows how to install, replace, or upgrade various components of the PanelView 800 terminals.

- microSD memory card
- USB drive
- Battery replacement

microSD Memory Card

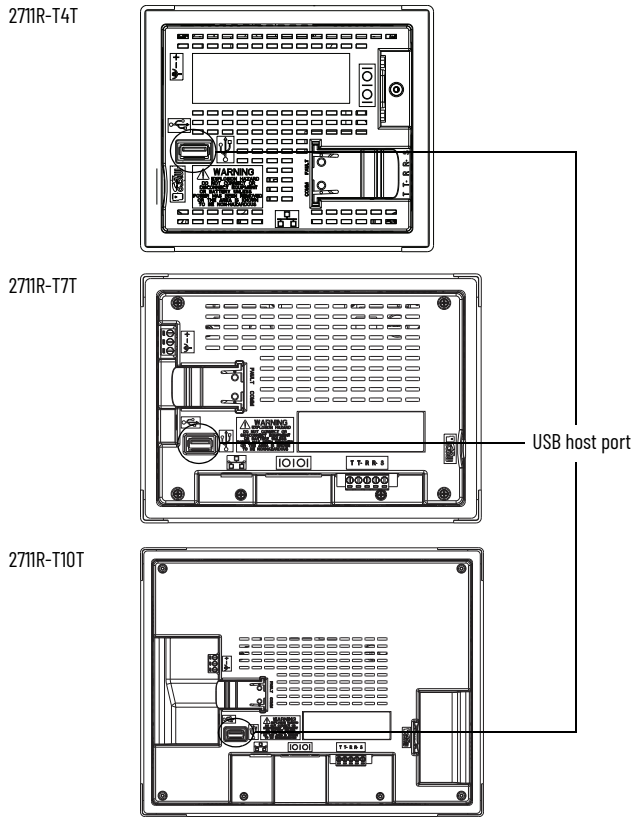
The microSD memory card can be inserted in the following locations on the PanelView 800 terminals.





USB Drive

The USB drive can be inserted in these locations on the terminals.



Battery Replacement

The PanelView 800 terminals contain a lithium battery that is intended to be replaced during the life of the product. The battery provides battery backup for the real-time clock. It is not used for application backup or retention.

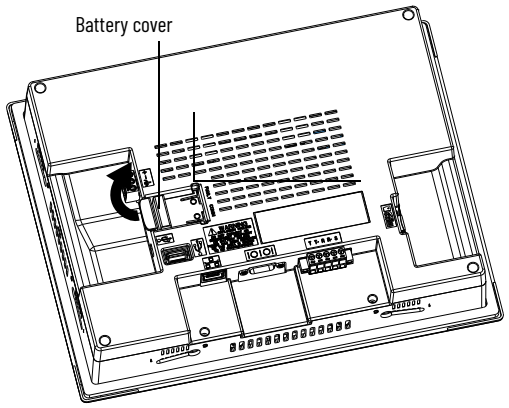
WARNING: Verify that power has been removed from the terminal before replacing the battery. Work in a static-free environment and wear a properly grounded electrostatic discharge (ESD) wristband.
Be careful when touching any of the exposed electronic components to help prevent damage from ESD.

WARNING: void the danger of explosion, only replace the battery with 2711P-Y2032 or a manufacturer's equivalent such as the Matsushita or Duracell DL2032.
For safety information on the handling of lithium batteries, see the Guidelines for Handling Lithium Batteries, publication AG-5.4.
Do not dispose of battery in a fire or incinerator. Dispose of used batteries in accordance with local regulations.

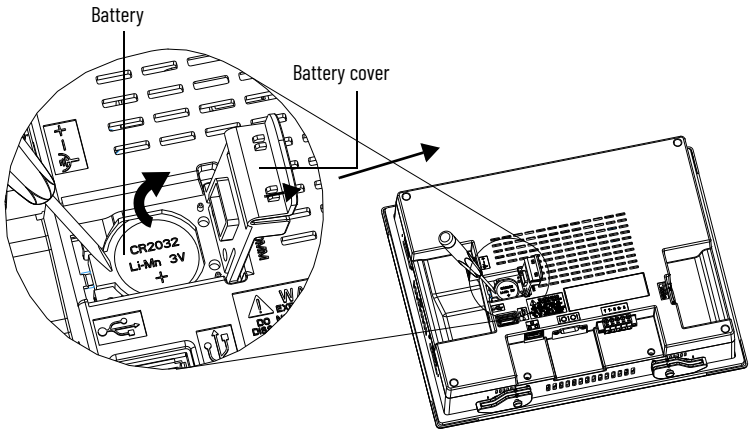
WARNING: When you connect or disconnect the battery an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that the area is nonhazardous before proceeding.
For Safety information on the handling of lithium batteries, including handling and disposal of leaking batteries, see Guidelines for Handling Lithium Batteries, publication AG-5.4.
Do not dispose of battery in a fire or incinerator. Dispose of used batteries in accordance with local regulations.

ATTENTION: Battery contains Perchlorate Material – Special handling may apply.
See https://dtsc.ca.gov/perchlorate/.
This perchlorate warning only applies to primary Lithium Manganese Dioxide (LiMnO2) cells or batteries, and products containing these cells or batteries, sold or distributed in California, USA.

The battery is on the back of the terminals. No special tools are required to remove the battery cover, but a flat-tip screwdriver may be required to remove the battery.



This equipment is sensitive to electrostatic discharge (ESD). Follow ESD prevention guidelines when handling this equipment.



This equipment is sensitive to electrostatic discharge (ESD). Follow ESD prevention guidelines when handling this equipment.

Notes:

Cable Connections and Communication

Chapter Objectives

This chapter provides network and device connections for the terminals.

- Wiring and safety guidelines
- Connecting devices
- MicroLogix™ controller cable charts
- Micro800 controller cable charts
- CompactLogix 5370 controller cable charts
- Ethernet connection
- Serial connections
- USB Ports

Wiring and Safety Guidelines

Use publication NFPA 70E Electrical Safety Requirements for Employee Workplaces, IEC 60364 Electrical Installations in Buildings, or other applicable wiring safety requirements for the country of installation when wiring the devices. In addition to the NFPA guidelines:

- Connect the device and other similar electronic equipment to its own branch circuit.
- Protect the input power by a fuse or circuit breaker that is rated at no more than 15 A.
- Route incoming power to the device by a separate path from the communication lines.
- Cross power and communication lines at right angles if they must cross.

  Communication lines can be installed in the same conduit as low-level DC I/O lines (less that 10V).
- Shield and ground cables appropriately to avoid electromagnetic interference (EMI).

  Grounding minimizes noise from EMI and is a safety measure in electrical installation.

For more information on grounding recommendations, see the National Electrical Code that is published by the National Fire Protection Association.

Connecting Devices

Use these cables for connecting devices to PanelView 800 terminals.

Cables for PanelView 800 Terminals

Cat. No.	Description
2711P-CBL-EX04	Ethernet crossover CAT5 cable 4.3 m (14 ft)
1747-CP3	Serial 9-pin D-shell to 9-pin D-shell null modem cable
1761-CBL-PM02	Serial 9-pin D-shell to 8-pin mini DIN cable, 2 m (6.56 ft)
2711C-CBL-AB03	RS-485 5-pin to RJ45 cable
1763-NC01 Series A	8-pin Mini DIN to 6-pin RS-485 terminal block

MicroLogix Controller Cable Charts

The chart provides a summary of terminal connections to controllers and network interface modules.

PanelView 800 Terminal Connections to MicroLogix Controllers

Protocol	PanelView 800 Port	MicroLogix (8-pin Mini DIN) 1000, 1100, 1400, 1200LSP, 1500LSP (Ch 0)	MicroLogix (9-pin D-shell) 1500LRP (Ch 1)	MicroLogix 1100/1400 RS-485 (1763-NC01)	MicroLogix 1100/1400 Ethernet
DF1	RS-232	1761-CBL-PM02	1747-CP3	–	–
DH-485	RS-232	1761-CBL-PM02	1747-CP3	Use AIC+ module (1761-NET-AIC) connect to port 3	–
	RS-485[1]	–	–	Belden 3106 A or #9842 or equivalent	–
Modbus	RS-232	1761-CBL-PM02	1747-CP3	Use AIC+ module (1761-NET-AIC) connect to port 3	–
Ethernet (MicroLogix/ENI)	Ethernet	–	–	–	CAT 5 Ethernet

(1) RS-485 is isolated. We recommend that you connect only one device. Multi-node communication is supported when appropriate hardware, such as 1747-AIC or AIC+ is added to the wiring.

Micro800 Controller Cable Charts

The chart provides a summary of terminal connections to controllers and network interface modules.

PanelView 800 Terminal Connections to Micro800 Controllers

Protocol	PanelView 800 Port	Micro820®	Micro830®	Micro850®/Micro870®
Modbus	RS-232	_[1]	1761-CBL-PM02	1761-CBL-PM02
	RS-485[2]	_[2]	_[2]	_[2]
	Ethernet	2711P-CBL-EX04 (CAT5 Ethernet)	–	2711P-CBL-EX04 (CAT5 Ethernet)
Ethernet (AB CIP)	Ethernet	2711P-CBL-EX04 (CAT5 Ethernet)	–	2711P-CBL-EX04 (CAT5 Ethernet)
Serial (AB CIP)	RS-232	_[2]	1761-CBL-PM02	1761-CBL-PM02

(1) Terminal block, wiring required.
(2) RS-485 is isolated. We recommend that you connect only one device.

CompactLogix 5370 and CompactLogix 5380 Controller Cable Charts

Support for communication with CompactLogix 5370 L1 controllers has been added from firmware revision 3.011 onwards. Support for communication with CompactLogix 5370 L2 and L3 controllers have been added from firmware revision 4.012 onwards. This feature also requires Connected Components Workbench software version 9 or later to be installed. Support for CompactLogix 5380 controllers has been added from firmware revision 6.012 onwards.

The chart provides a summary of terminal connections to controllers and network interface modules.

PanelView 800 Terminal Connections to CompactLogix 5370 and CompactLogix 5380 Controllers

Protocol (CIP)	PanelView 800 Port	CompactLogix 5370/CompactLogix 5380
Ethernet (CompactLogix)	2711P-CBL-EX04 (CAT5 Ethernet)	2711P-CBL-EX04 (CAT5 Ethernet)

For more information on adding CompactLogix 5370 or CompactLogix 5380 controllers to your applications, see the DesignStation help in Connected Components Workbench software on the following topics.

- Configuring communication settings for CompactLogix 5370 and CompactLogix 5380 controllers.
- Mapping tags from CompactLogix 5370 and CompactLogix 5380 controllers to PanelView 800 terminals.
- Validating an application that includes a CompactLogix 5370 or CompactLogix 5380 controller.

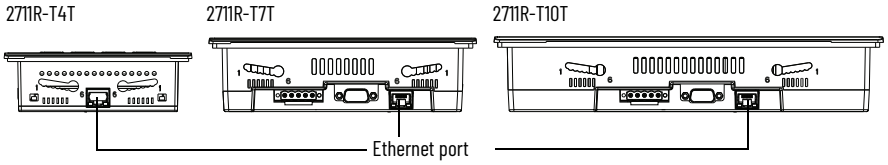
Ethernet Connection

The PanelView 800 terminals have an Ethernet port that supports:

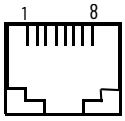
- Communication to a controller.
- Connection to a computer for accessing the PanelView Explorer Startup window and downloading applications from Connected Components Workbench software to the terminal.

Ethernet Connector

The base-configured unit of the terminals has an RJ45, 10/100 Base-T connector for Ethernet network communication.



Ethernet Connector Pinout

Pin	Pin	Pin Name
Looking into RJ45 Connector 	1	TD+
	2	TD-
	3	RD+
	4	NC
	5	NC
	6	RD-
	7	NC
	8	NC
	Shield Connection	Chassis Gnd

Either a standard Ethernet cable or crossover cables such as 2711P-CBL-EX04 can be used when connecting directly to a logic controller or switch.

Cables

The PanelView 800 terminals require category 5 twisted-pair cables. The maximum cable length between the Ethernet port on the terminal and a 10/100 Base-T port on an Ethernet hub (without repeaters or fiber) is 100 m (328 ft). In industrial applications, keep the cable length to a minimum.

For additional information, see the Ethernet Reference Manual, publication ENET-RM002.

Security Considerations

IGMP (Internet Group Management Protocol) is used for IPv4 multicast. A multicast is communication between one sender and multiple receivers on a network. IGMP is used to exchange membership status data between IPv4 routers that support multicasting and members of multicast groups. A router is an intermediary device on a communication network that expedites message delivery by finding the most efficient route for a message packet within a network, or by routing packets from one subnetwork to another. A subnetwork is a separate part of an organization's network that is identified through IP addressing.

PanelView 800 terminals provide level 2 (full) support for IPv4 multicasting (IGMP version 2) as described in RFC 1112 and RFC 2236.

SNMP (Simple Network Management Protocol) is used for internal network management and is not supported.

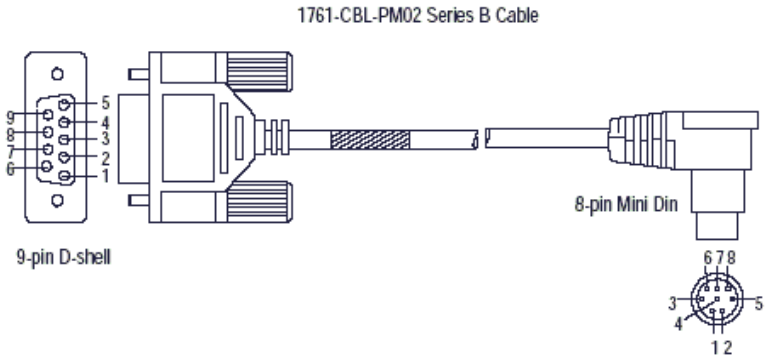
Ports 137 and 138 are normally open to support the NetBIOS protocol that is used by Windows CE.NET similar to other Microsoft® and IBM network operating systems.

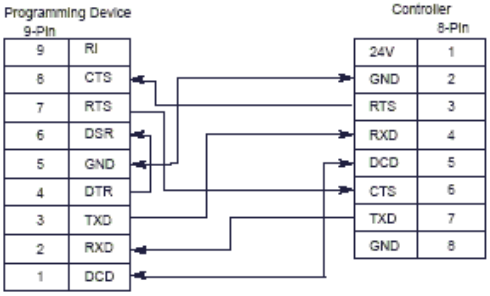
Serial Connections

The terminals have a multi-purpose serial RS-232 port that supports:

- DH-485 communication through a serial connection.
- DF1 full-duplex communication with controllers using direct connections or modem connections.
- Third-party point-to-point communication.

The serial port on the terminal is a 9-pin, male, RS-232 connector. An example with the 1761-CBL-PM02 cable is shown here:





The maximum cable length for serial communication is 15.24 m (50 ft) at 19.2 Kbps

RS-422/RS-485 Port

The RS-422/RS-485 port is an isolated port that supports point-to-point communication.

RS-422/RS-485 Connector Pinout

Pin	Signal
1	T
2	T–
3	R
4	R–
5	S (Shield)

The RS422/485 port has integrated 120 ohm termination between the R and R- signal pair. This value is compatible with RS422 and RS-485 electrical specifications. Additional termination on the PanelView 800 terminal end of communication cables is not required.

USB Ports

The terminals have a USB device and USB host port.

ATTENTION: The USB device port is not intended for Customer use.

WARNING: The USB host port is intended for temporary local programming purposes only and not intended for permanent connection. The USB host port cable is not to exceed 3.0 m (9.84 ft).

USB Host Port

You can power USB peripherals directly from the PanelView 800 terminal. If the USB peripheral is not powered directly from the PanelView USB port either:

- Install the USB peripheral in the same enclosure as the PanelView terminal and make sure it is connected to the same ground system.
- Connect to the USB peripheral through a galvanically isolated hub.

You can use the USB host port to connect a USB drive to transfer application files, fonts, and images.

WARNING: If you connect or disconnect the communications cable with power that is applied to this module or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

WARNING: If you connect or disconnect the USB cable with power that is applied to this module or any device on the USB network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

ATTENTION: Removing the USB drive or microSD card, from the PanelView 800 terminal, while a firmware update is in process, could corrupt the firmware and make the terminal unusable. Take precautions to prevent the USB drive or microSD card from being accidentally disconnected. Also, do not power off the terminal while a firmware update is in progress. USB hubs can produce unexpected behaviors and as a result are not recommended.

Using PanelView 800 Terminals with CompactLogix 5370 and CompactLogix 5380 Controllers

This chapter provides information on how to address the different data types between PanelView 800 terminals, CompactLogix 5370, and CompactLogix 5380 controllers. Examples of how to map the data types to tags are also provided.

The examples show how to use a CompactLogix 5370 in your PanelView 800 application. The same steps apply when you use a CompactLogix5380 controller.

To use a CompactLogix 5370 or CompactLogix 5380 controller in your PanelView 800 application, there are four simple steps to do as follows:

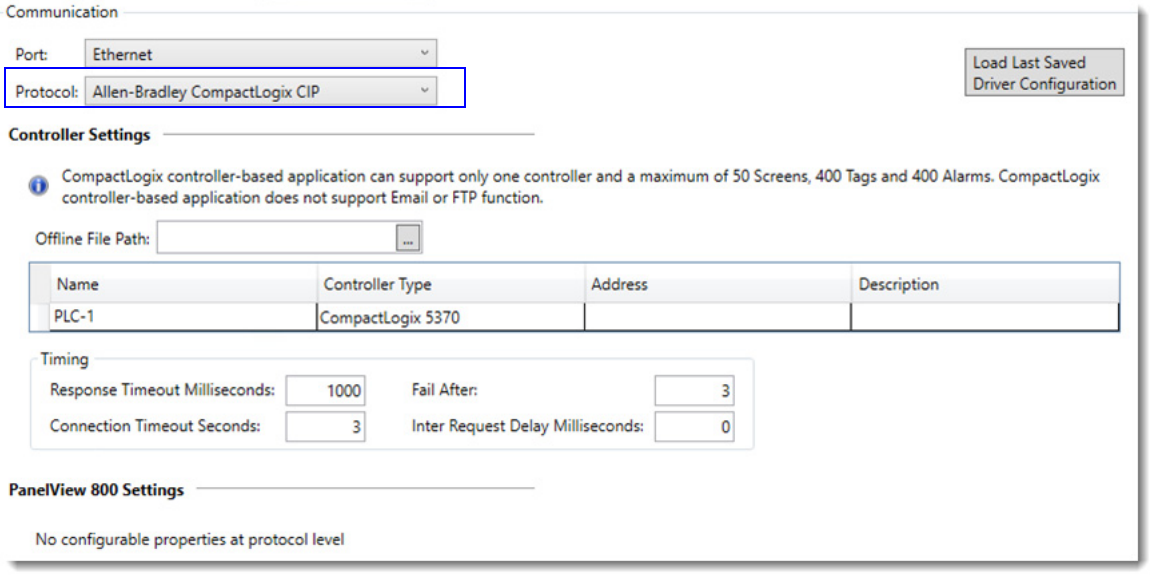
1. Add the controller to the application.
2. Map the PanelView 800 terminal tags with the controller tags.
3. Validate the application in DesignStation in Connected Components Workbench software.
4. Download the application to a PanelView 800 terminal.

Add a CompactLogix 5370 or CompactLogix 5380 Controller

To add a CompactLogix 5370 or CompactLogix 5380 controller to your application, do the following:

1. Click on the Settings tab for your PanelView 800 terminal in Connected Components Workbench software.
2. Click the Communication item in the menu list.

3. Click the Protocol drop-down list and select “Allen-Bradley CompactLogix”.



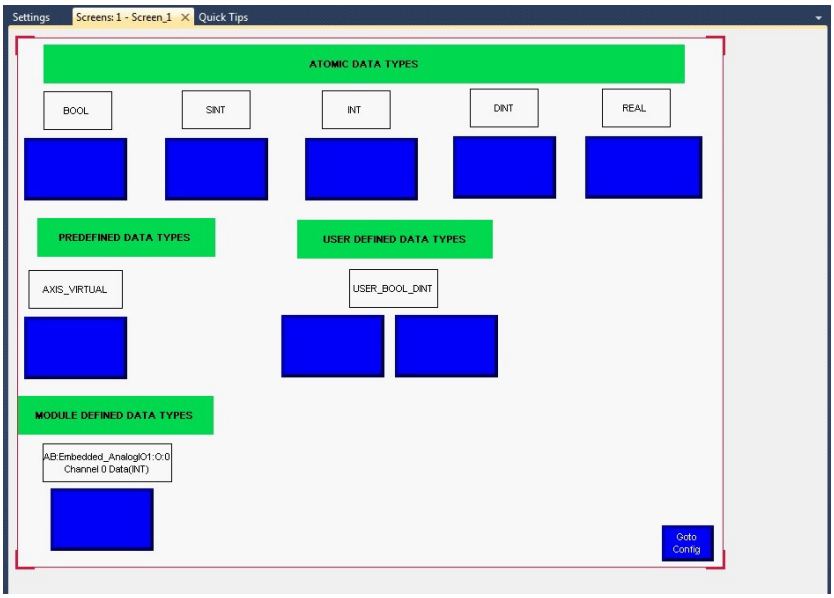
4. Under Controller Settings, enter the IP address of the controller into the Address field.

IMPORTANT When you enter the IP address for a CompactLogix 5370 or CompactLogix 5380 controller, you must append path information “1,0” to the end.

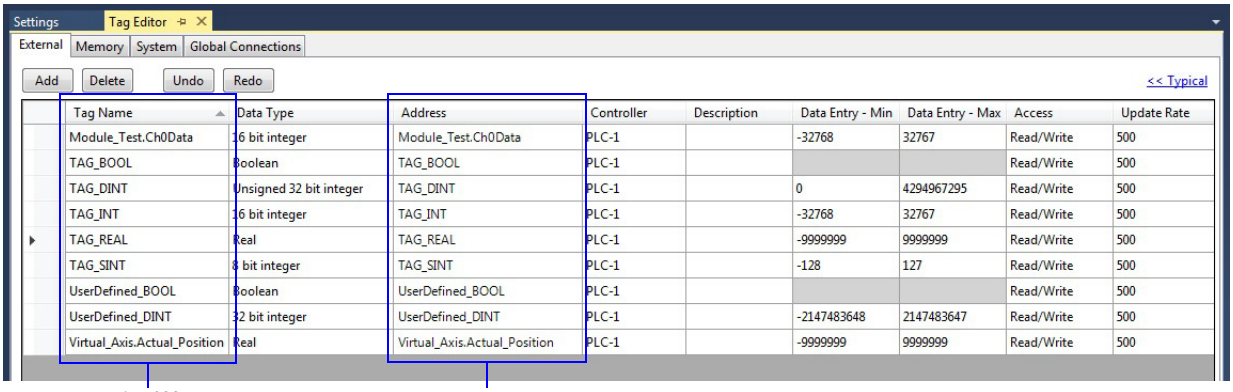
For example, if the IP address of the controller is 192.168.0.1, you should enter 192.168.0.1,1,0 into the Address field.

Map the Terminal and Controller Tags

Here is an example of the terminal screen that we will use to map the PanelView 800 terminal tags to the CompactLogix 5370 or CompactLogix 5380 controller tags.



Here is an example of the tags used in the terminal screen shown above.



PanelView 800 HMI Tags

Controller Tag Address
(Keep the same Tag Name and Addressing format as used in CompactLogix 5370 or CompactLogix 5380 controllers.)

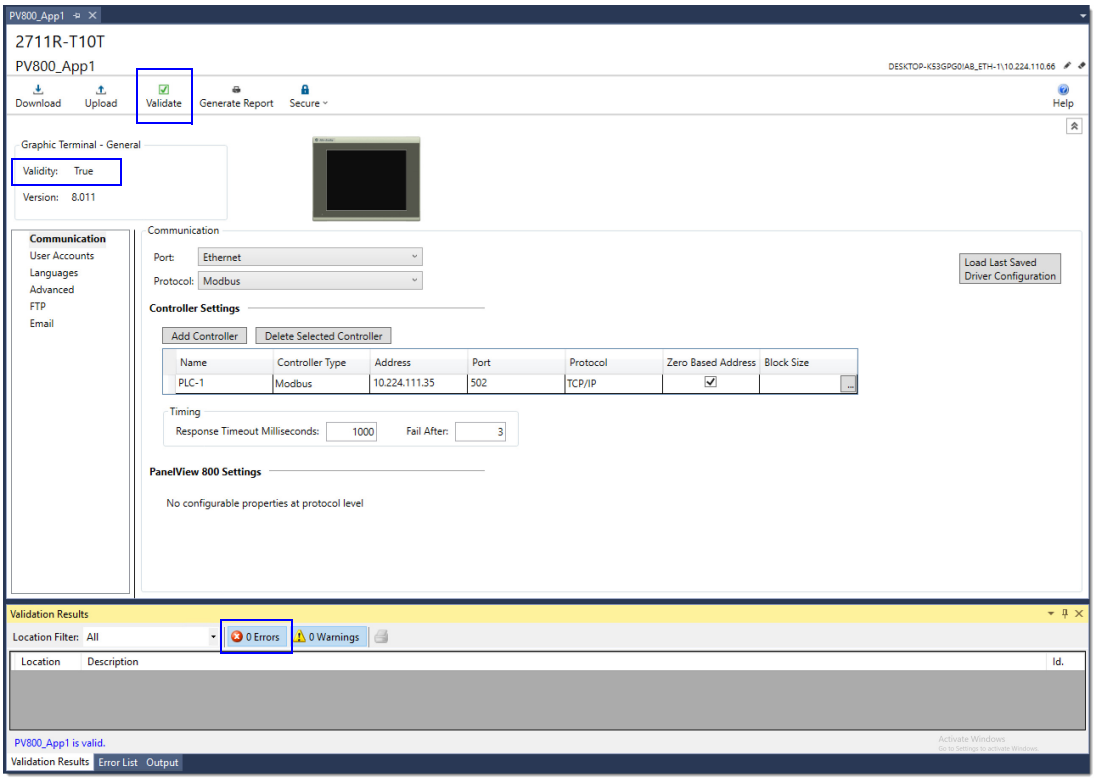
To add tags, do the following:

1. Double-click Tags in the Project Organizer to open the Tag Editor tab.
2. Click the Add button to create a new tag entry.
3. Modify the values of the tag to match the values shown in the example above.
4. Repeat step 1 to step 3 for the rest of the tags shown in the example above.

For more information on how to address a CompactLogix 5370 or CompactLogix 5380 controller tag in PanelView 800, see Addressing Formats from PanelView 800 Terminals to CompactLogix 5370 or CompactLogix 5380 Controllers on page 142.

Validate the Application

Before you can download the application to the terminal, you must validate it.



To validate the application, do the following:

1. Click the Validate icon on the Settings tab of the terminal.
2. Make sure that there are no validation errors in the application.
   If the validation passes, the Validity is set to True.
   If the validation fails, you cannot run the application on the terminal

IMPORTANT PanelView 800 applications that are configured to communicate with a CompactLogix 5370 or CompactLogix 5380 controller must meet the following restrictions. If any the listed restrictions are not met, the validation fails, and you cannot download and run the application on the terminal.

For CompactLogix 5370 controllers:

The following limits apply from firmware revision 5.011 onwards

- Maximum number of CompactLogix 5370 controllers: 1
- Maximum number of Screens: 50
- Maximum number of External Tags: 400
- Maximum number of Alarms: 400

The following limits apply from firmware revision 3.011 to 4.0xx

- Maximum number of CompactLogix 5370 controllers: 1
- Maximum number of Screens: 25
- Maximum number of External Tags: 200
- Maximum number of Alarms: 150

For CompactLogix 5380 controllers:

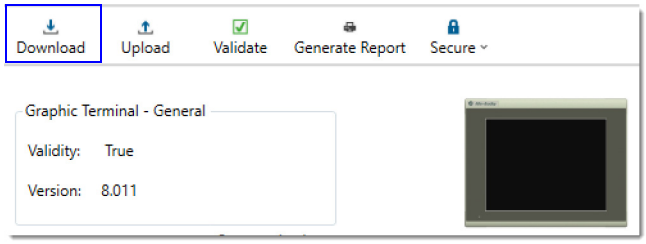
The following limits apply from firmware revision 6.012 onwards

- Maximum number of CompactLogix 5380 controllers: 1
- Maximum number of Screens: 50
- Maximum number of External Tags: 400
- Maximum number of Alarms: 400

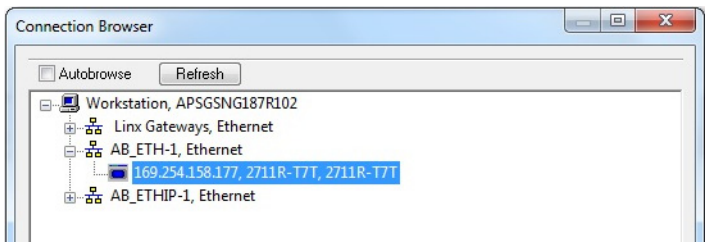
Download the Application

To download the application to the terminal, do the following:

1. Click the Download icon in the Settings tab of the terminal.



The Connection Browser dialog box appears.

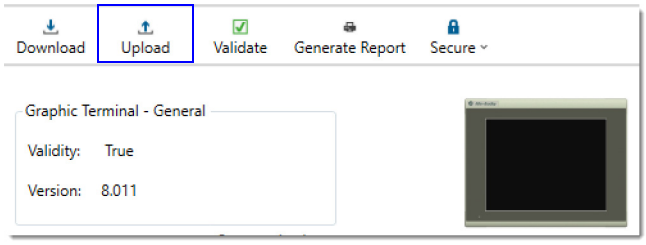


2. Select the terminal that you want to download the application to, then click OK.

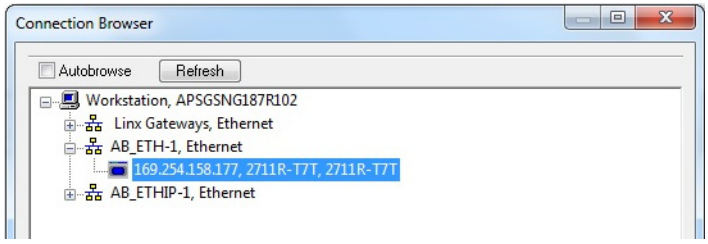
Upload the Application

To upload the application to the terminal, do the following.

1. Click the Upload icon in the Settings tab of the terminal.



The Connection Browser dialog box appears.



2. Select the terminal that you want to upload the application from, then click OK.

CompactLogix 5370 and CompactLogix 5380 Controller Addressing

The atomic data types supported in CompactLogix 5370 and CompactLogix 5380 controllers by PanelView 800 terminals are shown in the following table.

Supported Data Types

CompactLogix 5370/CompactLogix 5380 Data Type	PanelView 800 Data Types
SINT	8-bit integer
INT	16-bit integer
DINT	32-bit integer
REAL	Real (Range: -9999999...9999999)
BOOL	Boolean
STRING	STRING
-	8-bit unsigned integer
-	16-bit unsigned integer
-	32-bit unsigned integer

Although some of the predefined types are structures, they are ultimately based on these atomic data types. Thus, all non-structure (atomic) members of a structure are accessible.

For example, a TIMER cannot be assigned as a PanelView 800 tag but an atomic member of the TIMER can be assigned to the tag (for example, TIMER.EN, TIMER.ACC, and so forth).

If a structure member is a structure itself, both structures would have to be expanded to access an atomic member of the substructure. This is more common with user-defined and module-defined types and is not found in any of the predefined types.

In summary, predefined, module-defined, and user-defined data types of the CompactLogix 5370 and CompactLogix 5380 controller can be accessed from PanelView 800 terminals from their respective members, which are based on the above atomic data types

The LINT data type is not supported in CompactLogix 5370 and CompactLogix 5380 controllers.

Addressing Formats from PanelView 800 Terminals to CompactLogix 5370 or CompactLogix 5380 Controllers

When mapping a PanelView 800 terminal tag to a CompactLogix 5370 or CompactLogix 5380 controller tag, make sure you copy the exact name and format of the controller tag into the address field of the terminal tag in the Tag Editor.

Element Level Addressing

PanelView 800 Data Type	CompactLogix 5370/ CompactLogix 5380 Data Type	Controller Tag Address (Global) Example	Controller Tag Address (Local, MainProgram) Example
Boolean	BOOL	Tag1	Program: MainProgram.Tag1
32-bit integer	DINT	Tag2	Program: MainProgram.Tag2
16-bit integer	INT	Tag3	Program: MainProgram.Tag3
8-bit integer	SINT	Tag4	Program: MainProgram.Tag4
Real	REAL	Tag5	Program: MainProgram.Tag5
String	STRING	*(1)	*(2)

(1) Tag6.Data/N – N is the length of String.
(2) Program: MainProgram.Tag6.Data/N
Note the following:
• Tag address of Tag6.Len can be read/written for the length of String.
• Tag address of Tag6.Data[characterNo] is to read/write individual character of string by ASCII. For example, Tag6.Data[1] refers to the element 1.

Accessing a Member of a Structure (predefined, module-defined, user-defined data types)

PanelView 800 Data Type	CompactLogix 5370/ CompactLogix 5380 Data Type	Controller Tag Address (Global) Example	Controller Tag Address (Local, MainProgram) Example
Boolean	BOOL	STRUCTURE.Tag1	Program:MainProgram.STRUCTURE.Tag1
32-bit integer	DINT	STRUCTURE.Tag2	Program:MainProgram.STRUCTURE.Tag2
16-bit integer	INT	STRUCTURE.Tag3	Program:MainProgram.STRUCTURE.Tag3
8-bit integer	SINT	STRUCTURE.Tag4	Program:MainProgram.STRUCTURE.Tag4
Real	REAL	STRUCTURE.Tag5	Program:MainProgram.STRUCTURE.Tag5
String	STRING	*(1)	*(2)

(1) STRUCTURE.Tag6.Data/N – N is the length of String.
(2) Program:MainProgram.STRUCTURE.Tag6.Data/N

Boolean Addressing

PanelView 800 Data Type	CompactLogix 5370/ CompactLogix 5380 Data Type	Controller Tag Address (Global) Example	Controller Tag Address (Local, MainProgram) Example
Boolean	DINT	Tag2.bitNo(1)	Program:MainProgram.Tag2.bitNo
Boolean	INT	Tag3.bitNo(1)	Program:MainProgram.Tag3.bitNo
Boolean	SINT	Tag4.bitNo(1)	Program:MainProgram.Tag4.bitNo

(1) bitNo can be any value – 0...31 for DINT, 0...15 for INT and 0...7 for SINT data type tags in the CompactLogix 5370 or CompactLogix 5380 controller.

Array Addressing of an Element

PanelView 800 Data Type	CompactLogix 5370/ CompactLogix 5380 Data Type	Controller Tag Address (Global) Example	Controller Tag Address (Local, MainProgram) Example	Array Dimensions
Boolean	BOOL	Tag1[x]	Program:MainProgram.Tag1[x]	1
32-bit integer	DINT	Tag2[x,y,z]	Program:MainProgram.Tag2[x,y,z]	1,2,3
16-bit integer	INT	Tag3[x,y,z]	Program:MainProgram.Tag3[x,y,z]	1,2,3
8-bit integer	SINT	Tag4[x,y,z]	Program:MainProgram.Tag4[x,y,z]	1,2,3
Real	REAL	Tag5[x,y,z]	Program:MainProgram.Tag5[x,y,z]	1,2,3
String	STRING	*(1)	*(2)	1,2,3

(1) Tag6[x,y,z].Data/N – N is the length of String.
(2) Program:MainProgram.Tag6[x,y,z].Data/N

Boolean Access from an Array Element

PanelView 800 Data Type	CompactLogix 5370/ CompactLogix 5380 Data Type	Controller Tag Address (Global) Example	Controller Tag Address (Local, MainProgram) Example
Boolean	DINT	Tag2[x,y,z].bitNo(1)	Program:MainProgram.Tag2[x,y,z].bitNo
Boolean	INT	Tag3[x,y,z].bitNo(1)	Program:MainProgram.Tag3[x,y,z].bitNo
Boolean	SINT	Tag4[x,y,z].bitNo(1)	Program:MainProgram.Tag4[x,y,z].bitNo

(1) bitNo can be any value – 0...31 for DINT, 0...15 for INT, and 0...7 for SINT data type tags in the CompactLogix 5370 or CompacLogix 5380 controller.

Limitations with CompactLogix 5370 and CompactLogix 5380 Controller Support

There are some limitations when using a CompactLogix 5370 or CompactLogix 5380 controller in your PanelView 800 application, as described below:

- PanelView 800 terminals use Connected Components Workbench software for configuration and screen design, while CompactLogix 5370 and CompactLogix 5380 controllers use Studio 5000® software. PanelView 800 terminals do not support the online Tag browsing feature with CompactLogix 5370 and CompactLogix 5380 controllers.
- Programming and configuration of CompactLogix 5370 and CompactLogix 5380 controllers are not supported in Connected Components Workbench software.
- Only a single CompactLogix 5370 or CompactLogix 5380 controller is supported.
- PanelView 800 applications can only have a maximum of 25 screens, 200 tags, and 150 alarms.
  From firmware revision 5.011 onwards, PanelView 800 applications can have a maximum of 50 screens, 400 tags, and 400 alarms.
- CompactLogix 5370 L1 controller is supported only in PanelView 800 terminals with firmware revision 3.011 or later. CompactLogix 5370 L2 and L3 controllers are supported only in PanelView 800 terminals with firmware revision 4.012 or later. Connected Components Workbench software version 9 or later is also required.
- The following CompactLogix 5380 controllers are supported in PanelView 800 terminals with firmware revision 6.012 or later:
  - 5069-L306ER, 5069-L306ERM, 5069-L306ERS2, 5069-L406ERMS2, and 5069-L306ERMS3
- FTP and Email features are not supported.

Notes:

PanelView Explorer

IMPORTANT The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

Chapter Objectives

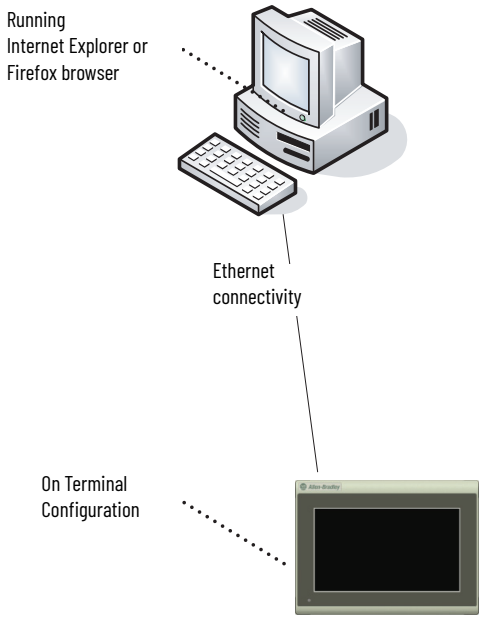
This chapter covers topics that show how to configure your PanelView 800 terminal.

- Configuration interfaces
- Terminal settings
- Managing applications and files
- Creating applications
- Upload and Download applications
- Transferring applications
- Transferring user-defined objects

Configuration Interfaces

The terminal can be configured from either the browser interface or the configuration screens on the terminal. The browser interface requires a computer browser that is connected to the terminal's web service through an Ethernet network connection. The configuration data for a terminal refers to the collection of all system interface parameters.

Access to the Terminal's Configuration

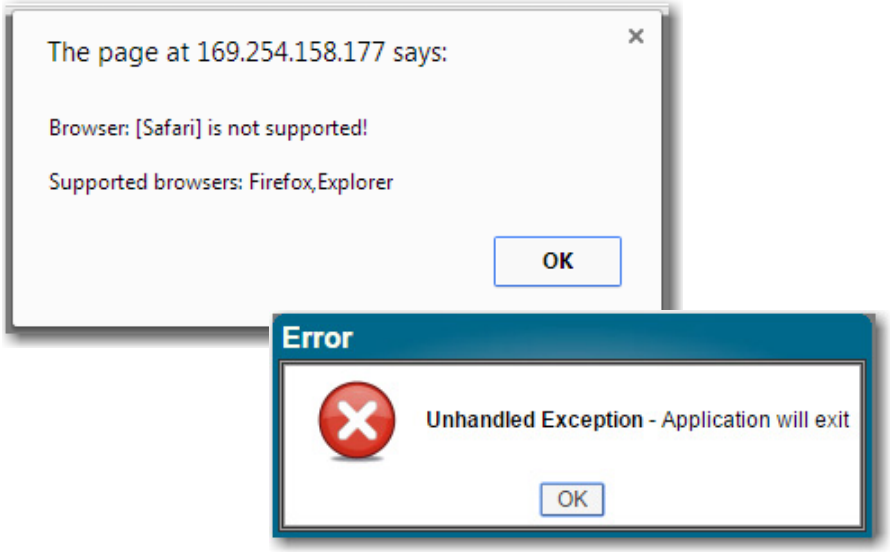


Configure Using the Browser

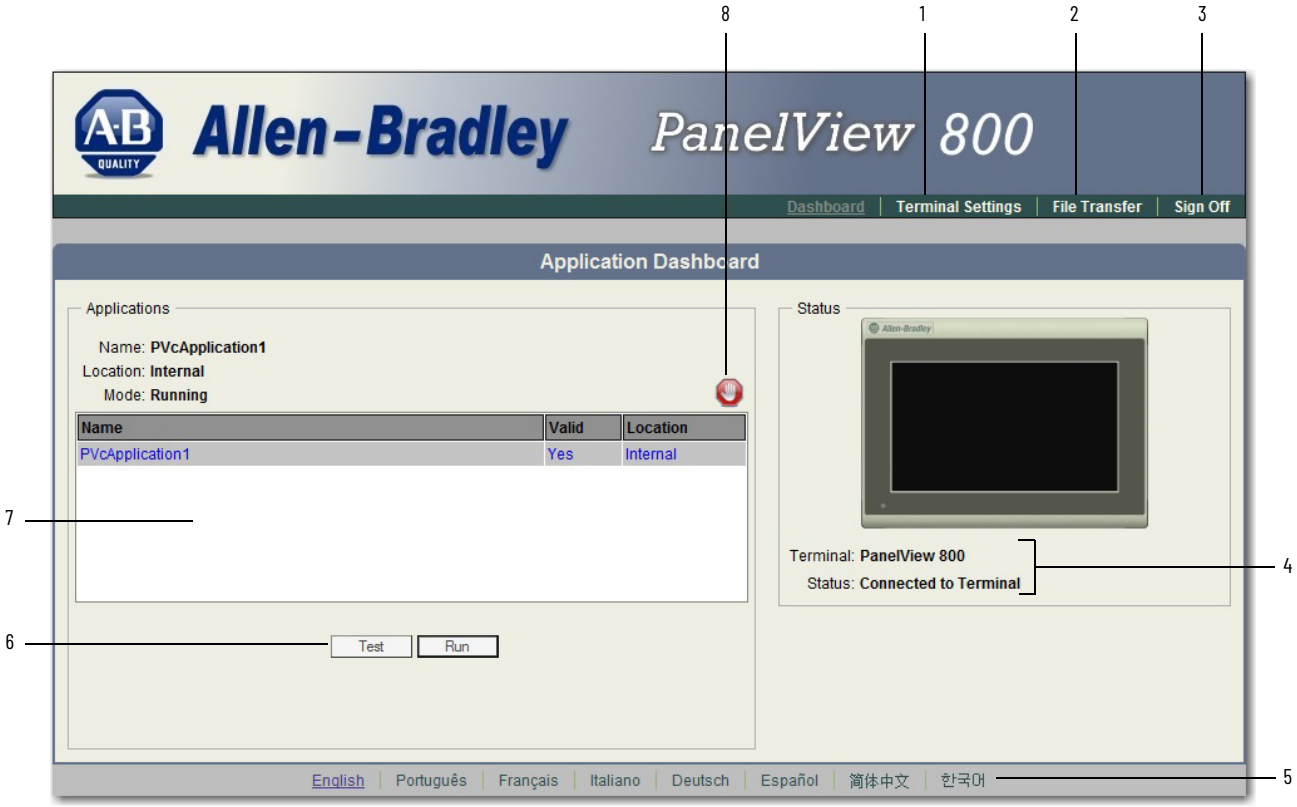
PanelView Explorer is the browser interface that lets you access and make changes to the terminal settings. This interface is the web server content that is hosted by the terminal and it represents a visualization of the terminal's properties and files. The recommended browsers to use are:

- Internet Explorer 7 or 8
- Firefox 3.0

If you use a browser other than a recommended browser, you may encounter messages similar to the following examples.



PanelView Explorer Startup Window



PanelView Explorer Startup Window

Item	Function	Description
1	Terminal Settings	Use this link to view and change terminal display and communication settings, view system information, and enable terminal security while connected to the terminal.
2	File Transfer	Transfers files between the storage media of the terminal and your computer, such as screen saver bitmaps and applications. You can also delete applications from terminal storage and export the alarm history log.
3	Sign Off	Logs you off the Startup window, leaving your browser open.
4	Terminal Type and Status	Shows the connection status to your terminal and the type of terminal.
5	Languages	Shows the current and available languages for PanelView Explorer.
6	Test, Run	Use these buttons to test and run the selected application.
7	Available Applications	Shows a list of applications that are stored on the terminal, USB drive, or microSD card. The list also shows if the file has been validated for correct operation.
8	Stop	Click the Stop button (the stop sign shows when an app is loaded and in Test/Run mode) to unload the currently loaded application. If you have not saved changes to the application, you are prompted to do so. Once the application is unloaded, the terminal displays the Configuration screen.

Terminal Settings

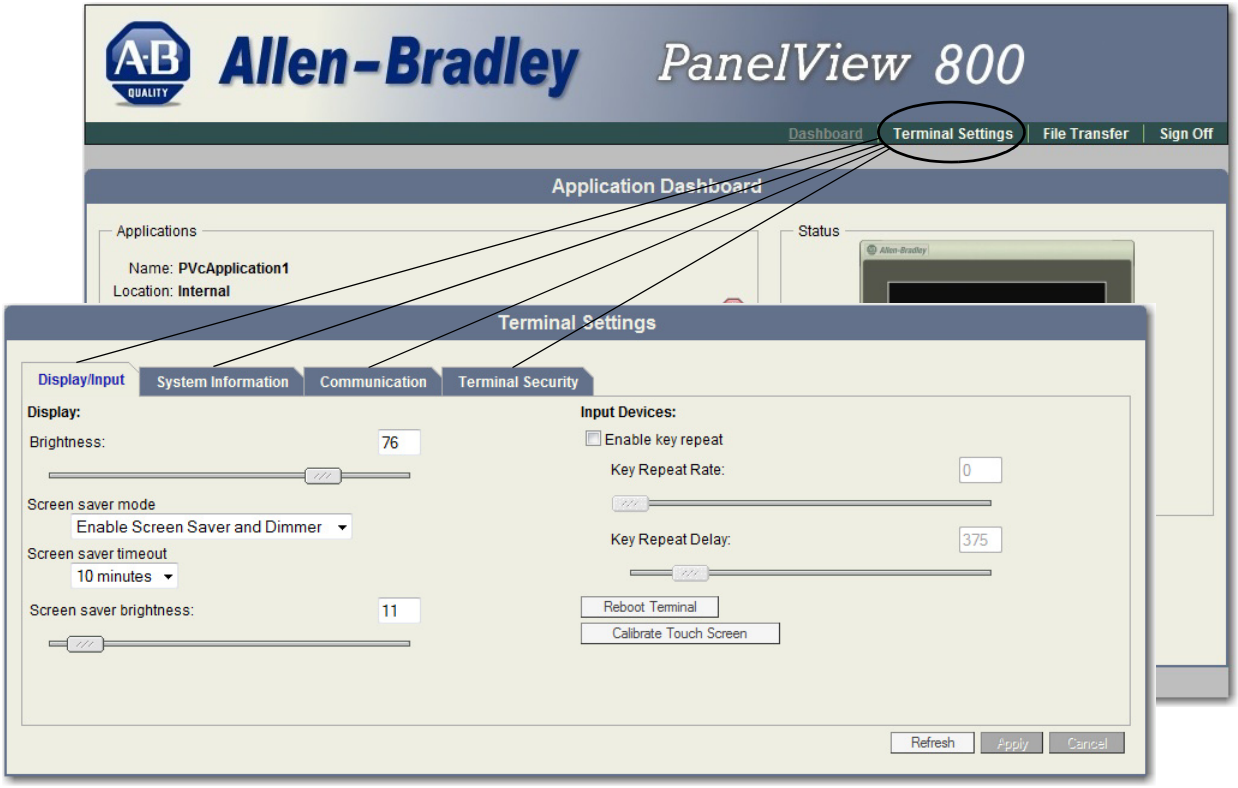
Terminal settings can be configured either through the PanelView Explorer browser interface or through the on-terminal interface.

Adjusting Settings on the PanelView Explorer Startup Window

From the PanelView Explorer Startup window, you can view and edit settings for the connected PanelView 800 terminal. The settings take effect immediately.

By clicking the Terminal Settings link on the PanelView Explorer Startup window, you can access tabs to:

- Change the terminal language.
- Adjust the display brightness.
- Configure screen saver settings.
- Configure key repeat settings.
- Calibrate the touch screen, if supported.
- Restart or reset the terminal.
- Change the startup application.
- Change the current date and time.
- Configure terminal security, such as passwords.
- View system information.
- Manage applications and files.



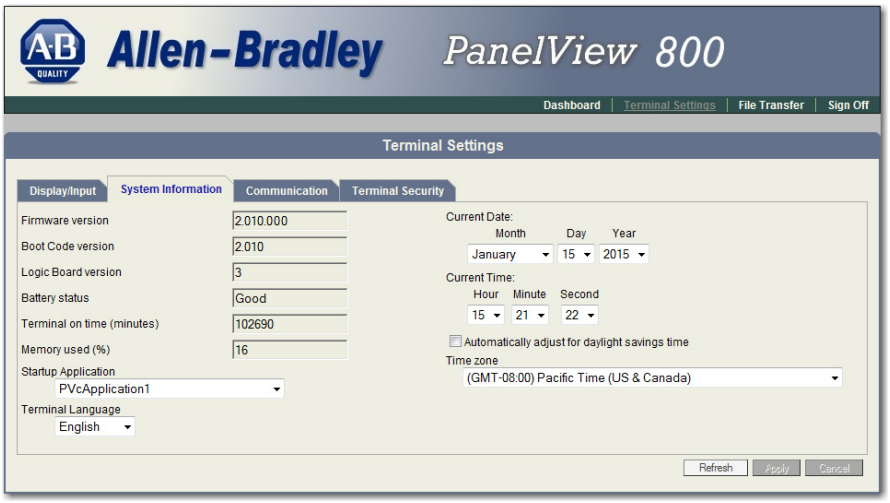
Select a Terminal Language

You can change the terminal display language. The terminal is shipped with the English, Portuguese, French, Italian, German, Spanish, and Chinese fonts installed. Korean is supported but you must first install the Korean font. See Adding Font Files on page 159 for information on how to install the font onto the terminal.

IMPORTANT At runtime, diagnostic messages appear in the same language as the application if the application language is English, Portuguese, French, Italian, German, Spanish, Chinese, or Korean. For all other languages, the diagnostic messages appear in the configuration language set on the terminal.

Follow these steps to change the terminal language using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the System Information tab.
4. Select a language from the Terminal Language pull-down list.



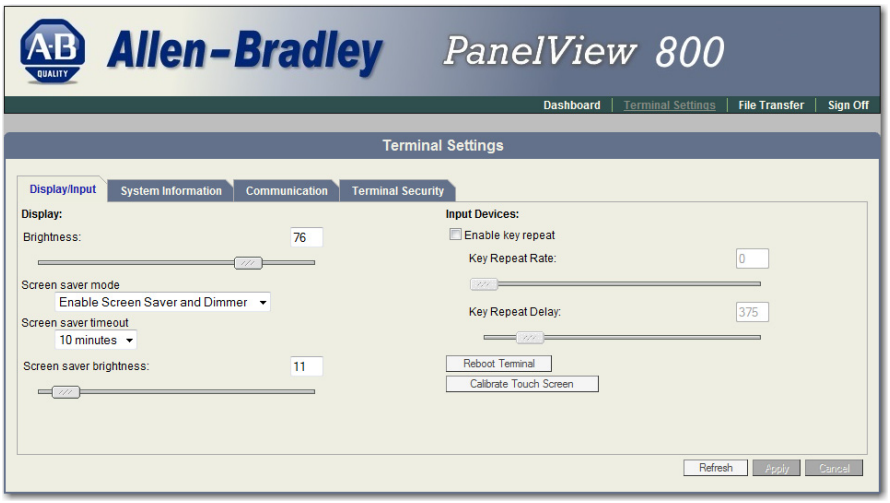
5. Click Apply or click Cancel to restore the current setting.

Adjust the Display Brightness

You can modify the brightness of the terminal display. You can use the default intensity of 100% for brightness or adjust the intensity for runtime operations.

Follow these steps to change the display brightness using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Display/Input tab.
4. Drag the slider to adjust the brightness level between 1…100%.
5. Click Apply, or click Cancel to restore the current terminal settings.



Configure the Screen Saver

You can enable or disable the screen saver on the connected PanelView 800 terminal.

The terminal has four screen saver modes: screen saver, dimmer, screen saver and dimmer, or disable.

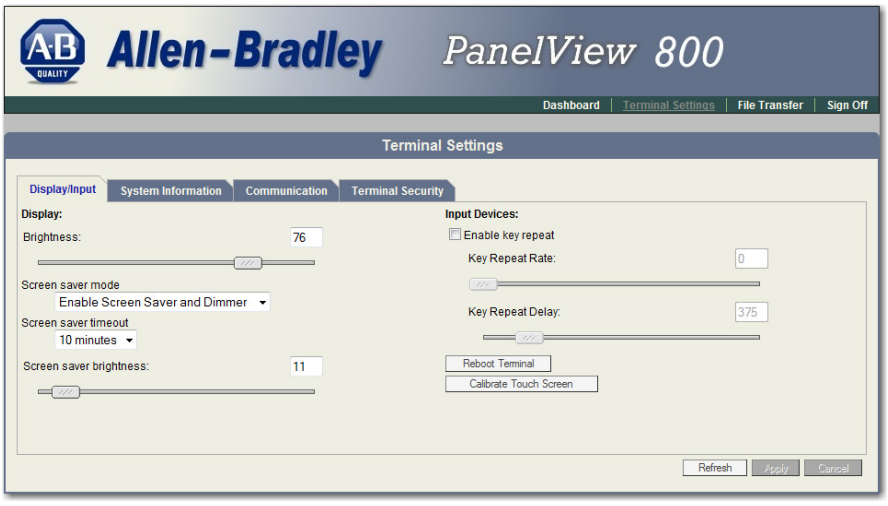
- Screen saver – activates after the idle timeout elapses using a default screen saver image. The screen saver deactivates when you press a key.
- Dimmer – dims the display from full brightness to the brightness level that you set when the idle timeout elapses. While the display is dimmed, you can still see on-screen activity. When you press a key, the display is restored to full brightness.
- Screen saver and dimmer – activates the screen saver and dims the display when the idle timeout elapses.
- Disable screen saver and dimmer – keeps the display on.

The screen saver timeout is the amount of idle time that must elapse before the screen saver, dimmer, or screen saver and dimmer activates. The idle time can be adjusted between 1…60 minutes.

The brightness intensity of the screen saver or dimmer can be adjusted between 0…100%.

Follow these steps to configure the screen saver using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Display/Input tab.
4. Select a screen saver mode from the list.



5. Select a time from the pull-down list to adjust the screen saver timeout.
6. Drag the slider to adjust the screen saver brightness.
7. Click Apply, or click Cancel to restore the current screen saver settings.

To disable the screen saver or dimmers, select Disable Screen Saver and Dimmer from the screen saver mode list.

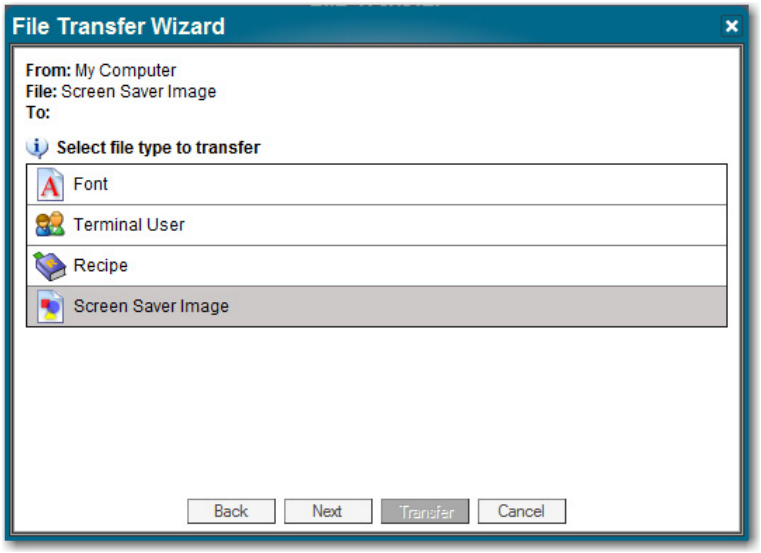
Replace the Screen Saver Image

The default screen saver image is a floating Allen-Bradley logo in a bitmap format. The name of the default screen saver is 'Screen Saver' with a .bmp file type. You can replace the default screen saver with your own bitmap image, but the file must have the same name as the default screen saver.

You cannot replace the screen saver image from the on-terminal configuration screens. If you want to change this setting, you must connect to the terminal through a web browser.

Follow these steps to replace the screen saver image using PanelView Explorer.

1. Create a small bitmap image no larger than 128 x 128 pixels.
2. Save your bitmap file to your computer, a USB drive or/and microSD card. Rename your file as 'Screen Saver' and make sure that the file type is .bmp.
3. Click the File Transfer link in the PanelView Explorer Startup window, then click New Transfer.
4. Select either My Computer or USB/microSD storage as file source depending on where you saved your file, then click Next.
5. Select Screen Saver Image as the file type, then click Next.



6. Locate where you saved your bitmap file on your computer or external storage device.
7. Select Internal Storage as file destination, then click Transfer. The bitmap file is successfully transferred to the terminal.

The new screen saver takes effect the next time the screen saver is activated.

Your bitmap file should be small in size. A large bitmap will impact performance of terminal operations.

Configure Key Repeat Settings

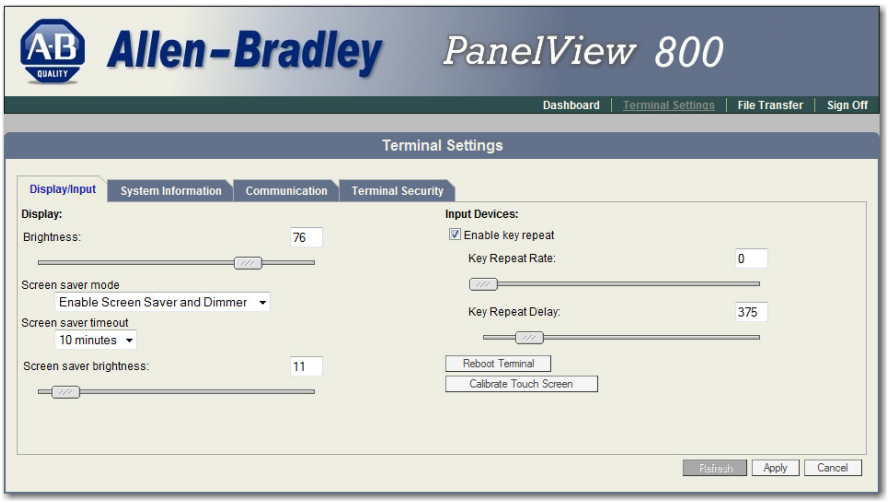
You can configure key repeat settings for the terminal keys or attached keyboard of the connected terminal.

You cannot change the key repeat settings from the on-terminal configuration screens. If you want to change this setting, you must connect to the terminal through a web browser.

The repeat rate is the speed at which a character repeats per second when you hold down a key. The repeat delay is the amount of time, in milliseconds, which elapses before a character begins to repeat when you hold down a key.

Follow these steps to change the repeat settings for keys using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Display/Input tab.
4. Check Enable key repeat to enable repeat settings for keys.



5. Drag the slider under Key Repeat Rate to adjust the speed at which a character repeats when a key is held down.
6. Drag the slider under Key Repeat Delay to set the amount of time that elapses before a character begins to repeat when the key is held down.
7. Click Apply or click Cancel to restore the current settings.

To disable key repeat settings, uncheck Enable key repeat.

Calibrate the Touch Screen

Over time you may notice that the objects and images on the display screen don't seem to fit the display area as well as they once did. This is normal with a touch screen and can be easily fixed.

Use a plastic stylus device with a minimum tip radius of 1 mm (0.040 in.) to help prevent damage to the touch screen.

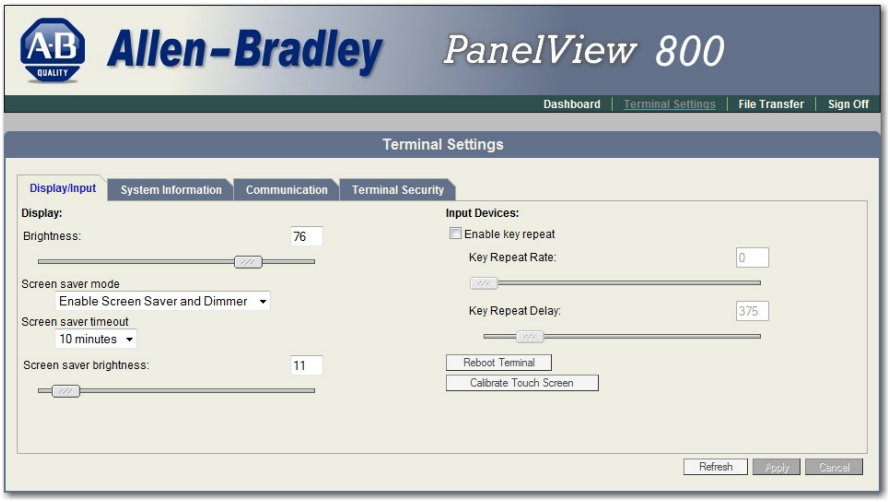
You cannot calibrate the touch screen using VNC. If you have triggered the calibration process, you can press the "ESC" key on the keyboard to cancel the procedure.

The VNC feature is only supported on PanelView 800 terminals with firmware revisions 4.011...7.011.

For more information, contact your local technical support at rok.auto/phonesupport.

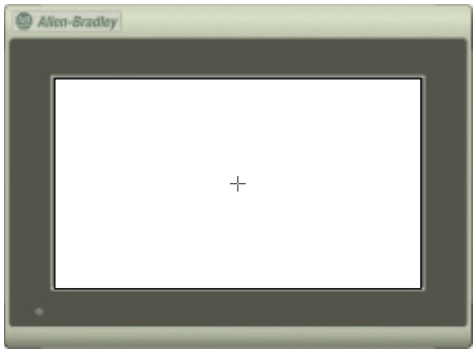
Follow these steps to calibrate the touch screen using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Display/Input tab.
4. Click Calibrate Touch Screen.

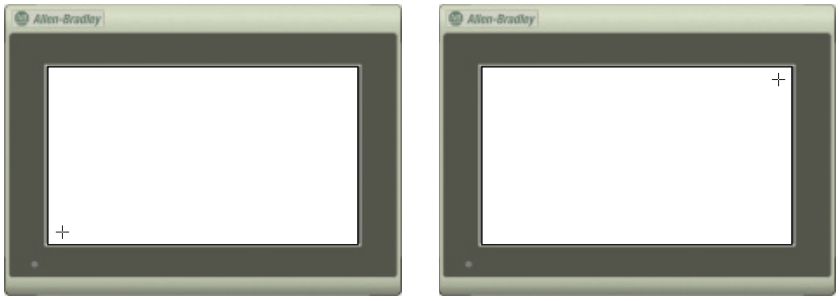


Follow these steps to complete the calibrate touch screen procedure.

1. With a stylus, tap the center of the target (+) on the terminal screen.



2. Repeat step 1 as the target moves around the screen.



3. Tap OK when the message appears to accept the changes.
   If you do not tap the screen within 30 seconds, the calibration data is discarded and the current settings are retained.

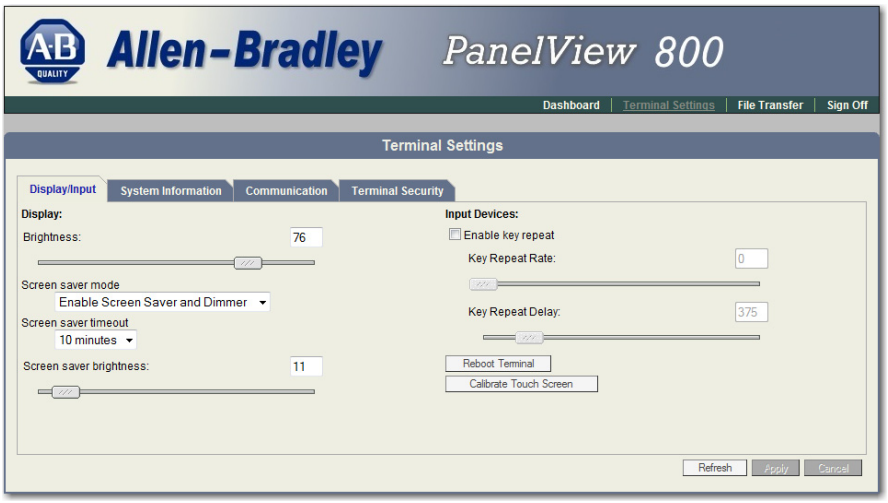
Restart the Terminal

You can restart the terminal without having to disconnect and reapply power. After a reset, the terminal performs a series of startup tests and then either enters configuration mode or runs the startup application.

Follow these steps to restart the terminal from PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Display/Input tab.

4. Click Reboot Terminal.



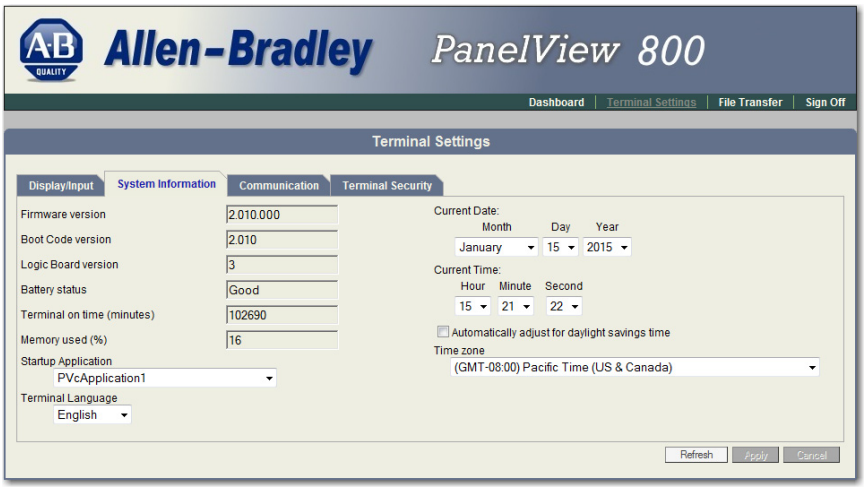
Change the Startup Application

You can select or change the application that runs on the terminal each time the terminal starts up. Only applications in the internal storage of the terminal can be run or set as a Startup Application.

IMPORTANT If the application list is empty, the run, copy, delete, and set as startup functions will not perform any action.

Follow these steps to select or change the startup application using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the System Information tab.
4. Select the name of the startup application from the Startup Application pull-down list.



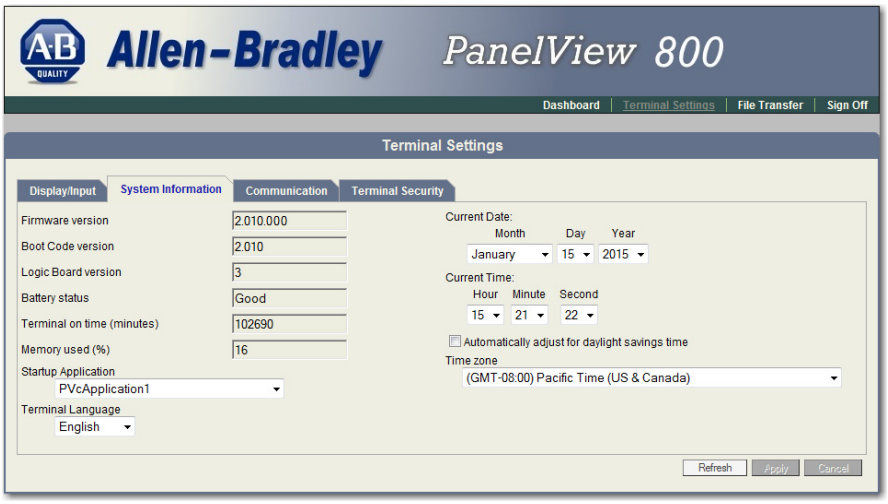
5. Click Apply.

Change the Date and Time

You can adjust the current date and time for terminal operations. The time is set in 24-hour format. If using PanelView Explorer, you can also set the terminal to automatically adjust the time for daylight savings time.

Follow these steps to change the terminal date and time using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the System Information tab.
4. Update the Current date fields.
5. Update the Current time fields.
6. Check Automatically adjust for daylight savings time if you want the terminal to adjust for daylight savings time.
7. Click Apply or click Cancel to restore the current terminal settings.



Enable Terminal Security

Use terminal security to restrict user access to the PanelView Explorer Startup window. For example, you can require users to enter a user name and password before accessing the PanelView Startup window.

You cannot enable terminal security from the on-terminal configuration screens. If you want to change this setting, you must connect to the terminal through a web browser.

IMPORTANT The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

Initially, the terminal and the PanelView Explorer Startup window are unsecured. To enable security, provide a password. The default user name is Admin. The new password takes effect the next time the terminal is restarted.

As long as security is enabled, any user that tries to access the PanelView Explorer Startup window must first log in with a valid user name and password.

The terminal also secures itself when idle. If terminal input is not received within the idle timeout period, the user is logged out. The user must log in again to access the terminal. The default terminal idle timeout is 30 minutes.

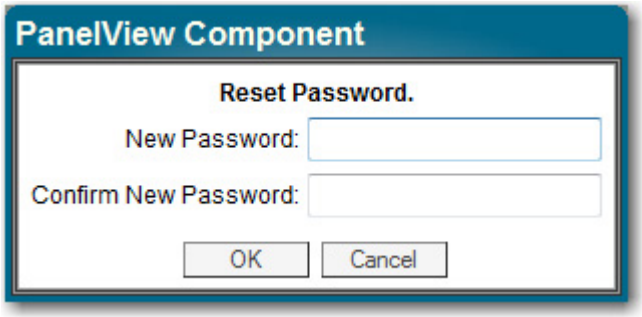
IMPORTANT Store your password in a safe place. If you forget the password, you will not be able to connect to the PanelView Explorer Startup window.

Follow these steps to secure the PanelView Explorer Startup window.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the Terminal Security tab.
4. Check Terminal Security Enabled.

5. Optionally, enter a new Terminal User Name.
6. Click the Reset Terminal User Password button.
7. In the Reset Password dialog, enter a new password, confirm the password, then click OK.

Terminal user names are limited to 15 characters.



8. Select a new idle timeout from the Terminal Idle Timeout list, if needed, or click Cancel to restore the current idle timeout.

The new password and idle timeout value take effect when the terminal is restarted.

To disable security, uncheck the Terminal Security Enabled checkbox. The next time that the terminal is restarted, it is unsecured.

The terminal user name and password is stored in a file that is separate from the application. You can transfer this file to other terminals without having to manually reenter the information.

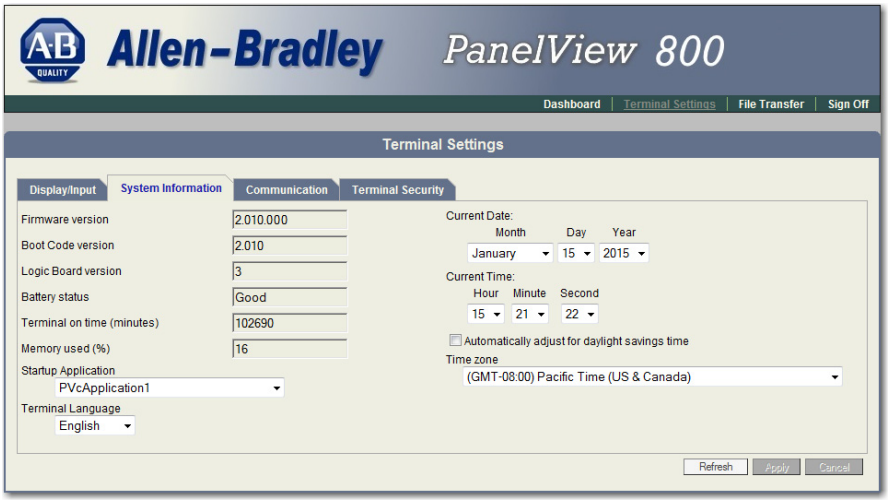
Use the File Transfer link on the PanelView Explorer Startup window and transfer the Terminal User file from internal storage to your computer, USB, or SD storage.

View System Information

You can view system information about your terminal including information about the firmware, boot code, logic board, battery status (if applicable), terminal on time, and memory used.

Follow these steps to view system information using PanelView Explorer.

1. Go to the PanelView Explorer Startup window.
2. Click the Terminal Settings link.
3. Click the System Information tab.



Managing Applications and Files

You can manage the applications and files of the terminal from PanelView Explorer or directly from the terminal. The File Transfer link in the PanelView Explorer Startup window and the File Manager screen on the terminal can be used for transferring files to and from terminal storage media. File names and tag names should start with an alpha character. Avoid starting names with numeric or special characters.

You can do the following actions:

- Export or import applications, images, the terminal security file, recipes, and fonts.
- Import screen saver bitmap files.
- Export the alarm log from the currently running application.

- Delete applications, images, screen saver files, font files, terminal user file and recipes from terminal storage.

IMPORTANT Some actions may not be performed in PanelView Explorer but may be done on the terminal, and vice versa. For example, you cannot transfer applications using PanelView Explorer but you can do so from the terminal.

IMPORTANT The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

A file transfer operation requires you to choose a source location, file type, and destination location.

- Source location – the location of the file you want to transfer. You can transfer a file from Internal Storage of the terminal, USB Storage, microSD Storage, or My Computer.
- Source File Type – the type of file you want to transfer. The types of files you can transfer include PanelView 800 applications, screen saver images, fonts, recipes, and the terminal security file.
- Destination location - The location where you want to transfer the selected file. You can transfer a file to Internal Storage of the terminal, USB Storage, microSD Storage, or My Computer.

IMPORTANT If transferring a file from or to USB or microSD storage, verify that the USB drive or microSD card is inserted in the terminal before starting the file transfer.

IMPORTANT The USB drive or microSD card must be formatted in the FAT/FAT32 file system for the terminal to read the contents of the external storage.

IMPORTANT When transferring an application, if the target terminal is another type and size then the source terminal, the application is converted when in Test Run or Run mode. The application may require updates before running properly.

Adding Font Files

These fonts reside on the terminal in the firmware image.

- Arial
- Courier New
- Tahoma
- Asian font (Simsun – Simplified Chinese)

The Arial, Courier, Tahoma, and Simsun fonts cannot be altered. Additional Windows CE licensed fonts can be added to the terminal. Windows CE licensed fonts can be downloaded from the PanelView 800 technical support website at rok.auto/pv800. No other fonts are licensed for use on the terminal.

Import a Font File

You can import a Microsoft Windows CE font to your terminal. Other font files are not supported.

During the import, the font file is transferred from a USB drive or microSD card to the internal storage of the terminal. The transfer operation communicates with the terminal to transfer the file.

You can use the imported font in any application on the terminal.

Fonts cannot be exported for copyright reasons.

IMPORTANT The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

Font files cannot be imported from PanelView Explorer when using firmware revision 3.011 or later.

Follow these steps to add a font to the terminal.

1. Open the PanelView Explorer Startup window.
2. Click File Transfer.
3. Click New Transfer.
4. Select the source location of the Font file, typically My Computer, and click Next.
5. Select Font as the file type and click Next.
6. Click Browse ... to locate and select the Font file, then click Open.
7. Select Internal Storage as the destination for the font file and click Transfer.
8. Observe the informational message for Transferring File.
9. The terminal should be rebooted to load the added font.

Remove a Font File

A font that was added to the terminal and is no longer used can be removed.

IMPORTANT The PanelView Explorer feature is only supported on PanelView 800 terminals with firmware revision 2.020 or earlier. It is not supported from firmware revision 3.011 onwards.

Font files cannot be imported from PanelView Explorer when using firmware revision 3.011 or later.

Follow these steps to remove a font from the terminal.

1. Open the PanelView Explorer Startup window.
2. Click File Transfer.
3. Click Delete File.
4. Select the source location of the Font file, typically Internal Storage, and click Next.
5. Select Font as the file type and click Next.

   Observe the list of all Font files that have been added to the Terminal.
6. Select the Font file that you want to delete and click Delete.
7. Observe the Confirmation message for the selected Font file and click OK.
8. Observe the informational message Deleting File.

9. Observe the deleted font file no longer appears in the list of all Font files.
10. Restart the terminal to remove the file from the terminal.

Font files, especially East Asian Fonts, are large and consume significant space on Internal Storage. Remove all unused fonts from the terminal.

Notes:

U

V

W

Notes:

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

Documentation Feedback

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

Waste Electrical and Electronic Equipment (WEEE)

At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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