L22 - Studio 5000 View Designer Featured on the PanelView 5000 Graphic Terminals
Agenda

1. PanelView 5000 and Studio 5000 View Designer Overview
2. New Features in V4
3. Lab explanation
4. On to the Lab!
PanelView 5000

- Next generation HMI platform for premiere Logix integrated solutions using Studio 5000 View Designer® software
PanelView 5500 Graphic Terminal

- Smaller footprint – cutout and bezel depth
- Rugged metal design
- More screen size offerings
  - Wide-screen
  - Higher resolution
  - 7” to 19” sizes
- Touch and keypad options with integrated navigation button
- Tool-less mounting clamps
- Integrated Device Level Ring (DLR) capabilities
- Initially targeted at small, single controller applications
# PanelView 5310 Graphic Terminal Overview

- Delivers the same enhanced Logix integration and usability as the PanelView™ 5500 using Studio 5000 View Designer software.
- Designed for smaller applications where extended operating temperatures and hazardous location certifications are not required.

<table>
<thead>
<tr>
<th>Feature</th>
<th>PanelView™ 5500</th>
<th>PanelView™ 5310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator Input</td>
<td>Touch (all), Navigation Button (all), Keypad (optional)</td>
<td>Touch only</td>
</tr>
<tr>
<td>I/O</td>
<td>2 USB Host, one USB Device (programming), SD Card</td>
<td>1 USB Host, one USB Device (programming), SD Card</td>
</tr>
<tr>
<td>Enclosure Rating</td>
<td>IP66/NEMA 12/13/4x</td>
<td>IP65/NEMA 12/13/4</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>0-55C</td>
<td>0-45C</td>
</tr>
<tr>
<td>Certifications</td>
<td>c-UL-us, CE, UL Class 1/Div 2, KC, RCM, Planned: ATEX, IECEx, Marine, EAC</td>
<td>c-UL-us, CE, KC, RCM, EAC</td>
</tr>
<tr>
<td>Power Options</td>
<td>AC or DC (Isolated)</td>
<td>DC (Non-Isolated)</td>
</tr>
<tr>
<td>Communications</td>
<td>10/100 Ethernet DLR (dual-port)</td>
<td>10/100 Ethernet (Single Port)</td>
</tr>
<tr>
<td>Number of screens</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>
Studio 5000 View Designer

- Studio 5000 View Designer® is the configuration software for the PanelView™ 5500 terminals
- View Designer is part of Studio 5000 design studio version 27 and later
  - Common launcher with Logix Designer
  - Common catalog number and activation
  - Included at no extra cost with all editions except Service Edition
Main Features

- Enhanced integration with Logix saves time when developing a system
  - Support for Logix-based alarm instructions
  - High-speed button control
  - Create reusable screens and Add-On Graphics* with Logix-typed properties
  - Support for Logix tag extended properties
- Highly flexible animation configuration provides powerful options for presenting information
  - Binding of element properties to tags and expressions
  - Color and State tables
  - Events and commands
- Enhanced runtime operation gives operators and maintenance personnel a consistent experience with minimal development effort
  - Pre-defined diagnostic, configuration and alarm screens
  - Scaling of content to different screen sizes
  - Built-in navigation menu
  - Helpful error notifications
  - Runtime language switching*

*With version 3.01
View Designer and PanelView5000 V4 Features

- New PanelView 5310 HMI hardware
  - Lower-cost panel in 6”, 7”W, 9”W, and 12”W sizes
  - Supports up to 50 screens and popups

- HMI features:
  - Data logging and historical trending
  - Emulator
  - PDF viewer (PanelView 5500 HMI only)
  - VNC support
  - Download from removable media
  - Support up to 100 screens and popups (PanelView 5500 HMI only)
  - 4 Terminal - one Controller Support
  - Slider graphic element
  - Simple line tool
  - Find within selected graphic elements on a screen
  - Additional date/time format options for DateTimeDisplay element and alarm summary/alarm manager
Data Logging

- Log data on the PanelView 5000 terminal and then display that historical data on a trend
- Up to 250 tags can be logged
- Logs are stored in circular logs
- Logs are stored on an SD card in the PanelView 5000 terminal
- Logs can be exported in csv format to a USB flash drive using a predefined Settings screen

Tags can be logged as fast as every 500 msec.

New Data Logs folder in Project Explorer supports up to three different logs for different tags and rates.

Each log can be configured for different sample rates, durations, and tags.
Historical Trending

- No trend configuration is required to display logged data
  - If a trend trace is bound to a tag that is also logged, the trend will automatically show historical data if the trend is panned to a time where no real time data exists for that tag
  - Trends show historical data immediately when the screen is displayed

New TimeSpanStart trend property can be used to instantly scroll the trend to a specific date/time

Historical data shown when real time data is not available

Real time data is shown when it is available
Emulator

- Emulator lets you test run a project without downloading to a physical PanelView 5000 terminal.

  - New Emulator to Controller Path lets you define a unique path to a controller for emulation. It does not have to be the same controller used by the physical terminal.

  - To test your project, click the Emulate button on the toolbar.

  - The emulator launches with a “skin” matching the PanelView 5000 terminal you configured for your project – including functional keypad buttons.
**Emulator Considerations**

- The emulator is intended to be a temporary test tool, not a runtime HMI
  - The emulator will shut down if View Designer application shuts down
  - The emulator will shut down after 2 hours of operation
- The emulator supports almost all PanelView 5000 HMI operations, but does not support:
  - Data logging
    - Trends will only show real time data
  - HMIBC buttons
    - Will display an error indication when pressed
  - Local HMI tags and commands that are specific to PanelView 5000 HMI hardware
    - These will give error indications
PDF Viewer

- Add PDF content to your View Designer project and then display that content in a new PDF viewer graphic element you can place wherever you want on your screens.
- PDF files can be launched to specific page numbers to quickly provide operators the information they need.
- The PDF viewer is supported in the PanelView 5500 HMI only.
VNC Support

- The PanelView 5000 terminals use a built-in VNC server to support a remote VNC client for monitoring and troubleshooting.
- Passwords can be configured to allow full read/write access or read-only access to only VNC client users who enter the correct password.
- A new settings screen can be used at runtime to further lock down the PanelView 5000 terminals to disallow VNC access or limit it to read-only access if desired.
- A new system tag indicates if a VNC client is connected.
Load from Removable Media

- You can save a View Designer project as a runtime image .vpdr file
- The runtime image file can be copied to a USB flash drive or an SD card that can then be inserted into the PanelView 5000 terminal
- A new settings screen on the PanelView 5000 terminal can be used to select the desired runtime image file and initiate a download to the terminal
- Optionally, you can choose to use the “HMI to controller” path configured as part of the runtime image file or continue to use the path configured in the existing project currently running on the PanelView 5000 terminal
  - Makes it easier to send an updated project to a location where you might not know the exact controller path
V2 Discontinuation

Starting with V4 (Q4 CY2017), we are discontinuing the V2.00x PanelView 5500 terminal firmware

- Any existing PanelView 5500 terminals can be flash updated to V3 or V4 firmware
- Projects created in V2 View Designer can be converted to V3 or V4 simply by opening them in the newer version of View Designer
  - You can keep using V2, but any issues found will be addressed in a newer release

- V3 and V4 provide many new features
- V2 shipped with Studio 5000 releases version 27, version 28 and version 29
- V3 shipped with Studio 5000 release version 30
- V4 will be released with Studio 5000 release version 30.01
- Note that all versions of View Designer software and PanelView 5000 terminals support Logix version 27 and later
Questions?
Lab Format and Notes

- Lab Contents
  - Create a Project, Project Properties
  - Elements, Binding to Tags, popup Displays
  - Alarms
  - Navigation
  - Data Logging / Historical Trending
  - PDF Viewer
  - VNC Viewer
  - Add-On Graphics (Optional)
  - Runtime Language Switching (Optional)
- IP address for EN2TR and Slot Information on Monitor
- IP address for PanelView 5000 on Terminal Bezel
Thank You!