



# Introduction to Operator Interfaces February 16, 2022

# Technical Seminars from TRC Register to receive a calendar invite



#### TECH TALK

 Quality Remanufacturing by Rockwell Automation

Wed, February 23, 2022 @ 10am

- TBD Wed, March 9, 2022 @ 10am
- TBD Wed, March 23, 2022 @ 10am

#### **USER GROUP**

- Machine Safety Overview
   Wed, March 16, 2022 @ 10am
- **TBD**Wed, April 20, 2022 @ 10am
- **TBD**Wed, May 18, 2022 @ 10am

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Our New Orleans branch will remain closed until power is restored. Learn more.

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= ALL PRODUCTS



Search Product Numbers, Brands or Keywords



#### LOTO Part 1 - The Components of Lockout Tagout

August 27, 2021 | Safety | Podcasts

In this episode of TRC Talks, Brad Freeman speaks with Tim Bohmann from Rockwell Automation on the topic of Lockout Tagout. LOTO is a crucial component of any safety...



#### TechTalk - Spectrum Controls

August 26, 2021 | Automation | Training & Events

In this TRCTechTalk, we are joined by a guest presenter - Spectrum Controls.



#### User Group - Introduction to InnovationSuite

August 19, 2021 | Automation | Training & Events

FactoryTalk software is built for supporting an ecosystem of advanced industrial applications, including IoT. It all starts at the edge where manufacturing happens and scales from on-...



#### TechTalk - Lockout/Tagout Program Management

August 12, 2021 | Safety | Training & Events

Watch our TechTalk to learn how ScanESC



#### Introducing Fiix

August 04, 2021 | Services | Featured Products

Fiix is a Computerized Maintenance



#### TechTalk - PlantPAx System Estimator

July 29, 2021 | Networking | Training & Events

Watch our TechTalk to learn how to use the

## Our Presenters

## **Mike Masterson**

Automation Specialist
The Reynolds Company

## Wayne Welk

Automation Specialist
The Reynolds Company

## PanelView HMI Terminals

## Visualization: Graphic Terminals Portfolio





- Supports screens in portrait and landscape modes
- Optimized for compatibility with Micro800 and MicroLogix controllers





#### PanelView Plus 6

- 7" to 15" screen sizes
- Built in Ethernet communications
- Built in Serial communications
- Add-on Serial communications





#### PanelView Plus 7

- 4" to 19" with wide screen options
- Built in Ethernet communications with DLR
- Standard & Performance versions





#### PanelView 5310/5510

- 7" to 19" with wide screen options
- EtherNet/IP with DLR
- Support for only Logix controllers







## Component Class

This class combines a simple, powerful control core, a full suite of associated components, and a dedicated set of class leading application development tools. These features provide enough control to meet machine control and end-customer requirements in the shortest possible time.

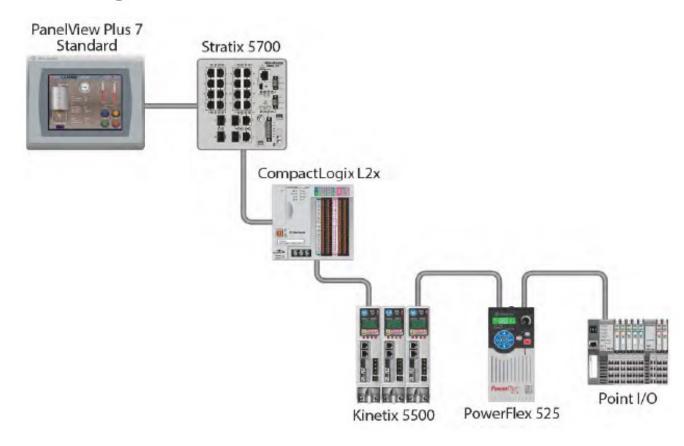
#### Micro800® with PanelView 800



## **Small Control Class**

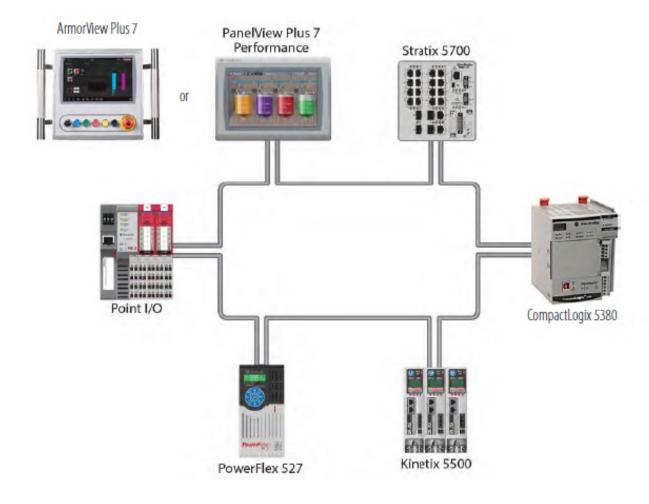
This scalable control system helps machine builders and their customers cost-effectively match their application needs and standardize on one control platform while receiving real-time information for smaller applications.

#### **Linear Configuration**



## Integrated Architecture Class

The Integrated Architecture system is unique in that it offers scalable, integrated safety, motion control, and visualization capabilities that are ideal for machine builders and end users who want one control and development environment, regardless of the application size or complexity. Large control systems integrate all control disciplines - process batch, discrete, drives, safety, and motion - into one connected and segmented, plant-wide infrastructure that uses a common design environment for all automation disciplines.



## PanelView™ Plus 6 Terminal Discontinuation

PanelView™ Plus 6 terminals are currently planned to be discontinued on the dates listed below\*, however, recent increases in demand may move up discontinuation dates.



All 4" Terminals – 12/30/2022\*

(All catalog numbers including Compact & Low Reflective)



10" Terminals (Including Compact)

Touch – Discontinued

Keypad/Combo – 09/30/2022\*



All 6" Terminals –

Discontinued



12" Terminals

Touch – Discontinued

Keypad/Combo – 09/30/2022\*



All 7" Terminals –

Discontinued



15" Terminals

Touch – Discontinued

Keypad/Combo – 09/30/2022\*

Several discontinued catalogs still have stock globally and will be sold up to one year after discontinuation on first come basis

#### Migrate customers to PVP7





Remanufacturing Services offered for MRO business



#### Why are we releasing a Series B PanelView Plus 7 Performance product?

Series A runs on Windows® CE 6.0 operating system, which is no longer fully supported Series A uses aging hardware with a shrinking supply chain

We developed the PanelView Plus 7 Performance Series B product to help protect our customers who have invested in PanelView Plus hardware and FactoryTalk° View Machine Edition software.

#### **Major Improvements with Series B:**

Updated to run a modern operating system

Updated hardware with improved long-term supply chain support

Enhanced product security

Support for modern peripherals

Significantly increased user storage

Firmware update alignment with other Allen-Bradley® products

Improved customer ability to resolve firmware corruption issues





Series B

 PanelView Plus 7 Performance Series B is currently in development and is now estimated to release <u>March 2022\*</u>.

#### PanelView Plus 7 Performance Series B Specs:

- Operating system: Windows 10 IoT Core
- Software: FactoryTalk® View Machine Edition Station
- CPU: Intel x86, 1.46 Ghz, dual core
- RAM: 4 GB
- System storage: 19.87 GB (~2GB available for user storage)
- Web browser: Microsoft Edge (HTML5 compatible)







Series B

Mobile ready with VNC\* and FactoryTalk® ViewPoint software

Modern web browsing and video playback with Microsoft Edge

Microsoft Office viewers preinstalled\* Standard and widescreen aspect ratios available

Touch only and keypad/touch options available

#### **Optional Products Include:**

- Brandless terminals
- Conformally coated terminals
- Stainless steel terminals 9" & 12"
- On-Machine<sup>™</sup> terminals (ArmorView<sup>™</sup> Plus 7)

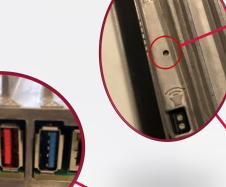
With the embedded PDF Viewer, show:

- User manuals
- Installation manuals
- SOPs (Standard Operating Procedures)

Faceplates and Add-On Instructions available that can save 50–90% of complex screen development time



Series B



Hardware button to restore terminal to the factory default condition (New for Series B)

 Unlike The PV+6, the PV+7 is a one-piece design, without the separate logic module and display

Installation clamps provide fast and simple Toolless terminal installation and removal

USB Ports for quick upload and download to the terminal (Series B updates one USB port to USB 3.0)



When Legacy Comms or Serial ports are important: 9300-USBCBL-CP3 and 9300-USBCBL-PM02 for USB to serial conversion



SD storage card slot for data storage, data logging, recipe management and terminal replication



## PanelView Plus 7 Performance Series Comparison

Product Features	<b>PanelView Plus 7 Performance</b> Series A	PanelView Plus 7 Performance Series B
Operating System	Microsoft Windows® CE 6.0	Microsoft Windows 10 IoT Core
CPU	Intel x86, Single Core, 1.6 Ghz	Intel x86, Dual Core, 1.46 Ghz
Memory RAM / System Storage	512 MB / 512 MB (80 MB available for user storage)	4 GB / 19.87 GB (~2GB available for user storage)
FactoryTalk Machine Edition	Y (Supports v8+ MER files)	Y (Supports v8+ MER files)
Firmware Update Utility	Firmware Upgrade Wizard	ControlFLASH™ / ControlFLASH Plus™
USB Devices	Minimal support, CE devices only	Support for most Windows 10 IoT Devices
Printer support	Windows CE 6.0 Print Drivers	AirPrint & Internet Printing Protocol (IPP)
FactoryTalk ViewPoint	Υ	Υ
PDF Viewer	Y (Foxit)	Y (Foxit & MS Edge)
Active X Controls (Email, Datastore Plus, Recipe)	Υ	Y (except for Web Browser Active X)
Remote Terminal Control Available	Y - VNC	Y - VNC with SSH Encryption (Not in initial release, to be added later)
FTP Server	Y (CE 6.0 FTP Server)	Y (Win10 IoT Core FTP Server)
Web Browser	Y (MS Internet Explorer)	Y (MS Edge)
Video Playback	Y (MS Media Player)	Y (MS Edge)
Microsoft Office Viewers	Υ	Y (Not in initial release, to be added later)
Ethernet Connectivity	Y (DLR Capable)	Y (DLR Capable)
Hazardous Location Rated	Y (UL Class 1 Div 2) (Excluding ArmorView™)	Y (UL Class 1 Div 2) (Excluding ArmorView™)
Power	AC or DC	DC Only
Screen Sizes	6.5", 9"W, 10.4", 12"W, 19"	6.5", 9"W, 10.4", 12"W, 19" (No Change)
Application Limits (Screen count/controllers/alarms)	No limits (based on memory & CPU)	No limits (based on memory & CPU) (No Change)
Catalog numbers	2711P-xxxxx9P	2711P-xxxxx9P (No Change)

Series B

Series B terminals maintain the same functionality as Series A terminals, however, the process to complete many actions is updated on Series B. Some examples include:

- Firmware updates Improved experience via ControlFLASH™/ControlFLASH Plus™
- Control panel Improved experience with a Windows 10 IoT Core menu
- Maintenance mode Improved experience with added functionality
- Restore factory defaults Improved experience with added functionality
- **Printer setup** Improved experience using modern printers
- File transfers Improved experience with increased security
- Calibration Similar experience with improved accuracy



#### Series B

#### Security Features

- Windows 10 IoT Core Operating System fully supported by Microsoft
  - Windows 10 IoT Core is an adaption of Windows 10 Enterprise for the embedded market space. It shares the security advancements of Windows 10 Enterprise, along with regular security updates and patches.
  - Security updates and patches will be fully reviewed/tested by Rockwell Automation before release for use on PanelView Plus 7 Performance
- Closed system
  - Add-On software must be reviewed, approved, and signed by Rockwell Automation in-order to be installed on the terminal
  - Windows CE Desktop is no longer available as it is on Series A terminals
- Sandboxed environments for applications
  - Terminal integrity is maintained by running applications unique, sandboxed environments. Any abnormal behavior in one application will not affect other applications or the Windows 10 IoT Core operating system.
- Firewall

Firewall rules adjust automatically based on services that are enabled/disabled. It is not possible to completely turn off the firewall.

#### Password requirements

- Password is required to exit the Machine Edition environment
- Admin password is required to make critical system changes
- VNC includes SSH encryption\*
- Secure File Transfer Protocol (SFTP)
- UWP Apps \*
  - Future capability may be added to allow UWP apps from the Microsoft Store to be installed on the terminal. These apps are approved by Microsoft and are known to be secure.
- Protection from autorun programs
  - Autorun programs will not run on Series B terminals
- Updated modern web browser
  - Internet Explorer web browser on Series A is updated to Microsoft
     Edge Browser running in a sandboxed environment on Series B



## PanelView<sup>™</sup> 5310

A right-sized visualization solution for smaller applications

#### **FEATURES**

- Connect to one **ControlLogix**® or **CompactLogix™** processor through embedded Ethernet port
- On-screen navigation button easily displays information
- Up to 100 screens
- Five screen size options: 6", 7 W", 9 W", 10", 12 W"
- Two USB hosts, one USB device, one SD card
- c-UL-us, CE, KC, RCM, EAC, RoHS
- NEMA and UL Type 12, 13, 4X, also rated IP66 as classified by UL





## PanelView<sup>™</sup> 5510

Designed for OEMs and end users who require a high degree of integration between their HMI and controller

#### **FEATURES**

- Touch-only or touch+ keypad option
- Connect to as many as four ControlLogix® or CompactLogix™ processors
- Up to 500 screens\*
- Two Ethernet ports with internal switch and device level ring (DLR) support
- Navigation button below the screen opens configurable navigation menus
- Seven screen size options: 7", 7 W", 9 W", 10", 12 W", 15", 19"
- Two USB hosts, one USB Device, one SD card
- c-UL-us listed; Class 1, Div 2, Groups A, B, C, D; KCC; CE (EMC); CE (LVD); RoHS; RCM
- NEMA and UL Type 12, 13, 4X, also rated IP66 as classified by UL; EAC, Marine





## Studio 5000® automation and design environment

Studio 5000° Architect

Studio 5000 Logix Designer®

Studio 5000 View Designer®

Studio 5000° Application Code Manager

Studio 5000° Logix Emulate™

Studio 5000° Simulation Interface™



Simplified system design and data exchange



Collaborative system programing and configuration



Integrated HMI with Logix



System reuse and project builds



Virtual design and operator training systems



Logic connection to simulation models



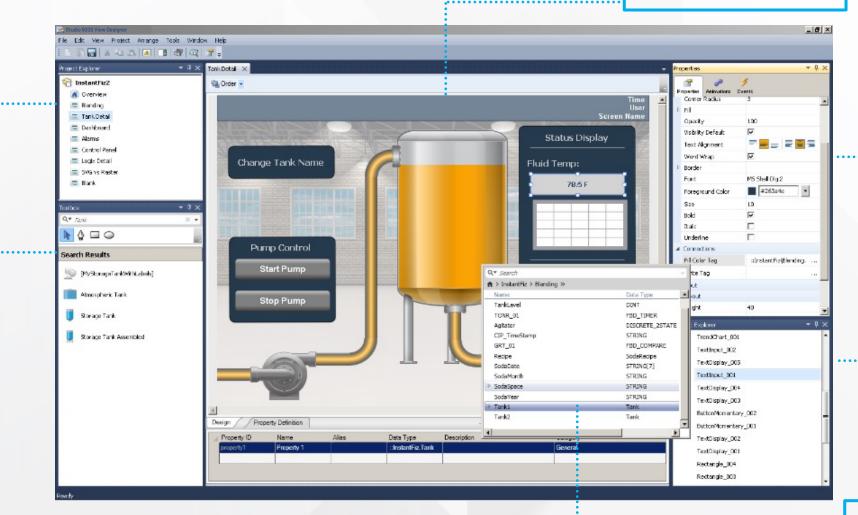
## **Studio 5000 View Designer software**

Included in Studio 5000 environment at no extra cost

Graphical design of screens

Project Explorer to organize project

Searchable toolbox for all project elements

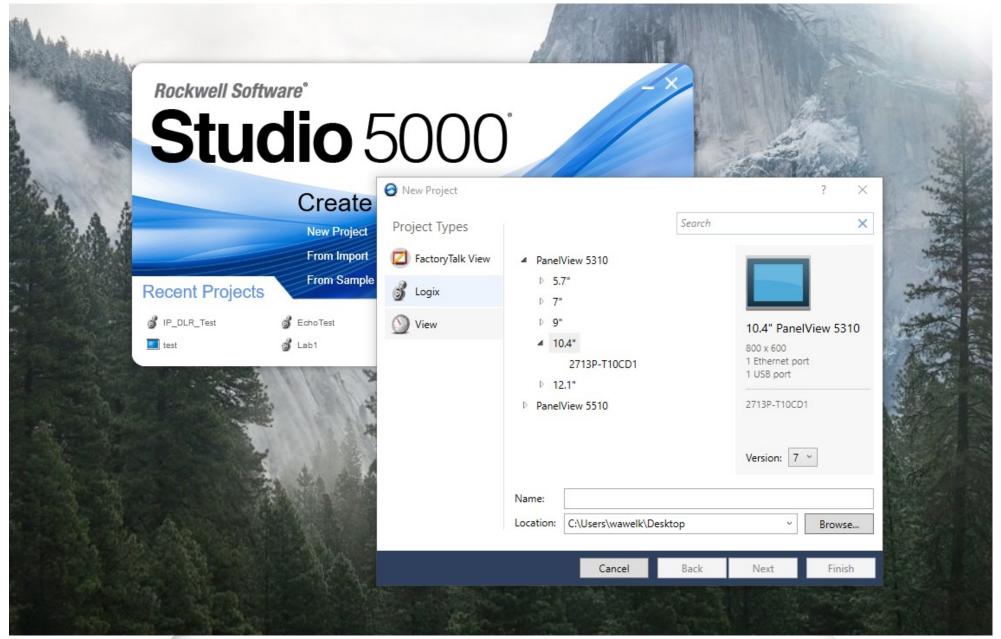


Property pane to configure elements

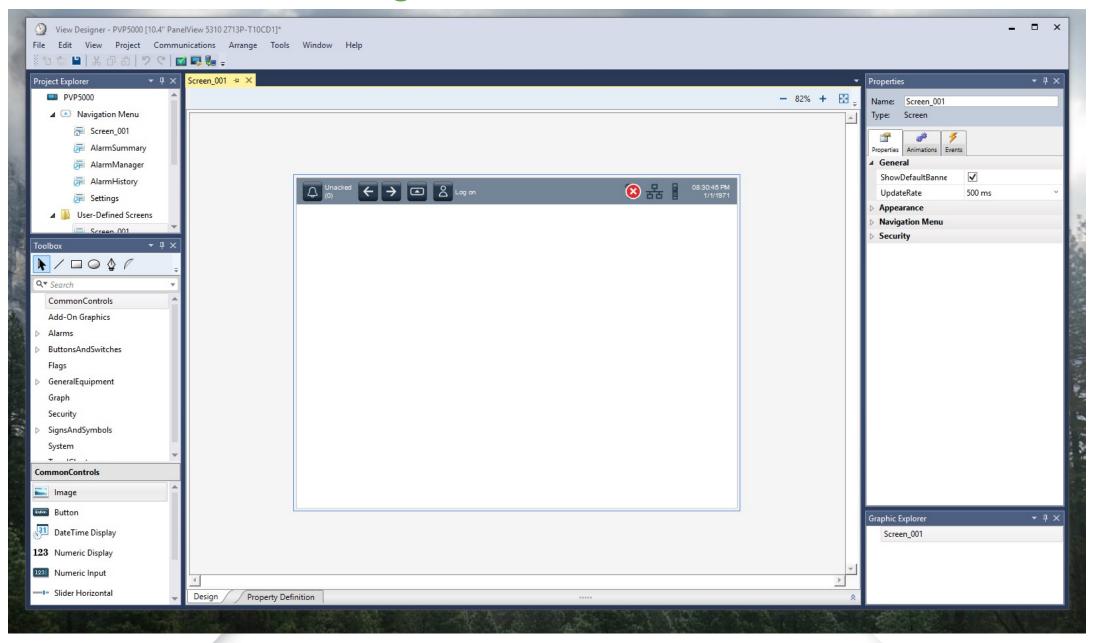
Graphics explorer to find and select elements

Tag browser to search and select Logix tags

## Studio 5000 View Designer



## Studio 5000 View Designer



## Industrial Computers & Thin Clients

## Visualization: Industrial Computers



## VersaView 5400 Integrated Display Computer

- Quad core Intel Atom E3845 CPU, 4 GB of RAM and a 128 GB solidstate drive
- 12", 15" & 22" Displays
- Windows 7, WES 7, and Windows10 operating systems



#### VersaView 5400 Non-Display Computer

- Quad core Intel Atom E3845
   CPU, 4 GB of RAM and a 128
   GB solid-state drive
- Windows 7, WES 7, and Windows 10 operating systems



## 6181P Integrated Display Computer

- Fourth Generation Intel Core™
   i-series 64-bit processor
- 12", 15", 17" & 19" Displays
- Windows 7 pro SP1, Windows Server 2008 R2 SP1, and WES 7 operating systems



## 6181X Hazardous Location Integrated Display

- IECEx, ATEX, and UL certifications required for hazardous locations
- 12" Display
- Windows 10 IoT Enterprise or Windows 7 Professional operation systems





### Visualization: Industrial Thin Clients



## VersaView 5200Integrated Display Thin Client

- 12", 15" & 22" Displays
- ThinManager Ready



#### VersaView 5200 Single Display

- Single DisplayPort video output
- ThinManager Ready



#### VersaView 5200 Dual Display

- Dual external display output ports that support up to 2560 x 1600 displays
- ThinManager Ready



### VersaView 5200 Dual & Multi 4k Display

- Dual and Multi 4K video output with 3840 x 2160 maximum resolution
- Offers both a DisplayPort and an HDMI port for flexibility
- ThinManager Ready







## ASEM<sup>™</sup> 6300 industrial PCs

#### **Rockwell Automation global brand for industrial PCs**

- Rockwell Automation acquired ASEM in April 2020 resulting in the following
  - The Allen-Bradley® ASEM™ 6300 family of Industrial PCs has expanded to include a configurable family of PCs, monitors and thin clients
  - ASEM 6300 Industrial PCs are available through Rockwell Automation authorized distributors throughout the world
- 6300 is the Bulletin number and it covers the entire ASEM family
  - 6300P panel PCs
  - 6300B box PCs
  - 6300T thin client PCs
  - 6300M industrial monitors







## ASEM 6300 industrial PCs

Tailored to handle your unique applications

6300B

i class wall mount box PCs



6300T

thin clients

6300P

6300B

**Atom class book** mount

box PCs



industrial panel computers



6300B

i class book mount

box PCs

### Visualization: Industrial Servers



#### VersaVirtual Appliance

- A hyperconverged (compute, networking and storage) appliance
- One server to run multiple operating systems
- Pre-configured virtualization environment
- Rack-mounted server
- Can run up to 15 applications



#### Stratus ztc Edge

- A hyperconverged (compute, networking and storage) appliance
- Dual servers offer Hot Standby or Fault Tolerant configuration
- Pre-configured virtualization environment
- Can run up to 12 applications



#### Stratus ftServer

- Fault Tolerant
- Single system with fully duplexed hardware
- Hot-swappable customer replaceable units (CRU)
- Rack-mounted server





#### **Industrial Data Center**

Pre-engineered, scalable infrastructure offering with all of the hardware you need to run multiple operating systems and multiple applications off of virtualized servers.





## Visualization: Scalable Compute/Edge



#### 1756 Compute

- High-speed access to the ControlLogix controller over the backplane
- Intel Atom Dual-core 1.46 GHz processor
- 32 GB mSATA
- Windows 10 IoT Enterprise 64-bit, Linux 32-bit (Debian 8.9)
- Integrated DisplayPort







#### CompactLogix 5480

- Logix based real-time controller that runs an instance of Windows 10 IoT Enterprise
- Supported in Studio 5000 Logix Designer version 30





#### VersaView 5400

- Quad core Intel Atom E3845 CPU, 4 GB of RAM and a 128 GB solid-state drive
- Windows 7, WES 7, and Windows 10 operating systems











## **Visualization Solutions**

PanelView Terminals (including ArmorView Plus 7 Terminals) and Industrial Computers, Monitors, and Thin Clients

Publication# View-SG001









www.reynoldsonline.com