# D/3® Version 16 **Next-Generation Performance** for the Long Haul

D/3 Version 16 (D3v16) opens new horizons of reliability and ease of use for the DCS with the highest lifetime value in the industry. D3v16 is the first release to harness the next-generation Process Control Module 5 (PCM5) Series' native Cyber Security and virtualization capabilities. Numerous enhancements to MDL Builder, D3Express, and other system software make it easier for users to develop control strategies and optimize system performance. D3v16 preserves existing investments while paving the way for the future.



Modern Hardware



**Embedded Cyber Security** 



Virtual PCM



Ease of Use Enhancements



## Hello, Futureproof

The NovaTech D/3® Process Control Module 5
Series is built to last and to change. The reliable, field-proven design features circuit boards manufactured in-house and an intuitive touchpanel display. PCM5 represents a significant leap forward in the development, maintenance, and Cyber Security capabilities of the D/3 System.
With a modern hardware and software platform, PCM5 can more quickly incorporate and deploy the latest technologies while continuing to deliver the lowest total cost of ownership.

Rear view of flexible expansion slots, power supply and network connections



Easily accessible touchscreen diagnostic panel and power supplies





# More Reliable and Cyber Secure

- 1RU Redundancy Module maintains synchronization between redundant PCM5s
- Faster transfer of data between redundant PCMs
- Firewall is auto-configured from system configuration data (WinCOD)
- Enabled by default

# Modern and Open Platform

- Linux OS and C/C++ programming languages allow for faster development of future features
- Powerful quad-core processor
- 64-bit CPU architecture
- Gigabit Ethernet
- No moving parts (fanless)
- Larger SABL programs

## Coexists with PCM 4100 and 4200

- PCM5 can communicate with PCM 4100/4200 PCMs on the same network
- Existing applications and control strategies can be migrated to the PCM5 platform

# **Improved Diagnostics**

- Touchscreen interface allows easy access to basic diagnostic data including:
- ♦ PCM running state
- ♦ Redundancy status
- ♦ Ethernet addresses
- Plain-English, software-based diagnostics, alarming, and troubleshooting

### PCM5 Virtualization

D3v16 provides D/3 users with a hardware-independent development, testing, and training environment. These portable and easy-to-maintain virtual D/3 Systems allow users to learn, innovate, and optimize plant operations with greater convenience and flexibility than ever before.









### Create

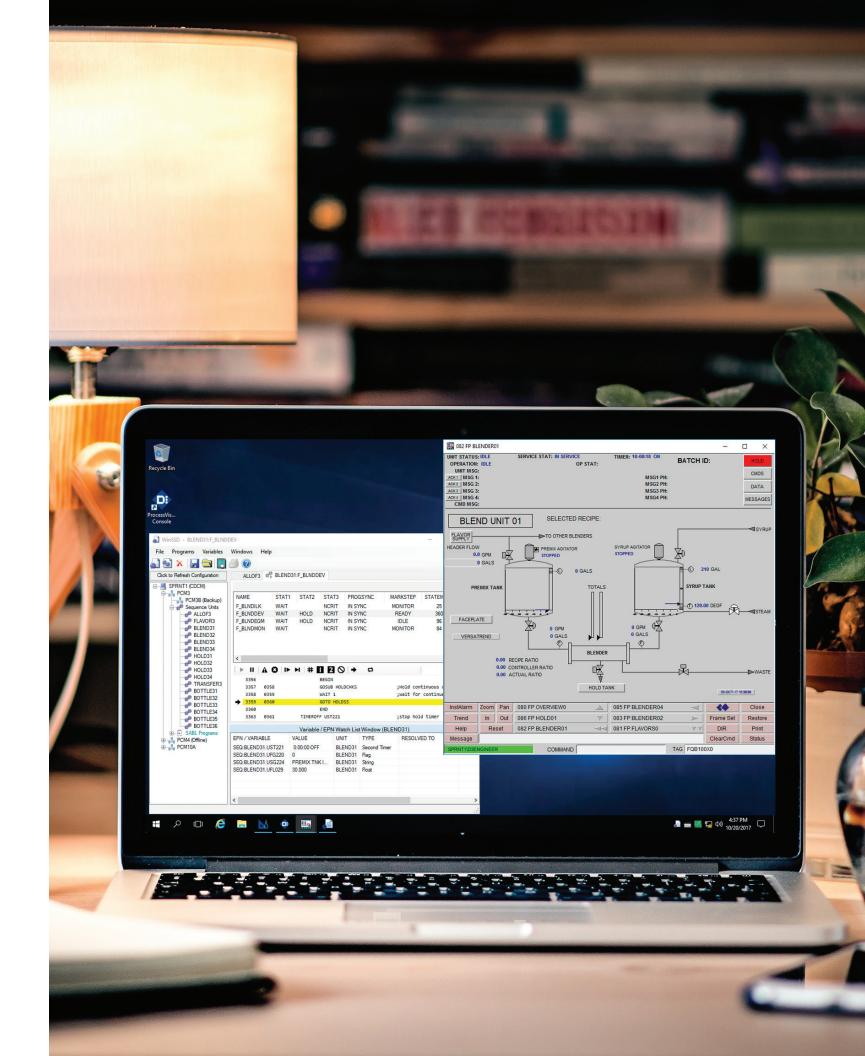
Simulate an entire D/3 System with multiple PCMs on a single computer.

### Innovate

Develop, demonstrate, and validate prospective changes without impacting plant production and safety. Virtual PCMs have an inherent ability to simulate I/O and process characteristics, including interaction between process units.

### Improve

Easily copy changes to the live system when testing is complete. Train new personnel on all aspects of D/3 applications, plant operations, and abnormal situations.



### Software Enhancements

#### **MDL Builder**<sup>™</sup>

MDL Builder allows engineers to configure the building blocks of the D/3 System with an intuitive graphical interface, while retaining the flexibility demanded by experienced users. Continuous database creation is made easier, faster and more error free with an improved tag creation workflow and remote build pre-validation, Figure 1. A new unit-based view allows visualization of SDB unit structures and enables easy adjustment of tags, Figure 2. Generate drawings automatically from imported Master Devices (MDV) and update the text file with drag-and-drop simplicity, Figure 3.

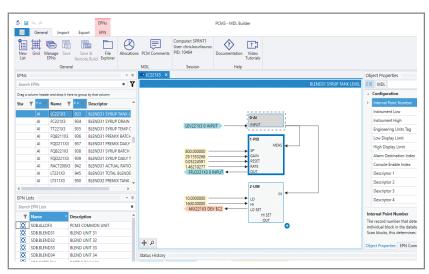


Figure 1

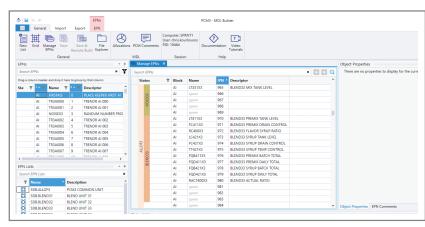


Figure 2

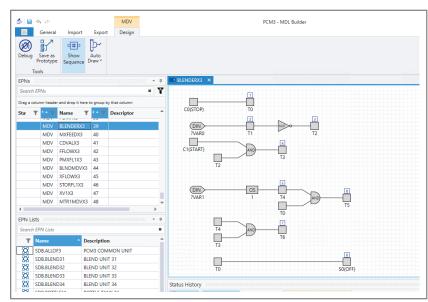
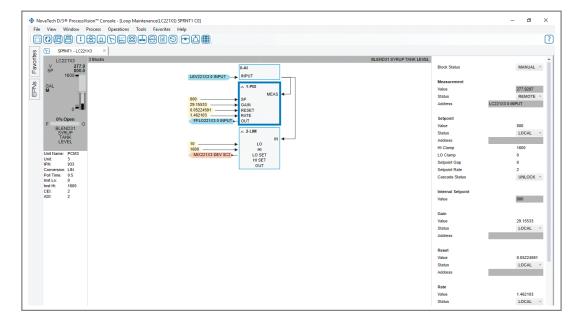


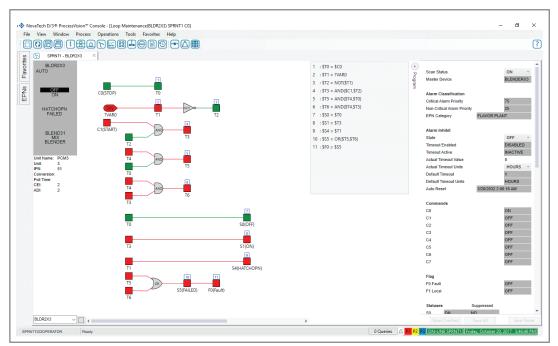
Figure 3

### **ProcessVision**™

Enhancements to ProcessVision include better runtime performance, enhanced fonts, and more intuitive display windows. Analog loops and master devices are now displayed in the loop maintenance view with live values and no drawing required. View live Master Device logic for respective devices' loop maintenance displays. Automatically assigned MDV drawings are bound to the correct EPN data at runtime.

Drawings are created automatically from existing text files or MDV Builder drawings. These Loop Maintenance displays can be linked to TotalVision® EPNs to provide quick access to detailed information about the respective EPN. Operators and technicians can more easily diagnose problems with plant hardware.









## PI Integration in D3Express™

D3Express is a web application that allows users to view, search, and filter alarm history files from any time period, find all places where a tag (EPN) is used in the D/3 System, execute runtime status reports previously provided by D/3 Summary Reports, and compare live PCM databases with those saved on the CDCM. D3Express is accessible from any ProcessVision operator console, server, PC, tablet, or smartphone. It can also be used to display live EPN data for groups of specified tags and trend groups. These groups can be saved as browser favorites on the client for quick access to the saved groups.

# TotalVision® Windows® Management

TotalVision graphics have a new feature that allows a user to navigate faster from an overview graphic. Operators can now change the displays on up to four monitors by clicking on items in a fifth dedicated overview display. This combines a cohesive understanding of plant operation with quick access to the correct graphics for all operations personnel.

### WinMOD and WinSSD

WinMod has added a number of common windows keyboard shortcut keys for quick access to common functions (ie. "CNTL-F" for FIND), and arrow keys can now be used to navigate treeview and other displays.

WinSSD runtime performance has been significantly improved to reduce the load on PCM communications resources.

## Windows Server 2016 and Windows 10

D3v16 runs on Windows Server 2016 and Microsoft Windows 10 Long Term Servicing Branch (LTSB). LTSB is more stable over time and does not allow automatic updates as in the standard Windows 10 offering.

#### **D3Architect**

D3Architect can now manage TotalVision graphics, making it easier for graphics developers and process engineers to find the full file specification for a respective graphic.

### **Report Monitor**

ProcessVision™ has been enhanced to provide better and more intuitive display of D/3 Report Writer reports and their status. Users can now access, monitor, and view reports easier and faster than ever.



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