

# PAC Productivity Suite 10

## Integrated PLC and SCADA Solution

PAC Productivity Suite (PPS) provides a single point of configuration and a common database for your control system using symbolic variables for data and configuration properties. The result is a system that reduces errors and minimizes implementation time by having the logic developer and SCADA/HMI applications configured once in the Engineering Workstation.

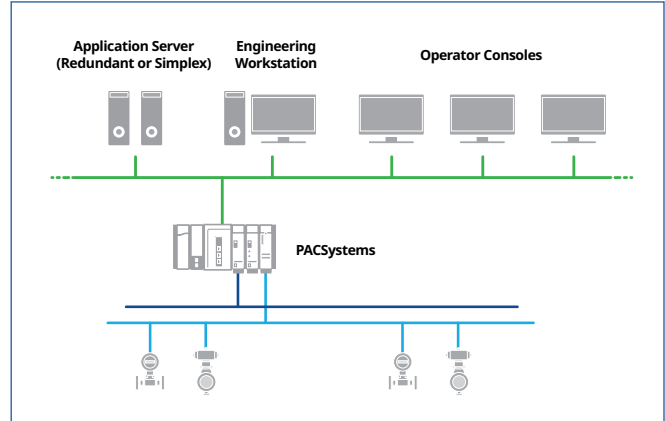
PPS gives you the freedom to develop control strategies as you see fit for both process and discrete functions. Pull from our library of function blocks or create your own user defined function blocks.

### Software Elements

PPS Software Elements are software components within PAC Productivity Suite that provide specific functionality and can be distributed onto PC hardware based on the requirements of the application. PPS software components include Engineering Workstation, Application Server, System Server and Operator Console.

The **Engineering Workstation (EWS)** software element is used to develop and configure the system. It includes a SCADA development/runtime server, PPS Logic Developer, and EGD system tools. Included in the SCADA system are PPS mimic and faceplate objects that allow consistent and efficient development of HMI screens. The EGD system tools includes a configuration server that provides a common database between the Logic Developer and SCADA components of a PAC Productivity Suite application.

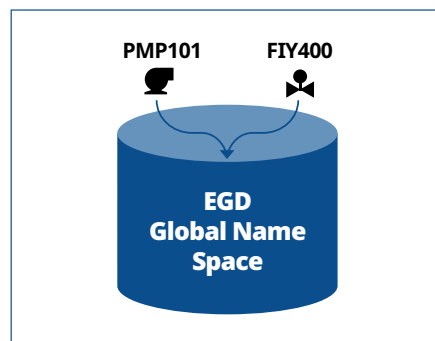
The **Application Server** software element supports CIMPLICITY client/server architecture. In this case, the Application Server serves as the CIMPLICITY Server and communicates to the PACSystems controller(s) during runtime. The Operator Consoles receive data from the Application Server (CIMPLICITY) and do not communicate directly with the controller(s). The Application Server also allows 3rd party device connectivity with PPS. The option to have redundant CIMPLICITY Application Servers is included in all offerings except the 100 I/O Point System.



The **Operator Console (OC)** software element is used by the operator to monitor and control the process.

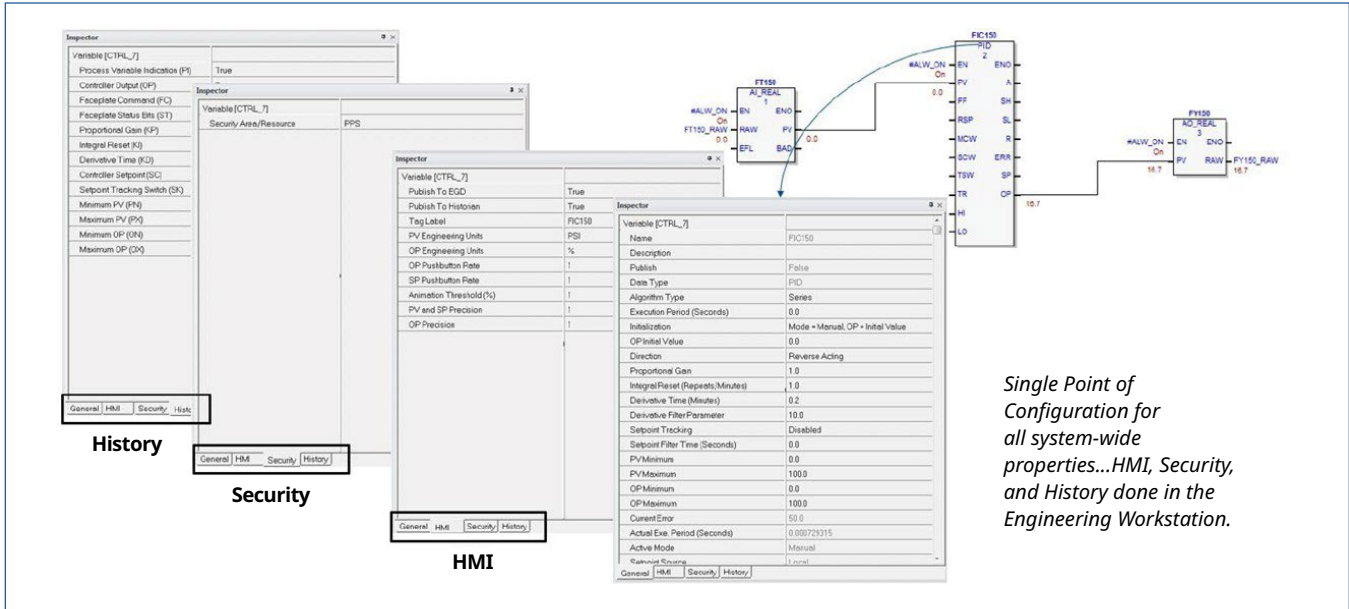
### Common Database

PPS Logic Developer publishes control objects to the common database that CIMPLICITY utilizes to build corresponding SCADA/HMI objects resulting in a global namespace. This object-oriented database allows modular programming of simple to complex control strategies using objects that possess both control and HMI aspects.



### Advanced Function Blocks

PPS has many built-in function blocks that can be dragged and dropped into your application and configured to create a control application quickly.



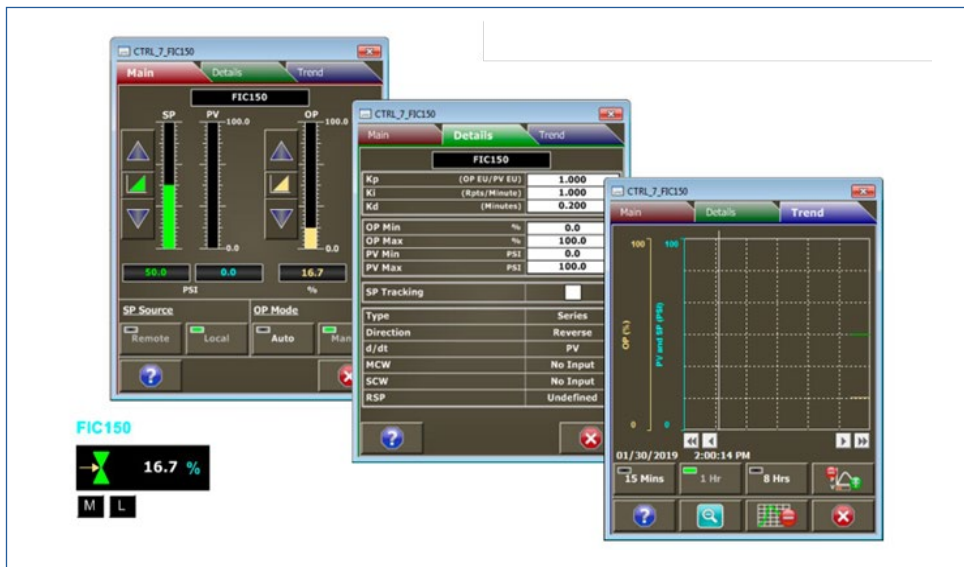
Single Point of Configuration for all system-wide properties...HMI, Security, and History done in the Engineering Workstation.

## Single Point of Configuration

In the PPS Logic Developer, all system wide configuration can be entered at the time of control development. As shown above, you configure General, History, Security, and HMI properties from a single point of entry that gets published to the common database. This eliminates multiple entry points of configuration that can lead to errors and inconsistencies. Applications automatically consume the configuration to create the aspects to realize control strategies for mining, water & wastewater and metro tunnel applications.

## Advanced HMI Mimic & Faceplate

Many PPS control objects have mimic and faceplates graphics that can be used to create HMI screens quickly. For example, you can create a single-input / single-output PID loop in the Engineering Workstation in minutes. Instantiate a PID function block and then CIMPLICITY will build the HMI aspect for the PID function block. The object includes a mimic object, such as a valve for flow control, that can be drag and dropped onto an overview screen and you are done! Once the screen is put into run-mode and the valve mimic is clicked upon the advanced faceplate will pop-up for the operator to interact with the PID loop.

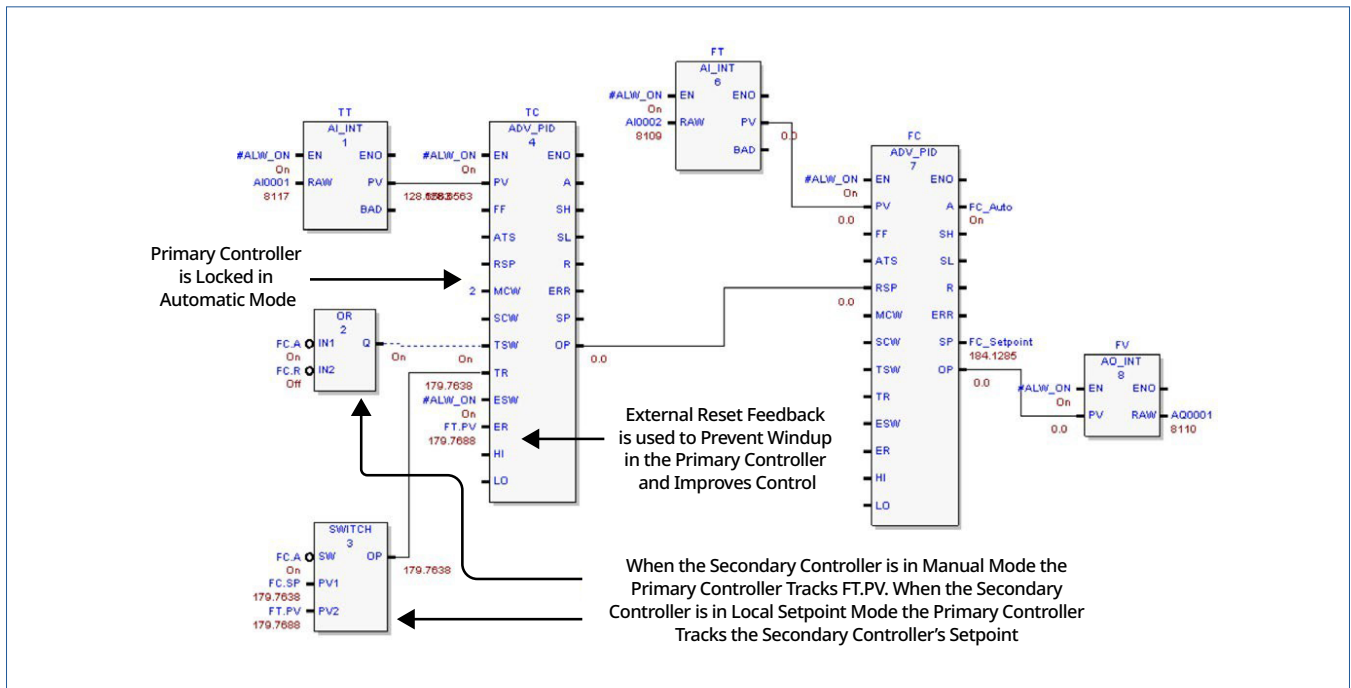


## Advanced Regulatory Control Made Easy

The Logic Developer Process Edition function block library has the necessary functionality to easily construct advanced regulatory control algorithms making PPS ideal for process and discrete applications.

The library provides blocks to create:

- Ratio Control
- Feedforward Control
- Split Range Control
- Cascade Control



## Integration Equals Productivity

Based on proven technologies that have been built as a fully integrated system, PAC Productivity Suite adds up to even more than the sum of its parts.

At the heart of the system is our multi-disciplined PACSystems controller's groundbreaking technology that allows you to jump seamlessly between process, discrete and motion control for unprecedented design flexibility.

CIMPLICITY HMI/SCADA allows you to effectively manage alarms and visualize the process under control.

PACSoftware's Logic Developer provides programming option for both discrete and process control.

The PACSystems controller, CIMPLICITY HMI/SCADA, and PAC Logic Developer brought together with a common global namespace form PPS as an ideal hybrid solution.



## CIMPLICITY Features Included

PAC Productivity Suite Application Server and Engineering Workstation comes with CIMPLICITY Pro-Server.

Pro-Server includes the drivers:

- AB Ethernet
- Mitsubishi
- Omron
- Modbus, Modbus Ethernet, Modbus RTU
- Toyopuc
- Marquee
- PAC Productivity Suite Operator Console is a CIMPLICITY Development Viewer.

The following CIMPLICITY options are included with a Pro-Server license:

- Action Calendar
- Recipe
- System sentry (1client)
- SPC
- Terminal Server (1client)
- Digital Graphical Replay - DGR

*Note: A standard SQL installation is no longer included with a Pro-Server license GE is no longer branding Microsoft SQL Server as Proficy SQL. CIMPLICITY base install includes Microsoft SQL Server Express.*

## Logic Programmer Features Included

Feature Name	PSS Base Bundle	Engineering Workstation	Operator Console	Application Server
I/O Points	100, 250, 500, 1000, 2000, 3000, 5000, 5000+			
PACSystems RX3i & RX7i	Enabled	Enabled	-	-
PACSystems RSTi-EP	Enabled	Enabled	-	-
Series 9030 & Series 9070	Enabled	Enabled	-	-
Process Block Library	Enabled	Enabled	-	-
RIO VersaMax & 90-30	Enabled	Enabled	-	-
VersaMax	Enabled	Enabled	-	-
QuickPanel & QuickPanel+	Enabled	Enabled	-	-
View Development	Enabled	Enabled	-	-
View Runtime	Enabled	Enabled	-	-
PC Control Development	Enabled	Enabled	-	-
PC Control Runtime	Enabled	Enabled	-	-
View and PC Control Points	8000	8000	-	-

## Ordering Information

Part Number <i>*PPS Based Bundles</i>	Description
PS100PS00100C1Tx	PPS v10.x PPS Standard 00100 Points CIMPLICITY 1 Activation
PS100PS00250C3R Tx	PPS v10.x PPS Standard 00250 Points CIMPLICITY 3 Activations
PS100PS00500C3R Tx	PPS v10.x PPS Standard 00500 Points CIMPLICITY 3 Activations
PS100PS01000C3R Tx	PPS v10.x PPS Standard 01000 Points CIMPLICITY 3 Activations
PS100PS02000C3R Tx	PPS v10.x PPS Standard 02000 Points CIMPLICITY 3 Activations
PS100PS03000C3R Tx	PPS v10.x PPS Standard 03000 Points CIMPLICITY 3 Activations
PS100PS05000C3R Tx	PPS v10.x PPS Standard 05000 Points CIMPLICITY 3 Activations
PS100PS05001C3R Tx	PPS v10.x PPS Standard 05000+ Points CIMPLICITY 3 Activations
Add-On Part Numbers (Extend Base Bundle as Needed)	
PS100EC	PPS v10.x Engineering Workstation
PS100AC	PPS v10.x Application Server
PS100OC	PPS v10.x Operator Console

**Part Number Nomenclature**

PS100PSxxxxCyzTx

where:

xxxx = Number of I/O points

y = Number of activations

z = If Application Servers are redundant, then R, otherwise blank

x = Number of terminal service connections allowed

**Key Types**

PPS 10.x can be licensed using a leased or computer locked license.

PPS 10.x cannot be licensed by an M7 hardware key.

**Americas Support – Technical and Commercial**

Phone: 1-888-565-4155 or 1-434-214-8532 (if toll free 800 option is unavailable)

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Email for Commercial Support: [customercare.mas@Emerson.com](mailto:customercare.mas@Emerson.com)

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Primary languages of support: Chinese, English

**Support Website:** [www.Emerson.com/IAC-Support](http://www.Emerson.com/IAC-Support)

**Home Website:** [www.Emerson.com/PACSystems](http://www.Emerson.com/PACSystems)

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