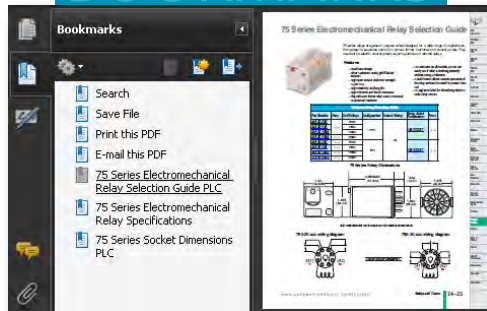


# Productivity<sup>®</sup>2000

## Programmable Controller



### BOOKMARKS



In this interactive PDF you can:

- Use bookmarks to navigate by product category
- Use bookmarks to save, search, print or e-mail the catalog section
- Click on part #s to link directly to our online store for current pricing, specs, stocking information and more

Up-to-date price list:  
[www.automationdirect.com/pricelist](http://www.automationdirect.com/pricelist)

FREE Technical Support:  
[www.automationdirect.com/support](http://www.automationdirect.com/support)

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Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity 2000

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

Appendix Book 1

Terms and Conditions



# We didn't invent the PLC, we made it affordable! 12 reasons you want ~~Productivity~~ **Productivity**<sup>2000</sup>.....

**NEED**

## 1 Our CPU is priced at \$255 . . . Theirs is priced at \$3,160!

The Productivity2000 PLC was designed in the USA to offer you the lowest cost of ownership in its class. Here's some proof. Compare our new P2000 PLC CPU (P2-550) to an Allen Bradley CompactLogix PLC CPU (1769-L33ER).

The \$3,160 (list price) Allen Bradley CPU offers 2MB of user memory, a 1GB SD card slot, three communications ports (Serial communication is extra!) and LED on/off CPU status indicators. Of course, you will also need to purchase programming software for the Allen Bradley CPU for \$837\* (list price for RSLogix 5000 Mini Edition).

The \$255 (everyday price) AutomationDirect P2-550 CPU offers 50MB of built-in memory, a removable micro SD card slot (up to 32GB of data storage and portable program downloads), 5 built-in communications ports, a high resolution display, and LED status indicators also. Our USA designed programming software (developed inhouse) is FREE with no annual licensing fees. Download as many copies as you want! Give it to your friends! You'll also get our FREE unlimited phone-in technical support which has received top service awards for the last 14 years in our industry.



AutomationDirect's Product Development team, in partnership with FACTS Engineering, one of our trusted PLC hardware suppliers for over 20 years, took advantage of years of combined experience in the North American controls market and engineered the Productivity2000's features to give you the best price/performance ratio we've offered to date.

CPU and I/O Comparison	AutomationDirect Productivity2000	US.	Allen-Bradley CompactLogix
Base (if required)	\$69.00 P2-04B		N/A
Power Supply	\$69.00 P2-01AC		\$414.50 1769-PA4
CPU	\$255.00 P2-550		\$3,160.00 1769-L33ER
16 AC Inputs	\$105.00 P2-16NA		\$286.00 1769-IA16
16 24VDC Inputs	\$69.00 P2-16NE3		\$244.00 1769-IO16
8 Relay Outputs	\$51.00 P2-08TRS		\$301.50 1769-OW8I
8 Analog Input Channels (mA)	\$199.00 P2-08AD-1		\$713.50 1769-IF8
ASCII Comm Module	\$0.00 Built in to CPU		\$737.00 1769-ASCI
Modbus RTU Comm Module	\$0.00 Built in to CPU		\$701.00 1769-SM2
Total System Price with USB, Ethernet and Serial	\$817.00		\$6557.50

All prices are U.S. published prices. AutomationDirect prices as of 6/3/2015. Allen-Bradley retail prices taken from www.plcsource.com 5/12/2015.

\$255 CPU includes FREE Software Unlimited copies

**5 COMM PORTS**

Ethernet  
Remote I/O  
USB  
RS-232  
RS-485

PLUS Built-in OLED Message Display



Competitor's CPU \$3,160 Software \$837\* (retail price) 1 copy

**3 COMM PORTS**

Ethernet (2)  
USB



## 2 5 built-in communication ports

Imagine the agony of shelling out \$3,160 for an Allen Bradley CompactLogix CPU and having to pay even more, up to \$1,438 more, for it to communicate with your existing serial devices!

With Productivity2000 you get 5 communications ports with 3 different protocols standard on every CPU.

RS-232, RS-485, Ethernet, Remote I/O, USB (programming) – Built in!

Modbus RTU, Modbus TCP/IP, Ethernet/IP – Included!

Need more serial connections? No problem, an optional 4 port serial communications module (\$165.00) is available if the need arises.

**Modbus® EtherNet/IP™**

Modbus® is a registered trademark of Schneider Electric, licensed to the Modbus Organization, Inc.

## 3 Messages displayed vs blinking lights



The analog and temperature modules for the P2000 have a built-in OLED display on the front of the module. Get accurate process variable data (current, voltage and temperature) as well as system diagnostics in real-time, just by reading the display on the Productivity2000 hardware. No tools required! No other PLC in its class has this feature. Check out the significantly higher priced Allen Bradley temperature (or analog) module with just a blinking light.



OLED DISPLAYS



## 5 Flexible Programming

The Productivity2000 is a tag name based controller which allows for more freedom and flexibility than fixed-memory controllers.

- Does your application need 2000 timers but only 15 counters? No problem!
- Or maybe it needs 4000 real numbers and only 30 integers? No problem!



What about connectivity? No problem there either, with P2000 you can choose to program via the Ethernet port or use the plug-and-play USB Port.



Need to incorporate an HMI/SCADA interface? Problem solved! Easily import your tag database into HMI/SCADA software such as Point of View, C-more and Datavox for trouble-free development.

Improved documentation, faster troubleshooting, reduced development time, easy setup and an overall better programming experience, all at an unbeatable price!

## 4 5 Minutes to set up a PID loop

Complex operations like PID loops are made effortless with Productivity Suite's easy-to-use instructions. Fill-in-the-blank, function block style configurations save you time and unnecessary headaches. With 50MB of user memory you can configure, tune and control as many processes as you need, without limits, and the integrated auto-tuning functionality will get you up and running in no time.





# We didn't invent the PLC, we made it affordable! 12 reasons you want ~~NEED~~ Productivity<sup>2000</sup>.....

## 6 Get started in seconds with auto-discovered I/O modules

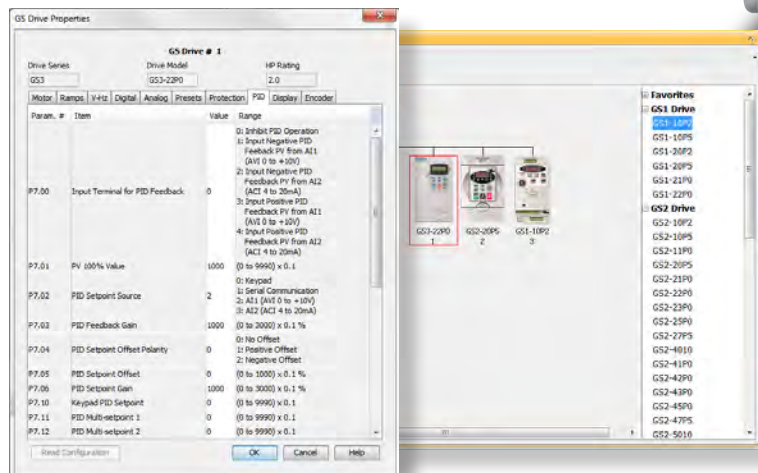
Simply clip each I/O module in the base and power up. The P2000 will automatically discover the modules and create a realistic picture of your configuration in the free Productivity Suite software. Physical I/O tags will be generated based on each module's position in the base and that's it! You are ready to program with the auto-configured settings just seconds after power-up or you can reconfigure the setup and assign new tags manually.



## 7 Hot-swappable I/O - keeps you up and running!

Avoid costly shutdowns, production losses and long start-up operations with Productivity2000 hot-swappable hardware.

## 8 VFDs can be set up in minutes with auto-discovery

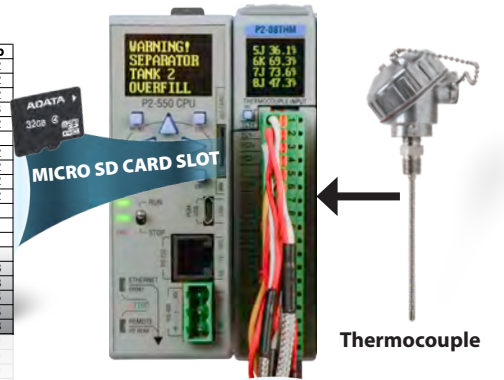


The Productivity2000 programming software is designed to recognize any AutomationDirect GS drive series. Simply connect the drive to the remote I/O port via the GS-EDRV100 and it is discovered in the Free Productivity Suite software. No more searching through drive manuals to find the parameter you need. Each parameter, with description, range, and value, is available in the software. These parameters can be read from, edited or written to the drive right from the Productivity Suite Hardware Configuration, making initial setup almost too easy! Store all of your drive parameters in the CPU for safekeeping and communicate to your drives with simple read/write instructions in the software. This can save you hours of time!

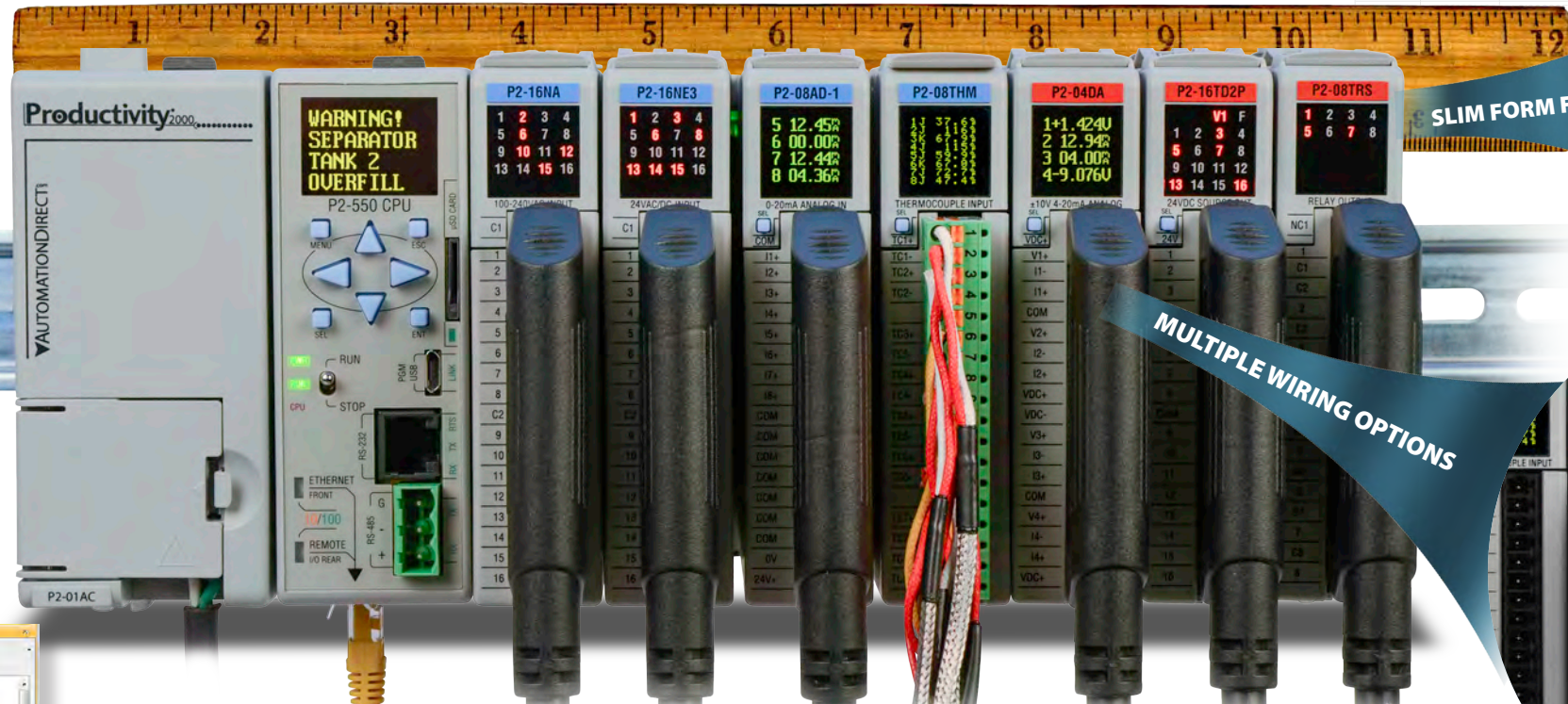
## 9 Built-in Data Logging

Track up to 64 tags at a time and save the data to the removable micro SD card stored in the CPU. Capture up to 32GB of data either periodically (minute, hour, day, week, etc.) or when certain events occur. Scheduling and setup is done with the easy-to-use Data Logger configuration tool in the software. Log tag data, system errors and system events which can be used to track efficiency and performance, troubleshoot recurring or intermittent faults, and predict future breakdowns.

Date	Time	Tank1 Temp
4/13/15	12:35:49.538	79.400002
4/13/15	12:35:50.467	79.400002
4/13/15	12:35:51.468	78.900002
4/13/15	12:35:52.468	78.800003
4/13/15	12:35:53.468	78.900002
4/13/15	12:35:54.468	79.5
4/13/15	12:35:55.468	79.400002
4/13/15	12:35:56.468	78.900002
4/13/15	12:35:57.468	78.900002
4/13/15	12:35:58.468	79.5
4/13/15	12:36:00.469	79.5
4/13/15	12:36:01.469	79.5
4/13/15	12:36:02.469	79
4/13/15	12:36:03.469	79.099998
4/13/15	12:36:04.469	79.099998
4/13/15	12:36:05.469	79.700005
4/13/15	12:36:06.470	79.700005
4/13/15	12:36:07.470	79.099998

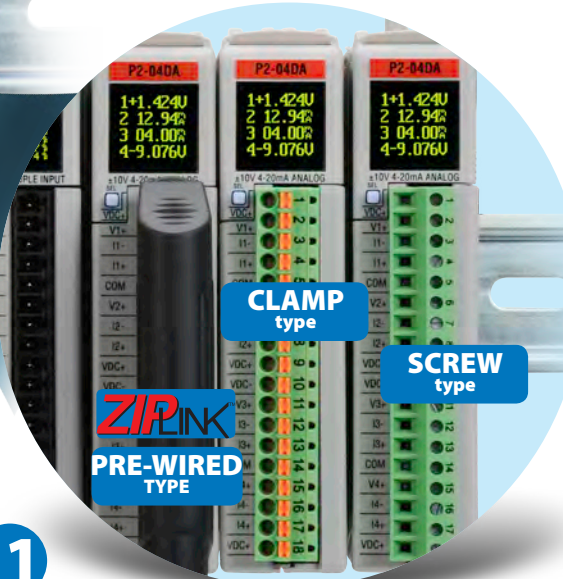


**10 Slim form factor = DIN rail density**  
Power supply, CPU and seven modules in only 10-1/2 inches!



SLIM FORM FACTOR

MULTIPLE WIRING OPTIONS



CLAMP type  
SCREW type

## 11 Choose the wiring option YOU prefer

Productivity2000 is all about productivity, even down to the wiring. Three wiring options are available to better serve the specific needs of your application.

Two terminal blocks, one screw type and one clamp type, are available, as well as our ZIPLink wiring system. Why spend the time wiring each I/O point to a terminal when you can get them prewired? ZIPLink pre-wired cables and terminals not only save you valuable time but also keep your installation clean and efficient, which helps when troubleshooting, and ZIPLink uses half the space at a fraction of the cost of standard terminal blocks. Simply snap the ZIPLink connector to the I/O module, connect your field wiring to the ZIPLink terminal and your wiring job is done.

## 12 Built-in Web Server

Access data files and system tags remotely from any web browser, anywhere! The secure login prevents unwanted access and helps to keep data safe.



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- ViewMarq Industrial Marquees
- Other HMI
- Communications
- Appendix Book 1
- Terms and Conditions



# Affordable hardware, small in size, rich on features

## Powerful CPU

The 50MB of memory and fast scan time is just for starters - this CPU does the work of at least four or five pieces of hardware compared to other controllers. With its five built-in communications ports, it does the usual CPU stuff like storing and running the program, plus -

- Plug-and-play USB programming (uses standard A-micro B cable)
- Tag database and program documentation storage in CPU (Program pre-loaded on PC not necessary)
- Supports five built-in communications ports simultaneously
- High-speed Ethernet port for HMI and peer-to-peer or business system networking (no Ethernet communications module needed)
- Support for EtherNet/IP devices
- Two serial ports for peripheral device interface or controller networking
- micro SD data logging right from the CPU

## PLC CPU with three built-in communications protocols

**P2-550: CPU module** – 50MB user memory, 5 communications ports including USB plug and play programming port, 3 communications protocols, 4 line by 10 character OLED diagnostic display, tag name based control with microSD data logging and project transfer. .... **\$255.00**

**P2-RS: Remote I/O** – Productivity2000 remote I/O expansion module, 4 x 10 character OLED display, (1) RS-232 (RJ12) port, (1) RS-485 (3-wire terminal block) port, (1) Ethernet (RJ45) port, (1) microB-USB port. .... **\$225.00**

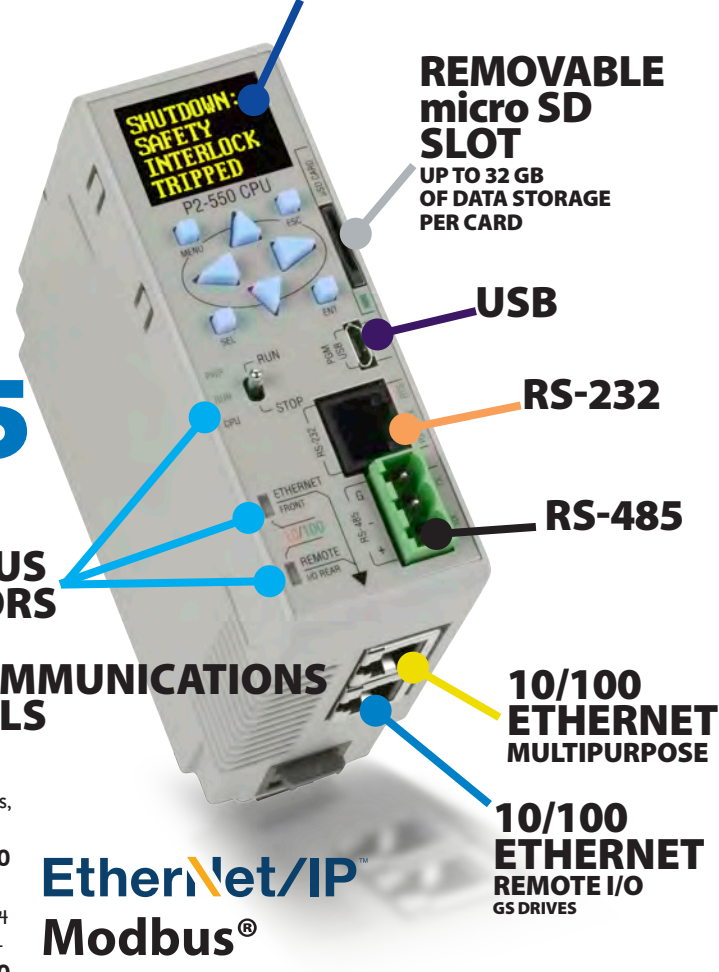
## HIGH RESOLUTION 4 LINE BY 10 CHARACTER OLED DIAGNOSTIC DISPLAY

## 50MB OF BUILT-IN MEMORY

**CPU ONLY \$255**

## LED STATUS INDICATORS

## THREE COMMUNICATIONS PROTOCOLS



**REMOVABLE micro SD SLOT**  
UP TO 32 GB OF DATA STORAGE PER CARD

**USB**

**RS-232**

**RS-485**

**10/100 ETHERNET MULTIPURPOSE**

**10/100 ETHERNET REMOTE I/O GS DRIVES**

**EtherNet/IP Modbus®**

See technical specification pages for more in-depth information on each I/O module

[www.Productivity2000.com](http://www.Productivity2000.com)

## Serial Communication: Up to 44 additional ports per system!

**P2-SCM: serial communications module.** Provides three RS-232 ports and one RS-485 port utilizing Modbus RTU Master/Slave, ASCII IN/OUT and custom protocol(s) at up to 38.4 kbaud. .... **\$165.00**



**Productivity<sup>®</sup>2000**

## Power Supply - Got to have it

- P2-01AC: 100-240 VAC base power supply**  
No power budgeting required, use any combination of I/O modules ..... **\$69.00**
- P2-01DCAC: 12-24 VDC, 24VAC base power supply**  
No power budgeting required, use any combination of I/O modules. .... **\$74.00**

## Discrete I/O: We've got you covered

- P2-08ND3: 8-point 12-24 VDC Sink/Source Input Module** ..... **\$46.00**
- P2-16ND3: 16-point 12-24 VDC Sink/Source Input Module** ..... **\$69.00**
- P2-08NE3: 8-point 24V AC/DC Sink/Source Input Module** .... **\$40.00**
- P2-16NE3: 16-point 24V AC/DC Sink/Source Input Module** .... **\$69.00**
- P2-32NE3: 32-point 24V AC/DC Sink/Source Input Module** .... **\$99.00**
- P2-08TD1P: 8-point 12-24VDC Sinking Output Module**  
(overload and short circuit protected) ..... **\$41.00**
- P2-08TD2P: 8-point 12-24VDC Sourcing Output Module**  
(overload and short circuit protected) ..... **\$41.00**
- P2-16TD1P: 16-point 12-24VDC Sinking Output Module**  
(overload and short circuit protected) ..... **\$69.00**
- P2-16TD2P: 16-point 12-24VDC Sourcing Output Module**  
(overload and short circuit protected) ..... **\$69.00**
- P2-16NA: 16-point 100-240VAC Input Module** ..... **\$105.00**
- P2-16TA: 16-point 100-240VAC Output Module** ..... **\$129.00**
- P2-08TRS: 8-point AC/DC Isolated Relay Output Module**  
(6.25-24VDC/6-120VAC) ..... **\$51.00**
- P2-16TR: 16-point AC/DC Relay Output Module**  
(6.25-24VDC/6-240VAC) ..... **\$95.00**

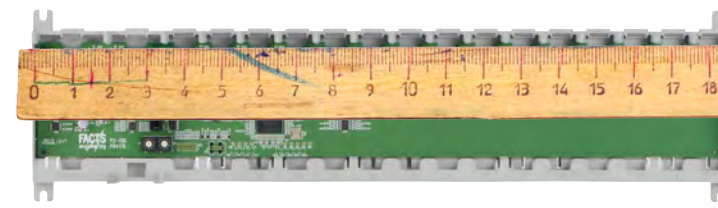
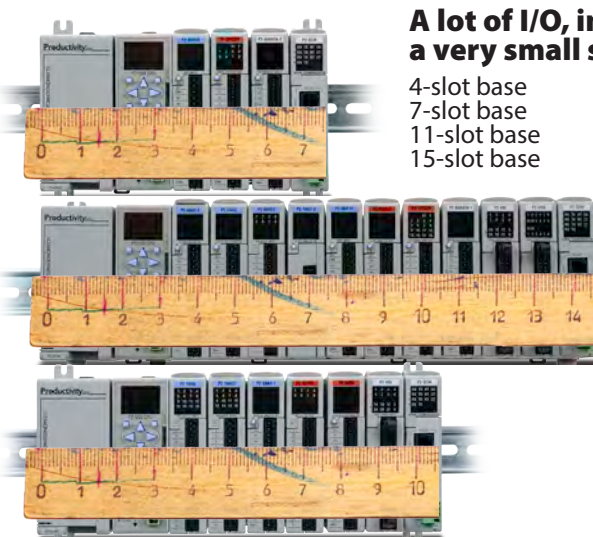


## A lot of I/O, in a very small space

4-slot base	7-1/2"
7-slot base	10-1/2"
11-slot base	14-1/2"
15-slot base	18-1/2"

## Bases: DIN rail or flush mounted

- P2-04B: 4-slot base** - Holds P2-01AC power supply, CPU and 4 I/O modules. .... **\$69.00**
- P2-07B: 7-slot base** - Holds P2-01AC power supply, CPU and 7 I/O modules. .... **\$99.00**
- P2-11B: 11-slot base** - Holds P2-01AC power supply, CPU and 11 I/O modules. .... **\$129.00**
- P2-15B: 15-slot base** - Holds P2-01AC power supply, CPU and 15 I/O modules. .... **\$155.00**



## Slim form factor = DIN rail density! POWER SUPPLY, CPU AND SEVEN MODULES IN ONLY 10-1/2"





# Incredible PLC Hardware at Unbelievable Prices!

## Actual data is better than a blinking light

Spend less time troubleshooting. Get instant, accurate process variable data (current, voltage and temperature) as well as system diagnostics in real-time with Productivity2000 hardware. No tools required!

*NOTE: 12- and 13-bit analog modules do not have OLED displays.*



### Analog I/O: Measure it, read it, monitor it!

- P2-04AD:** 4-channel, 16-bit, voltage/current Analog Input Module (+/- 5 VDC, +/- 10 VDC, 0-5 VDC, 0-10 VDC, 0-20 mA) ..... **\$195.00**
- P2-08AD-1:** 8-channel, 16-bit, current Analog Input Module (0-20 mA) ..... **\$199.00**
- P2-08AD-2:** 8-channel, 16-bit, voltage Analog Input Module (0-10 VDC) ..... **\$219.00**
- P2-08ADL-1:** 8-channel, 13-bit, current Analog Input Module (0-20 mA) ..... **\$143.00**
- P2-08ADL-2:** 8-channel, 13-bit, voltage Analog Input Module (0-10 VDC) ..... **\$157.50**
- P2-16AD-1:** 16-channel, 16-bit, current Analog Input Module (0-20 mA) ..... **\$249.00**
- P2-16AD-2:** 16-channel, 16-bit, voltage Analog Input Module (0-10 VDC) ..... **\$275.00**
- P2-16ADL-1:** 16-channel, 13-bit, low resolution Analog Input Module (0-20 mA) ..... **\$178.00**
- P2-16ADL-2:** 16-channel, 13-bit, low resolution Analog Input Module (0-10 VDC) ..... **\$196.00**
- P2-04DA:** 4-channel, 16-bit, voltage/current Analog Output Module (+/- 10 VDC, 4-20 mA) ..... **\$194.00**
- P2-08DA-1:** 8-channel, 16-bit, current Analog Output Module (4-20 mA) ..... **\$269.00**
- P2-08DA-2:** 8-channel, 16-bit, voltage Analog Output Module

- (+/- 10 VDC) ..... **\$249.00**
- P2-08DAL-1:** 8-channel, 12-bit, low resolution Analog Output Module (4-20 mA) ..... **\$202.00**
- P2-08DAL-2:** 8-channel, 12-bit, low resolution Analog Output Module (0-10 VDC) ..... **\$195.50**
- P2-16DA-1:** 16-channel, 16-bit, current Analog Output Module (4-20 mA) ..... **\$354.00**
- P2-16DA-2:** 16-channel, 16-bit, voltage Analog Output Module (+/- 10 VDC) ..... **\$339.00**
- P2-16DAL-1:** 16-channel, 12-bit low resolution Analog Output Module (4-20 mA) ..... **\$253.00**
- P2-16DAL-2:** 16-channel, 12-bit low resolution Analog Output Module (0-10 VDC) ..... **\$243.00**
- P2-8AD4DA-1:** 8-channel IN, 4-channel OUT, 16-bit, current Analog Combination Module (0-20 mA, 4-20 mA) ..... **\$310.00**
- P2-8AD4DA-2:** 8-channel IN, 4-channel OUT, 16-bit, voltage Analog Combination Module (0-5 VDC, 0-10 VDC, 0-5 VDC, 0-10 VDC) ..... **\$310.00**
- P2-08THM:** 8-channel, 16-bit, Thermocouple Input Module (thermocouple and millivolt) ..... **\$329.00**
- P2-06RTD:** 6-channel, 16-bit, RTD Input Module ..... **\$325.00**
- P2-08NTC:** 8-channel, 16-bit, Thermistor Input Module ..... **\$265.00**

### Support information at your fingertips!

Pull down the QR coded tab from the top of I/O module, and scan with your smart phone or tablet QR app to get the latest updated specifications for that module.

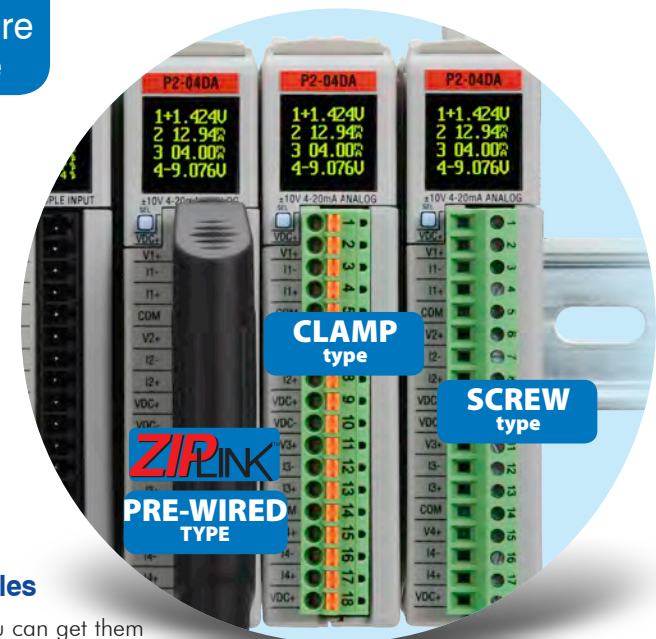


See technical specification pages for more in-depth information on each I/O module



### Choose the wiring option YOU prefer!

Productivity2000 is all about productivity, even down to the wiring. Three wiring options are available to better serve the specific needs of your application. Two terminal blocks, one screw type and one clamp type, are available, as well as our ZIPLink wiring system.



### ZIPLink Modules: Save time by using pre-wired cables

Why spend the time wiring each I/O point to a terminal when you can get them prewired? ZIPLink pre-wired cables and terminals not only save you valuable time but also keep your installation clean and efficient, which helps when troubleshooting, and ZIPLink uses half the space at a fraction of the cost of standard terminal blocks. Simply snap the ZIPLink connector to the I/O module connect your field wiring to the ZIPLink terminal and your wiring job is done.



For more information on ZIPLinks please see the Wiring Solutions section of our online catalog at [www.AutomationDirect.com/PDFcatalog](http://www.AutomationDirect.com/PDFcatalog)



### High Speed I/O: Motion for much less

- P2-HSI:** 2-channel, 1MHz High-Speed Counter Input Module with 5-24 VDC general purpose inputs/outputs ..... **\$195.00**
- P2-HSO:** 2-channel, 1MHz High-Speed Pulse Output Module with 5-24 VDC general purpose inputs/outputs ..... **\$195.00**

### Specialty I/O

- P2-08SIM:** 8-point Input Simulator Module with 8 hand-operated switches ..... **\$47.00**
- P2-FILL:** Filler Module for unused slot connections in base ..... **\$11.00**



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- C-More Micro HMI
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- Other HMI
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- Appendix Book 1
- Terms and Conditions





# AUTOMATIONDIRECT.com

## This ".com" is powered by ".awesomepeople"

Check us out for our prices, keep coming back for our service.

For over twenty years our sole focus has been customer service. That takes many forms: great prices, fast delivery, and quality products. But regardless of our product selection and other tangibles like pricing, the intangible value of customer service is something that cannot be faked, replaced by machinery or glossed over with a free lunch from a visiting sales rep.

Our team members here at AutomationDirect.com approach every day with this one goal in mind - serve the customer. It's a simple philosophy that many companies forget or make too complex and then fail at it. If the answer to any decision is "Yes, this is good for our customers", then we do it.

### It's that simple.

**"Should we have real upfront pricing online and realtime stock availability?"**  
Yes, this is good for our customers."

**"Should we have FREE tech support before, during, and after any sale instead of charging yearly fees for tech support?"**  
Yes, this is good for our customers."

**"Should we offer FREE software on many products instead of charging licensing fees?"**  
Yes, this is good for our customers."

**"Should we have all our documentation online for FREE so people can access anytime, even before they choose to purchase?"**  
Yes, this is good for our customers."

**"Should we offer more selection by consistently introducing more new quality products with great prices monthly, sometimes weekly?"**  
Yes, this is good for our customers."

**"Should we offer FREE shipping for orders over \$49?"**  
Yes, this is good for our customers."

**"Should we be fiscally responsible and run an efficient business so customers can rely on us decade after decade after decade?"**  
Yes, this is good for our customers."

All these are discussions we've had internally and all have had certain aspects of "can we do that?," "that will be hard to accomplish," "no one else is doing that, how can we?." But if you bring it back to the simple answer, "Yes, this is good for our customers", then the perceived obstacles really don't matter.

Our company has evolved dramatically since 1994 and it's this type of decision making by all our team members over the years that keeps our customers coming back and new customers checking us out daily.

If you're a current customer, we sincerely thank you for your business. We wouldn't be here if it wasn't for you and promise to do our best for you every day. If you're new and checking us out for the first time, we hope you give us an opportunity to serve you.

Voted #1 in service since 2001:  
[www.automationdirect.com/awards](http://www.automationdirect.com/awards)

Voted #1 mid-size company to work for in Atlanta:  
[www.automationdirect.com/workplace](http://www.automationdirect.com/workplace)

What our current customers think:  
[www.automationdirect.com/reviews](http://www.automationdirect.com/reviews)



# Fast Programming with FREE software!

## Productivity<sup>2000</sup>

### Developed inhouse with customer feedback

Productivity Suite is our FREE programing software for the Productivity2000. Our own engineers developed this software at our headquarters near Atlanta, Ga. It was designed with input from our technical service team who communicate on a daily basis with our customers. As a result, Productivity Suite was built to meet the needs of our customers and it provides a quick, user-friendly way to program our Productivity family of PLCs. Based on customer feedback we have continually improved our software since its first release. Now Productivity Suite is even better with numerous features added to make your Productivity2000 programming even more productive.



Download as much as you need. No license or key needed

### FREE Software!

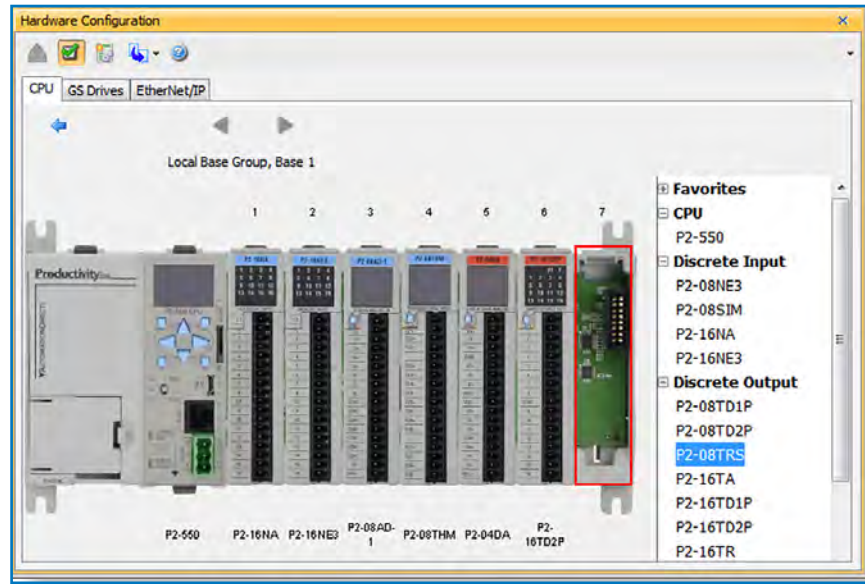
That's right, it's FREE! Get all of the benefits without any extra cost. Forget licenses or licensing fees, download the software to as many PCs as needed or take it for a test drive and try it before you buy it. After all, you bought the controller, why pay more to control it?

Compare our FREE price to the \$837\* retail price of the RSLogix 5000 Enterprise Series software (Mini Edition) used with the \$3,160\* Allen Bradley CompactLogix PLC CPU (1769-L33ER).

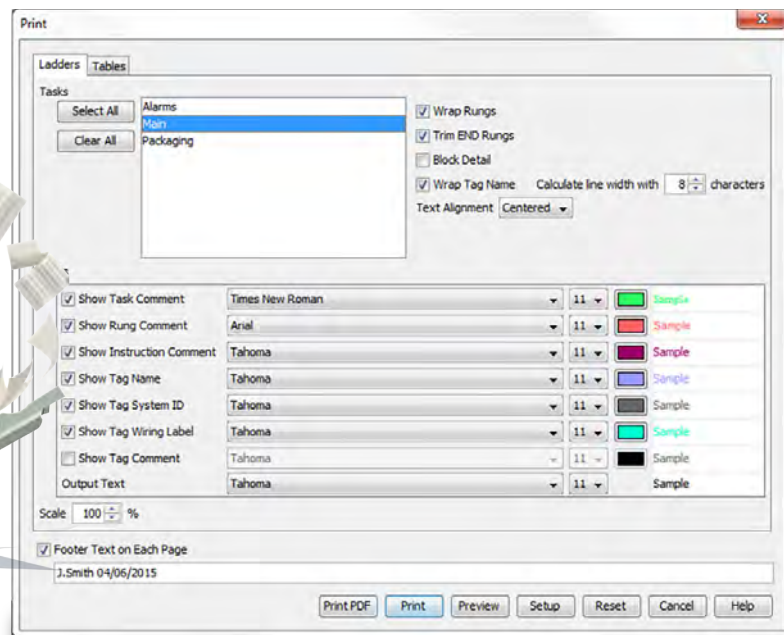


### More Print Options . . . because more is better!

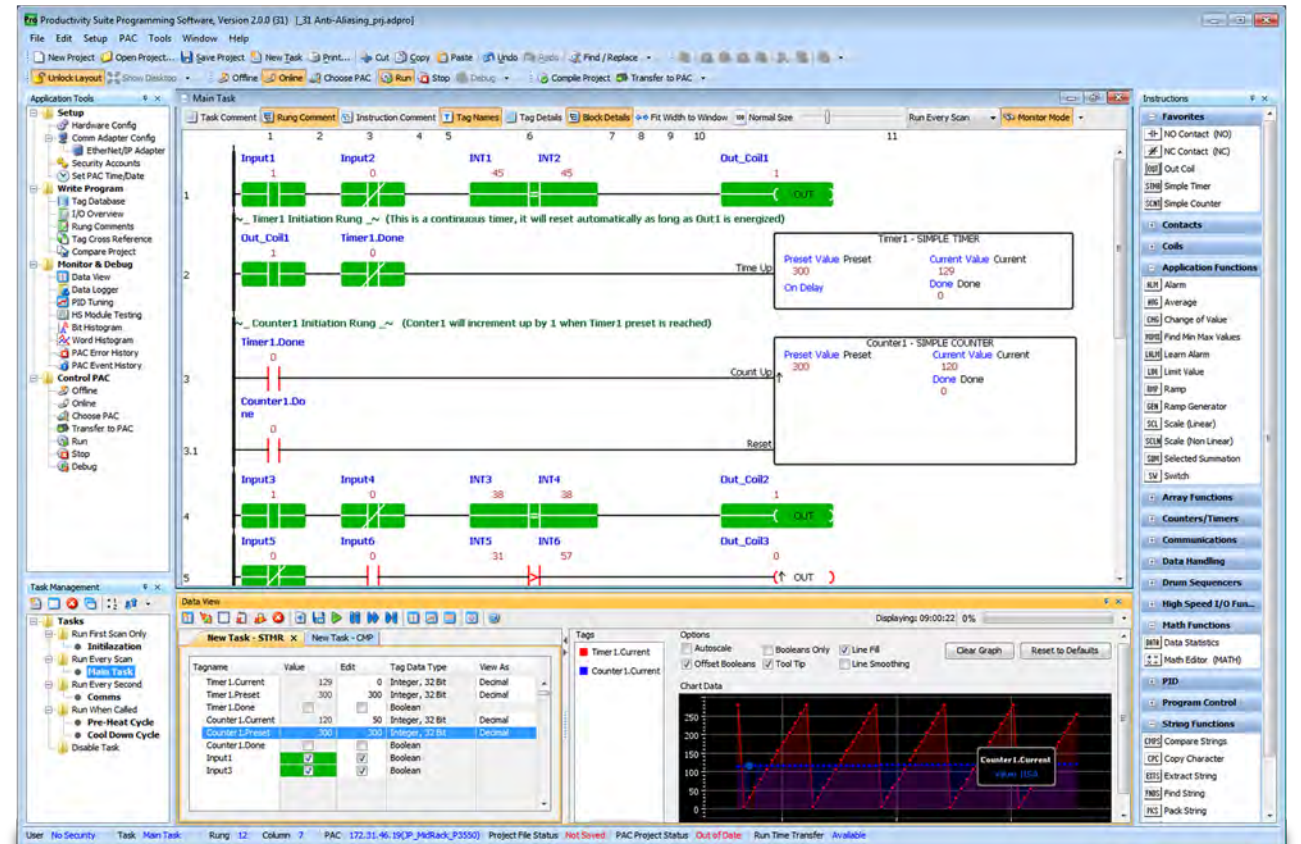
Optimize your print layouts with new print options. Rung/tag name wrapping, END rung trimming, fully customizable fonts and print to PDF options give you more flexibility than ever before.



[www.Productivity2000.com](http://www.Productivity2000.com)



# Software that is Developed and Supported in the USA



### Program your way! Tag Name Based Control that's powerful and easy to use

Don't let your controller control you. With Productivity2000 you have the freedom to define user tags with no limits or fixed boundaries. Configure timers, counters, integer words or any other data types you decide on. With tag name based programming, there are no pre-defined, fixed memory maps and no wasted, unused memory allocations.

Tag name based control also offers the ability to descriptively identify the tags in your program. Older, fixed memory controllers force the use of pre-defined nomenclature for the data types. Which would you rather see when troubleshooting: T4:01 or Oven1 Purge Timer.Pre? The tag name helps identify the element as a numeric value for the oven purge timer's preset, making its purpose immediately clear.

In addition, the tag database format of the Productivity2000 can be easily shared between other tag name-based systems. HMI, SCADA and data logging devices with tag name based software can be configured with ease by simply exporting the tag database from P2000 and importing it directly into these devices.

[www.Productivity2000.com](http://www.Productivity2000.com)



Download as often as you need. No license or key needed. Check it out.

\* AB hardware retail prices from [www.plccenter.com](http://www.plccenter.com) 4/17/15  
 \* AB software price from [www.plchardware.com](http://www.plchardware.com) 4/17/15



# FREE Software that makes your job easier!

# Software that is Developed and Supported in the USA



The following table shows the modules that will be converted or deleted from the configuration.

**Note:** New module column lists the direct conversion. If a row is highlighted, the module has no direct conversion and will be removed from the configuration.

**Note:** After converting, you can manually add or discover new modules in the configuration and reassign those tags for the new modules.

**Note:** Tags assigned to the deleted modules will be:

- Deleted by default if they are not marked as "In Use",
- Converted to internal tags renamed with the prefix "Was\_" if they have default names, or unchanged if they have custom names, and they are marked "In Use".

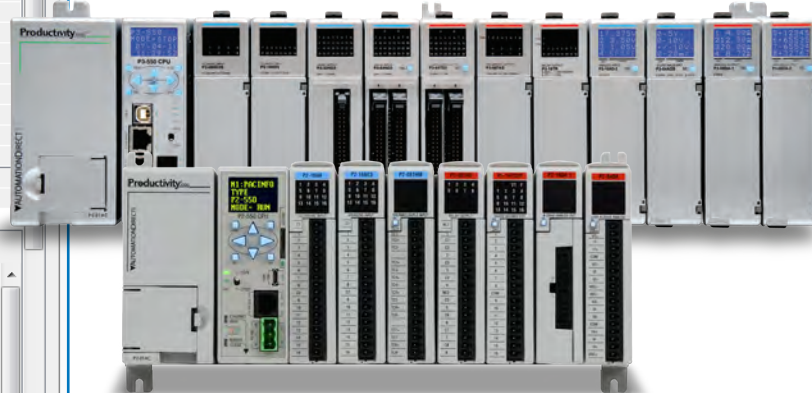
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0	1	0	P3-550	P2-550		<input checked="" type="checkbox"/>																																																							
<table border="1"> <thead> <tr> <th>Current Tagname</th> <th>I/O Address</th> <th>New Tagname</th> <th>In Use</th> <th>Delete</th> </tr> </thead> <tbody> <tr><td>MST-0.0.0.1</td><td>MST-0.0.0.1</td><td>MST-0.0.0.1</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.2</td><td>MST-0.0.0.2</td><td>MST-0.0.0.2</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.3</td><td>MST-0.0.0.3</td><td>MST-0.0.0.3</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.33</td><td>MST-0.0.0.33</td><td>MST-0.0.0.33</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.34</td><td>MST-0.0.0.34</td><td>MST-0.0.0.34</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.35</td><td>MST-0.0.0.35</td><td>MST-0.0.0.35</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.65</td><td>MST-0.0.0.65</td><td>MST-0.0.0.65</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.66</td><td>MST-0.0.0.66</td><td>MST-0.0.0.66</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>MST-0.0.0.67</td><td>MST-0.0.0.67</td><td>MST-0.0.0.67</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </tbody> </table>							Current Tagname	I/O Address	New Tagname	In Use	Delete	MST-0.0.0.1	MST-0.0.0.1	MST-0.0.0.1	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.2	MST-0.0.0.2	MST-0.0.0.2	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.3	MST-0.0.0.3	MST-0.0.0.3	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.33	MST-0.0.0.33	MST-0.0.0.33	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.34	MST-0.0.0.34	MST-0.0.0.34	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.35	MST-0.0.0.35	MST-0.0.0.35	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.65	MST-0.0.0.65	MST-0.0.0.65	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.66	MST-0.0.0.66	MST-0.0.0.66	<input type="checkbox"/>	<input type="checkbox"/>	MST-0.0.0.67	MST-0.0.0.67	MST-0.0.0.67	<input type="checkbox"/>	<input type="checkbox"/>					
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0	1	3	P3-08AD	<To Be Removed>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																							
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Select OK to convert and delete the modules, or Cancel to quit.

OK Cancel Help

## Easy Project Conversion

Productivity Suite software was designed to work with any controller in the Productivity series. Easily convert existing projects from Productivity3000 to Productivity2000 or vice versa using the integrated conversion utility.



Point	User Tagname	New I/O Tag
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

## Tag I/O Reassignment saves you time, and time is money

Start programming now! Tag I/O reassignment allows you the freedom to develop your code now and assign your I/O later. Create your user tags offline and swap them out for the default tags once the hardware is available.

## New Graphical I/O View

The new I/O View gives you a quick and friendly way to monitor all hardware points in a system. Force discrete points on and off or edit raw analog values easily with this tool.

## Pre-defined Structures make programming automatic

Take the work out of tag creation. With instructions requiring multiple tags, Productivity Suite now offers pre-configured tag structures. Simply give the instruction a common tag name and the defined suffixes will be added automatically.

## Helpful Favorite Instructions List

Speed up your programming time by placing your most commonly used instructions in your Favorites list, where they are readily available and easily accessible.

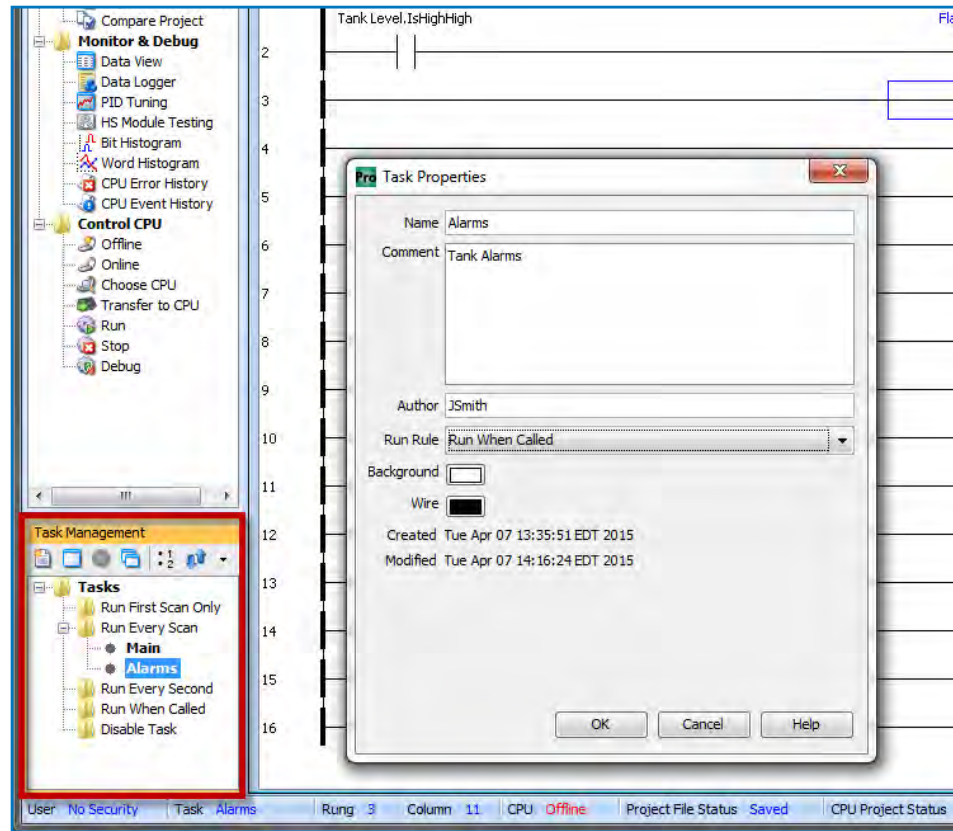
Company Information  
Control Systems Overview  
CLICK PLC  
Do-More PLCs Overview  
Do-More H2 PLC  
Do-More T1H PLC  
DirectLOGIC PLCs Overview  
DirectLOGIC DL05/06  
DirectLOGIC DL105  
DirectLOGIC DL205  
DirectLOGIC DL305  
DirectLOGIC DL405  
Productivity 2000  
Productivity 3000  
Universal Field I/O  
Software  
C-More HMI  
C-More Micro HMI  
ViewMarq Industrial Marquees  
Other HMI  
Communications  
Appendix Book 1  
Terms and Conditions



# FREE Software that makes you more efficient!

## Task Management Options for increased efficiency

The Task Manager helps organize and execute program code for maximum speed and efficiency. Create functional tasks, name them, and schedule their execution frequency - every scan, every second, or when called.



# Software that is Developed and Supported in the USA



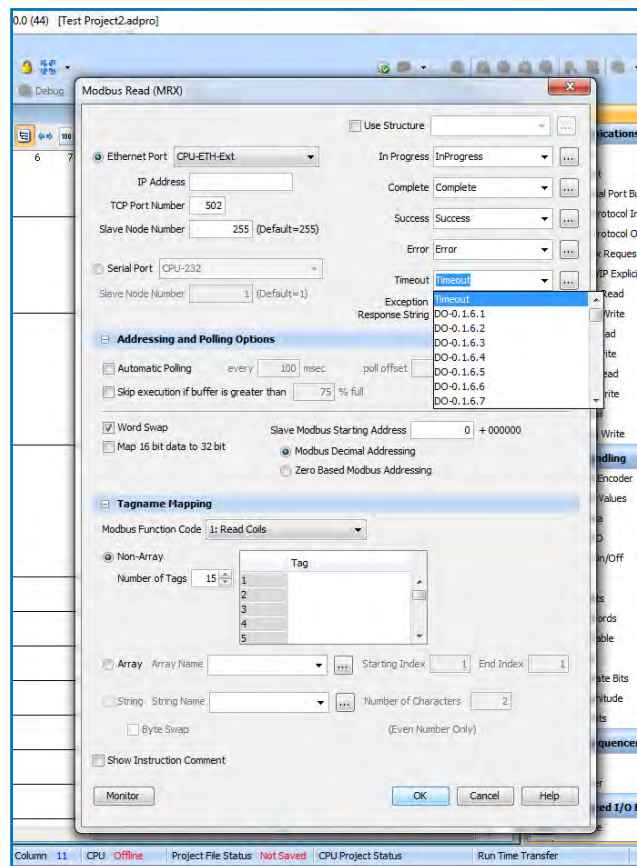
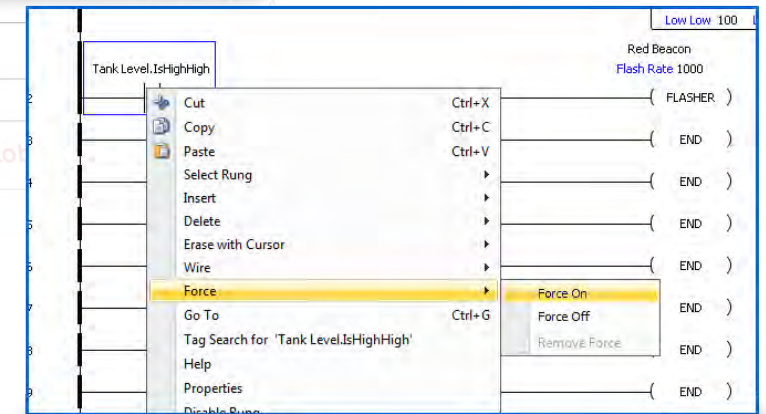
## Drag and Drop Instructions for added ease of use

Now it's easier than ever to move or copy instructions within the ladder editor window. Moving an instruction is a simple drag and drop, any broken rungs will be repaired automatically, or hold Control while you drag and drop to create a complete copy. It's that easy!



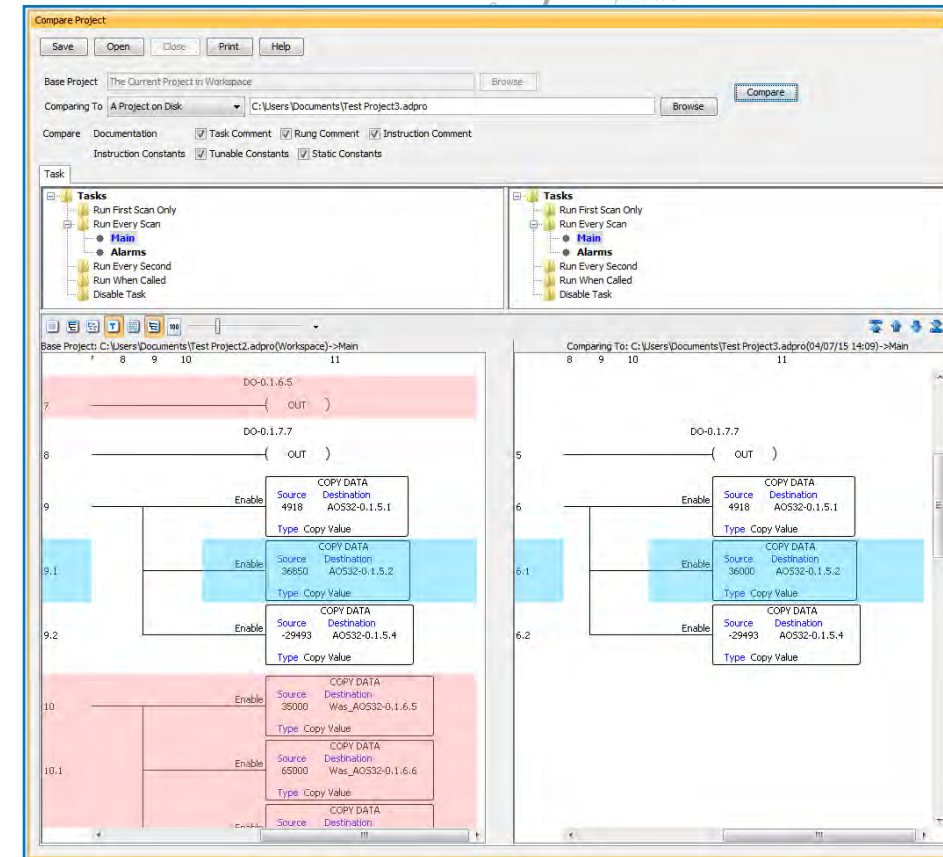
## Force from Ladder functionality

Turn forcing on or off right from the ladder view. Right click any contact or coil in the rung and turn the force on, off or remove the force all together.



## Convenient Fill-in-the-Blank Style Function Blocks

Math, PID, array, communication, data handling, high speed and application function blocks are available and easily configured with user friendly selections.



## Project Compare ... go online with confidence

Unequal Code? Find out why with the Productivity Suite's new Compare Project function. Perform project-to-project comparisons and get detailed information on the differences.



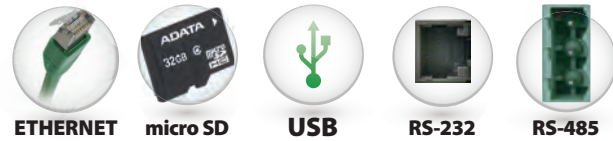
# We make PLC communication affordable!

## 5 built-in Communications Ports and 3 Protocols including Ethernet/IP!

We offer the lowest cost of ownership when it comes to communication. The Productivity2000 P2-550 CPU comes standard with 5 built-in communications ports including Ethernet, USB and Serial and support for 3 communications protocols including Ethernet/IP, Modbus TCP and Modbus RTU, all for just \$255. Compare this to the \$3,160 list price of the Allen Bradley CompactLogix PLC CPU (1769-L33ER) which only offers three built-in communications ports, none of which support basic serial communication. Are you getting what you paid for?

[www.Productivity2000.com](http://www.Productivity2000.com)

# Productivity<sup>2000</sup>



## EtherNet/IP<sup>™</sup> Modbus<sup>®</sup> Built-in Ethernet on the CPU has got you covered!

The Productivity2000 CPU comes standard with the #1 and #2 industrial Ethernet protocols. Modbus TCP and EtherNet/IP make up about 85% of the market and are a must for any up-to-date networked control system. With P2000, you get:

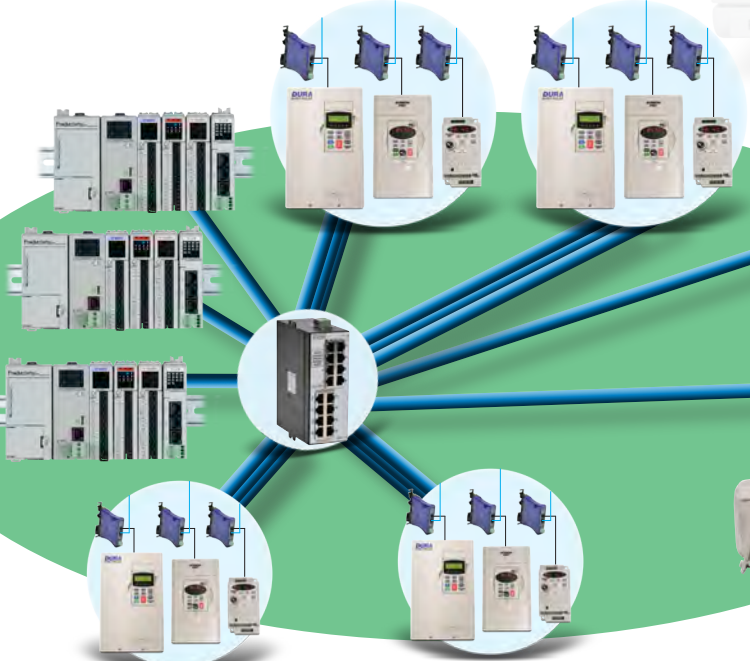
### Two Ethernet ports on bottom of CPU:

Front 10/100Mbps multipurpose Ethernet port used for programming, monitoring, firmware upgrades and the following client/server connections:

- 32 Modbus TCP Client connections (CPU Master)
- 16 Modbus TCP Server connections (CPU Slave)
- 32 EtherNet/IP Adapters connections (CPU Master)
- 4 EtherNet/IP Scanners connections (CPU Slave)

A total of 128 EtherNet/IP connections and over 5000 EtherNet/IP messages per second!

Rear 10/100Mbps Ethernet port supports up to 16 GS1, GS2, or Durapulse (GS3) variable frequency drive connections and 8 remote I/O bases.



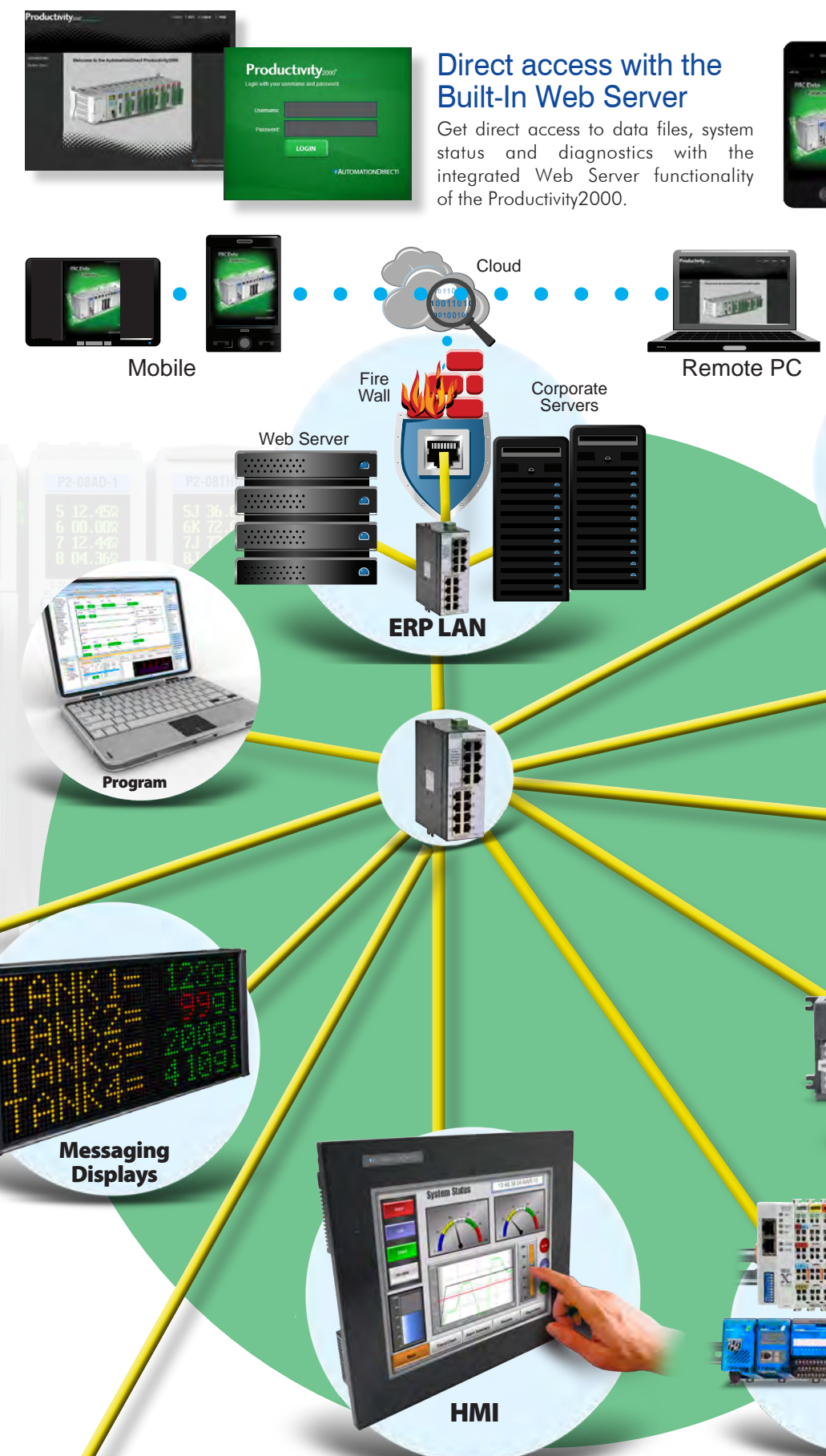
Add up to 16 GS Series drives and up to 8 remote I/O bases

## Direct access with the Built-In Web Server

Get direct access to data files, system status and diagnostics with the integrated Web Server functionality of the Productivity2000.



**PLUS!**  
FREE PACData Mobile App for iOS Devices.  
Monitor your process anytime, from anywhere.



- Company Information
- Control Systems Overview
- CLICK PLC
- Do-More PLCs Overview
- Do-More H2 PLC
- Do-More T1H PLC
- DirectLOGIC PLCs Overview
- DirectLOGIC DL05/06
- DirectLOGIC DL105
- DirectLOGIC DL205
- DirectLOGIC DL305
- DirectLOGIC DL405
- Productivity 2000
- Productivity 3000
- Universal Field I/O
- Software
- C-More HMI
- C-More Micro HMI
- ViewMarq Industrial Marquees
- Other HMI
- Communications
- Appendix Book 1
- Terms and Conditions



# We make PLC communication affordable!

## Got Serial? Get Connected for Less with the Productivity2000

Let's face it, serial communication has been around forever and to this day is still a viable communication method. Although Ethernet communication has made a strong push into the industrial automation market, serial communication is still very reliable and inexpensive to design into a device. For those serial connections, the P2-550 CPU provides two serial communications ports, and the P2-SCM module with 4 serial ports is available if you need more.



RS-232



RS-485

### Two Serial Ports included in CPU

Two serial ports are included on the P2-550 CPU for communication to peripheral devices:

- (1) RJ12 (6P6C) port for RS-232 devices
- (1) 3-wire screw terminal for RS-485 multi-drop devices

These ports provide Modbus RTU Master/Slave capability, ASCII In and Out capability and Custom Protocol over Serial capability. The RS-485 port can support up to 50 multi-drop devices (more if repeater is added to network).



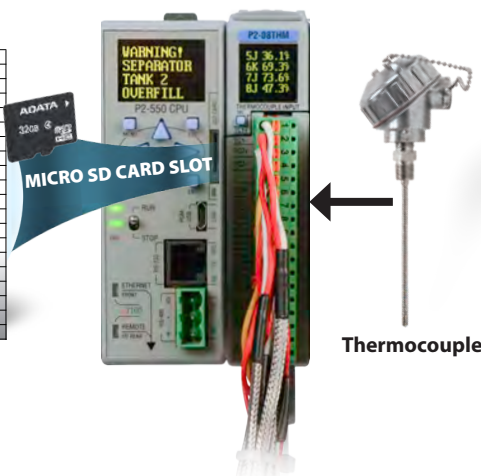
micro SD

### Removable micro SD Card Slot for Easy Data Logging and Project Transfers

Providing up to 32GB of data logging capacity, the micro SD card slot accepts a standard micro SD card. Logged data can be easily uploaded to your PC, or with the integrated Web server you can access the data file on the card via a standard Web browser.

The micro SD card can also be used as an alternate method of transferring projects to/from the P2-550 CPU. Once enabled in the software, project transfer can be completed with a few simple steps using the OLED display and keypad.

Date	Time	Tank1Temp
4/13/15	12:35:49.538	79.400002
4/13/15	12:35:50.467	79.400002
4/13/15	12:35:51.468	78.900002
4/13/15	12:35:52.468	78.800003
4/13/15	12:35:53.468	78.900002
4/13/15	12:35:54.468	79.5
4/13/15	12:35:55.468	79.400002
4/13/15	12:35:56.468	78.900002
4/13/15	12:35:57.468	78.900002
4/13/15	12:35:58.468	78.900002
4/13/15	12:35:59.469	79.5
4/13/15	12:36:00.469	79.5
4/13/15	12:36:01.469	79.5
4/13/15	12:36:02.469	79
4/13/15	12:36:03.469	79.099998
4/13/15	12:36:04.469	79.099998
4/13/15	12:36:05.469	79.700005
4/13/15	12:36:06.470	79.700005
4/13/15	12:36:07.470	79.099998



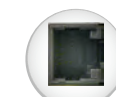
USB

### Plug-n-Play USB Programming

Don't waste any more time configuring baud rates, parities or pinging unrecognized controllers.

Program, monitor or even upgrade your firmware through the plug-and-play micro USB port of the Productivity2000 CPU. This port requires no configuration, no expensive programming cable, no additional software, no frustration and is up and running in no time.

# Need even more serial communications?



RS-232



RS-485



RS-232



RS-485



RS-232



RS-485

Up to 11 P2-SCM serial communication modules per system



## Up to 46 Serial Ports per System!

Serial communication has its limitations. RS-232 is a point-to-point protocol, meaning that you're typically talking to one device from that port. In applications with many serial devices talking to the control system through RS-232 communication, a lot of serial ports will be consumed and very quickly.

With the Productivity2000 you can have up to 11 of the 4-port P2-SCM serial communications modules per system. Each module has 3 RS-232 ports and 1 multi-drop RS-485 port. This gives you an additional 44 serial ports, 46 total with the CPU, for any given system or application.

## Serial Protocols that every system should have...

The Productivity2000 supports Modbus RTU Master/Slave connections, full-duplex ASCII and even a full-duplex Custom protocol.

- Modbus RTU is by far the #1 serial protocol in our industry. Supporting both Master and Slave Modbus RTU connections allows the P2000 to communicate with numerous devices such as operator interface panels and message displays, drives, temperature and process controllers, steppers, servos, and many more.
- Full-duplex ASCII is very common and is used in devices that send and receive non-sequence string data. Bar code scanners, weight scales and printers are a few devices that regularly use ASCII communication.
- The full-duplex Custom protocol capability allows for instances where the end device communicates with a protocol that is uncommon. Using the CPI/CPO instruction in ladder, you can manually configure and send/receive protocol packets to/from the controller.





# You're halfway done once you open the box!



Download as much as you need. No license or key needed

## Don't wait. Get started now for FREE!

The Productivity Suite programming software is available for download free of charge at [www.productivity2000.com](http://www.productivity2000.com). Take it for a test drive before you buy or get started on your project immediately after. There are no licensing fees or maintenance charges to be concerned with and any subsequent upgrades are available for free download as well. If you need assistance, the embedded help file contains detailed information on over 260 topics, check out our instructional videos at <http://www.automationdirect.com/videos> or give us a call at 770-844-4200, we are here to help.

## No Restarting Required

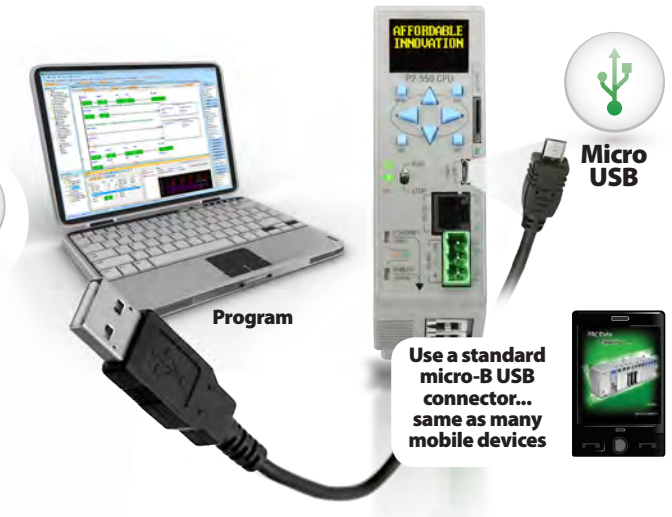
Don't get bogged down with countless software updates, time-consuming reboots, flashing hardware revisions, and making sure all versions are properly matched. Out of the box your P2000 system is compatible and ready to program.



## Productivity<sup>2000</sup>



**Productivity2000  
P2-START**  
EVERYTHING YOU NEED  
TO GET STARTED  
**ONLY \$549**



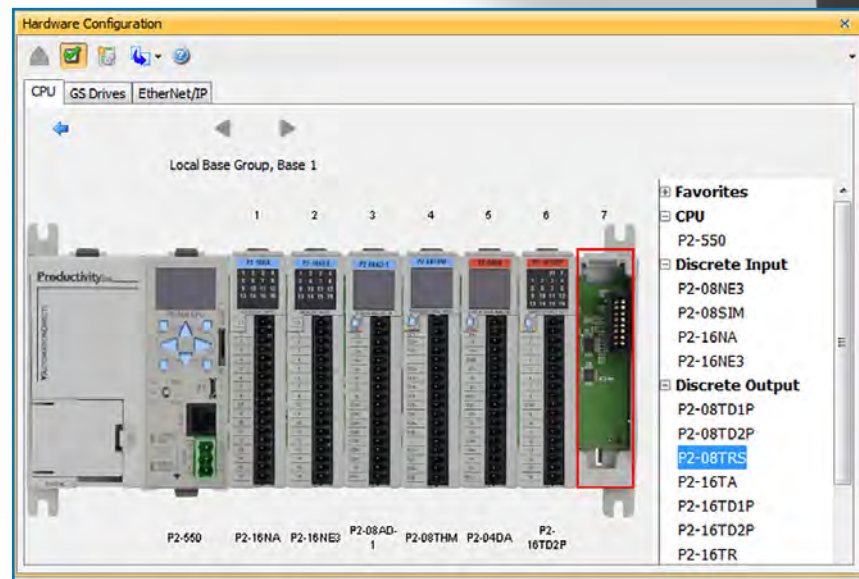
Use a standard micro-B USB connector... same as many mobile devices

## Instantly Connected

With the micro USB port of the P2-550 CPU, getting connected to your PC for programming is a snap. This default programming and monitoring port requires no configuration, just PLUG it in and you are ready to PLAY.

And because we use a standard non-proprietary micro USB connector, locating a programming cable is always easy. There are no custom cables required, all that is needed is a standard A USB connector (for the PC side) and a standard micro-B USB connector for the CPU. This type of cable is very common with today's mobile devices and can be found in a variety of retail locations. However, we do offer both a 6' and 15' programming cable (USB-CBL-AMICB6 and USB-CBL-AMICB15 respectively) that you can purchase from our website ([www.automationdirect.com](http://www.automationdirect.com)) if needed.

[www.Productivity2000.com](http://www.Productivity2000.com)



## Timesaving Hardware Configuration

Save precious time with the auto-discovered hardware configuration. Connect your programming software to the CPU and simply select "Read CPU Configuration" to view all the connected Productivity2000 hardware. I/O tags will be automatically generated for each module and both tags and hardware can be edited manually.



## What's in the Starter Kit?

- (1) P2-550 CPU
- (1) P2-04B 4-slot base
- (1) P2-01AC power supply
- (1) P2-08SIM input simulator module
- (1) P2-08TRS relay output module
- (2) P2-FILL slot filler modules
- (1) P2-RTB screw type terminal block
- (1) P2-RTB-1 spring clamp terminal block
- (1) ZL-P2-CBL18 ZIPLink cable
- (1) ZL-RTB20 ZIPLink feedthrough connector module
- (1) USB-CBL-AMICB6 programming cable
- (1) P2-USER-M manual
- (1) PS-PGMSW software CD-ROM
- (1) MICSD-16G microSD memory card
- (1) mini torque screw driver
- (1) 3-wire power cable
- (1) 30-day FREE ICA training certificate
- (1) Product inserts for Productivity2000 hardware items



## P2-START



# Get what you need, before you need it!

Productivity Suite was designed with many features intended to work hand-in-hand with certain field devices and third party software. This level of integration gives us a clear advantage over many other programmable controllers and is intended to help with system development.

## Auto-Discover GS Series Drives

When connected to the CPU's Remote I/O port via the GS-EDRV100 serial to Ethernet converter, these drives are auto-discovered in the controller's hardware configuration. All drive parameters can then be edited from within the Productivity Suite software. The system can also be configured to write these parameters to the drive with each program transfer, making troubleshooting and replacement in the field a cinch!

## Auto-Discover Remote I/O Bases

Any base connected to the CPU's Remote I/O port will automatically be added to the hardware configuration when you read the system configuration.

### GS Series Drives (with GS-EDRV100 Ethernet interface)



Auto-Discovered



See for yourself! Scan the QR code below.

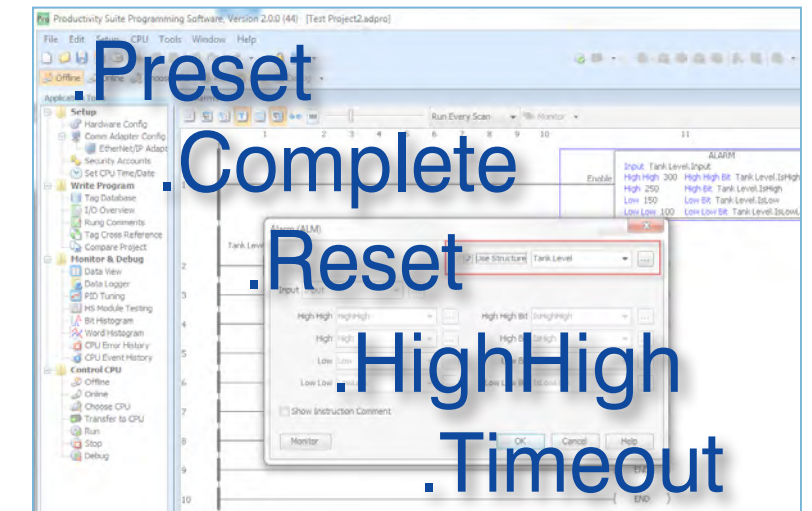
## Designed to get it .DONE

When time is critical and deadlines are fast approaching, Pre-defined Structures can be a lifesaver. Quickly and easily create tag names on the fly with the click of the mouse. Simply check the "Use Structure" box in most instructions, assign a relevant name to the instruction, and pre-defined suffixes (.done, .preset, .equal, etc.) will populate the required fields.

Save a tremendous amount of programming time and standardize your naming conventions with these auto-assigned tags.

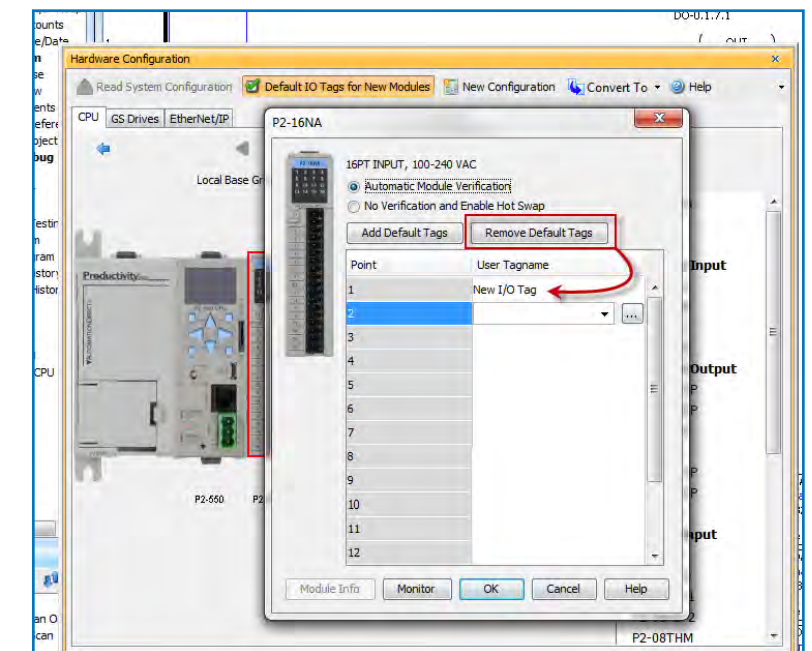
## The RIGHT information...RIGHT now!

Don't waste time searching for misplaced wiring diagrams, spec sheets or assembly instructions any longer. The Productivity2000 comes with this information built in using QR code technology. These bar codes are printed on a drop down tab mounted on each I/O module. Scan these codes with a QR code reader installed on your Internet-connected mobile device for instant access to the documentation for that module. Just one more way Productivity2000 delivers unmatched convenience when you need it most.



## Get a Head Start with Tag I/O Reassignment

Not sure exactly how many I/O modules you'll need? Don't let that stop you. Begin your program development now and assign the required I/O points later. With the Tag I/O reassignment feature, you can do just that. Start coding with internal tags then assign those tags to your real I/O points when you are certain. Or easily reassign I/O tags to a different module if your I/O configuration changes. With Tag I/O reassignment you can start fast and program worry free!



ViewMarq LED Message Displays

## ViewMarq Displays

The integrated VMW function block instruction was created specifically for communication with ViewMarq message displays. This instruction provides all the needed parameters and even simplifies string creation by allowing you to copy and paste data from the ViewMarq configuration utility.



GS Drives

SureServo

Built-in Instructions



EtherNet/IP devices



SureStep

## EtherNet/IP Devices

Easy-to-use scanner and adapter configuration windows, as well as an EMSG function block instruction for Explicit Message setup and control.

## Serial & Ethernet MODBUS devices

### Modbus Devices

When talking to Modbus devices over serial or Ethernet, the Modbus Read (MRX) and Modbus Write (MWX) instructions make it easy to get connected.



C-more HMI Touch Screen



KepDirect OPC Server

Shared Tag name database



Point-of-View PC HMI/SCADA



## DataWorx P3K

### DataWorx Database

When you need to exchange data with an SQL or MS Access database, the built-in DataWorx Request software instruction gives you the tools you need to interface with the DataWorx server. Retrieve, add, delete or update data records in the chosen database. For database software go to [www.bizwaredirect.com](http://www.bizwaredirect.com).





# Keep the UP in Startup...

## Productivity<sup>2000</sup>



### Save valuable time with built-in OLED message displays

The standard OLED message display on the P2-550 CPU gives you instant status on your controller and can be configured for system fault detection. CPU event and error messages are automatically displayed and you can use the LCD instruction to send custom messages from ladder code based on the conditions you specify. Use the keypad to navigate the display menu and view the controller's current firmware revision, Ethernet IP address, system configuration or error history. This valuable data is easily accessible in the field which can greatly reduce downtime or keep your startup on schedule.

### Convenient QR Codes

When your system is down and the pressure is on, don't waste precious time searching for needed documents. Get wiring diagrams, installation instructions and specifications simply by scanning the drop-down QR code tab on each Productivity2000 I/O module.



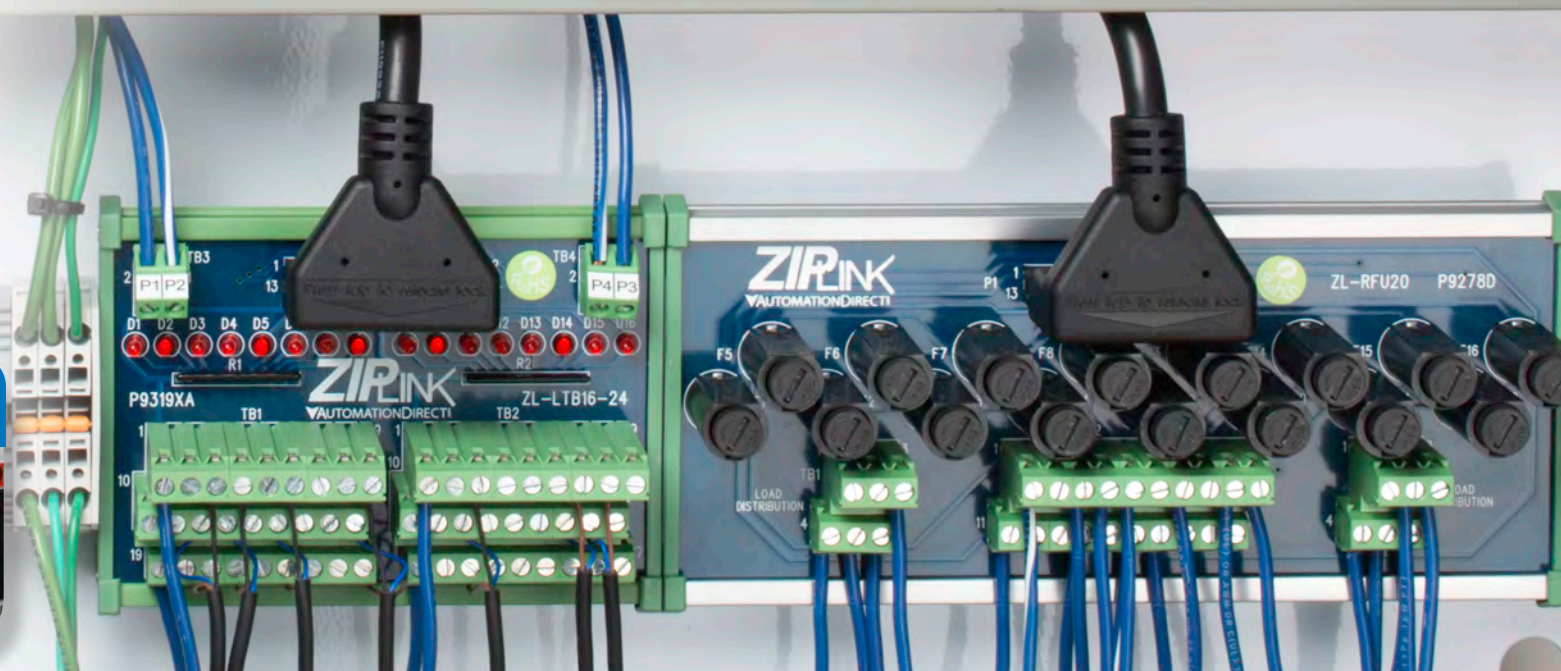
OLED displays



QR Codes on I/O - all specs are at your finger tips



See for yourself!  
Scan the QR code below.



Don't forget we offer **FREE 2-day shipping** and a **30-day money back guarantee** for any of those last-minute modifications.



- Company Information
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- Do-More PLCs Overview
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- Do-More T1H PLC
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- DirectLOGIC DL105
- DirectLOGIC DL205
- DirectLOGIC DL305
- DirectLOGIC DL405
- Productivity 2000
- Productivity 3000
- Universal Field I/O
- Software
- C-More HMI
- C-More Micro HMI
- ViewMarq Industrial Marquees
- Other HMI
- Communications
- Appendix Book 1
- Terms and Conditions



# Field-friendly features . . . FOR LESS!

## Productivity<sup>2000</sup>



### Troubleshoot the easy way... no meter required!

The Productivity2000 analog modules include high-contrast OLEDs which make it simple to view analog values without the extra equipment. These ultra-clear displays allow you to read up to 8 channels of analog values clearly, making troubleshooting easier than ever before. Voltage, current, temperature and even fault conditions are displayed for your convenience and eliminate the need to disconnect signal wires in order to get a reading with a meter.

### REAL data on temperature and analog modules



Don't forget we offer **FREE 2-day shipping** and a **30-day money back guarantee** for any of those last-minute modifications.



### ZIPLink Pre-wired Solutions

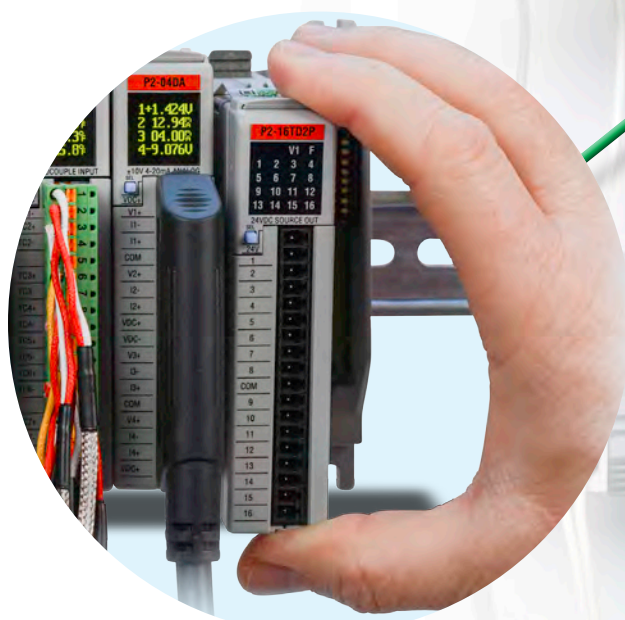
The Productivity2000 modules have multiple wiring options available. Standard terminal blocks are available in both screw and spring clamp styles. Our ZIPLink pre-wired cables and connector modules are available for all modules, excluding the Thermocouple and RTD temperature modules which require a specific type of wire. ZIPLinks not only provide a tremendous time savings when panel building but can also provide fused isolation from field devices, clean wireways with easy, field-traceable connections, and confidence that your panel wiring is correct.



### Hot swappable I/O

### Configurable Hot Swappable I/O

Don't lose production for simple I/O module changes. The P2000 system can be configured to allow the CPU to remain in the RUN mode without the selected I/O modules installed. Choose the "Enable all Hot Swap" option in the software to allow any module to be removed or configure each module separately.



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# ... Take the TROUBLE out of troubleshooting!

## Data View Tools

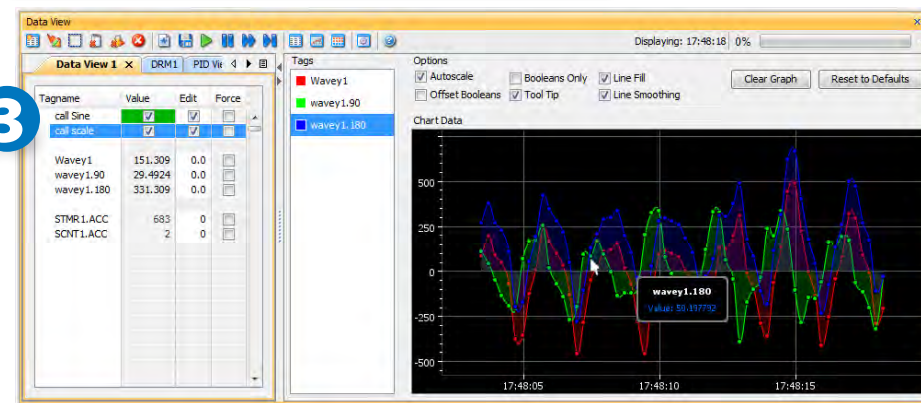
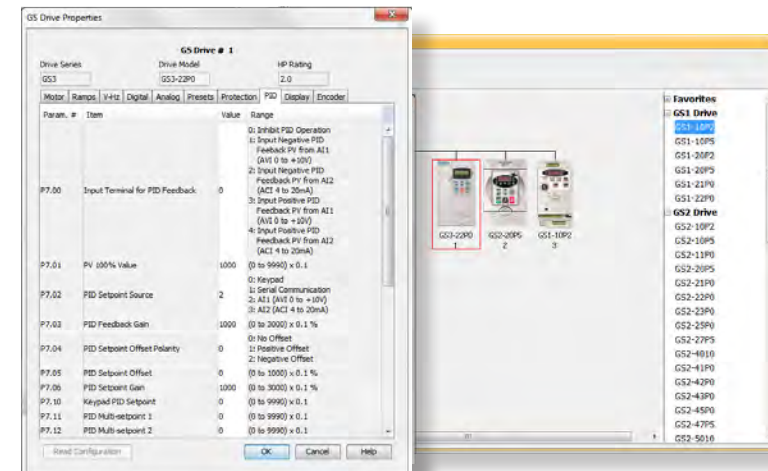
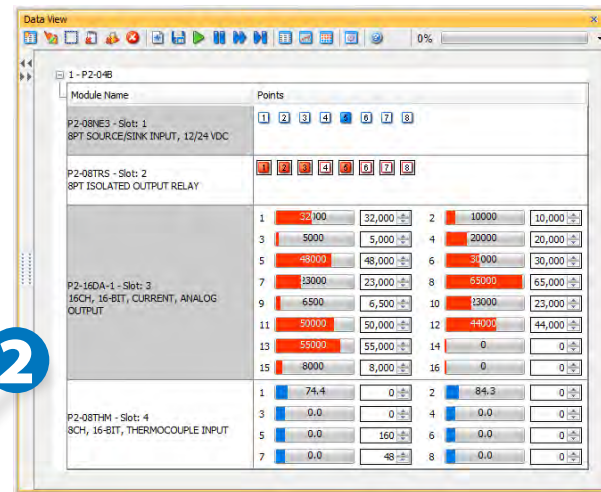
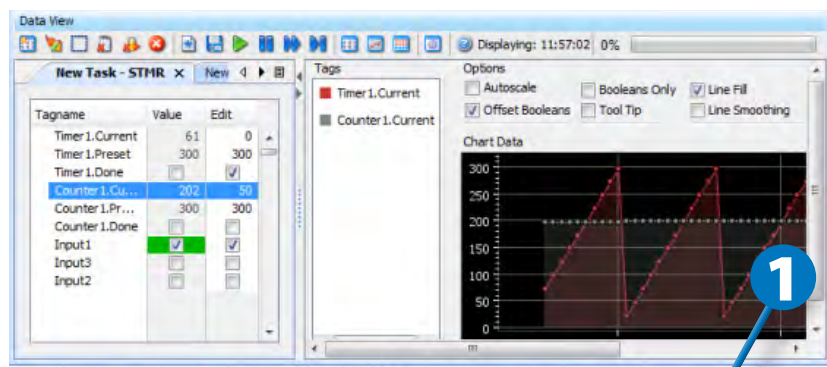
The Data View feature gives you three unique tools in one and each provides invaluable assistance when troubleshooting.

**1.** The basic Data View window lets you monitor, edit and force all tag values regardless of data type. Boolean, signed or unsigned integer, string tag, or structure, you can view and edit them all right here! You can also configure each Data View tab to monitor entire instructions, view all forcible tags, view all Modbus address, etc.

The Data View panel is a modal window, meaning that you can change its position in the software layout: dock it, tab it, pin it or float it. You can even drag it outside of the programming software for added usability.

**2.** I/O View is an optional view that gives you a graphical representation of your current hardware configuration. You can easily scan your hardware configuration module-by-module with full editing and forcing capabilities. Force discrete points and change analog I/O values right from this window.

**3.** Graph View is a simple trend graph that you can set up quickly for instant feedback. Drag tags right from your Data View into the Graph view and configure as needed.



## Helpful Tag Names

Because P2000 is a tag name based controller, it provides you with a higher level of documentation than a typical fixed address PLC. When troubleshooting a system or application, it is always easier to identify a physical input, output or even an internal memory location if it has a real-world name. Consider this: X15, I:4/3, C200, B3:0/2 mean very little with respect to what they are actually related to in your process. However, 'System Start\_PB1', 'Auto Mode\_SW1' or 'Batch Seq\_Enabled' are very clear and concise. These common descriptors can be added to a fixed memory address but a tag name based controller makes it simple by embedding the description into the tag. This allows for better naming conventions and results in a more well-written and documented program.

## Configure Replacement Drives Instantly!

One of the most overlooked benefits of the Productivity Series controllers is the integrated GS series drive configuration capability. Not only can Productivity Suite auto-discover newly installed drives and provide all parameters needed for drive configuration, but you can also save drive configurations in the project. These saved parameters can be written to the new drive with a project transfer, eliminating the need for manual configuration of the drive parameters on the keypad or using yet another configuration utility.

Consider the downtime you could save when replacing a drive in the field, if all it took was a simple download to configure the replacement drive exactly like the one you just removed.

## Productivity<sup>2000</sup>



## Runtime Edits

Commissioning or troubleshooting a system can be less time-consuming if you can make program edits on the fly. Download edits to the CPU without pausing I/O updates or stopping/restarting the program. From melting rubber to making paper, you can keep your process running, avoiding downtime and product waste.

## Built-in Data Logging

Knowledge is power, especially when troubleshooting! Having historical data available to you when trying to find or correct an issue can make a huge difference. The micro SD card slot on the P2-550 CPU allows you to log up to 32GB of tag data. This data is saved in .csv format on a removable micro SD card and can be easily downloaded to your PC.

You can also access the data via a standard browser using the CPU's built-in Web server. Once enabled, simply enter your P2-550's IP address into a browser's address bar, enter the appropriate security credentials when prompted, and you have



access to system data (error history, CPU status, scan time, etc.) and any data log files stored on the micro SD card. You can view, download or delete these files through the Web browser. This gives you a quick and convenient troubleshooting tool that you can use to track historical patterns, examine equipment performance, or record data from a newly installed repair.

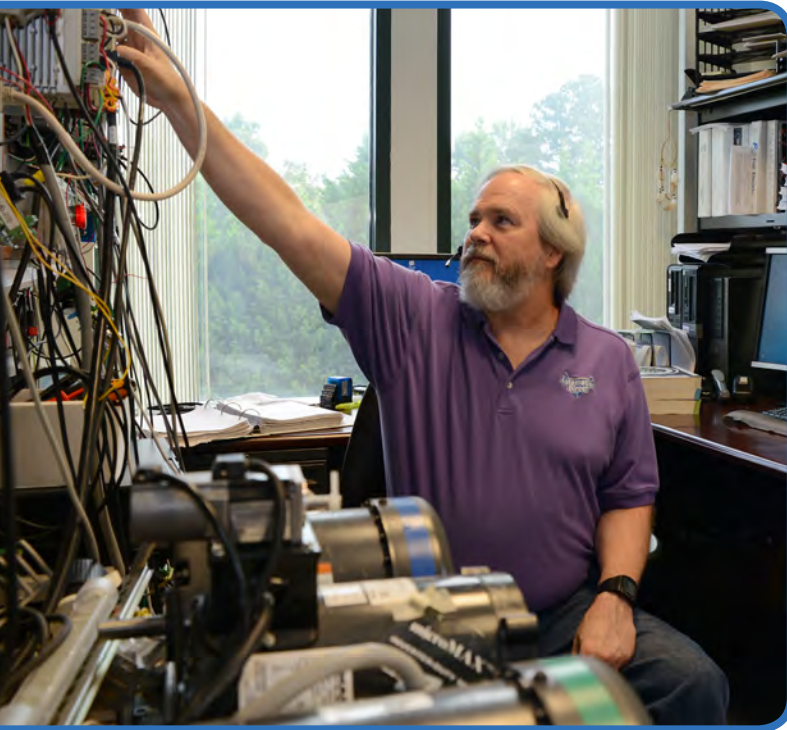


**If you need assistance, give us a call. Our technical support staff is highly-trained, field-experienced and always happy to help. 1-800-633-0405**



# Rated #1 in Technical Support for 14 Years Straight . . . and It's FREE!

You're never more than a quick phone call away from the best tech support in the business!

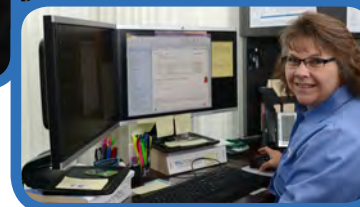
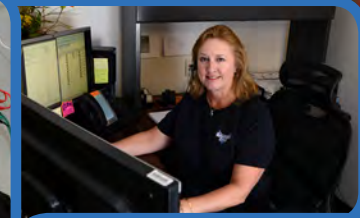
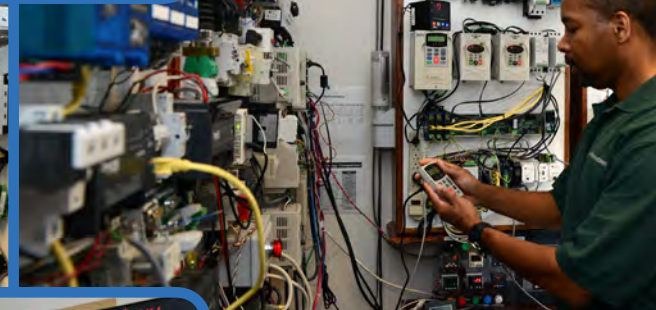
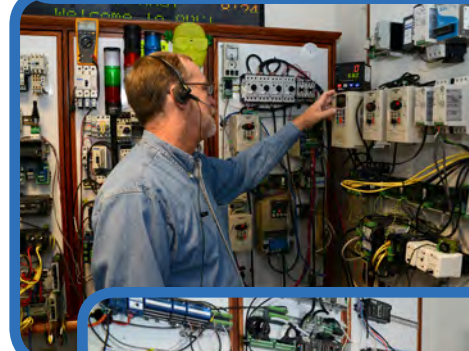
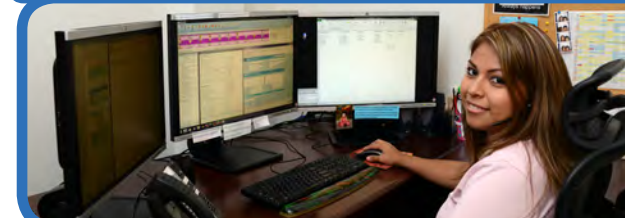
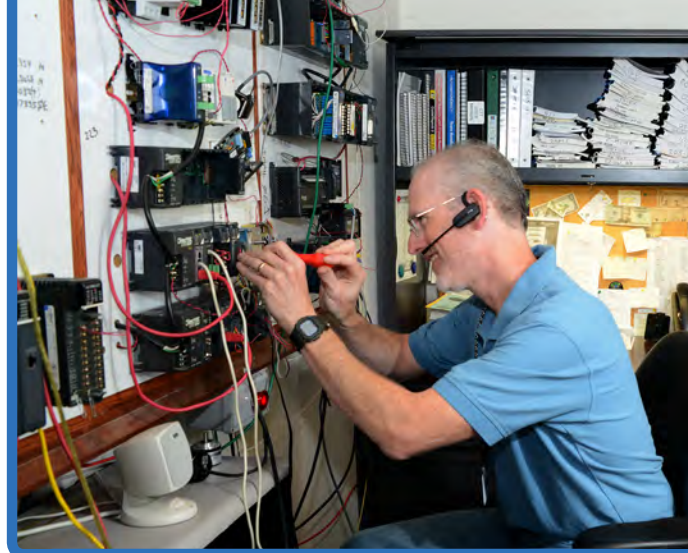


Are you tired of calling a local distributor to discover their "product expert" is not in? How about waiting hours for technical service to return a message? Or paying for phone support service and then having to be on hold waiting for it?

**It's no accident that our Tech Team routinely demonstrates the best attitude and manners in the industry!**

We send our customers surveys to score our attitude, accuracy and timeliness then take these scores and use them as part of the Tech team's report card. The bottom line is that you get great service by design.

Over 85% of customers who have used our service and responded to surveys say it's better than what they have been getting from other automation suppliers. 91% say we are above average to excellent in accuracy, 90% say we are above average to excellent in thoroughness, 91% say we are above average in response time, and 96% rate us above average in courtesy. Isn't it great to get better service AND a better price?



- YOU SAY -**
- "As always, your service is stellar and your staff is very friendly and great to work with. Wish the rest of my vendors were as good to work with as AutomationDirect."
  - "Your tech support is really excellent - the folks there are very knowledgeable and very willing to help. Please tell them they are doing a way better than average job."
  - "You all are the greatest! And that gets reinforced each time I have to call any other vendor for technical support."
  - "Very good technical support; much, much better than the distributor with whom we have previously worked."
  - "Tech was outstanding, great advice on drives and also helped lower the cost of the system. You are my first choice for Automation and Power Transmission products. Keep up the great work."
  - "Your presales (tech) folks helped me find the right parts the first time - terrific!"



## OEMs voted our name 14 years in a row!

The Reader's Choice survey hosted by Control Design magazine aims to identify the best products and service in the industry. Results from 2001-2014 indicate we consistently provide top-notch support to our customers. This is in addition to several other industry awards from independent publications.

Thanks to all who voted, we'll continue to put customer satisfaction as our #1 priority.

### The bottom line is - when you call, we can help

With top service scores in numerous product categories over the last 14 years (cumulative list below), we've proven that we have the knowledge to help you make your control system installation a success.

- PLCs
- PLC programming software
- Operator Interface Terminals
- PACs
- Stepper motors
- Relays
- HMI software
- Terminal Blocks
- I/O systems
- Encoders
- Servo motors
- Presence sensing
- Power supplies
- Electric motors
- Motor starters
- Stack light towers

### Want to discuss using our products with like-minded customers?

<http://forum.AutomationDirect.com>

Is our Customer Forum, where tens of thousands of active customers come to ask questions and share their knowledge with peers

### Want to watch some videos to learn more about our products?

<http://www.AutomationDirect.com/videos>  
[www.youtube.com/automationdirect](http://www.youtube.com/automationdirect)

Is where we have hundreds of helpful videos posted, from new product overviews to detailed tutorials on topics such as PID and motion control

# We do not charge for customer support . . . Period. That just doesn't make sense.

Don't forget our tech support site is loaded with tons of information that is readily available 24/7.

FAQs, software, manuals, technical and application notes, videos, wiring diagrams, example programs, CAD drawings, cross reference guides, compliance documents . . . and more

[www.AutomationDirect.com/support](http://www.AutomationDirect.com/support)

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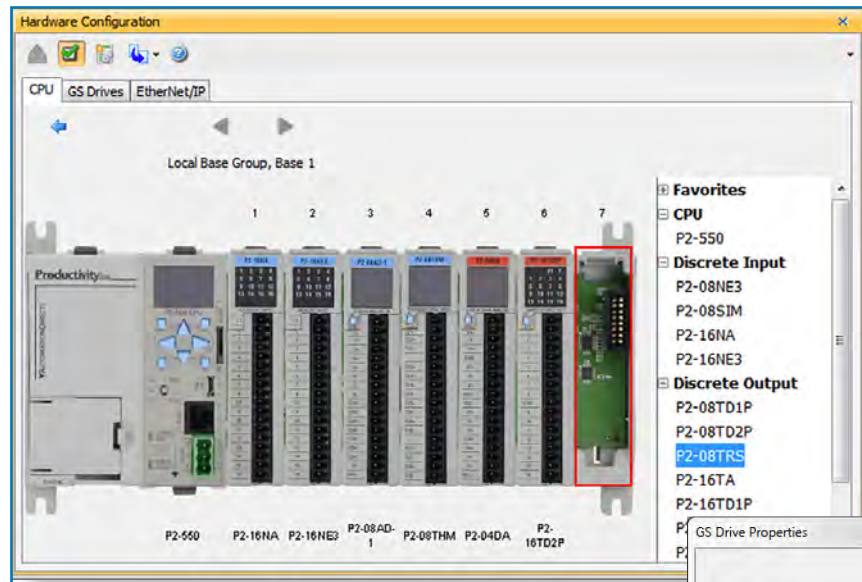
# Discrete control has never been easier!

## Auto-Discovered I/O Modules

The Productivity Suite software will automatically configure any of the 8, 16 or 32-point discrete modules that are available. Simply install each I/O module in the base and it will be discovered by the software. Don't waste time laboriously entering I/O module part numbers into the system!

Easily connect all of your interface and control devices such as photo eyes, proximity sensors, limit switches, push buttons, light curtains, stack lights, motor controls, etc.

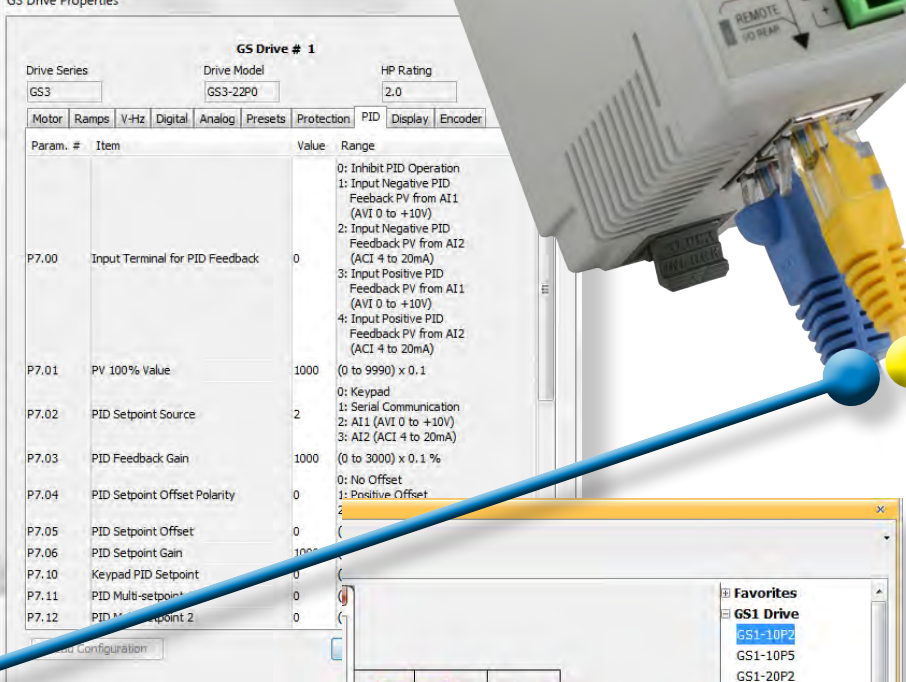
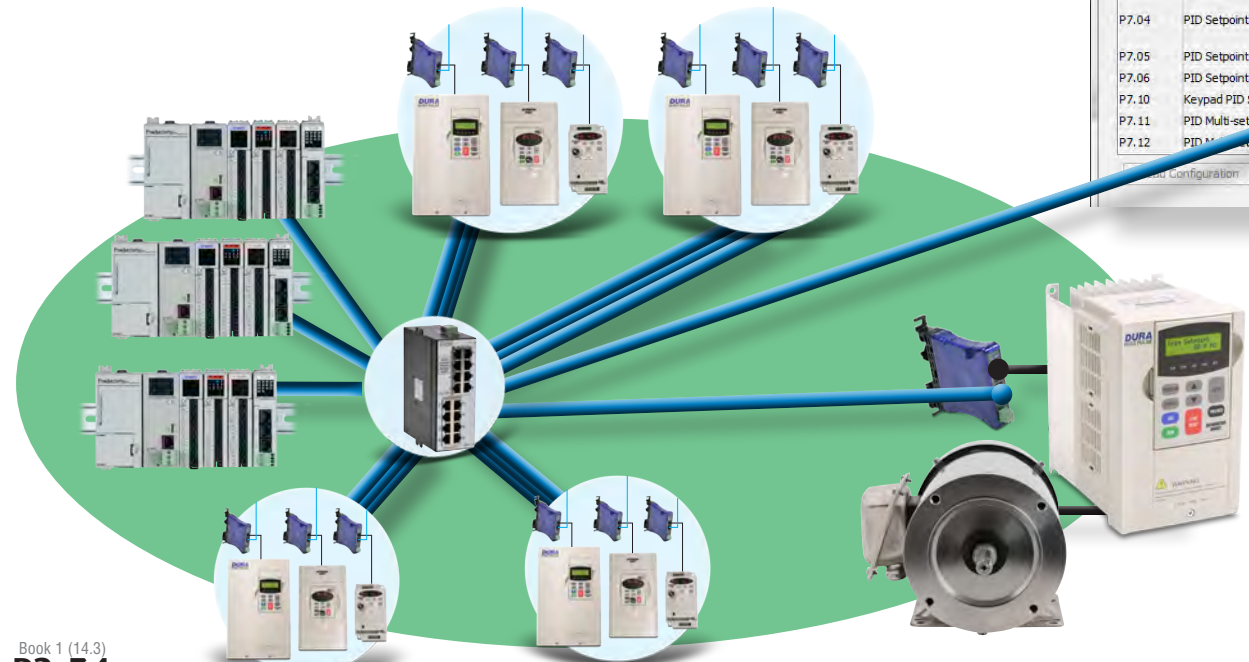
And all remote I/O bases connected to the Ethernet remote 4 I/O port of the P2-550 will be auto-discovered into the hardware configuration.



## Auto-Discovered VFDs - Set up drives in no time!

Connecting your Productivity series PLC to Variable Frequency Drives couldn't be easier! Connect up to 16 of our GS1, GS2, or Durapulse (GS3) drives via Ethernet (using our GS-EDRV100 modules), and the Productivity PLC can automatically detect the drives. The auto-discovery process eliminates the configuration headaches - your drives are ready to program in just a few minutes.

After the auto-discovery process, the dedicated instructions "GS Drives Read" and "GS Drives Write" will prompt the programmer with all the available parameters (both "run mode" and "stop mode") that can be configured for each model of drive - it's then a cinch to fill in the blanks and program your drives.



## Robust CPU Features for only \$255!

The list of standard features included in the P2-550 are nothing short of incredible! For the price, this is arguably the best control value in the industry. With 50 MB of user memory, you will never be concerned with running out of program space. This also gives you plenty of space to store all project documentation. The OLED display gives you system status and diagnostics; it also works as a simple message display, allowing you to configure messages and trigger them on conditions in the ladder.

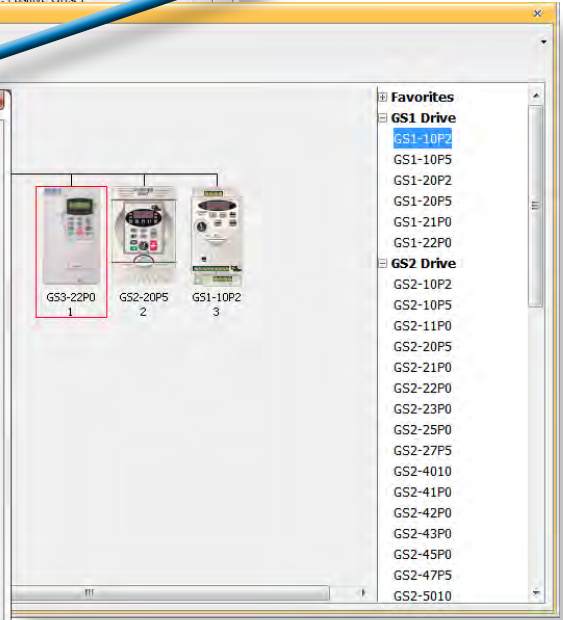
## You get all of this plus a powerhouse in communications:

(2) serial ports: RS-232 and RS485, both supporting Modbus RTU, ASCII and Custom Protocol (where you define the protocol in a custom function block).

(2) 10/100 Mbps Ethernet ports: A remote port which supports up to 16 GS Series drives and 8 remote I/O bases. An external port with both EtherNet/IP and Modbus TCP protocols, is also included. Out of the box this gets you the top two Ethernet protocols in the industry. This gives machine builders the flexibility to connect to numerous peripheral devices without having to add option modules to your base.

## Ethernet Remote I/O, Flexible System Design

Connect up to 8 remote I/O bases from the P2-550's Ethernet Remote I/O port. Select any of the available base configurations for the CPU & remote I/O expansion. This gives you a total possible system capacity of 4,320 I/O.



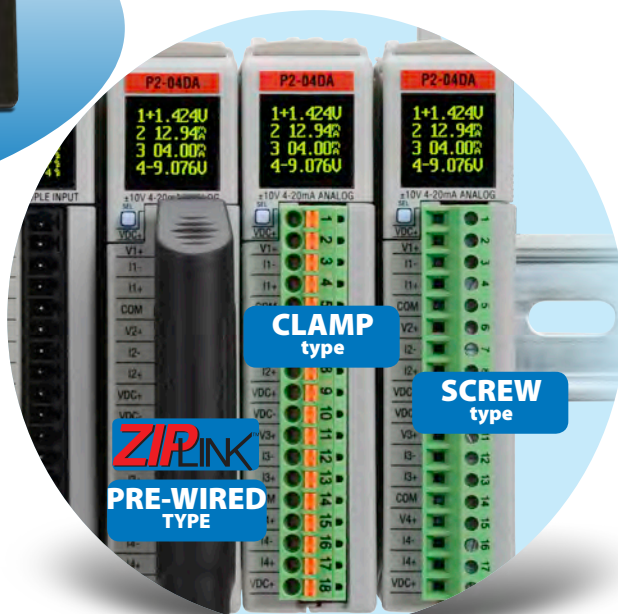


# Wide Variety of Discrete I/O Modules starting at only \$40



Productivity2000 offers 8, 16 & 32 point DC inputs and 8 & 16 point DC outputs (in sinking or sourcing), 8 or 16 point AC I/O and relay output modules.

- P2-08NE3:** 8-point 24V AC/DC Sink/Source Input Module ... **\$40.00**
- P2-08ND3:** 8-point 12-24 VDC Sink/Source Input Module ... **\$46.00**
- P2-16NE3:** 16-point 24V AC/DC Sink/Source Input Module .. **\$69.00**
- P2-16ND3:** 16-point 12-24 VDC Sink/Source Input Module. **\$69.00**
- P2-32NE3:** 32-point 24V AC/DC Sink/Source Input Module. **\$99.00**
- P2-08TD1P:** 8-point 12-24VDC Sinking Output Module (overload and short circuit protected) ..... **\$41.00**
- P2-08TD2P:** 8-point 12-24VDC Sourcing Output Module (overload and short circuit protected) ..... **\$41.00**
- P2-16TD1P:** 16-point 12-24VDC Sinking Output Module (overload and short circuit protected) ..... **\$69.00**
- P2-16TD2P:** 16-point 12-24VDC Sourcing Output Module (overload and short circuit protected) ..... **\$69.00**
- P2-16NA:** 16-point 100-240VAC Input Module ..... **\$105.00**
- P2-16TA:** 16-point 100-240VAC Output Module ..... **\$129.00**
- P2-08TRS:** 8-point AC/DC Isolated Relay Output Module (6.25-24VDC/6-120VAC) ..... **\$51.00**
- P2-16TR:** 16-point AC/DC Relay Output Module (6.25-24VDC/6-240VAC) ..... **\$95.00**



## Choose the wiring option YOU prefer!

Most all of our I/O modules have 3 options for wiring. There are two types of terminal blocks, screw type and spring clamp, as well as ZIPLink wiring solutions.

The ZIPLinks are pre-wired cables that connect to a variety of connector modules. This simplifies your system wiring, cleans up your panel appearance, makes troubleshooting much easier and saves you time and money when building your panel.

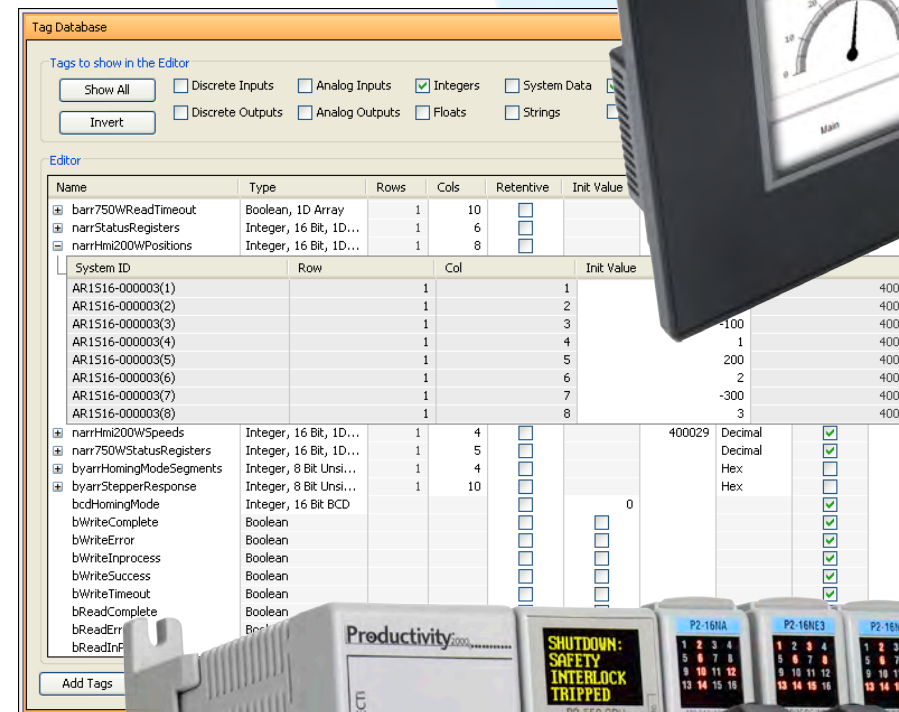
# Productivity<sup>2000</sup>.....C-more<sup>®</sup>

## Perfect match for our C-more HMI

Export your tag name database from the Productivity2000 and import it into C-more software to jump start your HMI development.

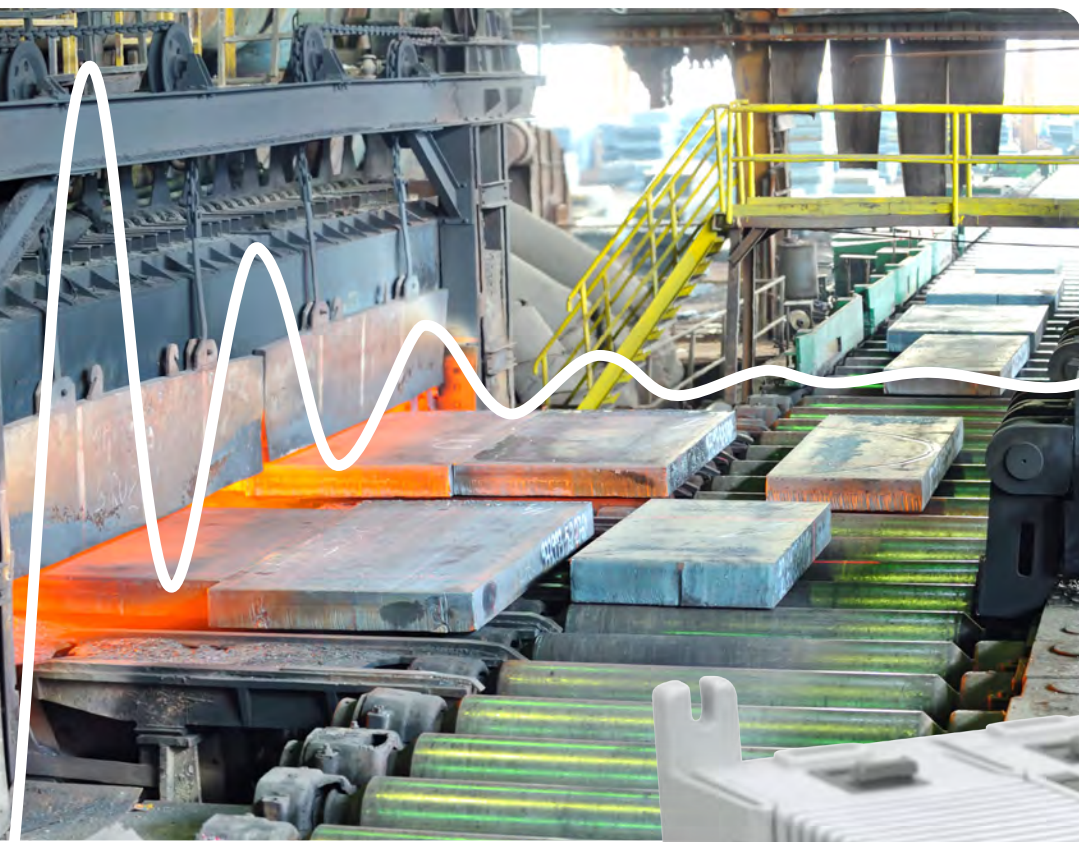
No more digging through your notes, or hunting through your ladder logic to find the right tag name.

Connect up to 32 C-more HMIs to the Productivity2000 via Ethernet for control and visibility of your process/machine from anywhere in your factory. Use the remote access feature of C-more to view (and possibly control) your system from anywhere via the Internet. C-more offers a wealth of productive features that make it a perfect match for the Productivity2000.





# Control your process for less!



## No-Limit PID

With 50MB of user memory, you have practically limitless PID functionality. The integrated PID function blocks makes it easier to configure and control your loops within the project.

The PID Monitor utility allows you to monitor your loops and tune them in real time. We also offer a built-in Auto-tuning algorithm (Ziegler-Nichols) to help give you a jump on fine tuning your loops.

The PID instruction supports either individual or cascade mode operation. It also includes a tab for configuring all of your process alarms, including Low-Low, Low, High, High-High Limits and Deviation Alarms.

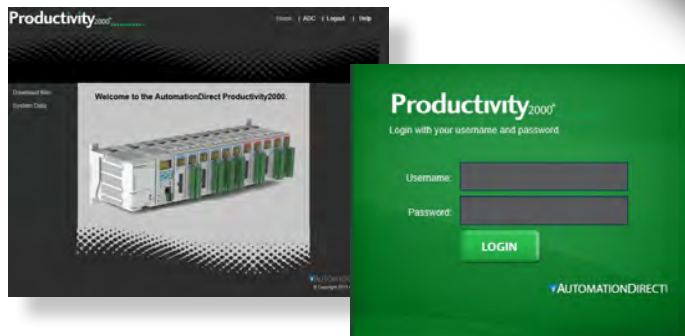
## Built-In Data Logging

Having an integrated microSD card slot on the CPU allows you to configure tags to be logged (up to 32GB). You can easily remove/replace the memory card on the CPU, or you can access the data via a standard Web browser using the CPU's built-in Web server. Once enabled, simply enter your P2-550's IP address into a browser's address bar, enter the appropriate security credentials and you have access to system data (error history, CPU status, scan time, etc.) or you can access the data log file directly on the microSD card.

This gives you a quick and convenient troubleshooting tool without having the programming software connected.



micro SD

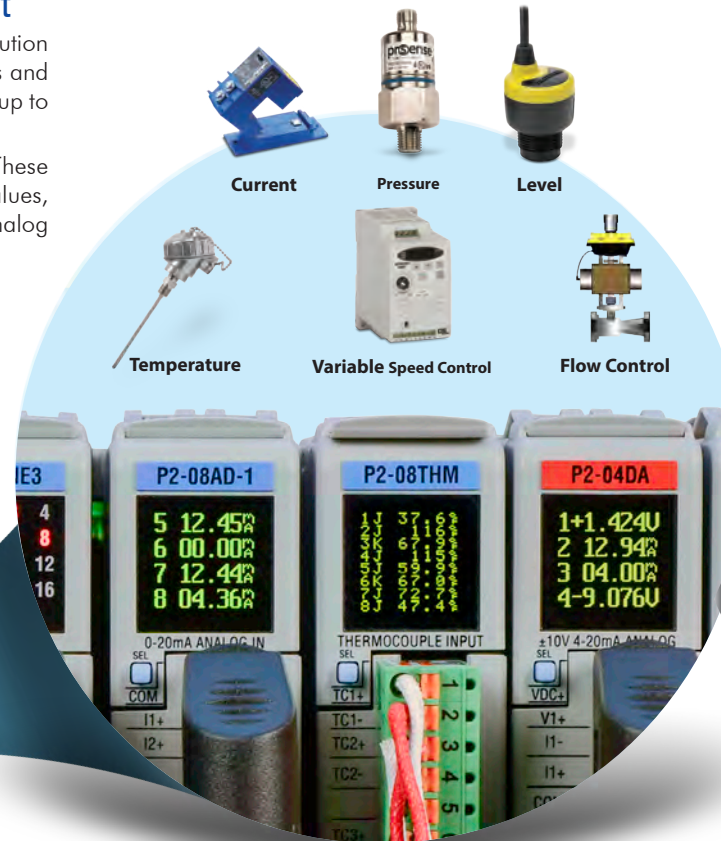


# Analog values you have to SEE TO BELIEVE!

## Actual values vs. just a blinking light

With the OLED displays included on all 16-bit high resolution analog modules, we make it simple to view analog values and temperatures. These high clarity displays allow you to view up to 8 channels of analog values clearly on a small display.

This makes troubleshooting easier than ever before. These displays can show fault conditions as well as live analog values, eliminating the need to connect a meter in line with the analog signal to get a reading.



or

OLED DISPLAYS

The Productivity2000's complete lineup of temperature and analog modules eases the concern of process application design. With the Productivity2000 modules you can connect and control most any device in the market at a lower cost. Consider an 8 channel thermocouple input temperature sensing module for the P2000, with a list price of \$329. That is \$41 per channel and it includes an OLED display that can read out 4 channels or all 8 channels at once.

## Non-invasive measurements

These OLED displays allow non-invasive measurements, so there is no need to connect a multi-meter in line with the analog signal (which might adversely affect the signal being measured). View the signal in volts, milliamps, or degrees (depending on the module) or view the resulting tag value (i.e. 0-65535) that is being processed by the PLC.







### Industrial LED Messaging for your process starting at \$435

ViewMarq is a series of LED message displays that uses the latest LED and communications technologies for industrial applications. These industrial text message displays utilize both serial and Ethernet communications. The display can be connected to a PLC (programmable logic controller), PC, or any device capable of serial ASCII, Modbus RTU, or Modbus TCP communications.



### Analog I/O: Measure it, read it, monitor it!

Analog modules are 12, 13 and 16-bit resolution giving you an option of lower price or higher precision for your application measurement requirements. 0-4095 counts on a typical 12-bit

0-10V module gives you a graduation of 2.44mV per count, where a 16-bit module with 0-65535 counts has a graduation of 0.152mV per count.

- P2-04AD:** 4-channel, 16-bit, voltage/current Analog Input Module (+/- 5 VDC, +/- 10 VDC, 0-5 VDC, 0-10 VDC, 0-20 mA) ..... **\$195.00**
- P2-08AD-1:** 8-channel, 16-bit, current Analog Input Module (0-20 mA) ..... **\$199.00**
- P2-08AD-2:** 8-channel, 16-bit, voltage Analog Input Module (0-10 VDC) ..... **\$219.00**
- P2-08ADL-1:** 8-channel, 13-bit, current Analog Input Module (0-20 mA) ..... **\$143.00**
- P2-08ADL-2:** 8-channel, 13-bit, voltage Analog Input Module (0-10 VDC) ..... **\$157.50**
- P2-16AD-1:** 16-channel, 16-bit, current Analog Input Module (0-20 mA) ..... **\$249.00**
- P2-16AD-2:** 16-channel, 16-bit, voltage Analog Input Module (0-10 VDC) ..... **\$275.00**
- P2-16ADL-1:** 16-channel, 13-bit, low resolution Analog Input Module (0-20 mA) ..... **\$178.00**
- P2-16ADL-2:** 16-channel, 13-bit, low resolution Analog Input Module (0-10 VDC) ..... **\$196.00**
- P2-04DA:** 4-channel, 16-bit, voltage/current Analog Output Module (+/- 10 VDC, 4-20 mA) ..... **\$194.00**
- P2-08DA-1:** 8-channel, 16-bit, current Analog Output Module (4-20 mA) ..... **\$269.00**

- P2-08DA-2:** 8-channel, 16-bit, voltage Analog Output Module (+/- 10 VDC) ..... **\$249.00**
- P2-08DAL-1:** 8-channel, 12-bit, low resolution Analog Output Module (4-20 mA) ..... **\$202.00**
- P2-08DAL-2:** 8-channel, 12-bit, low resolution Analog Output Module (0-10 VDC) ..... **\$195.50**
- P2-16DA-1:** 16-channel, 16-bit, current Analog Output Module (4-20 mA) ..... **\$354.00**
- P2-16DA-2:** 16-channel, 16-bit, voltage Analog Output Module (+/- 10 VDC) ..... **\$339.00**
- P2-16DAL-1:** 16-channel, 12-bit low resolution Analog Output Module (4-20 mA) ..... **\$253.00**
- P2-16DAL-2:** 16-channel, 12-bit low resolution Analog Output Module (0-10 VDC) ..... **\$243.00**
- P2-8AD4DA-1:** 8-channel IN, 4-channel OUT, 16-bit, current Analog Combination Module (0-20 mA, 4-20 mA) ..... **\$310.00**
- P2-8AD4DA-2:** 8-channel IN, 4-channel OUT, 16-bit, voltage Analog Combination Module (0-5 VDC, 0-10 VDC, 0-5 VDC, 0-10 VDC) ..... **\$310.00**
- P2-08THM:** 8-channel, 16-bit, Thermocouple Input Module (thermocouple and millivolt) ..... **\$329.00**
- P2-06RTD:** 6-channel, 16-bit, RTD Input Module ..... **\$325.00**
- P2-08NTC:** 8-channel, 16-bit, Thermistor Input Module ..... **\$265.00**

## Hot-swappable I/O - keeps you up and running!

That's right, all the I/O modules for the Productivity2000 are hot-swappable! When used appropriately, this capability can save time and help avoid long start-up operations or other down-time related inconveniences.

No need for costly shutdowns and production losses anymore with Productivity2000 hot-swappable hardware.

Of course, it's up to the system designer to determine if hot-swapping is appropriate and safe for each application.



### Support information at your fingertips!

Pull down the QR coded tab from the top of I/O module, and scan with your smart phone or tablet QR app to get the latest specifications for that module.





# Low Cost meets High Speed, just \$195 per module.

## High-Speed I/O: Motion for much less

These high-speed I/O modules combined with the ground-breaking communication abilities built into the P2-550 CPU give you a powerful motion applications solution for a fraction of the cost typically associated with motion. But don't let the price fool you. These little guys can stand head-to-head with modules you've been paying much more for.

- P2-HSI:** 2-channel, 1MHz High-Speed Counter Input Module with 5-24 VDC general purpose inputs/outputs ..... **\$195.00**
- P2-HSO:** 2-channel, 1MHz High-Speed Pulse Output Module with 5-24 VDC general purpose inputs/outputs ..... **\$195.00**

**P2-HSO**  
**\$195.00**



**P2-HSI**  
**\$195.00**

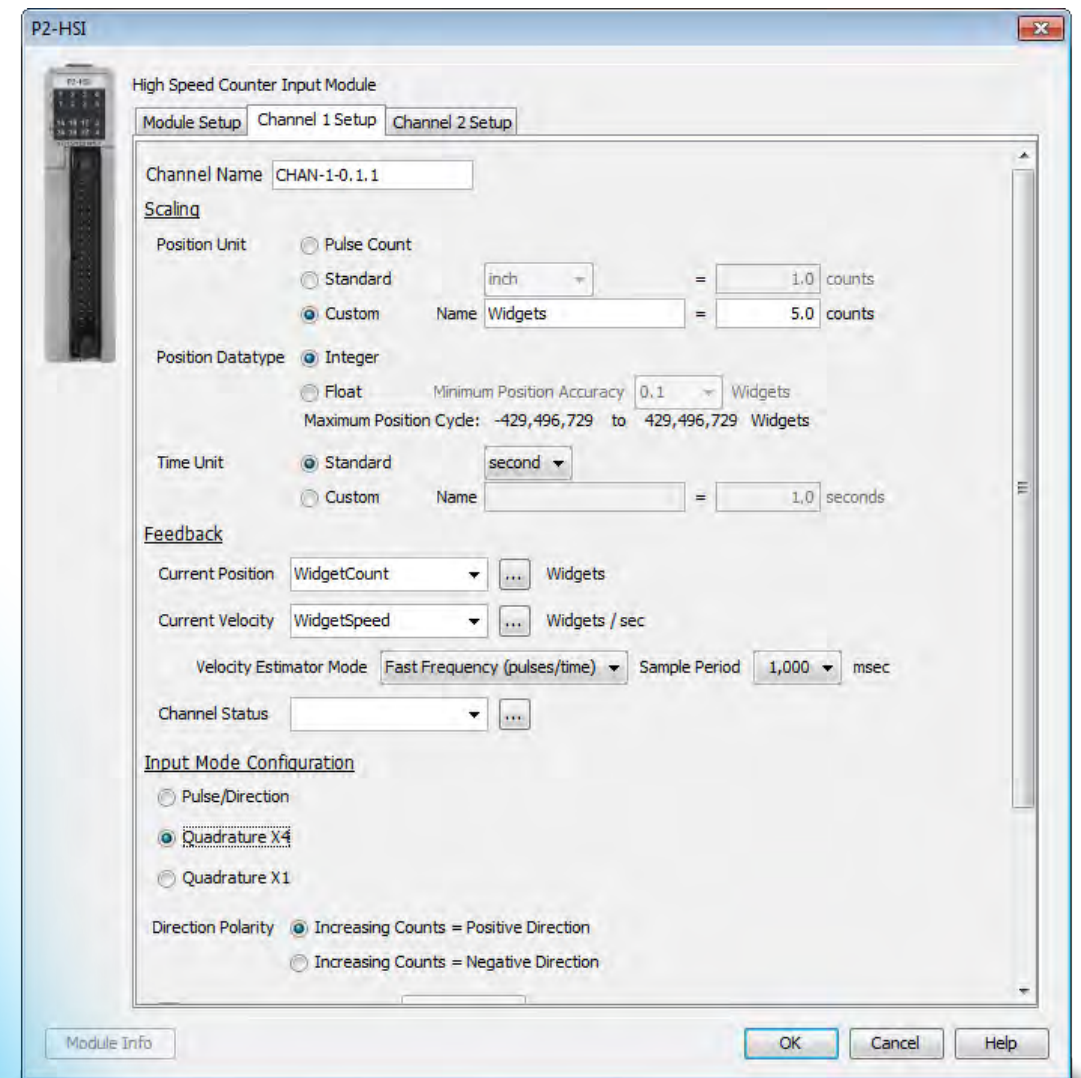


## Easy configuration for multiple applications

Both the High Speed Input (P2-HSI) and High Speed Output (P2-HSO) modules can be configured using Productivity Suite's intuitive function blocks like the one shown below. Simply define your tags for each input/output channel on the appropriate Channel (1 or 2) Setup Tab. You can even specify custom units, and with the P2-HSI take advantage of an estimated velocity function.

## Configuration example:

Using a P2-HSI in this example, a quadrature encoder is supplying a high-speed pulse train with 5 pulses for each "widget" as it moves through the machine (with custom scaling of 1 Widget = 5 encoder counts). Once this is configured, you can now accurately monitor the user defined tags for "WidgetCount", and "WidgetSpeed" (in widgets/sec) in the ladder logic program even though the encoder counts (and "WidgetCount") may be counting at a faster rate than the scan time of your program.



Motion Module Comparison	AutomationDirect Productivity2000 P2-HSI	VS.	Allen-Bradley CompactLogix 1769-HSC
Number of Input Channels	2 Channels (Quadrature)		2 Channels (Quadrature)
Maximum Frequency	1 MHz		1 MHz
Number of High-speed inputs	6		6
Number of General Purpose Inputs	4 <small>2 std + unused Z</small>		0
Number of General Purpose Outputs	4		4
LED Display	Yes		Yes
Price	<b>\$195.00</b> 😊		<b>\$925.00</b> 😞

All prices are U.S. published prices. AutomationDirect prices as of 6/5/15. Allen-Bradley retail prices taken from [www.plccenter.com](http://www.plccenter.com) 5/12/2015.



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- DirectLOGIC DL305
- DirectLOGIC DL405
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- Productivity 3000
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# High-Speed I/O in motion....

## Use the P2-HSO High-Speed Output Module for various motion control operations including Simple Moves, Velocity Moves, and Flexible Homing routines.

The P2-HSO is a high-speed (1MHz) output module that supports Pulse/Direction, Step Up/Step Down and Quadrature pulse outputs on each of two independent output channels. It has both line driver and open drain outputs. Additionally, it has six general purpose inputs and four general purpose outputs.

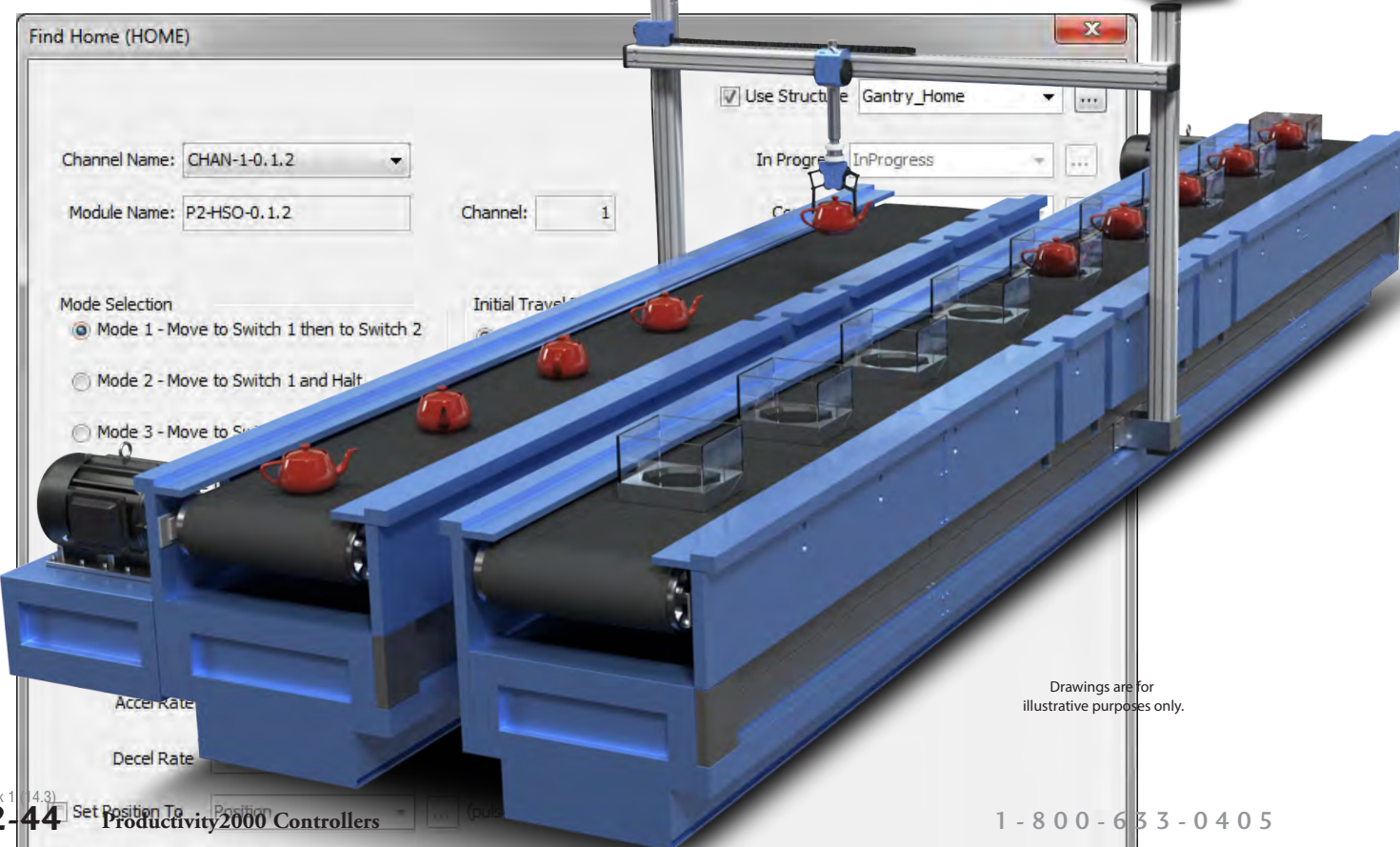
And with Productivity Suite's built-in instructions, like Find Home (HOME), Simple Move and Velocity Move (SMOV), it's easier than ever to program routines based on target position, target velocity, accel rate, decel rate, etc.

## Pick and Place Applications

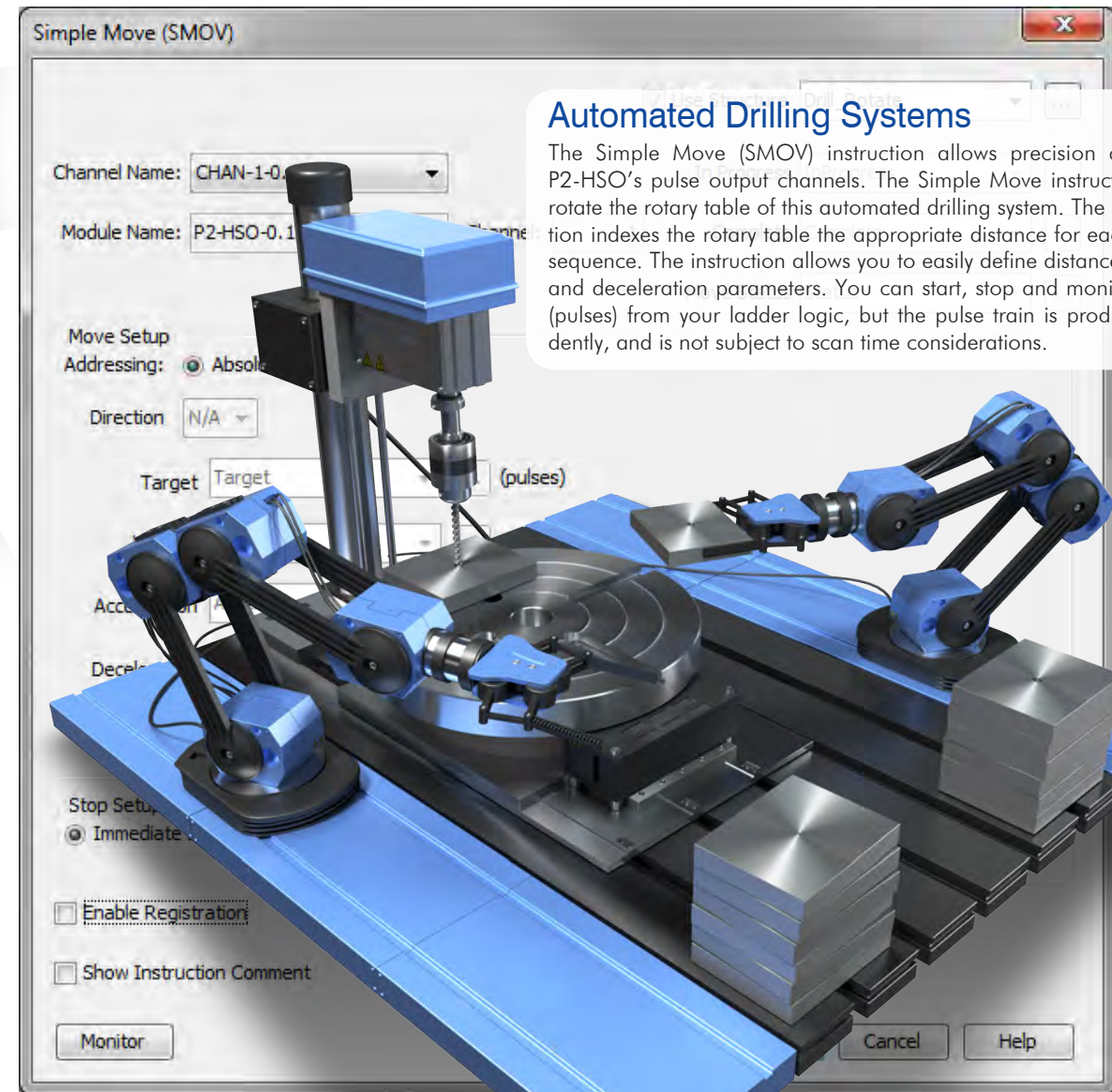
The Find Home (HOME) instruction initializes this pick and place application on power-up. Homing routines are used to align the P2-HSO channel position to a known real-world physical position. Choose from four preconfigured move routines and simply fill in the blanks for speed, direction and acceleration.



**P2-HSO**  
**\$195.00**



Drawings are for illustrative purposes only.



## Automated Drilling Systems

The Simple Move (SMOV) instruction allows precision control of the P2-HSO's pulse output channels. The Simple Move instruction is used to rotate the rotary table of this automated drilling system. The SMOV instruction indexes the rotary table the appropriate distance for each new drilling sequence. The instruction allows you to easily define distance, acceleration and deceleration parameters. You can start, stop and monitor the motion (pulses) from your ladder logic, but the pulse train is produced independently, and is not subject to scan time considerations.

Drawings are for illustrative purposes only.

## And, with AutomationDirect you always get more than you pay for:

- **FREE Productivity Suite software**  
Developed and supported in the USA. Download as many copies as you want. No dongles, no separate licenses per computer.
- **FREE Technical Support**  
Located in the USA and ranked #1 by independent surveys for past 14 years straight. We back what we sell.
- **FREE 2-day shipping (with order over \$49)**  
Sometimes quicker, depends how close you are to Atlanta, GA. Yep, we live here too. Don't let anyone tell you different.
- **FREE Manuals, CAD drawings and example programs**  
Download anytime you want. No passwords or pre-qualifying information needed. Even if you've never bought anything from us.





# High-Speed I/O in motion....

## Use the P2-HSI High-Speed Input Module for high-speed counting and registration functions.

The P2-HSI is a high-speed (1MHz) input module that has both differential and single-ended inputs. This module accepts Pulse/Direction and Quadrature signals on each of two independent input channels. It also provides four general purpose high-speed inputs and four general purpose 5-24VDC @ 0.5 Amp outputs.

## Pneumatic Stamping Applications

The Registration (REG) instruction can trigger several internal and external position based events such as the capturing of positions, setting a tag, counting events and turning on, off or pulsing an output. The action can also be delayed by a set number of pulses as in this pneumatic stamping application. The P2-HSI module is used to accurately stamp parts as they move past on a conveyor. A blank part is detected by the sensor and the instruction is triggered. The output or stamping function is delayed by the appropriate number of encoder pulses. Once the part travels to the precise location under the stamp, the pneumatic stamp is activated and the image is stamped onto the part. The encoder pulse train can be up to 1Mhz, faster than the scan time of the Productivity2000. This is critical for accurate operation in this application.



**P2-HSI**  
**\$195.00**

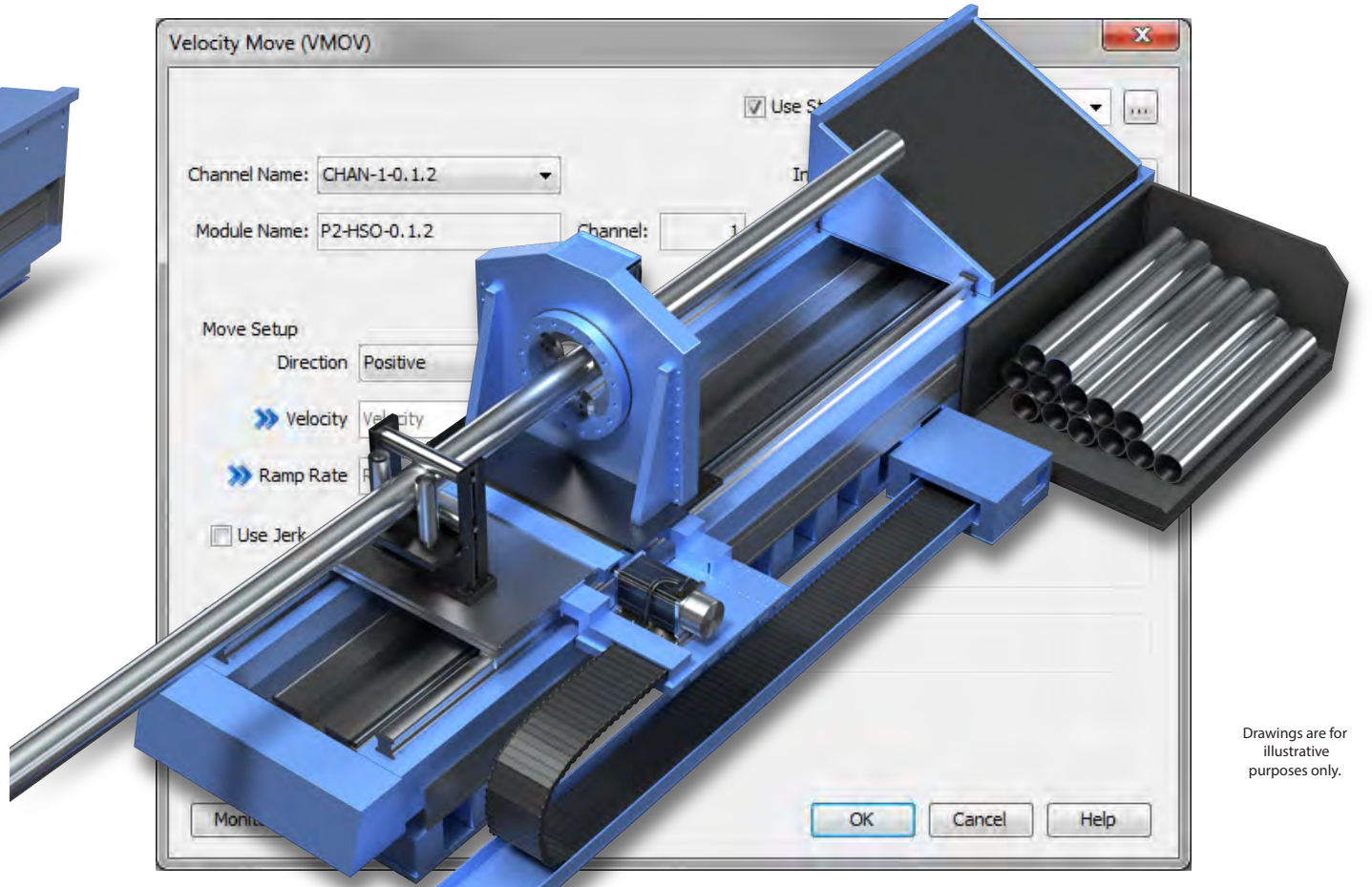
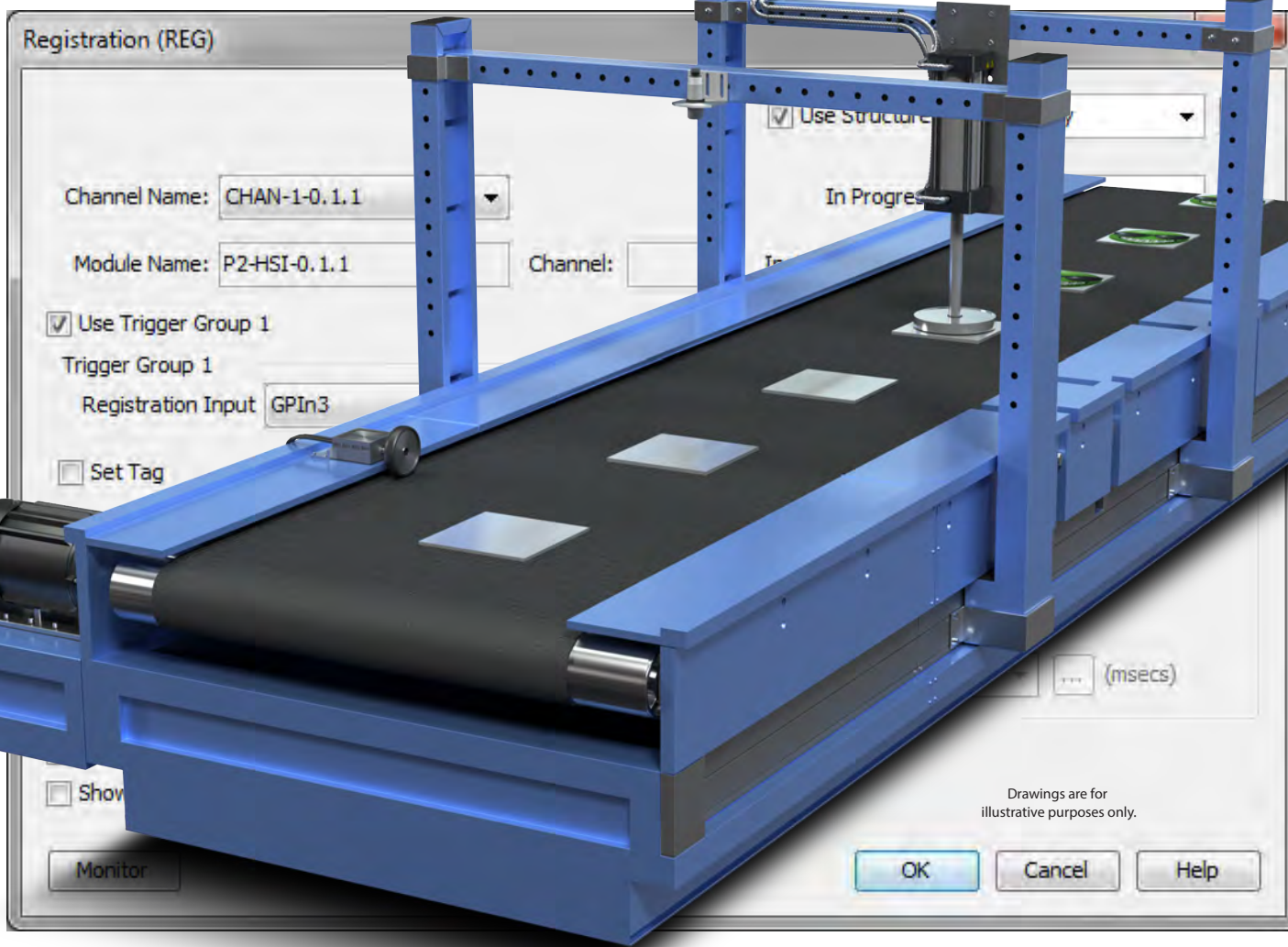


## ZIPLink Pre-wired Solutions

The Productivity2000 high-speed modules require the ZIPLink pre-wired cables and connector modules. Our ZIPLinks provide a tremendous time savings by eliminating the tedious process of wiring I/O points. Simply snap the ZIPLink connector to the I/O module, connect your field wiring to the ZIPLink terminal and your wiring job is done. See the Wiring Solutions section for more information.

## Flying Cut-off Application

In this example, the Velocity Move instruction is used via the P2-HSO module to synchronize the speed of the servo driven carriage in this "flying cut-off" application. The SureServo motor must accelerate the carriage to match the speed of the moving pipe (pipe speed reference supplied via the P2-HSI module), in order to make a perpendicular cut-off. After the cut, the carriage speeds back to the starting position to make another pass. Flying cut-offs are used in many situations where it isn't practical to stop and start a continuous production operation.



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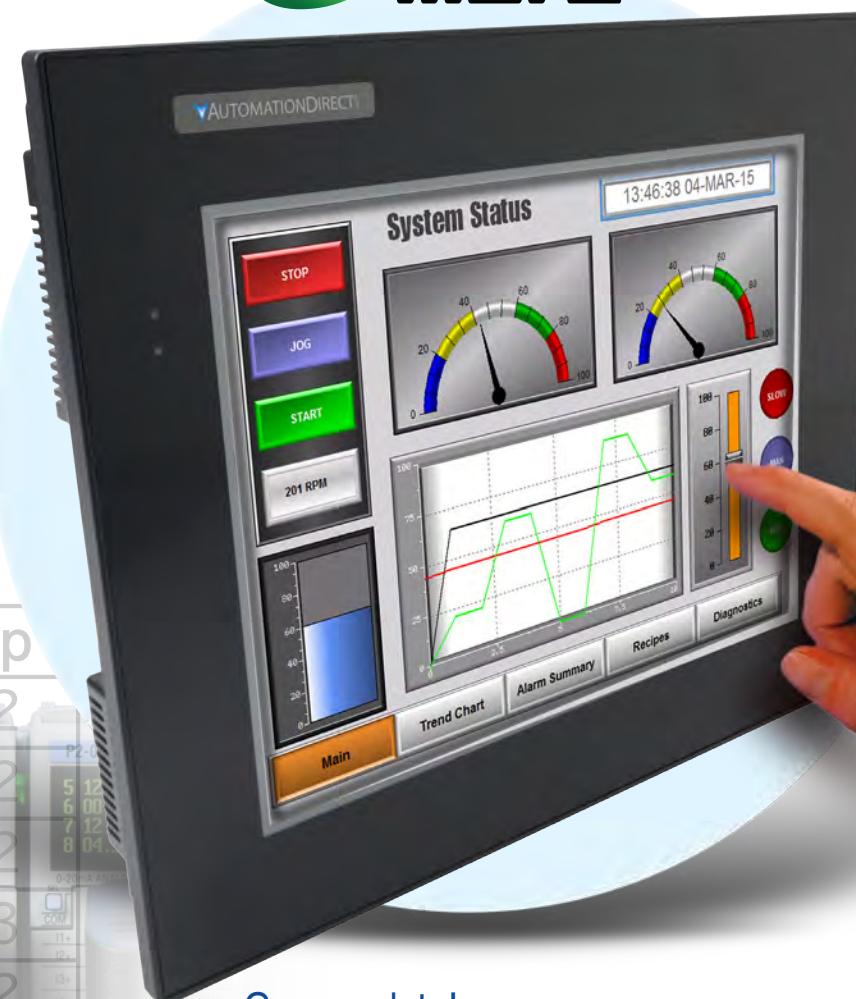


# Real Time Data, Big Time Savings



## Data on display

OLED displays provide non-invasive measurements of process control I/O and system diagnostics in real time. View analog input/output signal in volts, milliamps, or degrees (depending on the analog module) or view the resulting tag value (i.e. 0-65535) that is being processed by the PLC. System diagnostics and user-defined messages displayed by the CPU can also provide instant notification of error conditions and aid in a quick recovery.



micro SD

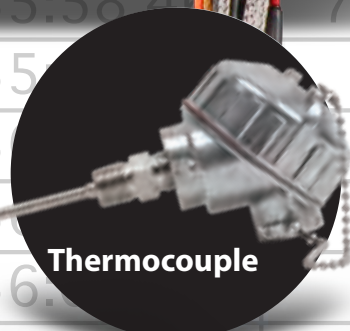
## Built-in Data Logging

Track up to 64 tags at a time and save the data to the removable micro-SD card housed in the CPU. Capture up to 32GB of data either periodically (minute, hour, day, week, etc.) or when certain events occur. Scheduling and setup is done with the easy-to-use Data Logger configuration tool in the software. Log tag data, system errors and system events which can be used to track efficiency and performance, troubleshoot reoccurring or intermittent faults, and predict future breakdowns.

The micro-SD card can also be used to upload or download a project to/from a Productivity2000 without having a PC present. This feature is great for updating remotely located PLCs - just send your project on the micro-SD card to any factory in the world, and the controller can be updated with the most current project.

**Fun Fact:** Our complete 3-book catalog is 866MB when downloaded. You could save about 36 copies of the complete catalog in 32GB. That is 108 total books with over 140,000 pages!

Date	Time	Tank1 Temp
4/13/15	12:35:49	79.400002
4/13/15	12:35:50	79.400002
4/13/15	12:35:51	79.400002
4/13/15	12:35:52	79.400002
4/13/15	12:35:53	79.400002
4/13/15	12:35:54	79.400002
4/13/15	12:35:55	79.400002
4/13/15	12:35:56	79.400002
4/13/15	12:35:57	79.400002
4/13/15	12:35:58	79.400002
4/13/15	12:35:59	79.400002
4/13/15	12:36:00	79.400002
4/13/15	12:36:01	79.400002
4/13/15	12:36:02	79.400002
4/13/15	12:36:03	79.400002
4/13/15	12:36:04	79.400002
4/13/15	12:36:05	79.400002
4/13/15	12:36:06	79.400002
4/13/15	12:36:07	79.400002
4/13/15	12:36:08	79.400002
4/13/15	12:36:09	79.400002
4/13/15	12:36:10	79.400002
4/13/15	12:36:11	79.400002
4/13/15	12:36:12	79.400002
4/13/15	12:36:13	79.400002
4/13/15	12:36:14	79.400002
4/13/15	12:36:15	79.400002
4/13/15	12:36:16	79.400002
4/13/15	12:36:17	79.400002
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4/13/15	12:36:20	79.400002
4/13/15	12:36:21	79.400002
4/13/15	12:36:22	79.400002
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4/13/15	12:36:29	79.400002
4/13/15	12:36:30	79.400002
4/13/15	12:36:31	79.400002
4/13/15	12:36:32	79.400002
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4/13/15	12:36:36	79.400002
4/13/15	12:36:37	79.400002
4/13/15	12:36:38	79.400002
4/13/15	12:36:39	79.400002
4/13/15	12:36:40	79.400002
4/13/15	12:36:41	79.400002
4/13/15	12:36:42	79.400002
4/13/15	12:36:43	79.400002
4/13/15	12:36:44	79.400002
4/13/15	12:36:45	79.400002
4/13/15	12:36:46	79.400002
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4/13/15	12:36:48	79.400002
4/13/15	12:36:49	79.400002
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4/13/15	12:37:10	79.400002
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4/13/15	12:37:12	79.400002
4/13/15	12:37:13	79.400002
4/13/15	12:37:14	79.400002
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4/13/15	12:37:17	79.400002
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4/13/15	12:37:23	79.400002
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4/13/15	12:37:25	79.400002
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4/13/15	12:37:28	79.400002
4/13/15	12:37:29	79.400002
4/13/15	12:37:30	79.400002
4/13/15	12:37:31	79.400002
4/13/15	12:37:32	79.400002
4/13/15	12:37:33	79.400002
4/13/15	12:37:34	79.400002
4/13/15	12:37:35	79.400002
4/13/15	12:37:36	79.400002
4/13/15	12:37:37	79.400002
4/13/15	12:37:38	79.400002
4/13/15	12:37:39	79.400002
4/13/15	12:37:40	79.400002
4/13/15	12:37:41	79.400002
4/13/15	12:37:42	79.400002
4/13/15	12:37:43	79.400002
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4/13/15	12:37:46	79.400002
4/13/15	12:37:47	79.400002
4/13/15	12:37:48	79.400002
4/13/15	12:37:49	79.400002
4/13/15	12:37:50	79.400002
4/13/15	12:37:51	79.400002
4/13/15	12:37:52	79.400002
4/13/15	12:37:53	79.400002
4/13/15	12:37:54	79.400002
4/13/15	12:37:55	79.400002
4/13/15	12:37:56	79.400002
4/13/15	12:37:57	79.400002
4/13/15	12:37:58	79.400002
4/13/15	12:37:59	79.400002
4/13/15	12:38:00	79.400002



## C-more data!

Easily integrate your tag database into the C-more HMI for added visibility and logging of critical data. Trend graphs, bar graphs, analog meters, etc. are available to make your data easily understandable. An additional 32GB of data logging is possible with the C-more HMI's SD card slot. 12 and 15-inch panels include two SD card slots. C-more touch panels are available starting at \$499.

- 16 pen trends
- PID faceplate
- PID with trend faceplate
- Each pen can be turned on/off
- True historical data logging



micro SD



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# HMI/SCADA Interface



# POINT OF VIEW

## Data logging

The shared tag database between Point of View and P2000 allows for simple development of SCADA interfacing. Real-time and historical trend data can be logged in binary format or to any database locally and remotely.

## Database Connectivity

Point of View SCADA software allows connections to any SQL database (MS SQL, MySQL, Sybase, Oracle), or MS Access or Excel, and ERP/MES systems (including SAP). It is flexible enough to have a built-in interface without the need to know SQL (for trends, alarms/events, grid and other objects) and the optimized trend history module is designed to load millions of values from SQL relational databases with high performance.

## 3rd Party Database Connectivity

The built-in DataWorx Request instruction gives you the tools you need to interface with the DataWorx server. Retrieve, add, delete or update data records in any SQL or MS Access database.

KEPDirect OPC server software connects the Productivity2000 to 3rd party software. Any industrial HMI, SCADA, data historian, MES or ERP software package that includes an OPC client interface (most do) can connect directly to the P2000.



## Web Server

With the P2-550 CPU's integrated Web Server, you can access Data Logger files stored on an installed flash device (optional) as well as monitor system status via the (read-only) System Tags.

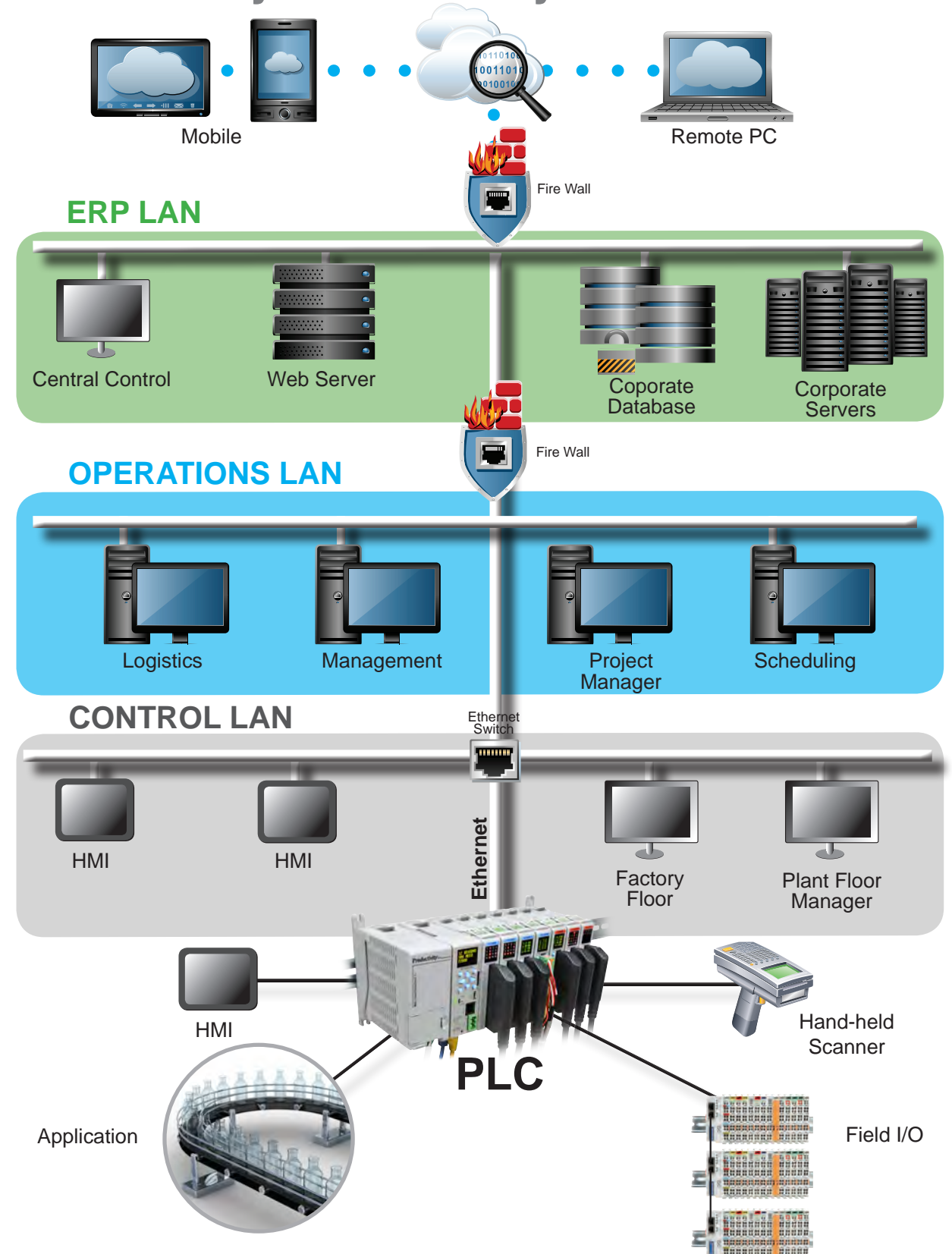
## Apple iOS PACDATA app

The FREE PAC/PLC Data Remote Monitor App allows you to connect to remote P2000 systems from a Wi-Fi or cellular network connection. The Remote user can monitor the local PLC system and user tags configured for remote access inside the tag database of the controller.



# Productivity<sup>2000</sup>

## From Factory Floor to anywhere in the world.





Our campus is located about 45 minutes north of Atlanta, GA, USA.  
**We're all here** - our sales and technical support teams, purchasing, accounting, and of course our huge warehouses and speedy logistics team.

# Huge Inventory! Order Today, It Ships Today!

Great people and automation go hand-in-hand to make it easier for you to get what you want, when you want it.



### You say -

"I ordered today, you shipped today. Doesn't get any better than that. Thanks."  
"Outstanding service, amazed at the speed of delivery!"  
"It's easier and faster to order from you guys than any other online merchant that I use. Not only that, deliveries are consistently accurate and delivery time is dependable ... both KEY factors in our JIT processes."



Get us your order by 6 p.m. EST and we'll ship in-stock items the same day (depending on payment method and carrier requested; see Terms and Conditions online for complete details).

Most local distributors can't justify this degree of automation sophistication, or this amount of inventory.

- Company Information
- Control Systems Overview
- CLICK PLC
- Do-More PLCs Overview
- Do-More H2 PLC
- Do-More T1H PLC
- DirectLOGIC PLCs Overview
- DirectLOGIC DL05/06
- DirectLOGIC DL105
- DirectLOGIC DL205
- DirectLOGIC DL305
- DirectLOGIC DL405
- Productivity 2000
- Productivity 3000
- Universal Field I/O
- Software
- C-More HMI
- C-More Micro HMI
- ViewMarq Industrial Marquees
- Other HMI
- Communications
- Appendix Book 1
- Terms and Conditions



# A little more about our FREE software

## User-friendly, customizable layout

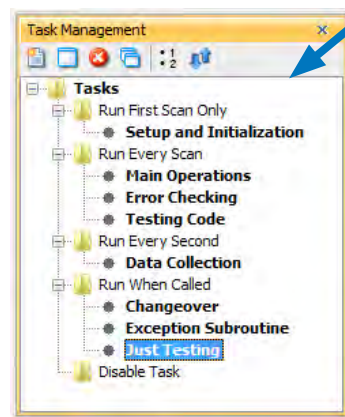
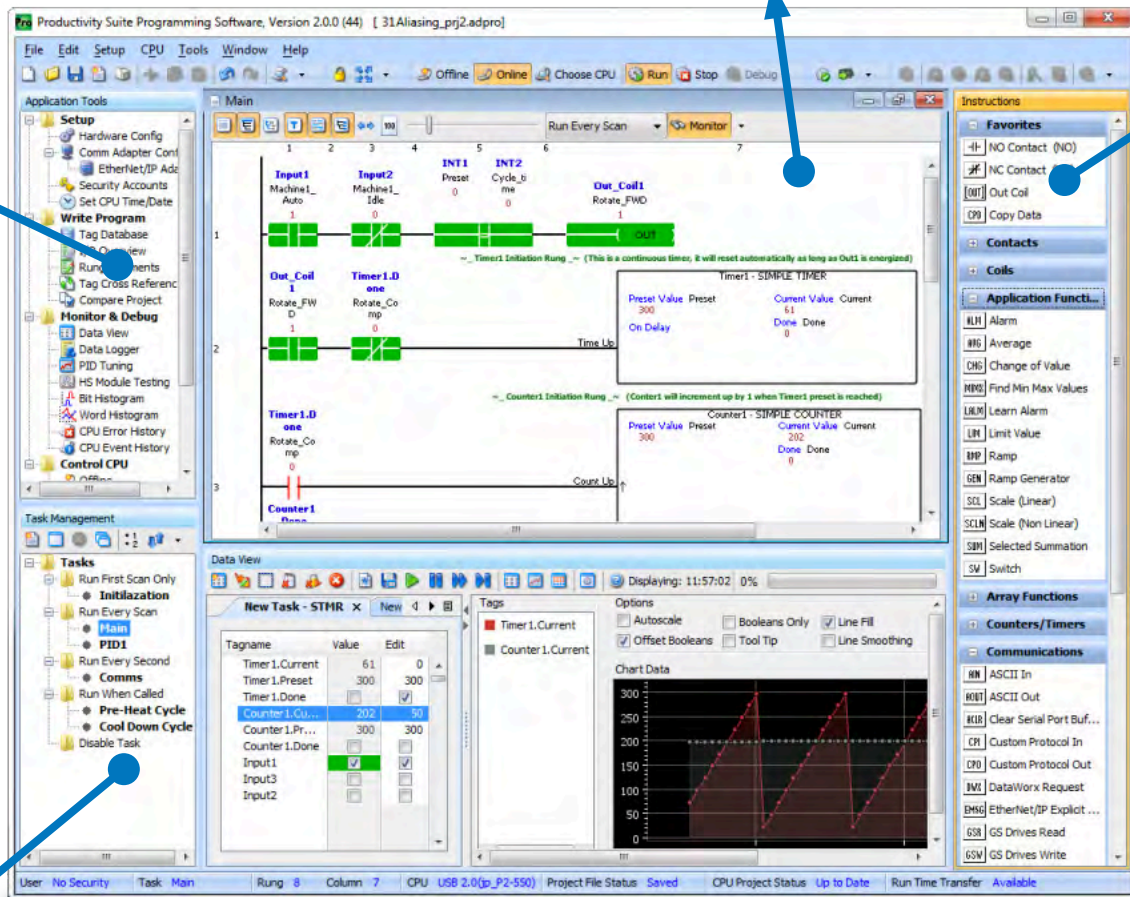
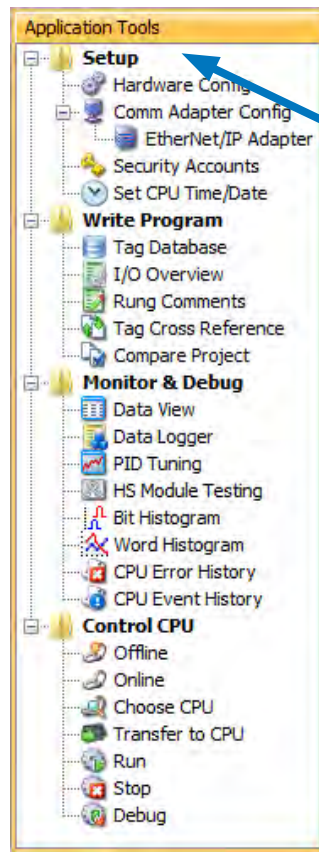
The Productivity Suite is organized into a set of fully-dockable and configurable "Panels". Dock them, un-dock them, and rearrange them to suit your programming style.

## Application Tools

The Application Tools pane allows quick access to many of the advanced features of the Productivity Suite.

## Main Ladder/Task Area

This is where you create your ladder program. Create/organize your Tasks in this area, and drag and drop instructions from the Instructions Pane. The Application Specific Instructions built in to the Productivity Suite will save you time, and ignite your productivity.



## Powerful Task Manager

Have you ever had to write custom ladder logic to get a section of code to only execute periodically and not every scan? Or what about ladder code that only needs to run on the first scan? With the Productivity Suite Task Manager you simply break up your ladder logic into separate tasks and then drag them into the appropriate categories. In the screen shot to the left, the task (or ladder logic routine) Setup and Initialization has been placed in the "Run First Scan Only" category, and will only execute once at start-up.

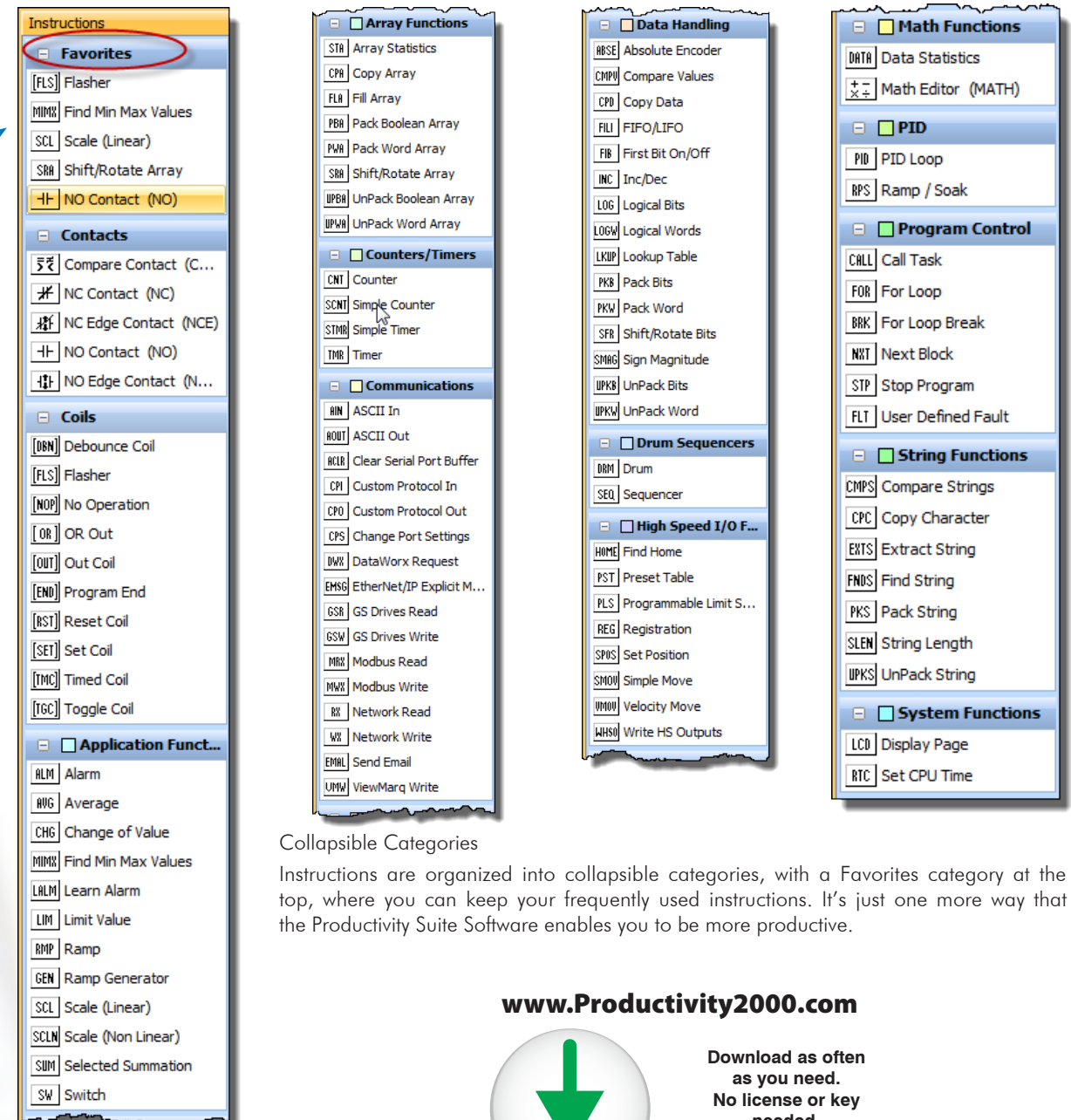
Combined with the ability to make run-time edits, the Task Manager is a powerful coding and debugging tool. Keep a task in the "disabled" category while you are developing it, and then drag it into the "Run Every Scan" to test it. Place data collection and other periodic tasks in the "Run Every Second" category and improve the scan time of your main routine.

Give it a try - we think you'll agree - the Task Manager offers true productivity enhancement.

## Application Specific Instructions

There are so many time-saving instructions, and they all have one thing in common - their "fill-in-the-blank" approach makes it easy to configure even the more complex tasks that used to require a whole bunch of program code. Consider these two frequent ladder logic headaches - finding an average value from a dynamic tag value or its min./max. values. With Productivity2000, you just fill in the blanks. How productive is that! Scaling, calculator-style math, statistics, send email, the list goes on and on.

These are the available ladder logic instructions for the Productivity Series. The best way to learn more about the Productivity series instructions is to download the free software. You can also access the comprehensive online help files for detailed information about the individual instructions at [www.automationdirect.com/p2000/help/index](http://www.automationdirect.com/p2000/help/index).



### Collapsible Categories

Instructions are organized into collapsible categories, with a Favorites category at the top, where you can keep your frequently used instructions. It's just one more way that the Productivity Suite Software enables you to be more productive.

[www.Productivity2000.com](http://www.Productivity2000.com)



Download as often as you need. No license or key needed. Check it out.



# A little more about our FREE software

## Productivity Suite Software - Developed and Supported in the USA at no cost to you.

That's right, we offer the Productivity Suite programming software as a free download. It's the full package - no restrictions - no limitations. That's a \$495 value - Free!

Download it or explore it online at [www.automationdirect.com/p2000/software/overview](http://www.automationdirect.com/p2000/software/overview). We want you to see how the Productivity Suite can enhance your productivity. From the auto-discovery of your I/O modules and VFDs to the Application Specific instructions, we've put our 20 years of programmable controller software experience and all of your great customer suggestions and feedback into the Productivity Suite. Give it a try, and let us know what you think.

### "No Problem" programming is programming without restrictions.

The Productivity2000 is a tag name based controller which allows for more freedom and flexibility than fixed-memory controllers.

- Does your application need 2000 timers but only 15 counters? No problem!
- Or maybe it needs 4000 real numbers and only 30 integers? No problem!

The tag name structure of Productivity Suite also allows for easy interfacing. Simply import your tag database into HMI/SCADA software such as Point of View and C-more or into data logging software like Dataworx for trouble-free development. Get improved documentation, faster troubleshooting, reduced development time, easy setup and an overall better programming experience all at no cost to you!

[www.Productivity2000.com](http://www.Productivity2000.com)



Download as often as you need. No license or key needed. Check it out.

### No Arbitrary Limits Either

The Productivity2000's fast processor and programming environment free you from arbitrary and fixed limits that many other controllers impose. With no practical limit on the number of PID loops, timer or counter commands, programmers are able to take full advantage of the power of your Productivity Series controller.

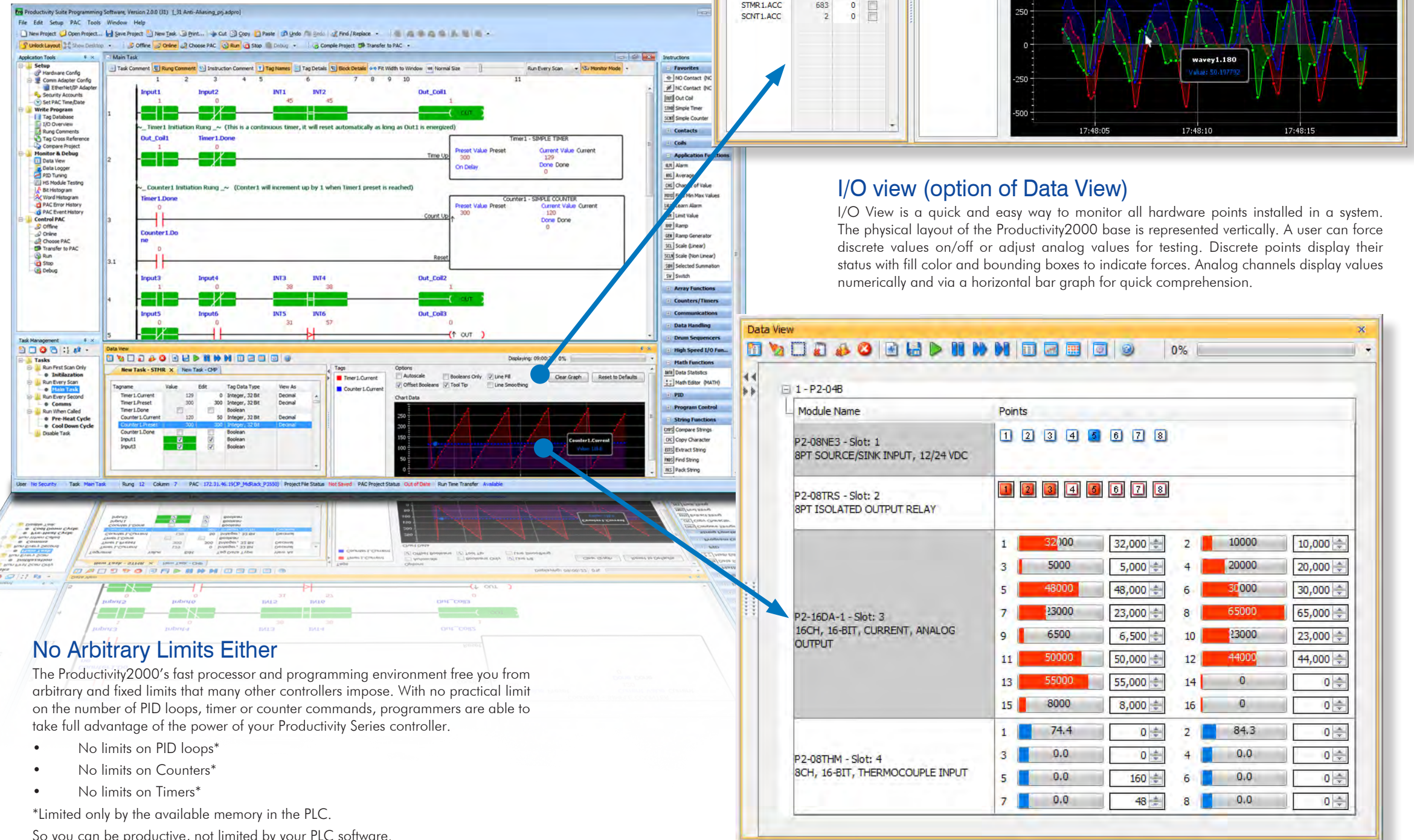
- No limits on PID loops\*
- No limits on Counters\*
- No limits on Timers\*

\*Limited only by the available memory in the PLC.

So you can be productive, not limited by your PLC software.

## Productivity Suite Data View Window

The Productivity Suite allows you to create (and save) multiple Data View windows to monitor and test your project. Monitor I/O points in a spreadsheet style chart, or drag Tagnames into the graph view to see them plotted in real time.



### I/O view (option of Data View)

I/O View is a quick and easy way to monitor all hardware points installed in a system. The physical layout of the Productivity2000 base is represented vertically. A user can force discrete values on/off or adjust analog values for testing. Discrete points display their status with fill color and bounding boxes to indicate forces. Analog channels display values numerically and via a horizontal bar graph for quick comprehension.



# Developed and Supported in the USA!

## What's so great about tag name programming?

### More descriptive naming:

Reference your variables and I/O points with sensible names (tag names) and make your program easier to understand.

Add descriptive names as you program or enter all the tags before you even write one line of code.

While the Productivity Suite offers you the option to assign a logical name to your physical I/O points automatically when a module is selected (or auto-discovered), you can replace or augment these numerical rack, module, and point references with your own descriptive names at any time.

### More flexible design:

Data memory ranges in the Productivity Suite are not fixed by data type. This efficiency allows you the freedom to define tag names of any data type you need instead of having arbitrary blocks of wasted memory for data types you don't need.

### Easier to troubleshoot:

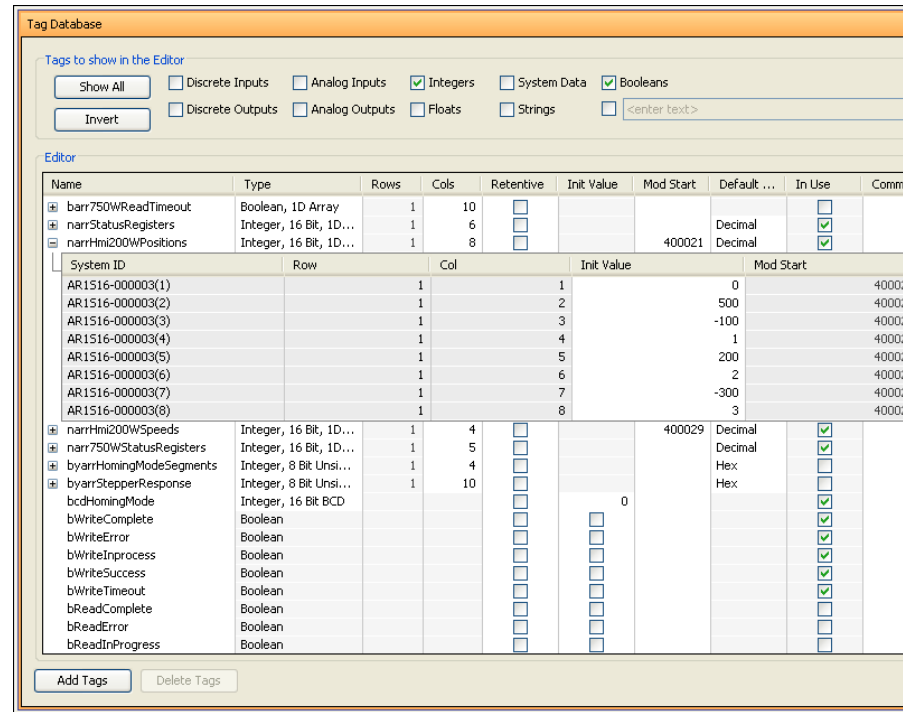
X15, I:4/3, C200, B3:0/2 mean very little with respect to your process or machine. However, 'System Start\_PB1', 'Auto Mode\_SW1' or 'Batch Seq\_Enabled' are very clear and concise. These are common descriptors (or labels) that are added to a fixed-memory address (or used as a "comment") in non-tag name based systems. A tag name based controller simply incorporates these descriptions/labels as the tag name.

**“Better naming conventions result in an easier to understand and better documented program.”**

## Project Portability

Built right into the Productivity Suite is a conversion tool that allows easy project transfer between all Productivity Series controllers.

The conversion tool scans the hardware configuration and reassigns I/O tags as needed, saving you hours of redesign and redevelopment time.



### Export (and Import) your entire tag name database:

Perhaps you need to connect to a C-more HMI Panel, or create a PC based HMI/SCADA system with Point of View software. You can export your entire tag name database, and import it into the HMI software – saving hours of typing and hunting for the correct tag name – and eliminating typographical errors that cause needless troubleshooting headaches.

Or maybe you would like to edit your tag database in a spreadsheet format – simply export it to .CSV format, make your changes, and then import the changes back into the Productivity Suite.

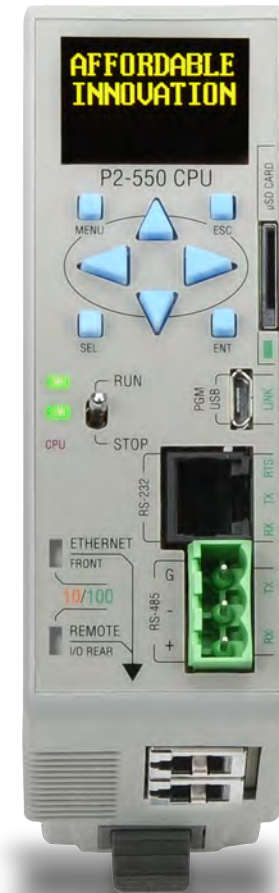
[www.Productivity2000.com](http://www.Productivity2000.com)



Download as often as you need. No license or key needed. Check it out.



## EtherNet/IP<sup>™</sup> Modbus<sup>®</sup>

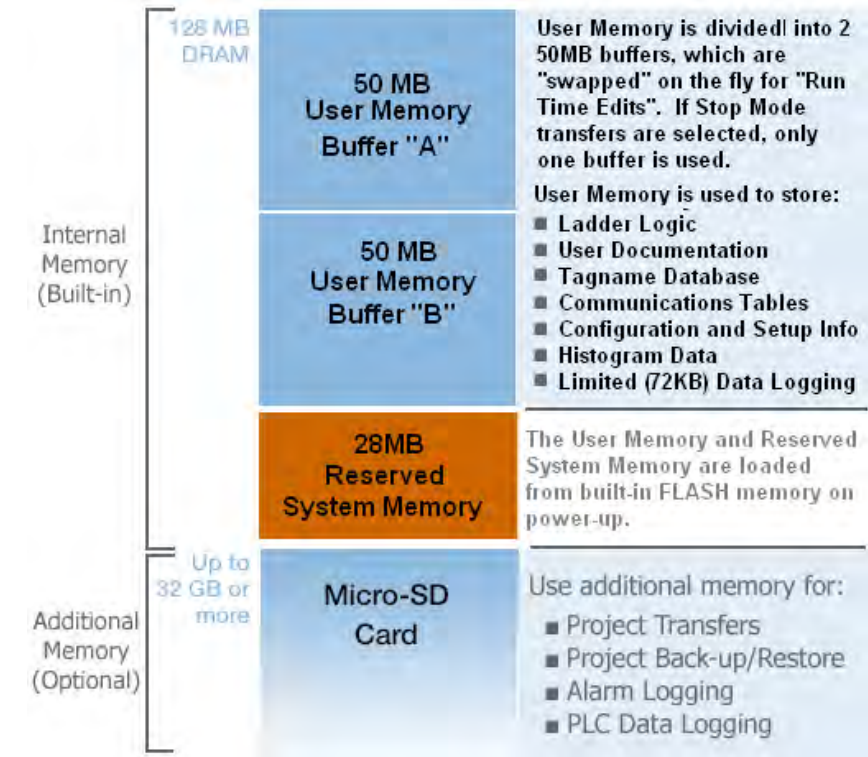


## 50MB of User Memory

Store your entire project with ALL documentation in the CPU, and never hunt for that old laptop again. You know, the only one that has the updated code from last summer when you made all those changes.

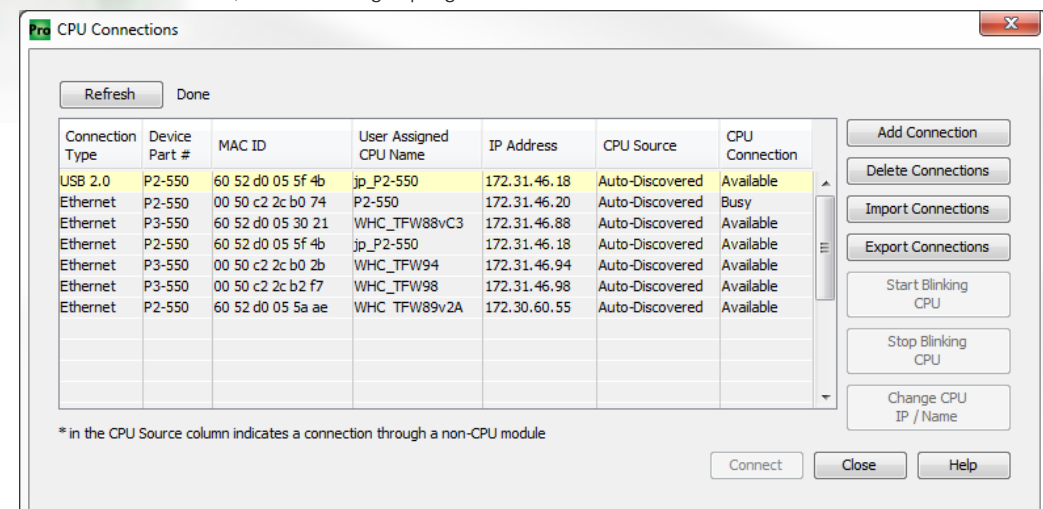
Sure, we recommend that you make a back-up, but who hasn't been burned by this classic PLC problem?

Now you can download the free software to any available PC, grab the project (with documentation) from the Productivity2000 CPU and you can quickly be productive with any required changes, updates, or troubleshooting.



## Program via USB or Ethernet

The Productivity Suite programming software supports both USB programming and Ethernet Programming. The PLC Connections dialog box (shown below) allows you to connect to any PLC on your network for programming or data monitoring operations. The PLC Connections dialog even displays PLCs that are on other subnets, and will allow you to change the IP address and name of those PLCs so that you can connect to and program those as well. The "Blink CPU Display" buttons are a great way to make sure you are connected to the intended PLC, before risking a program transfer.





# Programming your PLC should be easy.

## Comprehensive help files - for FREE!

Help Files are always available with detailed information on over 260 topics and the latest version is embedded within your FREE copy of Productivity Suite. If that's not enough, give us a call at 1-800-633-0405 between 9am - 6pm weekdays. Won't cost you a penny and we're always glad to help.

You can browse the actual help files here:  
<http://www.automationdirect.com/p2000/help/index>

Below is a sample screen from our Help file:

**Call Task (CALL) Instruction**

Task to Run:

Show Instruction Comment

OK Cancel Help

Call Task Instruction (CALL)	Boolean	Integer, 8 Bit Unsigned	Integer, 16 Bit	Integer, 16 Bit Unsigned	Integer, 16 Bit BCD	Integer, 32 Bit	Integer, 32 Bit BCD	Float, 32 Bit	String	Constant	Notes
a Task To Run											Select the Name of the Task.

**Application Example** In this application example, there are three fill stations located in three major cities that only require periodic control. Each Fill Tank will be controlled using the Call Task instruction.

CALL TASK Fill Tank Miami    CALL TASK Fill Tank Boston    CALL TASK Fill Tank Atlanta

## Run-time edits

Commissioning or troubleshooting a system can be less time-consuming if you can make program edits on the fly. Download edits to the CPU without pausing I/O updates or stopping/restarting the program. From melting rubber to making paper, you can keep your process running, avoiding downtime and product waste.

Select Transfer Type

Which type of transfer do you want to perform?

Note that stop mode transfer will put CPU in stop mode before transfer and back to run mode after transfer.

Run Time Transfer    Stop Mode Transfer    Cancel

Find Min Max Values (MIMX)

Use Structure    TankLevel

Input: Input    Min Value: MinValue    Max Value: MaxValue

Tag Cross Reference

Tagname

- TankLevel.Input
- TankLevel.MinValue
- TankLevel.MaxValue

(0 items found)

Show Instruction Comment

Monitor    OK    Cancel    Help

## Friendly Function Blocks

The "fill-in-the-blank" style of our function block instructions will make even the most complicated task a no-brainer. PID loops, statistics, motion commands, etc. are all easily configured with Productivity Suite. And with the added predefined structure functionality, tag creation is as easy as clicking a box. Seriously, click the "Use Structure" box and the predefined tag suffixes will populate the instruction fields and you are .DONE!

Bit Histogram [ Machine Timing - 2000 Data Samples ]

Channels:

- bMainSpeedRef
- bFirstConveyerRate
- bFeeder1
- bCartonIndex
- bSecondConveyerRate
- bDateCoder

Trigger Method: Manual

Data Collection Protocol: Discard new data when PAC buffer is full

Sample every: 1 scans (1-65535)

## Analyze Tag Data with Bit & Word Histograms

Histograms allow you to clearly see what is happening - and when - at the bit or word level. Identify rare conditions, isolate control issues, and verify proper operation of your machine or process. Trigger the sampling manually, or based on a tag value. Sample as often as once every scan, or at some less frequent period that you select. Save multiple histogram configurations and quickly gather the same data again in the future without going through the setup process.

Word Histogram [ Machine Inputs - 1494 Data Samples ]

Channels:

- nOvenVariance    Amplitude: 39.0
- nOutputCmd    Amplitude: -19.0
- nVelocityRef    Amplitude: -67.0

Trigger Method: Manual

Data Collection Protocol: Discard new data when PAC buffer is full

Sample every: 25 insecs (1-65535)

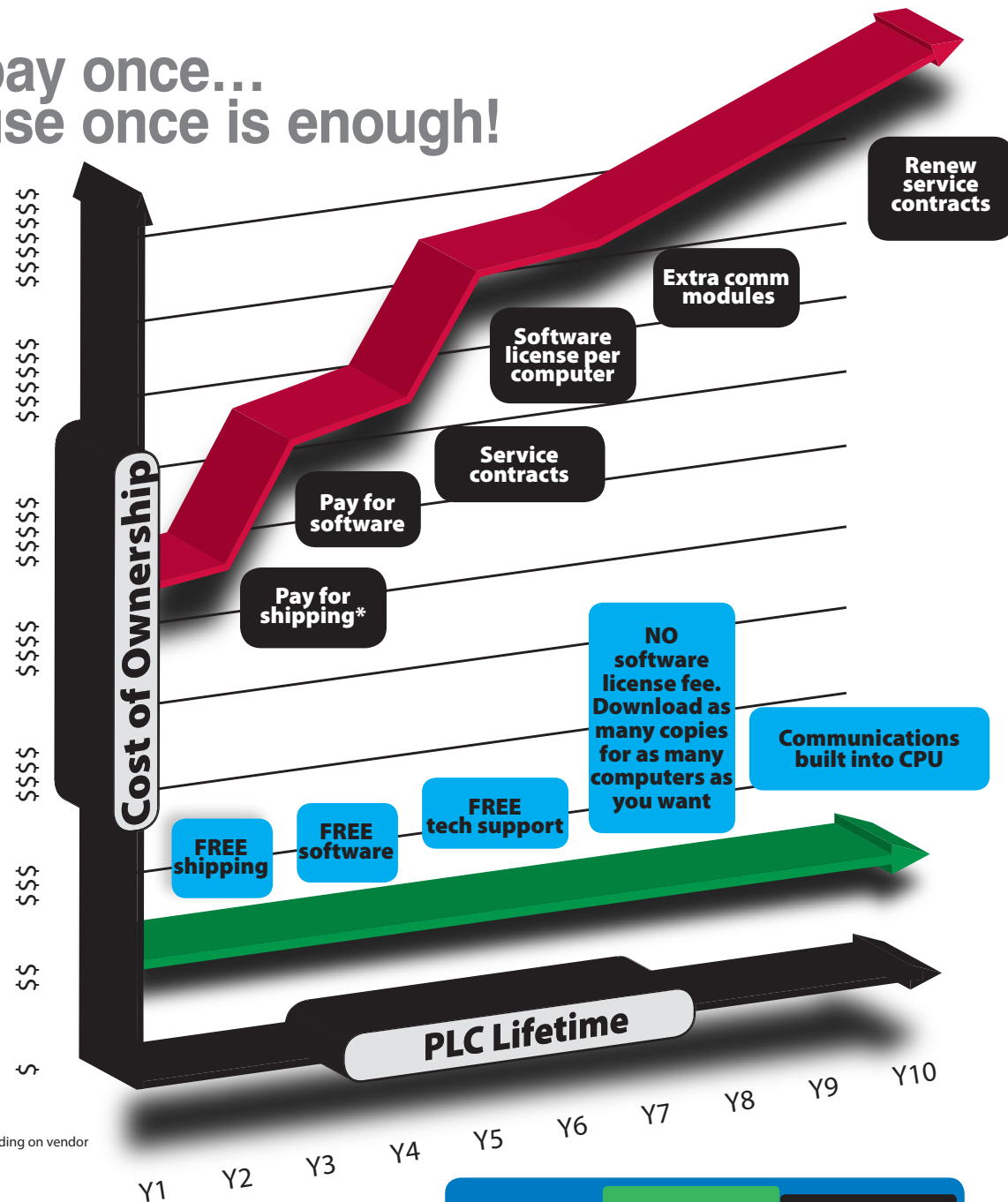
www.Productivity2000.com



Download as often as you need. No license or key needed. Check it out.



# Just pay once... because once is enough!



**Competitor PLC**  
 \$\$\$\$+\$\$+\$+\$. . . .

**Productivity2000**  
 \$\$\$

\* Depending on vendor

## Own it, don't owe on it!

So, how much should a PLC cost? Does a higher cost indicate greater functionality, better quality, or does it indicate more overhead, more expenses being off-loaded to you? Buying direct with us saves you money and cuts out the unnecessary costs that are incorporated into each PLC sale. If you need a PLC, then buy a PLC, not the overhead! With Productivity2000, you get many standard features that you would pay thousands for elsewhere. Our feature-packed P2-550 CPU is priced at \$255 and I/O modules start at just \$40 (P2-08NE3). So, ask yourself, what exactly are you paying for?

CPU and I/O Comparison	AutomationDirect Productivity2000	VS.	Allen-Bradley CompactLogix
Base (if required)	\$69.00 P2-04B		N/A N/A
Power Supply	\$69.00 P2-01AC		\$414.50 1769-PA4
CPU	\$255.00 P2-550		\$3,160.00 1769-L3SER
16 AC Inputs	\$105.00 P2-16NA		\$286.00 1769-IA16
16 24VDC Inputs	\$69.00 P2-16NE3		\$244.00 1769-IQ16
8 Relay Outputs	\$51.00 P2-08TRS		\$301.50 1769-OW8I
8 Analog Input Channels (mA)	\$199.00 P2-08AD-1		\$713.50 1769-IF8
ASCII Comm Module	\$0.00 Built in to CPU		\$737.00 1769-ASCI1
Modbus RTU Comm Module	\$0.00 Built in to CPU		\$701.00 1769-SM2
Total System Price with USB, Ethernet and Serial	\$817.00		\$6557.50

All prices are U.S. published prices. AutomationDirect prices as of 6/5/2015. Allen-Bradley retail prices taken from www.abcenter.com 5/12/2015.



## See what others are saying:

"We are an OEM, and in the past used the Allen-Bradley CompactLogix platform for our higher end equipment. We think we have found its replacement. We have been testing this [controller] via the starter kit, and so far have been very impressed. The idea of a low cost controller, with all the available communication ports is a big plus for us. We really like, and prefer, the tag based programming utilized by this unit. We typically use drives to control conveyors running to our machinery, and the fact that the drive communication, and variables are on-board is fantastic. There is a window in the hardware configuration for adding your drives to the project (GS1, GS2, GS3). We like the idea that all the drive parameters are stored on the CPU, and can be downloaded to a drive when needed is great for the maintenance staff (no more having to scroll through menus to configure the drive!) And just like the other Automation Direct offering, all documentation and tags are stored on the CPU. So, if [your] programmer person leaves the company, no worries, just upload the code and documentation . . ."

RIDGELINE MACHINE DESIGN LLC

[www.Productivity2000.com](http://www.Productivity2000.com)



Download as often as you need. No license or key needed. Check it out.

## Free Software, the way it should be!

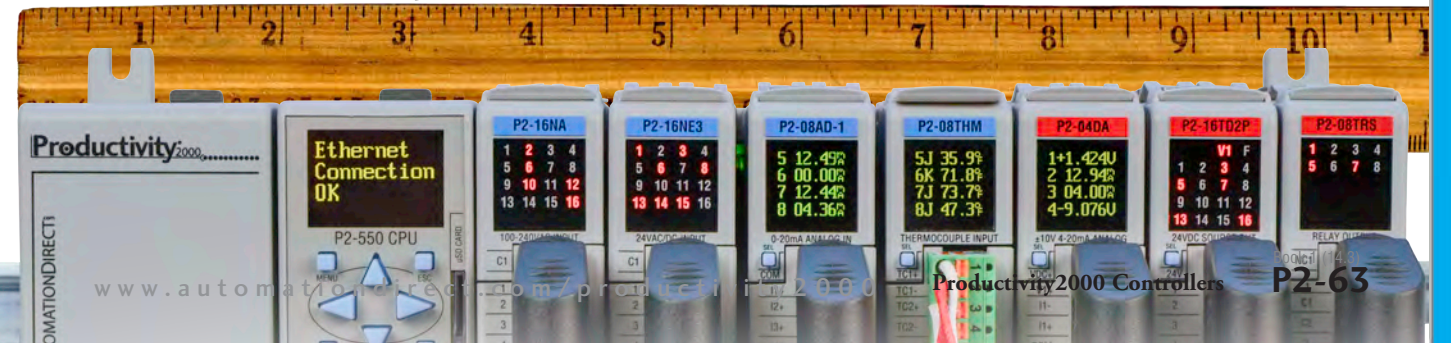
You bought the controller, why pay more to control it? The Productivity Suite programming software is available for download free of charge at [www.Productivity2000.com](http://www.Productivity2000.com). Take it for a test drive before you buy or get started on your project immediately after. There are no licensing fees or maintenance charges to be concerned with and any subsequent upgrades are available for free as well.



## More standard communication options

The Productivity2000 comes standard with more communication options than anyone else. Not only does the CPU have 5 communications ports, it also includes three of the most widely used protocols in our industry (Modbus RTU, Modbus TCP/IP, Ethernet/IP). Also included is full-duplex ASCII and the option to create your own custom Serial protocols. Not having to purchase separate communication modules or additional communication software with licensing, now or in the future, will save you money again and again!

## Slim form factor = DIN rail density! POWER SUPPLY, CPU AND SEVEN MODULES IN ONLY 10-1/2 "





# With AutomationDirect.com . . . you always get more than you paid for.



## Award-winning technical support at no cost to you!

As a direct seller of industrial automation products we strive to provide you with everything you'll need to get the job done. Manuals, help files, inserts, drawings are all available for free from our website, but for those times when you need more we do offer free technical support. Our technical support staff is field experienced, highly qualified and ready to assist you, and our service and support has won numerous awards over 14 years and counting. So before you sign an expensive service contract, check us out and see how we make it possible to get more than you paid for.



Multiple Years, multiple products

Plus many more since our beginning in 1994

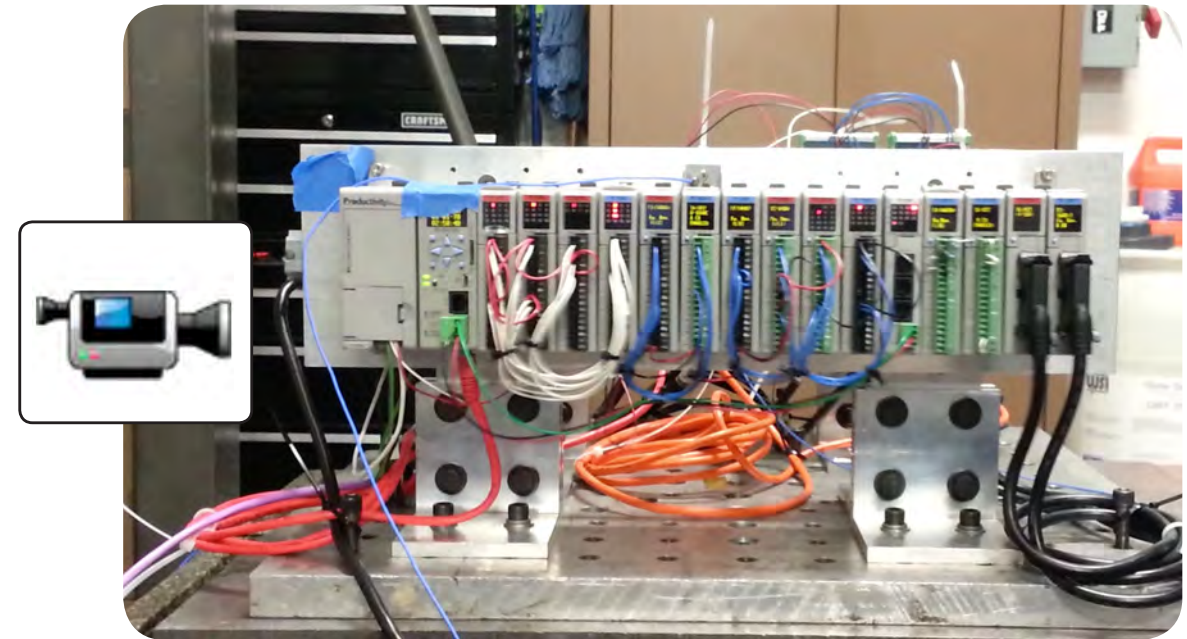
## See what others are saying:

*"Tech support is fantastic. They always get me pointed in the right direction. It's nice to call a company where the people on the phone don't just read pages from the manual, they can actively help solve your issue because they know how the systems work."*

Adam in LAWRENCEVILLE, GA

## OEMs voted our name 14 years in a row!

The Reader's Choice survey hosted by Control Design magazine aims to identify the best products and service in the industry. Results from 2001-2014 indicate we consistently provide top-notch support to our customers. This is in addition to several other industry awards from independent publications.



Online video of Productivity2000 QC vibration testing: <http://bit.ly/QCshake>

## Affordable hardware that is built to last

Despite what you may have heard from the competition, our products are built to withstand the harshest field conditions. The Productivity2000's rugged design was thoroughly tested for field duty and we stand behind its performance with a 2 year warranty. Not only can the P2000 handle adverse conditions, but the 50MB of user memory also ensures that it has enough processing power to accommodate any future expansions you may need.



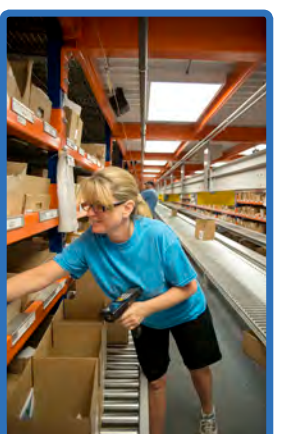
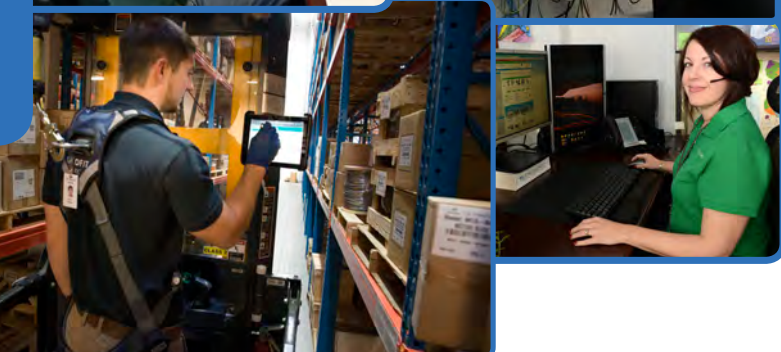
Voted #1 in service since 2001:  
[www.automationdirect.com/awards](http://www.automationdirect.com/awards)



Voted #1 mid-size company to work for in Atlanta:  
[www.automationdirect.com/workplace](http://www.automationdirect.com/workplace)



What our current customers think:  
[www.automationdirect.com/reviews](http://www.automationdirect.com/reviews)



**AutomationDirect.com Headquarters**  
We're all here - our sales and technical support teams, purchasing, accounting, and of course our huge warehouses and logistics team - ready to serve you.  
Our campus is located about 45 minutes north of Atlanta, GA, USA

Order Today, it ships today

FREE shipping - orders over \$49

2-day Shipping

30-day Money-Back Guarantee

## Other Freebies

**30 Days of Free Training!**  
Your purchase of this Productivity<sub>2000</sub> product qualifies you for 30 days of free online training.

Visit [www.productivity2000training.com](http://www.productivity2000training.com) and enter the code above to take advantage of this offer!

**INTERCONNECTING AUTOMATION**

What could be better than a free calendar from your sales rep or local distributor? Well, we think free training would be. That's why we include a certificate for 30 days of free online training with every purchase of a Productivity2000 CPU or starter kit. We also have a huge library of how-to videos available for free on our website that you can view any time, at your convenience. [www.AutomationDirect.com/videos](http://www.AutomationDirect.com/videos)



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- Productivity 3000
- Universal Field I/O
- Software
- C-More HMI
- C-More Micro HMI
- ViewMarq Industrial Marquees
- Other HMI
- Communications
- Appendix Book 1
- Terms and Conditions



# If it's in your cabinet, it's online at: [www.AutomationDirect.com](http://www.AutomationDirect.com)



## Tens of thousands of in-stock quality items

### An Extensive Lineup of Products

Starting with the enclosure, we carry everything you need to build an electrical control system, right down to the wire and tools. And we have the devices that go in the panel, such as logic controllers, HMI, drives, relays, and motor controls. If you're maintaining existing systems, we've got great prices on MRO parts such as circuit breakers, fuses, motors, pneumatics and pilot devices. In addition to our catalog all our products are available to **order 24/7 at [www.automationdirect.com](http://www.automationdirect.com)**.

### Value Pricing

Our everyday prices on industrial control products are well below the list prices of more traditional automation companies because, with our direct business model and focus on high efficiency, AUTOMATIONDIRECT has the **lowest overhead in the industry**. We pass the savings on to you by offering high-quality products at low prices.

### FREE Award Winning Support

Almost 99% of AUTOMATIONDIRECT customers responding to surveys say they would recommend us to someone else, and they do! And we've been **voted tops in service by independent magazine surveys 14 years running**.

### FREE & Fast Shipping\*

The majority of our products are stocked for same-day shipping, when you place your order by 6 p.m. EST.

*\* Same day shipping with approved company credit or credit card. Free 2-day (transit) shipping for orders over \$49; other expedited services extra. See Web site or catalog Terms and Conditions for all details and exceptions.*

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