WELCOME TO PAC PROJECT R10.2

Welcome to version R10.2 of Opto 22's PAC Project™ software suite for industrial automation, remote monitoring, and data acquisition applications.

PAC Project comes in two forms: PAC Project Basic and PAC Project Professional.

PAC Project Basic

PAC Project Basic is included in your purchase of a *groov* EPIC processor or SNAP PAC controller, and can also be downloaded for free from our website, www.opto22.com. PAC Project Basic is all you need for most monitoring and control purposes. It includes:

- **PAC Control Basic**™ for developing control programs (*strategies*) to automate processes, monitor equipment, and acquire data from processes and equipment.
- **PAC Display Basic**™ for creating HMIs (human-machine interfaces) for technicians and operators to use.
- **PAC Manager**™ for configuring and maintaining SNAP PAC controllers, brains, and I/O. (To configure and maintain *groov* EPIC processors and I/O, you use *groov* Manage, which is installed on the processor.)

PAC Project Professional

PAC Project Professional is designed for more complex projects, especially those requiring OLE for Process Control (OPC), database connectivity, redundant networks, controller redundancy, and legacy hardware support.

PAC Project Professional can be purchased as a suite or you can purchase its components individually:

- **PAC Control Professional**™ for developing control programs.
- **PAC Display Professional**™ for creating HMIs.
- **PAC Manager**™ for configuring and maintaining SNAP PAC hardware.
- **OptoOPCServer**™, an OPC 2.0-compliant server for serving data from *groov* I/O and SNAP I/O to OPC clients, including PAC Display and OptoDataLink. OptoOPCServer is strongly recommended for multiple seats of PAC Display and OptoDataLink communicating with the same controller(s).
- **OptoDataLink**™ for exchanging data between databases (including Microsoft® SQL Server®, MySQL®, and Microsoft Access®), text files, and ODBC-compliant applications such as Microsoft Excel®.
- **SoftPAC**™, a software-based programmable automation controller for PC-based control
- **PAC Project Tools**, a set of utilities that includes OptoVersion, OptoDisplay Converter, PAC Message Viewer, PAC Sim, PAC Terminal, and the PAC Project Installer.

More Information on PAC Project Basic and Pro

PAC Project works with all *groov* EPIC processors, *groov* I/O modules, SNAP PAC controllers and brains, and SNAP I/O modules. Free product support is included with both PAC Project Basic and PAC Project Professional. Free training and free pre-sales engineering help are also available.

- For product support, see "For Help" on page 4.
- For training, see our website at www.opto22.com, or email training@opto22.com.
- For pre-sales engineering, call 1-800-321-6786 (toll-free in the U.S. and Canada) or 1-951-695-3000.

For computer memory and operating system requirements, see "Installation Requirements" on page 2.

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For more information about PAC Project Basic and Professional, see:

- *PAC Project Software Suite Data Sheet* (Opto 22 form 1699)
- *PAC Project Basic and Professional Comparison Chart* (Opto 22 form 1681)

Notes for Customers with Older Systems (ioProject and FactoryFloor)

PAC Project is very similar to older Opto 22 software, but there are important things to know **before you install** and use it. If you're moving to the SNAP PAC System from legacy systems, be sure to read these documents first:

- *PAC Project 8.0 Release Notes*, form 1680. See the section, "Notes for Current ioProject Customers."
- *SNAP PAC System Migration Technical Note*, form 1688.
- (FactoryFloor customers only) *FactoryFloor to PAC Project Migration Technical Note*, form 1692.

NOTE: If you are using a SNAP-LCE or Ultimate controller, do not upgrade to PAC Project R10.2. Instead, use either PAC Project 8.0 or ioProject. In order to use these controllers with PAC Project 8.0, use controller firmware version 7.2 and Ethernet brain firmware version 7.0 or higher. If you want to use PAC Project software version 8.1 or higher, you must use either groov EPIC processors or SNAP PAC controllers.

ENHANCEMENTS

PAC Project R10.2 includes infrastructure enhancements to support future models of *groov* I/O modules.

BUG FIXES

For a complete list of bug fixes in the R10.2 version of PAC Project, see the PAC Project Readme file.

In addition, see the readme file for your control engine or brain firmware, available on our website at www.opto22.com. To find firmware, click Support > Downloads and under "Resource Type," select Firmware.

In addition to downloading the firmware, click the Related Documents tab and download the readme file, too.

Here are some other useful sources of bug information on our website:

- **OptoKB Article Search**—Click the Support tab on our website, and then click KnowledgeBase to search for articles by title, description, KB number, or product.
- **OptoForums**—Use your MyOpto account to find answers and post messages to OptoForums subscribers.

INSTALLATION

CAUTION: *If you are upgrading to version R10.2 from a version of ioProject older than 7.0, do NOT uninstall ioProject before running the PAC Project version R10.2 installation. If you uninstall first, you will lose all configured control engines.*

Installation Requirements

Here's what you need to install and run PAC Project R10.2 software:

- A computer with a standard or mainstream processor and (at least) the minimum memory required for your version of Microsoft Windows. (Low-end CPUs are not recommended.) Additional memory may be required for some configurations.

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- One of the following operating systems:
  – Microsoft® Windows® 10 Professional (32-bit or 64-bit)
  – Windows 7 Professional (32-bit or 64-bit)
  – (OptoOPCServer and OptoDataLink only) Windows Server® 2012 R2 and Windows Server 2008 R2

  NOTE: PAC Project cannot be installed on Windows XP or older Windows operating systems. Embedded operating systems are not tested or supported.

- Ethernet capability.
- VGA or higher resolution monitor (Super VGA recommended). Minimum size: 800x600 with small fonts.
- Mouse or other pointing device.
- (Optional) Installed Windows printer.

Important Notes on Firmware

Opto 22 hardware is shipped with the version of firmware available at the time the hardware was manufactured. You should check the Support > Downloads page for additional updates that may be available.

For details on the features each firmware version includes, see the following documents:

- For SNAP PAC controllers and brains, see the SNAP PAC Controllers and Brains Firmware Readme file for your device.
- For *groov* EPIC processors, see the GRV-EPIC-PR1 Firmware Update Readme file.

To find the readme, go to www.opto22.com and search on the part number for the *groov* EPIC processor, PAC, or brain. When you get to the product page, look under the Documents tab for the readme. The readme can also be found under the Related Documents tab on the firmware download page.

NOTE: If you are using a SNAP-LCE or Ultimate controller, do not upgrade to PAC Project R10.2. Instead, use either PAC Project 8.0 or ioProject. In order to use these controllers with PAC Project 8.0, use controller firmware version 7.2 and Ethernet brain firmware version 7.0 or higher. If you want to use PAC Project software version 8.1 or higher, you must use SNAP PAC controllers instead.

For additional compatibility information, see the Legacy and Current Product Comparison and Compatibility Charts *(form 1693). To obtain this form, click the link or go to the Opto 22 website,* www.opto22.com, *and search on the form number, 1693.*

PAC Project Examples on Your Hard Drive

In order to comply with Microsoft's rules regarding directory structure, the installation process copies all PAC Project application examples to this folder on your hard drive:

C:\Users\Public\Documents\Opto 22\PAC Project R10.2

For Help

If you have any difficulty using software, documents, or firmware, contact Opto 22 Product Support by email or phone:

Phone:	800-TEK-OPTO (800-835-6786 toll-free in the U.S. and Canada) 951-695-3080 Monday through Friday, 7 a.m. to 5 p.m. Pacific Time
Fax:	951-695-3017
Email:	support@opto22.com
Opto 22 website:	www.opto22.com

NOTE: Email messages and phone calls to Opto 22 Product Support are grouped together and answered in the order received.

In addition, the Opto 22 KnowledgeBase (KB) provides the latest information on support issues and workarounds. For more information, go to the www.opto22.com website, and then click Support > KnowledgeBase.

Sign Up for My Opto

With a MyOpto account, you can purchase products online, subscribe and post to our OptoForums, sign up for free training classes, build and save virtual *groov* EPIC and SNAP PAC systems using the System Configurator, and more. To sign up, go to the Opto 22 website, and click Register.

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Checking for Updates Manually

Use these links in the Opto 22 website menu bar to manually check for new releases, updates, and patches:

Software and Firmware	Support > Downloads
Documentation	Support > Documents