PAC Project 8.5 Release Notes

Welcome to PAC Project 8.5

Welcome to version 8.5 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 SNAP PAC controller and can also be freely downloaded from our website, www.opto22.com. PAC Project Basic is all you need for most monitoring and control needs. It includes three software applications:

- **PAC Control**™ for developing control programs (*strategies*) to automate processes, monitor equipment, and acquire data from processes and equipment.

- **PAC Display**™ for creating HMIs (human-machine interfaces) for technicians and operators to use.

- **PAC Manager**™ for configuring hardware and troubleshooting.

PAC Project Professional

PAC Project Professional is designed for more complex projects, especially those requiring OLE for Process Control (OPC), database connectivity, multiple PAC Display seats, multiple protocols, multiple networks, or legacy hardware support.

PAC Project Professional can be purchased as a suite or as individual applications to suit your needs. The suite includes the following software applications:

- **PAC Control Professional** for developing control programs

- **PAC Display Professional** for creating HMIs

- **PAC Manager** for configuration

- **OptoOPCServer**™, an OPC 2.0-compliant server for serving SNAP PAC System I/O and variable data to OPC clients, including PAC Display. OptoOPCServer is strongly recommended for multiple seats of PAC Display.

- **OptoDataLink**™ for exchanging SNAP PAC System data with databases (including Microsoft SQL Server, Microsoft Access, and MySQL), text files, and email systems

More Information on PAC Project Basic and Pro

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 6. For training, see our website under Support > Training or email training@opto22.com. For pre-sales engineering, call 1-800-321-6786 or 1-951-695-3000.

All PAC Project software runs on Microsoft® Windows® 2000, XP, and Vista workstations. See "Installation Requirements" on page 4.

PAC Project works with all SNAP PAC controllers, SNAP PAC brains, SNAP PAC racks, and SNAP I/O modules.

For more information about PAC Project Basic and Professional, see the following documents. The easiest way to find a document on our website, www.opto22.com, is to search on its form number.

- *PAC Project Software Suite Data Sheet*, Opto 22 form #1699

- *PAC Project Basic and Professional Comparison Chart*, 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 ioProject and FactoryFloor Customers."

- *SNAP PAC System Migration Technical Note*, form #1688

- (FactoryFloor customers only) *FactoryFloor to PAC Project Migration Technical Note,* form #1692

New Features and Enhancements

Wired+Wireless Support

PAC Project version 8.5 adds full support for the new Wired+Wireless™ SNAP PAC controllers and brains. These new models are the same as their wired counterparts but add a wireless LAN interface for flexible communications.

The following table lists current wired models and the new Wired+Wireless part numbers:

Description	Wired model	Wired+Wireless
Standalone controller	SNAP-PAC-S1	SNAP-PAC-S1-W
Standalone controller with extra serial ports	SNAP-PAC-S2	SNAP-PAC-S2-W
Rack-mounted controller with high-speed digital	SNAP-PAC-R1	SNAP-PAC-R1-W
Rack-mounted controller	SNAP-PAC-R2	SNAP-PAC-R2-W
Ethernet brain with high-speed digital	SNAP-PAC-EB1	SNAP-PAC-EB1-W
Ethernet brain	SNAP-PAC-EB2	SNAP-PAC-EB2-W

All Wired+Wireless controllers and brains can be used on a wired network, on a wireless LAN, or on both at the same time. They include all the same features as their wired versions and use the same SNAP PAC racks, SNAP I/O modules, SNAP power supplies, and SNAP TEX accessories.

What this means is that you can switch to a wireless system simply by replacing a wired-only SNAP-PAC-R1, for example, with a Wired+Wireless SNAP-PAC-R1-W and configuring wireless communications on the controller. You do not need to add additional parts to the rack, change field wiring, or change any logic in PAC Control.

More Information on Wired+Wireless

For more information on Wired+Wireless PACs and brains, see www.opto22.com. Specifications and descriptions for the new products are in the regular data sheets:

- Form 1584, *SNAP PAC S-Series Data Sheet*

- Form 1594, *SNAP PAC R-Series Data Sheet*

- Form 1689, *SNAP PAC Brains Data Sheet*

To compare features, see form 1677, the *SNAP PAC Controller and Brain Comparison Chart*. You'll also find on our website new videos introducing wireless and a white paper on wireless in industrial automation.

If you have questions on using the new Wired+Wireless products in your application, please contact your local distributor or an Opto 22 Pre-sales Engineer (call 800-321-6786 or 951-695-3000, or email systemseng@opto22.com).

PAC Control Basic and Professional

In support of the new Wired+Wireless devices, you can now configure the number of times a control engine tries to communicate with an I/O unit. Previously, communications timed out after three attempts.

PAC Manager

PAC Manager added support for configuring wireless LAN communications, including assigning an IP address to the wireless LAN interface, configuring security, and testing wireless signal strength. You may notice that the Read Status and Write Status screens in the Inspect window are slightly different.

Bug Fixes

Several bug fixes have been made in the 8.5 version of PAC Project. For a complete list, see the PAC Project Readme file or the Readme file for individual products (PAC Control, PAC Display, and so on).

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 > Firmware.

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 OptoKnowledgeBase to find articles by Article No, Title, Text, or Product.

- **OptoSubscriptions**—Use your my.opto22 account to subscribe to updates on the Knowledgebase, products, downloads, and documents.

Installation

CAUTION: If you are upgrading to version 8.5 from a version of ioProject older than 7.0, do NOT uninstall ioProject before running the PAC Project version 8.5 installation. If you uninstall first, you will lose all configured control engines. The PAC Project version 8.5 installer automatically saves ioProject control engines before uninstalling old versions of the software.

Installation Requirements

Here's what you need to install and run PAC Project 8.5 software:

- A computer with at least the minimum processor required for your version of Microsoft Windows (single or dual core, 1 GHz Pentium®-class or better recommended) and Ethernet capability.

- VGA or higher resolution monitor (Super VGA recommended). Minimum size: 800x600 with small fonts.

- Mouse or other pointing device

- Installed Windows printer (optional)

- Microsoft Windows Vista® Business (32-bit), Windows XP (with Service Pack 2 or higher), or Windows 2000® (with Service Pack 4) workstation operating system. Microsoft Windows server, 64-bit versions of Windows workstation, and embedded operating systems are not supported.

- At least 1 GB RAM for Windows Vista, or at least 512 MB for Windows XP or Windows 2000

- Available hard disk space as shown in the following table:

Application	PAC Project Professional	PAC Project Basic
PAC Control	68.7 MB	68.3 MB
PAC Display	60.8 MB	57.6 MB
OptoOPCServer	16.4 MB	(not included)
OptoDataLink	8.9 MB	(not included)
PAC Manager	26.1 MB	26.1 MB
PAC Utilities	9.2 MB	9.2 MB
Total	190.1 MB*	161.2 MB*

* Installing both Pro and Basic requires a total of 192 MB of hard disk space.

Important Note for Windows XP Users

Due to a Microsoft bug involving how Themes are handled in Windows XP (either with Service Pack 2 or with no Service Pack), a resource leak may eventually cause PAC Project applications to crash.

To resolve this problem, install Windows XP Service Pack 3. Or, you can set the Windows XP Desktop Theme to Windows Classic. See Opto 22 KB49838 for details. KB49838 is a OptoKnowledgeBase article on our website. Either click on the link here or search in the OptoKnowledgeBase on the article number, KB49838, including the KB without any spaces.

Obtaining Updated Firmware

For PAC controllers and brains, use 8.5 firmware with PAC Project 8.5. To find new firmware, go to www.opto22.com. Click the Support tab, click Downloads, filter by Firmware, and enter the part number for your controller or brain in the search field.

Opto 22 hardware is shipped with the most recent firmware, but you should check the website for additional updates that may be available. *Firmware should match the hardware*

and the PAC Project version. Look for "8.5" in the firmware filename, and choose the firmware file for your hardware.

For complete information on changes and updates to firmware, see the README files available for download with the firmware on the Opto 22 website.

NOTE: If you are using legacy controllers and brains, do not upgrade to PAC Project 8.5. Use PAC Project 8.0 instead. For SNAP-LCE and SNAP Ultimate controllers, use 7.2 firmware. For SNAP Ethernet controllers, use 7.0 firmware.

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 (835-6786)
951-695-3080
(Hours are 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 OptoKnowledgeBase (OptoKB) provides the latest information on support issues and workarounds. Visit www.opto22.com and click on the Support tab for more information.

Check the Opto 22 Website for Product Updates

Opto 22 software, firmware, and documentation are continually updated and improved. Check the Support > Downloads section of the Opto 22 website at www.opto22.com regularly to see if new releases or patches are available for your system.

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Also, we recommend signing up at my.opto22.com to receive news about Opto 22 products. My.opto 22.com lets you subscribe to receive notification of software and firmware upgrades and new or revised documentation such as data sheets, OptoKB articles, and white papers. My.opto22.com also provides a quick and easy way to subscribe to OptoNews, Opto 22's email newsletter, delivered every two weeks.