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OPTODATALINK

Features

- Integrates Opto 22 SNAP PAC controllers and brains with databases and other enterprise business systems
- Creates data conduits between multiple controllers, databases, and other systems
- Provides easy setup and configuration, with no need to recreate control strategy tagnames

DESCRIPTION

OptoDataLink[™] from Opto 22 is connectivity software for Microsoft[®] Windows[®] that collects data from Opto 22 SNAP PAC industrial controllers and other sources, and then sends that data to one or more destinations. OptoDataLink supports sending data to:

- **Databases,** including Microsoft SQL Server[®], MySQL[®], Microsoft Access[®], and other ODBC-compliant databases
- SNAP PAC controllers and brains
- ASCII text files

Data can be sent to any of these destinations—or all of them simultaneously. Applications that are well suited for OptoDataLink include data archival and data warehousing, as well as those where control system alarms need to be reported, acknowledged, and recorded at an enterprise level.

Ease of Use

OptoDataLink has several features that make it easy to use:

- As part of Opto 22's PAC Project Professional[™] Software Suite, OptoDataLink is integrated into the SNAP PAC System[™]. OptoDataLink uses the same control system tags (tagnames) used in your PAC Control[™] strategies. This saves time and effort, since you don't have to recreate tagnames for variables, input/output (I/O) points, or other controller values.
- OptoDataLink uses a graphical user interface to set up data connections. You don't need to be a database expert to configure data links with OptoDataLink.
- Once a data link is established, OptoDataLinkRuntime runs in the background as a Windows service. Unless you choose to stop the service, OptoDataLinkRuntime continues to run as long as the computer is running.





• If your system is set up for redundancy, OptoDataLink automatically recognizes when a strategy includes redundant controllers, and includes information about them in the OptoDataLink project. When the project runs, OptoDataLink detects when the active controller changes and switches to scanning the new active controller.

PAC Project Professional

OptoDataLink is part of Opto 22's **PAC Project Professional** Software Suite, and can also be purchased separately. PAC Project Professional also includes PAC Control[™] for control programming, PAC Display[™] for HMI development, OptoOPCServer[™] for OPC 2.0-compliant clients, PAC Manager[™] for configuration, and SoftPAC[™], a software-based programmable automation controller for PC-cased control.



SNAP PAC controller or brain



OptoDataLink connectivity software



Database or other enterprise application

Part Number

Part	Description
OPTODATALINK	Database Connectivity Software



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Compatibility with Opto 22 Products

OptoDataLink collects control data from the following Opto 22 processors, controllers, and brains (I/O processors):

- S-series and SNAP PAC R-series programmable automation controllers (PACs), and SoftPAC (Opto 22's PC-based controller).
- EB-series Ethernet brains, with or without a PAC controller.
 - When using an EB-series brain with a PAC controller, your OptoDataLink project uses tags from a PAC Control strategy (.idb) file.
 - When using an EB-series brain without a PAC controller, your OptoDataLink project uses tags from a PAC Manager™ configuration (.otg) file.
- SB-series brains connected to SNAP PAC S-series controllers.
- OptoEMU Sensor. For information on reading data from an OptoEMU Sensor, see the *OptoEMU Sensor Communication Guide* (form 1958).

OptoDataLink can also be used with older Opto 22 controllers and brains. For more information on supported hardware and software, see form 1705, OptoDataLink *User's Guide* (included in your download of OptoDataLink or PAC Project Professional).

OptoOPCServer Software

If OptoDataLink and other applications must communicate with the same Opto 22 controller, Opto 22 recommends that you use **OptoOPCServer** software to optimize controller/application communications. OptoOPCServer must be installed on the same PC as OptoDataLink. OptoOPCServer is included in Opto 22's PAC Professional Software Suite and can also be purchased separately.



Compatible Databases

- Microsoft[®] SQL Server[®] 2022, 2019, 2017, 2016, 2014, 2012, 2008, 2005, and 2000
- Microsoft Azure SQL Database
- MySQL[®] 3.51 and 5.1 (32-bit only)
- Microsoft Access® 2000–2003 and 2007–2016
- Other ODBC-compliant applications (such as Microsoft Excel[®], which has a 32-bit ODBC driver)

NOTE: Microsoft has ended support for SQL Server 2005 (and lower) and for Access 2003 (and lower). If you're using applications that Microsoft no longer supports, you should consider upgrading.

SYSTEM REQUIREMENTS

- A computer with at least the minimum processor and memory required for your version of Microsoft[®] Windows[®], and Ethernet capability. Additional memory and a better CPU may be required for some configurations. We recommend staying away from low-end CPUs and using one of the following operating systems:
 - Microsoft[®] Windows[®] 10 Professional (32-bit or 64-bit) or Windows 11 Professional
 - (OptoOPCServer and OptoDataLink) Windows Server® 2012 R2, 2016, 2019, and 2022; however, you must install .NET Framework 4.0 prior to installing PAC Project on these operating systems

NOTE: PAC Project cannot be installed on Windows XP or older Windows operating systems. Other versions of Windows operating systems and embedded Windows operating systems are not supported.

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

OptoDataLink flexibly and simultaneously connects multiple data sources and destinations.



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More about Opto 22

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open

standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov RIO®

groov RIO edge I/O offers a single, compact, PoE-powered industrial package with webbased configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, *groov* RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation[®], or a RIO EMU energy monitoring unit that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can also use *groov* RIO with a Modbus/TCP master or as remote I/O for a *groov* EPIC system.

groov EPIC[®] System

Opto 22's *groov* Edge Programmable Industrial Controller (EPIC) system gives you industrially hardened control with a flexible Linux[®]-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

groov EPIC Processor

The heart of the system is the *groov* EPIC processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

groov EPIC I/O

groov I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Software

The groov EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: groov View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a

Windows HMI; Node-RED dashboard UI

 Ignition or Ignition Edge[®] from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley[®], Siemens[®], and other control systems, and MQTT communications

Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including free online training at OptoU, how-to videos, user's guides, the Opto 22 KnowledgeBase, and OptoForums.

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

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