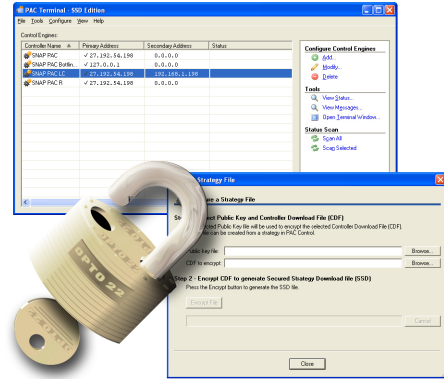


PAC TERMINAL SECURE STRATEGY DISTRIBUTION (SSD)

Features

- > Uses encryption to protect compiled control strategies both in a controller and for distribution
- > Secures a controller so that a key is required to download an encrypted strategy
- > Provides security functions via a graphical user interface (GUI) or a command line interface



PAC Terminal SSD

DESCRIPTION

PAC Terminal SSD (Secure Strategy Distribution™) allows you to safely distribute a PAC Control strategy and to protect it once it is downloaded to a SNAP PAC controller. PAC Terminal SSD also can ensure that new controller firmware is from Opto 22 and has not been modified by anyone.

NOTE: PAC Terminal SSD works with SNAP PAC controllers only. It does not support groov EPIC processors.

SSD provides a level of strategy security that is most valuable to original equipment manufacturers (OEMs) who use Opto 22 SNAP PAC equipment in their own systems, although it is not limited to that application. Using this security system, you can:

- Protect strategies stored and running in a SNAP PAC

- Safely distribute updated strategies and keep them protected once downloaded
- Ensure that new firmware is from Opto 22 and has not been modified by anyone

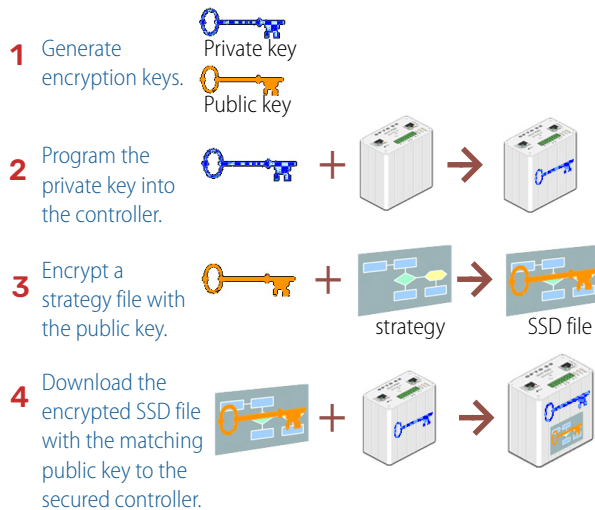
While this is a robust and effective system, here are some things this system will *not* protect:

- Original strategies on a PC. SSD does *not* provide password protection in PAC Control. It protects only the compiled strategy.
- Normal system communications, such as controller to controller, controller to I/O, human-machine interface (HMI) to controller, and so on.
- I/O settings, such as I/O configurations, proportional-integral-derivative (PID) loop settings, Event/Reaction settings, and so on.
- Inspection of controllers using PAC Terminal

When you are using Secure Strategy Distribution, one user task is used. This means that one fewer chart can run at a time than normal. However, performance is otherwise unaffected.

The PAC Terminal SSD security functions are available in both a graphical user interface (GUI) and a command line interface. The command line interface makes it easy for you to create batch or script files to handle the various aspects of strategy security.

Steps to Securing Your Strategy



Distribute the encrypted SSD and secured controller publicly.

System Requirements

PAC Project 9.3 or newer (either Basic or Pro) must already be installed on your computer. In addition, your SNAP-PAC-R or SNAP-PAC-S controller must have loader R4.0b or newer and firmware R9.2c or newer installed.

Part Number

Part	Description
PACTERMSSD	PAC Terminal SSD software and documentation (in PDF format)

How to Obtain PAC Terminal SSD

PAC Terminal SSD is available for purchase from authorized Opto 22 distributors worldwide, or from our website at www.opto22.com.

Because SSD protects your intellectual property, you must submit a registration form upon purchase. After registration is complete, you will receive the software and installation password by email.

If you have any questions about obtaining PAC Terminal SSD, [contact Opto 22 \(opto22.com/support/contact-us\)](mailto:sales@opto22.com).

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov EPIC® System

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

groov EPIC I/O

groov I/O connects locally to sensors and equipment with up to 24 channels on each I/O module. 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 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.

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 or on a monitor connected via the HDMI or USB ports.

groov EPIC Software

Software included in the *groov EPIC* processor:

- PAC Control engine to run PAC Control and PAC Display
- CODESYS Runtime engine to run IEC61131-3 compliant programs built with CODESYS Development System
- Optional access to the Linux operating system through a secure shell (SSH) to download and run custom applications
- *groov View* for building your own device-independent HMI, viewable on the touchscreen, PCs, and mobile devices
- Node-RED for creating simple logic flows from pre-built nodes
- Ignition Edge® from Inductive Automation®, with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications with Sparkplug for efficient IIoT data transfer

groov RIO

groov RIO revolutionizes remote I/O by offering a single, compact, PoE-powered industrial package with web-based configuration, commissioning, and flow logic software built in, plus support for multiple OT and IT protocols.

Standing alone, it meets the needs of small, variable I/O count applications, especially those that require data logging or data communications, commonly found in IIoT applications. *groov RIO* can also be used with a Modbus/TCP master or as remote I/O for a *groov EPIC* system.

Older products

From solid state relays (our first products) to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and still

doing the job at thousands of installations worldwide. You can count on us to give you 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, comprehensive 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, troubleshooting tips, and [OptoForums](#). In addition, instructor-led, hands-on [Premium Factory Training](#) is available at our Temecula, California headquarters, and you can [register online](#).

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.

