

RELEASE NOTES FOR OPTO 22 LIBRARY PACKAGE FOR CODESYS DEVELOPMENT SYSTEM

June 11, 2025

For instructions on installing this library package, see the following:

- For *groov* EPIC devices, see one of the following sections in the [groov EPIC User's Guide](#) (form 2267):
 - If you are installing the library package for the first time, see “Adding the OPTO 22 Library Package to CODESYS Development System”.
 - If you are updating the library package, see “Updating *groov* EPIC and *groov* I/O Module Information”.
- For *groov* RIO modules, see “Configuring I/O Through CODESYS Development System” in the [groov RIO User's Guide](#) (form 2324).

Some fixes or enhancements may require that you install a corresponding firmware update, either to *groov* I/O modules, the *groov* EPIC processor, or *groov* RIO modules. If a fix or enhancement falls into this situation, the description of the specific fix or enhancement will include information about the required firmware update.

For instructions on installing firmware on any of the following products, see the corresponding form:

- For *groov* EPIC processors (GRV-EPIC-PR1, GRV-EPIC-PR2), see “Updating Firmware on a *groov* EPIC” in the [groov EPIC User's Guide](#) (form 2267).
- For *groov* I/O modules, see “Installing a Firmware Update on a *groov* I/O Module” in the [groov EPIC User's Guide](#) (form 2267).
- For *groov* RIO modules, see “Updating Firmware on a *groov* RIO” in the [groov RIO User's Guide](#) (form 2324).

VERSION 3.1.2.0

June 11, 2025

Enhancement

The CODESYS Runtime Engine on *groov* EPIC firmware and RIO module GRV-R7-MM2001-10 has been upgraded to version 3.5.20.10, requiring:

- this version (3.1.2.0) of the Opto 22 Library Package for CODESYS Development System, and
- version 3.5.20.0 or higher of CODESYS Development System, though version 3.5.20.10 is recommended.

VERSION 3.1.1.0

May 17, 2024.

Enhancement

- The CODESYS Runtime Engine on *groov* EPIC firmware version 3.5.0 has been upgraded to version 3.5.20.0, requiring:
 - this version (3.1.1.0) of the Opto 22 Library Package for CODESYS Development System, and
 - version 3.5.18.0 or higher of CODESYS Development System, though version 3.5.20.0 is recommended.

- The mapping between IEC task priorities and Linux real-time priority and scheduling policies has been improved to reduce the jitter that you may observe when you change the IEC task priority. The information you see when you click on the “More information” icon in the Priority field includes the corresponding Linux priority and scheduling policy. In addition, the default priority for *groov* EPIC devices has been changed to 31.

Bug Fixes

- [KB90515](#) - Only first GRV-MM1001-10 module on chassis reports correct values
- [KB90516](#) - GRV-MM1001-10 modules may report false errors if no module in slot 0

VERSION 3.1.0.0

July 27, 2023.

Enhancement

- The CODESYS Runtime Engine on *groov* EPIC firmware version 3.5.0 has been upgraded to version 3.5.18.40, requiring:
 - this version (3.1.0.0) of the Opto 22 Library Package for CODESYS Development System, and
 - version 3.5.18.0 or higher of CODESYS Development System.
- Support for 64-bit runtimes has been added.

VERSION 3.0.0.0

October 17, 2022.

New Feature

A new collection of function blocks has been added that provide an OptoMMP client. The OptoMMP memory map provides a programming interface to a device's I/O and other features.

The new function blocks are:

- MmpClient
- MmpClientReadBlock
- MmpClientWriteBlock
- MmpClientReadQuad
- MmpClientWriteUDINT
- MmpClientWriteReal

For more information and tutorials, go to <https://developer.opto22.com/codesys/mmp>

VERSION 2.0.4.0

January 17, 2022.

Enhancements

- Support has been added for the following new *groov* I/O and *groov* RIO modules:
 - **GRV-MM1001-10:** A 10-channel, mixed signal, multifunction *groov* I/O module where some channels can be configured to support either an input or output signal, analog or discrete, and any feature supported by the selected signal (such as counting, latching, clamping, and more). For more information about the module, see [groov Multifunction Mixed Signal Module Data Sheet](#) (form 2353).
 - **GRV-IVAPM-3:** An analog input *groov* I/O module that can monitor AC voltage, current, power, and energy usage on Wye or Delta circuits up to UL 61010-3 measurement category III. It can monitor three-phase AC current using 0.333 V, 1 V, or 5 A current transformers (CT). For more information about the module, see [groov Power Monitoring Module Data Sheet](#) (form 2351).
 - **GRV-R7-I1VAPM-3:** An analog input *groov* RIO module that can monitor AC voltage, current, power, and energy usage on Wye or Delta circuits up to UL 61010-3 measurement category III. It can monitor three-phase AC current using 0.333 V, 1 V, or 5 A current transformers (CT).

VERSION 2.0.3.0

October 27, 2021.

Enhancements

- The CODESYS Runtime Engine on *groov* EPIC firmware version 3.3.0 has been upgraded to version 3.5.17.10. This requires:
 - This version (2.0.3.0) of the Opto 22 Library Package for CODESYS Development System.
 - Version 3.5.17.0 or higher of CODESYS Development System. Note that CODESYS Development System version 3.5.17.10 has a known library package install issue that will be fixed in a future version of CODESYS Development System. The current workaround for the issue is to Run as Administrator (an option in Windows) when you install library packages.
- Added the CODESYS OPC UA client. This functionality is included in the CODESYS runtime license.
- You can now add a "Modbus COM Port" device to a *groov* EPIC device. Linked via serial port, the *groov* EPIC can run as a master or a slave.
- Several new features were added to modules through module firmware updates. With this release of the library package, you can now configure those new module features:
 - **GRV-IDCI-12:** The new channel type for 10-25 V AC inputs.
 - **GRV-ITR-12:** There are two new features that can help obtain faster measurements: Disabled and FastADC.

VERSION 2.0.2.1

July 8, 2021.

Bug Fixes

- [KB89800](#) - Local I/O does not work after restart of EPIC with simple or serial modules on chassis
- [KB89814](#) - Acknowledge button does not clear last diagnostic message for *groov* EPIC modules or *groov* RIO channels

VERSION 2.0.2.0

April 29, 2021. Document update: May 3, 2021.

New Features

- Adds support for the 3.5.15.50 CODESYS runtime included in EPIC 3.2.0 firmware.
- Adds support for the CODESYS EtherCAT Master SL

Enhancements

The number of allowed Ethernet devices has been increased from 2 to 5.

Bug Fixes

- [KB89637](#) - CODESYS: Some I/O channels not updating
- [KB89648](#) - When I/O unit reconnects after timeout, digital input latches and counters may be incorrect
- [KB89653](#) - CODESYS incorrectly shows support for latches on channels 2-7 of GRV-R7-MM1001-10
- [KB89672](#) - Digital input latches and counters may be incorrect when first running an application
- [KB89679](#) - Remote I/O may start with a timeout error
- [KB89682](#) - Counters missing from digital inputs on channels 0 and 1 of GRV-R7-MM1001-10

VERSION 2.0.1.1

March 11, 2021

If you are updating this package from version 2.0.0.0: Whenever you update the Opto 22 Library Package, you need to update the GRV-EPIC-PR1 device in your CODESYS application (see "Updating *groov* EPIC and *groov* I/O Module Information" in the [groov EPIC User's Guide](#) (form 2267)). Typically, the device version number changes when you update your device. However, be aware that the device version number will stay the same between version 2.0.0.0 and 2.0.1.0 of the library package; that number is 3.5.15.10.

Bug Fixes

- [KB89593](#) - Changes to Inputs Received Slower Than Configured Streaming Interval

VERSION 2.0.1.0

February 3, 2021

If you are updating this package from version 2.0.0.0: Whenever you update the Opto 22 Library Package, you need to update the GRV-EPIC-PR1 device in your CODESYS application (see "Updating *groov* EPIC and *groov* I/O Module Information" in the [groov EPIC User's Guide](#) (form 2267)). Typically, the device version number changes when you update your device. However, be aware that the device version number will stay the same between version 2.0.0.0 and 2.0.1.0 of the library package; that number is 3.5.15.10.

New Features

You can now configure the quadrature feature of the GRV-IDCIFQ-12 module.

You can now add a CANbus fieldbus to your GRV-EPIC-PR1 device so that you can configure a GRV-CCANI-2 module with CANopen Manager and J1939 Manager.

You can now configure the thermistor feature (including custom curves) of the GRV-R7-MM1001-10 *groov* RIO module.

For information about these new features, see the [groov EPIC User's Guide](#) (form 2267) or the [groov RIO User's Guide](#) (form 2324).

Bug Fixes

- [KB89451](#) - GRV-IDCIFQ-12 on Remote EPIC May Not Retain Counter Feature After Restart
- [KB89456](#) - Digital Input Counters and Latches May Be Incorrect After Remote I/O Device Restart
- [KB89461](#) - Cannot Clear Latches on RIO Digital Input Channels

VERSION 2.0.0.1

July 15, 2020

If you are updating this package from version 2.0.0.0: Whenever you update the Opto 22 Library Package, you need to update the GRV-EPIC-PR1 device in your CODESYS application (see "Updating *groov* EPIC and *groov* I/O Module Information" in the [groov EPIC User's Guide](#), form 2267). Typically, the device version number changes when you update your device. However, be aware that the device version number will stay the same between version 2.0.0.0 and 2.0.0.1 of the library package; that number is 3.5.15.10.

Bug Fix

[KB89094](#) - Can't Add Supported Versions of BACNet Server to CODESYS Application

VERSION 2.0.0.0

June 10, 2020.

Applies to:

- *groov* EPIC processor (firmware 2.0.0)
- *groov* RIO modules (firmware 2.0.0)

Enhancement

This release adds support for GRV-R7-MM1001-10, the first product in the *groov* RIO family.

Important Change to GRV-EPIC-PR1 and *groov* I/O Module Device Information

This release includes changes to the device information for GRV-EPIC-PR1 and *groov* I/O modules. If you install this version of the Opto 22 Library Package, all *groov* EPIC processors and I/O modules in existing CODESYS projects must be updated to 2.0.0.0. For details, see [KB88719](#).

VERSION 1.0.3.0

January 10, 2020.

Enhancement

This release adds support for future *groov* products.

VERSION 1.0.2.0

October 15, 2019. Updated: December 9, 2019.

Requires: *groov* EPIC processor with firmware 1.4.2 or newer

Enhancement

This release adds support for the following *groov* I/O modules:

- GRV-IVI-12
- GRV-IRTD-8
- GRV-IDCSW-12
- GRV-ITM-12

VERSION 1.0.1.0

July 2, 2019

Bug Fix

[KB88302](#) - CODESYS: Can't configure Steinhart-Hart Coefficients for "Thermistor: Custom Curve" channel type

VERSION 1.0.0.1

May 21, 2019. Updated: July 15, 2019.

Requires: *groov* EPIC processor with firmware 1.3.2 or newer

Enhancement

This release adds support for BACnet SL, version 1.2.1.0.

VERSION 1.0.0.0

February 13, 2019. Updated: July 2, 2019

Requires: *groov* EPIC processor with firmware 1.3.0 or newer

Initial Release

HOW TO GET HELP

If you have any questions about your *groov* EPIC processor, you can call or e-mail Opto 22 Product Support:

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

E-mail: support@opto22.com

Website: www.opto22.com

When calling for technical support, be prepared to provide the following information about your system to the Product Support engineer:

- Version information for the:
 - *groov* EPIC processor (by logging on to *groov* Manage, then from the Home page, click Info and Help > About)
 - Opto 22 Library Package for CODESYS Development System
- A description of your system equipment, including computer CPU type, speed, memory, and operating system
- Specific error messages or other diagnostic indications