RT-LAB

What's New in RT-LAB

2025.1

REMINDER

OPAL-RTLinux 3 is required on your simulator to execute RT-LAB **2025.1**.

This release **is not** compatible with Red Hat Linux 32-bit or CentOS 64-bit OS.

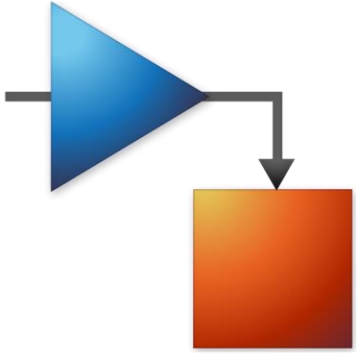
For more details on the obsolescence announcements, please refer to the following pages:

- **OPAL-RT 32-BIT OS Obsolescence (Red Hat 32- bit)**
- **OPAL-RT CENTOS 6.6 64-bit Obsolescence**

MATLAB® SUPPORT IN RT-LAB 2025.1

RT-LAB 2025.1 supports MATLAB®/Simulink® versions **R2021B** to **R2024B**.

For more details about the MATLAB® support policy, please refer to the page: **RT-LAB Release Schedule & Policy**



PHASING OUT

Dynamic LabVIEW® Panels

With **RT-LAB 2025.1** we have decided to discontinue the support for Dynamic LabVIEW® Panels.

No need to worry! We've got you covered with OPAL-RT Dashboards, a gradual phase-out process, and the LabVIEW API.

Read all about it here: **Notice of obsolescence for Dynamic LabVIEW® Panels in RT-LAB**

RT-LAB RELEASE 2025.1

OPAL-RT release 2025.1 is primarily a **maintenance release**, focused on addressing **bug fixes** and **enhancing performance** and **stability**.

FEATURES INTRODUCED IN PREVIOUS RELEASES

Read all the release notes for eHS

Notable **new features** introduced in **previous RT-LAB releases** include:

eHS | FPGA-based Power Electronics Toolbox

- **Enhanced Performance**: Optimized calculations enable smaller time steps for the same circuit: Optimized calculations enable smaller time steps for the same circuit.
- **Decoupling Block Library**: A new set of inductive and capacitive blocks designed to improve the performance of large circuit models. Read : **How-to decouple eHS Gen5 circuit to reduce minimum time step**

FEATURES INTRODUCED IN PREVIOUS RELEASES

Read all the release notes for eHS

eHS | FPGA-based Power Electronics Toolbox (Cont'd)

- **New components in Gen5 solver**:
  - Frequency dependent line and Half-line for CPU/FPGA model decoupling
  - Frequency dependent line
  - 3-level Neutral Point Clamped (NPC) Inverter
  - 3-level T-Type Converter

FEATURES INTRODUCED IN PREVIOUS RELEASES

Read all the release notes for DASHBOARD

DASHBOARDS

- **Editing and Execution of User-Defined Python Scripts**: Edit Python scripts directly within the application and execute them using the Button widget.
- **Tab Group Widget**: Organize data visualization more effectively with the new Tab Group widget.
- **New drop-down widget** in the Commands section
- **Independent export and import** of panels
- **Added support of XY Graph** in Graph widget
- Significant improved table performance

FEATURES INTRODUCED IN PREVIOUS RELEASES

Read all the release notes for MMC

MMC

- Added **Multi-terminal MMC HVDC demo**
- Added a dedicated **bitstream** for use with the **OP4815-IO** FPGA Processor and I/O Expansion Unit.
- Updated bitstreams with enhanced features like **sub-module DC current injection** and **individual control of fast discharge of sub-modules in FPGA**.

Read all the release notes for RT-XSG Toolbox

RT-XSG Toolbox

- **Fully compatible with the OP48xx-IO** series of FPGA and I/O Expansion Units
- Added compatibility with the latest AMD Vivado™ Model Composer 2023

ALL RELEASE NOTES

For a complete list of all new features, improvements, and fixed issues, please refer to the **RT-LAB | Release Notes 2025.1**

- RT-LAB
- ARTEMiS
- ePHASORSIM
- DASHBOARD
- Schematic Editor
- RT-XSG
- eHS
- MMC

NEW FPGA PROCESSOR UNIT

OP4800 SERIES

FPGA Processor and I/O Expansion Units

Connectivity

Up to 140 I/O plus 12 high-speed 5 Gbsp SFP multi-mode fiber-optic module connectors.

Follow this link to know more
opal-rt.com/op4800-series

Analog Sampling	Minimum Time Step	Sampling Rate
10 MSPS	90 ns	625 ps

THE NEW XG SERIES

The New XG Series
Unmatched Performance

OPAL-RT is taking real-time simulation to another level with the new XG series. The new OPAL-RT operating system, OPAL-RTLinux 3, combined with Intel's latest technologies and our unique toolboxes, allows engineers to reach an unmatched performance.

Follow this link to discover the XG Series of real-time simulators **opal-rt.com/hardware-overview**

ADVANTAGE+ UPGRADE PROGRAM

UPGRADE TO XG SERIES FOR UNMATCHED PERFORMANCE

As a valued customer, we are committed to providing you with access to the latest technologies and capabilities.

To that end, we are thrilled to offer an **exclusive limited-time upgrade program**.

To ensure your success, we are offering a **substantial discount** for existing customers who choose to upgrade to the XG Series.

Click here to view the offer

ONLINE USER DOCUMENTATION

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wiki.opal-rt.com

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