



PROFINET IO DEVICE SOURCE CODE STACK

KEY FEATURES

- ▶ 100% C-based source code
- ▶ Develop for Linux based platforms
- ▶ Fully compatible with any PROFINET enabled programmable controller
- ▶ Simple API speeds integration
- ▶ No-nonsense single-family product licensing with no royalties
- ▶ Easily configured alarm, diagnostics and status data per channel
- ▶ Ready-to-run, sample application that can be immediately compiled, downloaded and executed
- ▶ Maintained to current PI certification

PROFINET IO Device Source Code Development Kit

Royalty-Free Source Code for Embedded Devices

Looking to add PROFINET to your device and give your customers connection to a Siemens Simatic S7 PLC? With RTA's development kit, you can ship an unlimited number of devices with no ongoing royalties or hidden fees.

Trusted in thousands of real-world applications, this kit has been enabling devices like PLCs, VFDs, barcode readers, I/O blocks and more for over two decades. It's market-tested, reliable and built for demanding industrial use.

What's Included in the Kit?

Everything you need to enable PROFINET in your device—fast:

- Royalty-free source code designed for Linux
- Ready-to-run sample application
- Sample device configuration
- Full documentation
- Direct access to RTA PROFINET Engineers

You could be shipping PROFINET-enabled devices in weeks—not months.

How Integration Works

The RTA stack handles all the heavy lifting—packet encoding, decoding, transport and required interfaces. You provide the mapping from your application to the API and we help model your data as a PROFINET device.

Why Choose an RTA Source Code Development Kit?

When you use an RTA Development Kit, you're getting more than just source code, you're gaining a protocol partner. Our PROFINET experts work directly with you to design a solution tailored to your device and your goals.

Our source code is 100% developed in-house and has been deployed in hundreds of devices and over 100,000 applications. It's proven, reliable and built for embedded microcontrollers in demanding industrial environments.

SPECIFICATIONS

Operation Modes	I/O device
Message Support	LLDP, DCP, Cyclic, Acyclic
Maximum Data Transfer Supported	144 bytes in each direction
Compatibility	All certified PROFINET controllers including Siemens S7-1200, S7-1500 and others
Certification	Certified as part of end devices (standalone source cannot be certified) Certified as Conformance Class A (CC-A)

PLATFORM REQUIREMENTS

Processor	Any
RTOS	Linux
TCP/IP Stack Interface	UDP and Layer 2 Ethernet (raw ethernet) VLAN tagging and removal is required
Memory	512K flash, 512K RAM, ~4K NV (sizes vary depending on CPU speeds to handle traffic requirements)
Compiler	Any ANSI-C compiler

API—APPLICATION PROGRAMMING INTERFACE

Configuration	Functional call interface
Explicit Message Interface	Function call interface—decoding of unknown PROFINET data requests handled by user to enable additional interfaces
Input Data Interface (data to scanner)	Buffer managed and filled with user application
Output Data Interface (data from scanner)	Buffer managed by user application and filled by PROFINET IO Controller

What Is the Development Process?

PICK YOUR PACKAGE

Not sure where to start? We'll help you decide whether to take our code and a consult, or send us your device and let us handle it all.

MEET YOUR ENGINEERDS®

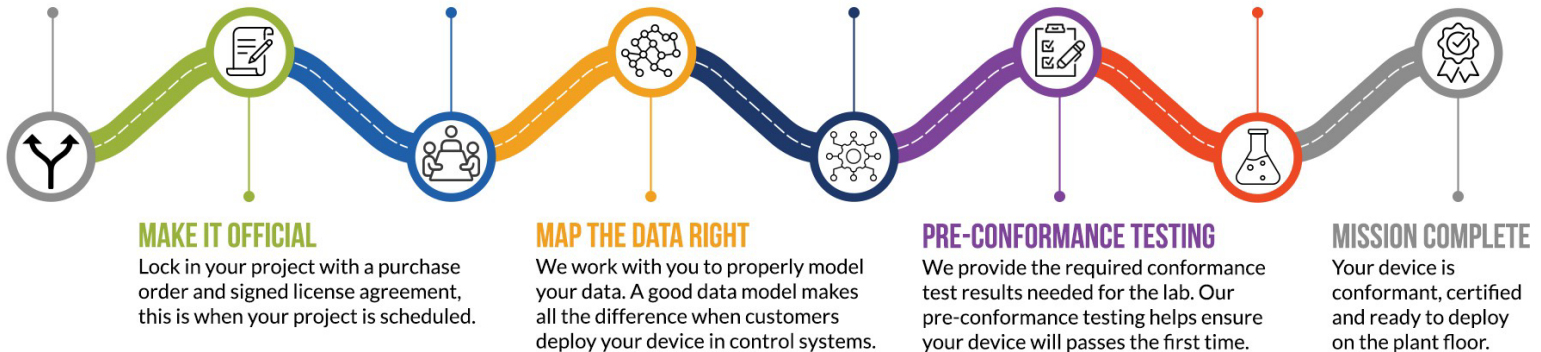
We'll walk through goals, project scope and next steps to make sure everyone's aligned and ready to roll.

STACK INTEGRATION

Depending on your path, we'll either help your team integrate our code—or we'll do the integration on your behalf. This step ends with a completed device deployment.

LAB TIME WITH BACKUP

You schedule with the conformance lab, our Engineerds represent your device at the lab.



Ready to Get Started?

Schedule a 30-minute call with one of our developers to walk through what it takes to integrate PROFINET into your device. No pressure—just straight answers and expert guidance.

Email us at sales@rtautomation.com or call (800) 249-1612 to schedule your call.