



MODBUS TCP CLIENT SOURCE CODE STACK

KEY FEATURES

- ▶ 100% ANSI C-based source code written in-house by our Modbus experts
- ▶ No RTOS required
- ▶ Compatible with Modbus Server devices
- ▶ No-nonsense single-family product licensing with no royalties
- ▶ Easy-to-use single task integration

Modbus TCP Client Source Code Development Kit

Royalty-Free Source Code for Embedded Devices

Looking to add Modbus TCP to your device? 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 Modbus TCP in your device—fast:

- Royalty-free ANSI-C source code
- Sample applications for Windows and Linux
- Full documentation and integration guidance
- Support from RTA's Modbus Engineers

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

How Integration Works

The RTA Modbus TCP source code development kit provides you with the encoding/decoding, transport and the required application layer interfaces. Your application controls what Modbus TCP data you read and write in the Modbus TCP servers, and how you link data (16-bit unsigned registers and 1-bit coils) to your internal data space. This allows you to modify or extend your Modbus TCP data implementation without outside assistance.

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 Modbus 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

Protocol Supported	Modbus TCP
Register Function Support	3-read holding register, 4-read input register, 6-preset single register, 16-preset multiple registers
Coil Function Support	1-read coil status, 2-read input coils, 5-force single coil, 15-force multiple coils
Maximum Modbus TCP Server Devices	Limited by your TCP/IP stack implementation
Maximum Data Transfer Supported	Single Modbus message—125 registers or 2000 coils
Number of Input / Output Registers	Configurable by user (65536 16-bit registers maximum in each direction)
Number of Input / Output Coils	Configurable by user (65536 1-bit coils maximum)

PLATFORM REQUIREMENTS

Processor	Processor independent
RTOS	None required, but compatible with many popular RTOS products
TCP/IP Stack Interface	Compatible with Windows, Linux, Berkley sockets, LWip and more (Review in consultation)
Memory	16K flash, 1K RAM + RAM for number of registers and coils selected
Compiler	Any ANSI-C compiler

API—APPLICATION PROGRAMMING INTERFACE

Configuration	Function call interface to define server device connections
TCP Interface	User must implement a set of TCP functions to direct messages to server
Application Interface	Call backs deliver data and status to the user application

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®

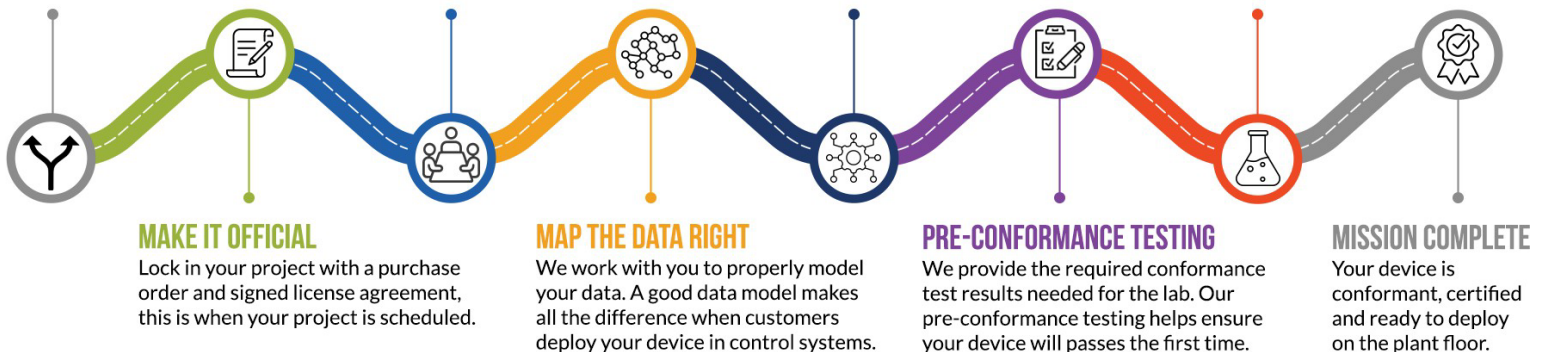
We'll walk through goals, project scope and next steps to make sure everyone's aligned and ready to roll.

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 Modbus TCP 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.