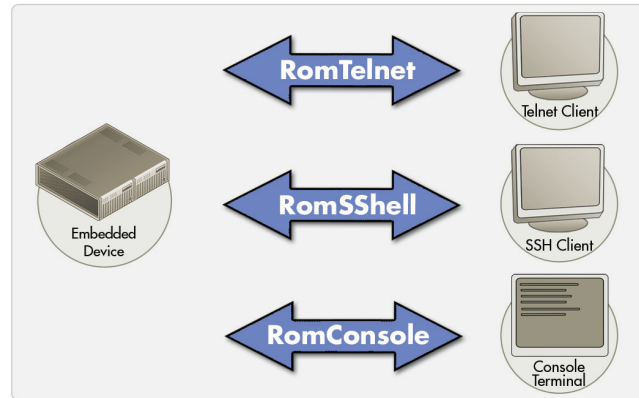


# RomCLI™

## Command Line Interface Toolkit for Embedded Devices

### RomCLI Benefits

- Cisco IOS-style interface
- CliBuilder and VarBuilder offline tools speed development of CLI interface
- Optional SSH security
- Support for Telnet and Serial interfaces
- Common variable access structures
- Full integrated with RomPager Suite of products or standalone operation
- Small RAM/ROM footprint
- Highly portable via field proven abstraction layer (Hardware, RTOS and TCP/IP stack)
- Delivered as standard ANSI-C source code
- Interface files for leading RTOS vendors provided
- External command trees specified in XML



The RomCLI Command Line Interface toolkit is designed to aid your development team in creating Cisco IOS-style text-based interfaces for your embedded device. RomCLI can work standalone or pre-integrated with the RomPager Advanced toolkit to provide unified access to variables via common routines. The RomCLI toolkit includes two access toolkits RomTelnet, RomConsole and an optional secure shell toolkit, RomSShell, is also available.

### RomTelnet

The RomTelnet toolkit provides an embedded Telnet server for standard protocol negotiation with any Internet Telnet client. Multiple simultaneous sessions are supported based on configuration.

### RomConsole

For use with a serial line interface, the RomConsole toolkit provides component interfaces to user-supplied serial interfaces. RomCLI can use RomConsole to provide command line services via serial interface in addition to the TCP/IP-based sessions provided by RomTelnet.

### RomSShell

RomSShell is an optional toolkit that provides a secure shell for users accessing their embedded device. SSH version 2 is supported. RomSShell also supports multiple simultaneous sessions based on configuration.

### Variable Access

Retrieval and storage of variables are achieved using the RomPager Variable Access architecture. An API is provided with built-in routines to convert internal data types to and from external string formats.

## Command Line Handler

The Command Line Handler provides basic line handling functions common to all parsing trees. Command lines are assembled by gathering characters from the Telnet, SSH or serial interfaces and passed to the Parser System for processing.

## Parser System

The Parser System utilizes a set of predefined tables to provide command interaction. All commands are stateless and follow the 'Cisco-like' request-response format and resolve to an action. An Action can fully interface with variable storage or invoke user exit routines to display special format information or load different parse trees. Multiple parse trees allow separate authorization, configuration and operation command sets to be specified. Command prompts are specified as part of the parse trees allowing different prompts in different modes. Full <TAB> and ? command completion are supported to access command help support.

## CliBuilder

Included as part of the RomCLI toolkit, this offline tool will save your development team many hours when creating a CLI interface. The CliBuilder takes an XML format description of the command tree syntax including command help, action routines, security realms, etc. and produces the internal parse tree tables and help string tables that are used by the CLI Parser System.

## VarBuilder

Also included with the RomCLI toolkit, VarBuilder is an offline compiler that takes an XML format description of variables, data types and access routines and then produces a set of interface data structures. The data structures provide the basis for common and consistent exchange of data between RomCLI and device variable storage.

