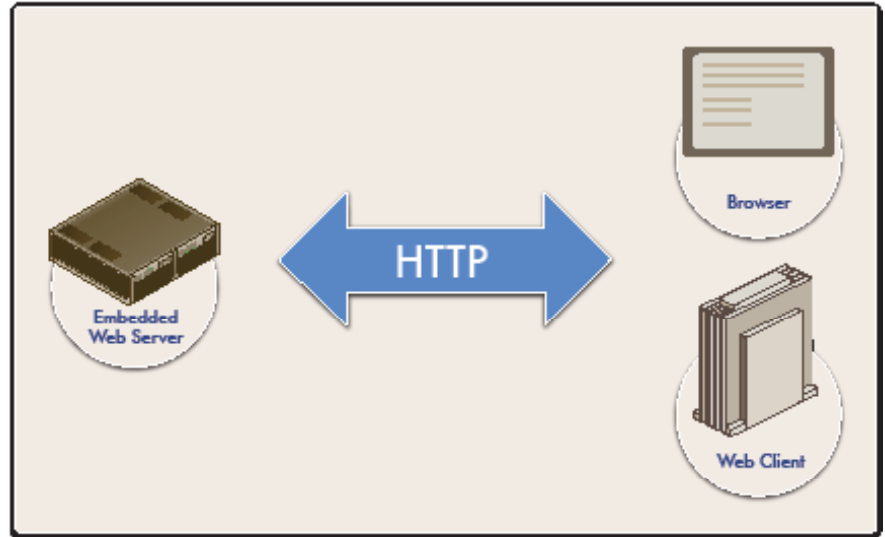# RomPager™

RomPager Benefits

- Proven technology deployed in 200+ million devices around the world
- Support for both IPv4 and IPv6 operation
- Compatible with all standard browsers
- Support for HTML 2.0, 3.2, 4.0 and 5.0
- HTTP 1.0/1.1 Support
- An interface to SNMP-style SET and GET routines
- Dynamic HTML creation
- Small RAM/ROM footprint through intelligent compression techniques
- Highly portable via field proven abstraction layer (Hardware, RTOS and TCP/IP stack)
- Interface files for leading RTOS vendors provided
- Delivered as standard ANSI-C source code
- Efficient Internationalization support
- Flexible Security and External Security support
- Standard and Extended HTTP header support
- Compilation switches for size, feature and speed trade-offs
- URL State Management support
- FIPS 140-2 and Suite B support

The RomPager suite of products are specifically engineered to meet the rigors of embedded computing while offering OEM manufacturers access to the latest networking and embedded security technology to actively participate in the rapidly growing Internet of everything universe of devices. With 300+ design wins and 200+ millions devices shipped to markets worldwide in a broad range of applications, Allegro's technology is widely recognized as the most used OEM web server on the market today. The full suite of *Allegro EdgeAgent Suite* products support both IPv4 and IPv6 operation, offers optional TLS 1.2 and SSL 3.0 using FIPS 140-2 level 2 cryptography along with a rich set of Web technology, unprecedented flexibility, and unparalleled performance to meet your embedded device development needs.

RomPager

RomPager is a sophisticated Hyper Text Transfer Protocol (HTTP) engine that serves content to browsers and other Web clients. Fully compliant with HTTP 1.0/1.1 specifications, the RomPager Web server offers superior performance and can be configured to handle thousands of concurrent requests. RomPager also provides access to a high performance CGI-style interface, optional file system support, and the ability to dynamically generate HTML giving your engineering team flexibility to design any Web based interface of their choice. Additionally, the toolkit offers the ability to serve web objects (HTML, GIF, JPEG, Applets, etc.) from multiple sources: an optional file system, CGI-style User Exit functions and ROM. RomPager is delivered as standard ANSI-C source and built upon a highly portable and field proven abstraction layer enabling it to work with any RTOS or TCP/IP stack.

Allegro

PageBuilder Compiler

Delivered as part of the toolkit, the PageBuilder Web-to-C compiler gives your engineering team a powerful and advanced tool that simplifies the process of converting Web objects to ANSI-C structures. The generated source is compiled and later linked with the RomPager modules along with your application allowing the Web server to present Web objects directly from ROM. The PageBuilder Web-to-C compiler also offers significant features for compression, integrated variable data access, integrated dynamic content and much more. Additionally, the Web server engine itself offers HTTP Streaming and HTTP 1.1 PUT, OPTION and TRACE support. Advanced Security features are included with support for Digest Authentication, external password validation and support for an internal security database with dynamic realm and security level configuration. Additional support is provided for state management (URL and HTTP Cookies) and compliance with IETF standards (RFC 2069, RFC 2616, RFC 2617) along with Browser-based file upload support (RFC 1867).

RomSTL

Security is always a concern when dealing with devices connected to the internet. RomSTL addresses the need for advanced security with integrated TLS 1.2 and SSL 3.0 support. With support for a variety of cypher suites (RSA, DHE, RC4, DES, 3DES, AES, SHA, CBC and MD5) and full integration with Allegro's optional FIPS 140-2 validated cryptography and Suite B, your development team can provide compatibility with all standard secure browsers. RomSTL also offers a built-in certificate authority, certificate import support and Basic and Digest Authentication under TLS/SSL. Compliant with IETF standards (RFC 5246 and RFC 3268), RomSTL provides RomPager with the advanced security functionality to meet your development team needs.
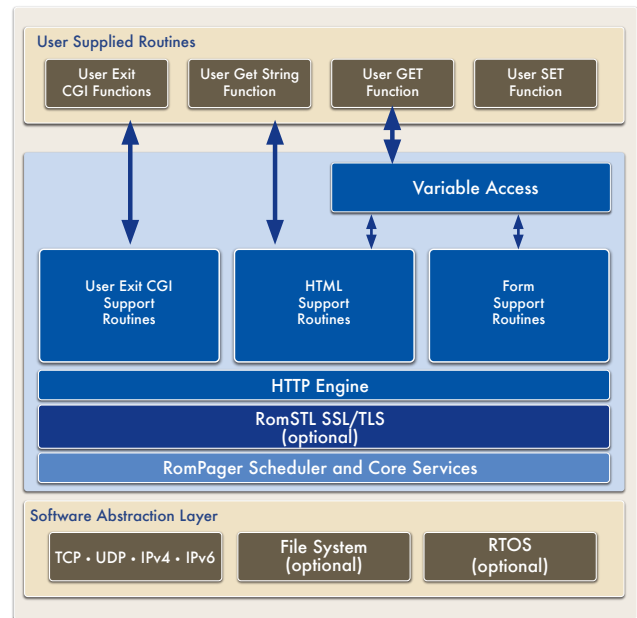
Highly Portable

RomPager is highly portable across RTOS and processor families. Delivered in ANSI-C source code all products utilize a field proven abstraction layer to enable portability with any RTOS, TCP/IP stack and file system environment. Interface files for leading RTOS environments are provided.

Feature	
Full source code	✓
High Performance	✓
Small RAM/ROM footprint	✓
GET,HEAD,POST support	✓
HTTP 1.1 persistent connection support	✓
Chunked encoding support	✓
High performance CGI-style interface	✓
Optional file system support	✓
Dynamic HTML support	✓
Form item decoding routines	✓
Basic authentication security support	✓
Client-Side Image Mapping support	✓
Dynamic variable insertion in HTML pages	✓
Compression of common HTML tokens	✓
Sharing common HTML across pages	✓
Sample HTML design templates	✓
PageBuilder Web-to-C Compiler	✓
HTTP 1.1 PUT, OPTION, TRACE support	✓
HTTP Streaming support	✓
Digest Authentication	✓
External Password Validation	✓
State management support (URL, HTTP cookies)	✓
Browser-based file upload support (RFC 1867)	✓
Internationalization Support	✓
Internal Security Database	✓
Optional FIPS 140-2 and Suite B support	✓
Optional RomSTL (TLS 1.2/SSL 3.0)	✓