

# Allegro Introduces RomUPNP and Expands Embedded Internet Software Family

**San Jose, CA, September 26, 2000:** Allegro Software Development Corporation, a leading provider of Internet/Web toolkits for embedded devices is announcing another Internet/Web enabling product, the RomUPnP Basic Toolkit.

The RomUPnP Basic Toolkit provides embedded devices the ability to interoperate with UPnP 1.0 Control Points such as Windows Millenium and provides support for Discovery, Description, and Presentation services. The RomUPnP Basic toolkit is a small-memory implementation and adds less than 10 Kbytes to the RomPager Web Server that is used for Presentation services, thus allowing UPnP to be used in a wide array of devices.

[Universal Plug and Play](#) (UPnP) is a set of open standards technologies for transparently connecting appliances, PCs, and services by extending the Plug and Play concept to support networks and peer-to-peer discovery, configuration and control. The UPnP Forum is committed to device interoperability in a number of areas and has established working groups for Home Automation and Security, Internet Gateways, Imaging and Printing, Audio/Video, Mobile Devices and Appliances.

UPnP is based on simple, open protocols such as those defined by the Internet Engineering Task Force (IETF) that have a proven track record of enabling real-world multiple-vendor interoperation. TCP/IP has been implemented by many vendors on many diverse computing platforms, yet these implementations are able to communicate reliably and without a massive multiple-vendor test effort. When browsing the Web using HTTP, users move seamlessly between different server operating systems and different Web server implementations without any client-side code or configuration changes. The Internet itself, in spite of its huge size, is not managed by any single authority. Wire protocols are proven technology. Universal Plug and Play uses the Internet open protocol model. Device vendors in the Universal Plug and Play architecture are not constrained to implement any single vendor's technology, and are assured that they will interoperate with the largest number of other vendors' products.

Universal Plug and Play's focus on explicit open wire protocols means that it is language and operating system neutral. The advantages of this approach to developers are obvious; the choice of language and operating system gives them the flexibility to choose the best platform for their device and still be confident that their products will be able to interact with other Universal Plug and Play devices, regardless of platform. For example, it is possible for a developer using Windows to interact with services on non-Windows devices by invoking Windows-based APIs, object models, or even XML-enabled data-driven programming using familiar languages and tools, regardless of the Universal Plug and Play implementation on the device providing the service. Allegro's RomUPnP toolkit is delivered in ANSI-C source code format and using the Allegro Software Abstraction Layer is available for a wide variety of device operating systems.

Allegro Software is a leading OEM supplier of Internet software for the embedded market. With over 1,000,000 deployed embedded Web servers, Allegro has some of the world's best companies as its customers; companies like American Power Conversion, Casio, Cisco, Hewlett-Packard, Honeywell, Motorola, Nortel, Sony, 3Com and Xerox. Allegro's industry-leading source code product family includes Web servers, Web clients, Email (SMTP and POP3) clients, and XML tools. The RomPager product family provides Web and e-mail access for devices integrated with the leading RTOS/TCP stacks. RomPager is a full-function embedded Web server featuring the smallest application memory footprint in the industry. RomMailer and RomPOP allow devices to send/receive e-mail messages and attachments. RomWebClient allows devices to retrieve pages/objects from the Web. RomXML is a small footprint XML parser/framer that allows devices to easily exchange data using XML documents. RomTime allows a device to set time from a central server.

RomUPnP is one of the first small footprint UPnP toolkits for the embedded market and is available for any RTOS and TCP environment including those of our partners: ATI Nucleus, Express Logic ThreadX, Kadak AMX, Lynx, Mentor VRTX, Microsoft Windows CE/95/98/Me/NT/2000, Microware OS-9, Precise MQX, QNX, Treck TCP and WindRiver VxWorks and pSOS.