Embedded Devices Join the XML Revolution

Allegro Introduces RomXML and Expands Embedded Internet Software Family

San Jose, CA, September 27, 1999: Allegro Software Development Corporation announced the availability of XML for embedded devices today at the Embedded Systems Conference in San Jose. The Allegro RomXML Framing-Parsing tool provides a light-weight translation between pre-defined C-language structures and XML-based representations. RomXML allows an embedded device to move data to other machines in an XML-based standard format without carrying the overhead of general purpose XML tools.

"Embedded device engineers want the power of XML but not the overhead," said Bob Van Andel, President of Allegro Software Development Corp. "RomXML paves the way for an explosion of XML use in the embedded market."

XML is Changing the Way the World Exchanges Data

First, HTML revolutionized the way computers display information to human operators. Now XML is dramatically changing how computers exchange data between themselves. XML, the eXtensible Markup Language, provides a processor-independent way of encoding data for interchange between diverse systems. XML has no pre-defined meanings associated with its tags. Instead, XML is a set of rules for construction of tag-delimited information. Different sets of tag definitions that use XML syntax are being developed for different application environments. Some of the tag sets being defined include vocabularies for chemical engineering, vector graphics, electronic invoicing, weather reports and spreadsheet formulas. A specific XML vocabulary or tag set may be defined by a single organization and published for others. For example, Microsoft has defined a set of XML tags for exchanging spreadsheet and word processing documents with the Office 2000 product suite. In other areas, industry standards groups are jointly defining tag sets for such areas as vector graphics, chemical engineering and astronomy.

"XML is a standard way to exchange data, yet it is flexible enough to handle any application. It is machine independent, so it is a powerful computer-to-computer data exchange mechanism, yet the syntax is so simple it can easily be read by a human," said Van Andel.

Embedded Device XML Applications

A test equipment vendor is using Allegro RomXML to control the software upgrade process from a central Web server. The Allegro RomWebClient is used to retrieve both the software update files and the XML control files from the Web server. Because XML

is readable both by man and machine, the control files may easily be prepared with XML tags to tell the download software in the tester which update files are applicable.

A data collection vendor is planning to use RomXML to exchange information between data collecting devices and a master control station. They plan to use XML because it will allow them to easily add future extensions to their data structures and will allow them to easily change technologies in the data collecting devices or the master control station without worrying about the processor type.

Other vendors are adopting RomXML because they plan to publish their tag sets to open up management and reporting information from their embedded devices to their business partners.

RomXML is an asset in all these cases, because it is simple to use in an embedded environment. With a small memory footprint of 10Kb, and a simplified tag definition syntax, RomXML makes adding XML support to embedded devices easy.

Allegro Expands Embedded Internet Software Family with First XML Framer-Parser for Embedded Systems

Allegro Software is a leading OEM supplier of Internet software for the embedded market. With over 500,000 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, 3Com and Xerox. Allegro's industry-leading software includes Web servers, Web clients, Email (SMTP and POP3) clients, and DNS.

RomXML is the first XML Framer-Parser toolkit for the embedded market and is available for any RTOS and TCP environment including those of our partners: ATI Nucleus, Express Logic ThreadX, ISI pSOS, JMI C-Executive, Kadak AMX, Lynx, Mentor VRTX, Microsoft Windows CE/95/98/NT, Microware OS-9, Precise MQX, QNX, SNMP Research, Treck TCP and WindRiver VxWorks.