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CONTEMPORARY CONTROLS

Connecting Devices Worldwide

Contemporary Controls Announces the Release of the USB22 Series of USB 2.0 to ARCNET® Adapters

In efforts to overcome the inherent non-real-time response associated with today's traditional operating systems such as Windows®, Contemporary Controls has released the USB22 Series of USB 2.0 to ARCNET adapters. "ARCNET's determinism has been compromised with the traditional PCMCIA interface products because typical operating systems cannot service these devices in a timely fashion, resulting in lost or missed messages," says George Karones, Operations Manager. "The USB22 incorporates a deep memory buffer to hold messages until the OS can service the device via its high-speed USB 2.0 connection. Using this approach, missed messages are rare even while operating at 10 Mbps which is four times the standard ARCNET data rate of 2.5 Mbps. The USB22 is not for everyone. However, test subjects using the USB22 adapter have experienced feelings of euphoria along with uncontrollable urges to cry out in exaltation, 'Yeeeeee-Haaaaaa!!!!' Caution is advised."

The Universal Serial Bus (USB) has become a well-known method for connecting either desktop or laptop computers to peripherals because it provides a very high-speed interface (up to 480 Mbps). Designed with the COM20022 controller, the USB22 represents the latest ARCNET technology supporting data rates as high as 10 Mbps. Models exist for the most recognized ARCNET physical layers. A high-performance microcontroller handles the transfer of data between ARCNET and USB. The NIM is powered from the USB port on the computer or from a USB hub.

This product is compatible with the USB 2.0 standard, thereby allowing for an extremely fast and convenient means of accessing an ARCNET network. Since most modern computers are sold equipped with a USB port, connecting to an ARCNET network has never been easier. The USB22 is backwards compatible and will also operate with the earlier full-speed (12 Mbps) USB 1.1 standard.

It's important to note that when the USB cable is first attached to a Windows 2K/XP machine, the user is prompted for a driver on a disk. Contemporary Controls provides a USB driver and DLL with an Application Programming Interface (API) that is similar to our Null Stack Driver API. By not employing a protocol stack, a null stack driver allows for superior performance over a layered protocol stack by directly linking the application to the ARCNET hardware. This approach is beneficial when timely log on to a real-time network like ARCNET is required. To aid the customer, the company offers some utility programs such as Talk that demonstrate how to communicate with the API.

The USB22 receives its power from the USB port on the computer, and it will operate with or without a USB hub. It is available in several models that will support either DC or AC-coupled EIA-485, coaxial bus or twisted-pair networks. It is shipped with a CD containing a Windows 2K/XP compatible DLL and driver, along with a USB cable.

Availability is scheduled for September 2006. The price for all models is $295.

Free Firmware Updates Will Improve Your Ethernet Network's Performance

Contemporary Controls' R&D Manager Bennet Levine says the company is announcing its latest FREE firmware upgrade, Version 3.42, on its EICP_M, EISX_M, and EISB_M managed Ethernet switches. These enhancements are available: all Plug-and-Play (PnP) features, SNMP, IGMP snooping, Port mirroring, VLAN with over-lapped VLANs, RapidRing®, QoS, Fault relay, Trunking, Rate control, Port locking, and web page configuration and monitoring.

EICP, EISX, and EISB managed Ethernet switches support both 3.42 and 4.16 firmware.

Levine says even though you have purchased these products with 1.0 firmware, you'll still have the ability to receive the latest upgrades. However, Levine continues by saying that if you employ the RapidRing feature with firmware Version 2.x, Version 3.42 will not be compatible. "You must upgrade all your switches to 3.x firmware," explains Levine.

He adds that customers must request Version 4.16 which allows for Rapid Spanning Tree (RSTP) capability from the company.

The free Version 3.42 firmware may be downloaded by following the simple instructions on the company's www.ccontrols.com site.

 "We see firmware upgrades as an effort to better service and support our customers' needs," explains Levine.

Be Our Guests at ISA EXPO 2006

Don't miss out on the latest in automation and control!

Be a part of an elite group of buyers and sellers under one roof at ISA EXPO 2006 held October 17–19 in Houston, TX. It is the #1 event for automation and control professionals promising to bring new ideas, state-of-the-art-technology and solutions.

Contemporary Controls will be there matching our products with your specific needs. Visit us at our booth #2558 where our focus will be on our line of Ethernet managed switches marketed under the CTRLink® trade name. Management functionality such as IGMP snooping offered by the CTRLink family of switches provides the ability to enhance network performance and maximize reliability.

CTRLink switches are available in 8, 16, and 24 port copper and fiber/copper configurations. Designed for use in harsh environments where reliability, in critical applications, is required.

Contemporary Controls is offering FREE exhibition admission to ISA EXPO 2006. Go to www.ccontrols.com/tradeshows.htm and click on the Guest-Reg-Link. The screen will prompt you to enter your ISA Member Number. You should simply hit "Next" and move to the next screen. After you enter your name and address, enter W23839 which is the company's Pass Code.

See you at ISA EXPO 2006, booth #2558, and meet our company's technical experts!

Wire-Speed Industrial Ethernet

When asked if an Industrial Ethernet switch from Contemporary Controls is a wire-speed device, I reply that all of our switches are. But what does wire-speed mean?

Wire-speed operation means that a switching hub port will pass traffic at its specified rate regardless of how much activity may be occurring in the switch as a whole. A repeating hub cannot achieve wire-speed because it cannot provide the simultaneous data exchanges that occur within a switch.

To achieve wire-speed, the internal fabric of a switch must be capable of processing data at a rate no less than the specified data rate multiplied by the number of ports in the switch. For example, if a 100 Mbps switch has eight ports, its backplane circuitry must be able to process data at a rate of at least 800 Mbps. Some manufacturers imply this, but state it in another way, claiming (for example) that their 12-port 100 Mbps switch has a 1.2 Gbps capability (12 ports x 100 Mbps per port).

Vendors typically claim their switches can sustain layer-2 wire-speed forwarding without frame loss. To properly comply with wire-speed switching, address lookup should be done while the IP packet is moved from the input port to the output port without buffering. To confirm that a switch is operating at true wire-speed, elaborate throughput testing is required. Typical tests disable features that transcend basic layer-2 functionality such as throughput limits, flood limits and VLAN port tagging.

Regardless of wire-speed assurances, switch performance in practical situations can depend less on data throughput and more on features such as QoS, IGMP snooping or VLANs. The need for true wire-speed operations is seldom an issue in building automation or industrial settings and is of concern in applications that require intense packet-switching such as video security systems.

By Bill Greer, Senior Product Specialist. For more topics, visit "Industrial Ethernet Blogging With Bill" at www.ccontrols.com/blog.htm.

Combining One's Passion for Cycling with an Important Cause

Sunny skies were the backdrop for a team shot before the event began on Saturday. Riders (left to right) were Rhiannon LaPointe, Mike Manna, Ben Gantner, George Thomas, and Kathleen Thomas.

Most of us like to cycle. But do we combine this passion with an important cause like multiple sclerosis? For more than 1,000 individuals, they rode the Illinois countryside to do their part.

And again this year, Contemporary Controls formed a team in the MS 150 Bike Tour held the weekend of June 24–25, riding the traditional 150-mile distance to and from Northern Illinois University in DeKalb, Illinois. The cyclists were George Thomas, Kathleen Thomas, Rhiannon LaPointe, Mike Manna, and Ben Gantner. They were among 1,700 cyclists celebrating the 25th Anniversary of the MS 150 for the Greater Illinois Chapter.

The team raised $3,205.00. The Chapter's projected amount raised so far is $1.55 million. Event Coordinator Lisa Stephenson said this was the first year that the chapter broke $1 million in fundraising BEFORE tour weekend. "We held our first Friday Night Expo on June 23," she said. "Another addition this year was our Team Tent Village in which we had 20 Team Tents!"

Temperatures were not as hot as last year's event, but rain hit the pavements hard on the second day causing cyclists to be evacuated from the route at the 136-mile mark due to lightening strikes in the area.

LaPointe said she cycles every year because it's a good cause, and she knows individuals afflicted with this disease. "It's an incredible feeling seeing people with multiple sclerosis and their families cheering you on along the route," she explained. "You can't help but want to make a difference in their lives."

Garbage bags were in vogue for dress on Sunday as the team got caught in the rain.

News Bulletin

Underwriters Laboratories, Inc.® (UL) Extends the Date for the 9th Edition of UL 864

Underwriters Laboratories, Inc. is extending the effective date for the 9th Edition of UL 864, the Standard for Control Units and Accessories for Fire Alarm Systems, to July 1, 2007. In response to additional concerns raised by some manufacturers regarding the time needed for the transition of production after UL completes 9th Edition assessment(s), UL proposed that the date for which product complying with the 8th Edition be permitted to be built and Labeled be extended to July 1, 2007. UL said the response was overwhelmingly in favor of the extension.

CCL Welcomes Katy Morrison Back to the UK Office

Contemporary Controls is delighted to welcome Katy Morrison back to the UK office (CCL), following her recent return from maternity leave. Her first child, Charlie Alexander, is fit and well, and he is about to start walking unaided.

Katy has taken up the newly-created position of Customer Services Representative, which she will fulfill on a part-time (3 days per week) basis. She will be responsible for liaising with customers and distributors to improve our responsiveness, quality of service and customer satisfaction.

She will also provide the link between CCL and CCG (in Germany) for marketing issues. This will include coordinating the placement and monitoring of marketing media, for maintaining the marketing database, and for assisting in the preparation and updating of catalogs and the web site.

We all wish Katy much success in her new position!

Katy, baby Charlie, and husband Giles.

CONTEMPORARY CONTROLS

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Why use our Managed Ethernet Switch?

Reason 3:
REDUNDANCY!

Like our switches, every Cirrus Aircraft is equipped with backups.

Photo courtesy Cirrus Design © 2006

Our Managed Ethernet Switches help eliminate downtime.

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+49 (0)341 520359-16
ccg.info@ccontrols.com

China fax back and e-mail:
+86 512 68095966
info@ccontrols.com.cn

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For your automation networking solutions visit: www.ccontrols.com