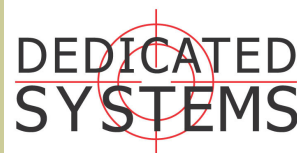


Dedicated Systems' News

Issue # 5

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<http://www.dedicatedsystems.com.au/software.htm>

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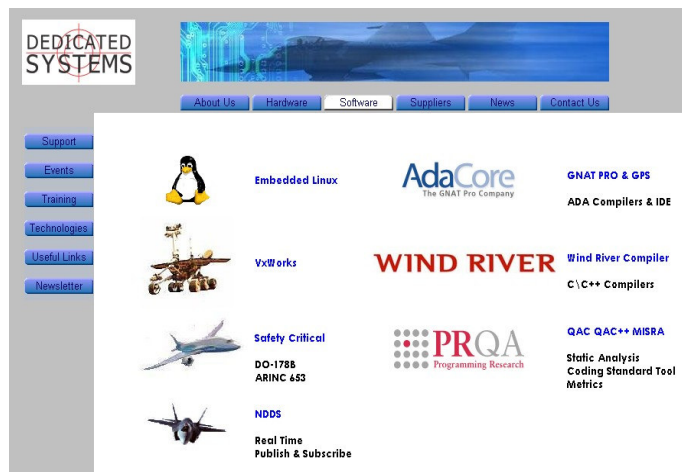
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Training Courses

All courses are over 4 days and custom training can be offered upon request. Courses are held on-site as well as public. A minimum of 5 students is required to run an on-site course. A minimum of 8 students is required to run a public course. Please contact us for detailed training agendas and time schedules.

ADA 83 and 95 Courses:

- Course 1: Introductory Ada training
- Course 2: Advanced Ada training
- Course 3: Ada for C/C++ developers

Windriver Courses:

- Course 1: Tornado 2.2 / VxWorks 5.5 Training Workshop
- Course 2: Tornado 2 BSP Training Workshop
- Course 3: Tornado 2 Device Drivers Workshop
- Course 4: VxWorks for VME Training Workshop
- Course 5: Workbench for Linux and VxWorks 6

Embedded Architecture Courses (2 days):

- Course 1: Introduction to VMEbus
- Course 2: Introduction to Compact PCI

Story ID 2

Kontron's CP6011 now with 2GHz Pentium M and 533MHz FSB

Highest performance in one CPCI or PICMG2.16 Slot

The CP6011 is without a doubt the most powerful CompactPCI CPU engine you can get in a single slot (4HP). Its use of the Intel Pentium-M (and Low Voltage Pentium-M) processors at 1.6GHz, 1.8GHz and now 2GHz guarantees performance and

Description	Front Plate	Rear I/O	Mezzanine	Total
Video	-	1	-	1
USB	1	2	-	3
Serial	1	2	-	2
PS/2 Mouse	-	1	-	1
PS/2 Keyboard	-	1	-	1
Ethernet (F/R)	1	2	2*	5
Hard Disk	-	2	1*	3
SCSI (optional)	-	-	2*	2
CompactFlash	-	-	1*	1
Floppy	-	1	-	1
Reset Button	1	-	-	1

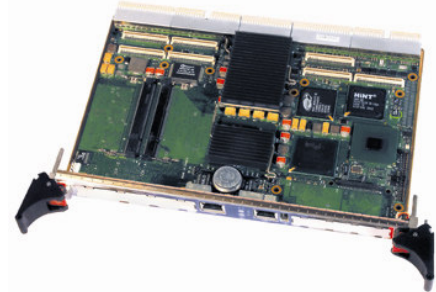
high density. The low power features of the Pentium-M processor make it possible to fit in a single slot and therefore potentially double overall system density. Combined with a high I/O throughput chipset like Intel's E7501 server chipset and up to 2GB of DDR memory distributed over two separate channels for increased memory bandwidth, this board is designed to meet the requirements of the most demanding applications. The CP6011 has two SODIMM sockets (with Registered / ECC

support) for a better combination of flexibility, capacity and cost efficiency.

The CP6011 communicates in Ethernet networks via a Dual Gigabit (PICMG 2.16-compliant) interface and a front-side Fast Ethernet interface

for system management or other purposes. I/O expansion is possible via two PMC slots, one offering a PIM and a PCI-X interface with up to 64 bits at 133 MHz data transfer and the other with a 64 bit/66 MHz PCI interface.

The CompactPCI bus offers enormous bandwidth especially for I/O cards with a PCI-X interface to transfer data at up to 64 bit/133 MHz. The ATI Mobility™ M graphics chip, with 4 MB of memory, provides up to 1600x1200x16bit screen resolution. Apart from the two PMC slots, Ethernet and COM, freely programmable front-side LEDs are available on the CP6011.



Story ID 3

Wind River raises the bar in Linux Device Software Development

Wind River announces **Wind River General Purpose Platform, Linux Edition** and the latest version of **Wind River Platform for Network Equipment, Linux Edition**.

The complete platform offering includes Wind River Workbench and delivers configuration options tailored to meet the needs of Linux application developers and Linux platform developers.

Wind River Workbench now provides developer support for Wind River Linux, Red Hat Linux, kernel.org Linux, and MontaVista Linux .

Specific new features and functionality are designed to address expanded Carrier Grade Linux (CGL) requirements, as well as the full range of Linux development needs from kernel debugging to application development. Wind River's Linux solutions offer device manufacturers a runtime environment that seamlessly integrates the Linux operating system (OS) and robust middleware with Wind River Workbench, the industry's most comprehensive development suite.

Wind River Platforms

Wind River's Linux Platform offerings are based on kernel.org and deliver an integrated platform designed for both "hard-core" Linux kernel developers as well as Linux-based application developers:

- Based on Linux 2.6.10 kernel
- Carrier Grade Linux (CGL) version 2
- ATCA and Compact PCI support
- Workbench 2.3 development suite support

Commercial strength development methodology and support: leverages two decades of Wind River experience in developing, integrating, testing and supporting device software that requires a high degree of reliability and scalability- Flexibility in configuration and purchase options

The Wind River General Purpose Platform, Linux Edition and the Wind River Platform for Network Equipment, Linux Edition will be available from June 2005.

Story ID 4

Adtron ships more compact and higher performance 2.5-inch Flash Disks – IDE and SATA.



Adtron, an industry leader in delivering smart data storage solutions to the industrial marketplace, is now shipping a more compact, higher capacity and higher performance version of its 2.5-inch IDE and SATA Flashpak™ flash disks. The evolution of Adtron ArrayPro™ technology delivers these improvements and a new lower OEM pricing. This design generation is yielding higher packaging densities and allowing 2.5-inch SATA drives of 8GBytes with 7.7mm height.

Adtron ArrayPro technology delivers parallel flash array processing with additional capacity and performance improvements. In the 2.5-inch family, a 370% capacity improvement is achieved with capacities increasing to a maximum of 56 GBytes from 12 GBytes just 1 year ago. Performance capabilities improve by 570% at the high end of the capacity spectrum with sustained read/write rates at 80 MBytes per second, in comparison to 12

MB/sec just 1 year ago.

The SATA and IDE Flashpak flash disks are equipped with Adtron EraSure™ technology for a complete suite of data security and secure erase features that include clear and sanitize capabilities.

Optional destroy, write protection and password protection features are also available. Both the A25FB and I25FB flash disks support either commercial (0 to 70 degrees C) or industrial (-40 to 85 degrees C) temperatures.



Story ID 5

Workbench delivers Industry's Most Advanced Device Software Optimization Development Suite

⇒ Industry's first and only Eclipse-based open device software development solution that offers deep capability for developers across the entire development process in a single integrated suite for

- VxWorks
- Linux— Red Hat Linux, kernel.org 2.6 Linux, MontaVista Linux and Wind River Linux
- ThreadX

⇒ Offers configurations ranging from on-chip debugging and system bring-up, to application and full-blown kernel development
 ⇒ Contributes Device Software Development Platform (DSDP) project specification to Eclipse.org as Eclipse Strategic Developer
 ⇒ Latest versions of RTI ScopeTools are incorporated into Wind River Workbench

1: Wind River Workbench

The premier Wind River Workbench configuration provides a complete development solution for device software targeting VxWorks-, Linux- and ThreadX-based devices. Within this configuration, developers have access to the full range of capabilities required for hardware bring-up, platform and system software development, kernel-level development and application-level development. In addition, this release of Wind River Workbench incorporates the deep dynamic visual debugging and validation capabilities that were acquired in January 2005. Wind River Workbench is offered as a tightly integrated component of Wind River's VxWorks- or Linux-based platforms, or as a standalone development suite for developing device software.

2: Wind River Workbench, Application Edition

This configuration of Workbench is designed to provide an equally powerful development solution targeted for use by Linux application developers who do not require advanced capabilities such as hardware bring-up or kernel-level development and debugging support. Wind River Workbench, Application Edition can be used to develop and debug on the target device that is being created or natively on a Linux host.

3: Wind River Workbench, Desktop Edition

This configuration of Wind River Workbench is ideally suited for developers looking to complement their existing development tool chain and/or debugger with a modern IDE. Wind River Workbench, Desktop Edition provides powerful baseline development suite capabilities including a project system, build system, editor, and source code analysis capabilities identical to those offered in every Wind River Workbench configuration. It can also be used simply as a code composition and comprehension environment, leveraging the power of its source code analysis capabilities and the integration of those capabilities with the editor.

4: Wind River Workbench, On-Chip Debugging Edition

This configuration of Workbench is designed to meet the needs of developers who are engaged early in the device software development cycle responsible for the initial board bring-up and validation, developing device drivers, incorporating low level software capabilities, and developing C/C++ applications. Wind River Workbench, On-Chip Debugging Edition offers a fully featured Wind River Workbench development environment optimized for the capabilities of JTAG-based debugging using Wind River ICE and Wind River Probe. This configuration is an ideal solution when working to bring up hardware that can be best debugged using JTAG-based run control.

Story ID 6

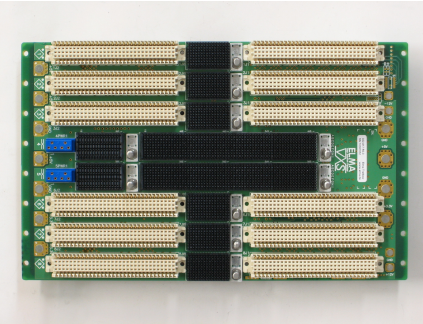
VITA 41 – known as VXS - adds high-speed serial fabric to VME

Parallel bus structures (like VME) cannot handle applications which require very high bandwidth transfers (> 1 Gbit/s) between cards. This is where switched fabric approaches can dramatically increase performance and reliability of traditional VME or CPCI system platforms. A switch fabric is an interconnected network of switching devices.

The first such specification was PICMG 2.16 (cPSB CPCI Packet Switching Backplane). CPSB increases the performance by moving data traffic off the shared bus, and onto an embedded switched Ethernet network fabric, accessed via the P3 connectors on CPCI backplanes. Other specifications followed like Vita 31.1 which specifies GBit Ethernet over a VME backplane.

One of the latest specifications is VITA 41, also known as VXS. This new specification provides, for the first time, a standardized way to implement a high performance 10 Gbit/s switch fabric on a VME backplane without the use of cables, by using standardized backplane connector pin-outs as well as leading-edge high-speed serial interconnects such as InfiniBand and Serial RapidIO.

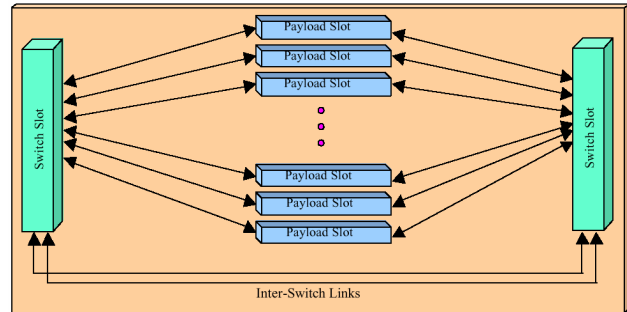
VXS adds a high-speed connector (MultiGig RT) over P0 of a VME64x backplane for serial data traffic. This means that instead of travelling from one slot to another via the VME bus structure, data passes through an active switching device from one card to any other (serial point to point connection). The active switching devices are located on the



switch cards. The cards that connect to the switch cards are called payload cards.

This architecture leads to a scalable system performance (Up to 720 Gbps/chassis, full duplex) and scalable reliability with 1 or 2 fully independent switch slots.

A VXS chassis allows three options:



- ⇒ Plug in standard VME64x cards for parallel bus use
- ⇒ Integrate new payload and switch cards for parallel bus and switch fabric transport
- ⇒ Switch fabric transport only

A VXS system platform can support a maximum of two switch cards and 18 payload cards. Each payload card can be connected to two switch cards, can be used in redundant mode and / or just as resource on the VME bus.

Elma 's new 11U system platform can accommodate VXS backplanes from 8 to 20 slots using pluggable power supplies and fan cassettes. Elma also offers VXS backplanes in 5, 7 and 12 slot sizes.

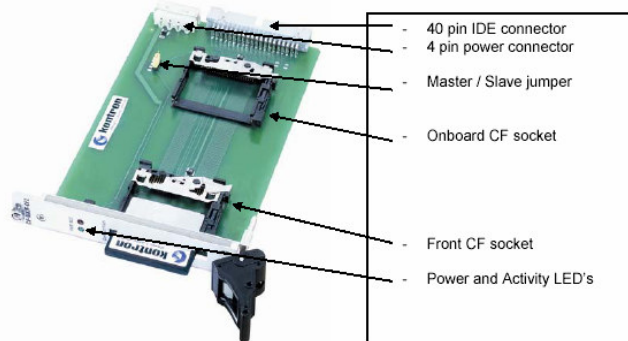
Story ID 8

Dual-CompactFlash carrier module in a 3U / 4HP board size

Kontron's **CP-MKIT-CF2** is a dual-CompactFlash carrier module in a 3U / 4HP formfactor. The module carries 2 CompactFlash sockets; one onboard, one to the front panel. With only one jumper the Master/Slave settings of both CF's are made. The power and IDE signals are connected to the rear like a 3.5" HDD.

The CompactFlashes are NOT hot-swappable! A IDE flat cable is included in the KIT.

Story ID 9



Please email us the Story ID for more information.