



## Xilinx Processor Central Newsletter, September 2006

### Featured NewsFlashes

#### [EDK Version 8.2i Available Now!](#)

The award winning Platform Studio (XPS) Embedded Tool Suite has been updated to version 8.2 and includes Service Pack #1 (SP1)

[Learn More & Buy Now](#)

#### [New Demos On Demand Videos!](#)

Build a MicroBlaze™ Custom Embedded Processing System in Just Minutes

[Learn More & Register Now](#)

#### [New Embedded Webcast!](#)

Quick Start your Embedded Design with the MicroBlaze 32-Bit Soft Processor.

[Learn More & Register Now](#)

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## Top Story

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### ESC - Embedded Systems Conference Boston MA — Sept 25 ~ Sept 28

The ESC-Boston takes place at the Hynes Convention Center this week and promotes both technical program courses on Xilinx Embedded Design Solutions and Xilinx Partner offerings.

Take Embedded Design Courses from Xilinx Distributor Avnet:

[ESC-204 – Tue 9/26/06, 8:30am-10am, Designing with Embedded Processing Cores in FPGAs](#)

[ESC-327 – Wed 9/27/06, 11am-12:30pm, Maximizing FPGA Soft Processor Performance](#)

Xilinx Embedded partners abound at ESC Boston. Please visit these partners and ask about their support for Xilinx Embedded Processing Solutions:

- Green Hills Software
- Lauterbach
- LynuxWorks
- Mentor Graphics

[Visit the Official ESC-Boston Website](#)

## Publications

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### Xilinx Embedded Magazine

The Xilinx Embedded Magazine is published with a wide variety of embedded related articles authored by Xilinx, embedded partners, end-user customers and industry luminaries. The next edition will be posted on our website in November '06.

[View the Xilinx Embedded Magazine Issues Online](#)

### Additional Embedded Articles

[Designing Flexible High Performance Embedded Systems](#) — *XCell Magazine*, Third Quarter 2006

Jay Gould, Xilinx

[Tracing Your Way to Better Embedded Software](#) — *XCell Magazine*, Third Quarter 2006

Steve Veneman, Wind River Systems & Jay Gould, Xilinx

## Embedded Events & Training

### [Demos on Demand](#)

Xilinx offers a selection of Demos on Demand for Embedded & Connectivity Solutions

### On-Demand Webcasts

Xilinx webcasts are 60 minute live broadcasts featuring interactive technical presentations, product demonstrations, and question-and-answer sessions presented by our expert silicon and software people on Xilinx technology, the industry, or both.

**View On Demand Embedded Webcasts:**

[Xilinx and Agilent Joint Webcast - New Debug Techniques for FPGA and Embedded Processing Based Design](#)

[Introduction to the Spartan™-3E Starter Kit](#)

[Using Xilinx Virtex™ and MicroBlaze to Build Gigabit Packet Processing Data Plane Applications](#)

[Visit Xilinx Webcasts Site for a Complete List of All Webcasts](#)

[Visit Xilinx Events Site for a Complete List of All Events](#)

## Partner Workshops & Training

### [Avnet Introduces New \$\mu\$ Clinux on MicroBlaze SpeedWay Workshop](#)

This 1-day, hands-on workshop will show you how to get  $\mu$ Clinux running on a user defined MicroBlaze soft processing system.

### [Two New Avnet On-Ramp Seminars Target Xilinx Embedded Processing](#)

#### [Nu Horizons Xpress Track Training: PowerPC Embedded Design](#)

This one-day class provides hands on experience with the development, verification, debugging, and simulation of an embedded system utilizing Nu Horizons XC4FX12 evaluation board.

### [Xilinx Embedded Systems Development Courses](#)

The Xilinx embedded development course and lab materials have been updated for the latest 8.1 version of the Embedded Development Kit and the Platform Studio tool suite.

- Embedded Systems Development — 2 days
- Advanced Features and Techniques of Embedded Systems Development — 2 Days

### [Xilinx Processing Solutions](#)

#### [Xilinx Delivers an Innovative and Flexible Range of Processing Solutions for Your Unique Embedded Applications](#)

Our processing capabilities provide performance and customization across a wide range of end markets including: aerospace and defense, wired and wireless communications, automotive, audio/video broadcast, industrial control, test and measurement, and consumer.

#### [Avnet: New Virtex-4 FX60/100 PCI Express Development Kit](#)

Available with either a FX60 or FX100 FPGA, this x8 PCIe development board provides many multi-gigabit interfaces and advanced features.

#### [Avnet: Virtex-5 LX Platform Ideal for MicroBlaze 5.0 Prototyping](#)

Avnet announces the release of its new Virtex-5 LX50 development board. Targeted at general purpose and embedded processing prototyping, this board supports many of the advanced features of the new Virtex-5 LX family.

#### [Nu Horizons: New Low Cost Virtex 4 FX12 Evaluation Kit Available](#)

Optimized for designs that require the embedded PPC405 and Ethernet MAC blocks inside the FPGA.

### [Embedded Development Tools](#)

#### [Xilinx Platform Studio \(XPS\) Updated to Version 8.2 \(SP1\)](#)

This release introduces:

- New Device Support
- XPS Tool Suite Enhancements
- Software Development Kit (SDK) Improvements

#### [Simulation & Debug Enhancements](#)

Agilent Technologies MicroBlaze Trace Core (MTC) support is now available. It provides an easy-to-use solution for tracing and reconstructing MicroBlaze program and data flow.

#### [Embedded Linux Support - 2.6](#)

Xilinx works with numerous partners to provide embedded Linux and  $\mu$ Clinux support for our PowerPC™ hard and MicroBlaze soft embedded processing solutions.

[Partner MontaVista has pushed reference board support for embedded Linux 2.6.](#)

Scroll to the "Xilinx" Virtex/PowerPC board area, alphabetically, at the bottom of the webpage

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### [Wind River Systems - VxWorks Support Update](#)

Xilinx will release the MLD support for Wind River VxWorks 6.3 and Workbench 2.5 in the upcoming EDK 8.2 Service Pack 2 (Oct'06). With the MLD technology, customers can build a VxWorks 6.3 BSP from inside the Platform Studio tool suite bundled in the Xilinx EDK (Embedded Development Kit) easily and automatically with simple mouse clicks.

### [Xilinx Processing IP](#)

Xilinx provides a broad processing IP catalog along with the Embedded Development Kit for PowerPC and MicroBlaze based design.

### [Xilinx FPGA Tools](#)

New PlanAhead™ 8.2 Delivers Maximum FPGA Performance in Less Time.

[Learn More & Download Free PlanAhead Evaluation Now](#)

### **Embedded Partner Solutions**

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[Visit All Our Embedded Partners And Learn About Their Solutions](#)

### [Agilent Technologies](#)

Agilent has introduced a MicroBlaze Trace toolset to use in conjunction with an Agilent WindowsR based logic analyzer.

### [LynuxWorks](#)

LynuxWorksT has achieved RSC acceptance (Reusable Software Component) of our time-space partitioned real-time operating system.

### [Mentor](#)

The latest release of Nucleus RTOS products for MicroBlaze and Xilinx PPC405 are compatible with both EDK/XPS 8.1i and 8.2i. Spartan-3, Spartan-3E, Virtex II Pro and Virtex 4 Platforms are supported.

### [MontaVista](#)

MontaVista Professional Edition Supports Two Xilinx Evaluation Boards on 2.6 Linux:

· Xilinx ML40x Evaluation Board

· Xilinx ML300 Evaluation Board - since 2003 and expects Professional Edition 4.0 support in September '06

### [Prevas](#)

The RealFast product, Sierra RTOS, has been purchased by the company Prevas AB, and embedded supplier from Scandinavia. Prevas has expanded Sierra RTOS support to include Xilinx PowerPC in addition to existing Xilinx MicroBlaze processing support.

[Prevas Xilinx Specific Data Sheet](#) 

### **Electronic System Level Design (ESL) Partner Solutions**

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[Visit All Our ESL Partners And Learn About Their Solutions](#)

### **Recent ESL Articles**

[ESL Tools Make FPGAs Nearly Invisible to Designers](#) — *XCell Magazine*, Third Quarter 2006 - Steve Lass, Xilinx

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[Join the Cool \(ESL\) Club](#) — *XCell Magazine*, Third Quarter 2006 - Kevin Morris, FPGA Journal

[ESL for FPGAs](#) — *Embedded Technology Journal*, August 22, 2006 - Milan Saini, Xilinx

[Read All Partner ESL Articles In The Recent Xcell Journal](#)

## **Impulse Accelerated Technologies**

[Impulse C Version 2.20 Adds Enhanced Support For Virtex-4 FX Devices](#)

With its improved support for the Virtex-4 APU interface, Impulse C provides a fast and efficient way to create hardware-accelerated PowerPC applications.

## **Binachip**

[Accelerate Your PowerPC Application By 10X - 50X](#)

BINACHIP-FPGA works with the binary executable to identify system bottlenecks and automatically generates hardware to eliminate them. The tool also outputs a new executable that runs seamlessly on the target Virtex platform.

## **Embedded Services & Support**

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### [Xilinx Design Services \(XDS\)](#)

XDS's embedded design expertise and staffing can help you meet your complex design requirements and aggressive development schedule.

### [Xilinx Embedded Processing QuickStart!](#)

With the purchase of Embedded Processing Quickstart! you will have the unique opportunity to staff a Quickstart! engineer at your site for one week. During that period, the Xilinx expert will train and empower your team to complete your project on time and make the best use of the Xilinx device that you've selected.

## **Application Notes & Reference Systems**

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[Visit Xilinx Processor Core Application Notes Website](#)

Selecting the "Microprocessor, Microcontroller and Peripheral" heading yields a large catalog of 'embedded' specific application notes.

Select the "Alert me when page changes" option to get the latest updates

### **This Quarter's New or Updated Application Notes & Reference Systems**

- XAPP935 – Memory Controller – PLB DDR2 Reference System
- XAPP923 – Memory Controller – MCH\_OPB\_EMCC Reference System
- XAPP912 – Memory Controller – MCH\_OPB\_DDR Reference System
- XAPP909 – Memory Controller – MCH\_OPB\_SDRAM Reference System
- XAPP809 – Ethernet – PLB\_GEMAC Reference System
- XAPP941 – Ethernet – PLB\_TEMAC Reference System (near completion)
- XAPP924 – External Peripherals – OPB\_EPC with SMSC Lan Reference System
- XAPP925 – External Peripherals – OPB\_EPC with Cypress USB Reference System
- XAPP913 – Communication Low-Speed – OPB\_CAN Reference System
- XAPP911 – PCI – OPB\_PCI Reference System
- UG241 – PCI – OPB\_PCI User's Guide

Xilinx will have additional Application Notes and Reference Systems available soon after you receive this eNewsletter. Check back for other Updates for 8.2 in the next several months.

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