Platform Studio™

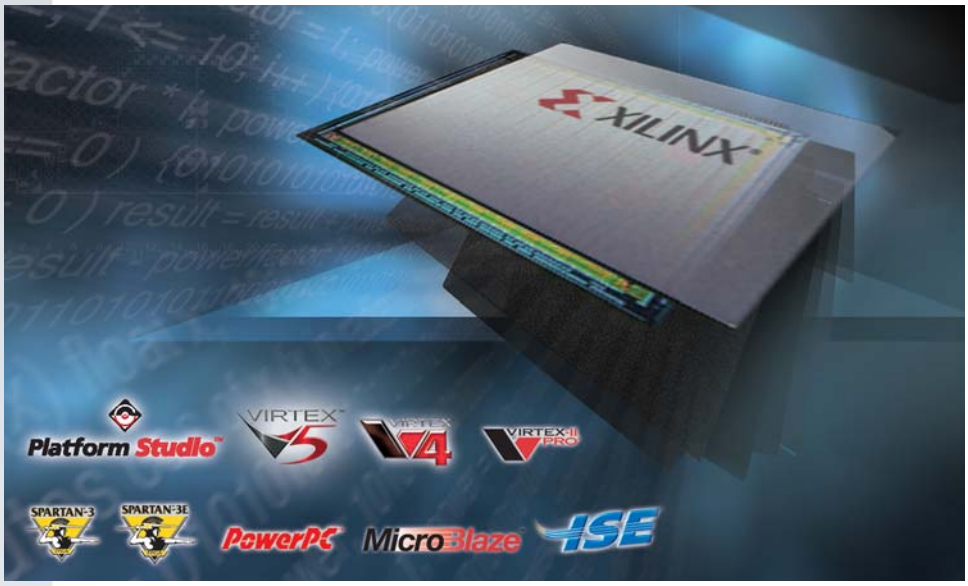
Embedded Development Kit

Programmable Systems Design is Now Easier than Ever

Developing a custom processing system using traditional solutions such as ASSPs or ASICs involves risk, time delays, and challenges in both resources and cost.

Programmable system platforms that include hard and soft processor core options, along with soft peripherals to implement a complete SoC in an FPGA, can resolve these issues. By combining a programmable Platform FPGA with a tightly integrated embedded design environment, system designers can accelerate their products to market.

The Xilinx Embedded Development Kit (EDK). streamlines and eases the platform development process. This kit includes the Platform Studio tool chain and a gallery of unique time saving tools like automatic BSP generation, IP creation, example software application generation, and integrated hardware/software debug capabilities.



Create Better Embedded Systems while Saving Time and Money

When you have the right tools, you can complete your designs faster and more easily with fewer errors. The Xilinx Embedded Development Kit (EDK) is a comprehensive suite of integrated development environment, software tools, system wizards, and IP that facilitates your design and utilizes all of the power offered by a programmable platform.

- **Create Designs Faster –** The Xilinx Platform Studio tool chain allows you to quickly configure a hardware platform and create a custom software design that includes appropriate libraries as well as automated generation of device drivers and a complete BSP (Board Support Package). This productive environment saves time by accelerating design steps that would otherwise be manual and error-prone.
- **Create Lower-Cost Designs –** Create your own custom processing platform while reducing your system cost by consolidating external functions into the FPGA. You can now have the capability to mix and match design architectures such as data and control path elements to provide the optimal solution to meet your product goals. With a flexible programmable platform, you can also optimize hardware/software design trade-offs for the best price-performance results.
- **Create High-Value Designs –** Many of the traditionally error-prone steps of interfacing hardware elements, together with defining the software/firmware for a custom hardware platform, are handled automatically using out-of-the-box verified components and tools. This means you can now spend your valuable development resources on creating high-value and unique product features.
- **Create More Profitable Designs –** Programmable, reprogrammable, and field-upgradable platforms mean that your product gets to market quicker and has a longer life, returning greater profitability. Enjoy your competitive advantage and spend more time on creating the value-added features that differentiate your products in the marketplace.

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The Embedded Development Kit Includes the Following Tools and IP:

Xilinx Platform Studio (XPS)

- Graphical and command line tools for developing and debugging the hardware and software platforms for an embedded application.
- Hardware platform that includes graphical and textual definition tools and generation of simulation and implementation netlists for use with the ISE logic design tools.
- Software platform definition that includes graphical and textual tools for matching it to the hardware platform, editing source code, running the compiler tool chains, and library generation.

Software Development Tools

- GNU C/C++ compiler for MicroBlaze™ and PowerPC™
- GNU Debugger for MicroBlaze and PowerPC
- Other GNU utilities
- XMD – Xilinx Microprocessor Debug engine for MicroBlaze and PowerPC. It provides host-based target control using command line tools that enable complex regression testing.
- Data2MEM – A standalone application for loading and updating on-chip memory content directly within the FPGA bitstream.
- Base System Builder – Wizard to streamline configuring hardware elements, processor options, bus system, and IP options, as well as automatically generating memory map and design files.
- Platform Studio SDK (Software Development Kit) – Software focused development and debug environment based on Eclipse IDE.

Board Support Packages (BSPs)

- Stand Alone BSP – For non-RTOS systems (MicroBlaze and PowerPC)
- Wind River VxWorks – For PowerPC-platform FPGAs
- MontaVista Linux – For PowerPC-platform FPGAs
- Support for Xilinx MicroKernel (XMK) Systems

Processor IP

- PowerPC and MicroBlaze infrastructure and peripheral IP cores (CoreConnect™ Processor Local Bus (PLB) and On-Chip Peripheral Bus (OPB) infrastructure cores)
- Evaluation versions of high-value CoreConnect cores (EMAC 10/100, IIC Master Slave, HDLC Single Channel Controller, HDLC Multiple Channel (up to 256) Controller, UART 16450, 16550, and more)

MicroBlaze Soft Processor Core

- Industry's fastest 32-bit soft processor core

Embedded Development Kit Contents:

The EDK works in both PC and workstation environments, and includes:

- Embedded Development Kit CD
- ISE Design environment evaluation CDs
- Alliance Partner CDs (Trial versions of software tools, documentation, data sheets, etc., from third-party vendors supporting the Xilinx embedded processor solutions)

What Can You Do with the Embedded Development Kit?

- Define custom hardware platform for a programmable system using processor cores (PowerPC or MicroBlaze), parameterizable IP, and interconnect bus
- Develop a software platform to match custom hardware
- Employ verification support and interface to Xilinx-supported HDL simulators

Order the Xilinx Embedded Development Kit Today

Part Number	Description	Pricing
DO-EDK	Embedded Development Kit	Contact your local Xilinx representative for pricing and availability

Embedded Expertise – Xilinx Training Courses and Design Services

Embedded Systems Development Course

Learn how to effectively develop, debug, and simulate an embedded system using the newest EDK advancements by attending the Xilinx Embedded Systems Development course. For complete program and registration information, please visit:
www.support.xilinx.com/support/education-home.htm

Xilinx Design Services – XDS

XDS experience in system, logic, and embedded software design complements your own resources to optimize your budget, schedule, and performance requirements. See how we can help at:
http://www.xilinx.com/xds/

For the latest information on the Embedded Development Kit go to:
www.xilinx.com/edk

For more information on Xilinx Processor Solutions visit:
www.xilinx.com/processor

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