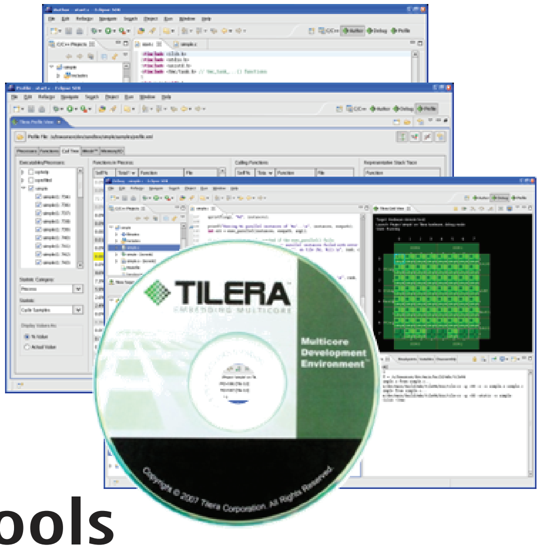
Multicore Development Environment™

Product Brief

Complete and Integrated Development Environment for Multicore Processors

Tilera's Multicore Development Environment™ (MDE) is a complete, standards-based multicore programming solution that enables developers to take full advantage of the parallel-processing potential of the Tile Processor™ architecture. Older multicore models required all programming operations be done in a core-by-core fashion, making it impossible to program, debug, or profile more than a handful of cores efficiently. With Tilera's MDE suite, developers can move to larger and more complex multicore applications using its advanced collective views and profiling technologies.

The MDE programming suite reflects a mix of the best of current tools and technology with next-generation solutions designed for the large-scale multicore world. MDE's familiar development environment helps developers get their applications to market quickly, while the new tools help them take full advantage of the technology Tilera® offers.


TILERA
EMBEDDING MULTICORE
Multicore Development Environment™
Copyright © 2007 Tilera Corporation. All Rights Reserved.

The *Best* Industry-Standard Tools

and the Most Innovative Next-Generation Solutions for Multicores

Runtime Software Stack: The MDE offers a complete software stack including hypervisor, operating system, device drivers, and user space libraries.

- Standard Linux, C, and C++ user space libraries
- Tilera Multicore Components™ (TMC) user library for communication and performance optimization
- Standard operating system using SMP Linux 2.6
- Hypervisor for hardware abstraction and virtualization
- High speed packet processing and load balancing drivers

Standard and Enhanced Development Tools: The MDE provides a complete set of multicore development tools including:

- State-of-the-art ANSI C/C++ compiler
- Robust Eclipse Integrated Development Environment (IDE)
- Standard command line tools for GDB, gprof, and oprofile
- Multicore debugger with a collective view of all cores
- Multicore profiler with source line granularity
- Complete system simulator and hardware development platform

Features	Benefits
• C/C++ programming model • Supports Linux and SMP Linux • Standard tool chain based on Eclipse and GNU	• Easy to leverage existing code • Take advantage of an extensive body of Open Source applications • Familiar programming environment speeds development
• Support for various programming environments: - Full SMP Linux - Zero Overhead Linux™ (ZOL) - Bare Metal Environment (BME)	• Standard and familiar environment to ramp up time • Real time performance results • Integration of control plane and dataplane applications
• Linux user libraries • Standard C and C++ libraries • Software-based high-speed packet processing drivers • TMC libraries for communication and optimization	• Run existing applications with dependencies on standard libraries • Focus customer development on differentiating components • Ability to implement proprietary packet processing protocols • Efficient communication between cores to improve performance
• Multicore-aware profiling and debugging • Standard gdb and gprof interfaces • Eclipse-based graphical interface for data display and organization	• Speed development by accurately identifying functional or performance issues • Familiar and standard interfaces, reducing ramp up time
• Timing accurate simulator • Multiple hardware evaluation platforms including PCIe cards, AMC platforms, and standalone appliances	• Fast software and hardware prototyping • Maximum visibility into processors state to help identify potential issues