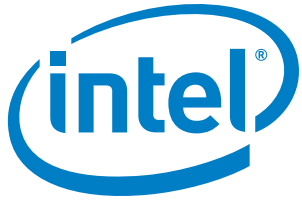

Intel® Thread Profiler 3.1 for Windows*

In-Depth

Contents

Intel® Thread Profiler 3.1 for Windows*

Incorporate multi-threading now to unleash the power of multicore processor-based systems, including the latest 64-bit Quad-Core processors.

Intel® Thread Profiler 3.1 for Windows* helps you tune multi-threaded applications faster, for optimal performance on Intel® multicore processors.

Microsoft Visual Studio* Developers: Tune multi-threaded applications with Intel® Thread Profiler 3.1. from within Microsoft Visual Studio 2003, 2005 and 2008.

Features

Visualize Threaded Application Behavior:

- Timeline view aids in understanding what threads are doing and how they interact
- Pinpoint the exact location of performance issues in call stacks and source code to aid analysis
- Measure the number of cores that are effectively utilized by the application to determine actual parallel performance

Intel Thread Profiler 3.1 for Windows shows both the concurrency and timeline views simultaneously to help you visualize what percent of code is optimally parallel and where application performance issues exist. In Figure 1, two source code fixes resulted in continued performance improvement with each revision, illustrated by the shortening of the application runtime. Intel Thread Profiler enables developers to make their applications multicore ready.

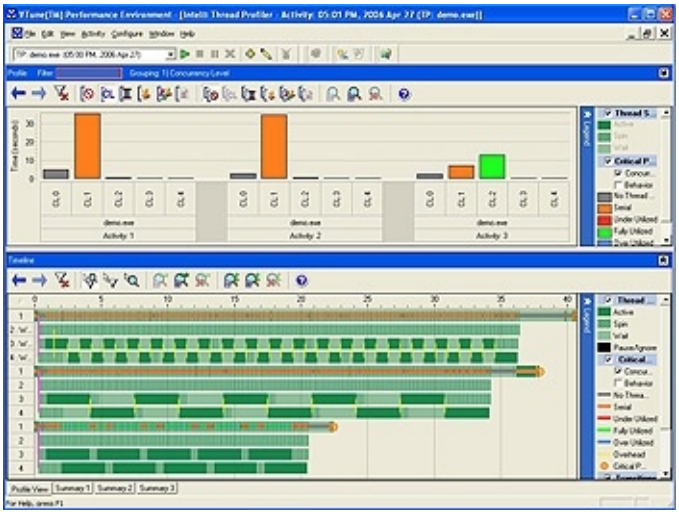

Figure 1. View Concurrency and Timelines Simultaneously
See larger image: http://cache-www.intel.com/cd/00/00/30/75/307500_307500.jpg

Drill to the source code view by double clicking on a transition in the timeline view to see exactly where threads are transitioning work in the source code, as seen in Figure 2. This is key to understanding the threaded application behavior.

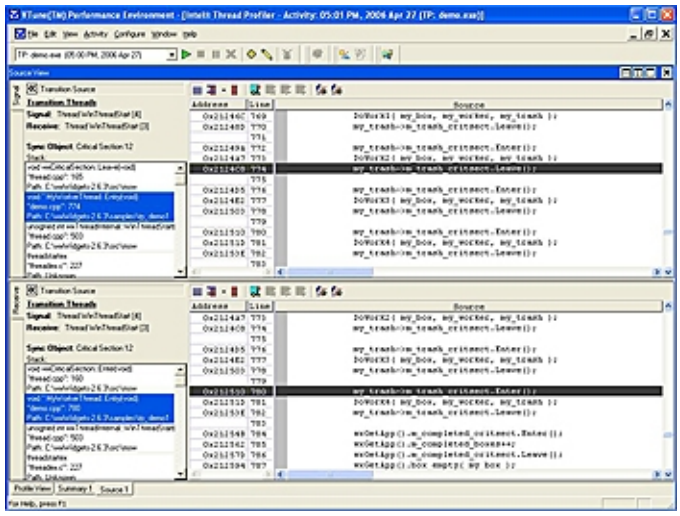

Figure 2. Drill to the Source Code to Identify Threading Issues
See larger image: http://cache-www.intel.com/cd/00/00/30/75/307502_307502.jpg

Identify Parallel Performance Issues:

- Identify the threads and synchronization objects which impact performance
- See the distribution of work to threads and pinpoint load imbalances

Advanced Thread Profiling Functionality:

- OpenMP* analysis enables quick prototyping and estimation of the performance potential of different designs
- Use critical path analysis to help focus on more significant performance issues

Microsoft Visual Studio* 2005 and 2008 Support:

- Supports C++ applications developed using the Microsoft Windows* compilers in Microsoft Visual Studio* 2005 and 2008.

New in This Release

Support for the latest multicore processors:

- Optimize the performance of your multi-threaded application on the latest multicore processors.

Install and run on Microsoft Windows Vista*:

- Analyze compiled 32 and 64-bit applications running on Microsoft Windows Vista*

Compatibility

Intel Thread Profiler 3.0 for Windows is compatible with today's industry-standard development tools:

- Microsoft Visual Studio* 2003, 2005 or 2008
- Microsoft Visual C++* Compiler 2005, 2003, 2002 Editions or Visual C++ 6.0
- Microsoft Visual Studio 2005 Express Edition C++ Compiler
- Intel® VTune™ Performance Analyzer 8.0 or higher
- Intel® Fortran and C++ Compilers
- Windows threads and POSIX* threads
- Intel® Threading Building Blocks
- Support for Intel® OpenMP*

Microsoft Visual Studio* Developers:

Intel® Thread Profiler requires VTune™ Analyzer 9.0 update 7 and later to integrate with Microsoft Visual Studio* 2003, 2005 or 2008. Visual Studio 2008 integration is available on all supported platforms except Vista* on Intel® 64 architecture. VTune Analyzer does integrate with Visual Studio 2005 on Vista for Intel 64 architecture and also works standalone. Integration with Visual Studio 2008 on Vista for Intel 64 architecture is planned for a future update.

Technical Support

With the purchase of Intel Thread Profiler, you will receive one year of technical support and product updates from Intel® Premier Support, our interactive issue management and communication Web site. This premium support service allows you to submit questions, download product updates, and access technical notes, application notes, and other documentation. For more information, visit the Intel Registration Center at: https://registrationcenter.intel.com/RegCenter/Register.aspx

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