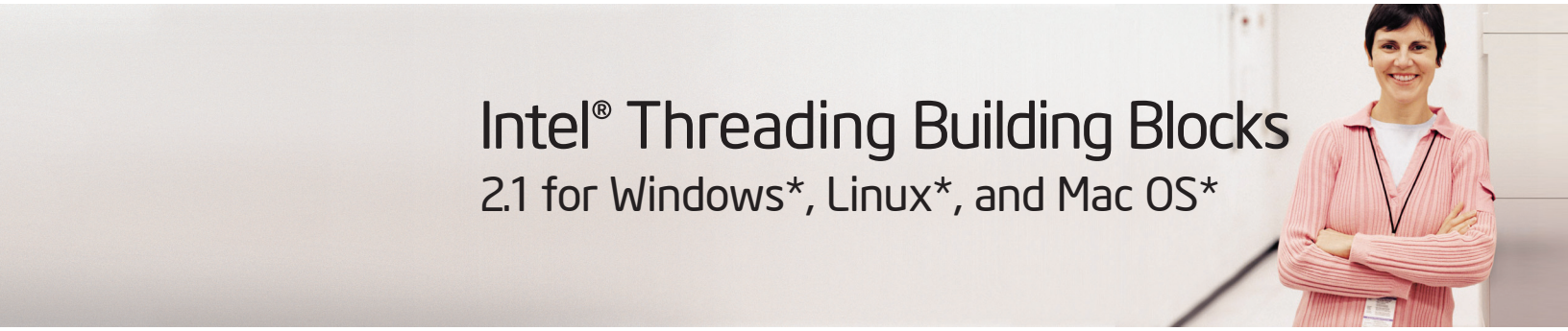
Product Brief



Intel® Threading Building Blocks

2.1 for Windows*, Linux*, and Mac OS*

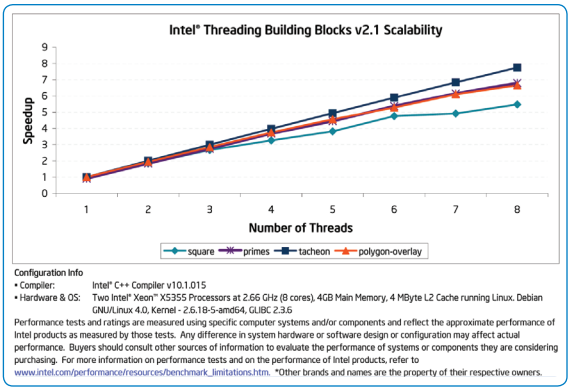
"We used to say make it right, then make it fast. We can't do that anymore. TBB lets us ***design for correctness and speed*** upfront for Maya."

Martin Watt
Senior Software Engineer
Autodesk

Thread Like an Expert

Intel® Threading Building Blocks (Intel® TBB) is an award winning C++ template library that abstracts threads to tasks to create reliable, portable and scalable parallel applications. Use Intel TBB to implement task-based parallel applications and enhance developer productivity for scalable software on multi-core platforms. Intel TBB is the most efficient way to implement parallel applications and unleash multi-core platform performance compared with other threading methods like native threads and thread wrappers. An open source version is also available. Visit www.threadingbuildingblocks.org for more information.

Productivity - Improves developer productivity by using task-based abstractions that make it easier to get scalable and reliable parallel applications with less lines of code. Task-based algorithms, containers and synchronization primitives simplify parallel application development.



Future proof applications – Application performance automatically improves as processor core count increases by using abstract tasks. Sophisticated task scheduler dynamically maps tasks to threads to balance the load among available cores, preserve cache locality and maximize parallel performance.

Portability – Expand customer base by using a production ready, open solution for parallelism that is available on a broad range of platforms. Available as a commercial and open source project, Intel TBB is coded in C++ and available on a multitude of platforms to provide a cross-platform solution for parallelism. Intel TBB is available as a standalone product or with the Intel® Compiler Professional Editions for a more complete and cost-effective solution.

New In This Release

Intel TBB v2.1 offers considerable improvements over 2.0 with significant functionality, performance, and usability enhancements.

Do more: Intel TBB v2.1 enables new use cases by allowing developers to create threads that don't interfere with working tasks. Now TBB can be more generally applied to cross-platform applications which need the benefit of threading in both computational and interfacing components. Use TBB to work with GUIs, AI, I/O operations, and network events without blocking ongoing computation being done by other active tasks.

Do it faster: Intel TBB v2.1 has significantly improved performance on workloads which benefit from static scheduling. Now TBB's work-stealing task scheduler more efficiency prioritizes work to reduce unnecessary task stealing. Use TBB to abstract from thread maintenance and be assured of great performance no matter what workload your algorithm works on.

Do it easier: Intel TBB v2.1 makes it easier to use in Microsoft Visual Studio* by offering a compile configuration plug-in. Now Intel TBB makes it simple to configure different compilation variables for multiple development phases including debug and production.

For a more comprehensive description of TBB 2.1 features, visit threadingbuildingblocks.org

System Requirements

Intel TBB is cross-platform (Windows, Linux, and Mac OS X), supports 32-bit and 64-bit applications and works with Intel, Microsoft and GNU compilers. Intel TBB is specifically designed to work in concert with other threading technologies, such as Win32*, POSIX*, and OpenMP* threads, providing a high degree of design and development flexibility. The templates implemented in Intel TBB rely on generic programming in order to provide high-speed and flexible algorithms with very few implementation constraints.

Intel TBB is compatible with Intel® Thread Checker, Intel® Thread Profiler, and the Intel® Compilers, to enable the rapid implementation of high-performance threads in applications.

Please refer to www.intel.com/software/products/tbb for details on hardware and software requirements.

Support

Every purchase of an Intel® Software Development Product includes a year of support services, which provides access to Intel® Premier Support and all product updates during that time. Intel Premier Support gives you online access to technical notes, application notes, and documentation.

About Intel® Software Development Products

Intel Software Development Products can help you easily create the fastest software possible by offering a full suite of tools that include:

- Intel® Compilers
- Intel® VTune™ Performance Analyzers
- Intel® Performance Libraries
- Intel® Threading Analysis Tools
- Intel® Cluster Tools

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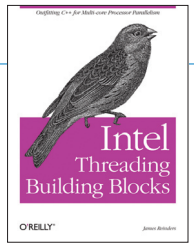
Book Available



Intel® Threading Building Blocks:
Outfitting C++ for Multi-core Processor Parallelism

Parallelism for C++ as defined by Intel Threading Building Blocks is being heralded as the key for multi-core programming in C++. This book is packed with illustrative examples to explain the complexities of concurrency and shows how to extract the most benefit from using TBB in your application.

To learn more or to purchase this book, please visit http://shop.intel.com/shop/product.aspx?pid=SISW4001

Download a trial version today.

www.intel.com/software/products/tbb

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