Intel® C++ Compiler 11.0 Professional Edition
for Windows*

Product Brief

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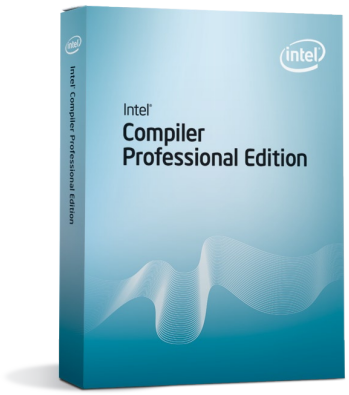
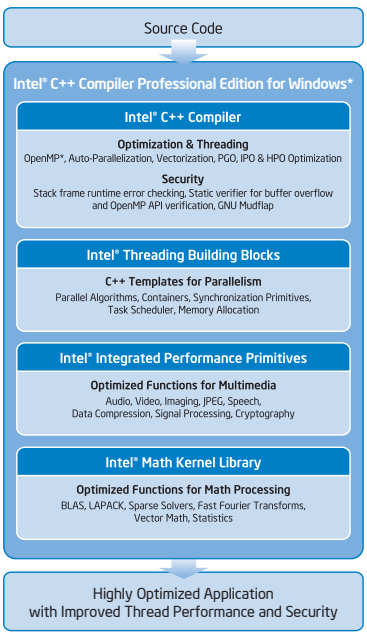
for Windows*





Get High Performance with Intel® C++ Compiler Professional Edition

The Intel® C++ Compiler Professional Edition unleashes the vast potential of next generation multicore Intel® processors. The Professional Edition not only comes with the compiler's breadth of advanced optimization, multithreading, and processor support, including automatic processor dispatch, vectorization, and data prefetching, it also has highly optimized C++ templates for parallelism, math processing, and multimedia libraries.

Professional Edition Components

The Intel® Professional Edition creates a strong foundation for building robust, high performance parallel code at significant price savings. It combines the compiler with the following:

Intel® Threading Building Blocks (Intel® TBB)

This award winning C++ template library abstracts threads to tasks creating reliable, portable and scalable parallel applications. Intel® TBB is the most efficient way to implement parallel applications and unleash multicore platform performance.

Intel® Integrated Performance Primitives (Intel® IPP)

This is an extensive library of multicore-ready, highly optimized software functions for multimedia data processing, and communications applications.

Intel® Math Kernel Library (Intel® MKL)

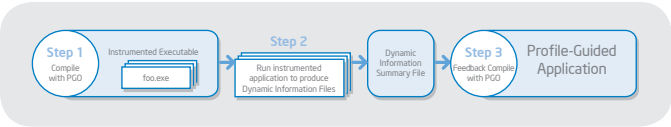
This library includes optimized and scalable math routines for maximizing performance and seamlessly providing forward scaling from current to future multicore platforms.

New—Intel® Compiler Suite Professional Edition for Windows

This suite includes all the features of the Intel C++ Compiler Professional Edition, but also includes the Intel Visual Fortran Compiler for Windows for a more complete solution at significant price savings.

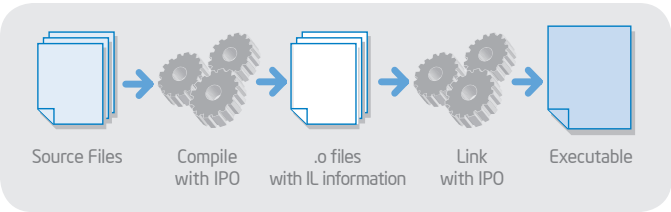
Advanced Optimization Features

- **High Performance Parallel Optimizer (HPO)** offers an improved ability to analyze, optimize, and parallelize more loop nests. This revolutionary capability combines vectorization, parallelization, and loop transformations into a single pass which is faster, more effective, and more reliable than prior discrete phases.
- **Automatic Vectorizer** analyzes loops and determines when it is safe and effective to execute several iterations of the loop in parallel.
- **Profile-Guided Optimization (PGO)** improves application performance by reducing instruction-cache thrashing, reorganizing code layout, shrinking code size, and reducing branch mispredictions.



The profile-guided optimization process

- **Interprocedural Optimization (IPO)** dramatically improves performance of small- or medium-sized functions that are used frequently, especially programs that contain calls within loops. The analysis capabilities of this optimizer can also give feedback on vulnerabilities and coding errors that cannot be as effectively detected by compilers that rely on front-end analysis.



The interprocedural optimization process

"Our customers were looking for lower cost solutions for delivery of video streams. The Intel C++ Compiler and Intel IPP tools allowed ImageCom to meet the customer's expectations for cost and timescales."§

Thomas Dove, CEO
Imagecom, Inc

Other Features

Windows Vista* and Visual Studio* .Net 2005 and 2008 Support

Bring Intel hardware expertise into the latest Microsoft integrated development environment. Use Intel C++, Microsoft Visual C++ or both!

Multi-Threaded Application Support

OpenMP* and auto-parallelization help convert serial applications into parallel applications, allowing you to take full advantage of multicore technology.

Compatibility

Intel® C++ Compiler 11.0 for Windows is substantially standards compliant, including support for parallelization by means of OpenMP. It also integrates with Microsoft Visual Studio 2005 and 2008, and provides expanded 32-bit and 64-bit multicore Intel processor support.

Intel C++ Compiler provides the following language conformances:

- ANSI/ISO standard for C language compilation (ISO/IEC 9899:1990)
- ANSI/ISO standard (ISO/IEC 14882:1998) for the C++ language
- OpenMP specification version 3.0

System Requirements

Please refer to www.intel.com/software/products/compilers/cwin 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.

Intel® Software Development Products

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

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

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www.intel.com/software/products/compilers/cwin

Optimized for

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