



Intel® Cluster Toolkit Compiler Edition 3.2 for Windows* and Linux*

In-Depth

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Intel® Cluster Toolkit Compiler Edition 3.2 for Windows* and Linux*

Intel® Cluster Toolkit Compiler Edition 3.2 provides an extensive software package containing Intel® C++ and Intel® Fortran Compilers for Intel® IA-32, IA-64, and Intel® 64 architectures, PLUS it includes all the Intel® Cluster Tools that help you develop, analyze and optimize performance of parallel applications on Linux or Windows CCS clusters. By combining all the compilers and tools for all Intel architectures into one license package, Intel can provide single installation, interoperability, and support for the best in class tools at an incredibly low package price.

Features

Bundling Compilers and Cluster Tools for Intel® IA-32, IA-64, and Intel® 64 architectures, the Intel® Cluster Toolkit Compiler Edition 3.2 provides Windows or Linux versions of the Intel Compilers for C++ and Fortran in addition to the Intel® Cluster Tools for a software package unrivaled by any other offerings.

The Intel Cluster Toolkit Compiler Edition 3.2 license provides access and support for the following programs on either Windows or Linux:

- Intel® C++ Compiler 11.0
- Intel® Fortran Compiler 11.0
- Intel® MPI Library 3.2
- Intel® Trace Analyzer and Collector 7.2
- Intel® Math Kernel Library 10.1
- Intel® MPI Benchmarks 3.2
- Intel® Debugger 11.0 (except with Windows Intel® MPI Library applications)

The latest releases of all the Cluster Tools have increased performance and ease-of use while improving interoperability, scalability, and the number of user options.

Intel Cluster Toolkit Compiler Edition 3.2 integrates your compiler of choice with the Cluster Tools, provides easy installation, and comes with extensive documentation. With a valid product serial number for the Intel Cluster Toolkit Compiler Edition, you can register and/or login to the Intel® Software Development Products Registration Center at <https://registrationcenter.intel.com/RegCenter/Register.aspx> and download the package and updates for one year from the date of purchase. Extended support agreements are also available. See the left side toolbar for additional support resources including community forums, compatibility, and solutions.

New In This Release

All the software tools included with Intel Cluster Toolkit Compiler Edition have undergone a major revision to give you the best parallel performance analysis tools for cluster software development.

The following list contains just a few of the many new features included in this latest version.

Intel® MPI Library 3.2

- Automatic application-specific performance tuning
- Faster startup and improved collective operation algorithms for even more performance
- Greater scalability over sockets and shared memory
- Enhanced flexibility and control over:
 - Shared memory segment size for ease-of-use
 - OS, compiler, Python, and DAPL check for higher scalability
- Added support for:
 - Intel® Compiler 11.0
 - Microsoft Windows* HPC 2008 and Vista
- DAPL 2.0
- Loadable 3rd party process manager (PMI) libraries for tighter integration with leading resource schedulers

Intel® Trace Analyzer and Collector 7.2

- More reports, more graphics, more analysis, more filtering, more powerful!
- Correctness Checking reports now available in the Intel Trace Analyzer GUI
- Added support for:
 - Intel® Compilers 11.0
 - Microsoft* Windows Vista and HPC Server 2008

Intel® Math Kernel Library 10.1

- Performance optimizations for Intel's next-generation microarchitecture family
- Improved integration with Integrated Development Environments
- Microsoft Visual Studio*
- Eclipse*
- XCode*
- Direct Sparse Solver enhancements:
 - Matrix conversion; Forward/backward substitutions

Intel® Cluster Toolkit Compiler Edition 3.2 Windows* and Linux*

- Fourier Transforms:
 - Support for half-complex arrays
- Vector Math Library extensions:
 - Inverse error functions, cumulative normal distribution functions
- Full integration of the Intel® Compatibility OpenMP* run-time library for greater Windows/Linux* cross-platform compatibility

Intel® MPI Benchmarks 3.2

- Extended support for:
 - Microsoft* Windows HPC Server 2008*
 - Microsoft* Visual Studio 2008*

See the latest MPI benchmarks at: <http://www.intel.com/cd/software/products/asm-na/eng/219848.htm>

Technical Support

With the purchase of Intel® Software Development Products, you will receive one year of technical support and product updates from Intel® Premier Support, our interactive issue management and communication Website. 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® Software Development Products Registration Center at <https://registrationcenter.intel.com/RegCenter/Register.aspx>.

