



Product Brief

Intel® Cluster Toolkit 3.2

for Linux* and Microsoft Windows*



Increase Performance with Cluster Tools

Intel® Cluster Toolkit 3.2 provides exceptional value at a significantly discounted price for clusters running either Linux* or Microsoft Windows Compute Cluster Server* by bundling Intel® Trace Analyzer and Collector, Intel® Math Kernel Library (MKL), Intel® MPI Library, and Intel® MPI Benchmarks into a single package. Easy to install and easy to use, this Intel software package helps you develop, analyze, and optimize performance of parallel applications for clusters using Intel® IA-32, IA-64, and Intel® 64 architectures.

Features

Extensive Toolkit.

With support for Microsoft Windows and Linux clusters, the Intel Cluster Toolkit 3.2 assures industry wide compatibility AND fully tested interoperability of these best-in-class tools:

- **Intel® MPI Library 3.2** – Outstanding performance, flexibility, and ease of use
- **Intel® Trace Analyzer and Collector 7.2** – The leading MPI performance analysis product in the world
- **Intel® Math Kernel Library 10.1** – The flagship of high performance math libraries. Extensively threaded, highly optimized, core math functions including BLAS, LAPACK, ScaLAPACK, Sparse Solvers, Fast Fourier Transforms, Vector Math, and more.
- **Intel® MPI Benchmarks 3.2** – easy performance comparison of MPI functions and patterns

Easy Installation and Updates.

With a valid product serial number for the Intel Cluster Toolkit you can register and/or login to the Intel® Software Development Products Registration Center (<https://registrationcenter.intel.com/regcenter/register.aspx>) and download the package, as well as updates for one year from the date of purchase.

Featured Products

All the software tools included with Intel Cluster Toolkit 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

The Intel® MPI Library features automatic, application-specific performance tuning, faster startup and improved collective operation algorithms for even more performance and greater scalability over sockets and shared memory. It also offers enhanced flexibility and control over shared memory segment size for ease-of-use, and OS, compiler, Python, and DAPL check for higher scalability. The Intel MPI Library has added support for Intel® Compiler 11.0, Microsoft Windows* HPC 2008 and Vista, and DAPL 2.0. In addition, it provides loadable 3rd party process manager (PMI) libraries for tighter integration with leading resource schedulers.

Intel® Trace Analyzer and Collector 7.2

The Intel® Trace Analyzer and Collector has more reports, more graphics, more analysis, more filtering, and is more powerful! Correctness Checking reports are now available in the Intel Trace Analyzer GUI. It also allows for migration to Trolltech* Qt 4.x for a refreshed look-and-feel, and provides added support for Intel® Compilers 11.0 and Microsoft* Windows Vista and HPC Server 2008.

Intel® Math Kernel Library 10.1

Intel® Math Kernel Library (MKL) offers performance optimizations for Intel's next-generation microarchitecture family. It includes improved integration with Integrated Development Environments such as Microsoft Visual Studio*, Eclipse*, and XCode*.

MKL provides Direct Sparse Solver enhancements such as Matrix conversion and forward/backward substitutions. Fourier Transforms offer support for half-complex arrays as well. Vector Math Library extensions allow for inverse error functions and cumulative normal distribution functions. MKL allows for full integration of the Intel Compatibility OpenMP* run-time library for greater Windows/Linux* cross-platform compatibility.

Intel® MPI Benchmarks 3.2

Intel® MPI Benchmarks provides extended support for Microsoft* Windows HPC Server 2008* and Microsoft* Visual Studio 2008*.

Support

Every purchase of an Intel® Software Development Product includes a year of support services, which provide 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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