

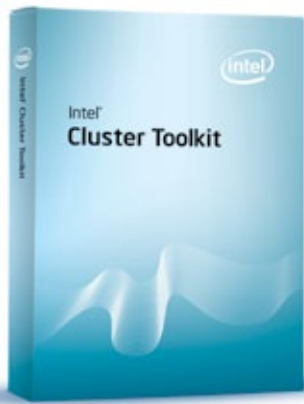


Intel® Cluster Toolkit 4.0

for Linux* and Windows*

Product Brief

Intel® Cluster Toolkit 4.0
for Linux* and Windows*



Increase Performance with Cluster Tools

Intel® Cluster Toolkit 4.0 provides exceptional value by bundling Intel® Trace Analyzer and Collector, Intel® Math Kernel Library (Intel® MKL), Intel® MPI Library, and Intel® MPI Benchmarks into a single package at a low price point. This software toolkit is targeted for message passing computing on clusters running either Linux* OS or Windows*. 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, Intel® Itanium, and Intel® 64 architectures.

Features

Extensive Toolkit

With support for Windows* and Linux clusters, the Intel Cluster Toolkit 4.0 assures industry wide compatibility *and* fully tested interoperability of these best-in-class tools:

- **Intel MPI Library 4.0**—outstanding performance, flexibility, and ease of use
- **Intel Trace Analyzer and Collector 8.0**—the leading MPI performance analysis product in the world
- **Intel Math Kernel Library 10.2 Update 5**—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 3.2.1**—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 log on to the Intel® Software Development Products Registration Center (<https://registrationcenter.intel.com/>) and download the package, as well as updates for one year from the date of purchase.

Featured Products

All the software tools included with the Intel Cluster Toolkit have undergone a minor 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 4.0

Boost application performance on Intel® architecture-based clusters with this message-passing interface library. Intel® MPI Library 4.0 provides new levels of performance and flexibility for applications that execute on clusters of Intel platforms. The library achieves these advantages by improved interconnect support, faster on-node messaging and an application tuning capability that adjusts to the cluster architecture and application structure. In addition, the library maintains compatibility with previous Intel MPI 3.x versions while providing an enhanced architecture that will enable interconnect vendors and Intel processors to better expose their future maximum performance and functionality.

Intel Trace Analyzer and Collector 8.0

Intel® Trace Analyzer and Collector 8.0 is enhanced with new features that accelerate the analysis and tuning cycle of MPI based cluster applications and provides a capability for analyzing the effect of advanced interconnects on application performance. The Intel Trace Analyzer and Collector 8.0 load imbalance diagram and the ideal interconnect simulator help MPI programmers to identify further optimization opportunities.

Intel Math Kernel Library 10.2 Update 5

Intel® Math Kernel Library 10.2 (Intel® MKL 10.2) is a library of highly optimized, extensively threaded math routines for science, engineering, and financial applications that require maximum performance. Core math functions include BLAS, LAPACK, ScalAPACK, Sparse Solvers, Fast Fourier Transforms, Vector Math, and more. Intel MKL version 10.2 Update 5 offers LAPACK 3.2.1 updates, performance improvements to FFT and VSL, usability and interface improvements to solvers, and cluster FFTs.

Intel® MPI Benchmarks 3.2.1

Intel® MPI Benchmarks provides several fixes for memory corruption and integer overflow issues, as well as extended support for Microsoft® Visual Studio® 2005 and 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 (C/C++, Fortran)
- Intel® VTune™ Performance Analyzers
- Intel® Performance Libraries
- Intel® Threading Analysis Tools
- Intel® Cluster Tools

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