Product Brief

Intel® Trace Analyzer and Collector 7.2

for Linux* or Windows*

An Indispensable Optimizing Tool

Analyze, optimize, and deploy high-performance applications on Intel® processor-based clusters. Intel® Trace Analyzer and Collector provide information critical to understanding and optimizing application performance on clusters by quickly finding performance bottlenecks in MPI communication. Version 7.2 now includes trace file comparison, counter data displays, and an MPI correctness checking library.

Features

MPI Checking

- Included in Intel Trace Analyze and Collector is a unique MPI correctness checker to detect deadlocks, data corruption, or errors with MPI parameters, data types, buffers, communicators, point-to-point messages and collective operations.
- The Correctness Checker allows the user to scale to extremely large systems and the ability to detect errors even among a large number of processes.

Interface and Displays

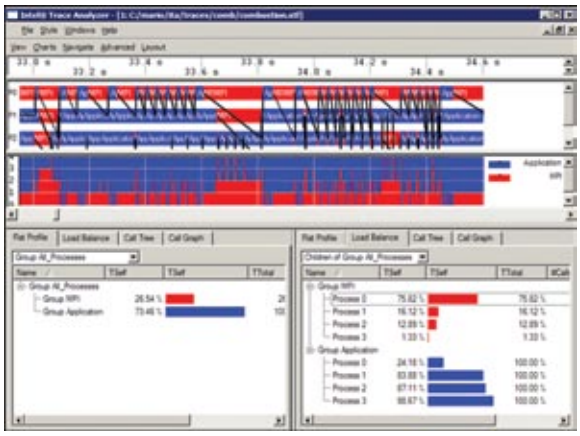
- Full color customizable GUI with many drill down view options.
- The Analyzer is able to extremely rapidly unwind the call stack and use debug information to map instruction addresses to source code.
- With both command line and GUI interfaces the user can additionally set up batch runs or do interactive debugging.

Scalability

- Low overhead allows random access to portions of a trace, making it suitable for analyzing large amounts of performance data.
- Thread safety allows you to trace multi-threaded MPI applications for event-based tracing to non-MPI applications.

Instrumentation and Tracing

- Low intrusion instrumentation supports MPI applications with C, C++, or Fortran.
- Automatically records performance data from parallel threads in C, C++, Fortran, or Java* multithreaded processes.



Example of Intel® Trace Analyzer

New comparison displays for comparing two trace files

Benefits

For parallel application development on cluster systems, Intel® Trace Analyzer and Collector is a powerful tool to understand MPI application behavior and achieve high execution performance.

- Visualize and understand parallel application behavior
- Evaluate profiling statistics and load balancing
- Analyze performance of subroutines or code blocks
- Learn about communication patterns, parameters, and performance data
- Identify communication hotspots
- Decrease time to solution and increase application efficiency

Compatibility

Intel® Trace Analyzer and Collector supports Intel® architecture-based cluster systems and feature a high degree of compatibility with current standards.

Linux*

Red Hat Enterprise Linux* or SUSE Linux Enterprise Server* with MPI implementations such as:

- Intel® MPI Library
- MPICH (or compatible)
- LAM/MPI

On IA-32, processors supporting Intel® 64 architecture-based systems, and Intel® Itanium® architecture, as well as SGI Altix* on SUSE Linux Enterprise Server with SGI Message Passing Toolkit on Itanium architecture.

Windows*

- Run the Trace Analyzer GUI using Windows.*

Compilers

- Intel® C++ Compiler for Linux*
- Intel® Fortran Compiler for Linux
- GNU C and GNU C++
- GNU Fortran 77

Intel Software Development Products

- Intel® MPI Library
- Intel® MPI Benchmarks
- Intel® Math Kernel Library (Intel® MKL)
- Intel® Cluster Toolkit

System Requirements

Refer to www.intel.com/software/products/cluster/tanalyzer/sysreq.htm 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.

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