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Intel(R) Trace Analyzer 9.0 Update 3 for OS X\*  
Release Notes  
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Overview  
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Intel(R) Trace Analyzer provides a convenient way to monitor application activities gathered by the Intel(R) Trace Collector through graphical displays. You can view the desired level of detail, quickly identify performance hotspots and bottlenecks, and analyze their causes.

Bundled together, the Intel(R) Trace Analyzer and Collector provide optimized analysis and visualization capabilities. Together they offer fast graphical rendering of complex profiling data and they easily scale up to hundreds of processes.

Intel(R) Trace Analyzer is available on Linux\* OS, Microsoft\* Windows\* OS and OS X\*. Intel(R) Trace Collector is available on Linux\* OS and Microsoft\* Windows\* OS.

To receive technical support and updates, you need to register your Intel(R) Software Development Product. See the Technical Support section.

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What's New  
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Intel(R) Trace Analyzer and Collector 9.0 Update 3 for Linux\* OS is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 9.0 Update 2 (see product documentation for more details):

- o Support for OpenMP\* regions
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 9.0 Update 2 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 9.0 Update 1 (see product documentation for more details):

- o Introduced an interoperability feature with Intel(R) VTune(TM) Amplifier XE. See the Intel Trace Analyzer Reference Manual for details.
- o Introduced Intel(R) Trace Analyzer for OS X\*.
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 9.0 Update 1 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 9.0 (see product documentation for more details):

- o Updated directory structure: added symbolic links. See README.txt for more details.
- o Changed settings for non-default installation path. If you choose to install Intel(R) Trace Analyzer and Collector to a non-default path,

- o itac/<version>.<package> will be appended to the selected installation path. Use symbolic links to this path if you need a specific pathname.
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 9.0 is a release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.1 releases (see product documentation for more details):

- o MPI-3 support
- o New mpirun keys
- o Experimental TIME-WINDOWS support
- o System calls profiling
- o Performance Assistant
- o Summary Page
- o Visual appearance enhancement
- o Contextual assistance for main dialogs
- o New tutorials
- o IA-32 architecture support has been dropped
- o itepin support has been dropped

Intel(R) Trace Analyzer and Collector 8.1 Update 4 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.1 Update 3 (see product documentation for more details):

- o Improved raw data compression
- o New online documentation format
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 8.1 Update 3 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.1 Update 2 (see product documentation for more details):

- o New Trace Map
- o All timeline settings in the Preferences dialog box
- o Context-sensitive help
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 8.1 Update 2 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.1 Update 1 (see product documentation for more details):

- o Graphical User Interface (GUI) install capability
- o New toolbar
- o Event Timeline settings in the Preferences dialog box
- o New icons in the menu
- o A few bug-fixes

Intel(R) Trace Analyzer and Collector 8.1 Update 1 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.1 (see product documentation for more details):

- o Welcome Page functionality
- o New Preferences dialog
- o Added cache creation progress bar

- o Visual appearance enhancement
- o Improved stability
- o MPI\_Pcontrol support

Intel(R) Trace Analyzer and Collector 8.1 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.0 Update 3 (see product documentation for more details):

- o New interactive help system with support for non-ASCII installation path
- o New documentation in the HTML format
- o Intel(R) Composer XE 2013 support

The Intel(R) Trace Analyzer and Collector 8.0 Update 3 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.0 Update 2 (see product documentation for more details):

- o File descriptor virtualization
- o Experimental scalable tracefile format
- o Advanced aggregation
- o Seek and jump function
- o Intel(R) Composer XE 2011 Update 6 support

The Intel(R) Trace Analyzer and Collector 8.0 Update 2 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.0 Update 1 (all new feature details are listed below; other documents are unchanged):

- o Improved MPI correctness checking trace file creation
- o Fixes to the cache creation process in CLI mode
- o Fixes to the trace merging function
- o Intel(R) Composer XE 2011 Update 4 support

The Intel(R) Trace Analyzer and Collector 8.0 Update 1 is an update release which includes the following new features compared to the Intel(R) Trace Analyzer and Collector 8.0 (see product documentation for more details):

- o Reducing the time spent in application code through merge separation
- o A decrease in trace load time due to the introduction of intermediate (summary) data reads during startup
- o Integration of a new installer technology plus the introduction of a new Intel(R) Trace Analyzer FLEXlm\* module
- o Intel(R) Composer XE 12.0 Beta support

The Intel(R) Trace Analyzer and Collector 8.0 boasts the following new features compared to previous versions (see product documentation for more details):

- o Application Imbalance diagram for simplified application analysis
- o Addition of an Ideal Interconnect Simulator (IIS) to understand application balance
- o Custom Plug-in Framework (CPF) to simulate application behavior over different interconnects

- o Intel(R) Trace Analyzer Projects to save working environment

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Key Features  
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This release of the Intel(R) Trace Analyzer supports the following major features:

- Advanced GUI: user-friendly interface, high-level scalability, support of structured trace file (STF) trace data, runs on Linux\* OS, Microsoft\* Windows\* OS and OS X\*
- Aggregating and Filtering: detailed views of runtime behavior grouped by functions or processes
- MPI Communicator: display of communication metrics for an arbitrary time interval for MPI
- Fail-Safe Tracing: improved functionality on prematurely terminated applications with deadlock detection
- Intel(R) MPI Library Interface: support of tracing on internal MPI states, support of MPI-IO
- Correctness checking: check for MPI and system errors at run-time (including distributed memory checking)
- ROMIO\*: extended support of MPI-2 standard parallel file I/O
- Comparison feature: compare two trace files and/or two regions (in one or two trace files)
- Counter Timeline: analyze counter data collected through provided Performance Application Programming Interface (PAPI) and OS modules or through manual use of the Intel Trace Collector API
- Integrated online help and a separate command line interface for the Intel Trace Analyzer

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Product Contents  
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This Product package contains the following components:

Intel(R) Trace Analyzer for OS X\*

Documentation for the Intel(R) Trace Analyzer can be found at <installation\_directory>/doc. The documentation is provided in pdf and html formats.

NOTES: Adobe Acrobat Reader\* or another pdf reader is required to view the product documentation.

Third-party sources of the components of the Intel Trace Analyzer, for example those released under GPL, may be downloaded from <http://software.intel.com/en-us/articles/intel-cluster-tools-open-source-downloads>

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Installation  
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To install the Intel Trace Analyzer, run the m\_ita\_p\_<version>.<package>.pkg file and follow the installation wizard instructions.

After installation, read the documentation in '<installation\_directory>/doc'.

Before using the Intel Trace Analyzer, you should source <installation\_directory>/itacvars.sh to set the appropriate environment variables for smooth functioning of the software.

To invoke the Intel(R) Trace Analyzer go to Finder > Applications > Intel Trace Analyzer.

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Installing the License  
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The Intel Trace Analyzer uses Macrovision Corporation FLEXlm\* electronic licensing technology. License management is transparent to you. During the installation, you will be prompted for a valid license, which is required to successfully complete the installation of the Intel Trace Analyzer. On OS X\*, the provided script itacvars.sh ensures that the path of your license file is contained in the environment variable INTEL\_LICENSE\_FILE.

Since the Intel(R) Trace Analyzer uses a time-limited license, the license file must remain in place on the system.

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Uninstalling Intel(R) Trace Analyzer  
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To uninstall the Intel Trace Analyzer, drag Intel Trace Analyzer.app to the Trash.

Note: Uninstalling the Intel Trace Analyzer will remove the software components while keeping the license file and other files in <installation\_directory> which may have been created by you. It may also not reset its entry in the INTEL\_LICENSE\_FILE environment variable.

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Special Features and Known Issues  
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Intel Trace Analyzer may get into an undefined state if too many files are opened at the same time.

Save the traces to an NFS mounted drive due to memory limitations on the Intel(R) Xeon Phi(TM) Coprocessor.

stftool utility and STF Header info are not available on OS X\* in the current version of the Intel Trace Analyzer.

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System Requirements  
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Supported Hardware  
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Systems based on Genuine Intel(R) 64 processors:

Intel(R) Core(TM) processor family or higher  
Intel(R) Xeon(R) processors recommended  
1 GB of RAM per core  
2 GB of RAM per core recommended  
1 GB of free hard disk space

Intel(R) Xeon Phi(TM) Coprocessor (codename: Knights Corner) based on  
the Intel(R) MIC Architecture

## Supported Software

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Operating Systems: (issues including installation ones are possible for  
Operating Systems that are not released at the date of Intel(R) Trace Analyzer  
and Collector 9.0 Update 2 release)

Systems based on the Intel(R) 64 architecture:  
OS X\* 10.8  
OS X\* 10.9

## MPI implementations

Systems based on the Intel(R) 64 architectures:  
Intel(R) MPI Library 3.x  
Intel(R) MPI Library 4.x  
Intel(R) MPI Library 5.x

## Compilers

Intel(R) Composer XE 2013 for Linux\* OS

## Technical Support

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Your feedback is very important to us. To receive technical support,  
you need to be registered for an Intel(R) Premier Customer Support account on our  
secure web site. You can use your Intel(R) Premier Customer Support account for the  
Intel(R) Trace Analyzer and Collector to file issues/comments and  
recommendations for the product.

This package is supported through the Intel(R) Premier Customer Support.  
Direct customer support requests at:  
<https://premier.intel.com>

General information on the Intel(R) Software Development Products support offerings  
may be obtained at:  
<http://www.intel.com/software/products/support>

Intel(R) Trace Analyzer and Collector home page can be found at:  
<http://software.intel.com/en-us/intel-trace-analyzer>

Intel(R) Trace Analyzer and Collector support web site,  
<http://www.intel.com/software/products/support/itac> provides top  
technical issues, frequently asked questions, product documentation, and

product errata.

Requests for licenses can be directed to the Intel(R) Software Development Products Registration Center at:

<http://www.intel.com/software/products/registrationcenter>

Before submitting a support issue, see the Intel(R) Trace Analyzer and Collector Getting Started Page for details on post-install testing to ensure that basic facilities are working.

When submitting a support issue to the Intel(R) Premier Customer Support, provide specific details of your problem, including:

- Intel(R) Trace Analyzer and Collector package name and version information
- Host architecture (for example, Intel(R) 64 architecture)
- Compiler(s) and versions - Operating system(s) and versions
- Specifics on how to reproduce the problem. Include makefiles, command lines, small test cases, and build instructions.

You can obtain version information for the Intel(R) Trace Analyzer and Collector package in the file itacsupport.txt.

### Submitting Issues

- Go to <https://premier.intel.com>
- Log in to the site. Note that your username and password are case-sensitive.
- Click on the "Submit Issue" link in the left navigation bar.
- Choose "Development Environment (tools,SDV,EAP)" from the "Product Type" drop-down list. If this is a software or license-related issue, choose the "Intel(R) Trace Analyzer and Collector, OS X\*" option from the "Product Name" drop-down list.
- Enter your question and complete the fields in the windows that follow to successfully submit the issue.

Note: Notify your support representative before submitting source code where access needs to be restricted to certain countries to determine if this request can be accommodated.

### ----- Copyright and Licenses -----

While all files shipped with the Intel(R) Trace Analyzer package are covered under the Intel EULA, the Qt library is also distributed under the GNU Lesser General Public License (LGPL).

The library is dependent on the following third party software: CLucene, WebKit, Phonon distributed under LGPL, and OpenSSL distributed under the BSD License.

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#### Optimization Notice

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Intel's compilers may or may not optimize to the same degree for non-Intel microprocessors for optimizations that are not unique to Intel microprocessors. These optimizations include SSE2, SSE3, and SSSE3 instruction sets and other optimizations. Intel does not guarantee the availability, functionality, or effectiveness of any optimization on microprocessors not manufactured by Intel. Microprocessor-dependent optimizations in this product are intended for use with Intel microprocessors. Certain optimizations not specific to Intel microarchitecture are reserved for Intel microprocessors. Please refer to the applicable product User and Reference Guides for more information regarding the specific instruction sets covered by this notice.

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