



Compare Intel® Parallel Amplifier with Intel® VTune™ Performance Analyzer

Optimize Performance and Scalability

Both Intel® Parallel Amplifier and Intel® VTune™ Performance Analyzer help you tune your application to take maximum advantage of multicore processors. So which one is best for you?

Intel Parallel Amplifier is designed to be easy to learn and use. It provides the first level of features needed to tune C/C++ applications for multicore. For many users this will be enough. It is only available on Windows* in single user (non-floating) licenses and requires Microsoft Visual Studio*.

Intel VTune Performance Analyzer takes it to the next level. Advanced features like Event Based Sampling (EBS) take longer to learn, but can have a big payoff by quickly finding specific tuning opportunities like cache misses or misalignment. It is available on Windows and Linux* with either a single user or floating license.

Intel VTune Performance Analyzer for Windows includes:

- Intel VTune Performance Analyzer
- Intel Thread Profiler
- Performance Tuning Utility¹
- Intel Parallel Amplifier²

Intel VTune Performance Analyzer for Linux includes:

- Intel VTune Performance Analyzer
- Performance Tuning Utility¹

Performance Tuning Utility (PTU) is our experimental tuning tool with the latest features developed by our lab. It includes a number of exciting capabilities like:

- Basic Block Analysis: displays hotspots with basic block granularity and generates a control flow graph for advanced analysis of application, even without the source code
- Data Access Profiling: identifies memory hotspots and relates them to code hotspots
Visit whatif.intel.com for more details.

Intel Thread Profiler is our most advanced threading analysis and visualization tool. It includes:

- Timeline view: this shows what threads are doing and how they interact. See the distribution of work to threads and pinpoint load imbalances.
- Clickable transition: double click on a transition in the timeline view to open a source view and see exactly where threads are transitioning in the source.

The in-depth description of Thread Profiler is available on the [Intel VTune Performance Analyzer product page](#).

1. Available separately. Download and review support policy at whatif.intel.com

2. Intel® Parallel Amplifier licensed with VTune™ Analyzer for Windows* purchased or renewed after 1 April 2009. Available separately via download after you register for support

Performance Analyzer Comparison	Intel® Parallel Amplifier	VTune™ Performance Analyzer		
		Windows*	Linux*	PTU ³
Easy to learn <—> Maximize Performance				
Easy to learn. Get productive quickly.	✓			
Many options to let you maximize performance.		✓	✓	✓
Analysis Types				
Hotspot Analysis with statistical call tree	✓	✓ ⁴		✓
Hotspot Analysis (EBS)		✓	✓	✓
Concurrency Analysis	✓	✓ ^{4,5}		
Locks & Waits Analysis	✓	✓ ^{4,5}		
Compare Results	✓	✓ ⁴		✓
Event Based Sampling		✓	✓	✓
Threading Timeline		✓ ⁵		
Exact Call Graph		✓	✓	Text based
Data Access Profiling, Events over IP, ...				✓
Language Support				
Source View	✓	✓	✓	✓
C/C++	✓	✓	✓	✓
Fortran* and other compiled languages		✓	✓	✓
Assembly		✓	✓	✓
Basic Block Analysis				✓
IDE Support				
Microsoft Visual Studio* Integration	✓	✓		
Eclipse* Integration			✓	✓
Stand alone		✓	✓	
Processor Support				
IA-32 + Intel® 64 architectures	✓	✓	✓	✓
Intel® Itanium® architecture		✓	✓	✓ Linux only
Licensing				
Single user, single version	✓			
Single user, all product updates for 1 year		✓	✓	✓
Floating, all product updates for 1 year		✓	✓	✓
Support				
Community support with user forum	✓	✓	✓	✓
Intel® Premier Support	Optional	✓	✓	

3. PTU is experimental technology available to all VTune™ Analyzer for Windows* and Linux* users from whatif.intel.com.

4. Provided by Intel® Parallel Amplifier licensed with VTune™ Analyzer for Windows* purchased or renewed after 1 April 2009.

5. Provided by Intel® Thread Profiler included with VTune™ Analyzer for Windows*.

