

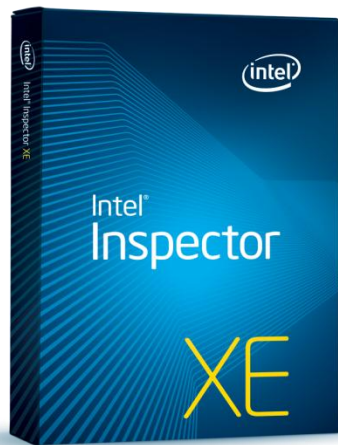


IMPROVE CODE QUALITY  
AND RELIABILITY  
ON WINDOWS\* AND LINUX\*

# Intel® Inspector XE

## Product Brief

**Intel® Inspector XE**  
**Memory & Thread Checker**  
For Windows\* and Linux\*



**“Intel® Inspector XE 2011 intuitive user interface and powerful analysis features increased my productivity, by making it easier and faster to find memory and threading errors in the code.”**

Sergey Zaritchny, Software Development Manager, Euriware

**“Intel® Inspector XE 2011 is a must-use to craft reliable code in C++. It helped me to quickly localize threading and memory problems in my code, making it easier to fix even the most difficult ones”**

Jorge Martinis, Research & Development Engineer, BR&E Inc.

## Detect Memory and Threading Defects Early in the Development Cycle, and Deliver Reliable Applications

- Find memory errors: leaks, corruption and API usage
- Find threading errors: both deadlocks and difficult to find data races
- Map errors to the source code line and call stack
- Develop robust threaded applications

Intel® Inspector XE 2011 is a powerful and easy-to-use memory and threading error checking tool for C, C++, C#.NET, and Fortran developers designing serial and parallel applications on Windows\*- and Linux\*-based platforms.

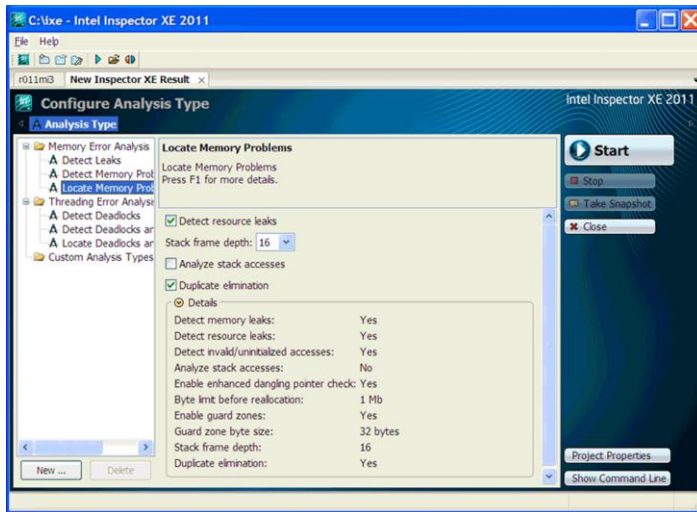
Intel Inspector XE enhances developer productivity and facilitates application reliability, by effectively finding crucial memory and threading defects early in the development cycle. It gives detailed insights into application memory and threading behavior to improve application reliability. Intel Inspector XE makes it easier to find latent errors on the executed code path. It also finds intermittent and non-deterministic errors, even if the error-causing timing scenario does not happen. In addition, developers can test their code more often, without the need to use special test builds or compilers.

Enhance productivity, cut cost, and speed time-to-market with Intel® Inspector XE.

Feature	Benefit
Memory and threading error checking in one tool for serial and parallel code	Get everything you need in one easy-to-use, proactive tool to quickly and effectively find memory and threading errors during the development cycle. Help reduce support cost and increase customer satisfaction.
Maps errors to the source- code line and call stack	Enhance developer productivity and efficiencies by simplifying and speeding the process of detecting and fixing coding errors.
Intuitive GUI provides common look and feel across Windows* and Linux*	Maintain dynamic analysis usage continuity for cross-platform development.
Supports serial code and multiple threading models	Enhance serial and parallel application reliability.
Supports a wide range of development languages	More application reliability-enabling solutions for C, C++, Fortran serial and parallel code on windows* and Linux*, plus C#.NET parallel code on Windows. Intel Inspector XE integrates with Microsoft Visual Studio* 2005, 2008, 2010.
Analysis of MPI applications running on a cluster	Improve the quality of MPI applications.

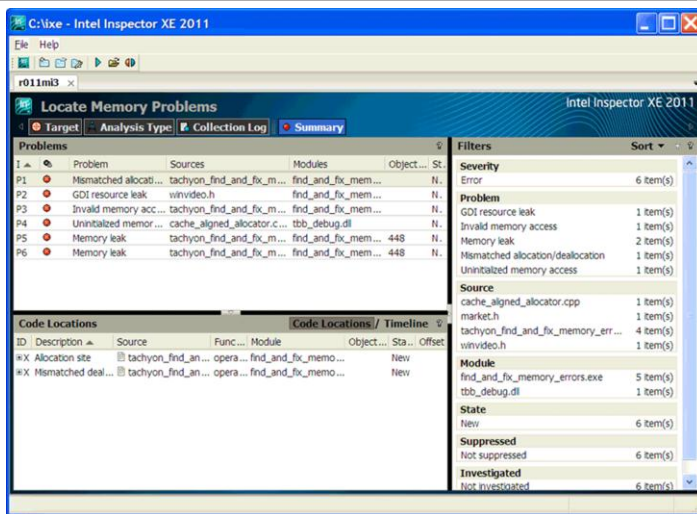
## Feature

## Benefit



## Intel® Inspector XE Goes Right to the Source

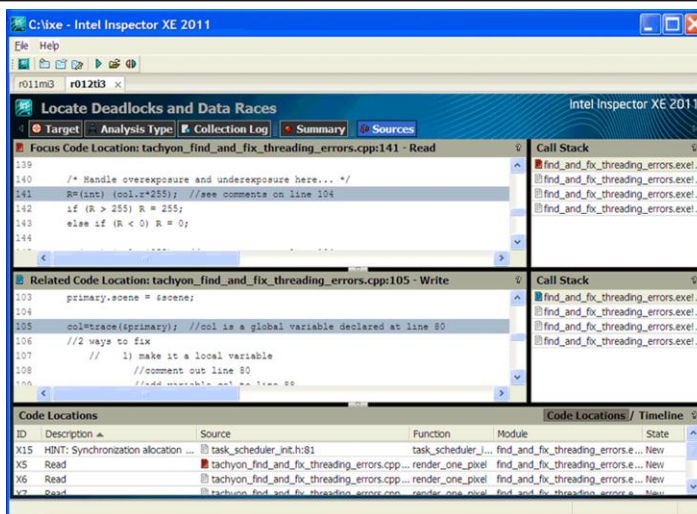
The intuitive GUI of the Intel® Inspector XE memory error and thread checker tool enables developers to easily select the type of analysis to find the root cause of latent or crash-causing threading and memory defects and then identify errors at the source-code line. This valuable debugger analysis enables developers to get more done in less time.



## Memory Checking Analysis for Serial and Parallel Applications

Find:

- Memory leaks and memory corruption
- Memory allocation and deallocation API mismatches
- Inconsistent memory API usage.



## Thread Debugging Analysis for Higher Performing Parallel Applications

Find:

- Data races
- Deadlocks
- Thread and sync APIs used
- Memory accesses between threads

## Purchase Options: Language Specific Suites

Several suites are available combining the tools to build, verify and tune your application. The products covered in this product brief are highlighted in green. Single or multi-user licenses and volume, academic, and student discounts are available.

Suites >>		Intel® Parallel Studio XE	Intel® C++ Studio XE	Intel® Fortran Studio XE	Intel® Composer XE	Intel® C++ Composer XE	Intel® Fortran Composer XE	Intel® Cluster Studio XE	Intel® Cluster Studio
Components	Intel® C / C++ Compiler	●	●		●	●		●	●
	Intel® Fortran Compiler	●		●	●		●	●	●
	Intel® Integrated Performance Primitives <sup>3</sup>	●	●		●	●		●	●
	Intel® Math Kernel Library <sup>3</sup>	●	●	●	●	●	●	●	●
	Intel® Cilk™ Plus	●	●		●	●		●	●
	Intel® Threading Building Blocks	●	●		●	●		●	●
	Intel® Inspector XE	●	●	●				●	
	Intel® VTune™ Amplifier XE	●	●	●				●	
	Static Security Analysis	●	●	●				●	
	Intel® MPI Library							●	●
	Intel® Trace Analyzer & Collector							●	●
	Rogue Wave IMSL* Library <sup>2</sup>						●		
Operating System <sup>1</sup>	W, L	W, L	W, L	W, L	W, L, M	W, L, M	W, L	W, L	

Note: (1)<sup>1</sup> Operating System: W=Windows, L= Linux, M= Mac OS\* X. (2)<sup>2</sup> Available in Intel® Visual Fortran Composer XE for Windows with IMSL\* (3)<sup>3</sup> Not available individually on Mac OS X, it is included in Intel® C++ & Fortran Composer XE suites for Mac OS X

Technical Specifications	
Processor support	Validated for use with multiple generations of Intel® and compatible processors including but not limited to: 2 <sup>nd</sup> Generation Intel® Core™2 processor, Intel® Core™2 processor, Intel® Core™ processor, Intel® Xeon™ processor and Intel® Atom™ processor
Operating systems	Windows* and Linux*
Development tools and environments	Fully compatible with other development tools from Intel such as compilers, performance and threading analyzers, and other Intel® performance libraries. It can be integrated with popular development tools and environments such as Microsoft Visual Studio* (2005, 2008, 2010), Xcode*, Eclipse*, and the GNU Compiler Collection* (GCC*).
Programming languages	Supports C, C++ and Fortran development
System requirements	Please refer to <a href="http://www.intel.com/software/products/systemrequirements/">www.intel.com/software/products/systemrequirements/</a> for details on hardware and software requirements.
Support	All product updates, Intel® Premier Support services and Intel® Support Forums are included for one year. Intel Premier Support gives you confidential support, technical notes, application notes, and the latest documentation. Join the Intel® Support Forums community to learn, contribute, or just browse! <a href="http://software.intel.com/en-us/forums">http://software.intel.com/en-us/forums</a> .

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### Optimization Notice

Notice revision #20110804

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.

