

ADVANCED MEMORY AND
THREADING ERROR CHECKER

Intel® Inspector XE 2011

For Windows* and Linux*

Product Brief

Intel® Inspector XE 2011

Memory and Threading Error 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

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

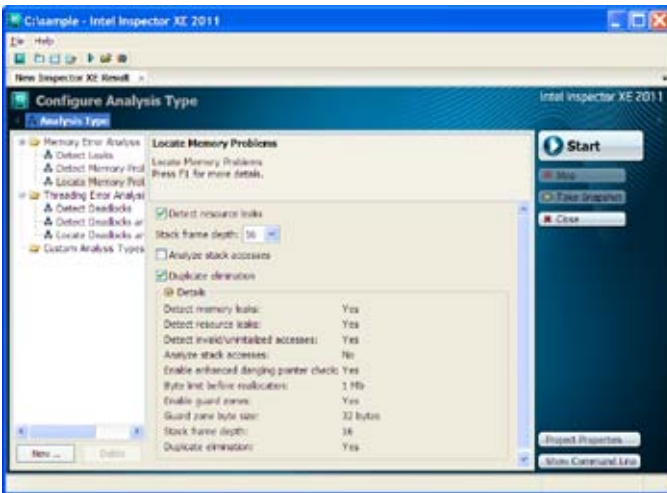
Intel Inspector XE enhances developer productivity and facilitates application reliability, by effectively finding crucial memory and threading defects early in the development cycle. It gives detailed insights into application memory and threading behavior to improve application reliability. Intel Inspector 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.

Intel® Inspector XE Goes Right to the Source

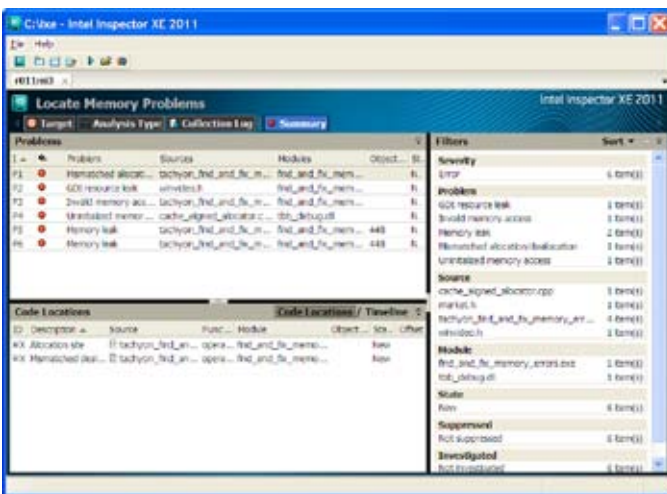
Intel® Inspector XE's intuitive GUI enables developers to easily select the type of analysis to find the root cause of latent or crash-causing threading and memory defects and then identify errors at the source-code line. This valuable analysis enables developers to get more done in less time.



Memory Checking Analysis for Serial and Parallel Applications

Find:

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



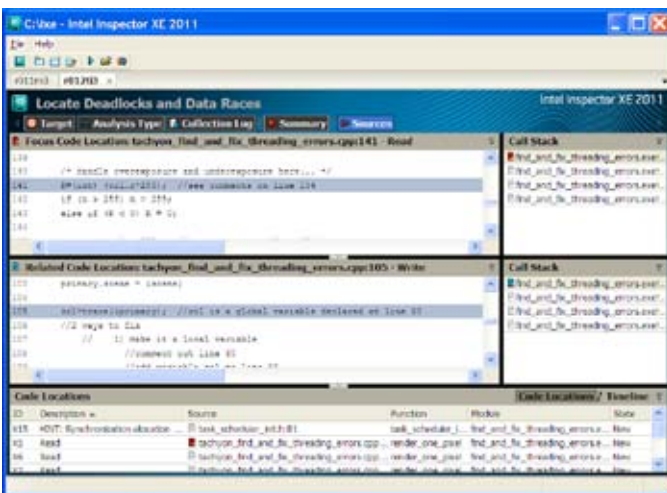
Thread Checking Analysis for Higher Performing Parallel Applications

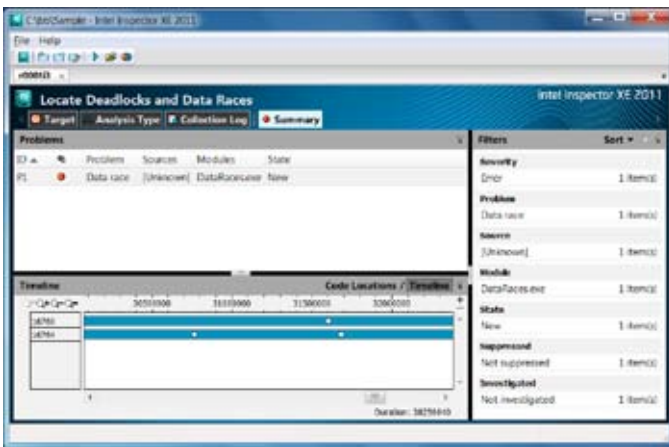
Find:

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

"It was an easy and fast ramp to start using the Intel Inspector XE 2011 tool, we were able to set the analysis level, obtain a visual interpretation of the collected data, and get helpful information on hidden data races in the code quickly."

Alex Migdalski
CEO, CTO
OTRADA Inc





Timeline View enables developers to view the context of the respective threads

Excellent Value

Intel Inspector XE helps developers deliver reliable software, while reducing development cost and speeding time-to-market. Features include:

- Memory and threading error-checking tool for serial and parallel applications
- Support for native threads, enabling Intel Inspector XE to understand any parallel model built on top of threads
- Smart support for Intel® Parallel Building Blocks parallel models
 - Intel® Threading Building Blocks, Intel® Cilk Plus, OpenMP*
 - Intel® Array Building Blocks (in beta) at: <http://software.intel.com/en-us/articles/intel-array-building-blocks/>
- Intuitive standalone GUI and command line interface for Windows and Linux
- Advanced command line reporting
- Timeline visualization
- Support for C, C++, and Fortran on Windows and Linux
- Support for C# .NET Windows
- Seamless integration with Microsoft Visual Studio 2005, 2008, and 2010

Dynamic Instrumentation that Works on Standard Builds and Binaries

Intel® Inspector XE utilizes dynamic instrumentation to acquire analysis data. It does not require special builds, add-ins, or compilers. Since it only instruments the code that's executed, analysis can run in less time and work on larger applications. It can even find errors in binaries without having the source code.

System Requirements

Microsoft Visual Studio* 2005, 2008, and 2010

Windows XP*, Vista*, Windows 7*, Windows Server* 2003, Windows Server 2008*, Windows HPC Server* 2008

Linux RedHat* Enterprise Linux 4, 5 and 6, SuSE SLES 10 and 11, Fedora 12 and 13

Supported languages: C, C++, Fortran, C# .NET

Support

Intel® Parallel Studio XE products include Intel® Premier Support (<http://premier.intel.com>) access to community forums, and a knowledge base for all of your technical support needs, including technical notes, application notes, documentation, and all product updates.

Intel® Software Development Products

Intel Software Development Products help you create the fastest software possible by offering a full suite of tools:

- Intel® Compilers
- Intel® VTune™ Performance Profiler
- Intel® Performance Libraries
- Intel® Correctness Analyzers
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