

TotalView Technologies Previews Reverse Debugging for Multi-Core

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TotalView Technologies has announced that the company will preview reverse debugging capabilities for its award-winning multi-core debugging product line at the upcoming SC '07 show as part of its early experience program for customers. Developers will now be able to "back up" during a debugging session to help identify a bug as it is happening, improving the efficiency of debugging sessions by eliminating the need to run a program multiple times.

Natick, MA - November 9, 2007 - New Capability to "Walk Backward Through Your Code" Further Reduces User Frustration and Significantly Improves Productivity. TotalView Technologies, the world's leading provider of scalable debugging and analysis software solutions for the multi-core era, today announced that the company will be previewing reverse debugging capabilities for its award-winning multi-core debugging product line, including the TotalView(R) Debugger and MemoryScape memory debugger, at the upcoming SC '07 show as part of its early experience program for customers. With this new capability, developers will be able to "back up" during a debugging session to help identify a bug as it is happening, improving the efficiency of debugging sessions by eliminating the need to run a program multiple times.

TotalView Technologies' new reverse debugging features will allow developers to:

- * Capture and replay the exact behavior of the program from any point in the past during a single debugging session;
- * Step backward from crashes and out of functions to see what went wrong;
- * Jump forward and backward to examine and compare any set of points along the captured execution sequence;
- * Replay thread context switches exactly as they happened;
- * Seamlessly and clearly switch between record mode and replay mode.

"We are continually looking for new ways to further improve our multi-core debugging products to enable our customers to increase productivity and product quality," said Kelly Cunningham, vice president of engineering at TotalView Technologies. "We believe the new reverse debugging capability will provide users with even more powerful debugging capabilities, while retaining the ease-of-use that our products are known for."

TotalView Debugger is a comprehensive source code and optional memory debugging solution that dramatically enhances and simplifies the process of debugging parallel, data-intensive, multi-process, multi-threaded or network-distributed applications. Built to handle the complexities of the world's most demanding applications, TotalView Debugger supports hybrid applications that utilize OpenMP and MPI to make efficient use of multi-core clusters. TotalView Debugger debugs applications built from components that may have been written in different languages (FORTRAN 90 and C++, for example) and then compiled with different compilers (Intel and GCC, for example) but run together as a single executable. TotalView Debugger is robust and easy to use, with an intuitive GUI that helps users quickly isolate and identify the root cause of problems.

MemoryScape is an easy-to-use, graphical, interactive memory debugger that helps developers, build engineers, and QA testers identify, inspect and resolve difficult memory problems in C, C++ and FORTRAN, including complex multi-process and multi-threaded

programs. Designed to be an integrated part of the software development process, MemoryScape allows development teams to watch for memory leaks and monitor memory usage

while an application is running. It enables developers to monitor heap memory, view memory usage, locate memory leaks, track memory events and show corrupted memory. Developers can also save and compare memory states and compile sophisticated memory reports. MemoryScape is non-intrusive, so developers can find memory problems without recompiling, and without waiting all day for even the smallest test to run.

In a related announcement last week, TotalView Technologies announced an early experience program for the new TotalView Workbench, Performance Analysis Tools and TotalView TracePoints products. Stop by the TotalView Technologies booth at SC '07, #124, to see a sneak preview of these exciting new additions to the company's comprehensive suite of multi-core debugging tools.

About TotalView Technologies

TotalView Technologies is the world's leading provider of scalable debugging and analysis software solutions for the multi-core era. TotalView Technologies products enable software developers to quickly, easily and effectively debug UNIX, Linux, and Mac OS X applications running on development machines with single, dual-core, multi-core, or multiple processors.

TotalView Technologies:
<http://www.totalviewtech.com>

For more than 20 years, TotalView Technologies products have been at work in research institutions, government laboratories, and technical computing centers, as well as commercial enterprises in the financial services, telecommunications, biotech, aerospace, weather prediction, film special effects and animation, oil and gas exploration, and computer-aided engineering markets. Recognized worldwide as the gold standard for debugging in high-performance, distributed or cluster computing environments, TotalView Technologies' award-winning technology is used to solve the world's toughest computing problems on many of the world's largest supercomputers.

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