

TotalView® for HPC 2016.07

Supported Platforms

Versions

Interpret version information in the following ways:

- **Compilers:** Versions are given as a range, from the earliest supported version to the latest supported version, which is usually the current version. All versions within the range are supported.
Version information first lists compilers that support both C/C++ and Fortran, followed by compilers specific to one language or the other.
- **Operating Systems:** Specific supported versions are listed. If a whole number is given, all minor versions of that whole number are supported.
- **MPI Products:** No versions are given. The rule is: if a product version can be compiled with a supported compiler, that product version is supported.

Support Notes

- The version of this document in the product distribution is a snapshot. For the latest information, see the PDF version on the TotalView documentation page on the Rogue Wave web site.
- **X Windows:** X Windows is required on all platforms to run the TotalView and MemoryScope GUIs. Systems used for remote debugging, i.e. those running only the TotalView Server, do not need X Windows installed.
- **OpenMP:** Most languages now support OpenMP. If your language supports it, and if your OpenMP code compiles successfully with one of our supported compilers, then your OpenMP is considered supported by TotalView for HPC.
- **CUDA debugging:** Supported on Linux x86-64 operating systems. Current support is for the 7.0, 7.5, and 8.0 tool chains. There is limited support for the Dynamic Parallelism feature. For more information please see the CUDA chapters in the *TotalView for HPC Users Guide*.
- **ReplayEngine for reverse debugging:** Supported on Linux x86 and x86-64 operating systems. On other platforms, ReplayEngine buttons and menu selections are grayed out in the UI. For more information, please see the document *Reverse Debugging with ReplayEngine*.
Replay Engine supports the IP transport mechanism on most MPI systems. It supports communication over Infiniband using either the IBverbs or the QLogic PSM transport layers on some systems. Please see the section "Using ReplayEngine with Infiniband MPIs" in the *TotalView for HPC Users Guide* for details.

Platform Support

Platforms	Operating Systems	Compilers	MPI Products
Linux x86-64 and Linux x86 (32-bit)	Red Hat Enterprise Linux 5, 6, and 7 Red Hat Fedora 22, 23, and 24 Ubuntu 14.04, 15.04, 15.10, and 16.04 Open SuSE 12 and 13 SuSE Linux Enterprise Server 11 and 12	Intel Parallel Studio XE 15-17 GNU 4.3 - 6.2 PGI Workstation 11.2 - 16.1 Oracle Solaris Studio 12 C and C++: LLVM Clang 3.3 - 3.5 Fortran: Absoft Pro 16 Lahey Fortran 6.2 - 8	Argonne MPICH Argonne MPICH2 GNU SLURM Intel MPI Open MPI OSU MVAPICH OSU MVAPICH2 SGI MPT (64-bit only) SGI Propack (64-bit only) Bullx MPI IBM Platform MPI Berkeley UPC (32-bit only)
Apple Macintosh <i>See Note 1</i>	Mac OS X Yosemite (10.10), El Capitan (10.11), and macOS Sierra (10.12)	Intel Parallel Studio XE 15-17 GNU 4.3 - 6.2 C/C++: Apple Clang 4.1 - 6.0 Fortran: Absoft Pro 16	Argonne MPICH Argonne MPICH2 Open MPI
Xeon Phi	Red Hat Linux 6.0 - 6.3/CentOS SuSE Linux 11.1	Intel Parallel Studio XE 15-17	MPSS drivers 2.1.3653 - 3.4
Cray XT / XE/ XK / XC <i>See Note 2</i>	Front end: UNICOS/lc environment node environment based on SuSE Linux Enterprise Server. Back end: Catamount or Compute Node Linux (CNL)	GNU 4.3 - 5.2 PGI Workstation 11.2 - 16.1 CCE 8.3.1	Cray MPI (aprun)
Linux PowerLE	Ubuntu 14.04 - 16.04 Red Hat Enterprise Linux 7	GNU 4.8 - 6.2	Open MPI
IBM Power Linux <i>See Note 3</i>	SuSE Linux Enterprise Server 11 and 12 Red Hat Enterprise Linux AS 5, 6, and 7	GNU 4.3 - 6.2 C/C++: IBM XLC 10.1 - 13.1 Fortran: IBM XL Fortran 12.1 - 15.1	Argonne MPICH Argonne MPICH2 Open MPI PE POE

Platforms	Operating Systems	Compilers	MPI Products
IBM Blue Gene	Linux for the front-end nodes	IBM XL GNU C, all versions within supported drivers Supported drivers: Blue Gene/L: V1R3M1, V1R3M0 Blue Gene/P: V1R3M1, V1R3M0, V1R4M2, V1R4M1 Blue Gene Q: V1R2M0	
IBM RS6000 Power AIX <i>See Note 4</i>	AIX 5.3L, 6.1, and 7.1	C and C++: GNU 4.3 - 4.8 IBM XLC 10.1 - 13.1 Fortran: IBM XL Fortran 12.1 - 15.1	Argonne MPICH Argonne MPICH2 Open MPI PE POE
Oracle SPARC Solaris	Solaris 10 and 11	GNU 4.3 - 4.8 Oracle Solaris Studio 12	Argonne MPICH Argonne MPICH2 Open MPI Sun Cluster Tools
Sun Opteron Solaris	Solaris 10 and 11	GNU 3.4 - 4.1 Sun One Studio 12	Argonne MPICH Argonne MPICH2 Open MPI OSU MVAPICH2 1.0
Intel IA-64 Linux	Red Hat Enterprise Linux 5 and 5.2 SuSE Linux Enterprise Server 11	Intel Parallel Studio XE 15-17 GNU 3.4 - 4.6	Argonne MPICH Argonne MPICH2 Intel MPI Open MPI SGI MPT SGI ProPack for Linux

Notes are on the following page.

Note 1: The TotalView for HPC GUI requires X11. Before starting TotalView for HPC, the server must be running. We recommend X11 for Mac OS X, obtainable at developer.apple.com/opensource/tools/x11.html. For important notes on installing TotalView for HPC on Mac OS X, please see the section “Troubleshooting Mac OS X Installations” in the *TotalView for HPC Reference Guide*.

Note 2: Support on the XK6 platform for Cray's OpenMP Accelerator Directives and Cray's OpenACC Directives. For details, see the section “Directive-Based Accelerator Programming Languages” in the *TotalView for HPC User Guide*. ReplayEngine supports debugging MPI-based programs using Cray MPI over the Gemini Interconnect found on Cray XE supercomputers.

Note 3: Debugging threaded programs (pthreads) that call exec() not supported. TotalView cannot obtain pointer arguments from Lahey/Fujitsu Fortran 90 compiler.

Note 4: The TotalView Message Queue Display (MQD) feature with applications using IBM MPI Parallel Environment (PE) requires the threaded version of the MPI library.