

TotalView 2020.2 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 web site.
- **X Windows:** X Windows is required on all platforms to run the TotalView and MemoryScape 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:**
 - **Operating systems support:** Linux x86-64, Linux PowerLE/OpenPOWER, and Linux-arm64 operating systems. Current support is for the 9.2, 10, and 11 tool chains.
 - **NVIDIA GPUs support:** Tesla, Fermi, Kepler, Pascal, and Volta

Notes: 1) There is limited support for the Dynamic Parallelism feature; 2) On the NVIDIA Jetson Xavier Developer Kit, you must debug applications as root. For more information, please see the CUDA chapters in the *TotalView User 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 User Guide* for details.

- **Python debugging:** Python 2.7 and 3.5 and above debugging is supported on Linux x86-64 operating systems. For more information, please see “Debugging Python” in the *TotalView for HPC User Guide*.

Platform Support

Platforms	Operating Systems	Compilers	MPI Products
Linux x86-64 and Linux x86 (32-bit)	Red Hat Enterprise/CentOS Linux 6, 7, and 8 Red Hat Fedora 29, 30, and 31 Ubuntu 16.04 and 18.04 SuSE Linux Enterprise Server 12 and 15	Intel Parallel Studio XE 17-20 GNU 4.3 - 9.3 PGI Workstation 11.2 - 18.10 Oracle Studio 12 C and C++: Clang 3 - 7 Fortran: Absoft Pro 17 - 19	Argonne MPICH Argonne MPICH2 GNU SLURM HPE MPI 2 HPE MPT Intel MPI Open MPI OSU MVAPICH OSU MVAPICH2 Bullx MPI IBM Platform MPI Berkeley UPC (32-bit only)
Apple Macintosh <i>See Note 1</i>	macOS Mojave (10.14) macOS Catalina (10.15)	Intel Parallel Studio XE 17-20 GNU 4.3 - 9.3 C/C++: Apple Clang 9 - 11 Fortran: Absoft Pro 17 - 19	Argonne MPICH Argonne MPICH2 Open MPI
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: Compute Node Linux (CNL)	GNU 4.3 - 9.3 PGI Workstation 11.2 - 18.10 CCE 8.3.1	Cray MPI (aprun or srun)

Platforms	Operating Systems	Compilers	MPI Products
Linux PowerLE / OpenPOWER	Ubuntu 16.04 and 18.04 Red Hat Enterprise Linux 7	GNU 4.3 - 9.3	Open MPI
Linux-arm64	Ubuntu 16.04 CentOS 7	GNU 4.3 - 9.3 Arm Compiler 19.0 C and C++: Clang 3 - 7	Open MPI
IBM Power Linux <i>See Notes 3 & 5</i>	SuSE Linux Enterprise Server 11 and 12 Red Hat Enterprise Linux AS 6 and 7	GNU 4.3 - 9.3 C/C++: IBM XLC 10.1 - 13.1 Fortran: IBM XL Fortran 12.1 - 15.1	Argonne MPICH Argonne MPICH2 Open MPI PE POE
IBM RS6000 Power AIX <i>See Notes 4 & 5</i>	AIX 7.1	C and C++: GNU 4.3 - 9.3 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 <i>See Note 5</i>	Solaris 11	GNU 4.3 - 9.3 Oracle Studio 12	Argonne MPICH Argonne MPICH2 Open MPI Sun Cluster Tools

Note 1: The TotalView UI requires X11. For important notes on installing TotalView on macOS, please see the section “Troubleshooting Mac OS X Installations” in the *TotalView 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 (x86_64 only) supercomputers.

Note 3: Debugging threaded programs (pthreads) that call exec() not supported.

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.

Note 5: Classic TotalView UI only