OpenMP Compilers

A number of compilers from various vendors or open source communities implement the OpenMP API. If we are missing any please Contact Us with your suggestions.

Vendor/Source	Compiler	Information
Open Source	GCC	Free and open source – Linux, Solaris, AIX, MacOSX, Windows, FreeBSD, NetBSD, OpenBSD, DragonFly BSD, HPUX, RTEMS From GCC 4.2.0, OpenMP 2.5 is fully supported. From GCC 4.4.0, OpenMP 3.0 is fully supported. From GCC 4.7.0, OpenMP 3.1 is fully supported. In GCC 4.9.0, OpenMP 4.0 is supported for C and C++, but not Fortran. From GCC 4.9.1, OpenMP 4.0 is fully supported. From GCC 6.1, OpenMP 4.5 is fully supported for C and C++. Compile with -fopenmp to enable OpenMP. Online documentation: https://gcc.gnu.org/onlinedocs/libgomp/ OpenMP support history: https://gcc.gnu.org/projects/gomp/

Vendor/Source	Compiler	Information

IBM	XL C/C++ / Fortran	XL C/C++ for Linux V13.1.5 on little endian distributions and XL Fortran for Linux V15.1.15 on little endian distributions (available in Dec 2016) support OpenMP 3.1 and features in OpenMP 4.5 (include device constructs for offloading to NVIDIA GPU). XL C/C++ XL Fortran XL compilers on POWER community: C/C++ – Fortran
Oracle	C/C++ / Fortran	Oracle Developer Studio 12.5 compilers (C, C++, and Fortran) support OpenMP 4.0 features. Compile with -xopenmp. Platforms: x86/Linux, x86/Solaris, SPARC/Solaris Tools: Dbx debugger, Thread Analyzer for detecting data races and deadlocks, Code Analyzer for static code analysis, Performance Analyzer for performance profiling Online Documentation Free Download
Intel	C/C++ / Fortran	Windows, Linux, and MacOSX. OpenMP 3.1 C/C++/Fortran fully supported in version 12.0, 13.0, 14.0 compilers OpenMP 4.0 C/C++/Fortran supported in version 15.0 and 16.0 compilers OpenMP 4.5 C/C++/Fortran supported in version 17.0 compilers Compile with `-Qopenmp` on Windows, or just `-openmp` or `-qopenmp` on Linux or Mac OSX More detailed information

Vendor/Source	Compiler	Information

		More Information on PGI Compilers
Absoft Pro Fortran	Fortran	Versions 11.1 and later of the Absoft Fortran 95 compiler for Linux, Windows and Mac OS X include integrated OpenMP 3.0 support. Version 17.0 supports OpenMP 3.1. Compile with -openmp. More information
Lahey/Fujitsu Fortran 95	C/C++ / Fortran	The compilers in the software package of 'Technical Computing Suite for the PRIMEHPC FX100' support OpenMP 3.1. »More information
PathScale	C/C++ / Fortran	Linux 32/64 bit.EKOPath 6: http://www.pathscale.com/EKOPath – CPU only. Fully supports OpenMP 2.5. Supports almost all OpenMP 3.x and 4.0, no OpenMP4 offload directives support. ENZO2016: http://www.pathscale.com/ENZO – CPU+GPU – Fully supports OpenMP 2.5. Supports almost all OpenMP 3.x and 4.0, includes OpenMP4 offloading
Cray	Cray C/C++ and Fortran	Cray Compiling Environment (CCE) 8.5 (June 2016) supports OpenMP 4.0, with OpenMP 4.5 support for device constructs. OpenMP is on by default. More Information
NAG	nagfor	NAG Fortran Compiler 6.1 supports OpenMP 3.1 on x86 and x64, for Linux, Mac and Windows. Compile with –openmp. More Information
OpenUH Research Compiler	C/C++/Fortran	The OpenUH 3.x compiler has a full open-source implementation of OpenMP 2.5 and near-complete support for OpenMP 3.0 (including explicit task constructs) on Linux 32-bit or 64-bit platforms. For more information or to download: http://web.cs.uh.edu/~openuh/index.shtml

Vendor/Source	Compiler	Information

		become available in a future version. Compile and link your code with `-fopenmp`
LLNL Rose Research Compiler	C/C++/Fortran	ROSE is a source-to-source research compiler supporting OpenMP 3.0 and some OpenMP 4.0 accelerator features targeting NVIDIA GPUs. More information
Appentra Solutions parallware compiler	Parallware Suite C/C++	Parallware Suite provides the tool Parallware Trainer, an interactive, real-time desktop tool that facilitates teaching, learning, and the usage of parallel programming using directives of OpenMP 4.0. More Information
Texas Instruments	C	OpenMP 3.0 is supported on TI's Keystone I family of Multicore C66x Digital Signal Processor (DSP) SoCs using the Multicore Software Development Kit MCSDK-C66 2.1.2.6. OpenMP 3.0 with the device constructs from OpenMP 4.0 is supported on TI's Keystone II family of C66x+Cortex-A15 SoCs using MCSDK-K2 3.1.4.7 MCSDK downloads: http://www.ti.com/tool/bioslinuxmcsdk TI Products: http://www.ti.com/lsds/ti/processors/dsp/overview.page
Barcelona Supercomputing Center	Mercurium C/C++/Fortran	Mercurium is a source-to-source research compiler that is available to download at https://github.com/bsc-pm/mcxx OpenMP 3.1 is almost fully supported for C, C++, Fortran. Apart from that, almost all tasking features introduced in newer versions of OpenMP are also supported. More information

The OpenMP API supports multi-

OpenMP ARB

Home Specifications Community Resources

News & Events About

The OpenMP API defines a portable, scalable model with a simple and flexible interface for developing parallel applications on platforms from the desktop to the supercomputer.

e/2017…

penM

Enabling HPC sinc

The OpenMP® Archit…

The OpenMP ARB cel…

businesswire.com

03 Mar