Supported and Compatible Compilers – Release 2008a

Technical Note 1601

Windows (32-bit)

MATLAB® 7.6 and Related Products

Compiler	Version	MATLAB® 7.6 (MEX, Engine, MAT-file Access)	MATLAB® Compiler™ 4.8	MATLAB® Builder™ NE 2.2.2	MATLAB® Builder™ EX 1.2.10	MATLAB® Builder™ JA 2.0.1
Intel® C++ [1]	9.1	√				
Intel® Visual Fortran [1]	10.1	√				
	9.1	√				
Lcc - win32	2.4.1	√	√			
Microsoft® .NET Framework SDK	2.0			√ [2,3]		
	1.1			√ [2,3]		
Microsoft® Visual C/C++® [4]	6.0 Prof. Edition	√	√	√ [2]	√	
Microsoft® Visual C++® 2005 [5]	8.0 Express Edition	√	√	√ [2]	√	
Microsoft® Visual C++® 2005 SP1	8.0 Prof. Edition	√	√	√ [2]	√	
Microsoft® Visual C++® 2008	9.0 Prof. Edition	√	√	√ [2]	√	
Microsoft® Visual C++® .NET 2003 [6]	7.1 Prof. Edition	√	√	√ [2]	√	
Open Watcom [4,7]	1.7	√				
	1.3 [8]	√				
Sun™ Java™ Development Kit (JDK)	1.5					√

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Simulink®7.0 and Related Products

Compiler	Version	Simulink® 7.1 (S-functions)	Simulink 7.1 (Model Reference)	Simulink 7.1 (Accelerator Mode)	Simulink 7.1 (Rapid Accelerator Mode)	Simulink 7.1 (Embedded MATLAB)	Stateflow® 7.1	Real-Time Workshop® 7.1 [9]	xPC Target™ 3.4
Intel® C++ [1]	9.1	√							
Intel® Visual Fortran [1]	10.1	√ [10]							
	9.1	√ [10]							
Lcc - win32	2.4.1	√	√	√	√	√	√	√	
Microsoft® Visual C/C++® [4]	6.0 Prof. Edition	√	√	√	√	√	√	√	√
Microsoft® Visual C++® 2005 [5]	8.0 Express Edition	√	√	√	√	√	√	√	√
Microsoft® Visual C++® 2005 SP1	8.0 Prof. Edition	√	√	√	√	√	√	√	√
Microsoft® Visual C++® 2008	9.0 Prof. Edition	√							
Microsoft® Visual C++® .NET 2003 [6]	7.1 Prof. Edition	√	√	√	√	√	√	√	√
Open Watcom [4, 7]	1.7	√		√		√	√	√	
	1.3 [8]	√		√		√	√	√	√

Notes for the Windows (32-bit) Platform

1. Intel compilers depend on tools provided by Microsoft development products. Support for Intel compilers requires Microsoft Visual Studio 2005 SP1 Professional Edition. Access to the 2005 SP1 edition is available from Microsoft as part their *Visual Studio with MSDN* offerings.

2. To build .NET components, Microsoft .NET Framework SDK 1.1 or 2.0 must be installed. These products are automatically installed by Visual Studio 2003 or 2005/2008, respectively. They can also be downloaded from the *Microsoft Web site*. In future MATLAB releases, the .NET Framework SDK 1.1 will not be supported.

To execute applications that use the resulting .NET components, the target machine must have the matching .NET Framework installed.

3. MATLAB® Builder™ NE supports building .NET Assemblies but not COM objects when using the Microsoft .NET Framework SDK without Microsoft Visual Studio.

4. When using C++, MATLAB® and related products rely on the availability of exception handling in the C++ language. These compilers do not properly support C++ exception handling. Consequently, our support for exception handling is limited with these compilers. You can find more information in *Solution 1-4OKNSV.*

5. Microsoft Visual C++ 2005 Express Edition requires the Microsoft Platform SDK for Windows Server 2003, and requires the MSSdk variable to be defined in the Windows environment when used with MATLAB and related products. The value of this environment variable is the path to the installation directory of the SDK. This environment variable is not usually defined by the Microsoft Platform SDK installation program.

6. These compilers are not supported on Windows Vista.

7. Open Watcom is supported for use in C/C++ only; Open Watcom Fortran is not supported.

8. Support for these versions of these compilers will be discontinued in a future release, at which time new versions will be supported.

9. Includes Real-Time Workshop Embedded Coder and Stateflow Coder compiler support.

10. Fortran compilers are supported with Simulink® only for creating Simulink S-functions using the MATLAB® MEX command. The S-functions can be used with normal and accelerated simulations.

Windows (64-bit)

MATLAB® 7.6 and Related Products

Compiler	Version	MATLAB® 7.6 (MEX, Engine, MAT-file Access)	MATLAB® 7.6 (Shared Library Interface) [1]	MATLAB® Compiler™ 4.8	MATLAB® Builder™ NE 2.2.2	MATLAB® Builder™ JA 2.0.1
Intel® C++ [2]	9.1	√				
Intel® Visual Fortran [2]	10.1	√				
	9.1	√				
Microsoft® .NET Framework SDK	2.0				√ [3, 4]	
	1.1				√ [3, 4]	
Microsoft® Platform SDK [5]	14.0	√		√	√ [3]	
Microsoft® Visual C++® 2005 SP1 [6]	8.0 Prof. Edition	√	√	√	√ [3]	
Microsoft® Visual C++® 2008 [6]	9.0 Prof. Edition	√		√	√ [3]	
Sun™ Java™ Development Kit (JDK)	1.5					√

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Simulink® 7.1 and Related Products

Compiler	Version	Simulink® 7.1 (S-functions)	Simulink 7.1 (Model Reference)	Simulink 7.1 (Accelerator Mode)	Simulink 7.1 (Rapid Accelerator Mode)	Simulink 7.1 (Embedded MATLAB)	Stateflow® 7.1	Real-Time Workshop® 7.1 [7]
Intel® C++ [2]	9.1	√						
Intel® Visual Fortran [2]	10.1	√ [8]						
	9.1	√ [8]						
Microsoft® Platform SDK [5]	14.0	√						
Microsoft® Visual C++ 2005 SP1 [6]	8.0 Prof. Edition	√	√	√	√	√	√	√
Microsoft® Visual C++ 2008 [6]	9.0 Prof. Edition	√						

Notes for the Windows (64-bit) Platform

1. You must install a C compiler to use LOADLIBRARY on a 64-bit platform.

2. Intel compilers depend on tools provided by Microsoft development products. Support for Intel compilers requires Microsoft Visual Studio 2005 SP1 Professional Edition. Access to the 2005 SP1 edition is available from Microsoft as part their *Visual Studio with MSDN* offerings.

3. To build .NET components, Microsoft .NET Framework SDK 1.1 or 2.0 must be installed. These products are automatically installed by Visual Studio 2003 or 2005/2008, respectively. They can also be downloaded from the *Microsoft Web site*.In future MATLAB releases, .NET Framework SDK 1.1 will not be supported.

 To execute applications that use the resulting .NET components, the target machine must have the matching .NET Framework installed.

4. MATLAB® Builder™ NE supports building .NET Assemblies but not COM objects when using the Microsoft .NET Framework SDK without Microsoft Visual Studio.

5. These compilers are not supported on Windows Vista.

6. To use Microsoft Visual Studio with MATLAB® on 64-bit systems, "X64 Compilers and Tools" must be chosen during installation of Microsoft Visual Studio. This is not selected by default.

7. Includes Real-Time Workshop Embedded Coder and Stateflow Coder compiler support.

8. Fortran compilers are supported with Simulink® only for creating Simulink S-functions using the MATLAB® MEX command. The S-functions can be used with normal and accelerated simulations.

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Linux (32-bit and 64-bit)

MATLAB® 7.6, Simulink® 7.1, and Related Products

Compiler	Version	MATLAB® 7.6 (MEX, Engine, MAT-file Access)	MATLAB® 7.6 (Shared Library Interface) [1]	MATLAB® Compiler™ 4.8	MATLAB® Builder™ JA 2.0.1	Simulink® 7.1	Simulink® 7.1 (Embedded MATLAB)	Stateflow® 7.1	Real-Time Workshop® 7.1 [2]
GNU® g95	0.90	√				√ [3]			
GNU® gcc/g++	4.1.1	√	√	√		√	√	√	√
Sun™ Java™ Development Kit (JDK)	1.5				√				

To determine the version of your compiler, see *Solution 1-1880F*.

Notes for the Linux Platform (32-bit and 64-bit)

1. You must install a C compiler to use LOADLIBRARY on a 64-bit platform. No compiler is required on a 32-bit platform.

2. Includes Real-Time Workshop Embedded Coder and Stateflow Coder compiler support.

3. Fortran compilers are supported with Simulink® only for creating Simulink S-functions using the MATLAB® MEX command. The S-functions can be used with normal and accelerated simulations.

Solaris (64-bit)

MATLAB® 7.6, Simulink® 7.1, and Related Products

Compiler	Version	MATLAB® 7.6 (MEX, Engine, MAT-file Access)	MATLAB® 7.6 (Shared Library Interface) [1]	MATLAB® Compiler™ 4.8	MATLAB® Builder™ JA 2.0.1	Simulink® 7.1	Simulink® 7.1 (Embedded MATLAB)	Stateflow® 7.1	Real-Time Workshop® 7.1 [2]
GNU® gcc / g++ [3]	4.1.2	√				√	√	√	√
Sun™ Studio 11 cc/CC [4]	5.8	√	√	√		√	√	√	√
Sun™ Studio 11 f90	8.2	√				√ [5]			
Sun™ Studio 12 cc/CC [6]	5.9	√	√	√		√	√	√	√
Sun™ Studio 12 f90	8.3	√				√ [5]			
Sun™ Java™ Development Kit (JDK)	1.5				√				

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To determine the version of your compiler, see *Solution 1-1880F.*

Notes for the Solaris Platform

1. You must install a C compiler to use LOADLIBRARY on a 64-bit platform.

2. Includes Real-Time Workshop Embedded Coder and Stateflow Coder compiler support.

3. When using C++, MATLAB and related products rely on the availability of exception handling in the C++ language. These compilers do not properly support C++ exception handling. Consequently, our support for exception handling is limited with these compilers. You can find more information in *Solution 1-4OKNSV.*

4. There is a bug in the Sun Studio 11 cc/CC 5.8 compiler that can, in some instances, cause incorrect results. Sun has released Patch 120760-12 2007/03/19 to address the issue. For more information, see *Solution 1-431HK0.*

5. Fortran compilers are supported with Simulink® only for creating Simulink S-functions using the MATLAB® MEX command. The S-functions can be used with normal and accelerated simulations.

6. Patch 124861-01 to the Sun Studio 12 cc/CC 5.9 compiler introduced a bug that can, in some instances, cause incorrect results. Sun has released Patch 124861-06 2008/05/06 to address the issue. For more information, see *Solution 1-6IJJ4C.*

Mac

MATLAB® 7.6, Simulink® 7.1, and Related Products

Compiler	Version	MATLAB® 7.6 (MEX, Engine, MAT-file Access)	MATLAB® Compiler 4.8	MATLAB® Builder™ JA 2.0.1	Simulink® 7.1	Simulink® 7.1 (Embedded MATLAB)	Stateflow® 7.1	Real-Time Workshop® 7.1 [1]
Apple® Xcode with gcc/g++	3.0 [2,3]	√	√		√	√	√	√
	2.5 [4,5]	√	√		√	√	√	√
	2.4.1 [5,6]	√	√		√	√	√	√
GNU® g95	0.90	√			√ [7]			
Sun™ Java™ Development Kit (JDK)	1.5			√				

To determine the version of your compiler, see *Solution 1-1880F.*

Notes for the Mac Platform

1. Includes Real-Time Workshop Embedded Coder and Stateflow Coder compiler support.

2. The gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5465) development tools are required for using Xcode 3.0 with MATLAB® on all Mac systems. These are installed with Xcode.

3. This compiler is supported on Mac OS X 10.5.

4. The gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5370) development tools are required for using Xcode 2.5 with MATLAB® on all Mac systems. These are installed with Xcode.

5. This compiler is supported on Mac OS X 10.4.

6.The gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5367) development tools are required for using Xcode 2.4.1 with MATLAB® on all Mac systems. These are installed with Xcode.

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