

Product Support

1601 - Supported / Compatible Compilers for MATLAB 7.4 (R2007a)

For information on other releases, please select from the choices below:

- [Current Release](#)
- [Previous Releases](#)

What Is MATLAB 7.4 (R2007a) Built With?

Architecture	Compiler version
Linux (32-bit)	gcc/g++ version 4.1.1
Linux (64-bit)	gcc/g++ version 4.1.1
Macintosh (PowerPC)	Xcode 2.4.1 with gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5367)
Macintosh (Intel)	Xcode 2.4.1 with gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5367)
Solaris (64-bit)	Sun Studio 11 C++ 5.8 Patch 121017-02 2006/04/19
Windows (32-bit)	Microsoft Visual C++ 2005 (8.0) Professional Edition
Windows (64-bit)	Microsoft Visual C++ 2005 (8.0) Professional Edition

Microsoft Windows (32-bit)

MATLAB 7.4 (R2007a) and Related Products

Microsoft Windows			MATLAB	MATLAB Compiler	MATLAB Builder for .NET	MATLAB Builder for Excel	MATLAB Builder for Java
Compiler	Version	Notes	7.4	4.6	2.2	1.2.8	1.1
Microsoft Visual C++ 2005	8.0 Prof. Ed.	2	x	x	x	x	
	8.0 Express Ed.	1	x	x		x	
Microsoft Visual C++ .NET 2003	7.1 Prof. Ed.	2, 8	x	x	x	x	
Microsoft Visual C/C++	6.0 Prof. Ed.	2	x	x	x	x	
Microsoft Framework SDK	2.0	2, 9			x		
	1.1	2, 9			x		
Lcc - Win32	2.4.1		x	x			
Borland C++ Builder	6	3, 6	x	x			
	5	3, 6	x	x			
Borland C++ Compiler (free command line tools)	5.5	6	x	x			
Intel C++	9.1	7	x				
	7.1	6, 7	x				
Open Watcom	1.3		x				
Intel Visual Fortran	9.1	7	x				
	9.0	6, 7, 8	x				
Compaq Visual Fortran	6.6		x				
	6.1	6	x				
Sun Java Development Kit (JDK)	1.5						x

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Simulink 6.6 (R2007a) and Related Products

Microsoft Windows			Simulink (S-Functions)	Simulink (Model Referencing)	Simulink Accelerator	Stateflow	Real-Time Workshop	xPC Target
Compiler	Version	Notes	6.6	6.6	6.6	6.6	6.6	3.2
Microsoft Visual C++ 2005	8.0 Prof Ed.		x	x	x	x	x	x
	8.0 Express Ed.	1	x	x	x	x	x	
Microsoft Visual C++ .NET 2003	7.1 Prof. Ed.	8	x	x	x	x	x	x
Microsoft Visual C/C++	6.0 Prof. Ed.		x	x	x	x	x	x
Lcc - Win32	2.4.1		x	x	x	x	x	
Borland C++ Builder	6	3, 6	x		x	x	x	
	5	3, 6	x		x	x	x	
Borland C++ Compiler (free command line tools)	5.5	6	x		x	x	x	
Intel C++	9.1	7	x					
	7.1	6, 7	x		x		x	
Open Watcom	1.3		x		x	x	x	x
Intel Visual Fortran	9.1	4, 7	x					
	9.0	4,6,7,8	x					
Compaq Visual Fortran	6.6	4	x		x			
	6.1	4, 6	x		x			

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Microsoft Windows (64-bit)

MATLAB 7.4 (R2007a) and Related Products

Microsoft Windows			MATLAB	MATLAB Compiler	MATLAB Builder for .NET	MATLAB Builder for Java
Compiler	Version	Notes	7.4	4.6	2.2	1.1
Microsoft Visual C++ 2005	8.0 Prof. Ed.	5	x	x	x	
Microsoft Platform SDK	14.0	8	x			
Microsoft Framework SDK	2.0	2, 9			x	
	1.1	2, 9			x	
Intel C++	9.1	7	x			
Intel Visual Fortran	9.1	7	x			
	9.0	6,7,8	x			
Sun Java Development Kit (JDK)	1.5					x

Simulink 6.6 (R2007a) and Related Products

Microsoft Windows			Simulink (S-Functions)	Simulink (Model Referencing)	Simulink Accelerator	Stateflow	Real-Time Workshop	xPC Target
Compiler	Version	Notes	6.6	6.6	6.6	6.6	6.6	Not Supported
Microsoft Visual C++ 2005	8.0 Prof. Ed.	5	x	x	x	x	x	
Intel C++	9.1	7	x					
Intel Visual Fortran	9.1	7	x		x			
	9.0	4,6,7,8	x		x			

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Notes for the Microsoft Windows Tables for all MATLAB 7.4 (R2007a) and Simulink 6.6 (R2007a) Related Products

1. 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.
2. In order 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, respectively. They can also be downloaded from the Microsoft website: <http://msdn.microsoft.com>.
In order to execute applications that use the resulting .NET components, the target machine must have the matching .NET Framework installed.
3. Version 6 of the Borland C++ Builder is packaged with Borland C/C++ Compiler 5.6. Version 5 of the Borland C++ Builder is packaged with Borland C/C++ Compiler 5.5.
4. 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.
5. To use Microsoft Visual Studio 2005 with MATLAB on 64-bit systems, "X64 Compilers and Tools" must be chosen during installation of Microsoft Visual Studio 2005.
6. These compilers are being phased out and will not be supported in some future release.
7. Intel compilers depend on tools provided by Microsoft development products. The following combinations are supported by MATLAB and Simulink related products:

Intel Compilers on Microsoft Windows		Microsoft Visual Studio 2005 Professional Edition (64- and 32-bit)	Microsoft Visual Studio .NET 2003 Professional Edition (32-bit)	Microsoft Visual Studio Professional Edition (32-bit)	Microsoft Platform SDK for Windows Server 2003 (64-bit)
Compiler	Version	8.0	7.1	6.0	14.0
Intel C++	9.1	x			
	7.1			x	
Intel Visual Fortran	9.1	x			
	9.0	x	x		x

8. These compilers are not supported on Windows Vista.
9. MATLAB Builder for .NET supports building .NET Assemblies but not COM Objects when using the Microsoft .NET Framework SDK without Microsoft Visual Studio.

Exception Handling

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When using C++, the MATLAB Compiler relies on the availability of exception handling in the C++ language. Several of the supported compilers do not properly support C++ exception handling. Consequently, our support for exception handling is limited on those platforms.

Macintosh (PowerPC)

All MATLAB 7.4 (R2007a) and Simulink 6.6 (R2007a) Related Products

Macintosh			MATLAB	MATLAB Compiler	MATLAB Builder for Java	Simulink	Stateflow	Real-Time Workshop
Compiler	Version	Notes	7.4	4.6	1.1	6.6	6.6	6.6
Xcode with gcc / g++	2.4.1	2	x	x		x	x	x
g95	0.90	1	x			x		
Sun Java Development Kit (JDK)	1.5				x			

Macintosh (Intel)

All MATLAB 7.4 (R2007a) and Simulink 6.6 (R2007a) Related Products

Macintosh			MATLAB	MATLAB Compiler	MATLAB Builder for Java	Simulink	Stateflow	Real-Time Workshop
Compiler	Version	Notes	7.4	4.6	1.1	6.6	6.6	6.6
Xcode with gcc / g++	2.4.1	2	x	x		x	x	x
g95	0.90	1	x			x		
Sun Java Development Kit (JDK)	1.5				x			

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Notes for the Macintosh Table for all MATLAB 7.4 (R2007a) and Simulink 6.6 (R2007a) Related Products

- 1. 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.
- 2. To use Xcode 2.4.1 with MATLAB on all Macintosh systems, the gcc/g++ version 4.0.1 (Apple Computer, Inc. build 5367) development tools must be installed.

UNIX

UNIX / Linux			MATLAB	MATLAB Compiler	MATLAB Builder for Java	Simulink	Stateflow	Real-Time Workshop
Compiler	Version	Notes	7.4	4.6	1.1	6.6	6.6	6.6
Linux (32-bit) gcc / g++	4.1.1		x	x		x	x	x
Linux (32-bit) g95	0.90	1	x			x	x	
Linux (64-bit) gcc / g++	4.1.1		x	x		x	x	x
Linux (64-bit) g95	0.90	1	x			x	x	
Solaris (64-bit) Sun Studio 11 cc / CC	5.8 Patch 120760-12 2006/03/19	3	x	x		x	x	x
Solaris (64-bit) gcc / g++	3.2.3	4	x					
Solaris (64-bit) Sun Studio 11 f90	8.2	1	x			x		
Sun Java Development Kit (JDK)	1.5	2			x			

Notes for the UNIX Table for all MATLAB 7.4 (Release 2007a) and Simulink 6.6 (Release 2007a) Related Products

1. 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.
 2. The Sun Java Development Kit (JDK) versions specified here apply to the following UNIX platforms: Linux (32-bit), Linux (64-bit), and Solaris (64-bit).
 3. There is a bug in the Sun Studio 11 C++ 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](#).
 4. gcc is supported on Solaris for MEX-files and Simulink S-functions, but not Engine or MAT-file programs.
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Additional Information

- *What products do I need to buy in addition to a compiler?*
- To determine the version of your compiler on Linux/UNIX/Mac machines, see [Solution 1-1880F](#).

Real-Time Windows Target

Real-Time Windows Target contains a built-in compiler that is shipped with the product. The compiler used is Open Watcom, and Real-Time Windows Target uses this compiler exclusively.