

MATLAB® Builder for .NET

Release Notes

Summary by Version	1
Version 2.2.1 (R2007b)MATLAB Builder for .NET	4
Version 2.2 (R2007a) MATLAB Builder for .NET	6
Version 2.1 (R2006b) MATLAB Builder for .NET	9
Version 2.0 (R2006a) MATLAB Builder for .NET	12
Compatibility Summary for MATLAB Builder for .NET	13

Summary by Version

This table provides quick access to what's new in each version. For clarification, see "About Release Notes" on page 1.

Version (Release)	New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Latest Version V2.2.1 (R2007b)	Yes Details	Yes Summary	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation
V2.2 (R2007a)	Yes Details	No	Bug Reports Includes fixes	No
V2.1 (R2006b)	Yes Details	Yes Summary	Bug Reports Includes fixes	No
V2.0 (R2006a)	Yes Details	No	No	No

About Release Notes

Use release notes when upgrading to a newer version to learn about new features and changes, and the potential impact on your existing files and practices. Release notes are also beneficial if you use or support multiple versions.

If you are not upgrading from the most recent previous version, review release notes for all interim versions, not just for the version you are installing. For example, when upgrading from V1.0 to V1.2, review the New Features and Changes, Version Compatibility Considerations, and Bug Reports for V1.1 and V1.2.

New Features and Changes

These include

- New functionality
- Changes to existing functionality
- Changes to system requirements (complete system requirements for the current version are at the MathWorks Web site)
- Any version compatibility considerations associated with each new feature or change

Version Compatibility Considerations

When a new feature or change introduces a reported incompatibility between versions, its description includes a **Compatibility Considerations** subsection that details the impact. For a list of all new features and changes that have reported compatibility impact, see the “Compatibility Summary for MATLAB Builder for .NET” on page 13.

Compatibility issues that are reported after the product has been released are added to Bug Reports at the MathWorks Web site. Because bug fixes can sometimes result in incompatibilities, also review fixed bugs in Bug Reports for any compatibility impact.

Fixed Bugs and Known Problems

MathWorks Bug Reports is a user-searchable database of known problems, workarounds, and fixes. The MathWorks updates the Bug Reports database as new problems and resolutions become known, so check it as needed for the latest information.

Access Bug Reports at the MathWorks Web site using your MathWorks Account. If you are not logged in to your MathWorks Account when you link to Bug Reports, you are prompted to log in or create an account. You then can view bug fixes and known problems for R14SP2 and more recent releases.

Related Documentation at Web Site

Printable Release Notes (PDF). You can print release notes from the PDF version, located at the MathWorks Web site. The PDF version does not support links to other documents or to the Web site, such as to Bug Reports. Use the browser-based version of release notes for access to all information.

Product Documentation. At the MathWorks Web site, you can access complete product documentation for the current version and some previous versions, as noted in the summary table.

Version 2.2.1 (R2007b) MATLAB Builder for .NET

This table summarizes what's new in Version 2.2.1(R2007b):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	Yes Summary	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

New features and changes introduced in this version are:

Functions Being Removed

For more information about The MathWorks process of removing functions, see the section “About Functions Being Removed” in “About Release Notes”.

Functions Being Removed	What Happens When You Run Function?	Use This Instead	Compatibility Considerations
buildmcr	Errors	MCRInstaller.exe (Windows), MCRInstaller.bin (UNIX), MATLAB_Component_Runtime.dmg (Mac)	See the MATLAB Compiler User's Guide documentation for more details.
comtool	Undefined function error	deploytool	Migrate to deploytool.
dotnettool	Undefined function error	deploytool	Migrate to deploytool.

Functions Being Removed	What Happens When You Run Function?	Use This Instead	Compatibility Considerations
mxltool	Undefined function error	deploytool	Migrate to deploytool.
opennb1	Undefined function error	deploytool	Migrate to deploytool.
openmx1	Undefined function error	deploytool	Migrate to deploytool.
opencb1	Undefined function error	deploytool	Migrate to deploytool.

Version 2.2 (R2007a) MATLAB Builder for .NET

This table summarizes what's new in Version 2.2 (R2007a):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

New features and changes introduced in this version are:

- “Support Added for Win64” on page 6
- “Issues with the Microsoft Windows Vista Operating System” on page 6

Support Added for Win64

Support has been added for the Windows 64-bit operating system.

Issues with the Microsoft Windows Vista Operating System

The following are known compatibility issues with Microsoft Vista as of this release:

- With User Account Control (UAC) enabled, a standard user is not able to write to a directory in the `c:\Program Files` directory. See the *MATLAB Release Notes* for more details regarding this issue.
- With User Account Control (UAC) enabled, a standard user is not able to register DLLs. When `mbuild -setup` attempts to register `mwcomutil.dll`, the following errors are displayed:

```
Trying to update options file:
```

```
C:\Users\qe\AppData\Roaming\MathWorks\MATLAB\R2007a\comopts.bat
```

```

From template:
  C:\PROGRA-1\MATLAB\R2007a\bin\win64\mbuildopts\msvc80comp.bat

Done . . .

--> "C:\PROGRA-1\MATLAB\R2007a\bin\win64\mwregsvr C:\PROGRA-1\MATLAB\R2007a\bin\
win64\mwcomutil.dll"

Error: DllRegisterServer in C:\PROGRA-1\MATLAB\R2007a\bin\win64\mwcomutil.dll
failed
Undefined subroutine &mexsetup::expire called at C:\PROGRA-1\MATLAB\R2007a\bin\
mexsetup.pm line 839.

```

This is also the case when MATLAB Builder for Excel invokes mbuild in an attempt to register DLLs after a compilation completes.

- The following message is displayed when MATLAB Builder for .NET, attempts to install a DLL into the Global Assembly Cache from a network location:

```

Unhandled Exception: System.IO.FileLoadException: Could not load file or assembly
'GACInstaller, Version=1.0.2568.30711, Culture=neutral, PublicKeyToken=null' or
one of its dependencies. Failed to grant permission to execute. (Exception from
HRESULT: 0x80131418)
File name: 'GACInstaller, Version=1.0.2568.30711, Culture=neutral,
PublicKeyToken=null' ---> System.Security.Policy.PolicyException: Execution
permission cannot be acquired.
    at System.Security.SecurityManager.ResolvePolicy(Evidence evidence,
PermissionSet reqdPset, PermissionSet optPset, PermissionSet denyPset,
PermissionSet& denied, Boolean checkExecutionPermission)
    at System.Security.SecurityManager.ResolvePolicy(Evidence evidence,
PermissionSet reqdPset, PermissionSet optPset, PermissionSet denyPset,
PermissionSet& denied, Int32& securitySpecialFlags, Boolean
checkExecutionPermission)

```

- Printing from a compiled application is not currently available with Microsoft Windows Vista. The following message is displayed if you attempt to print on systems with the Microsoft Windows Vista 32-bit operating system installed:

```
PrintImage Error
```

StartPage failed with error 6: The handle is invalid.

Printing with Vista 64-bit installed results in an error message that lists a manifest as missing. Please check <http://www.mathworks.com/support/> for updates on these issues.

Version 2.1 (R2006b) MATLAB Builder for .NET

This table summarizes what's new in Version 2.1 (R2006b):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	Yes Summary	Bug Reports Includes fixes See also "Known Issues" on page 11.	No

New features and changes introduced in this version are:

- "New User Interface" on page 9
- "Support for Shared Assemblies" on page 10
- "Support for Nested Namespaces" on page 10
- "Support for .NET Framework Version" on page 10
- "Additional Support for Microsoft Visual Studio .NET Users" on page 11
- "Known Issues" on page 11

New User Interface

This release of MATLAB Builder for .NET provides a new graphical user interface for creating and building projects. Issue the `deploytool` command in MATLAB to use the new GUI.

Compatibility Considerations

Projects built with the previous user interface cannot be used with the new interface. For the current release, you can still issue the `dotnettool` command to access projects from a previous release. The next release of MATLAB Builder for .NET will no longer support `dotnettool`, or projects from the previous user interface.

Support for Shared Assemblies

When you create a .NET component using the `mcc` command or the Deployment Tool, you can tell .NET Builder to create a shared assembly. Click **More Settings** in the Deployment Tool dialog box, and select **.NET Component** in the navigation pane.

Support for Nested Namespaces

.NET Builder now supports nested namespaces, which you can use to create a hierarchical naming structure for types.

Support for .NET Framework Version

You can now specify which version of the .NET framework you want to use when compiling a component using the `mcc` command of the Deployment Tool. You can specify any of the following three values.

Version Value	Meaning
0.0	Use the latest supported version of the framework that is available on the system.
1.1	Use Version 1.1
2.0	Use Version 2.0

Compatibility Considerations

In previous releases, you could specify a version number when creating a .NET component, but the value was not used. In this release, the version numbers specify which version of the .NET framework to use. Note also that the interpretation of version number with .NET Builder is different from COM Builder. In COM Builder, the version number specifies the version of the component being created.

Additional Support for Microsoft Visual Studio .NET Users

MWArray.dll Added to Reference Tab

.NET Builder now adds the `MWArray.dll` containing the data conversion classes to the list of .NET components accessible from the **Add Reference** tab in Microsoft Visual Studio .NET.

Sample Applications on Visual Studio .NET 2005

The set of sample applications in `matlabroot\toolbox\dotnetbuilder\Examples` now includes applications for Visual Studio .NET 2005, as well as for Visual Studio .NET 2003.

Known Issues

The following issue is known and a patch to fix the problem is available at the linked bug report.

Data Returned by ToArray Referencing Sparse Format May Be Corrupt

The data returned by calling `ToArray` on a `MWNumericArray` or `MWLogicalArray` object that references a MATLAB array stored in sparse format may be incorrect or corrupted. More information and a patch that corrects this issue may be found at the Customer Bug Reports area of the MathWorks Web site: <http://www.mathworks.com/support/bugreports/index.html?release=R2006b>. At the Bug Reports page, select **R2006b** in the Release list, and select **MATLAB Builder for .NET** in the Product list.

This bug does not affect normal (non-sparse) arrays, nor does it affect other methods of retrieving data from a sparse array, such as `get`, `getDouble`, and `getData`.

Version 2.0 (R2006a) MATLAB Builder for .NET

This table summarizes what's new in Version 2.0 (R2006a):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	No	No

MATLAB Builder for .NET extends MATLAB Compiler with tools for automatically generating independent .NET assemblies or Common Object Model (COM) objects from your MATLAB algorithms.

These tools allow you to do the following:

- Convert your MATLAB algorithms into .NET or COM components via a graphics user interface
- Create .NET assemblies that can be called from C#, VB.NET, or any other CLS-compliant technology
- Create COM objects that can be called from Visual Basic, ASP, Microsoft Excel, or any other COM-compliant technology
- Support conversion between native .NET and COM data types and the MATLAB array data types, using data conversion classes
- Enable unlimited free desktop and Web deployment of independent components

Compatibility Summary for MATLAB Builder for .NET

This table summarizes new features and changes that might cause incompatibilities when you upgrade from an earlier version, or when you use files on multiple versions. Details are provided in the description of the new feature or change.

Version (Release)	New Features and Changes with Version Compatibility Impact
Latest Version V2.2.1 (R2007b)	See “Functions Being Removed” on page 4.
V2.2 (R2007a)	None
V2.1 (R2006b)	See the Compatibility Considerations subheading for each of these new features or changes: <ul style="list-style-type: none"> • “New User Interface” on page 9. • “Support for .NET Framework Version” on page 10.
V2.0 (R2006a)	None