



Wix.exe command-line reference

The **Wix.exe .NET tool** provides a reassuringly old-fashioned command-line interface to WiX. Like the `dotnet` command-line tool that inspired it, Wix.exe has a number of command, some with subcommands, and both required and optional switches.

Wix.exe commands

Wix.exe offers the following commands:

Wix.exe command	Description
<code>wix build</code>	Build a wixlib, package, or bundle.
<code>wix msi</code>	Specialized operations for manipulating Windows Installer packages.
<code>wix burn</code>	Specialized operations for manipulating Burn-based bundles.
<code>wix extension</code>	Manage WiX extension cache.
<code>wix convert</code>	Convert v3 source code to v4 source code.
<code>wix format</code>	Ensure consistent formatting of source code.

Wix.exe has the following switches that are common to all commands:

Option	Description
<code>--help</code> or <code>-h</code>	Show command line help.
<code>--version</code>	Display WiX Toolset version in use.
<code>--nologo</code>	Suppress displaying the logo information.

wix build command

Build a package, bundle, or library.

```
wix build [options] source_file.wxs [source_file.wxs ...]
```

Option	Description
<code>-arch</code> <i>arch</i>	Architecture of the package or bundle. Valid values are: <i>x86</i> , <i>x64</i> , <i>arm64</i> . Default: <i>x86</i> . Equivalent MSBuild property: <code>InstallerPlatform</code>
<code>-bindfiles</code> or <code>-bf</code>	Bind files into an output .wixlib. Ignored if not building a .wixlib.

Option	Description
<code>-bindpath</code> or <code>-b path</code>	Bind path to search for content files.
<code>-bindpath:target</code> or <code>-bt path</code>	Bind path to search for target package's content files. Only used when building a patch.
<code>-bindpath:update</code> or <code>-bu path</code>	Bind path to search for update package's content files. Only used when building a patch.
<code>-bindvariable</code> or <code>-bv name=value</code>	Sets a bind-time variable.
<code>-cabcache</code> or <code>-cc path</code>	Set a folder to cache cabinets across builds.
<code>-culture culture</code>	Adds a culture to filter localization files.
<code>-define</code> or <code>-d name=value</code>	Sets a preprocessor variable.
<code>-defaultcompressionlevel</code> or <code>-dcl level</code>	Specifies the compression level used when none is specified via <code>MediaTemplate</code> or <code>Media</code> . Valid values are: <i>none</i> , <i>low</i> , <i>medium</i> , <i>high</i> , <i>mszip</i> . Default: <i>medium</i> . Equivalent MSBuild property: <code>DefaultCompressionLevel</code>
<code>-ext id</code>	Load a WiX extension for use during the build.
<code>-include</code> or <code>-i path</code>	Folder to search for include files.
<code>-intermediateFolder path</code>	Optional working folder. If not specified, a folder in %TMP% is created.

Option	Description
<code>-loc path</code>	Localization file to use in the build. By default, .wxl files are recognized as localization.
<code>-lib path</code>	Library file to use in the build. By default, .wixlib files are recognized as libraries.
<code>-src path</code>	Source file to use in the build. By default, .wxs files are recognized as source code.
<code>-out</code> or <code>-o path</code>	Destination path of output. Required when there are multiple source files; otherwise, defaults to the base name of the source file.
<code>-outputtype type</code>	Explicitly set the output type if it cannot be determined from the output.
<code>-pdb path</code>	Optional path to output .wixpdb. Default will write .wixpdb beside output path.
<code>-pdbtype type</code>	Switch to disable creation of .wixpdb. Types: full or none.

wix msi command

The `wix msi` command has the following subcommands:

Subcommand	Description
<code>wix msi decompile</code>	Converts a Windows Installer database back into source code.

Subcommand	Description
<code>wix msi inscribe</code>	Updates MSI database with cabinet signature information.
<code>wix msi transform</code>	Creates an MST transform file.
<code>wix msi validate</code>	Validates MSI database using standard or custom ICEs.

`wix msi decompile` subcommand

Decompile a package or merge module into WiX authoring or WiX data file.

```
wix msi decompile [options] {inputfile.msi|inputfile.msm}
```

Option	Description
<code>-data</code>	Decompile into a WiX data file instead of WiX authoring.
<code>-sct</code>	Suppress decompiling custom tables.
<code>-sdet</code>	Suppress dropping empty tables.
<code>-sras</code>	Suppress relative action sequencing.

Option	Description
<code>-sui</code>	Suppress decompiling UI tables.
<code>-type</code> <i>type</i>	Optionally specify the input file type: <i>msi</i> or <i>msm</i> . If not specified, type is inferred by file extension.
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-out</code> or <code>-o</code> <i>path</i>	Optional path for the decompiled output file. If not specified, output path will have the same base name as the input file in the same directory.
<code>x</code> <i>path</i>	If specified, export embedded binaries and icons to specified folder.

`wix msi inscribe` subcommand

Update an MSI package with the signatures of detached cabinets.

```
wix msi inscribe [options] input.msi
```

Option	Description
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Option	Description
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-out</code> or <code>-o</code> <i>path</i>	Optional path for the inscribed package. If not specified, <code>wix msi inscribe</code> updates the input file in-place.

`wix msi transform` subcommand

Create a Windows Installer transform file (.mst).

```
msi transform [options] target.msi [updated.msi] -out output.mst
```

Option	Description
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-out</code> or <code>-o</code> <i>path</i>	Required path for the transform file.
<code>-p</code>	Preserve unchanged rows.
<code>-pedantic</code>	Show pedantic messages.

Option	Description
<code>-serr</code> <i>flags</i>	Suppress error when applying transform; see Error flags below.
<code>-t</code> <i>type</i>	Use default validation flags for the specified transform type; see Transform types below.
<code>-val</code> <i>flags</i>	Validation flags for the transform; see Validation flags below.
<code>-x</code> <i>path</i>	If specified, export embedded binaries and icons to specified folder.
<code>-xo</code>	Output transform as a WiX output instead of an MST file.

Error flag for <code>-serr</code>	Description
<code>a</code>	Ignore errors when adding an existing row.
<code>b</code>	Ignore errors when deleting a missing row.
<code>c</code>	Ignore errors when adding an existing table.
<code>d</code>	Ignore errors when deleting a missing table.
<code>e</code>	Ignore errors when modifying a missing row.
<code>f</code>	Ignore errors when changing the code page.

Validation flag for <code>-val</code>	Description
<code>g</code>	UpgradeCode must match
<code>l</code>	Language must match
<code>r</code>	Product ID must match
<code>s</code>	Check major version only
<code>t</code>	Check major and minor versions
<code>u</code>	Check major, minor, and upgrade versions
<code>v</code>	Upgrade version < target version
<code>w</code>	Upgrade version <= target version
<code>x</code>	Upgrade version = target version
<code>y</code>	Upgrade version > target version
<code>z</code>	Upgrade version >= target version

Transform type for <code>-t</code>	Description
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Transform type for <code>-t</code>	Description
<code>language</code>	Default flags for a language transform: <code>abcdef</code> and <code>r</code>
<code>instance</code>	Default flags for an instance transform: <code>abcdef</code> and <code>ruy</code>
<code>patch</code>	Default flags for a patch transform: <code>abcdef</code> and <code>grux</code>

`wix msi validate` subcommand

Validates MSI database using standard or custom Internal Consistency Evaluators (ICEs).

```
msi validate [options] {inputfile.msi|inputfile.msm}
```

Option	Description
<code>-cub</code> <i>path</i>	Optional path to a custom validation .CUBe file.
<code>-ice</code> <i>id</i>	Validates only with the specified ICE. May be provided multiple times.
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-pdb</code> <i>path</i>	Optional path to .wixpdb for source line information. If not provided, <code>wix msi validate</code> looks

Option	Description
	next to the input file.
<code>-sice</code> <i>id</i>	Suppresses an ICE validator. May be provided multiple times.

wix burn command

The `wix burn` command has the following subcommands:

Subcommand	Description
<code>wix burn detach</code>	Detach the Burn engine from a bundle so it can be signed.
<code>wix burn extract</code>	Extract the internals of a bundle to a folder.
<code>wix burn reattach</code>	Reattach a signed Burn engine to a bundle.
<code>wix burn remotepayload</code>	Generate source code for a remote payload.

wix burn detach and wix burn reattach subcommands

The `wix burn detach` and `wix burn reattach` subcommands are used to sign bundles. For details, see [Signing bundles](#).

```
wix burn detach [options] original.exe -engine engine.exe
```

<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-engine</code> <i>path</i>	Path for extracted bundle engine.

```
wix burn reattach [options] original.exe -engine signed.exe -o final.exe
```

Option	Description
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-engine</code> <i>path</i>	Required path to Burn engine extracted using <code>wix burn detach</code> and then signed.
<code>-out</code> or <code>-o</code> <i>path</i>	Required path to output bundle with reattached signed engine that can then be signed as a whole.

`wix burn extract` subcommand

Extracts the contents of a bundle.

```
wix burn extract [options] bundle.exe -o outputfolder
```

Option	Description
<code>-intermediateFolder path</code>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-out</code> or <code>-o path</code>	Target directory for extracted bundle containers. At least one of <code>-out</code> and <code>-outba</code> must be specified.
<code>-outba</code> or <code>-oba path</code>	Target directory for extracted bootstrapper application container. At least one of <code>-out</code> and <code>-outba</code> must be specified.

`wix burn remotepayload` subcommand

Generate source code for a remote payload.

```
wix burn remotepayload [options] payloadfile [payloadfile ...]
```

Option	Description
<code>-basepath</code> or <code>-bp path</code>	Folder as base to make payloads relative.
<code>-bundlepayloadgeneration type</code>	Sets the package payload generation option; available types are: <i>none</i> , <i>externalwithoutdownloadurl</i> , <i>external</i> , <i>all</i> .

Option	Description
<code>-downloadurl</code> or <code>-du</code>	Sets the DownloadUrl attribute on the generated payloads.
<code>-intermediateFolder</code> <i>path</i>	Optional working folder. If not specified, a folder in %TMP% is created.
<code>-out</code> or <code>-o</code> <i>path</i>	Destination path of output source file.
<code>-recurse</code> or <code>-r</code>	Generate source code for all payloads in directory recursively.
<code>-packagetype</code> <i>type</i>	Explicitly set package type; available types are: <i>bundle</i> , <i>exe</i> , <i>msu</i> .
<code>-usecertificate</code>	Use certificate to validate signed payloads. This option is not recommended.

wix extension command

Manage the extension cache. Extensions are referenced by:

- `id/version` (uses specified version)
- `id` (uses the latest available version)

Subcommand	Description
<code>wix extension add</code>	Add extension to the cache.

Subcommand	Description
<code>wix extension list</code>	List extensions in the cache.
<code>wix extension remove</code>	Remove extension from the cache.

```
wix extension add|remove|list [options] [extensionRef]
```

Option	Description
<code>--global</code> or <code>-g</code>	Manage the extension for the current user's WiX extension cache. If not specified, manages the extension relative to the current directory.

`wix convert` command

Convert v3 source code to v4 source code.

```
wix convert [options] sourceFile [sourceFile ...]
```

sourceFile can include wildcards like `*.wxs`.

Option	Description
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Option	Description
<code>--custom-table</code> <i>type</i>	Convert custom table authoring for use in MSI packages (<i>msi</i>) or bundles (<i>bundle</i>).
<code>--dry-run</code> or <code>-n</code>	Only display errors, do not update files.
<code>--recurse</code> or <code>-r</code>	Search for matching files in current dir and subdirs.
<code>-set1</code> <i>path</i>	Primary settings file. No space between <code>-set1</code> and file path.
<code>-set2</code> <i>path</i>	Secondary settings file (overrides primary). No space between <code>-set2</code> and file path.
<code>-indent:n</code>	Indentation multiple (overrides default of 4).

wix format command

Ensure consistent formatting of source code.

```
wix format [options] sourceFile [sourceFile ...]
```

sourceFile can include wildcards like `*.wxs`.

Option	Description
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Option	Description
<code>--dry-run</code> or <code>-n</code>	Only display errors, do not update files.
<code>--recurse</code> or <code>-r</code>	Search for matching files in current dir and subdirs.
<code>-set1</code> <i>path</i>	Primary settings file. No space between <code>-set1</code> and file path.
<code>-set2</code> <i>path</i>	Secondary settings file (overrides primary). No space between <code>-set2</code> and file path.
<code>-indent:n</code>	Indentation multiple (overrides default of 4).

convert/format settings

Test ID	Description
<code>InspectorTestTypeUnknown</code>	Internal only: displayed when a string cannot be converted to an <code>InspectorTestType</code> .
<code>XmlException</code>	Displayed when an XML loading exception has occurred.
<code>WhitespacePrecedingNodeWrong</code>	Displayed when the whitespace preceding a node is wrong.

Test ID	Description
WhitespacePrecedingEndElementWrong	Displayed when the whitespace preceding an end element is wrong.
DeclarationPresent	Displayed when the XML declaration is present in the source file.
DeprecatedLocalizationVariablePrefixInTextValue	Displayed when inner text contains a deprecated \$(loc.xxx) reference.
UnauthorizedAccessException	Displayed when a file cannot be accessed; typically when trying to save back a fixed file.
XmlnsMissing	Displayed when the xmlns attribute is missing from the document element.x
XmlnsValueWrong	Displayed when the xmlns attribute on the document element is wrong.x
DeprecatedLocalizationVariablePrefixInTextValue	Displayed when inner text contains a deprecated \$(loc.xxx) reference.
DeprecatedLocalizationVariablePrefixInAttributeValue	Displayed when an attribute value contains a deprecated \$(loc.xxx) reference.

Test ID	Description
<code>AssignAnonymousFileId</code>	Assign an identifier to a File element when on Id attribute is specified.
<code>BundleSignatureValidationObsolete</code>	SuppressSignatureValidation attribute is obsolete and corresponding functionality removed.
<code>WixCABinaryIdRenamed</code>	WixCA Binary/@Id has been renamed to UtilCA.
<code>QuietExecCustomActionsRenamed</code>	QtExec custom actions have been renamed.
<code>QtExecCmdTimeoutAmbiguous</code>	QtExecCmdTimeout was previously used for both CAQuietExec and CAQuietExec64. For WixQuietExec, use WixQuietExecCmdTimeout. For WixQuietExec64, use WixQuietExec64CmdTimeout.
<code>AssignDirectoryNameFromShortName</code>	Directory/@ShortName may only be specified with Directory/@Name.
<code>BootstrapperApplicationDataDeprecated</code>	BootstrapperApplicationData attribute is deprecated and replaced with Unreal for MSI. Use BundleCustomData element for Bundles.
<code>AssignPermissionExInheritable</code>	Inheritable is new and is now defaulted to 'yes' which is a change in behavior for all but children of CreateFolder.

Test ID	Description
ColumnCategoryCamelCase	Column element's Category attribute is camel-case.
ColumnModularizeCamelCase	Column element's Modularize attribute is camel-case.
InnerTextDeprecated	Inner text value should move to an attribute.
AutoGuidUnnecessary	Explicit auto-GUID unnecessary.
FeatureAbsentAttributeReplaced	The Feature Absent attribute renamed to AllowAbsent.
FeatureAllowAdvertiseValueDeprecated	The Feature AllowAdvertise attribute value deprecated.
PublishConditionOneUnnecessary	The Condition='1' attribute is unnecessary on Publish elements.
AssignBootstrapperApplicationDpiAwareness	DpiAwareness is new and is defaulted to 'perMonitorV2' which is a change in behavior.
AssignVariableTypeFormatted	The string variable type was previously treated as formatted.
CustomActionKeysAreNowRefs	The CustomAction attributes have been renamed from BinaryKey and FileKey to BinaryRef and FileRef.

Test ID	Description
ProductAndPackageRenamed	The Product and Package elements have been renamed and reorganized.
ModuleAndPackageRenamed	The Module and Package elements have been renamed and reorganized.
DefaultMediaTemplate	A MediaTemplate with no attributes set is now provided by default.
UtilRegistryValueSearchBehaviorChange	util:RegistrySearch has breaking change when value is missing.
DisplayInternalUiNotConvertible	DisplayInternalUI can't be converted.
InstallerVersionBehaviorChange	InstallerVersion has breaking change when omitted.
VerbTargetNotConvertible	Verb/@Target can't be converted.
BootstrapperApplicationDll	The bootstrapper application dll is now specified in its own element.
BootstrapperApplicationDllRequired	The new bootstrapper application dll element is required.

Test ID	Description
BalUseUILanguagesDeprecated	bal:UseUILanguages is deprecated, 'true' is now the standard behavior.
BalBootstrapperApplicationRefToElement	The custom elements for built-in BAs are now required.
RenameExePackageCommandToArguments	The ExePackage elements "XxxCommand" attributes have been renamed to "XxxArguments".
Win64AttributeRenamed	The Win64 attribute has been renamed. Use the Bitness attribute instead.
Win64AttributeRenameCannotBeAutomatic	Breaking change: The Win64 attribute's value '{0}' cannot be converted automatically to the new Bitness attribute.
TagElementRenamed	The Tag element has been renamed. Use the element 'SoftwareTag' name.
IntegratedDependencyNamespace	The Dependency namespace has been incorporated into WiX v4 namespace.
RemoveUnusedNamespaces	Remove unused namespaces.
RemotePayloadRenamed	The Remote element has been renamed. Use the "XxxPackagePayload" element instead.

Test ID	Description
NameAttributeMovedToRemotePayload	The XxxPackage/@Name attribute must be specified on the child XxxPackagePayload element when using a remote payload.
CompressedAttributeUnnecessaryForRemotePayload	The XxxPackage/@Compressed attribute should not be specified when using a remote payload.
DownloadUrlAttributeMovedToRemotePayload	The XxxPackage/@DownloadUrl attribute must be specified on the child XxxPackagePayload element when using a remote payload.
BurnHashAlgorithmChanged	The hash algorithm used for bundles changed from SHA1 to SHA512.
CustomTableNotAlwaysConvertible	CustomTable elements can't always be converted.
CustomTableRef	CustomTable elements that don't contain the table definition are now CustomTableRef.
RegistryKeyActionObsolete	The RegistryKey element's Action attribute is obsolete.
TagRefElementRenamed	The TagRef element has been renamed. Use the element 'SoftwareTagRef' name.

Test ID	Description
SoftwareTagLicensedObsolete	The SoftwareTag element's Licensed attribute is obsolete.
SoftwareTagTypeObsolete	The SoftwareTag element's Type attribute is obsolete.
TargetDirDeprecated	TARGETDIR directory should no longer be explicitly defined.
DefiningStandardDirectoryDeprecated	Standard directories should no longer be defined using the Directory element.
ReferencesReplaced	Naked UI, custom action, and property references replaced with elements.
BundlePackageCacheAttributeValueObsolete	Cache attribute value updated.
MsuPackageKBObssolete	The MsuPackage element contains obsolete '{0}' attribute. Windows no longer supports silently removing MSUs so the attribute is unnecessary. The attribute will be removed.
MsuPackagePermanentObsolete	The MsuPackage element contains obsolete '{0}' attribute. MSU packages are now always permanent because Windows no longer supports silently removing MSUs. The attribute will be removed.

Test ID	Description
MoveNamespacesToRoot	Namespace should be defined on the root. The '{0}' namespace was move to the root element.
CustomActionIdsIncludePlatformSuffix	Custom action ids have changed in WiX v4 extensions. Because WiX v4 has platform-specific custom actions, the platform is applied as a suffix: _X86, _X64, _A64 (Arm64). When manually rescheduling custom actions, you must use the new custom action id, with platform suffix.
StandardDirectoryRefDeprecated	The {0} directory should no longer be explicitly referenced. Remove the DirectoryRef element with Id attribute '{0}'.
EmptyStandardDirectoryRefNotConvertible	Referencing '{0}' directory directly is no longer supported. The DirectoryRef will not be removed but you will probably need to reference a more specific directory.
WixMbaPrereqLicenseUrlDeprecated	The magic WixVariable 'WixMbaPrereqLicenseUrl' has been removed. Add bal:PrereqLicenseUrl=" <i>url</i> " to a prereq package instead.
WixMbaPrereqPackageIdDeprecated	The magic WixVariable 'WixMbaPrereqPackageId' has been removed. Add bal:PrereqPackage="yes" to the target package instead.

Test ID	Description
TargetDirRefRemoved	A reference to the TARGETDIR Directory was removed. This may cause the Fragment that defined TARGETDIR to not be included in the final output. If this happens, reference a different element in the Fragment to replace the old reference to TARGETDIR.

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