

Visual Basic Upgrade Companion Version 8.3 Release Notes

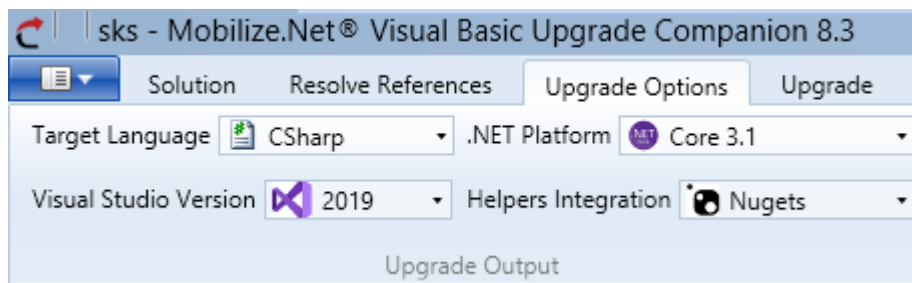
Sample code:

All Mobilize.Net sample code is now available on [github](https://github.com).

VBUC UX Enhancements

Support for .NET Core


One of the biggest milestones of this release is providing the first version of migration support for .NET Core 3.1. The value “.NET Core 3.1” is displayed as part of the “.NET Platform” combo box, and it is only available for C# and Visual Studio 2019.



When this option is selected, a new message is displayed on the VBUC's GUI warning the user that some upgrade options are disabled because they are not compatible with .NET Core. This is important since, a previously selected value might not be available for .NET Core; in these cases, the VBUC will automatically change the value of that option to the first available one. Because of this situation, the Upgrade Options will have to be confirmed again when changing back/to .NET Core 3.1.

Upgrade Options

The following table provides options to customize the generated code.

Press the button to confirm the following migration options. 

Some upgrade options are disabled because they are not compatible with .NET Core

Options List Show: All In use

Ref. Found	Feature Name	Selected Option
DataAccess		
✓	ADODB	To ADO.NET using System.Data.Common and he
Grids		
✓	MSDataGridLib	To System.Windows.Forms.DataGridView
✓	MSFlexGrid	To DataGridViewFlex helper class
Microsoft		
✓	MSComCtl2 (Microsoft Windows Common Controls-2)	To native .NET component (System.Windows.Fc
✓	MSComCtl (Microsoft Windows Common Controls)	To native .NET component (System.Windows.Fc
✓	MSComDlg (Microsoft Common Dialog Control)	To native .NET component (System.Windows.Fc
✓	MSMask (Microsoft Mask Edit Control)	To System.Windows.Forms.MaskedTextBox
CodeConversion		
	ActiveX	Standard .NET Assemblies
	Generate Auto-Implemented Properties (C#)	.NET Assemblies with COM Visible Out process and Application Domains using Helpers Classes Standard .NET Assemblies
	CodeOrganizationRegions	
	Comment Out Dead Code	Off
	Default Property Resolution	Static code analysis only
	ErrNumberToHRESULT	ErrNumberToHRESULTDisabled

In the image above, the red highlight shows how the disabled options are displayed. We have carefully revised the Upgrade Options list to determine which values are not compatible (yet) with a .NET Core migration. Some of these options are disabled because they need a third-party reference that currently does not have a .NET Core version. Every disabled case is very specific, but in most cases there is an alternative method to provide functionality for .NET Core. Therefore, in future versions we might be able to increase coverage. The following table lists Upgrade Options and identifies ones of them are available for .NET Core migrations:

Data Access

Upgrade Option	Value	.NET Core Support?
ADODB	To ADO.NET using System.Data.Common and helpers classes	<input checked="" type="checkbox"/>
ADODB	To ADO.NET using SQL Client	
ADODB	To COM Interop	<input checked="" type="checkbox"/>
DAO	To COM Interop	<input checked="" type="checkbox"/>
DAO	To ADO.NET with helpers based on System.Data.Commons	<input checked="" type="checkbox"/>
OracleInProc	To COM Interop	<input checked="" type="checkbox"/>
OracleInProc	To System.DBCConnection	<input checked="" type="checkbox"/>
RDO	To COM Interop	<input checked="" type="checkbox"/>
RDO	To ADO.NET using SqlClient	
RDO	To ADO.NET using System.Data.Common and helpers classes	
SQLDMO	To COM Interop	<input checked="" type="checkbox"/>
SQLDMO	To Microsoft.SqlServer.Smo	<input checked="" type="checkbox"/>

Grids

Upgrade Option	Value	.NET Core Support?
FPSpread	To FarPoint Spread helper class	
FPSpread	To COM Interop	<input checked="" type="checkbox"/>
MSDataGridLib	To COM Interop	<input checked="" type="checkbox"/>
MSDataGridLib	To ComponentOne True DBGrid	<input checked="" type="checkbox"/>
MSDataGridLib	To System.Windows.Forms.DataGridView	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
MSDBGridLib	To COM Interop	<input checked="" type="checkbox"/>
MSDBGridLib	To System.Windows.Forms.DataGridView + Helper classes	<input checked="" type="checkbox"/>
MSFlexGrid	To COM Interop	<input checked="" type="checkbox"/>
MSFlexGrid	To ComponentOne FlexGrid	
MSFlexGrid	To DataGridViewFlex helper class	<input checked="" type="checkbox"/>
MSFlexGrid	MSFlexGridToUltraGrid	
TrueDBGrid	To COM Interop	<input checked="" type="checkbox"/>
TrueDBGrid	To ComponentOne TrueDBGrid (.Net version)	<input checked="" type="checkbox"/>
TrueDBGrid	To .NET component that extends DataGridView	<input checked="" type="checkbox"/>
VSFlexGrid	To COM Interop	<input checked="" type="checkbox"/>
VSFlexGrid	To ComponentOne FlexGrid	<input checked="" type="checkbox"/>

Microsoft

Upgrade Option	Value	.NET Core Support?
MSACAL (Microsoft Calendar Control)	To COM Interop	<input checked="" type="checkbox"/>
MSACAL (Microsoft Calendar Control)	To System.Windows.Forms.MonthCalendar	<input checked="" type="checkbox"/>
MComCtl2 (Microsoft Windows Common Controls-2)	To COM Interop	<input checked="" type="checkbox"/>
MComCtl2 (Microsoft Windows Common Controls-2)	To native .NET Component (System.Windows.Forms)	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
MSComctl (Microsoft Windows Common Controls)	To COM Interop	<input checked="" type="checkbox"/>
MSComctl (Microsoft Windows Common Controls)	To native .NET Component (System.Windows.Forms)	<input checked="" type="checkbox"/>
MSComDlg (Microsoft Windows Common Dialog Control)	To COM Interop	<input checked="" type="checkbox"/>
MSComDlg (Microsoft Windows Common Dialog Control)	To native .NET Component (System.Windows.Forms)	<input checked="" type="checkbox"/>
DataCombo	To System.Windows.Forms.ComboBox	<input checked="" type="checkbox"/>
DataCombo	To COM Interop	<input checked="" type="checkbox"/>
MSMask (Microsoft Mask Edit Control)	To COM Interop	<input checked="" type="checkbox"/>
MSMask (Microsoft Mask Edit Control)	To System.Windows.Forms.MaskedTextBox	<input checked="" type="checkbox"/>
MSWLess (Microsoft Windowless Controls)	To COM Interop	<input checked="" type="checkbox"/>
MSWLess (Microsoft Windowless Controls)	To System.Windows.Forms controls	<input checked="" type="checkbox"/>
MSXML2 (Microsoft XML)	To COM Interop	<input checked="" type="checkbox"/>
MSXML2 (Microsoft XML)	To System.Xml classes	<input checked="" type="checkbox"/>
RichTextBox	To COM Interop	<input checked="" type="checkbox"/>
RichTextBox	To System.Windows.Forms.RichTextBox	<input checked="" type="checkbox"/>
SHDocVw (Microsoft Internet Controls)	To COM Interop	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
SHDocVw (Microsoft Internet Controls)	To System.Windows.Forms.WebBrowser	<input checked="" type="checkbox"/>
Shell32	To System.Diagnostics Methods	<input checked="" type="checkbox"/>
Shell32	To PInvoke	<input checked="" type="checkbox"/>

Others

Upgrade Option	Value	.NET Core Support?
Accusoft	To COM Interop	<input checked="" type="checkbox"/>
Accusoft	To Accusoft.NET Version	<input checked="" type="checkbox"/>
ActiveBarLibrary	To COM Interop	<input checked="" type="checkbox"/>
ActiveBarLibrary	To DevExpress.XtraBars	<input checked="" type="checkbox"/>
C1Elastic	To COM Interop	<input checked="" type="checkbox"/>
C1Elastic	To ComponentOne controls	<input checked="" type="checkbox"/>
C1Elastic	To System.Windows.Forms.Panel	<input checked="" type="checkbox"/>
C1Tab	To COM Interop	<input checked="" type="checkbox"/>
C1Tab	To System.Windows.Forms.TabControl	<input checked="" type="checkbox"/>
COMSVCSLib	To COM Interop	<input checked="" type="checkbox"/>
COMSVCSLib	To System.EnterpriseServices	
CRAXDRT_CRVIEWERLibCtl	To COM Interop	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
CRAXDRT_CRVIEWERLibCtl	To CrystalReports	<input checked="" type="checkbox"/>
CrystalReport	To COM Interop	<input checked="" type="checkbox"/>
CrystalReport	To CrystalReport.NET	
CSTextLib	To COM Interop	<input checked="" type="checkbox"/>
CSTextLib	To ComponentOne C1Input controls	<input checked="" type="checkbox"/>
CSTextLib	To System.Windows.Forms controls	<input checked="" type="checkbox"/>
CTTips	To COM Interop	<input checked="" type="checkbox"/>
CTTips	To System.Windows.Forms.ToolTip	<input checked="" type="checkbox"/>
CWUIControlsLib	To COM Interop	<input checked="" type="checkbox"/>
CWUIControlsLib	To NationalInstruments Library	
fpBtnAtlLibCtl	To COM Interop	<input checked="" type="checkbox"/>
fpBtnAtlLibCtl	To System.Windows.Forms.Button	<input checked="" type="checkbox"/>
ListPro	To COM Interop	<input checked="" type="checkbox"/>
ListPro	To System.Windows.FOrms.ComboBox helper class	<input checked="" type="checkbox"/>
MemoLibfpMemo	To COM Interop	<input checked="" type="checkbox"/>
MemoLibfpMemo	To System.Windows.Forms.TextBox	<input checked="" type="checkbox"/>
MSAccessToNet	To COM Interop	<input checked="" type="checkbox"/>
MSAccessToNet	MSAcessToNET To DotNet Version	

Upgrade Option	Value	.NET Core Support?
PictureBox	To System.Windows.Forms.PictureBox	<input checked="" type="checkbox"/>
PictureBox	To System.Windows.Forms.PictureBox helper class	<input checked="" type="checkbox"/>
Printer	To .NET Printer helper class	<input checked="" type="checkbox"/>
Printer	To PowerPacks helper class	<input checked="" type="checkbox"/>
Scripting	To COM Interop	<input checked="" type="checkbox"/>
Scripting	To .NET classes	<input checked="" type="checkbox"/>
TDBDate6	To COM Interop	<input checked="" type="checkbox"/>
TDBDate6	To System.Windows.Forms.DateTimePicker	<input checked="" type="checkbox"/>
TDBTime6	To COM Interop	<input checked="" type="checkbox"/>
TDBTime6	To System.Windows.Forms.DateTimePicker	<input checked="" type="checkbox"/>
TeeChart	To COM Interop	<input checked="" type="checkbox"/>
TeeChart	To Steema TeeChart for .NET v4	<input checked="" type="checkbox"/>
VsPrinter	To COM Interop	<input checked="" type="checkbox"/>
VsPrinter	To ComponentOne C1PrintPreviewControl helper class	
WshRuntimeLib	To COM Interop	<input checked="" type="checkbox"/>
WshRuntimeLib	To Microsoft.Win32.RegistryKey helper class	<input checked="" type="checkbox"/>
XArray	To COM Interop	<input checked="" type="checkbox"/>
XArray	To System.Array	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
XArrayDB	To COM Interop	<input checked="" type="checkbox"/>
XArrayDB	To System.Data.DataTable helper class	<input checked="" type="checkbox"/>

Code Conversion

Upgrade Option	Value	.NET Core Support?
GoSub Conversion (C#)	Do not convert GoSub statements	<input checked="" type="checkbox"/>
GoSub Conversion (C#)	Convert GoSub statements to C# local function	<input checked="" type="checkbox"/>
ActiveX	.NET Assemblies with COM Visible	
ActiveX	Out process and Application Domains using Helper classes	
ActiveX	Standard .NET Assemblies	<input checked="" type="checkbox"/>
Generate Auto-Implemented Properties (C#)	On	<input checked="" type="checkbox"/>
Generate Auto-Implemented Properties (C#)	Off	<input checked="" type="checkbox"/>
CodeOrganizationRegions	None	<input checked="" type="checkbox"/>
CodeOrganizationRegions	Organize	<input checked="" type="checkbox"/>
Comment Out Dead Code	On	<input checked="" type="checkbox"/>
Comment Out Dead Code	Off	<input checked="" type="checkbox"/>
Default Property Resolution	Static code analysis and helper classes	<input checked="" type="checkbox"/>
Default Property Resolution	Static code analysis only	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
Error Handling	Leave On Error Statements (VB.NET Only)	<input checked="" type="checkbox"/>
Error Handling	Convert to Try-Catch	<input checked="" type="checkbox"/>
Error Handling	To Try-Catch With Lambdas(C# only)	<input checked="" type="checkbox"/>
Form Load	FormLoad mechanism upgraded using a helper	<input checked="" type="checkbox"/>
Form Load	FormLoad event upgraded as a method invoked from form constructor	<input checked="" type="checkbox"/>
Form Load	FormLoad event upgraded to .NET native event	<input checked="" type="checkbox"/>
Free COM bjects	Free COM Objects memory using helper	
Free COM bjects	Free COM Objects memory manually	<input checked="" type="checkbox"/>
Late Binding Resolution	Static code analysis + helper classes	<input checked="" type="checkbox"/>
Late Binding Resolution	Static code analysis only	<input checked="" type="checkbox"/>
Late Binding Resolution	Static code analysis + dynamic variables	<input checked="" type="checkbox"/>
Line And Shape	Helper class	<input checked="" type="checkbox"/>
Line And Shape	PowerPack and Helper class	<input checked="" type="checkbox"/>
Mid/Left/Right Strings Functions	Helper class functions	<input checked="" type="checkbox"/>
Mid/Left/Right Strings Functions	Native .NET System.String class functions	<input checked="" type="checkbox"/>
Mid/Left/Right Strings Functions	Support function in Microsoft.VisualBasic.Compatibility.VB6.Support namespace	
Generate Skeletons	On	<input checked="" type="checkbox"/>

Upgrade Option	Value	.NET Core Support?
Generate Skeletons	Off	<input checked="" type="checkbox"/>
Stubs Generation	Upgrade Stubs generation for non upgraded element	<input checked="" type="checkbox"/>
Stubs Generation	Upgrade Note indicating not updated elements during upgrade process	<input checked="" type="checkbox"/>
Remove Unused Local Variables	On	<input checked="" type="checkbox"/>
Remove Unused Local Variables	Off	<input checked="" type="checkbox"/>
VBA.Collection Conversion	To Microsoft.VisualBasic.Collection support class	<input checked="" type="checkbox"/>
VBA.Collection Conversion	To System.Collections.Specialized.OrderedDictionary native .NET class	<input checked="" type="checkbox"/>

Sheridan

Upgrade Option	Value	.NET Core Support?
SSActiveTabPanel	To COM Interop	<input checked="" type="checkbox"/>
SSActiveTabPanel	To System.Windows.Forms.TabControl	<input checked="" type="checkbox"/>
SSActiveToolBars	To COM Interop	<input checked="" type="checkbox"/>
SSActiveToolBars	To System.Windows.Forms.ToolStrip	<input checked="" type="checkbox"/>
SSActiveTreeView	To COM Interop	<input checked="" type="checkbox"/>
SSActiveTreeView	To System.Windows.Forms.TreeView	<input checked="" type="checkbox"/>
SSCalendarWidgets	To COM Interop	<input checked="" type="checkbox"/>


Upgrade Option	Value	.NET Core Support?
SSCalendarWidgets	To System.Windows.Forms Controls	<input checked="" type="checkbox"/>
SSDataWidgets_B	To COM Interop	<input checked="" type="checkbox"/>
SSDataWidgets_B	To Infragistics UltraSuite(.NET Version)	<input checked="" type="checkbox"/>
SSDataWidgets_B	To ComponentOne (.NET Version)	<input checked="" type="checkbox"/>
SSDesignerWidgetsTabs	To COM Interop	<input checked="" type="checkbox"/>
SSDesignerWidgetsTabs	To System.Windows.Forms.TabControl	<input checked="" type="checkbox"/>
SSListBar	To COM Interop	<input checked="" type="checkbox"/>
SSListBar	To Infragistics UltraWinListBar.NET Suite	
Convert Empty SSPanels To Labels	On	<input checked="" type="checkbox"/>
Convert Empty SSPanels To Labels	Off	<input checked="" type="checkbox"/>
SSSplitter	To COM Interop	<input checked="" type="checkbox"/>
SSSplitter	To System.Windows.Forms.SplitContainer	<input checked="" type="checkbox"/>
Threed	To COM Interop	<input checked="" type="checkbox"/>
Threed	To System.Windows.Forms Controls	<input checked="" type="checkbox"/>

Upgrade Options view improved. VBUC 8.3 now offers the possibility to only show the Upgrade Options in use for the current migration solution. Now you don't have to scroll through all Upgrade Options available, looking for the ones that actually impact the converted code. Some Upgrade Options, like the ones in the "Grids" category, will only have effect on the output code, if a reference to a specific component is found on the VB6 code; if so, the green check image is shown for that particular option. The VBUC will select by default the value "In use", which will filter out the options for which no reference is found. The options of the "CodeConversion" category are always shown, because their scope is bigger and their activation does not require a reference to be found; the same thing happens for "Extensibility" upgrade options.

You can always select the value “All” to display the complete list of Upgrade Options available.

Upgrade Options

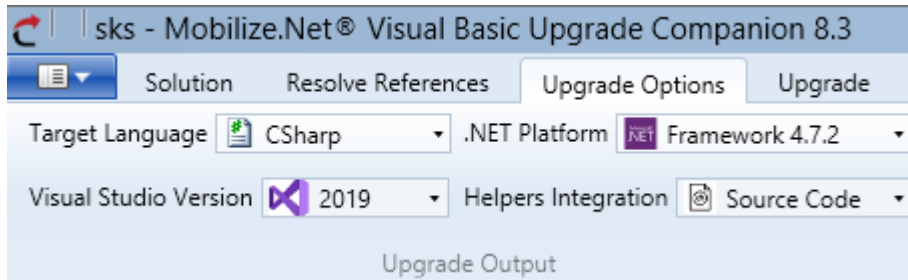
The following table provides options to customize the generated code.

Press the button to confirm the following migration options. 

Options List Show: All In use

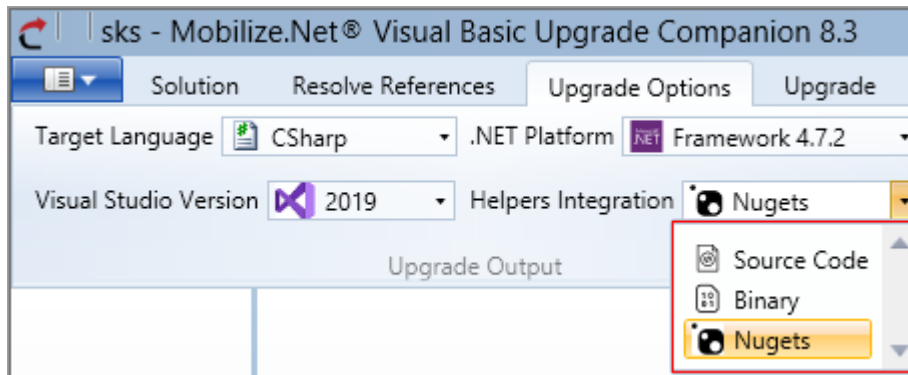
Ref. Found	Feature Name	Selected Option	Details
DataAccess			
<input checked="" type="checkbox"/>	ADODB	To ADO.NET using System.Data.Common and he	View...
Grids			
<input checked="" type="checkbox"/>	#SDataGridLib	To System.Windows.Forms.DataGridView	View...
<input checked="" type="checkbox"/>	#SFlexGrid	To DataGridViewFlex helper class	View...
Microsoft			
<input checked="" type="checkbox"/>	#SComCtl2 (Microsoft Windows Common Controls-2)	To native .NET component (System.Windows.Fc	View...
<input checked="" type="checkbox"/>	#SComCtl (Microsoft Windows Common Controls)	To native .NET component (System.Windows.Fc	View...
<input checked="" type="checkbox"/>	#SComDlg (Microsoft Common Dialog Control)	To native .NET component (System.Windows.Fc	View...
<input checked="" type="checkbox"/>	#SMask (Microsoft Mask Edit Control)	To System.Windows.Forms.MaskedTextBox	View...
CodeConversion			
	ActiveX	Standard .NET Assemblies	View...
	Generate Auto-Implemented Properties (C#)	Off	View...
	CodeOrganizationRegions	None	View...
	Comment Out Dead Code	On	View...
	Default Property Resolution	Static code analysis only	View...
	ErrNumberToHRESULT	ErrNumberToHRESULTDisabled	View...
	Error Handling	To Try-Catch With Lambdas (C# Only)	View...
	Form Load	FormLoad event upgraded as a method invokec	View...
	Free COM Objects	Free COM Objects memory manually	View...
	GlobalInterfaces	Do not create GlobalInterfaces project	View...
	GoSub Conversion (C#)	Do not convert GoSub statements	View...

- **New .NET Platform combo box available.** VBUC 8.3 allows the user to select a specific .NET Platform for its output code. On previous versions, a specific .NET Framework value was automatically selected when the Visual Studio Version was chosen. Now, these two parameters are separated, providing more freedom to the user.



- **Helpers available as nugets**

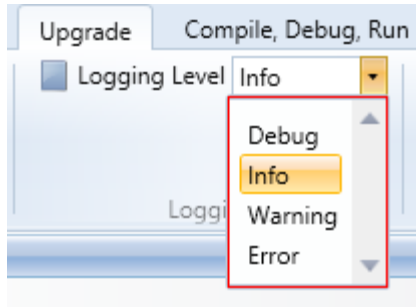
For migrations targeting .NET Framework 4.7.2 and later, VBUC 8.3 offers “Nugets” as Helpers Integration mode. Via CMD, you can specify the nuget version desired; otherwise the VBUC will generate a stable version.



- **Logging level mechanism**

The VBUC’s logging mechanism has been improved to support different levels. From most to least verbose, VBUC 8.3 offers the following levels:

- Debug, highly detailed tracing used by application developers.
- Info, (selected by default) informational messages that might make sense to end users and system managers, and highlight the progress of the application.
- Warning, potentially harmful situations of interest to end users or system managers that indicate potential problems.
- Error, error events of considerable importance that will prevent normal program execution, but might still allow the application to continue running.



Other Improvements

- Improved TrueDBGrid to Component One mappings.
- Improved Visual Studio installation-detection, by default VS2019 is selected.
- Fixes over *foreach* iterators.
- Improved typing of multi-dimensional arrays.