

WinForm / WPF Cross-Reference

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This chart shows commonalities and differences in *toolbox-centric elements* in .NET / Visual Studio®. You can see at a glance:

- ▶ WinForm / WPF
- ▶ .NET Framework 3.5 / 4.0
- ▶ Visual Studio 2008 / 2010

Elements are grouped in the same categories as Visual Studio uses in the WinForm toolbox (since the WPF toolbox lacks categories).

Details of this wallchart are available in my article on Simple-Talk at: <http://www.simple-talk.com/dotnet/.net-framework/from-winform-to-wpf-a-quick-reference-guide/>

CONTAINERS

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
--			ContentControl	•	•
--			DockPanel	•	•
--			Expander	•	•
FlowLayoutPanel	•	•	WrapPanel or StackPanel	•	•
Form	•	•	Window *1	•	•
--			Frame	•	•
GroupBox	•	•	GroupBox	•	•
Panel	•	•	Canvas	•	•
ScrollableControl	•	•	ScrollView	•	•
SplitContainer	•	•	GridSplitter	•	•
TabControl	•	•	TabControl	•	•
TableLayoutPanel	•	•	Grid	•	•
--			UniformGrid	•	•
--			Viewbox	•	•
WebBrowser	•	•	WebBrowser	•	•

1. Window does not support child windows.

MENUS & TOOLBARS

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
ContextMenuStrip	•	•	ContextMenu	•	•
MenuStrip	•	•	Menu *1	•	•
StatusStrip	•	•	StatusBar	•	•
ToolStrip	•	•	ToolBar	•	•
ToolStripContainer	•	•	ToolBar w/composition	•	•
ToolStripDropDown	•	•	ToolBar w/composition	•	•
ToolStripDropDownMenu	•	•	ToolBar w/composition	•	•
ToolStripPanel	•	•	ToolBar w/composition	•	•
--			ToolBarPanel	•	•
--			ToolBarTray	•	•

1. Menu control styling can approximate the behavior and appearance of the Forms.ToolStripProfessionalRenderer.

COMPONENTS

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
BackgroundWorker	•	•		•	•
DirectoryEntry	•	•			
DirectorySearcher	•	•			
ErrorProvider	•	•	-- *1		
EventLog	•	•			
FileSystemWatcher	•	•			
HelpProvider	•	•	-- *2		
ImageList	•	•	-- *3		
--			InkCanvas	•	•
MessageQueue	•	•			
--			MediaElement	•	•
PerformanceCounter	•	•			
Process	•	•			
PropertyGrid	•	•	--	•	•
ReportViewer	•	•			
SerialPort	•	•			
ServiceController	•	•			
SoundPlayer	•	•	MediaPlayer	•	•
Timer	•	•	DispatcherTimer	•	•
UserControl	•	•	UserControl	•	•
ElementHost (WPF)	•	•	WindowsFormsHost	•	•

1. WPF provides richer error validation with, e.g. Binding.ValidationRules.
2. No F1 Help. "What's This" Help is replaced by ToolTips.
3. Use the ListBox control to host images.

COMMON CONTROLS

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
Button	•	•	Border	•	•
CheckBox	•	•	Button	•	•
CheckedListBox	•	•	CheckBox	•	•
ComboBox	•	•	Listbox w/composition	•	•
DateTimePicker	•	•	ComboBox *1	•	•
DomainUpDown	•	•	DatePicker	•	•
HScrollBar	•	•	TextBox and two RepeatButtons	•	•
Label	•	•	ScrollBar *2	•	•
LinkLabel	•	•	Label	•	•
ListBox	•	•	-- *3		
Listview	•	•	ListBox	•	•
MaskedTextBox	•	•	Listview *4	•	•
MonthCalendar	•	•	PasswordBox	•	•
NotifyIcon	•	•	Calendar	•	•
NumericUpDown	•	•	--		
PictureBox	•	•	TextBox and two RepeatButtons	•	•
ProgressBar	•	•	Image	•	•
RadioButton	•	•	ProgressBar	•	•
RichTextBox	•	•	RadioButton	•	•
--			RichTextBox	•	•
--			Separator	•	•
TextBox	•	•	TextBlock	•	•
ToolTip	•	•	TextBox	•	•
TrackBar	•	•	ToolTip	•	•
TreeView	•	•	Slider	•	•
VScrollBar	•	•	TreeView	•	•
--			ScrollBar *2	•	•

1. ComboBox does not support auto-complete; see Toolkit's AutoCompleteBox.
2. Scrolling is built into container controls.
3. You can use the Hyperlink class to host hyperlinks within flow content.
4. The ListView control provides a read-only details view.

DATA

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
Chart	•	•	-- *1	•	•
DataSet	•	•	--		
DataGridView	•	•	DataGrid	•	•
BindingNavigator	•	•	--		
BindingSource	•	•	CollectionViewSource	•	•
DataRepeater	•	•	--		

1. Unofficially available in the WPF Toolkit.

DIALOGS

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
ColorDialog	•	•	--	•	•
FolderBrowserDialog	•	•	--	•	•
FontDialog	•	•	--	•	•
OpenFileDialog	•	•	OpenFileDialog *1	•	•
SaveFileDialog	•	•	SaveFileDialog *1	•	•

1. Wrapper around the Microsoft.Win32 control.

PRINTING

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
PageSetupDialog	•	•	--	•	•
PrintDialog	•	•	PrintDialog	•	•
PrintDocument	•	•	--		
PrintPreviewControl	•	•	DocumentViewer	•	•
PrintPreviewDialog	•	•	--	•	•
PrintForm	•	•	--	•	•

SHAPES

WinForm	VS2008 NET 3.5	VS2010 NET 4.0	WPF	VS2008 NET 3.5	VS2010 NET 4.0
OvalShape	•	•	Ellipse	•	•
RectangleShape	•	•	Rectangle	•	•
LineShape	•	•	Line	•	•
--	•	•	Polyline	•	•
--	•	•	Polygon	•	•

- ▶ This information is current as of the Visual Studio 2010 Release Candidate published February, 2010.
- ▶ All WinForm classes are in the **System.Windows.Forms** namespace except for those shaded in the WinForm column.
- ▶ All WPF classes are in the **System.Windows.Controls**, **System.Windows.Controls.Primitives**, **System.Windows.Controls**, or **System.Windows.Shapes** namespaces except for those shaded in the WPF column.

LEGEND

- New WinForm / WPF element in either Visual Studio or Framework.
- Dropped from VS2008 to VS2010 or lacking in WPF vs. WinForm.
- Elements that are present but may have some minor issues.

Material derived in part from [http://msdn.microsoft.com/en-us/library/ms750559\(VS.100\).aspx](http://msdn.microsoft.com/en-us/library/ms750559(VS.100).aspx)

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