

Index

A

- actualHeight property, resizing Silverlight control, 22**
- AddDescriptorProp method, 165**
- addEventListener method, 117–118, 268**
- Adobe Fireworks to WPF/XAML Exporter, 87**
- Adobe Illustrator to WPF/XAML Export Plug-in, 87**
- Advanced Stream Redirector (ASX) playlist file format, 46–47**
- AJAX Extensions. see ASP.NET 2.0 AJAX Extensions**
- Alpha Refresh Release. see Silverlight 1.1 Alpha Refresh Release**
- animations**
 - adding to button template, 169–170
 - controlling in Storyboards using mouse events, 127–128
 - creating basic, 56–58
 - creating timelines for, 80–83
 - working with Storyboards, 80
- APIs, Silverlight 1.1**
 - Base, 193–194
 - Communication, 195
 - Data, 194
 - Presentation, 196–199
- architecture, designing application, 202**
- ArcSegment object, 221**
- artwork, created outside of Blend, 84–88**
- ASP.NET**
 - Silverlight technology vs., 2
 - using Silverlight 1.0 with, 139–142
- ASP.NET, creating custom controls, 142–158**
 - adding Silverlight JavaScript library, 146–150
 - adding Xaml control properties, 150–154
 - overview of, 142
 - rendering Xaml control, 154–158
 - setting up project, 142–146
- ASP.NET, creating Silverlight user interface, 166–187**
 - creating button template, 166–170
 - creating ButtonBar client-side code, 178–183
 - creating ButtonBar server-side code, 170–178
 - using ButtonBar control, 184–187
- ASP.NET 2.0 AJAX Extensions, 158–166**
 - accessing Silverlight player, 104
 - adding class-oriented properties, 160–161
 - creating client-side ButtonBar class, 178–183
 - creating client-side (JavaScript) default type, 161–163
 - embedding and registering new client-side type, 164
 - implementing methods, 164–166
 - refractor into ScriptControl, 158–159
 - Silverlight technology vs., 2
- ASP.NET AJAX-Enabled Web Site template, 184–187**
- ASP.NET Futures, 142**
- Asset Library, Blend, 77**
- Asset tools, Blend Toolbox, 64**
- ASX (Advanced Stream Redirector) playlist file format, 46–47**
- attribute syntax, 255, 258**
- attributes, Silverlight control, 150–154**
- attributes, Silverlight object, 18–20**

audio

audio

- adding with MediaElements, 46, 78–79
- adding with MediaElements and JavaScript, 134–138
- supported formats for, 46–47

AutoReverse property, animations, 57

B

Base APIs, Silverlight 1.1, 193–194

BeginStoryboard object, 221

BezierSegment object, 222

Bindable attribute, Xaml control, 150–154

bitmaps, including in project, 84–86

Blend (Microsoft Expression Blend 2.0), 59–89

- Create New Project dialog, 60–61
- creating timelines in, 80–83
- Design Workspace overview, 62
- getting latest Blend 2 Preview, 60
- Interaction panel, 63–66
- layout and design in, 74–79
- panels, overview, 62–63
- Project panel, 66–68
- Properties panel, 68–74
- as Rapid Application Development tool, 26, 253–254
- starter template, 61–62
- storyboards and, 80
- Toolbox, 63
- working with artwork created outside of, 84–88

blogs, resources for, 273–274

brackets [], in Blend, 65

browsers

- Silverlight vs. ASPNET, 141
- support for Silverlight, 3–4

Brush editor

- applying brush value, 71
- Gradient Brushes, 71–73
- overview of, 70
- SolidColorBrush, 71

Brush tools, Blend Toolbox

- defined, 64
- painting video onto objects using, 52–53

- painting with, 41–45

- supported for TextBlock objects, 41

BufferingProgressChanged event, 136–137

business class libraries, in CoreCLR, 192

Button class

- application navigation buttons and, 213
- example application, 216
- VideoArea class, 217–219

ButtonBar control, ASP.NET Silverlight user interface

- creating client-side code, 178–183
- creating server-side code, 170–178
- creating XAML button template, 166–170
- using, 184–187

ButtonBar.debug.js, 175

ButtonBar.js, 175

C

Canvas object

- properties, methods and events of, 222
- as root element of XAML file, 258–260

Canvas objects

- nesting canvas objects within, 32–33
- positioning elements within, 31–32
- size of actual Silverlight control and, 34

captureMouse function, 123–125

CAS (Code Access Security), 191–192

case-sensitivity, of XAML, 253

categories, animation, 57

child objects, enumerating in collection, 270

Class item template, JavaScript library, 147–148

class library, custom controls, 142–143

Client Logic component, example application

- Button class, 216
- combo box functions, 213–215
- createSilverlight function, 208–209
- designing architecture, 202
- inserting VideoArea user interface, 211
- instantiating video navigation, 211–213
- onLoad event handler, 209–211
- Scene class, 209
- VideoArea class, 217–219

client-side scripting, 4

ClientType property, adding to Xaml control, 160–161

CLR (Common Language Runtime). see Silverlight 1.1 Alpha Refresh Release

Code Access Security (CAS), 191–192

code behind files, XAML and, 262

collections

- enumerating child objects in, 270
- referencing XAML objects in, 270

ColorAnimation object, 222

ColorAnimationUsingKeyFrames object, 223

ColorKeyFrame object, 223

ColorKeyFrameCollection object, 223

Combine tools, 77

Common Language Runtime. see Silverlight 1.1 Alpha Refresh Release

Communication APIs, Silverlight 1.1, 195

Completed event, Downloader, 130

control model, Silverlight, 189

controls. see ASP.NET, creating custom controls

CoreCLR, defined, 192

Create New Project dialog, in Blend, 60–61

createDelegate function, 179, 209

CreateFromXaml function

- adding XAML file to Silverlight player with JavaScript, 261
- creating client-side ButtonBar class, 181
- downloading image and media content in packages, 133
- downloading XAML content in packages, 132
- instantiating and inserting XAML elements, 108–111

createFromXamlDownloader () function, 132

createMySilverlightControl function, 94, 95

createObject method

- creating client-side ButtonBar class, 179
- Downloader using, 128
- function of, 95
- instantiating Silverlight player using, 94
- overview of, 95

- parameters of, 95
- player initialization events of, 101–102
- player initialization properties of, 100–101
- player initParams of, 102–103
- using element and parent IDs, 99
- XAML source parameter of, 97–99

createObjectEx function

- building Silverlight applications, 16–17
- createSilverlight function showing, 20–21
- creating Silverlight player using, 18
- example application with, 209
- overview of, 95
- rendering Xaml control with, 154–158
- specifying Silverlight XAML content in, 97–98

createSilverlight function

- adding XAML file to Silverlight player, 260–261
- building Silverlight applications, 16
- example application, 208–209
- parameterized, 21
- showing createObjectEx method call, 20–21

cross-platform, CLR as, 192

.csproj files, opening, 254

CSS, 34, 189

Cursor property, TextBlock, 44

D

Data APIs, Silverlight 1.1, 194

data binding, and Silverlight 1.1, 141, 189

Data layer, creating, 206–207

data visualization, Silverlight vs. ASP.NET, 141

DataMethod property, 180

debugging, Silverlight 1.1, 199

default files, in Silverlight projects, 14

DefaultClientType property, 171

Default.html file

- building Silverlight applications, 15–16
- defined, 14
- Silverlight project starter template, 61
- working with, 11

Default.html.js file, 14, 61

Description attribute

Description attribute, Xaml control, 150–154

design surface, in Blend, 74–75

Design Workspace

adding MediaElements, 78–79

Interaction panel, 63–66

layout and design in, 74–78

organized into panels, 62–63

overview of, 62

Project panel, 66–68

Properties panel, 68–74

Toolbox, 63–64

designers

installing tools, 10

workflow management, 204–205

developers

installing tools, 10

workflow management, 204–205

DiscreteColorKeyFrame object, 224

DiscreteDoubleKeyFrame object, 224

DiscretePointKeyFrame object, 224

dispose method, 179

<div> tag, 20

DLR (Dynamic Language Runtime), 199

DOM (document object model)

accessing Silverlight player from, 104

searching using findName, 269

Silverlight and, 3–4

DoubleAnimation object, 170, 224

DoubleAnimationUsingKeyFrames object, 225

DoubleCollection object, 225

DoubleKeyFrame object, 225

DoubleKeyFrameCollection object, 225

Downloader object

downloading fonts using, 133–134

downloading packages using, 131–133

example application using, 210–213

overview of, 128–131

properties, methods and events of, 226

DownloadFailed event, 130

DownloadProgressChanged event, 130, 136–137

drag and drop, implementing, 123–125

drag operations, mouse events, 218–219

drawing

with text, 41–45

using Blend path tools, 76–77

using Blend shape tools, 75–76

DrawingAttributes object, 226

Duration object, 226

Dynamic Language Runtime (DLR), 199

dynamic language support, 199

E

easing, applied to key frames, 83

editors

Brush, 70–73

property, 69–70

transform, 73–74

element IDs, 99

Ellipse object, 227

Ellipse tool, Blend Toolbox, 75

EllipseGeometry object, 227

embed tag, HTML, 18

embedding, new client-side type, 164

encoding

adding markers to video files, 49–52

audio and video formats, 47

errorEventArgs, onError event, 113–114

Esc key, 24

Event Bubbling, XAML and, 122–123, 265–266

event handlers

adding or removing, 268

declaring XAML, 115–118

defining, 266–268

EventArgs parameter, event handlers, 266–268

events

createObject function player initialization, 101–102

Downloader, 130

player initialization, 101–102

of UIElement class objects, 30

exporting

to bitmaps, 85

to XAML in other tools, 86–88

Expression Media Encoder

adding markers to video files, 49–52
encoding audio and video formats, 47
preparing media for application, 205

eXtensible Application Markup Language.

see **XAML (eXtensible Application Markup Language)**

F

fetchMenuItemsSucceeded function, 211–212

FindName function

finding XAML object, 104–105, 269
handling events in JavaScript, 267–268

folders, Blend, 68**FontFamily** object, 42, 227**fonts, downloading, 133–134****formats**

bitmap, 85
CLR for Silverlight 1.1, 192
supported audio and video, 46–47

full screen mode display, 22–24**G**

garbage collection, 192

GeometryCollection object, 228

GeometryGroup object, 228

Get Microsoft Silverlight image, 5

GET request, **Downloader** object, 128

get_element method, 179

GetControlDescriptor method, 177–178

GetDeclarationScript method, 155–157

getElementById method, 4

getElementId method, 182

GetHost function, 104, 269

getItem method, 270

GetResponseText function, **Downloader**, 131, 132

GetScriptDescriptors () method, 164–165, 177

GetScriptReferences () method, 165–166, 176

getValue method, 270–271

GetVideo function, 211

glyphs, 228

GoFullScreen function, 23–24

Gradient Brushes, 71–73

GradientStop object, 71–73, 229

GradientStopCollection object, 229

Grand Piano Player example, 11–12

H

handleLoad function, 209–211

Hello World, 252

hiding elements, at design time, 65

hierarchy

adding XAML objects to Silverlight player, 260–261

enumerating through objects in element, 111–113

XAML, 258–260

HTML (HyperText Markup Language)

adding multiple Silverlight objects to page, 20–21

creating Silverlight object in, 17–18

from default.html file hosting Silverlight control, 15–16

DOM of, 4

placing Silverlight control on page, 34

hyperlinks, navigational, 43–45

I

icons, Blend, 62, 65

Image control, **Blend, 77–78**

image objects

downloading, 197

downloading content in packages, 133

layout and design of, 77–78

positioning, 36–37

properties, methods and events of, 229

ImageBrush object, 230

implicit collection syntax, 256–258

initParams parameter, **createObject** function, 102–103

InkPresenter object, 230

installation, Silverlight, 6–8

Interaction panel

Interaction panel, Blend, 63–66
IScriptControl, AJAX, 159
isInstalled function, 103–104
items, adding to project within Blend, 67–68

J

JavaScript, 91–112. *see also* Silverlight.js helper library
 accessing Storyboards programmatically, 125–128
 adding Silverlight JavaScript library to control, 146–150
 adding XAML file to Silverlight player, 260–261
 creating default client type for Xaml control, 161–163
 creating Silverlight player, 92–95
 default files in, 14
 event handlers, 267–268
 events, Silverlight player, 113–115
 events, XAML. *see* XAML (eXtensible Application Markup Language) element events
 for full screen mode display, 23–24
 getting/setting XAML properties, 106–108
 instantiating/inserting XAML elements, 108–113
 locating XAML content elements, 105–106
 Mouse Capture, 123–125
 overview of, 92
 setting hyperlink properties, 43–45
 Silverlight 1.0 support for, 5
 using Silverlight Downloader object, 128–134
 using with MediaElement, 49, 134–138

JavaScript Object Notation (JSON) dictionary, 95
JIT (Just-In-Time) compiler, 192
JSON (JavaScript Object Notation) dictionary, 95

K

key frames
 applying easing to, 83

defined, 79
 snapping, 82–83

keyboard events
 in full screen mode, 119
 for full screen mode display, 24
 implementing, 119–120
 input, 118–120

keyboard shortcuts, 118
KeyboardEventArgs object, 230
KeyEventArgs.Key property, 118
KeyEventArgs.PlatformKeyCode property, 119
KeySpline object, 231
KeyTime object, 231

L

layout, of Silverlight content, 31–40
 within Canvas object, 31–34
 Silverlight 1.1 limitations, 189
 Silverlight vs. ASP.NET, 140
 using transforms, 38–40
 using ZIndex property, 34–38

layout and design, in Blend, 74–79
 adding images, 77–78
 Design surface, 74–75
 overview of, 74
 Pen tool, 76
 Pencil tool, 76–77
 shape tools, 75–76

Layout panels, Blend Toolbox, 64
Line object, 231
LinearColorKeyFrame object, 232
LinearDoubleKeyFrame object, 232
LinearGradientBrush
 Brush editor for, 70–71
 properties, methods and events of, 232
 for reflecting video, 54–56

LinearPointKeyFrame object, 232
LineBreak object, TextBlock, 41, 233
LineGeometry object, 233
LineSegment object, 233

LINQ
 dynamically generating XAML using, 170
 Silverlight 1.1 Communication APIs, 195
 Silverlight 1.1 Data APIs, 194

object (content) element syntax

loadComboBox function, 215
localization, 189
locking elements, at design time, 66
Lumos video player example, 201–220
 creating Data layer, 206–207
 creating host web page, 207–208
 designing application architecture, 202
 designing user interface, 202–204
 getting started, 202
 managing developer/designer workflow, 204–205
 preparing media, 205
 summary of, 220
Lumos video player example, coding
 Button class, 216–219
 combo box functions, 213–215
 createSilverlight function, 208–209
 inserting VideoArea user interface, 211
 instantiating video navigation, 211–213
 onLoad event handler, 209–211
 Scene class, 209
 VideoArea class, 217–219

M

markerEventArgs object, 138
MarkerReached event, 50–52, 137–138
markers
 adding to video files, 49–52
 Blend Properties panel, 69–70
 preparing media for application using, 205
 working with, 137–138
markup order, Z-Index order vs., 66
MatrixTransforms, 38, 233
Media control, 142
MediaAttributeCollection object, 234
MediaElement object
 adding audio or video to web pages, 46, 78–79
 adding play, pause, and stop to, 48–49
 example application, 217–219
 interacting with, 47–49
 positioning using ZIndex and Opacity, 36–37
 properties, methods and events of, 234

properties exposed on, 47–48
 supported formats for audio and video, 46–47
 using JavaScript, 49, 134–138
 using markers in video, 50–52
MenuItem.cs class, 173–174
Microsoft Expression Blend 2.0. see Blend (Microsoft Expression Blend 2.0)
Microsoft Expression Design, 87
Microsoft Intermediate Language (MSIL), 192
Mouse Capture, 123–125
mouse events
 controlling Storyboards with, 127–128
 creating client-side ButtonBar class, 181–182
 example application, 214, 216–219
 input, 118, 120–122
MouseEventArgs object, 234
MouseMove event, 122–123, 264–266
MP3 format, 47
MSIL (Microsoft Intermediate Language), 192

N

nameScope parameter, FindName method, 111
naming conventions
 ASPNET custom control project, 143–144
 elements, 65
 Storyboards, 80
navigation
 creating and inserting buttons, 211–213
 creating hyperlinks, 43–45
 Silverlight vs. ASPNET, 139
.NET Framework, 2, 5
New Folder, Blend, 68
New Project dialog, 13–14

O

object (content) element syntax, in XAML, 256

object reference

object reference, 221–249

- ArcSegment object, 221
- BeginStoryboard object, 221
- BezierSegment object, 222
- Canvas object, 222
- ColorAnimation object, 222
- ColorAnimationUsingKeyFrames object, 223
- ColorKeyFrame object, 223
- ColorKeyFrameCollection object, 223
- DiscreteColorKeyFrame object, 224
- DiscreteDoubleKeyFrame object, 224
- DiscretePointKeyFrame object, 224
- DoubleAnimation object, 224
- DoubleAnimationUsingKeyFrames object, 225
- DoubleCollection object, 225
- DoubleKeyFrame object, 225
- DoubleKeyFrameCollection object, 225
- Downloader object, 226
- DrawingAttributes object, 226
- Duration object, 226
- Ellipse object, 227
- EllipseGeometry object, 227
- FontFamily object, 227
- GeometryCollection object, 228
- GeometryGroup object, 228
- glyphs, 228
- GradientStop object, 229
- GradientStopCollection object, 229
- Image object, 229
- ImageBrush object, 230
- InkPresenter object, 230
- KeyboardEventArgs object, 230
- KeySpline object, 231
- KeyTime object, 231
- Line object, 231
- LinearColorKeyFrame object, 232
- LinearDoubleKeyFrame object, 232
- LinearGradientBrush object, 232
- LinearPointKeyFrame object, 232
- LineBreak object, 233
- LineGeometry object, 233
- LineSegment object, 233
- MatrixTransforms, 233
- MediaAttributeCollection object, 234
- MediaElement object, 234
- MouseEventArgs object, 234
- ParserErrorEventArgs, 235
- Path object, 235
- PathFigure object, 235
- PathFigureCollection object, 236
- PathSegmentCollection object, 236
- PointAnimation object, 236
- PointAnimationUsingKeyFrames object, 236–237
- PointCollection object, 237
- PointKeyFrame object, 237
- PointKeyFrameCollection object, 237
- PolyBezierSegment object, 238
- Polygon object, 238
- Polyline object, 238
- PolylineSegment object, 239
- PolyQuadraticBezierSegment object, 239
- QuadraticBezierSegment object, 239
- RadialGradientBrush object, 239
- Rectangle object, 240
- RectangleGeometry object, 240
- RepeatBehavior object, 240
- ResourceCollection, 241
- RotateTransform object, 241
- Run object, 241
- RuntimeErrorEventArgs object, 241
- ScaleTransform object, 242
- Silverlight control object, 242
- SkewTransform object, 242
- SolidColorBrush object, 242
- SplineColorKeyFrame object, 243
- SplineDoubleKeyFrame object, 243
- SplinePointKeyFrame object, 243
- Storyboard object, 243
- Stroke object, 244
- StylusInfo object, 244
- StylusPoint object, 244
- StylusPointCollection object, 244
- TextBlock object, 245
- Timeline object, 245

TimelineCollection object, 245
 TimelineGroup object, 246
 TimelineMarker object, 246
 TimelineMarkerCollection object, 246
 TimelineMarkerEventArgs object, 246
 TimeSpan object, 247
 TransformCollection object, 247
 TransformGroup object, 247
 TranslateTransform object, 247
 TriggerAction object, 248
 TriggerActionCollection object, 248
 TriggerCollection object, 248
 UIElementCollection objects, 248
 VideoBrush object, 249
object tag, HTML, 17–18
Object tools, Blend Toolbox, 64
objects
 declaring in XAML, 255–258
 referencing properties of, 270–271
Objects and Timeline area, Interaction panel, 63–64, 81–83
onError event, 101–102, 113–115
onFullScreenChange event, 113, 115
online resources
 author blogs, 273
 keyboard shortcuts, 118
 latest Blend 2 Preview, 60
 portable key codes, 119
 resource Web sites, 274
 Silverlight 1.1 Alpha Refresh Release, 191
 Silverlight 1.1 example, 199–200
 Silverlight influential blogs, 273–274
 Silverlight object attributes, 18
 Silverlight SDK, 9
 Silverlight Streaming Services free account, 46
 XAML exporters, 87
onLoad event
 example application, 209–211
 overview of, 113–114
 player initialization, 101–102
onMarkerReached function, 51–52
OnPreRender override, 156
onResize event

 defined, 113
 resizing Silverlight control, 21–22
 working with, 115
Opacity property, positioning objects, 36–37
OpacityMask, 54–56
Open function, Downloader, 128
OpenFileDialog, 197
operating system, Silverlight architecture, 3–4

P

packages, downloading, 131–133
Page Methods, ButtonBar control, 185–186
Page Turner example, 11
painting
 with brushes, 41–45
 video onto objects, 52–53
panels, Blend, 62–63
parameters
 createSilverlight function, 21
 event handler, 266–268
 optional tags for Silverlight control, 19–20
parameters, createObject function, 95–103
 parent and element IDs, 99
 player initialization events, 101–102
 player initialization properties, 100–101
 player initParams, 102–103
 XAML source parameter, 97–99
parent IDs, createObject function, 99
ParentElementID property, rendering Xaml control, 154–155, 157
ParserEventArgs, 235
Path object, 235
Path Tools, Blend Toolbox
 Combine tools, 77
 location of, 64
 Pen tool, 76
 Pencil tool, 76–77
PathFigure object, 235
PathFigureCollection object, 236
PathSegmentCollection object, 236
Pen tool, 76
Pencil tool, 76–77

PointAnimation object

PointAnimation object, 236
PointAnimationUsingKeyFrames object, 236–237
PointCollection object, 237
PointKeyFrame object, 237
PointKeyFrameCollection object, 237
PolyBezierSegment object, 238
Polygon object, 238
Polyline object, 238
PolylineSegment object, 239
PolyQuadraticBezierSegment object, 239
portable key codes, 118–119
Presentation APIs, Silverlight 1.1, 196–199
Professional ASP.NET 2.0 AJAX (Gibbs/Wahlin), 163
Professional JavaScript for Web Developers (Zakas), 163
Project panel, Blend, 66–68
Project tab, starter template, 61
properties
 assigning in XAML, 256–258
 getting and setting XAML, 106–108
 marker, 50–51
 MediaElement, 47–48
 player initialization, 100–101
 referencing object, 270–271
 server-side ButtonBar class, 171–176
 UIElement class objects, 30
 Xaml client-side control, 162–163
 Xaml control, 150–154, 160–161
Properties panel, Blend, 68–74
 common property editors in, 69
 layout and design in, 75
 marker system in, 69–70
 overview of, 68–69
 setting image Source property in, 78
 using Brush editor, 70–73
 using transform editors, 73–74
property editors, Blend
 custom, 70
 overview of, 69
 using Brush editors, 70–73
property element syntax, 256, 258
prototype property, client-side ButtonBar class, 183

Q

QuadraticBezierSegment object, 239

R

RAD (Rapid Application Development) tools, 26, 253–254
RadialGradientBrush, 70–71, 239
Rectangle object, 240
Rectangle tool, Blend Toolbox, 75
RectangleGeometry object, 240
referencing
 adding ASP.NET AJAX to your control using, 158–159
 Silverlight player, 104, 269–271
reflections, creating video, 53–56
#region...#endregion, 149
RegisterClientScriptResource method, 166
registering, new client-side type, 164
removeEventListener method, XAML elements, 268
rendering
 Silverlight content, 29–31
 Xaml control, 154–158
RenderTransform property
 creating timeline, 81–82
 defined, 38
 working with, 73–74
RepeatBehavior, 57, 240
resizing, Silverlight control, 21–22
resource, creating Storyboard as, 80–81
ResourceCollection, 241
ResponseText property, Downloader, 130–131
RIAs (Rich Internet Applications), 1–2
Rich Internet Applications (RIAs), 1–2
rich media, Silverlight vs. ASP.NET, 140
root element, of XAML files, 258–259
RotateTransform
 adding to TextBlock using XAML, 252–253
 defined, 38
 properties, methods and events of, 241
 working with, 38–40
Run object, 41, 241

runtime

- hiding elements at, 65
- installing SDK page for, 9–10
- referencing object properties at, 270–271
- updating artwork dynamically at, 85

RuntimeErrorEventArgs object, 241**S****ScaleTransform**

- adding to TextBlock using XAML, 252–253
- defined, 38
- properties, methods and events of, 242
- reflecting video using, 54–56
- working with, 38–40

scaling, and bitmaps, 85–87**Scene class, example application**

- combo box functions, 213–215
- defined, 209
- inserting VideoArea user interface, 211
- instantiating video navigation, 211–213
- onLoad event handler, 209–211

Scene.xaml file, 14, 61**Scene.xaml.js file, 14, 61****<script> tag, XAML, 98–99, 262****ScriptControl, AJAX, 158–159****ScriptControlDescriptor, 177****ScriptManager control, creating host page, 207–208****ScriptMethod attribute, 207****Scripts collection property, Xaml control, 160–161****ScriptService attribute, 207****SDK (Software Development Kit), Silverlight**

- building applications with project templates from, 13–18
- examples of, 11–13
- installing, 9–11

security, and full screen mode, 24**Selection tools, Blend Toolbox, 64****sender parameter, event handlers, 266–268****server-side code, creating ButtonBar, 170–178****ServiceModel (WCF) support, Silverlight 1.1, 195****setFontResource method, 42****SetSource function, 133****setValue method, referencing object properties, 270–271****shape tools, Blend Toolbox, 64, 75–76****Silverlight, 1.0 case example. see Lumos video player example****Silverlight, introduction to, 1–28**

- adding multiple objects to page, 20–21
- creating control in HTML, 17–18
- displaying in full screen mode, 22–24 and DOM, 4
- getting SDK, 9–13
- installing plug-in, 6–8
- naming, 2
- object attributes, 18–20
- resizing control, 21–22
- understanding, 1–4
- using Visual Studio 2005, 13–17
- versions of, 5–6, 103–104, 190–191 and XAML, 25–26

Silverlight 1.1 Alpha Refresh Release, 189–200

- base APIs, 193–194
- CLR and, 191–192
- communication APIs, 195
- data APIs, 194
- debugging, 199
- defined, 5
- dynamic language support, 199
- example of, 199–200
- framework, 192–193
- limitations of Silverlight 1.0, 189
- presentation APIs, 196–199
- versions 1.0 vs. 1.1, 5, 190–191

Silverlight control object, 242**Silverlight JavaScript library, 146–150****Silverlight player**

- basic XAML to display Hello World in, 252
- events, 264–266
- referencing, 269–271

Silverlight Streaming Services

Silverlight Streaming Services, 46

Silverlight.js helper library, 96–104

- accessing Silverlight player object, 104
- adding player to web page using, 92–95
- adding Silverlight JavaScript library to control, 146
- createObject and createObjectEx functions, 96–103
- creating Silverlight player using, 18
- defined, 17
- element and parent IDs, 99
- isInstalled function, 103–104
- overview of, 96
- player initialization events, 101–102
- player initialization properties, 100–101
- player initparams, 102–103
- XAML source parameter, 97–99

SilverPad example, 11–12

SkewTransform

- adding to TextBlock using XAML, 252–253
- defined, 38
- properties, methods and events of, 242
- working with, 38–40

snapping, keyframe, 82–83

SolidColorBrush, 70–71, 242

Solution Explorer, building Silverlight applications, 14

Source property

- adding audio or video to web pages, 46
- assigning XAML file to Silverlight player with, 260–261
- creating inline XAML using script tag, 98–99
- setting for images, 78
- setting MediaElement, 78–79
- specifying Silverlight XAML content in, 97–98

SplineColorKeyFrame object, 243

SplineDoubleKeyFrame object, 243

SplinePointKeyFrame object, 243

starter templates, Silverlight project, 60–62

Status property, Downloader, 130

StatusText property, Downloader, 130

Storyboard Picker, 80–83

Storyboards

- accessing programmatically, 125–128
- adding animations to button template, 169–170
- creating client-side ButtonBar class, 183
- creating timeline, 81–83
- overview of, 80
- properties, methods and events of, 243
- timeline support for, 79

Stretch property

- positioning objects using ZIndex with, 37–38
- setting image size, 78

Stroke object, 244

styles, Silverlight 1.1 lacking, 189

StylusInfo object, 244

StylusPoint object, 244

StylusPointCollection object, 244

SWF2XAML: A Flash to XAML Conversion Tool, 87

System.Web.Extensions library, AJAX, 158–159

T

templates

- building Silverlight applications with Visual Studio project, 13–18
- creating XAML button, 166–170
- Silverlight 1.1 lacking data binding, 189

text

- downloading content in packages, 132
- drawing with, 41–45
- Silverlight 1.1 lacking support for, 189

Text controls, Blend Toolbox, 64

TextBlock object

- adding VideoBrush to, 52–53
- creating hyperlinks, 43–45
- custom transforms using XAML on, 252–253
- properties, methods and events of, 245
- Silverlight vs. ASP.NET, 140
- using markers in video, 50–52
- working with, 41–43

textDecoration property, hyperlinks, 44–45

textual data input, Silverlight vs. ASP.NET, 140

TextWrapping property, **TextBlock** objects, 42

theConverted - SWF to XAML Edition converter, 87

Timeline object, 245

TimelineCollection object, 245

TimelineGroup object, 246

TimelineMarker object, 138, 246

TimelineMarkerCollection object, 246

TimelineMarkerEventArgs object, 246

timelines

- creating in Blend, 80–83
- creating in video files, 49–52
- using keyframe snapping, 82–83

TimeSpan object, 247

toggleFullScreen method, 162

Toolbox, Blend, 63–64, 75–76

TransformCollection object, 247

TransformGroup

- defined, 38
- properties, methods and events of, 247
- working with, 38–40

transforms

- adding to **TextBlock** using XAML, 252–253
- positioning objects using, 38–40
- reflecting video using, 54–56
- using editors, 73–74

TranslateTransform

- adding to **TextBlock** using XAML, 252–253
- creating timeline, 82
- defined, 38
- properties, methods and events of, 247

TriggerAction object, 248

TriggerActionCollection object, 248

TriggerCollection object, 248

Triggers section, Interaction panel, 63

U

UIElement class objects, 29, 30

UIElementCollection, 248

updates, 8

URI parameter, **Downloader**, 129

UriProperty attribute, 150

user interface, Silverlight, 166–187

- bitmaps and, 86
- building with XAML, 2
- creating button template, 166–170
- creating **ButtonBar** client-side code, 178–183
- creating **ButtonBar** server-side code, 170–178
- example of designing, 202–204
- using **ButtonBar** control, 184–187

UsingKeyFrames animation types, 170

V

versions, Silverlight. see also Silverlight 1.1

- Alpha Refresh Release**
- comparing, 190–191
- detecting with `isInstalled` function, 103–104
- overview of, 5–6

video, 46–56

- creating reflections, 53–56
- interacting with **MediaElement** object, 47–49
- overview of, 45
- painting onto objects, 52–53
- supported formats for audio and, 46–47
- using JavaScript and **MediaElement**, 134–138
- using markers and timelines in, 49–52
- using **MediaElements** to add, 46, 78–79

video, example application

- coding. see Lumos video player example, coding
- creating Data layer, 206–207
- creating host web page, 207–208
- preparing, 205

VideoArea class, 211, 217–219

VideoBrush, 52–53, 249

View tools, **Blend** Toolbox, 64

Visual Studio 2005

- building Silverlight applications in, 13–18
- creating new project, 30–31

Web Custom Control template

W

Web Custom Control template, 144–145
Web Services component, 202, 206–207
web-based gaming, Silverlight vs. ASP.NET, 141
WebResource attribute, 147–148
WMA (Windows Media Audio) format, 47
WMV (Windows Media Video) format, 47
workflow, managing developer/designer, 204–205
workspace, Blend. see Design Workspace
WPF (Windows Presentation Foundation), 2, 253
WPF/e technology, 1, 2

X

XAML (eXtensible Application Markup Language), 29–58, 251–272
 accessing Storyboards programmatically, 125–128
 adding objects to object hierarchy with, 260–261
 adding video with. *see* video
 animations with, 56–58
 building Silverlight user interface with, 2
 code behind and x>Name, 262–264
 creating sharp gradients with, 72–73
 defining events in JavaScript with, 268
 downloading content in packages with, 132
 drawing with text and brushes with, 41–45
 exporters, 86–88
 getting/setting properties, 106–108
 hierarchy, 258–260
 interacting with MediaElement object, 47–49
 layout and design in Blend with, 74–75
 layout of content using transforms, 38–40
 layout of content using ZIndex property, 34–38
 layout of content within Canvas object, 31–34

locating content elements, 105–106
 object declaration, 255–258
 referencing Silverlight control in, 269–271
 rendering Silverlight content in, 29–31
 Silverlight player events in, 264–266
 source parameter in, 97–99
 typical file in, 254
 understanding, 25–26, 251–253
XAML (eXtensible Application Markup Language) element events, 115–125
 event handler declaration in, 115–118, 266–268
 handling mouse input, 120–123
 implementing keyboard events, 119–120
 keyboard and mouse input, 118–119
 using Mouse Capture, 123–125
.xaml extension, defined, 254
Xaml.debug.js file, 161
XamlUrl property, 150
XamlXporter for Illustrator, 87
XLINQ, defined, 194
XML, Silverlight 1.1 and, 194
XML comments, 148, 150–151
XMLHttpRequest browser objects, 195
x>Name attribute, XAML, 110–111, 262–264

Y

YAGNI (You Ain't Gonna Need It) architectural principle, 149

Z

ZIndex property, 34–38, 66
ZIP files
 downloading packages using Downloader object, 131–133
 retrieving content compiled in packages, 131
 SDK, 10



