Introduction to
Windows Phone 7 and Silverlight

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1. Introduction to Silverlight and Windows Phone
2. Recommended books and resources
3. Hands-on programming tutorials
Windows Phone 7
Windows Phone 7

- Graphic interface
- Touch input
- Sensors
- Media content
- Animations
- Wireless connectivity
Programming platforms

WPF
(Windows Presentation Foundation)

Silverlight
Programming platforms

WPF
(Windows Presentation Foundation)

Silverlight

C#, .NET
UI controls
XAML
Animations
Programming platforms

WPF
(Windows Presentation Foundation)

Silverlight
C#, .NET
UI controls
XAML
Animations
Phone
Sensors
Unified framework

Examples: http://windowsclient.net/community/showcase.aspx
Resolution independent

Non-WPF Content

WPF Content

Source: Adam Nathan "Windows Presentation Foundation Unleashed", SAMS Publishing 2007
Extensible Application Markup Language (XAML)
Extensible Application Markup Language (XAML)

```xml
<Grid>
    <Button Name="buttonXAML"
            FontSize="20"
            FontWeight="Bold"
            Background="Orange"
            Margin="40, 80, 40, 80">Button</Button>
</Grid>
```

```csharp
Button button = new Button();
button.Name = "button";
button.FontSize = 20.0;
button.FontWeight = FontWeights.Bold;
button.Background = new SolidColorBrush(Colors.Orange);
button.Margin = new Thickness(40, 80, 40, 80);
button.Content = "Button";

Grid grid = new Grid();
grid.Children.Add(button);
```
Extensible Application Markup Language (XAML)

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  <Button Name="buttonXAML"
          FontSize="20"
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button.Margin = new Thickness(40, 80, 40, 80);
button.Content = "Button";

Grid grid = new Grid();
grid.Children.Add(button);
```
Rich composition and customization

Example: video inside of button

XAML

```xml
<Button Name="buttonVideo">
  <MediaElement Source="video.wmv" Width="240" Height="160" Name="mediaElement" />
</Button>
```
What we will learn in the tutorials…

- Developing applications with C#, Silverlight, and XAML
- Programming for phones and desktop
- Using Visual Studio 2010
What we will learn in the tutorials…

- User interface elements
- Graphics
- Animations
- Sensors (accelerometer, GPS)
- Media, sound
- Data storage
- …
Recommended books and resources

Interactions Lab Developer Cookbook

http://grouplab.cpsc.ucalgary.ca/cookbook

http://grouplab.cpsc.ucalgary.ca/cookbook/index.php/Technologies/WindowsPhone
Recommended books and resources

Adam Nathan “WPF 4 Unleashed”
SAMS Publishing 2010

Daniel Vaughan “Windows Phone Unleashed”
SAMS Publishing 2012

Full text of both books available online at UofC library
Recommended books and resources

Microsoft Developer Network (MSDN) and Windows Phone Developer Center

http://msdn.microsoft.com
http://dev.windowsphone.com/en-us/
Hands-on programming

- UI widgets, images, resources
- Multi-touch, graphics