Introduction to
Windows Phone 7 and Silverlight

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http://pages.cpsc.ucalgary.ca/~saul/wiki/pmwiki.php/CPSC581/

1. Introduction to Silverlight and Windows Phone

2. Recommended books and resources

3. Hands-on programming tutorials

Windows Phone 7

Windows Phone 7
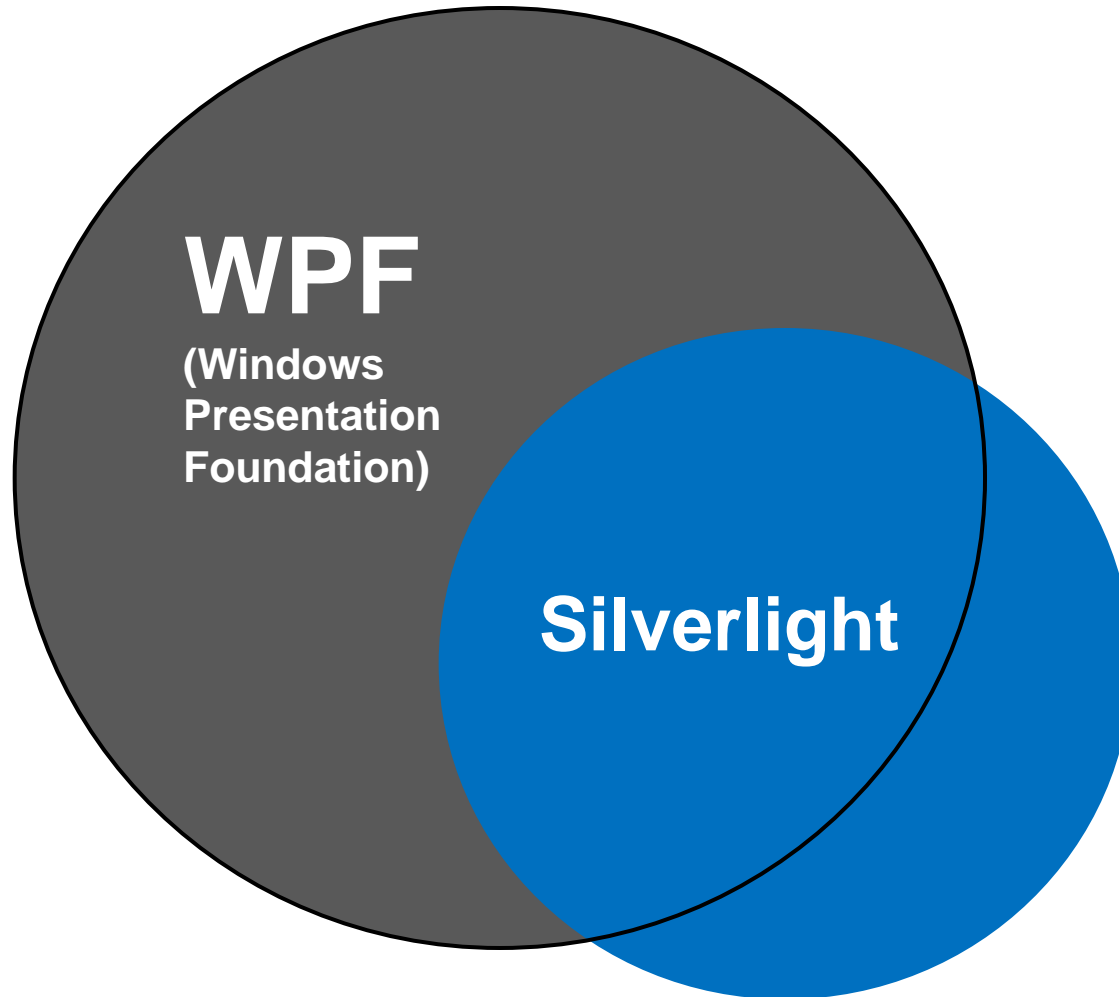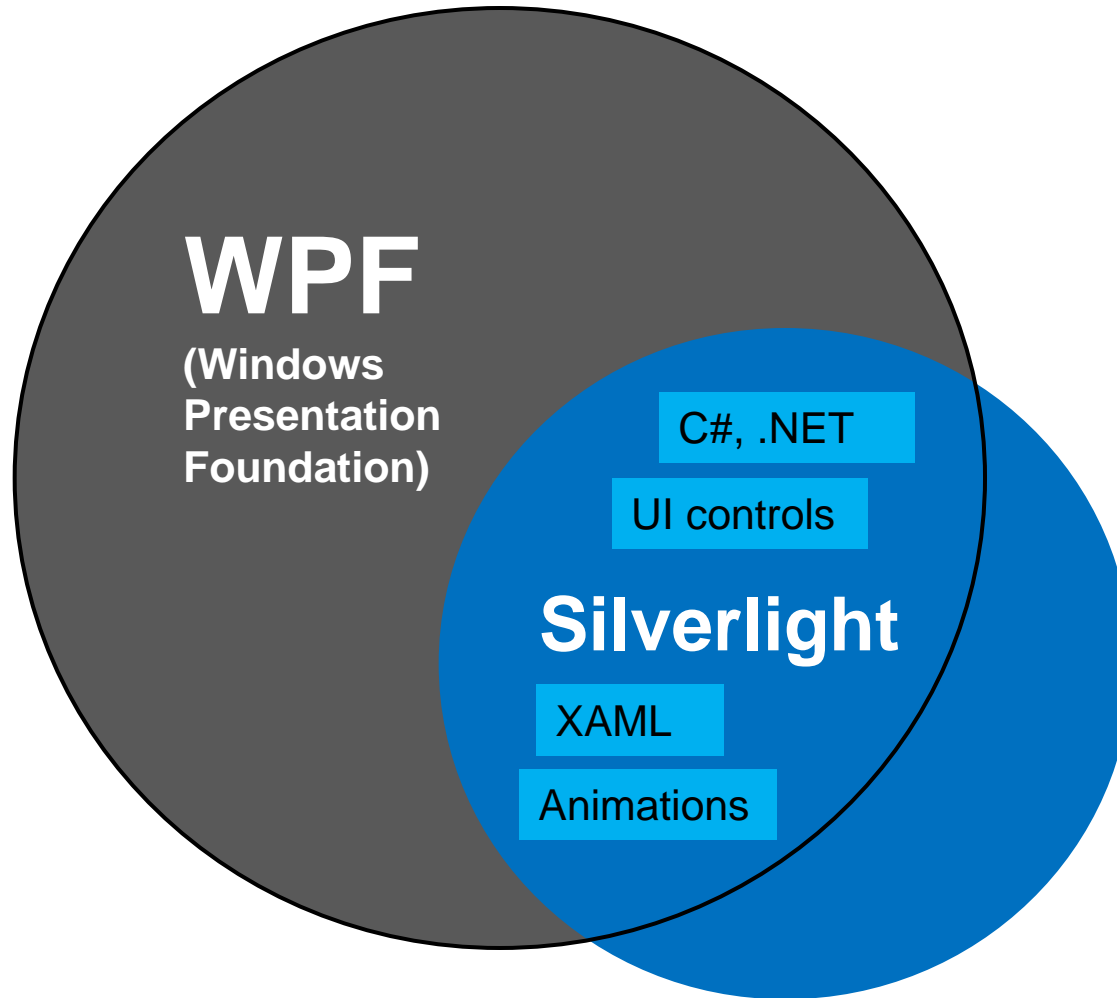

Graphic interface

Touch input
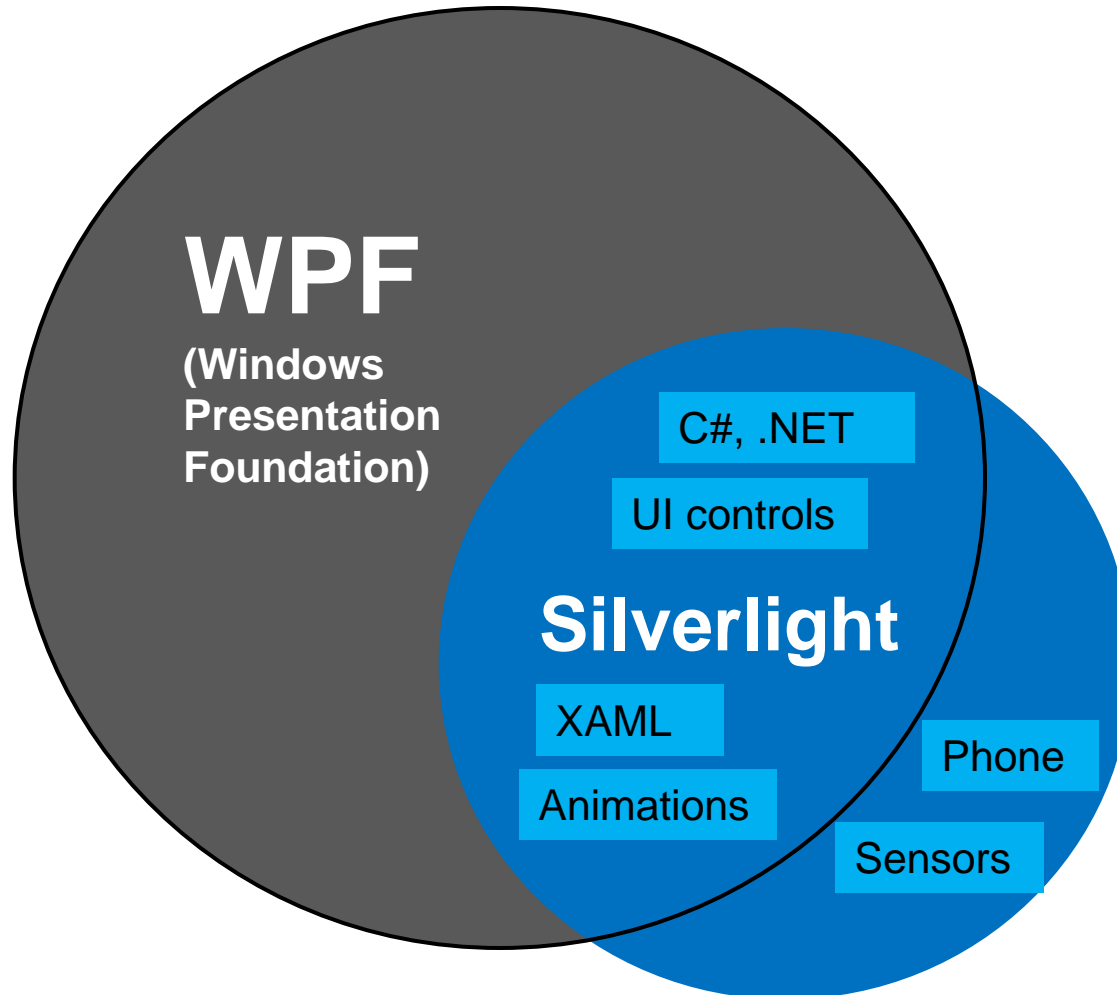
Sensors

Media content

Animations

Wireless connectivity

WPF

(Windows Presentation Foundation)

Silverlight

WPF

(Windows Presentation Foundation)

C#, .NET

UI controls

Silverlight

XAML

Animations

WPF
(Windows
Presentation
Foundation)

C#, .NET

UI controls

Silverlight

XAML

Animations

Phone

Sensors

Unified framework

Examples: http://windowsclient.net/community/showcase.aspx
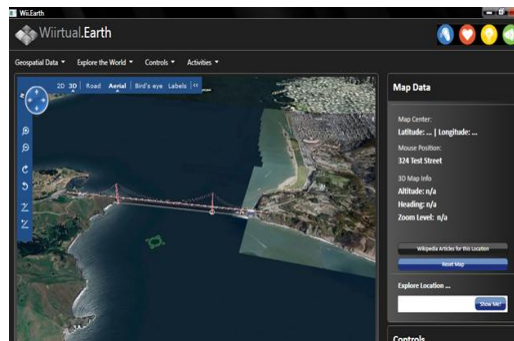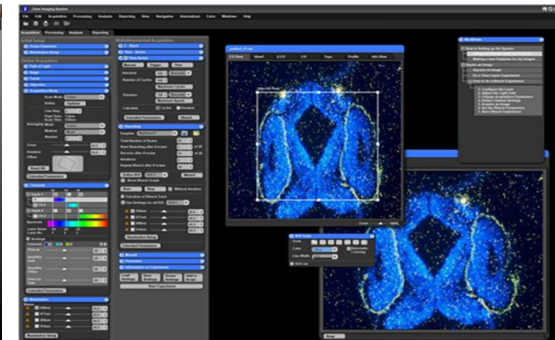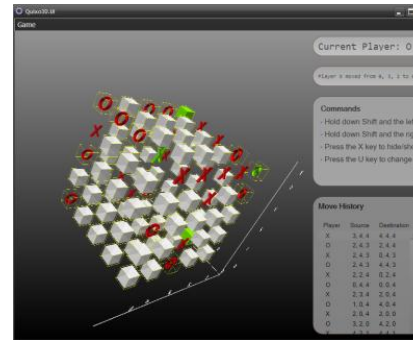
Resolution independent
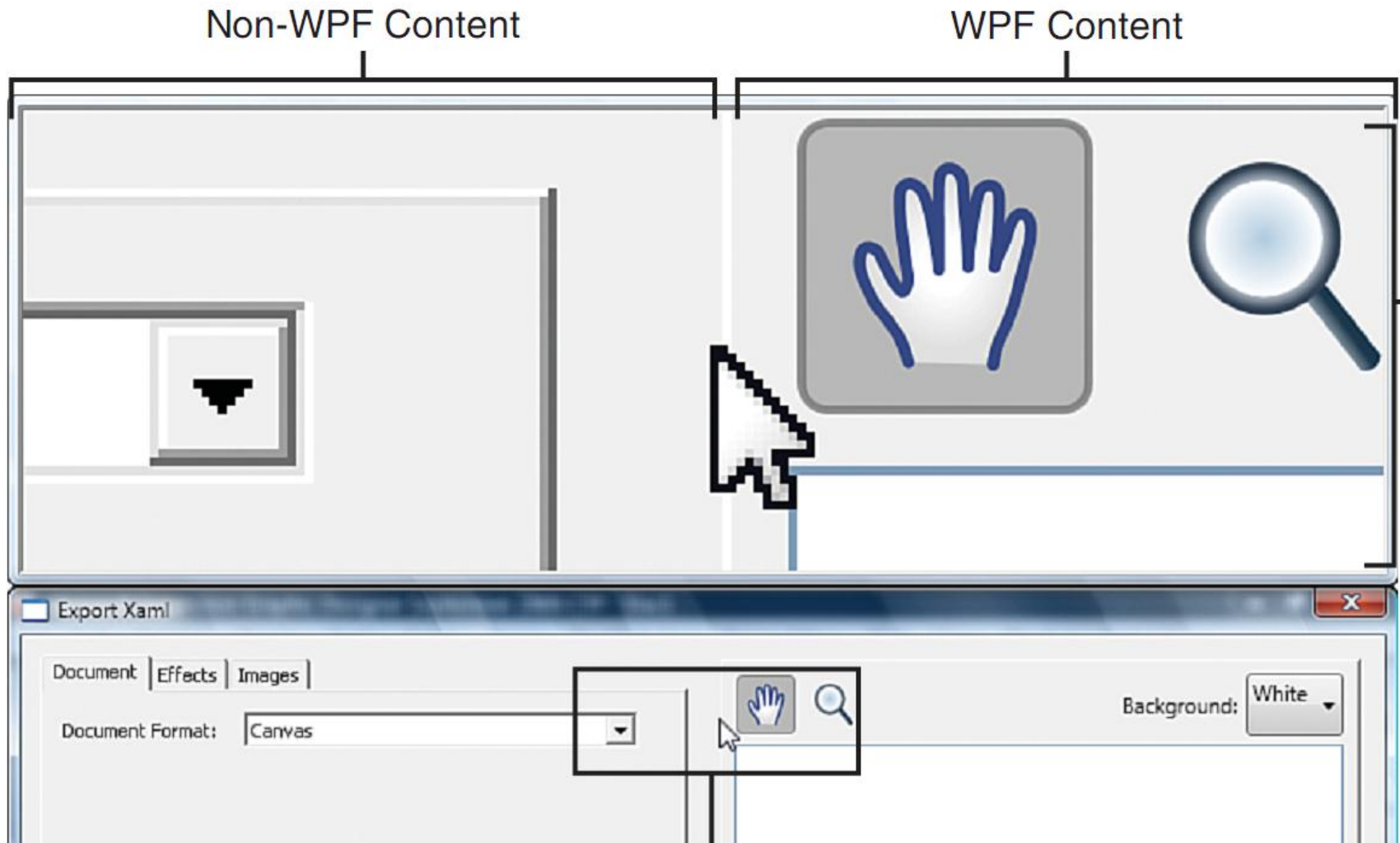
Non-WPF Content | WPF Content

Extensible Application Markup Language (XAML)
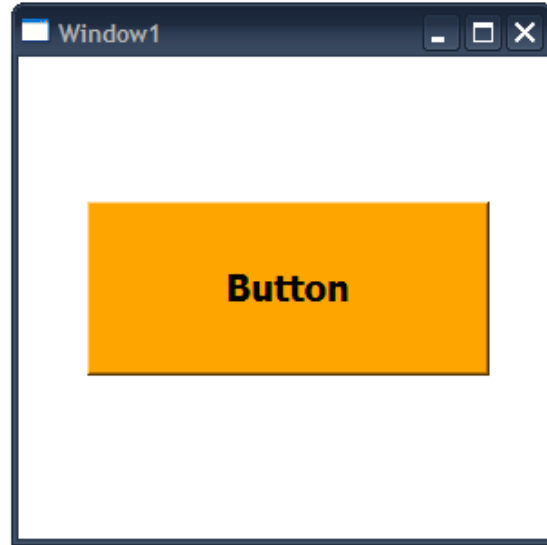
Extensible Application Markup Language (XAML)
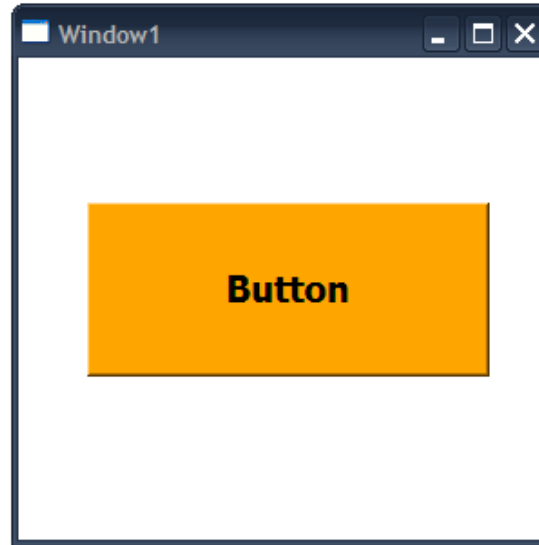

```xaml
<Grid>
    <Button Name="buttonXAML"
            FontSize="20"
            FontWeight="Bold"
            Background="Orange"
            Margin="40,80,40,80">Button</Button>
</Grid>
```
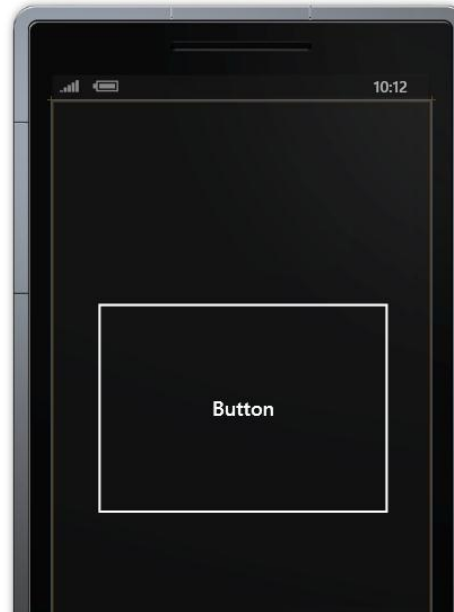
XAML

```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);
```

C#

Extensible Application Markup Language (XAML)


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

XAML

```csharp
Button button = new Button();
button.Name = "button";
button.FontSize = 20.0;
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button.Background = new SolidColorBrush(Colors.Orange);
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button.Content = "Button";

Grid grid = new Grid();
grid.Children.Add(button);
```

C#

Rich composition and customization

Example: video inside of button

```
<Button Name="buttonVideo">
    <MediaElement Source="video.wmv" Width="240" Height="160" Name="mediaElement" />
</Button>
```

XAML

- Developing applications with **C#, Silverlight**, and **XAML**

- Programming for **phones and desktop**

- Using **VisualStudio 2010**

- 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
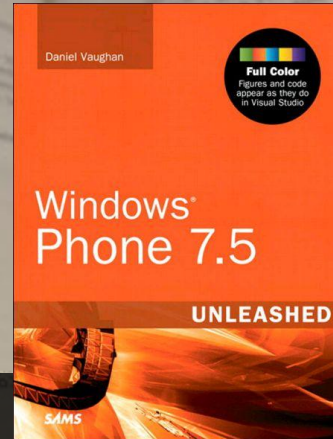
Recommended books and resources
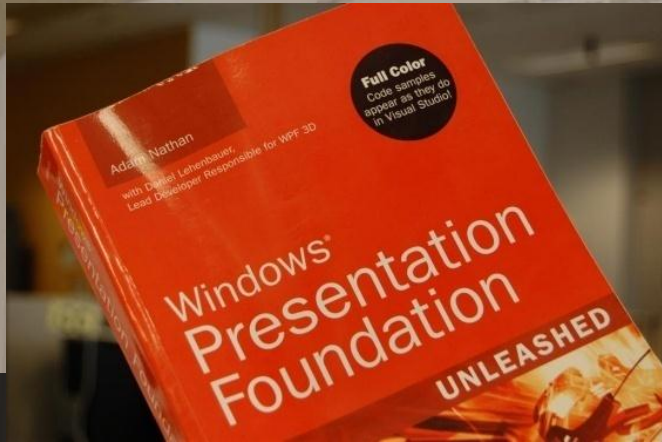
Adam Nathan "WPF 4 Unleashed"

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