

Interaction Controls

Introduction

- ❖ WPF supports three main types of user interaction controls: textual, choices based and selection based.

The Button Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  x:Class="gaga.MainWindow" Title="Simple Demo"
  Width="300" Height="300" FontSize="14">

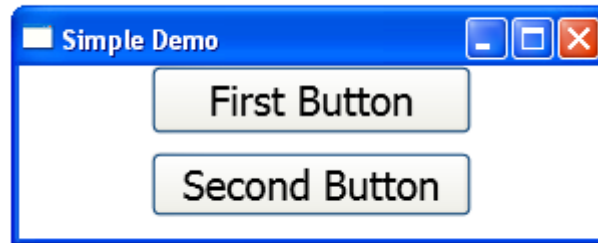
  <UniformGrid Rows="2" Columns="1">

    <StackPanel>
      <Button Width="160" FontSize="20" Height="34">
        First Button
      </Button>
    </StackPanel>
    <StackPanel>
      <Button Width="160" FontSize="20">
        Second Button
      </Button>
    </StackPanel>

  </UniformGrid>

</Window>
```

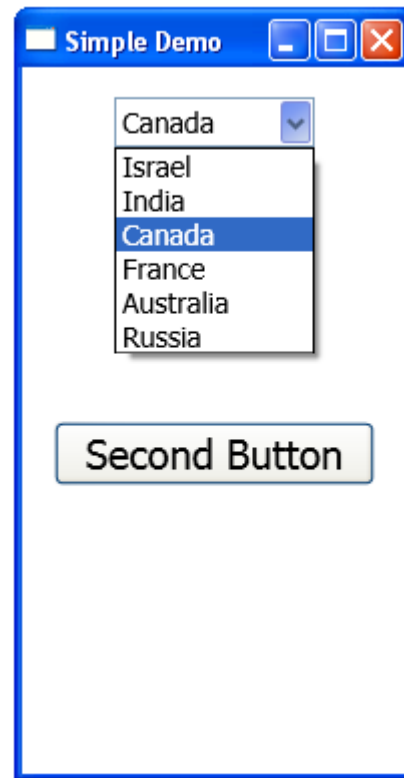
The Button Control



The ComboBox Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml" FontSize="14"
  x:Class="gaga.MainWindow" Title="Simple Demo" Width="200" Height="140">
  <UniformGrid Rows="2" Columns="1">
    <StackPanel>
      <ComboBox Grid.Row="0" Grid.Column="0"
        VerticalAlignment="Top" Margin="15"
        SelectedIndex="2" Height="25" Width="100">
        <ComboBoxItem Content="Israel"/>
        <ComboBoxItem Content="India"/>
        <ComboBoxItem Content="Canada"/>
        <ComboBoxItem Content="France"/>
        <ComboBoxItem Content="Australia"/>
        <ComboBoxItem Content="Russia"/>
      </ComboBox>
    </StackPanel>
    <StackPanel>
      <Button Width="160" FontSize="20">
        Second Button
      </Button>
    </StackPanel>
  </UniformGrid>
</Window>
```

The ComboBox Control



The ContextMenu Control

- ❖ The `ContextMenu` control displays a pop-up menu associated with a specific control.

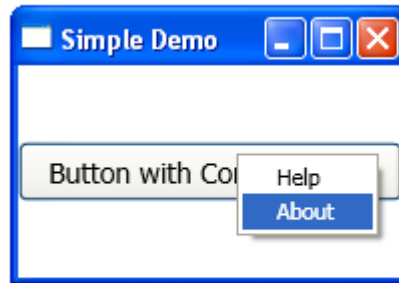
The ContextMenu Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo"
        Width="200" Height="140" FontSize="14">

    <Button Name="cmButton" Height="30" Click="cmButton_Click">
        Button with Context Menu
        <Button.ContextMenu>
            <ContextMenu Name="context_menu">
                <MenuItem Header="Help"/>
                <MenuItem Header="About"/>
            </ContextMenu>
        </Button.ContextMenu>
    </Button>

</Window>
```


The ContextMenu Control



in order to get the context menu you should right click the button

The Frame Control

- ❖ The `Frame` control can be used for displaying both web pages and `xaml` ones.

The Frame Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

    <Frame Name="frm" HorizontalAlignment="Stretch"
          VerticalAlignment="Stretch" Margin="10"
          Source="http://www.lifemichael.com/en/">
    </Frame>


</Window>
```


The Frame Control


The screenshot shows a web browser window with a blue title bar containing the text "Simple Demo" and standard window control buttons. The page content is organized into a grid structure defined by dashed lines. At the top is a navigation menu with links for HOME, ABOUT, ACRONYMS, CALENDAR, CONTACT, GALLERY, and SERVICES. Below the menu is the site's logo, "LifeMichael Haim Michael Blog", and an RSS feed icon. A large image of white flowers is displayed across the middle of the page. The bottom section is divided into three columns: "Life Twitter" with a message about public messages, "Abelski Twitter" with a post about WPF slides and three URLs, "Android Tablets Info" with a paragraph about the market and a highlighted title "Camangi WebStation- 7-inch Android Internet Table!", and "New Course facebook" with Hebrew text and a link.

Simple Demo

HOME ABOUT ACRONYMS CALENDAR CONTACT GALLERY SERVICES

 **LifeMichael**
Haim Michael Blog






Life Twitter
No public Twitter messages.

Abelski Twitter
Learn WPF! The first slides are ready.
<http://bit.ly/bIDO9W>
<http://bit.ly/cJ68X2>
<http://bit.ly/hvIKR8>

Android Tablets Info
During the coming months more than a few of Android based tables are expected to reach our market. The Camangi WebStation is one of them.

Camangi WebStation- 7-inch Android Internet Table!



New Course
facebook
קורס לפיתוח אפליקציות לפייסבוק
[לחץ לפרטים נוספים](#)

The ListBox Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

    <ListBox Grid.Row="1" HorizontalAlignment="Stretch"
            VerticalAlignment="Stretch" Height="Auto"
            FontSize="16" Foreground="DarkBlue" Background="Yellow"
            HorizontalContentAlignment="Left"
            VerticalContentAlignment="Top" SelectionMode="Extended">
        <ListBoxItem Content="Japan"/>
        <ListBoxItem Content="India"/>
        <ListBoxItem Content="Canada"/>
        <ListBoxItem Content="France"/>
        <ListBoxItem Content="Italy"/>
        <ListBoxItem Content="Germany"/>
        <ListBoxItem Content="Russia"/>
    </ListBox>

</Window>
```

The ListBox Control



The Menu Control

- ❖ Using the `Menu` control we can create a main menu for a `Window` object.

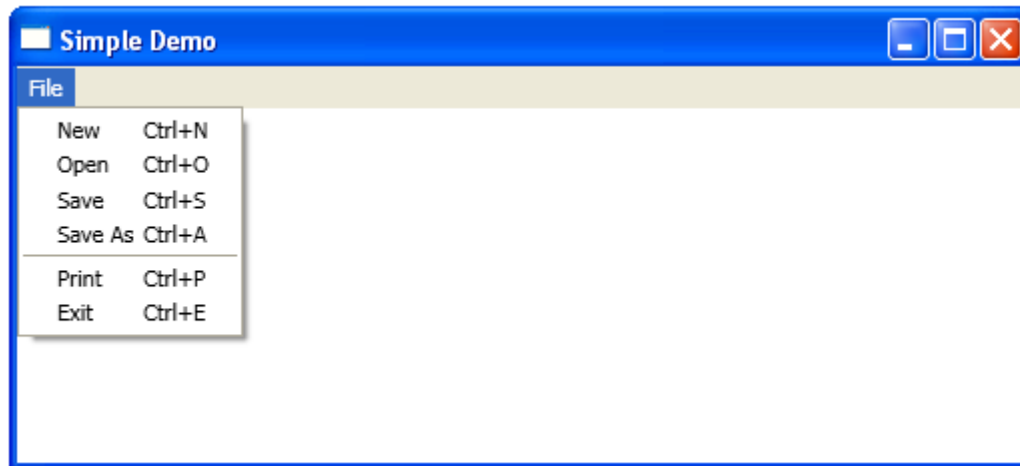
The Menu Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo"
        Width="200" Height="140" FontSize="14">

    <Menu VerticalAlignment="Top">
        <MenuItem Header="File">
            <MenuItem Header="New" InputGestureText="Ctrl+N"/>
            <MenuItem Header="Open" InputGestureText="Ctrl+O"/>
            <MenuItem Header="_Save" InputGestureText="Ctrl+S"/>
            <MenuItem Header="Save _As" InputGestureText="Ctrl+A"/>
            <Separator/>
            <MenuItem Header="_Print" InputGestureText="Ctrl+P"/>
            <MenuItem Header="_Exit" InputGestureText="Ctrl+E"/>
        </MenuItem>
    </Menu>

</Window>
```


The Menu Control



The PasswordBox Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

    <UniformGrid Rows="3" Columns="1">

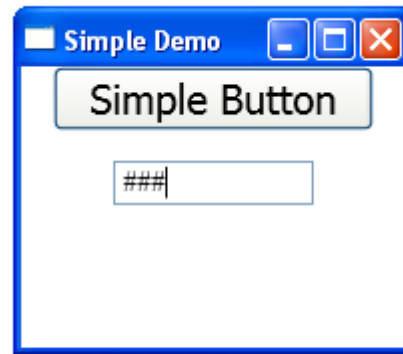
        <StackPanel>
            <Button Width="160" FontSize="20">
                Simple Button
            </Button>
        </StackPanel>

        <StackPanel>
            <PasswordBox PasswordChar="#" Width="100"/>
        </StackPanel>

    </UniformGrid>

</Window>
```

The PasswordBox Control



The RadioButton Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200" Height="140"
        FontSize="14">

    <UniformGrid Rows="3" Columns="1">

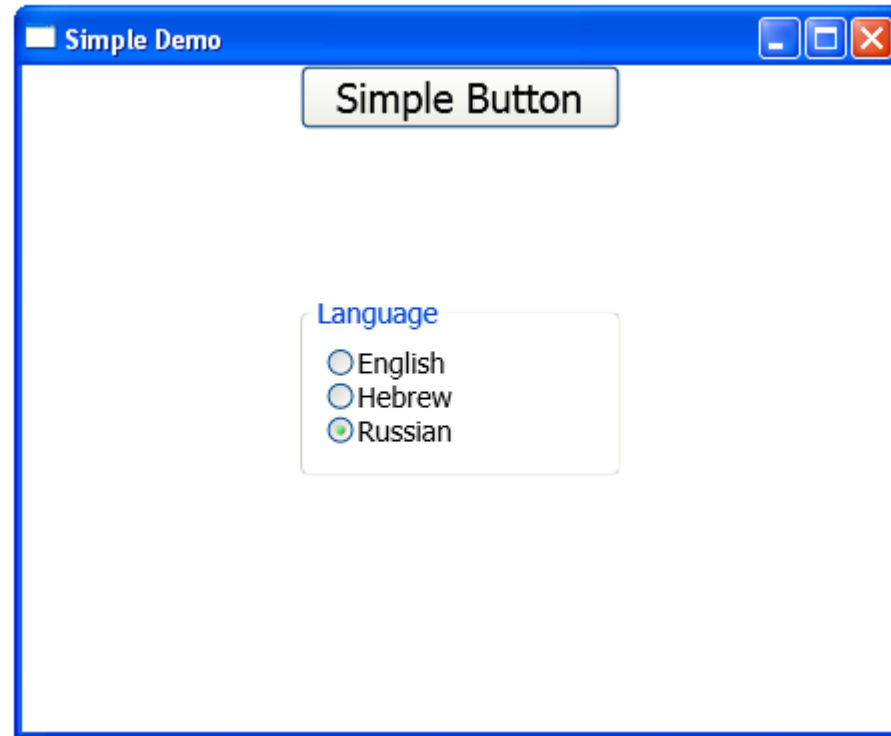
        <StackPanel>
            <Button Width="160" FontSize="20">
                Simple Button
            </Button>
        </StackPanel>

        <StackPanel>
            <GroupBox Width="160" Margin="4" Header="Language">
                <StackPanel Margin="8">
                    <RadioButton Content="English"/>
                    <RadioButton Content="Hebrew"/>
                    <RadioButton Content="Russian" IsChecked="True"/>
                </StackPanel>
            </GroupBox>
        </StackPanel>

    </UniformGrid>

</Window>
```

The RadioButton Control



The RepeatButton Control

- ❖ The `RepeatButton` control allows the user to fire click events repeatedly as long as the mouse is pressed.
- ❖ The `Delay` property sets the length between the first and the second clicks. The measurement unit is milliseconds.
- ❖ The `Interval` property sets how much time passes in between every two subsequent presses. The measurement unit is milliseconds.

The RepeatButton Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

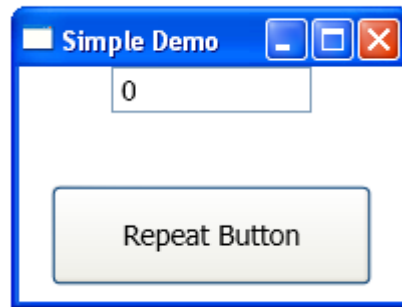
    <UniformGrid Rows="2" Columns="1">

        <StackPanel>
            <TextBox Width="100" Name="tb" Text="0"/>
        </StackPanel>
        <StackPanel>
            <RepeatButton Delay="2000" Interval="500" Content="Repeat Button"
                Width="160" Height="50" Name="rpt_bt" Click="rpt_Click" />
        </StackPanel>

    </UniformGrid>

</Window>
```

The RepeatButton Control



The RichTextBox Control

- ❖ The RichTextBox control allows the user to enter rich formatted text, that includes various elements such as multiple different fonts, colors, paragraphs and beyond.

The RichTextBox Control

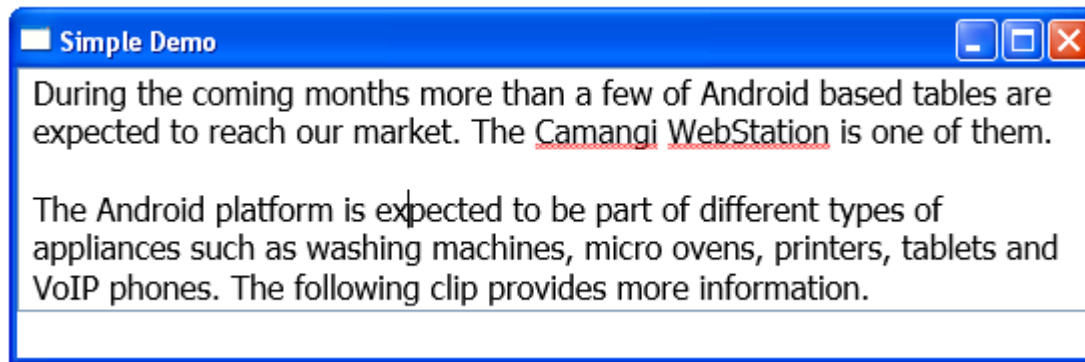
```
<Window      xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
             xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
             x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
             Height="140" FontSize="14">

    <UniformGrid Rows="1" Columns="1">
        <StackPanel>
            <RichTextBox      HorizontalScrollBarVisibility="Auto"
                             VerticalScrollBarVisibility="Auto"
                             Name="rich_text" FontSize="16"
                             SpellCheck.IsEnabled="True">
                <FlowDocument>
                    <Paragraph>
                        During the coming months more than a few of Andr
                    </Paragraph>
                    <Paragraph>
                        The Android platform is expected to be part of
                    </Paragraph>
                </FlowDocument>
            </RichTextBox>
        </StackPanel>

    </UniformGrid>

</Window>
```

The RichTextBox Control



The RichTextBox Control

- ❖ Working with a rich text box the user is capable of performing the following operations:

AlignCenter	[Ctrl]+E
AlignJustify	[Ctrl]+J
AlignLeft	[Ctrl]+L
AlignRight	[Ctrl]+R
DecreaseFontSize	[Ctrl]+OemOpenBracket
DecreaseIndentation	[Ctrl]+[Shift]+T
EnterLineBreak	[Shift]+[Enter]
EnterParagraphBreak	[Enter]

The RichTextBox Control

IncreaseFontSize	[Ctrl]+OemCloseBracket
IncreaseIndentation	[Ctrl]+T
ToggleBold	[Ctrl]+B
ToggleBullets	[Ctrl]+[Shift]+L
ToggleItalic	[Ctrl]+I
ToggleNumbering	[Ctrl]+[Shift]+N
ToggleSubscript	[Ctrl]+OemPlus
ToggleSuperscript	[Ctrl]+[Shift]+OemPlus
ToggleUnderline	[Ctrl]+U

The RichTextBox Control

- ❖ Using the `SpellCheck.IsEnabled` property we can enable the spell checking.
- ❖ The do / undo feature is automatically supported. The user can use this feature using `Ctrl+U` and `Ctrl+Y`.

The ScrollBar Control

- ❖ Using this control we can create a scroll bar the user will be able to use for selecting a specific value from a range of values.

The ScrollBar Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

    <UniformGrid Rows="1" Columns="1">

        <ScrollBar Orientation="Horizontal" Minimum="0" Maximum="200"
            Value="100" Grid.Row="1" Grid.Column="1" SmallChange="10"
            LargeChange="20"/>

    </UniformGrid>

</Window>
```


The ScrollBar Control



The Slider Control

- ❖ The `Slider` is similar to the `ScrollBar`. The difference between the two is their appearance.

The Slider Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo"
        Width="200" Height="140" FontSize="14">

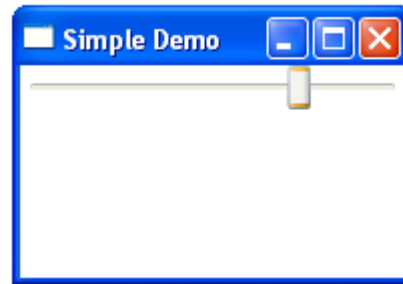
    <UniformGrid Rows="1" Columns="1">

        <Slider Orientation="Horizontal" Minimum="0" Maximum="200"
                Value="100" Grid.Row="1" Grid.Column="1" SmallChange="10"
                LargeChange="20"/>

    </UniformGrid>

</Window>
```

The Slider Control



The TextBox Control

- ❖ The `TextBox` control allows the user to enter simple text.

The TextBox Control

```
<Window xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
        xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
        x:Class="gaga.MainWindow" Title="Simple Demo" Width="200"
        Height="140" FontSize="14">

    <UniformGrid Rows="1" Columns="1">

        <TextBox Width="200"/>

    </UniformGrid>

</Window>
```

The TextBox Control

