Selection List for Qt and WP7

This article demonstrates how to create selection lists in Qt and Windows Phone 7.

Introduction

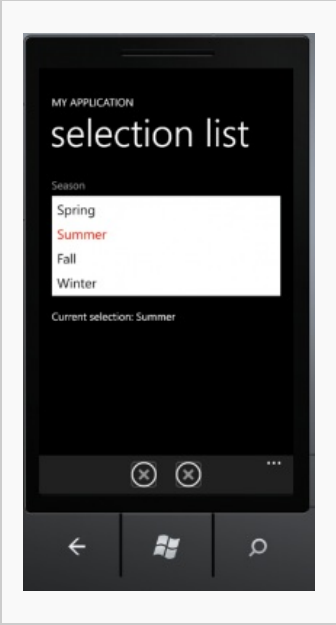
Selection lists are lists of items from which the user can select one or more items. The lists can optionally be scrollable, and have a highlight to show single or multiple selections.

Both Qt and Windows Phone have support for selection lists:

- In Qt, we use the SelectionListItem QML element to launch a Selection Dialog which contains the list. When a season is selected the dialog closes and populates the SelectionListItem subtitle with the selected season.
- Windows Phone 7 code uses the `ListPicker` control from Silverlight for Windows Phone Toolkit. When an item is selected it is displayed as the "Current" item in a separate text box.

This example creates selection lists in both Windows Phone and Qt. The selection lists contain the four seasons of the year as list items. When user selects any of the item it gets displays in the screen.

Qt SelectionDialog



WP7 ListPicker

Implementation

The code below starts from an empty project for both Qt and WP7.

Qt Project (main.qml)

We took SelectionListItem component to get the selected item in the list. When user clicks on the SelectionListItem it opens SelectionDialog with the list item in it.

```
SelectionListItem {
            id: item
            y:51
            title: "Select Season"
            subTitle: selectionDialog.selectedIndex >= 0
                      ? selectionDialog.model.get(selectionDialog.selectedIndex).name
                      : "Please select"
            onClicked: selectionDialog.open()
            SelectionDialog {
                id: selectionDialog
                titleText: "Select one of the values"
                selectedIndex: -1
                model: ListModel {
                    ListElement { name: "Spring" }
                    ListElement { name: "Summer" }
                    ListElement { name: "Fall" }
                    ListElement { name: "Winter" }
                }
            }
        }
```

When user select any item from the list it is displayed in the SelectionListItem in the `subtitle` field.

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WP7 Project (MainPage.xaml)

- Let's add the reference *Microsoft.Phone.Controls.Toolkit* to the project .
- Add namespace in XAML:

```
xmlns:toolkit="clr-namespace:Microsoft.Phone.Controls;assembly=Microsoft.Phone.Controls.Toolkit"
xmlns:controls="clr-namespace:Microsoft.Phone.Controls;assembly=Microsoft.Phone.Controls"
xmlns:local="clr-namespace:SelectionListWp7"
```

- Add resources :

```
<phone:PhoneApplicationPage.Resources>
        <local:Model x:Key="Model"/>
        <DataTemplate x:Key="SeasonsTemplate">
            <StackPanel Orientation="Horizontal">
                <Ellipse
                    Fill="{Binding}"
                    Width="20"
                    Height="20"
                    Margin="0 0 6 0"/>
                <TextBlock Text="{Binding}"/>
            </StackPanel>
        </DataTemplate>
    </phone:PhoneApplicationPage.Resources>
```

Then use the `ListPicker` to create the List item

```
<StackPanel>
                <toolkit:ListPicker
                    x:Name="SeasonsSelector"
                    Header="Season"
                    ItemsSource="{Binding Seasons}"
                    SelectedIndex="1"
                    SelectionChanged="SeasonsSelectionChanged"/>
                    <TextBlock
                    x:Name="SeasonsSelection"
                    Margin="{StaticResource PhoneMargin}"
                    CacheMode="BitmapCache"/>
     </StackPanel>
```

By default the index *1* in the list is being selected.

WP7 Project (MainPage.xaml.cs)

When user clicks on any of the list item the `SeasonsSelectionChanged()` event is called and the selected item it being displayed in the screen.

```
private void SeasonsSelectionChanged(object sender, SelectionChangedEventArgs e)
        {
            SeasonsSelection.Text = "Current selection: " + ((0 < e.AddedItems.Count) ? e.AddedItems[0] : "[nothing]");
        }
```

Summary

Using SelectionListItem we can create a list view of many items, but in case of WP7 the `ListPicker` control can have at max five items in the drop down list, if the list item is more than five then it opens a full-screen popup for the item selection. Both the effects are controlled by WP7 Toolkit's `ListPicker` control which combines both the experiences in the same API by automatically selecting the right UX based on the number of items in its list.

Source Code

- The full source code of Qt example is available here: File:SelectionListQt.zip
- The full source code of WP7 example is available here: File:SelectionListWP7.zip

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