




Windows
Phone

Using the Guide
for Text Input



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Agenda

Text input on Windows Phone

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Windows Phone Jump Start



Windows
Phone

Text Input on
Windows Phone XNA

Text Input in XNA Games

- Windows PC and Xbox 360 games can make use of a USB keyboard to read text
- The Windows Phone does not have any such device
- If your game needs to read text it will have to use the Guide to do this

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The Guide


- The Guide is a set of resources for providing user interaction from XNA
- On the Xbox 360 you normally get the Guide displayed when you press the Xbox jewel in the middle of the gamepad
- On Windows PC you display the Guide using the Home key
- Guide interaction is driven by the GamerTag that is currently active on the machine

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Windows Phone Gamertags

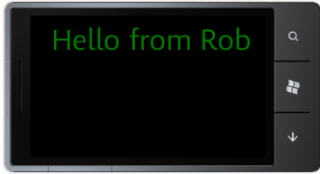
- A given Windows Phone has a single user gamertag associated with it
- This gamer is assumed to be the user at all times
- There is no concept of "signing off and signing on" as with the Xbox 360
- This makes using the Guide much simpler

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Using the Guide

Banner Display

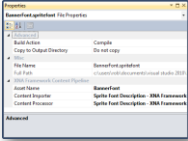


- This is a simple banner program that displays a text message
- We need a way of getting the message into the program

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Text and SpriteFonts

- Text is displayed by XNA games using a SpriteFont object
- This describes a particular font at a particular point size
- SpriteFonts are created and managed as content objects
- The SpriteFont is created from a font on the developers' system



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Displaying Text

```
1. spriteBatch.Begin();
2. spriteBatch.DrawString(bannerFont, message, messagePosition,
3.                               Color.Green);
4. spriteBatch.End();
```

- This displays the text in the string message
- The sprite is positioned using the messagePosition value, which is a 2D vector
- The bannerFont was loaded as a content item

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Displaying the Guide

```
1. TouchCollection touches = TouchPanel.GetState();
2. if (touches.Count > 0) {
3.     if (!Guide.IsVisible) {
4.         Guide.BeginShowKeyboardInput(
5.             PlayerIndex.One,
6.             "Message Input",
7.             "Get a new message for the display",
8.             message,
9.             new AsyncCallback(keyboardDone), stateObject);
10.    }
11. }
```

- This displays the Guide when the screen is touched

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Displaying the Guide

```
1. TouchCollection touches = TouchPanel.GetState();
2. if (touches.Count > 0) {
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5.             PlayerIndex.One,
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8.             message,
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10.    }
11. }
```

- Check for a touch on the screen

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Displaying the Guide

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5.             PlayerIndex.One,
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9.             new AsyncCallback(keyboardDone), stateObject);
10.    }
11. }
```

- The flag tells you if the Guide is visible
- Only display if it is not

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Displaying the Guide

```
1. TouchCollection touches = TouchPanel.GetState();
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3.     if (!Guide.IsVisible) {
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5.             PlayerIndex.One,
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8.             message,
9.             new AsyncCallback(keyboardDone), stateObject);
10.    }
11. }
```

- This begins keyboard input

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The Guide Callback

```
1. TouchCollection touches = TouchPanel.GetState();
2. if (touches.Count > 0) {
3.     if (!Guide.IsVisible) {
4.         Guide.BeginShowKeyboardInput(
5.             PlayerIndex.One,
6.             "Message Input",
7.             "Get a new message for the display",
8.             message,
9.             new AsyncCallback(keyboardDone), stateObject);
10.    }
11. }
```

- When the user has entered their text and pressed OK the keyboardDone method is called

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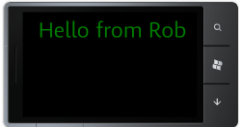
The Callback Method

```
1. void keyboardDone(IAsyncResult result)
2. {
3.     string guideString = Guide.EndShowKeyboardInput(result);
4.     if (guideString != null) {
5.         message = guideString;
6.     }
7. }
```

- When this method is called we can use the EndShowKeyboardInput method to decode the result and get the text entered by the player
- This returns null if the Guide was cancelled

Big Banner

Demo



Demo 1: Big Banner Display

Using the Guide

- When the Guide is visible the Draw and Update methods in your game will still be called
- This means that a player might lose lives while they are typing in text
- Your game should switch to pause mode during Guide interactions
 - The Guide.Visible flag can be used to control this

Review

Windows Phone can use a physical keyboard from XNA

SpriteFonts are created on the Windows Phone

SpriteFonts are based on particular character designs

An XNA game stops when the Guide is displayed

The Guide uses a callback to deliver the string that was entered

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Coming Up Next...

Marketplace, Advanced Silverlight, all kinds of good stuff
... coming Thursday

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