Implement timers in Windows Phone

This article explains how to implement a timer (DispatcherTimer) in Windows Phone.

Introduction

The code example shows how to use DispatcherTimer on Windows Phone. Timers are very useful for executing code at specified time intervals.

Implementation

The code in this article is written using C#. A text box will be used to display a clock, which is refreshed every second. Follow the below steps to create the clock app:

1. Create a new "Silverlight" project using C# language. Here we are naming the project as "Clock"
2. Place a text box and a button.
3. We are giving textbox name as "txtClock". We can also change the font and color of content in the text box.
4. We will now add following code to the project.

```
using System;
using Microsoft.Phone.Controls;
using System.Windows.Threading;
namespace Clock
{
    public partial class MainPage : PhoneApplicationPage
    {
        // Constructor
        public MainPage()
        {
            InitializeComponent();
        }
        void OnTimerTick(Object sender, EventArgs args)
        {
            // text box property is set to current system date.
            // ToString() converts the datetime value into text
            txtClock.Text = DateTime.Now.ToString();
        }
```


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```
        private void button1_Click(object sender, EventArgs e)
        {
            // creating timer instance
            DispatcherTimer newTimer = new DispatcherTimer();
            // timer interval specified as 1 second
            newTimer.Interval = TimeSpan.FromSeconds(1);
            // Sub-routine OnTimerTick will be called at every 1 second
            newTimer.Tick += OnTimerTick;
            // starting the timer
            newTimer.Start();
        }
    }
}
```

Building and Running

The application is now ready to be built (Ctrl+Shift+B) and ran (Ctrl+F5) either on the emulator or a device.

Note

This application has been tested on the emulator, and should work on a physical device.

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