

# Piping to notepad

 [devblogs.microsoft.com/oldnewthing/20140908-00](http://devblogs.microsoft.com/oldnewthing/20140908-00)

September 8, 2014



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In honor of [NotepadConf's](#) new [KickStarter video](#), today's Little Program takes its stdin and puts it in a Notepad window.

```
using System;
using System.Diagnostics;
using System.Windows.Automation;
using System.Runtime.InteropServices;
class Program
{
    static void Main(string[] args)
    {
        // Slurp stdin into a string.
        var everything = Console.In.ReadToEnd();
        // Fire up a brand new Notepad.
        var process = new Process();
        process.StartInfo.UseShellExecute = false;
        process.StartInfo.FileName = @"C:\Windows\System32\notepad.exe";
        process.Start();
        process.WaitForInputIdle();
        // Find the Notepad edit control.
        var edit = AutomationElement.FromHandle(process.MainWindowHandle)
            .FindFirst(TreeScope.Subtree,
                new PropertyCondition(
                    AutomationElement.ControlTypeProperty,
                    ControlType.Document));
        // Shove the text into that window.
        var nativeHandle = new IntPtr((int)edit.GetCurrentPropertyValue(
            AutomationElement.NativeWindowHandleProperty));
        SendMessage(nativeHandle, WM_SETTEXT, IntPtr.Zero, everything);
    }
    [DllImport("user32.dll", EntryPoint="SendMessage", CharSet=CharSet.Unicode)]
    static extern IntPtr SendMessage(
        IntPtr windowHandle, int message, IntPtr wParam, string text);
    const int WM_SETTEXT = 0x000C;
}
```

The comments pretty much lay out the steps. The part that may not be obvious is the part that deals with UI Automation: We take the main Notepad window, then ask UI Automation to find Document element inside it.

From that element, we extract the window handle, then drop to Win32 and send a WM\_SET-TEXT message to jam the text into the Notepad window.

If you save this program under the name `2np`, then you can do

```
dir | 2np
```

and it will open a Notepad window with a directory listing inside it.

Change one line of code, and this program will launch Wordpad instead.

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