

# Debugging and Analyzing XAML

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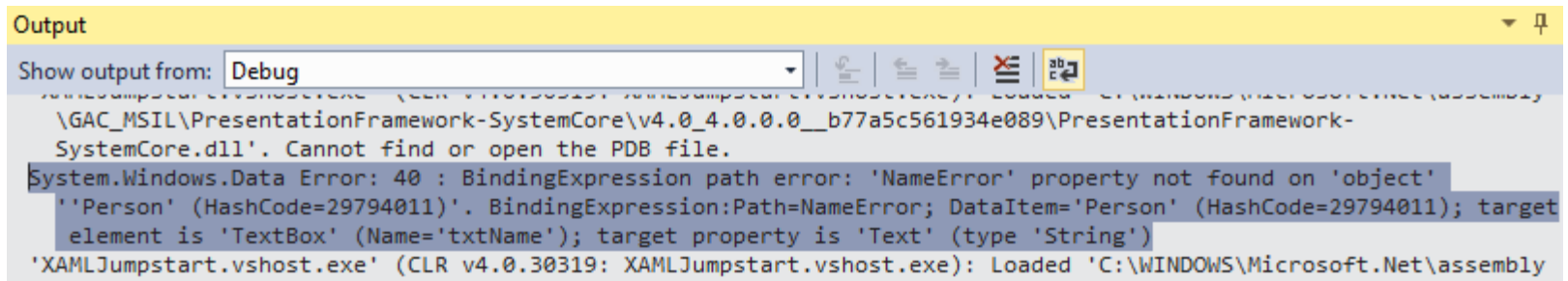
@KevinDockx



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# Debugging XAML

Setting breakpoints in XAML isn't possible (except in Silverlight), but we can use the output window to check for data binding errors

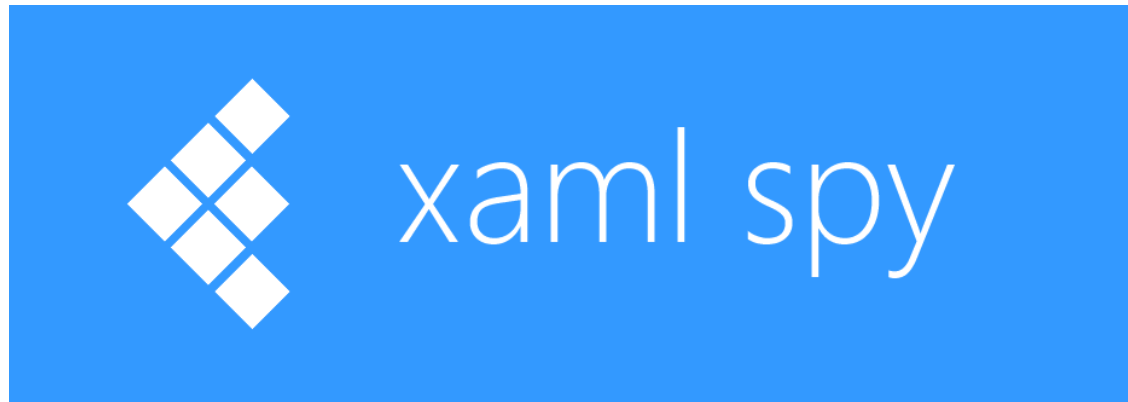


The screenshot shows the Visual Studio Output window with a yellow header. The 'Show output from:' dropdown is set to 'Debug'. The output text includes a warning about a missing PDB file for PresentationFramework-SystemCore.dll and a red error message from System.Windows.Data. The error message states: 'System.Windows.Data Error: 40 : BindingExpression path error: 'NameError' property not found on 'object' ''Person' (HashCode=29794011)'. BindingExpression:Path=NameError; DataItem='Person' (HashCode=29794011); target element is 'TextBox' (Name='txtName'); target property is 'Text' (type 'String')'. The window also shows the start of a log entry for 'XAMLJumpstart.vshost.exe'.

```
Output
Show output from: Debug
XAMLJumpstart.vshost.exe (CLR v4.0.30319: XAMLJumpstart.vshost.exe): Loaded 'C:\WINDOWS\Microsoft.NET\assembly\GAC_MSIL\PresentationFramework-SystemCore\v4.0.0.0__b77a5c561934e089\PresentationFramework-SystemCore.dll'. Cannot find or open the PDB file.
System.Windows.Data Error: 40 : BindingExpression path error: 'NameError' property not found on 'object' ''Person' (HashCode=29794011)'. BindingExpression:Path=NameError; DataItem='Person' (HashCode=29794011); target element is 'TextBox' (Name='txtName'); target property is 'Text' (type 'String')
'XAMLJumpstart.vshost.exe' (CLR v4.0.30319: XAMLJumpstart.vshost.exe): Loaded 'C:\WINDOWS\Microsoft.Net\assembly
```

# Analyzing XAML

After a while, it can become quite hard to find the source of a UI-related mistake in a XAML document, especially when you start creating custom templates



[www.xamlspy.com](http://www.xamlspy.com)

# XAML Tips

How you write your XAML can have a tremendous impact on application performance

Tips

- **Minimize element count**

For example, use Background on Grid instead of filling the Grid with a Rectangle to achieve the same

- **Reuse resources**

Resources you reuse are only created once

- **Avoid unnecessary overdraw**

Every pixels needs to be drawn, even if it's fully overlaid by another pixel

# Memory Profiling

Performance-related problems often arise in XAML applications, and contrary to what might look obvious, memory profiling is one of the best ways to locate the source of those problems

- Telerik (<http://telerik.com/>)
- JetBrains (<http://jetbrains.com/>)
- Building High-Performance Windows 8 Applications  
<http://bit.ly/1cTjXBI>

# Summary

- **Debugging**
- **Analyzing**
  - XAML Spy
  - XAML Tips
  - Memory profiler