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Beginning Pro SDK project development: Tips and Tricks for Troubleshooting

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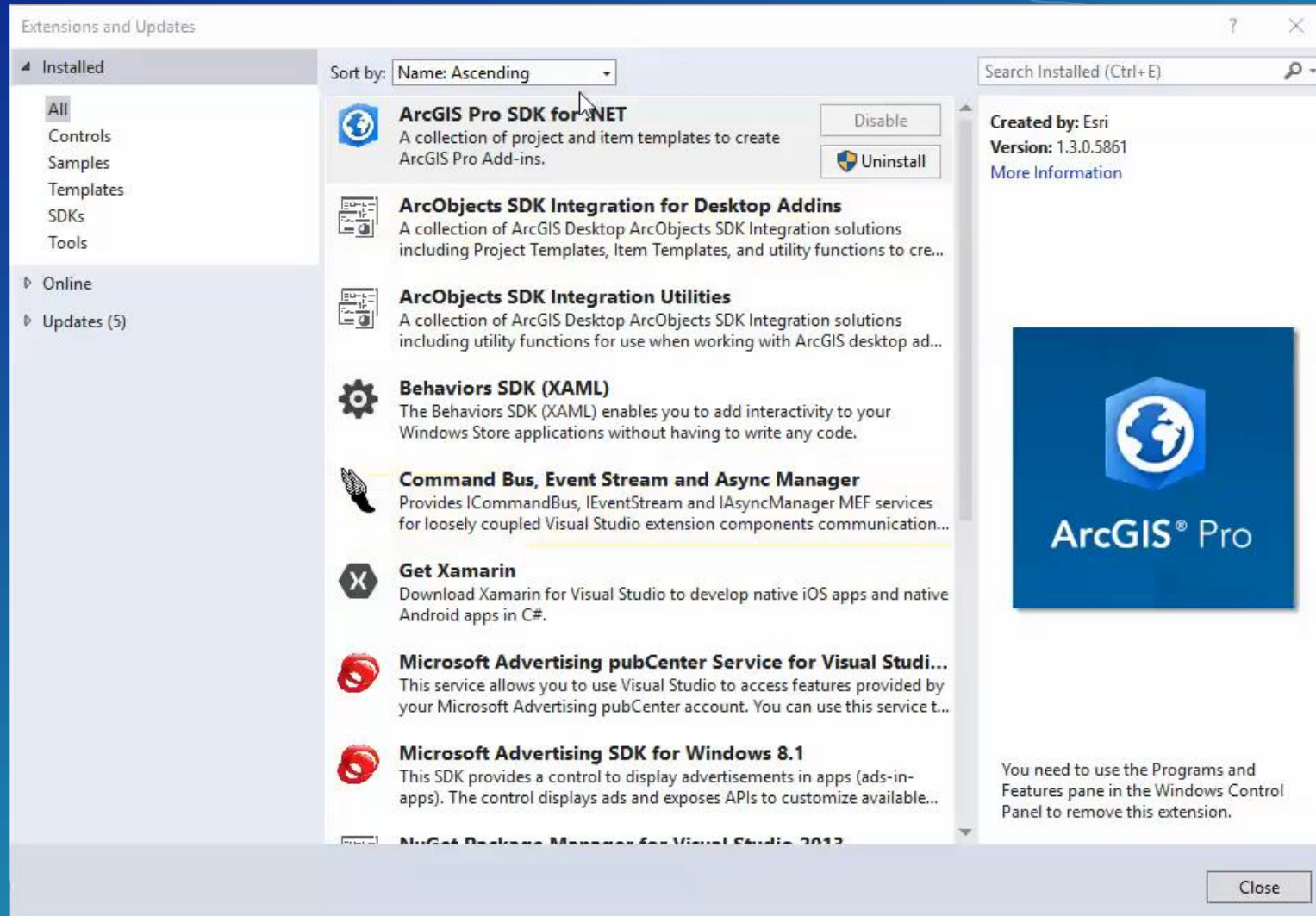
Agenda

- For beginner-level ArcGIS Pro SDK .NET developers
- Top issues with a demo
- Troubleshooting suggestions
- Q&A

Top Issues



1. Issues when updating or uninstalling ArcGIS Pro SDK



1. Issues when updating or uninstalling ArcGIS Pro SDK 1.x

Install method (1.x)	Use these files
VSIX (in Visual Studio)	proapp-sdk-templates.vsix , proapp-sdk-utilities.vsix
MSI (download from MyEsri.com)	ArcGISProSDK.msi, ArcGIS ProSDK.cab

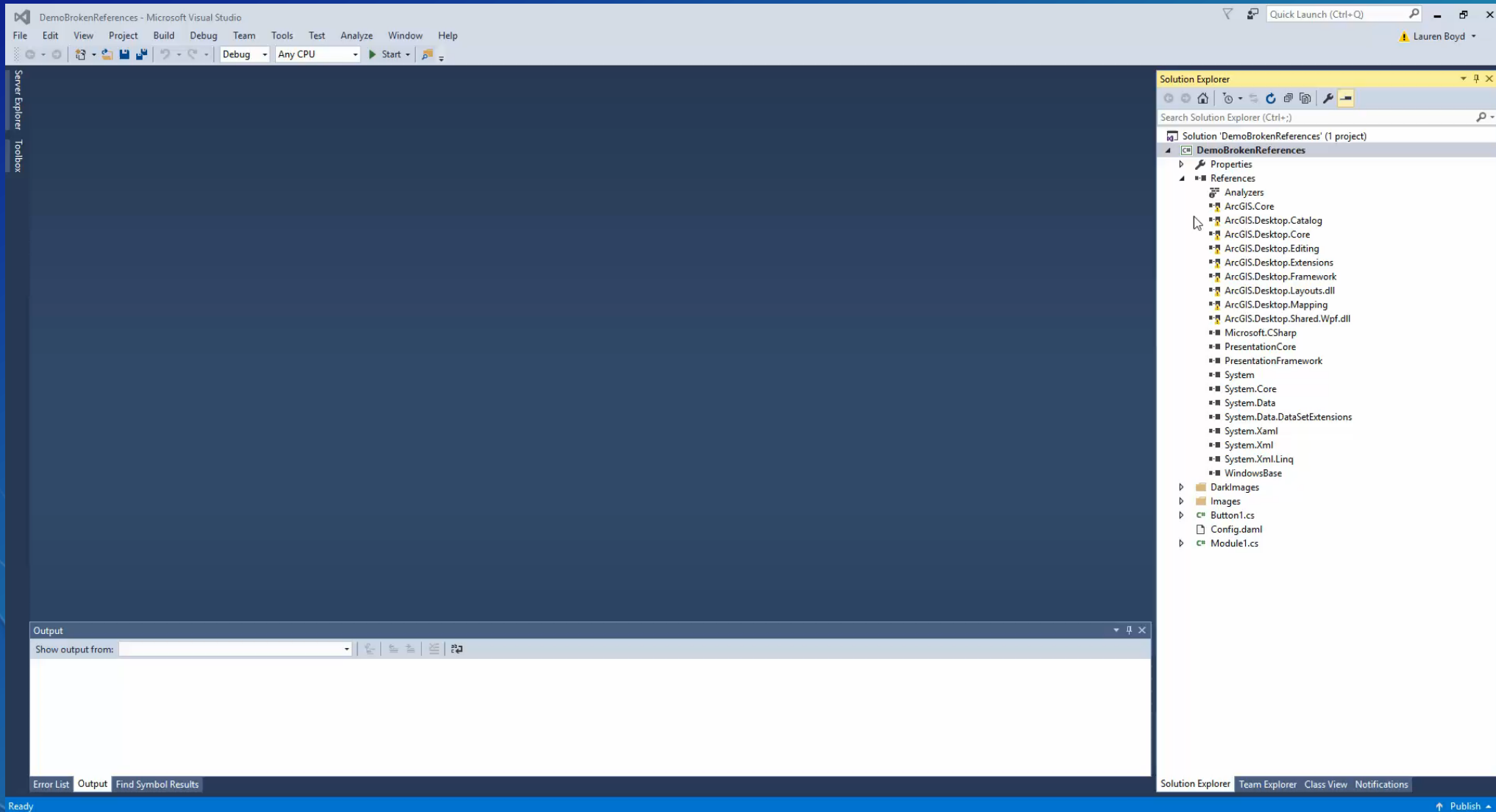
Use either one method, but **not both!**

1. Issues when updating or uninstalling ArcGIS Pro SDK 1.x

Install method (2.0 and above)	Use these files
VSIX (in Visual Studio)	proapp-sdk-templates.vsix , proapp-sdk-utilities.vsix
MSI (download from MyEsri.com)	ArcGISProSDK.msi, ArcGISProSDK.cab

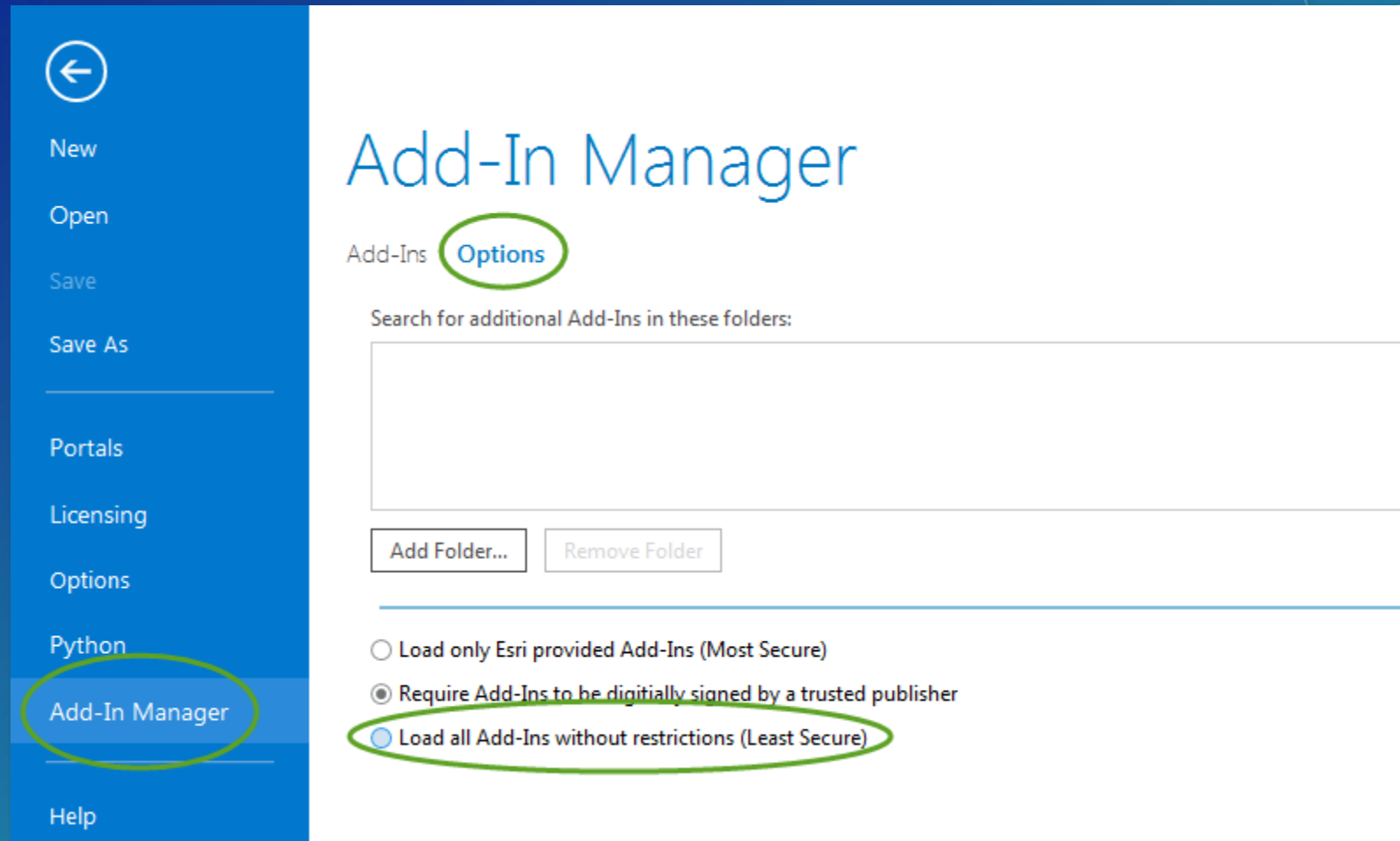
Since 2.0, only VSIX installation will be available!

2. References are broken in ArcGIS Pro SDK projects shared to you



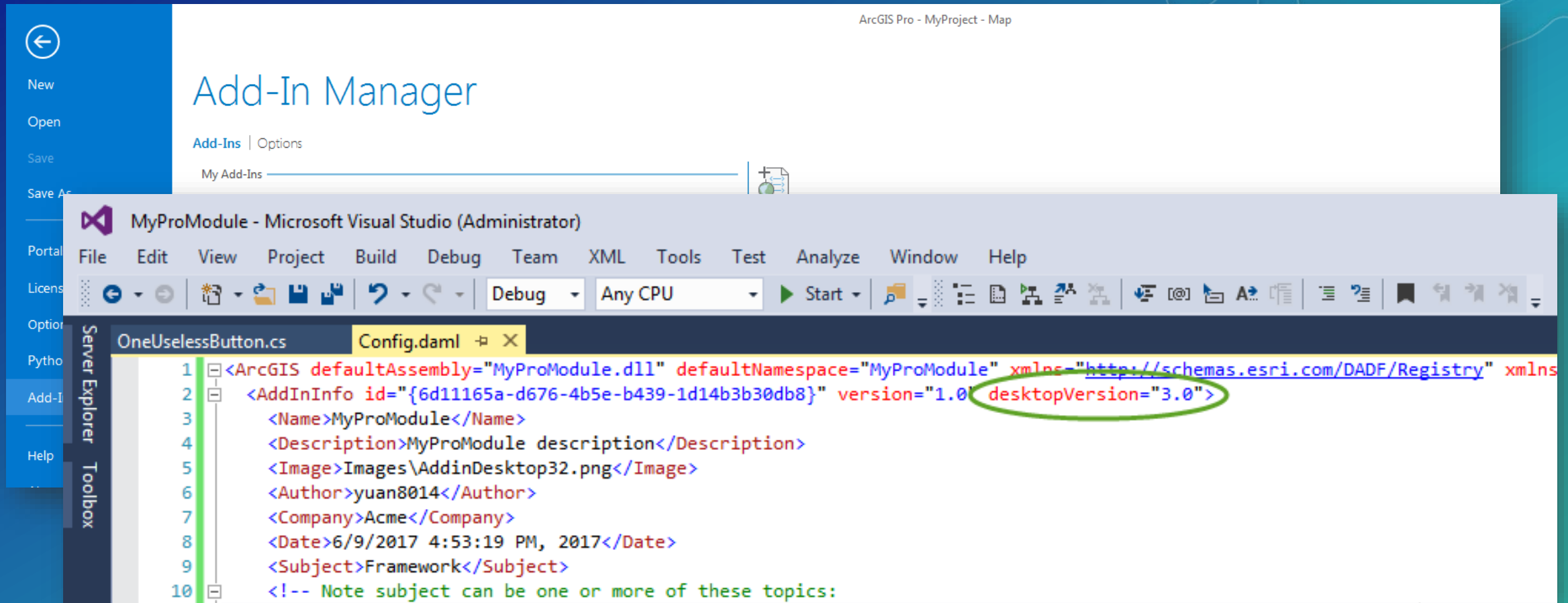
3. Add-in not loaded by ArcGIS Pro

Cause 1



3. Add-in not loaded by ArcGIS Pro

Cause 2



3. Add-in not loaded by ArcGIS Pro

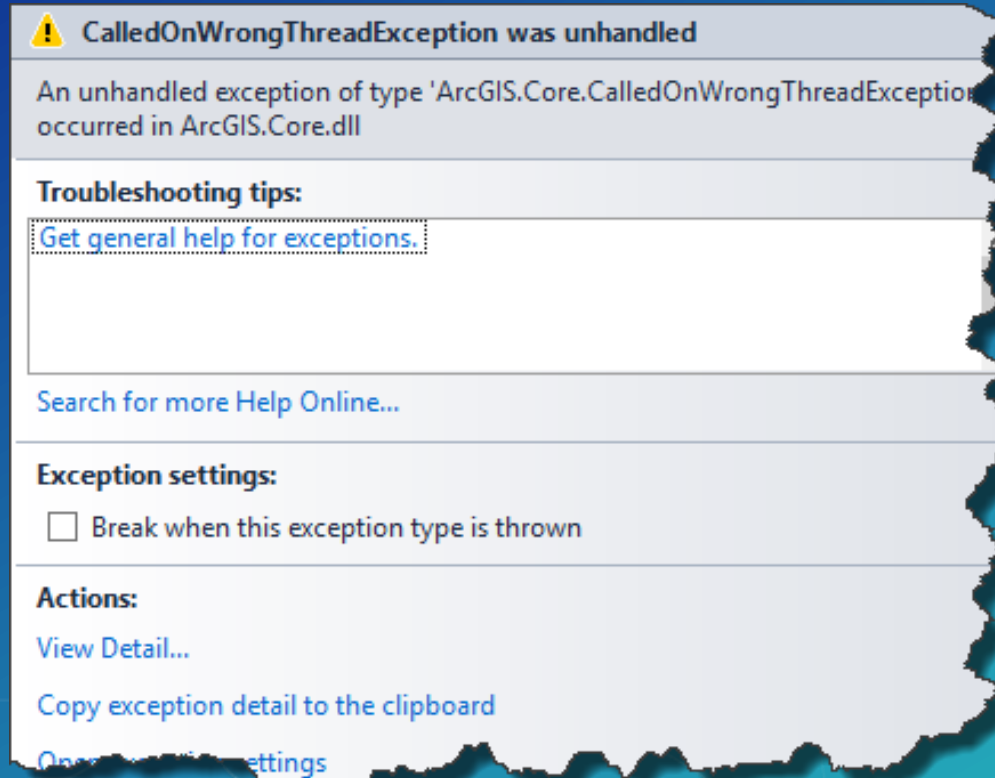
Cause 2

Add-ins and configurations are

- Forwards compatible across all **minor** versions of ArcGIS Pro (eg 1.3, 1.4, etc)
- **Not** forwards compatible across **major** versions of ArcGIS Pro (eg 2.x, 3.x, etc)
- **Not** backwards compatible across **any** versions of ArcGIS Pro

*Build number is ignored

4. ArcGIS.Core.CalledOnWrongThreadException



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- Task-based Asynchronous Pattern (TAP)
- Add-In Developer Threads
 1. UI Thread

The UI Thread should remain free to take user input
 2. MCT (Main CIM Thread)

CIM = Cartographic Information Model
- Task.Run

4. ArcGIS.Core.CalledOnWrongThreadException

- Task-based Asynchronous Pattern (TAP)
- Add-In Developer Threads
 1. UI Thread

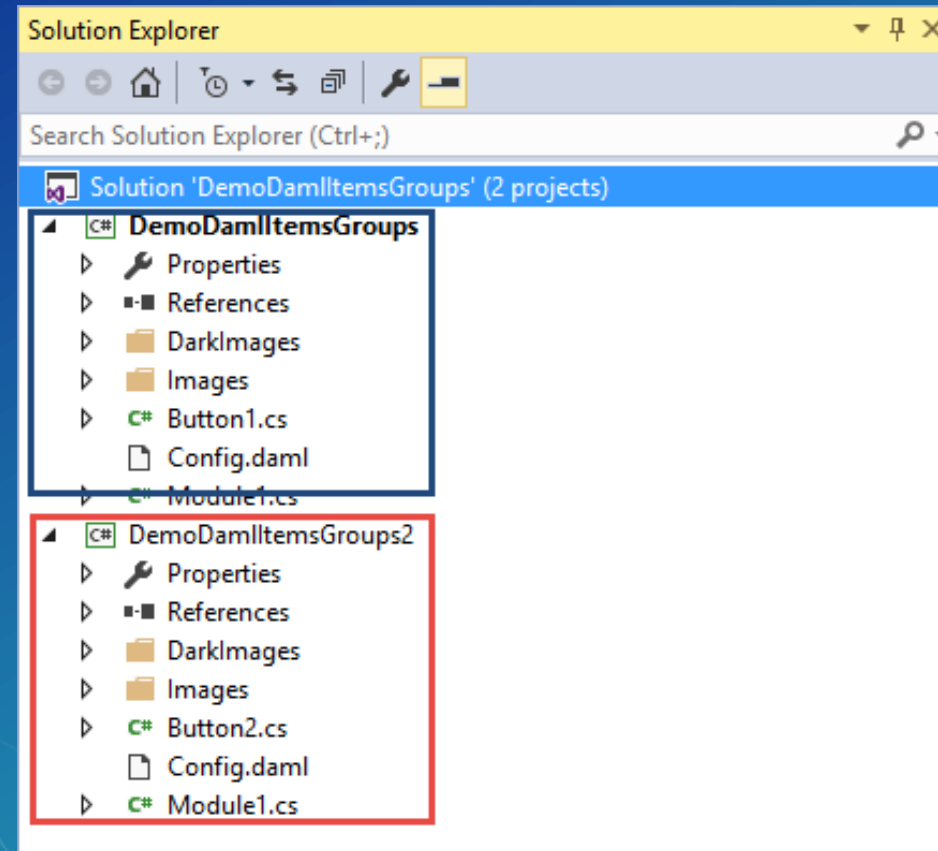
The UI Thread should remain free to take user input
 2. MCT (Main CIM Thread)

CIM = Cartographic Information Model
- ~~Task.Run~~
- `QueuedTask.Run` (Best Practice ✓)

5. Make sure operations are performed in a logical sequence

- Best Practice: Use **await** for asynchronous methods.
 1. Makes sure methods are executed in appropriate order
 2. Allows us to try/catch the exceptions thrown by the asynchronous function (a worker thread) at where the function was called (usually UI thread)

6. Controls not appearing with multiple projects in one solution



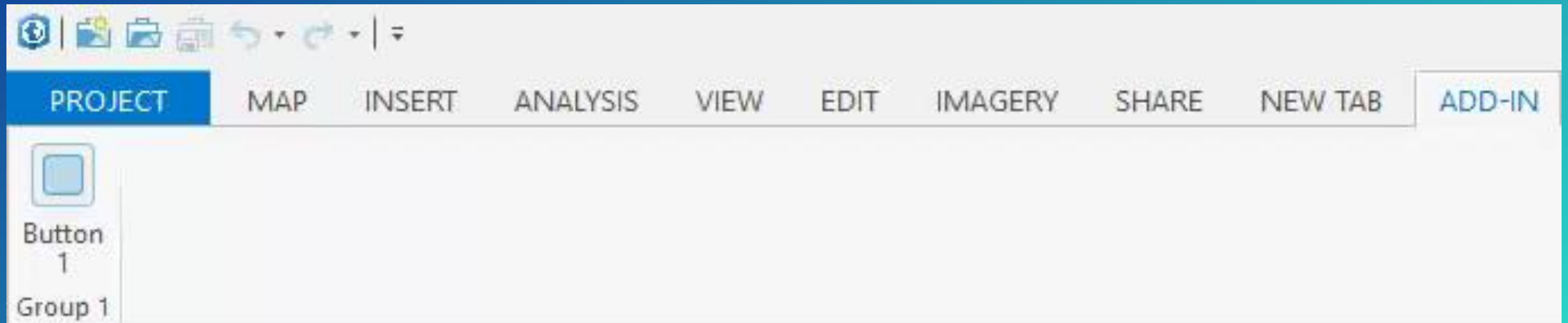
7. Get "keytip" is missing warning in Visual Studio

```
</groups>  
  <!-- comment this out if you have no controls on the Addin tab to avoid  
        an empty group-->  
  <group id="ProAppModule1_Group1" caption="Group 1" appearsOnAddInTab="true">  
    <  
  </g  
</groups>
```

The required attribute 'keytip' is missing.

7. Get "keytip" is missing warning in Visual Studio

```
<!-- comment this out if you have no controls on the Addin tab to avoid  
an empty group-->  
<group id="ProAppModule_Group1" caption="Group 1" appearsOnAddInTab="true" keytip="G1">  
  <!-- host controls within groups -->  
</group>  
</groups>
```



Troubleshooting Tricks



Troubleshooting Suggestions

- License
- Latest release and system requirements: resources.arcgis.com
- Existing bug/enhancements: support.esri.com
- Google/Bing/etc...
- Esri Tech Support



esri

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