



Visual Studio Extension Partners

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Welcome – From the Extensibility Team



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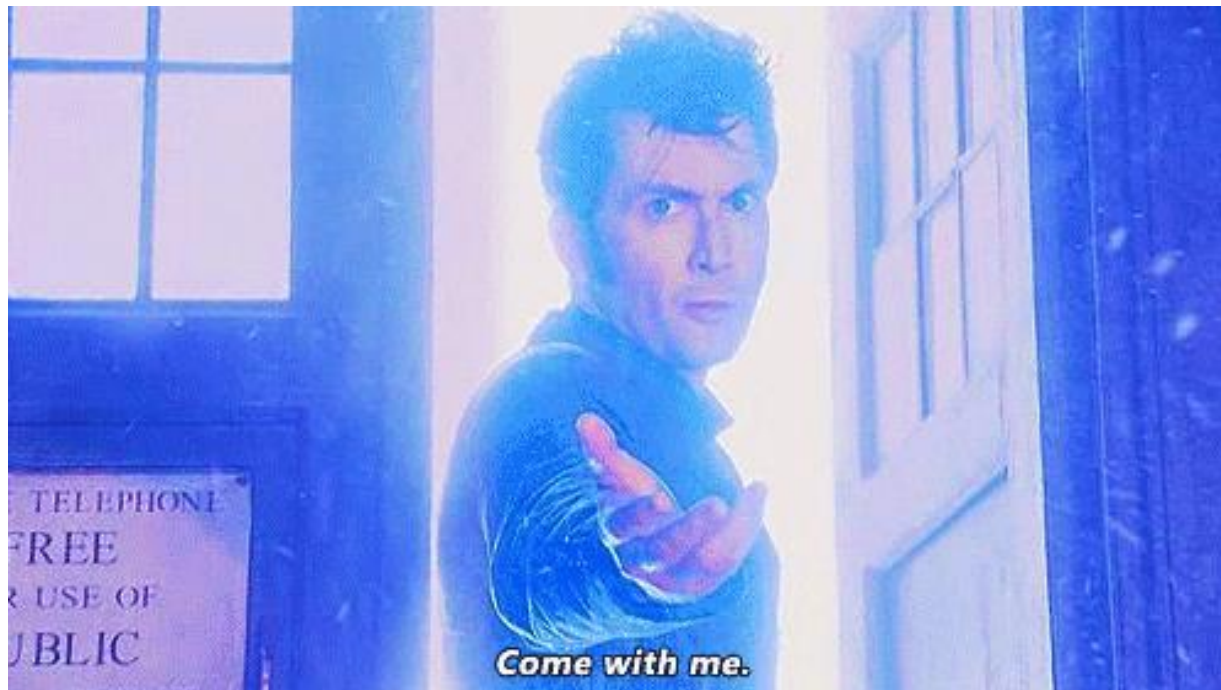


Join Our Teams Channel!



Visual Studio Extension Partners – Teams Channel

<https://aka.ms/vsexp/teams>



Also, a private GitHub repo: Microsoft/VSExtensibility

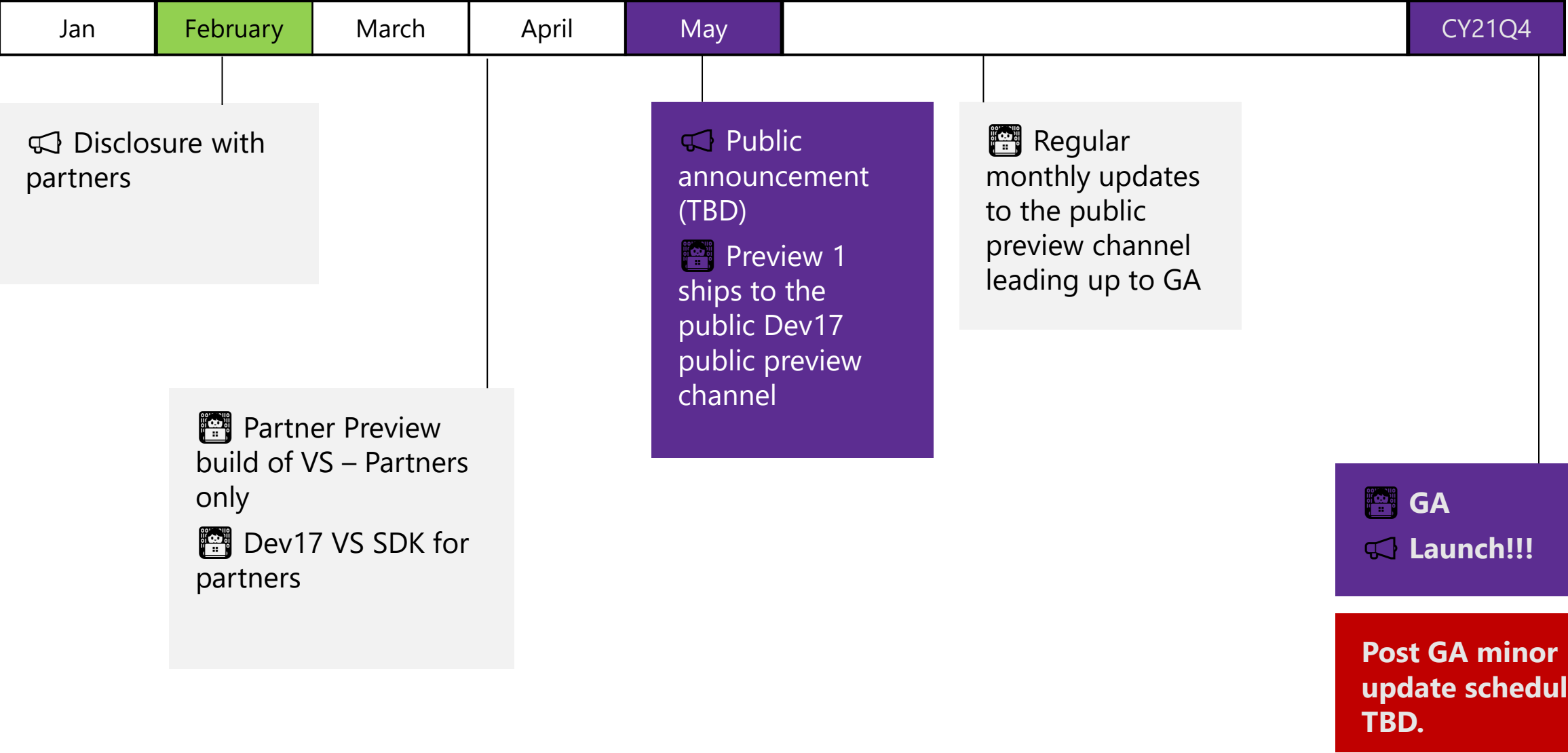
<http://github.com/microsoft/VSExtensibility/>

* It's an invite only channel you will see a mail from us

Dev17

The Next Major Version of Visual Studio

Dev17.0 Timeline



Dev17.0 Theme

*Developers can count on the **performance** and **reliability** of Visual Studio with large and complex codebases*

Dev 17 Theme – Performance

- Performance is **the** focus for Dev17.0
- We've heard loud and clear from our, and your, customers that performance is a huge dissatisfier
- We want to partner with you to improve the performance of Visual Studio and would love to celebrate your successes publicly
- Varun will be following up on this topic

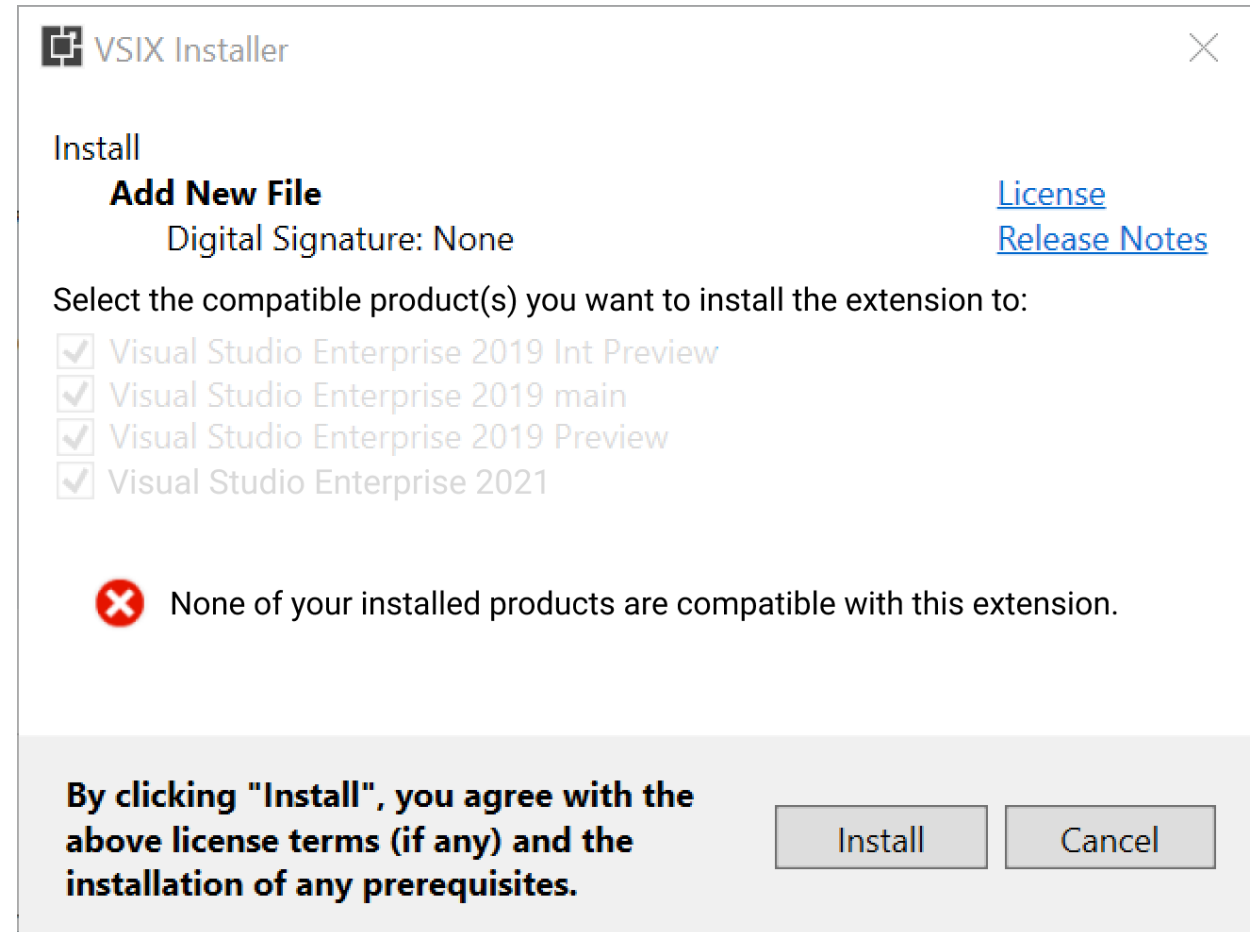
Visual Studio 64-bit

What?

- The main devenv.exe process is moving to 64-bit in Dev17.0 and we are **only** releasing a 64-bit version
- This only impacts binaries loaded into the devenv.exe process
- We are not changing the sorts of apps customers can build or target

Customer Experience Goals

- Create a seamless transition to installing 64-bit extensions while providing a simpler, single-point location for all extension versions
- Provide extensive resources and documentation for authors to successfully migrate their extensions to Dev17/64-bit



Impact

No 64-bit extension == no Dev17 compatibility

You must use Dev17 to target Dev17

Binaries need to be Any CPU/64-bit

Breaking API changes

Manifest Change

- For a VSIX to install on Dev17+ the manifest will need to explicitly opt in via a ProductArchitecture element as a child of InstallationTarget
 - Existing manifests that claim to work in Dev17 won't install without this

```
<Installation>
  <InstallationTarget Id="Microsoft.VisualStudio.Enterprise"
Version="[17.0, 18.0)">
    <ProductArchitecture>amd64</ProductArchitecture>
  </InstallationTarget>
</Installation>
```

Breaking APIs

- In moving to 64-bit some APIs need to be updated as they won't work in 64-bit
- We are still assessing the extent of the APIs that need updating and expect to discover more as we go
- Example change (uint -> IntPtr)

Old:

```
public int LoadUILibrary(ref Guid guidPackage, uint dwExFlags, out uint phinstOut);
```

New:

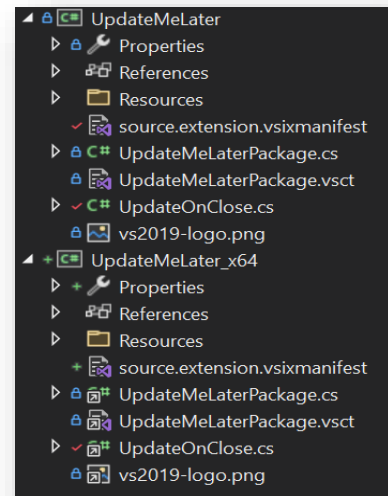
```
public int LoadUILibrary(ref Guid guidPackage, uint dwExFlags, out IntPtr phinstOut);
```

New Interop Approach

- To help make it easier to migrate in Dev17 we are moving to a new interop to make bitness issues build errors
 - Merging several PIAs into one new assembly
 - This will make it much less likely for runtime bugs to crop up
- VSIXs will need to update their references to the new interop assembly
 - The new interop assembly is not being back ported to earlier versions of VS

Handling Different Bitness

- If your extension has any binaries (native or managed) there will need to be separate VSIXs targeting Dev17+ and Dev16-. Dev16 and Dev17 are not binary compatible
 - For native code the 32/64 change requires this
 - For managed code the interop change require this
- If you are targeting Dev16 and Dev17 from one codebase, we recommend you have a VSIX project (and manifest) for each at build separately



Marketplace

- At GA the marketplace will support multiple VSIX files per listing
 - Pivoted on version and architecture
 - This won't be in place for Preview 1 but will be for GA
- For Preview 1 you will need a new listing for your Dev17 extension
- The Visual Studio extension manager will install the right extension
- We welcome all feedback!

Guidance for Porting

- We are working on a guidance doc and would love your feedback

Next Steps

- Join the Teams channel (invite to be sent)
 - [Extensions In Dev17 · microsoft/VSExtensibility Wiki \(github.com\)](#)
- Share your GitHub username so we can add you to the repo
 - Mail lerich@microsoft.com
- Stay tuned for upcoming Dev17 Partner Preview
- Ask us questions!!!