



The example in this chapter is for Visual Studio 2017 (or 2015) on Windows 10 – it won't work in earlier versions.



Universal



A UWP application is also known as a “UWA” – Universal Windows Application.



Depending upon your choices when you installed Visual Studio, you may see the options checked when the installer launches, to indicate you already have the Universal Windows App Development Tools.

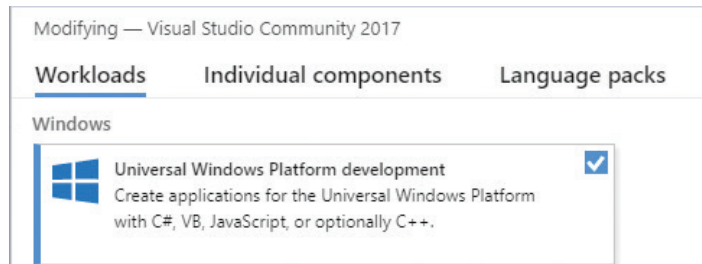
Starting a Universal project

Windows 10 introduced the **Universal Windows Platform** (UWP) that enables you to create a single application that will run on any modern Windows-based device – phone, tablet, or PC.

The interface layout of a UWP application uses the **eXtensible Application Markup Language** (XAML) to specify components.

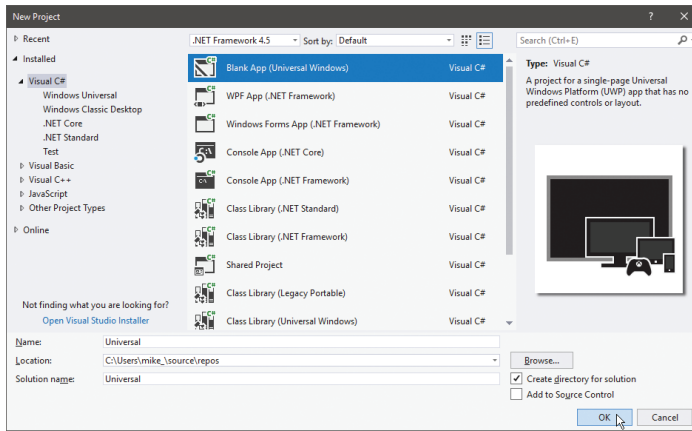
In order to develop apps for the UWP you should be running the latest version of Windows 10 and your Visual Studio IDE must include the Universal Windows Platform development tools:

- 1 Click **Visual Studio Installer** on the Apps menu, then click the **Modify** button on the Installer dialog
- 2 Select the **Workloads** tab, and ensure that the box is checked for the Universal Windows Platform development option – indicating this is installed

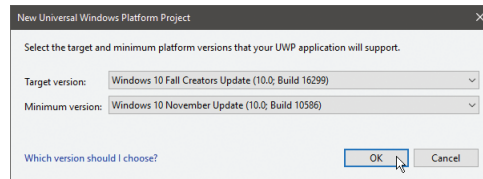


- 3 If the box was not already checked, this item will need to be installed, so check the box now
- 4 Click the **Modify** button at the bottom-right of the Installer dialog to download and install the Universal Windows Platform development tools
- 5 Next, select **File, New, Project** and create a new **Blank App (Universal Windows)** project called “Universal”

...cont'd

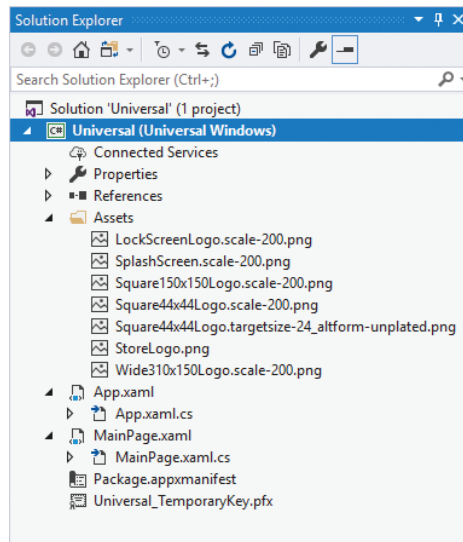


- 6 Click **OK** to accept the suggested version options



- 7 After Visual Studio creates the new project select **View, Solution Explorer** to examine the generated files:

- A set of logo images in an **Assets** folder
- Internal XAML and C# files for the **App**
- XAML and C# files for the **MainPage** – here is where you will create interface components and functional code
- Other miscellaneous **Package** files



On Windows 10 you should ensure that the **Developer Mode** option is enabled in **Settings, Update & Security, For developers**.



Visual Studio 2017 supports cross-platform mobile device development.



These files are essential to all UWP apps using C#, and exist in every project Visual Studio creates to target the Universal Windows Platform with C#.