Hot tip

An UWP application is also known as a "UWA" – Universal Windows Application.

Universal

Beware

The example in this chapter is for Visual Studio 2017 on Windows 10 – it won't work with earlier versions of Windows.

Don't forget

Depending upon your choices when you installed Visual Studio, you may 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 App Development Tools**:
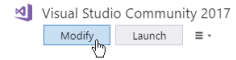
1 Go to the Windows apps menu and launch the **Visual Studio Installer**
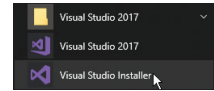
2 Click the Installer's **Modify** button to open the "Modifying" dialog

3 Select the "Workloads" menu, then choose the **Universal Windows Platform development** workload components
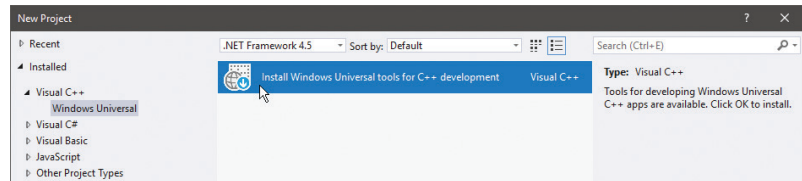
4 Click the **Modify** button to download and install the UWP development workload components

5 Click the **Launch** button to open the Visual Studio IDE, then select **File**, **New**, **Project**

6 Select **Installed**, **Visual C++**, **Windows Universal** and click the option to **Install Windows Universal Tools for C++ development** to download the tools
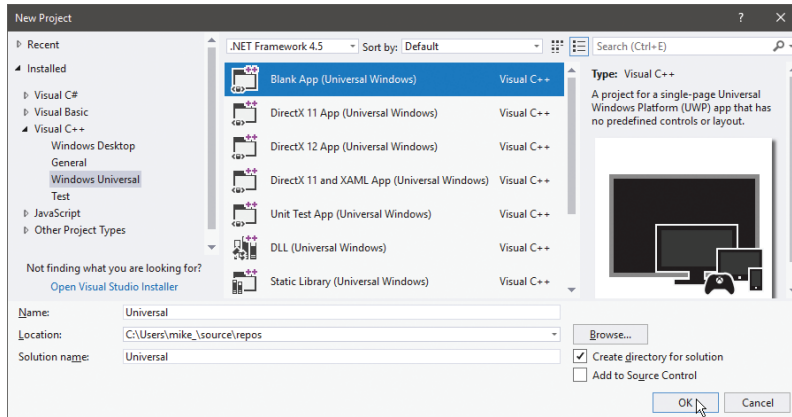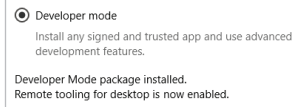
7 When the download has completed, click the **Install** button to add the tools into the Visual Studio IDE

8 Next, select **File**, **New**, **Project** and create a new **Blank App (Universal Windows)** project called "Universal"


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

9 When asked to select the target and minimal platform versions, simply click **OK** to accept the default options

10 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++ **App** files

- XAML and C++ files for the **MainPage** – here is where you will create interface components and functional code

- Other miscellaneous **Package** files
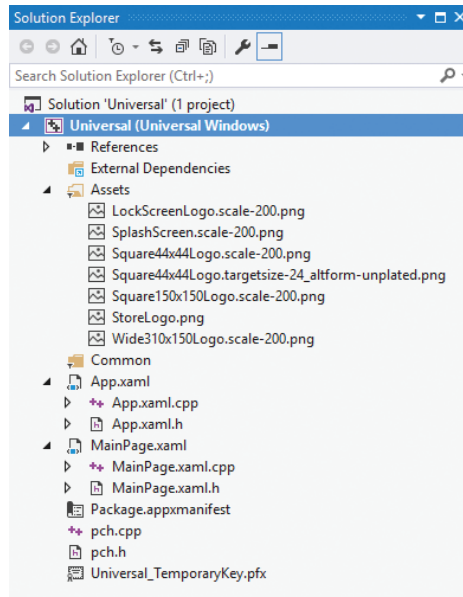
These files are essential to all UWP apps using C++ and exist in every project Visual Studio creates to target the Universal Windows Platform with C++.