

Purpose:

Build a small simple showcase lab in order to test the upcoming MSIX App Attach feature.

More info in the [official documentation](#) and [Azure Academy youtube video](#)

Disclaimer:

All sample scripts are provided for illustrative purpose and are based on my test environment and they don't represent official Microsoft best practices.

Useful links:

[Official Documentation](#)

[Azure Academy video](#)

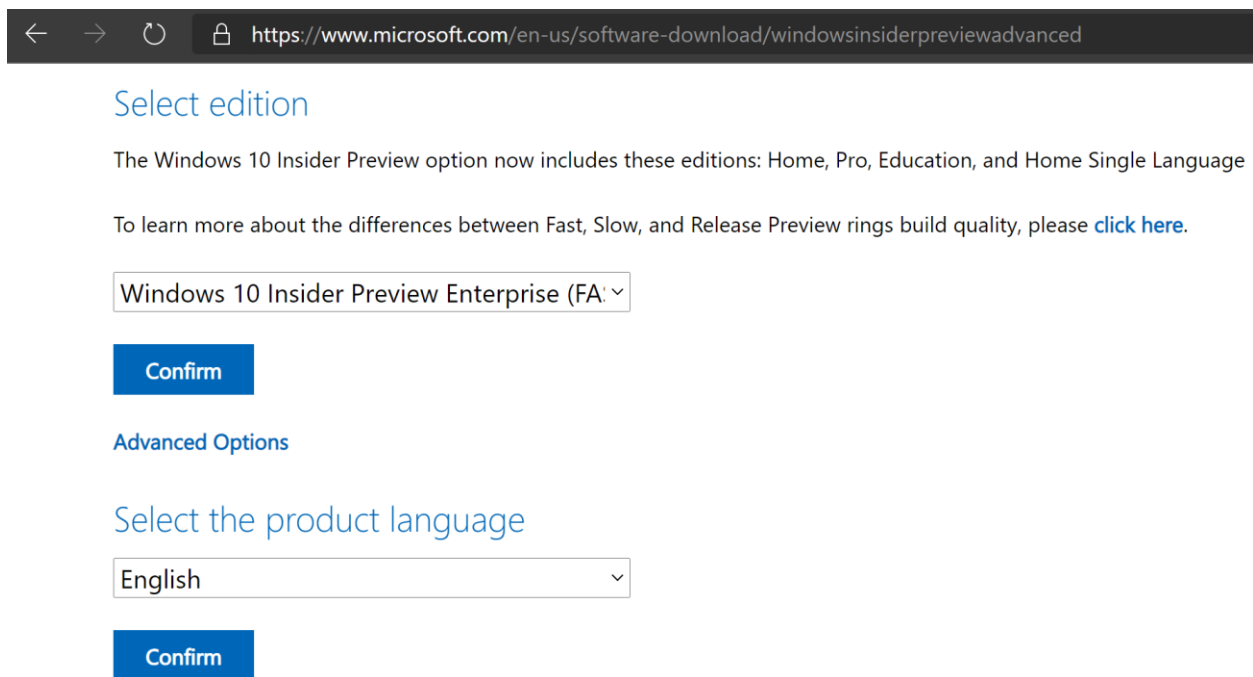
First of all we need the last Windows 10 insider preview build

<https://www.microsoft.com/en-us/software-download/windowsinsiderpreviewadvanced>

Select

“Windows 10 Insider Preview Enterprise (FAST)” → Confirm

“English” → Confirm

A screenshot of a web browser showing the Microsoft website for downloading Windows 10 Insider Preview. The browser's address bar displays the URL: https://www.microsoft.com/en-us/software-download/windowsinsiderpreviewadvanced. The page content includes a heading "Select edition" in blue, followed by the text "The Windows 10 Insider Preview option now includes these editions: Home, Pro, Education, and Home Single Language". Below this, it says "To learn more about the differences between Fast, Slow, and Release Preview rings build quality, please [click here](#)." There is a dropdown menu with the text "Windows 10 Insider Preview Enterprise (FA" and a downward arrow. Below the dropdown is a blue button labeled "Confirm". Underneath the button is the heading "Advanced Options" in blue. This is followed by another heading "Select the product language" in blue. Below this is another dropdown menu with the text "English" and a downward arrow. At the bottom of this section is another blue button labeled "Confirm".

← → ↻ 🔒 https://www.microsoft.com/en-us/software-download/windowsinsiderpreviewadvanced

Select edition

The Windows 10 Insider Preview option now includes these editions: Home, Pro, Education, and Home Single Language

To learn more about the differences between Fast, Slow, and Release Preview rings build quality, please [click here](#).

Windows 10 Insider Preview Enterprise (FA ▾

Confirm

Advanced Options

Select the product language

English ▾

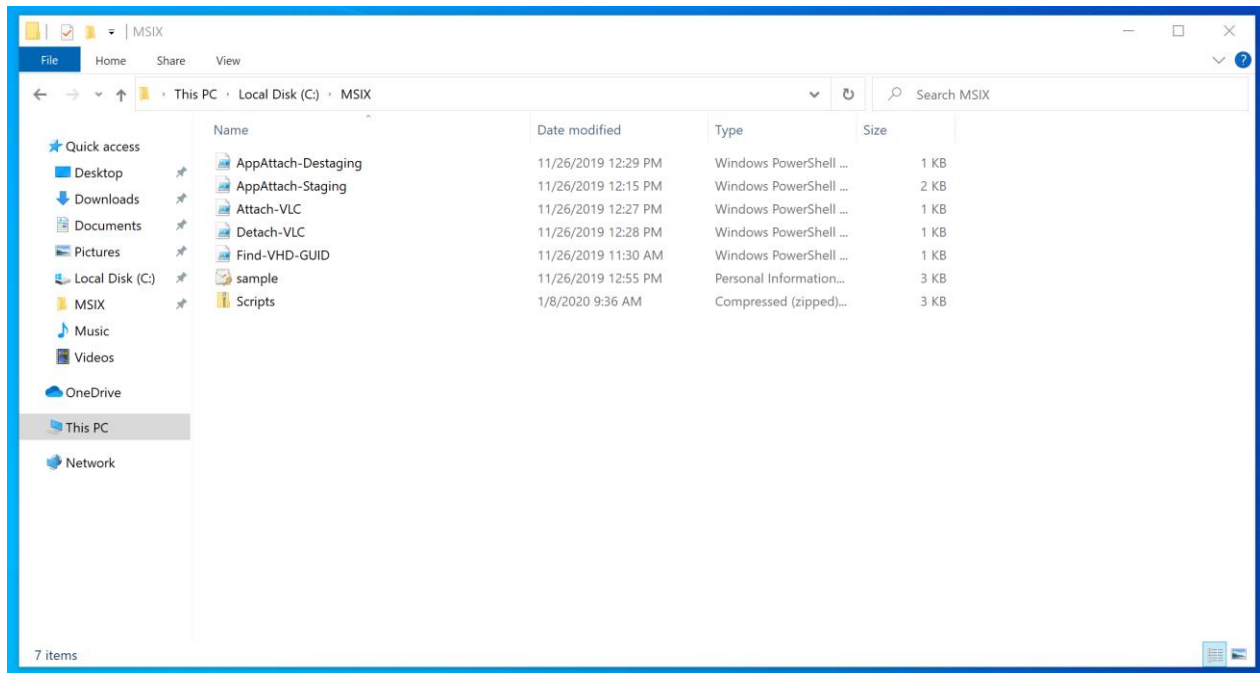
Confirm

Now we need to deploy the Windows 10 image on a virtual or physical device.

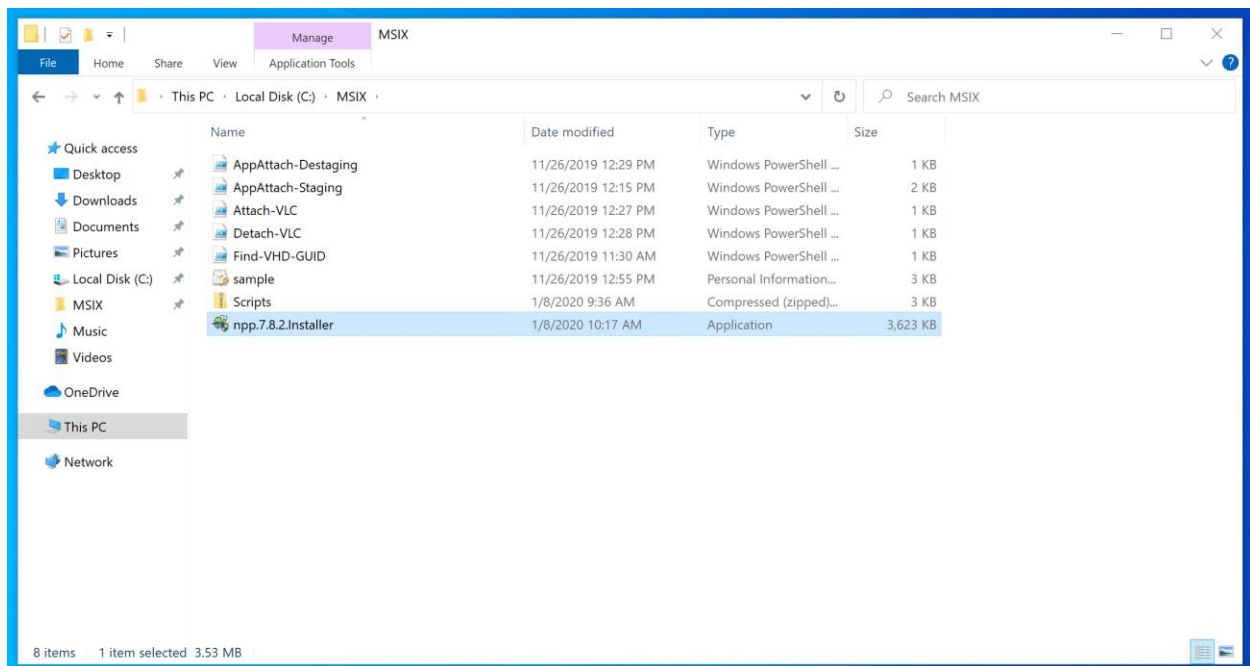
Windows Virtual Desktop, Hyper-V, VMWare, physical hardware... The choice is yours just because MSIX AppAttach is a Windows 10 feature and is independent by the way you install the O.S.

The only requirement is that the Windows 10 can access the Microsoft Store using the Store App.

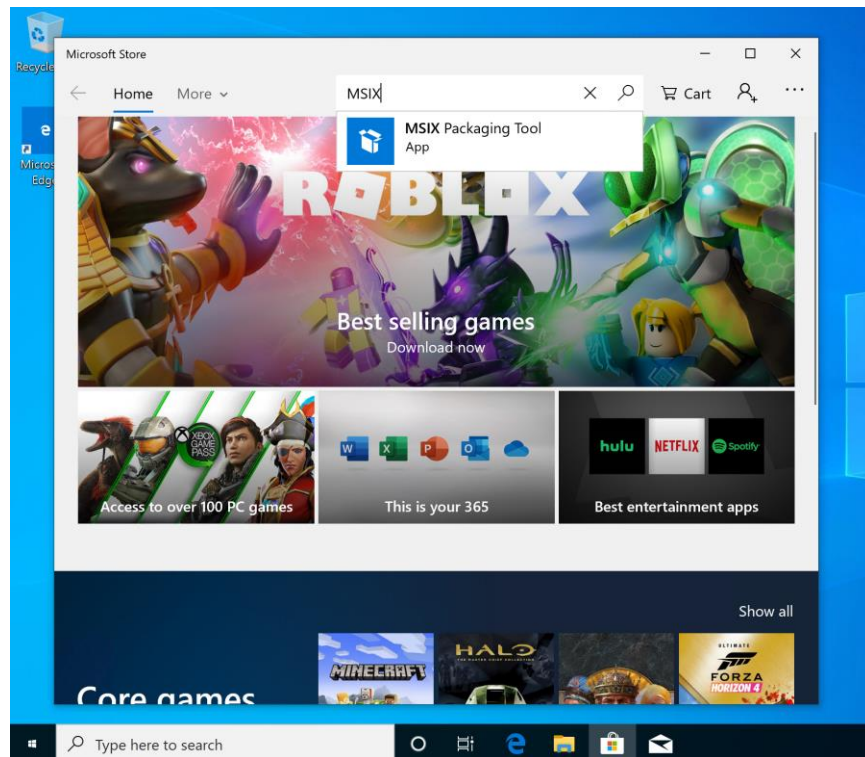
Inside the Windows 10, create a **C:\MSIX** directory and copy the **Scripts.zip** file and extract the files inside



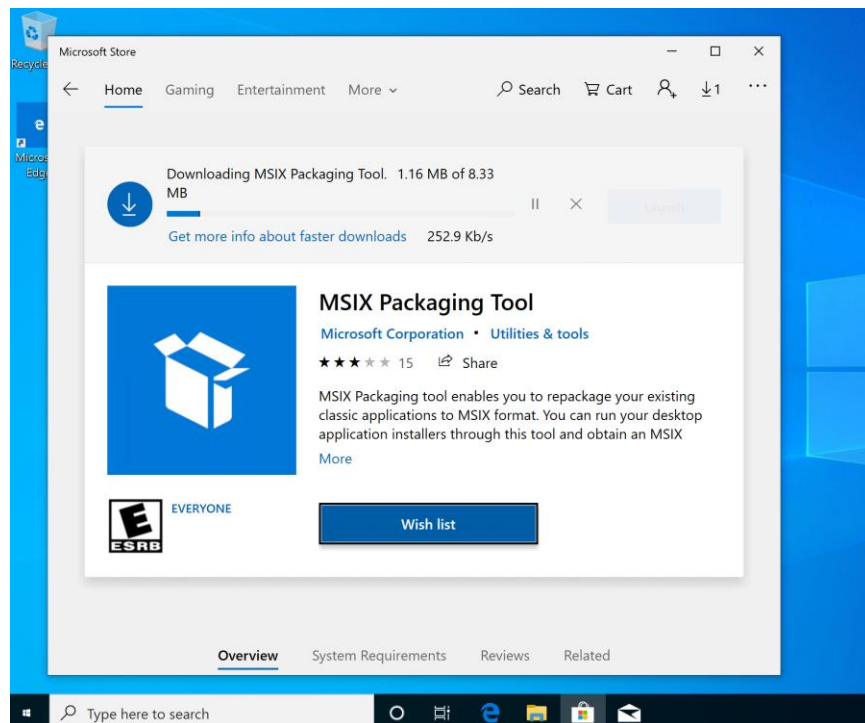
Download/Copy the installation files for an application like Notepad++



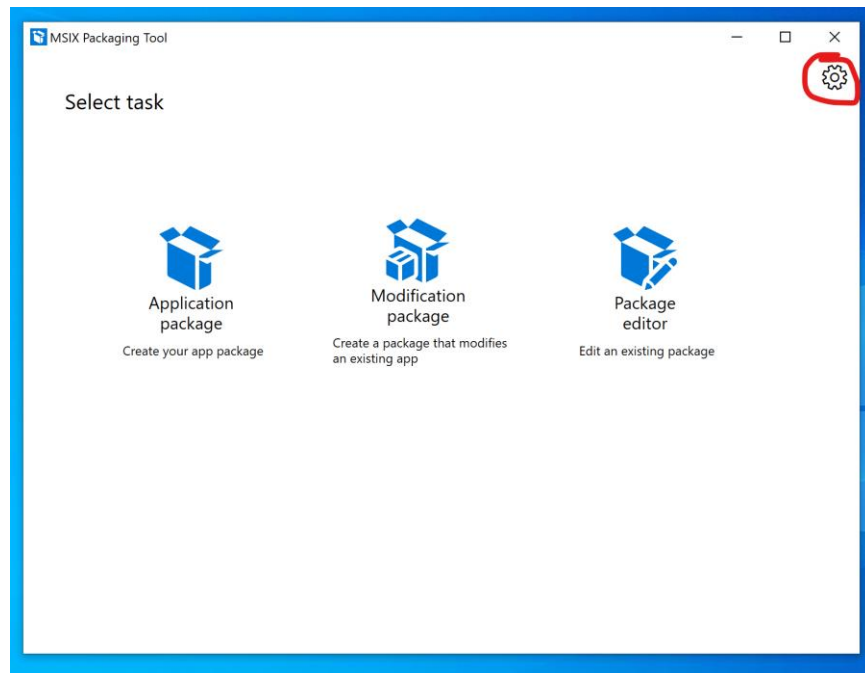
Open the Store App and search for MSIX Packaging Tool



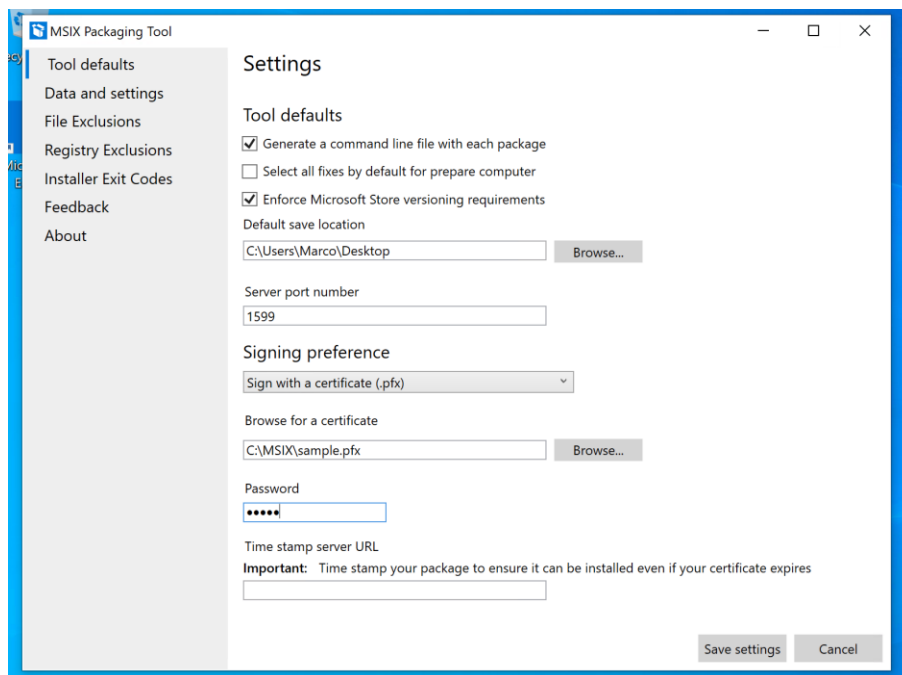
Install It



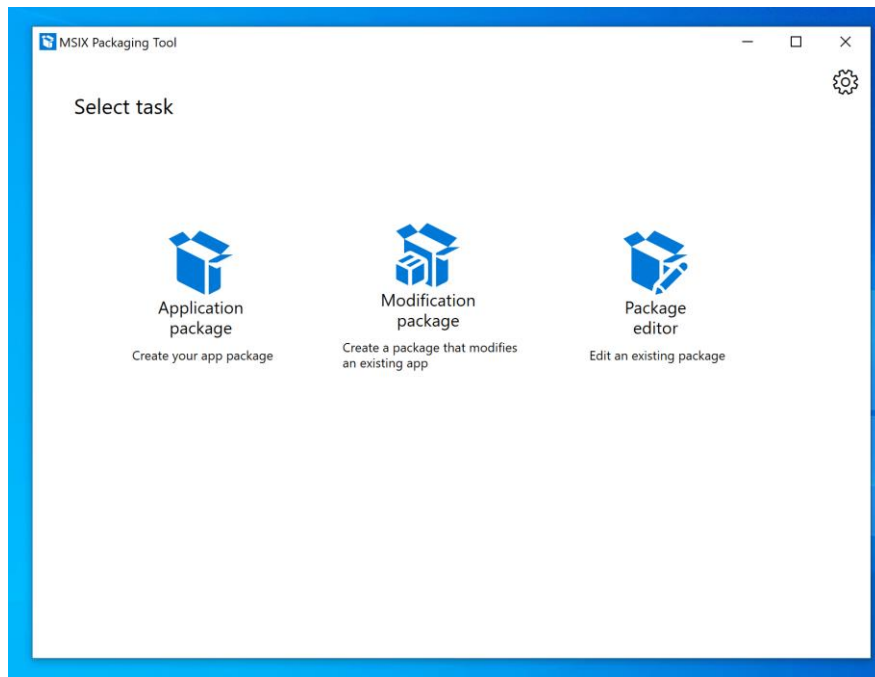
Open the app MSIX Packaging Tool and click on the wheel



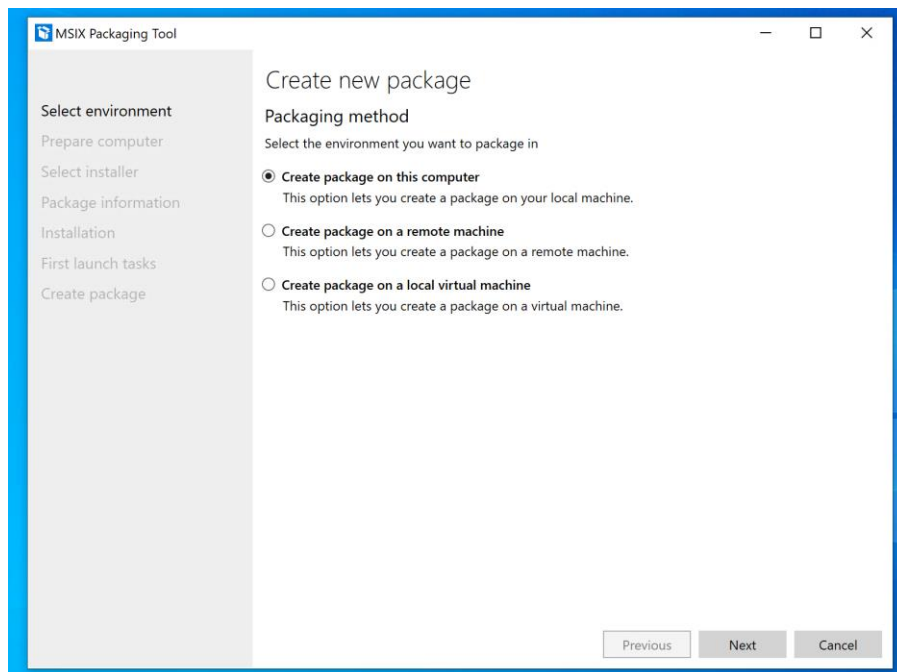
Select "Sign with a certificate (.pfx)", Select the "sample.pfx" certification that you find in C:\MSIX and use the "MSIX!" password



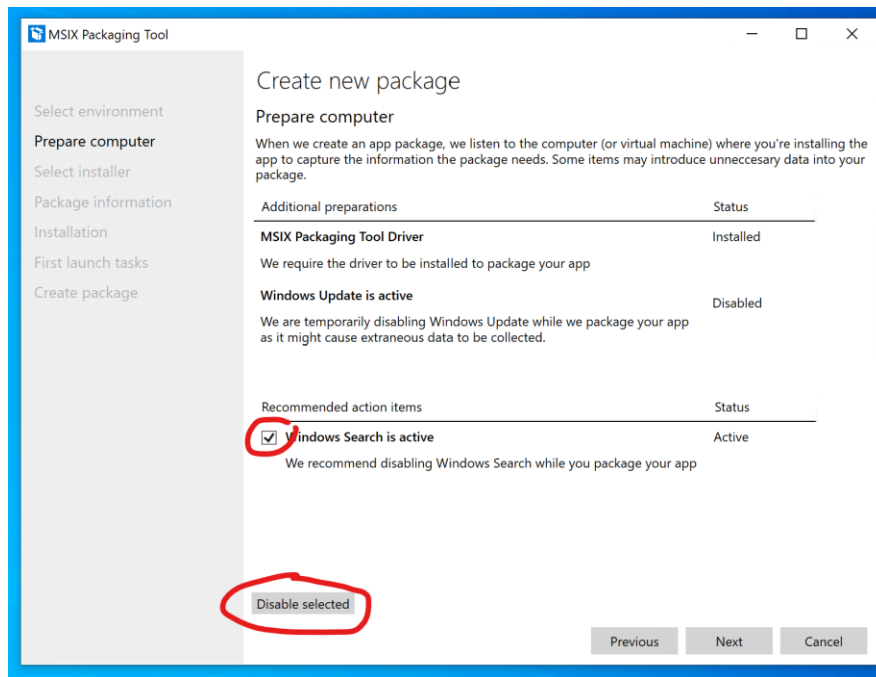
From the MSIX Packaging Tool click on “Application package”



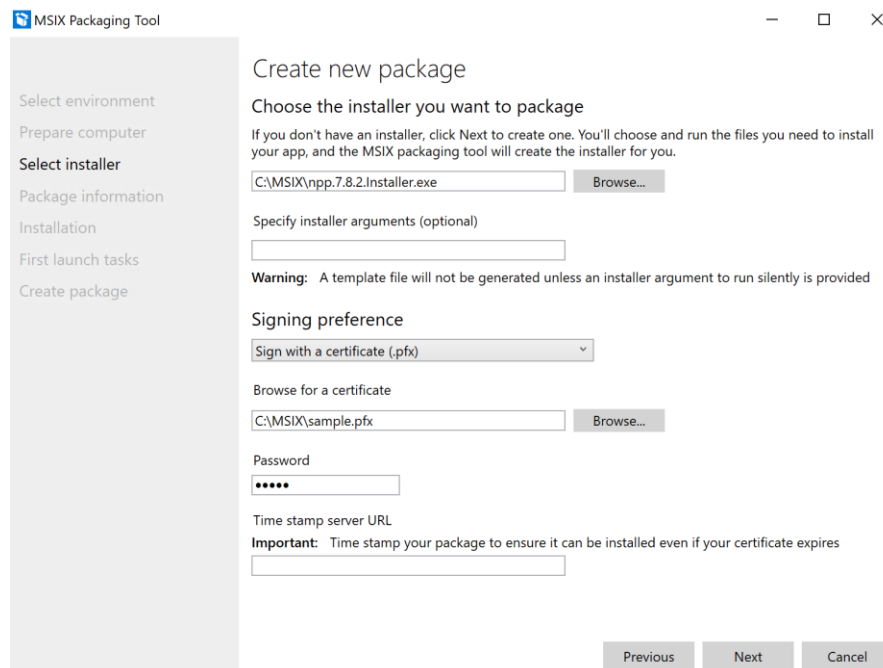
Next



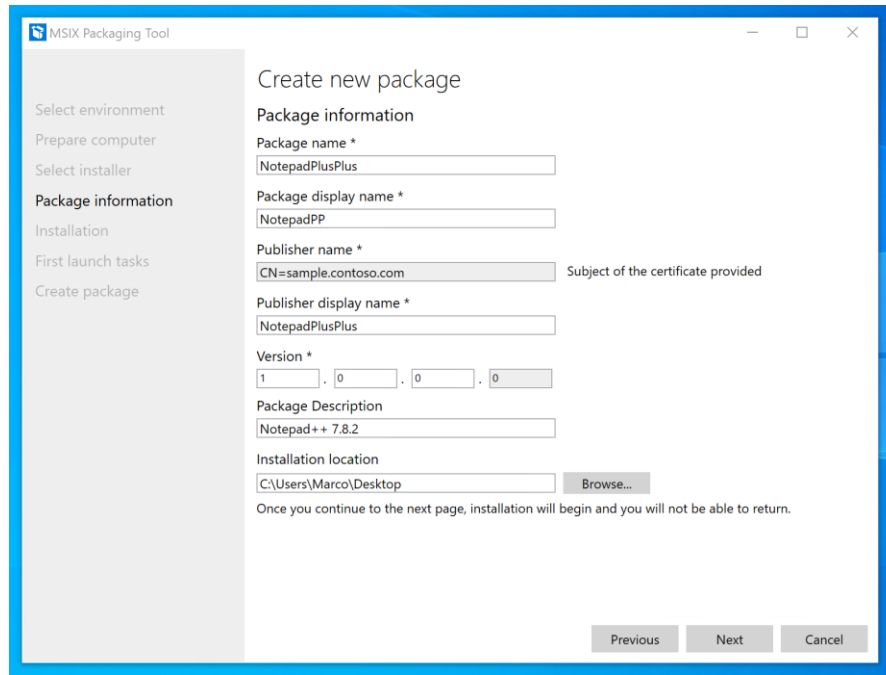
Click on every “Recommended action items” and on “Disable selected”



Select the Notepad++ installer



Insert the required package information

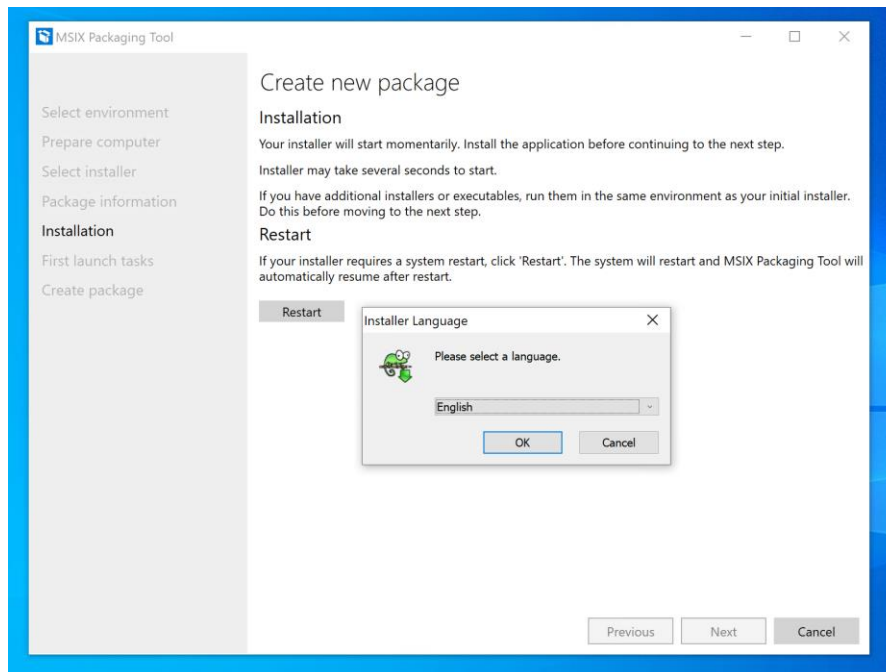


The screenshot shows the 'MSIX Packaging Tool' window with the 'Create new package' wizard. The 'Package information' step is active in the left sidebar. The main area contains the following fields and text:

- Package name ***: NotepadPlusPlus
- Package display name ***: NotepadPP
- Publisher name ***: CN=sample.contoso.com (with a note: 'Subject of the certificate provided')
- Publisher display name ***: NotepadPlusPlus
- Version ***: 1.0.0.0
- Package Description**: Notepad++ 7.8.2
- Installation location**: C:\Users\Marco\Desktop (with a 'Browse...' button)

Below the fields, a warning states: 'Once you continue to the next page, installation will begin and you will not be able to return.' At the bottom right are 'Previous', 'Next', and 'Cancel' buttons.

Now go through the installation process

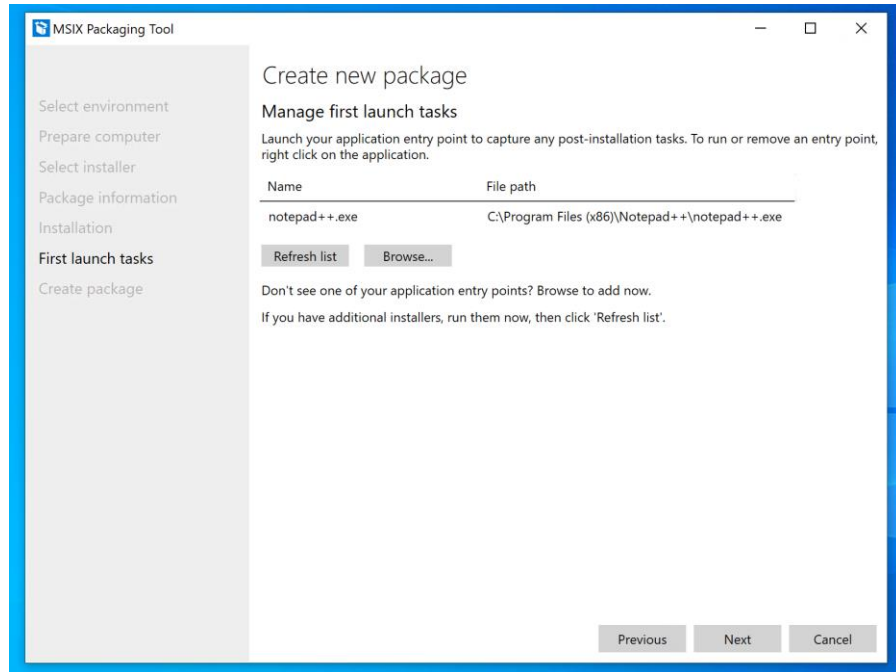


The screenshot shows the 'MSIX Packaging Tool' window with the 'Create new package' wizard. The 'Installation' step is active in the left sidebar. The main area contains the following text and buttons:

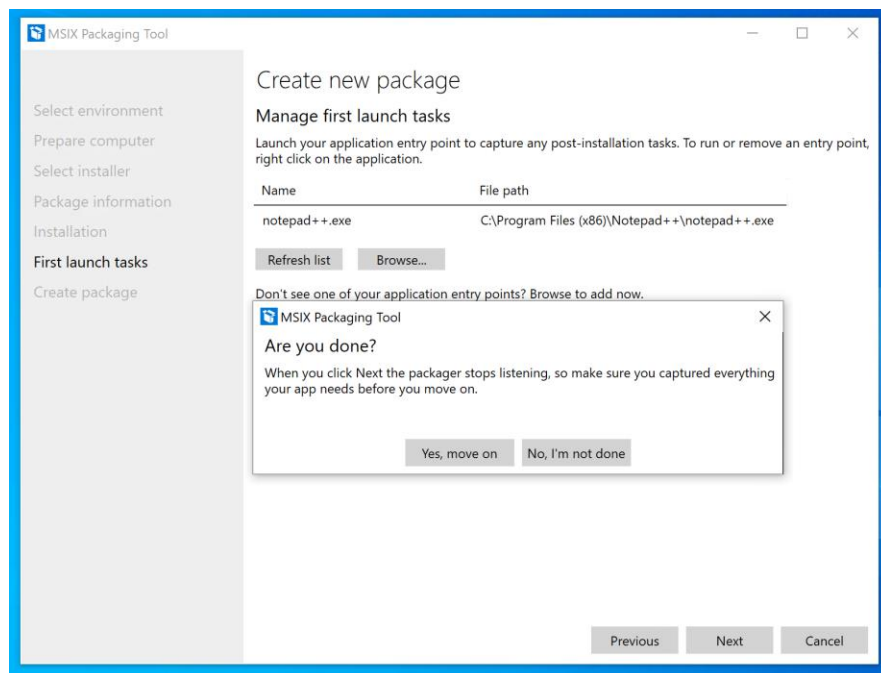
- Installation**: Your installer will start momentarily. Install the application before continuing to the next step. Installer may take several seconds to start. If you have additional installers or executables, run them in the same environment as your initial installer. Do this before moving to the next step.
- Restart**: If your installer requires a system restart, click 'Restart'. The system will restart and MSIX Packaging Tool will automatically resume after restart.

A 'Restart' button is located below the text. An 'Installer Language' dialog box is open in the foreground, showing 'Please select a language.' with a dropdown menu set to 'English' and 'OK' and 'Cancel' buttons. At the bottom right of the main window are 'Previous', 'Next', and 'Cancel' buttons.

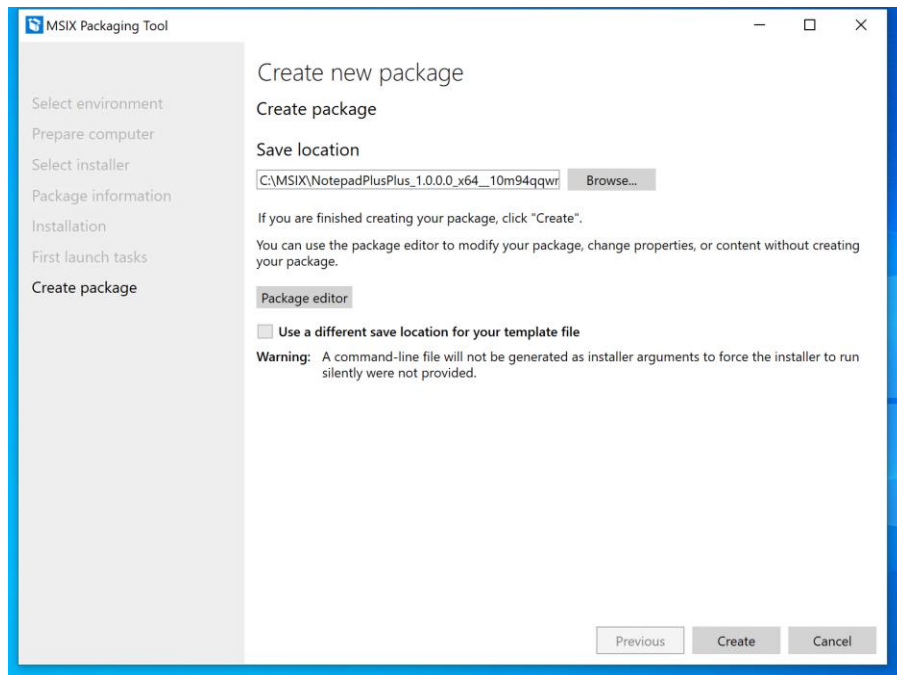
Launch one time the application in order to capture everything



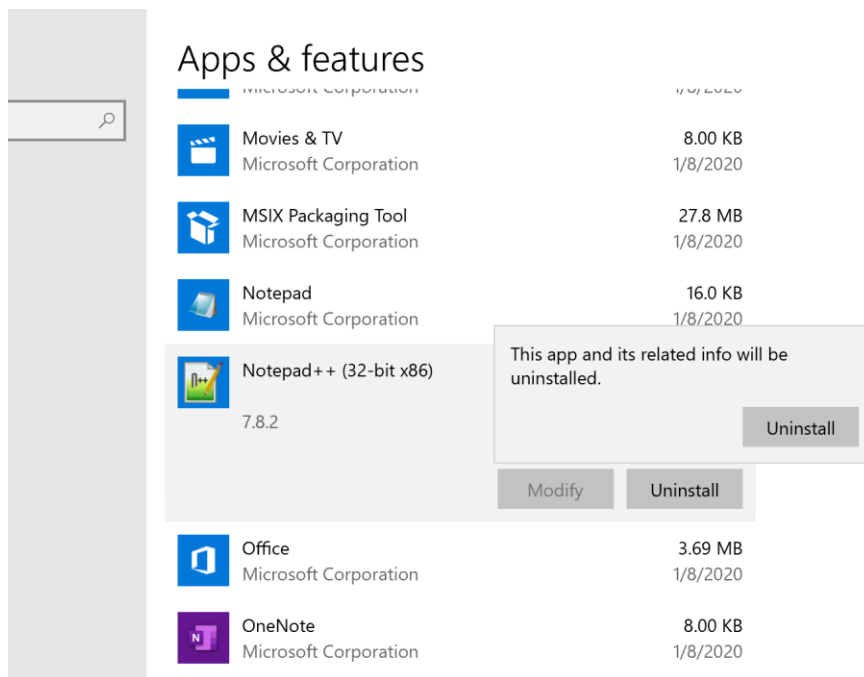
End the sequencing clicking on “Yes, move on”



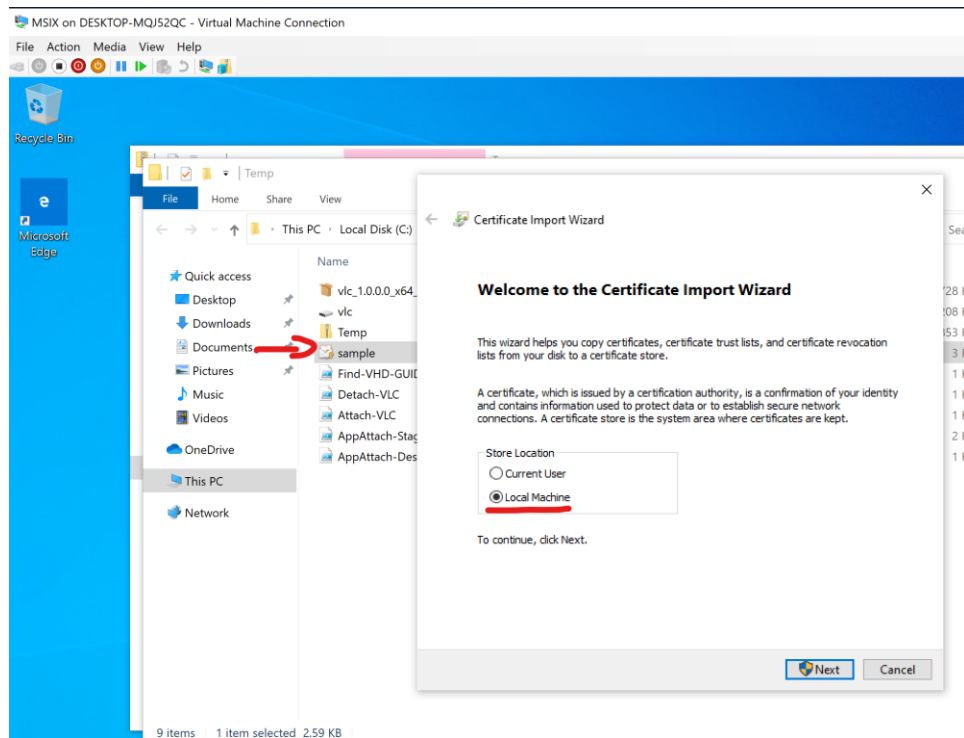
Save the package in C:\MSIX



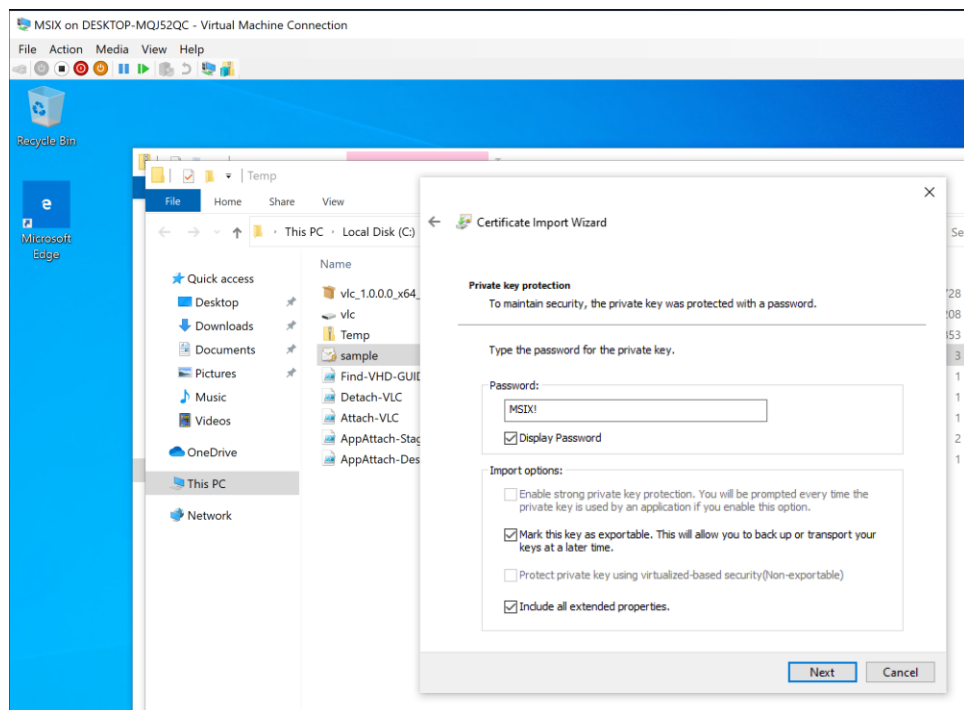
Now you can uninstall Notepad++ from Windows



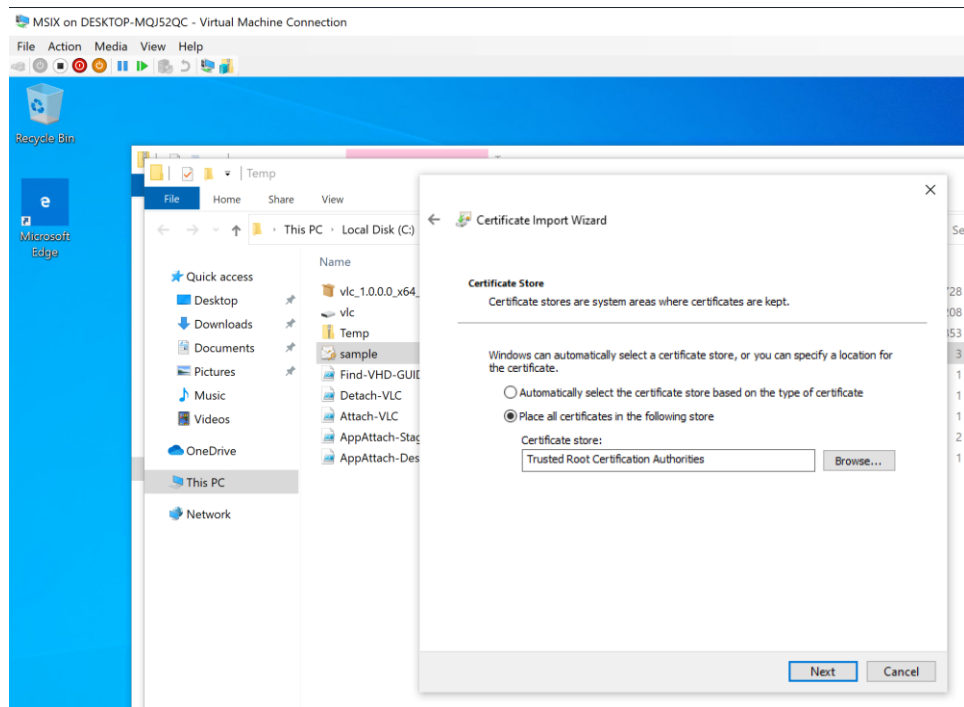
Double click **C:\temp\sample.pfx** and select **“Local Machine”**



The password is **“MSIX!”**



Place it in “Trusted Root Certification Authorities”



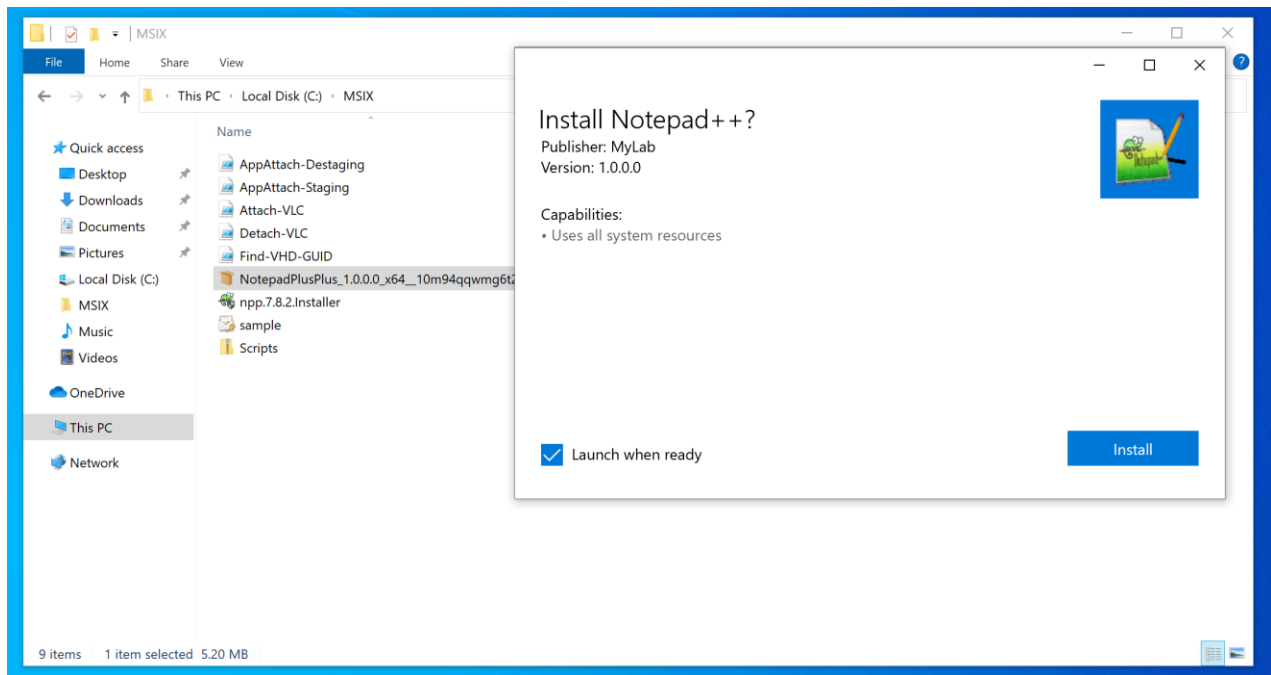
The certificate is a self signing certificate that I created using this command:

```
New-SelfSignedCertificate -DnsName sample.contoso.com -Type CodeSigning -  
CertStoreLocation Cert:\CurrentUser\My
```

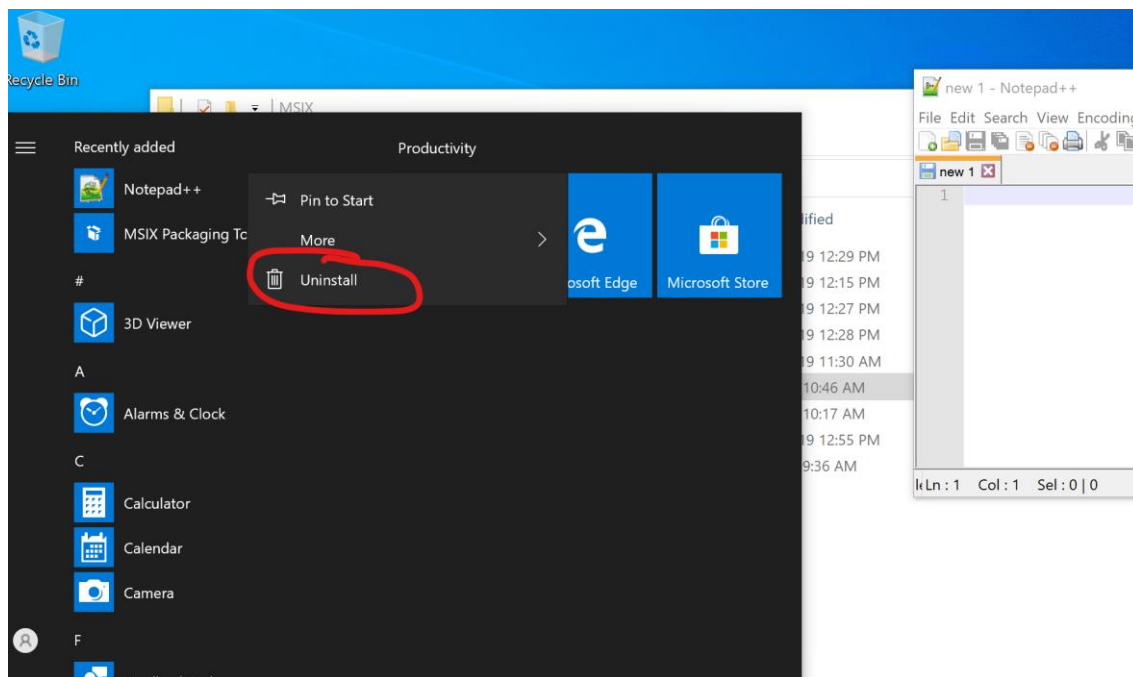
Use it only in a lab environment not in production!!!

The certificate is needed because when I created the MSIX package I signed it with this certificate.

So now you can try the MSIX package created: simply double click on it and install



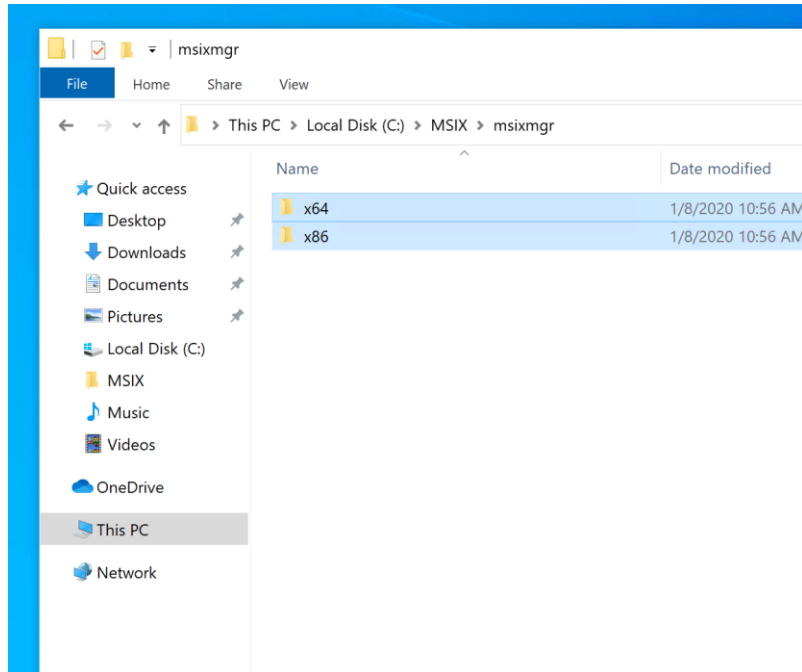
If everything is good you can use Notepad++ and you can uninstall it simply using a right click on the icon



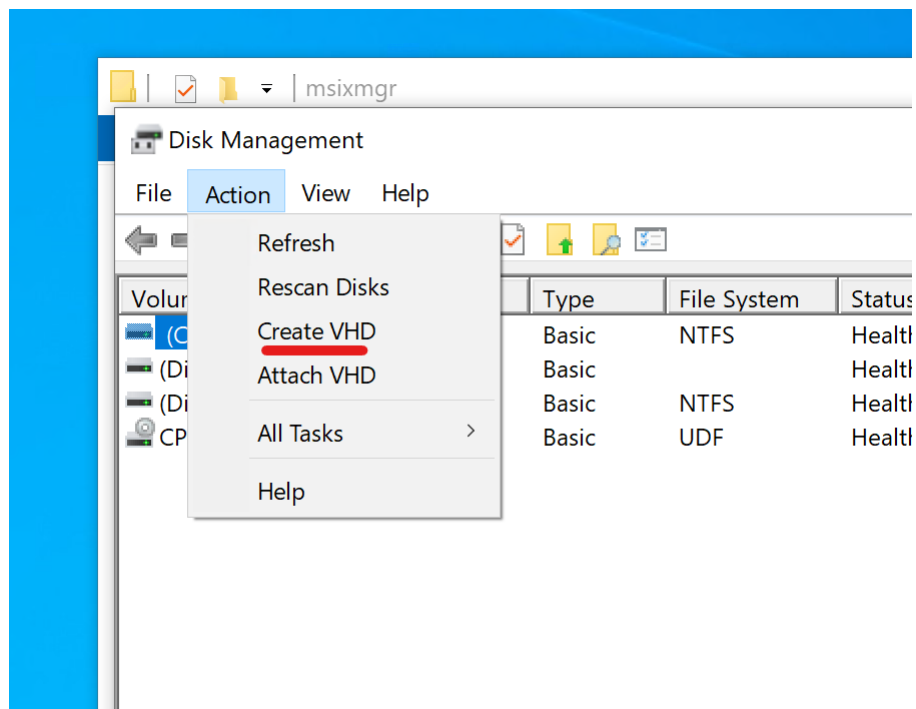
Ok now we have an MSIX package containing Notepad++ but this is not AppAttach so let's continue...

Generate the VHD app package

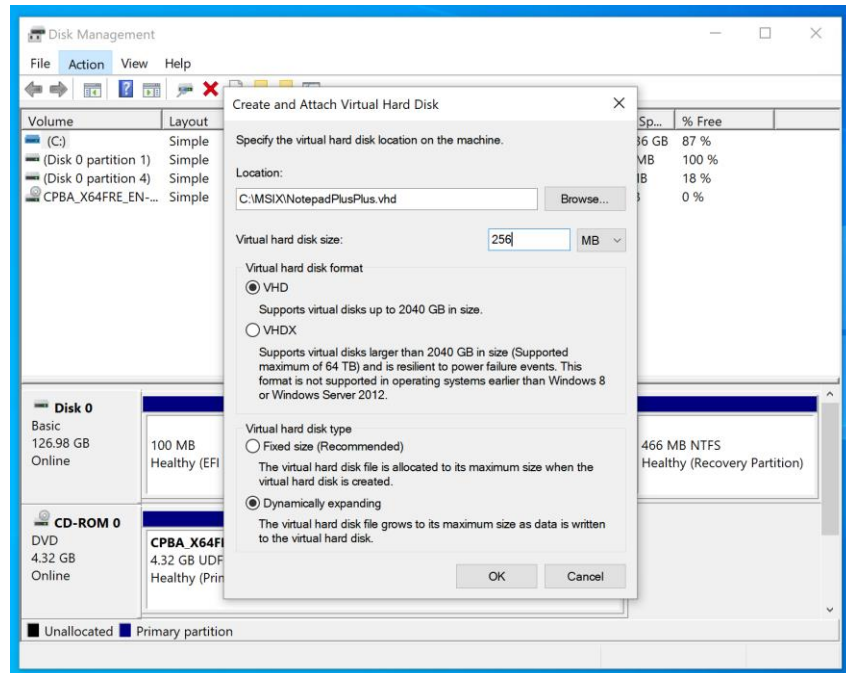
Download the last [msixmgr](#) tool and extract the files in C:\MSIX



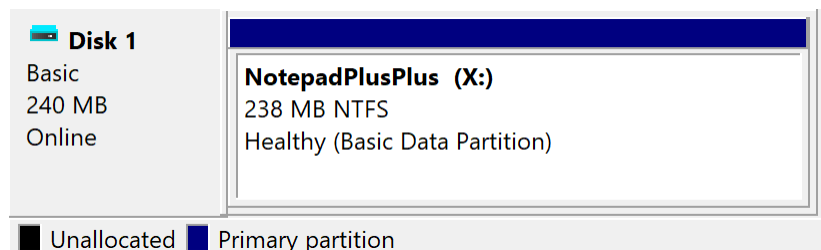
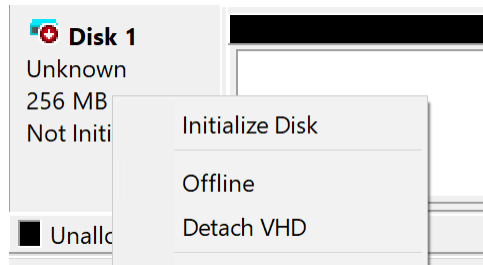
Now open diskmgr and Create a VHD



Create a Dynamically expanding VHD in C:\MSIX the size must be at least the size of the expanded MSIX package that we will insert

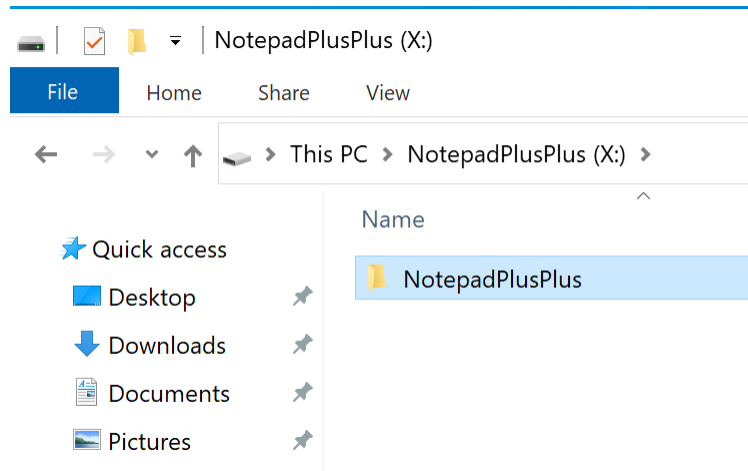


Now you can initialize the disk, create a partition and assign a letter like X



VERY IMPORTANT!!!

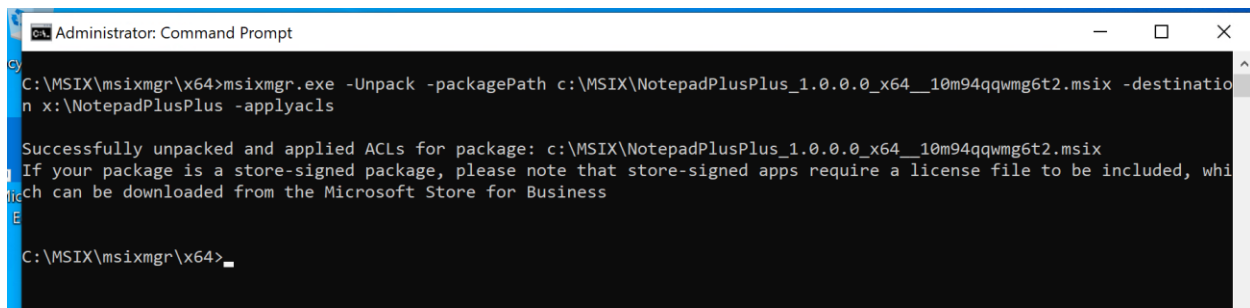
Create a folder inside the vhd the name is your choice, I used X:\NotepadPlusPlus



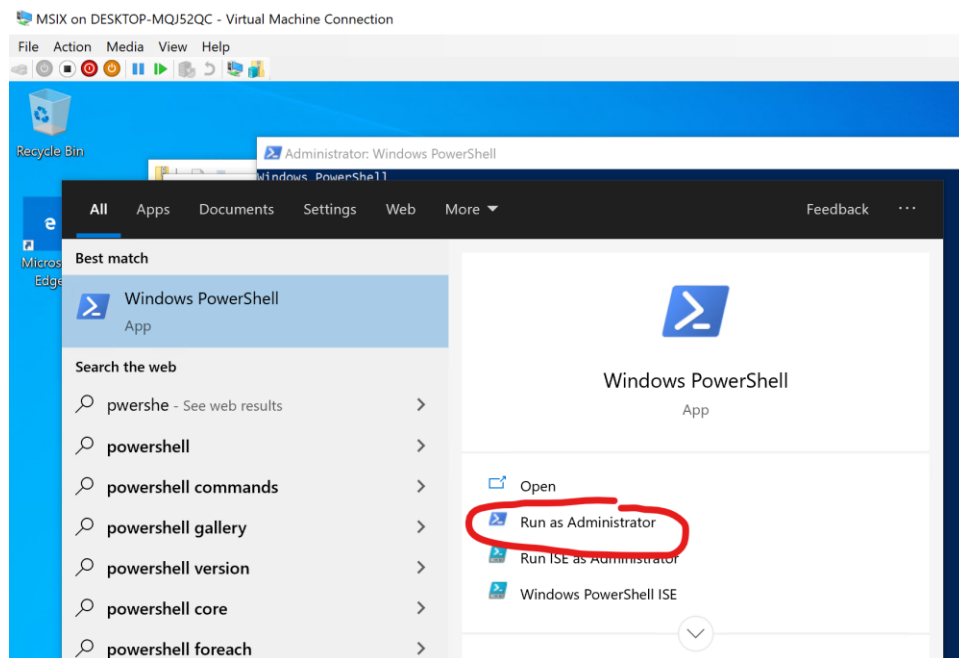
Open an elevated command prompt and type

```
msixmgr.exe -Unpack -packagePath c:\MSIX\NotepadPlusPlus_1.0.0.0_x64__10m94qqwmg6t2.msix -destination x:\NotepadPlusPlus -applyacIs
```

NOTE: you must change the name of the msix package with the one generated by your packaging tool

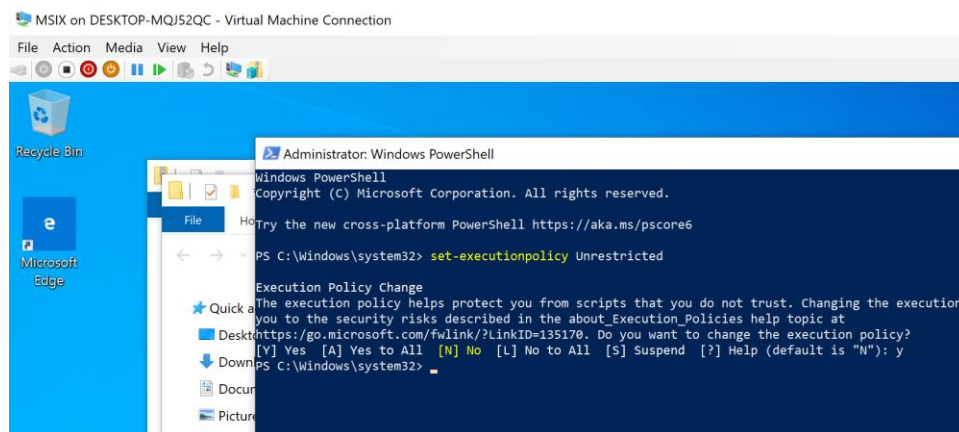


Now it's Powershell time so open it as an administrator



Just because this is a small and simple demo lab, I set the powershell execution policy as "Unrestricted"

Set-executionpolicy Unrestricted

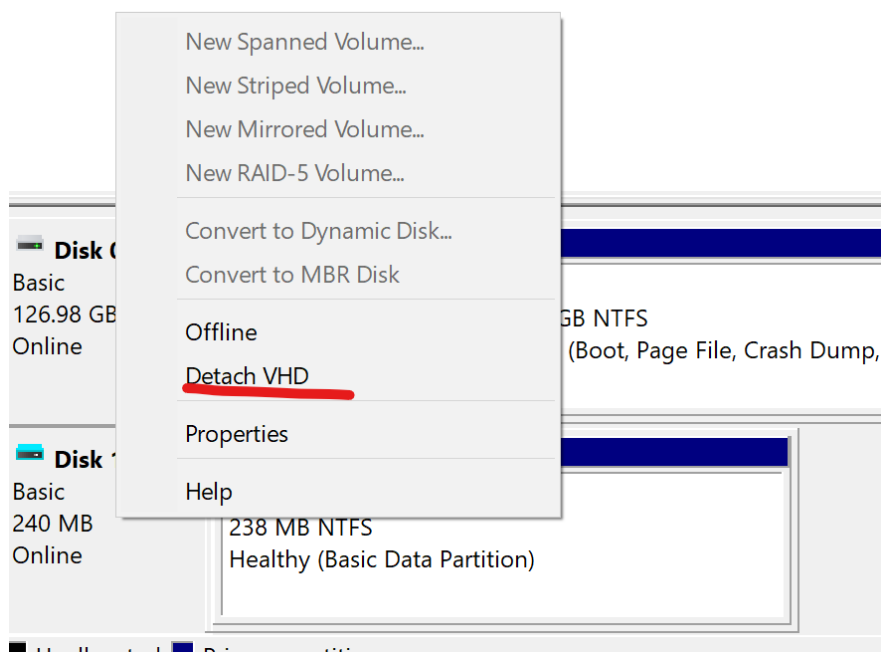


We need to retrieve the X: volume guid so the command is:

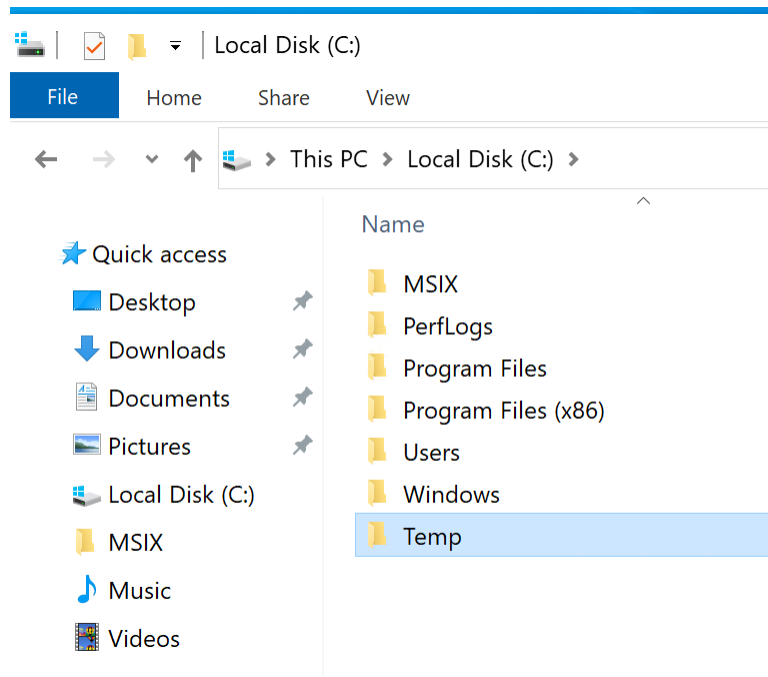
```
$volumeGuid = (((Get-volume -driveletter x).UniqueId).split('{')[1]).split('')[0]
```

```
Administrator: Windows PowerShell
PS C:\windows\system32> $volumeGuid = (((Get-volume -driveletter x).UniqueId).split('{')[1]).split('')[0]
PS C:\windows\system32> $volumeGuid
73e451a5-ea15-4fa8-beb5-94de2f98acf5
PS C:\windows\system32>
```

Now we can detach the VHD from the disk management tool

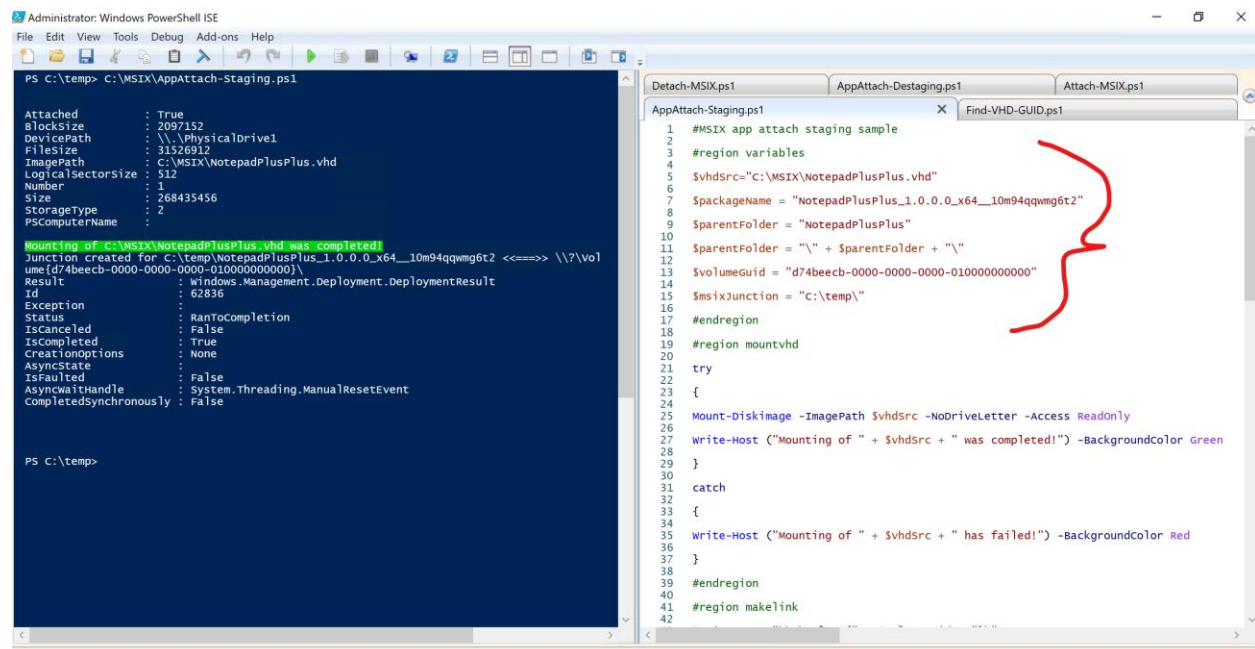


Create a Temp directory in C:



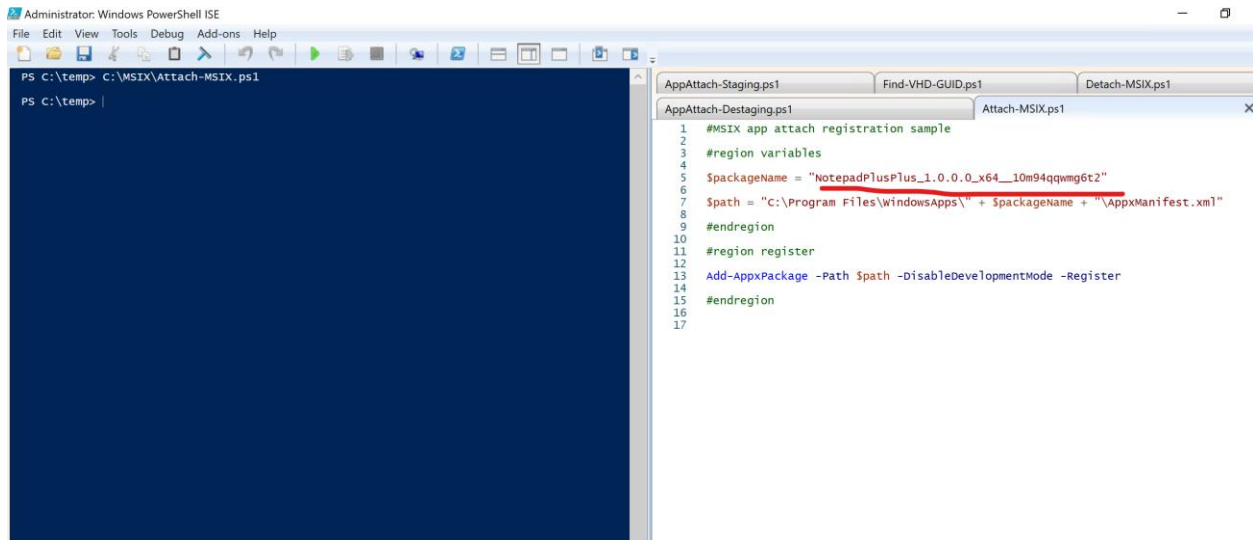
From C:\Temp, run **.\AppAttach-Staging.ps1**

NOTE: be sure that the variables are fitting your environment



After you can run **.\Attach-MSIX.ps1** and in a moment you will find **Notepad++ in the Start menu**

NOTE: be sure that the variables are fitting your environment



If you want to detach it simply run **.\Detach-MSIX.ps1**

If you want also to clean the staging environment, run **.\AppAttach-Destaging.ps1**

NOTE: before running the scripts, be sure that the variables are fitting your environment

If you are interested in understanding what exactly is the mechanism, I suggest you to watch the [Azure Academy video](#) made by [Dean Cefola](#).