



Trusting the DoD PKI and ECA PKI in Windows

## Trusting the DoD and ECA PKIs: an explanation

In order for Microsoft Edge (and many other applications) to properly use certificates from the DoD's ECA PKI, you need to tell your computer to "Trust" the DoD ECA PKI. In order for your computer to Trust the DoD PKI (and the certificates on most DoD web-enabled applications) you need to tell your computer to Trust them, also. *The US DoD has two PKIs: DoD PKI is their internal PKI; DoD ECA PKI is the PKI for people outside of the DoD [External Certification Authority] who need to communicate with the DoD [i.e. you].*

Fortunately, the DoD has created a tool for Microsoft to Trust the DoD PKI and ECA PKI; the DoD PKE InstallRoot tool. Please be aware that this tool was created by the DoD to work in Windows environment; it does not run on Apple operating systems.

*Unlike early versions of InstallRoot, the current version of the tool puts an application on your computer. You then run the application to install (or possibly remove) certificates from the Windows (and/or Mozilla and/or Java) certificate stores. The application is inert except when you specifically run it. (In other words; you run the application and it does its functions in seconds and then doesn't do anything until you run it again). You can even un-install it after you use it and then re-install it later if desired.*

*Please be aware that the DoD has a User Guide for this tool. If you do things that are not in our instructions, please see the User Guide for further reference. (Example: the tool can install JITC certificates. These are test and evaluation certificates that are not recommended for the standard user. The User Guide can tell you more.)*

This help file was created using Windows 10 and Microsoft Edge. If you are using a different version of Windows or a different browser, what's on your screen may look slightly different than what you see in the screenshots presented here.



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## Part 1: Downloading the tool from DISA

Using Microsoft Edge, go to

[https://public.cyber.mil/pki-pke/pkipke-document-library/?\\_dl\\_facet\\_pkipke\\_type=tools](https://public.cyber.mil/pki-pke/pkipke-document-library/?_dl_facet_pkipke_type=tools)

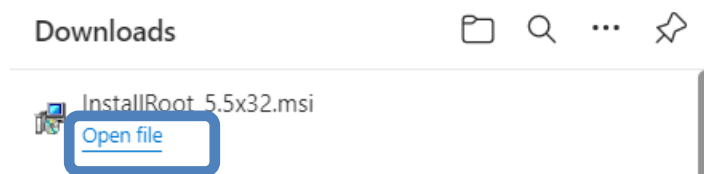
Click on the download link that matches the type of Windows operation system (OS) you have (32-bit or 64-bit). If you don't know whether your OS is 32-bit or 64-bit, you can find out by going to this article in Microsoft's Knowledge Base: <http://support.microsoft.com/kb/827218>. Note: These instructions were written using the 64-bit Installer, but the program will work the same for you if your system is 32-bit. You also have the option to install InstallRoot 5.5 NIPR Non-Administrator 32-bit Windows Installer **[InstallRoot 5.5 is the current version of the tool at the time this instruction was written. As the DoD improves the tool, the version number will increment. Use the highest version that is available.]**

1. You may download the User Guide if desired, but you will click on the version of the InstallRoot tool based on the using Windows 32-bit or 64-bit

 InstallRoot 5.5 NIPR 32-bit Windows Installer	27.98 MB	24 Oct 2019
 InstallRoot 5.5 NIPR 64-bit Windows Installer	28.62 MB	24 Oct 2019

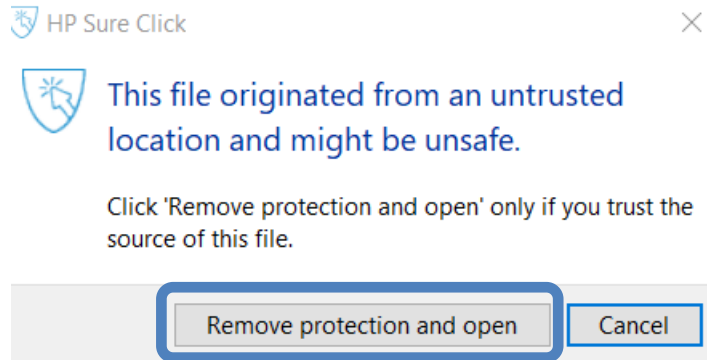
[https://dl.dod.cyber.mil/wp-content/uploads/pki-pke/pdf/unclass-rg-installroot\\_5\\_2\\_niprnet\\_user\\_guide.pdf](https://dl.dod.cyber.mil/wp-content/uploads/pki-pke/pdf/unclass-rg-installroot_5_2_niprnet_user_guide.pdf)

2. When Edge asks if you want to open the file, click **Open File**.

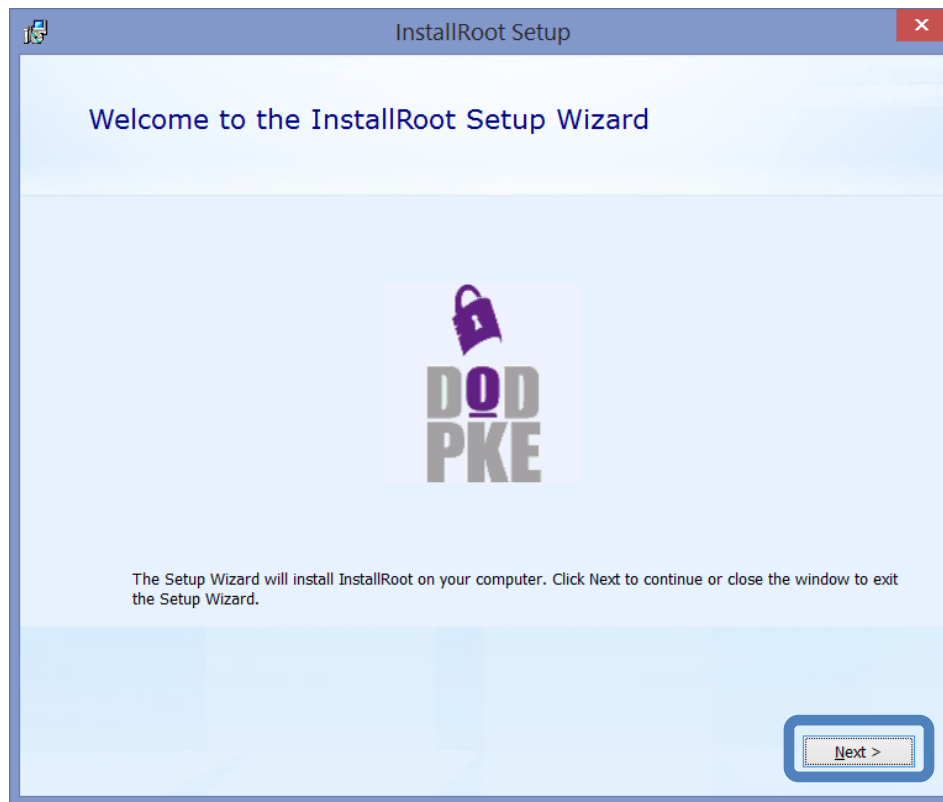


*Note: That the installer file is signed with a DoD Code Signing certificate. But if your computer does not yet trust the DoD PKI, it might say that this certificate is 'invalid'. You should be able to find an option to "Run Anyway". The tool fixes the DoD PKI trust problem.*

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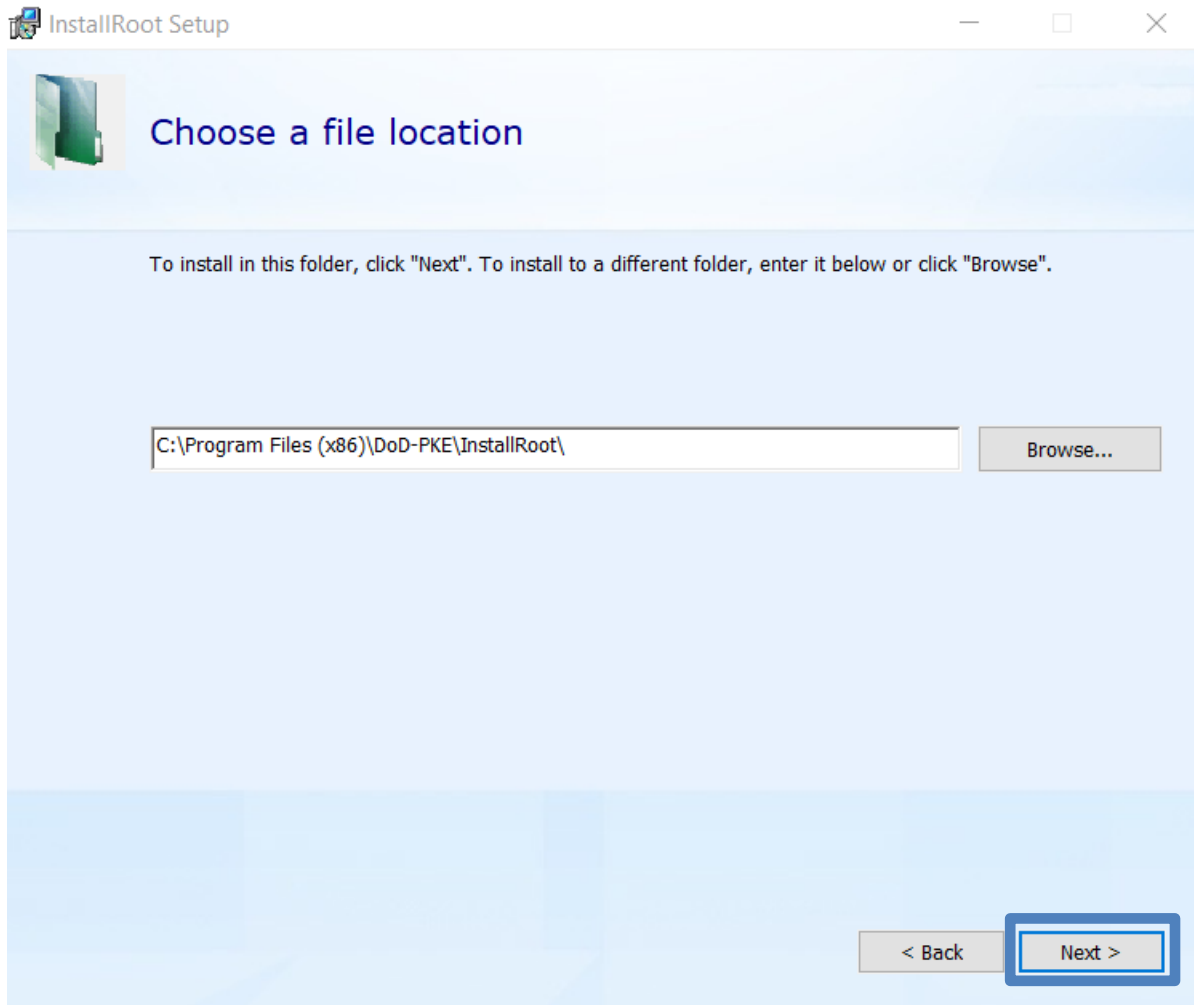
3. InstallRoot Setup Wizard will open. Click **Next**.



4. **Choose a file location** allows you to choose where you want the program installed. Let it install in the default location by clicking **Next**.



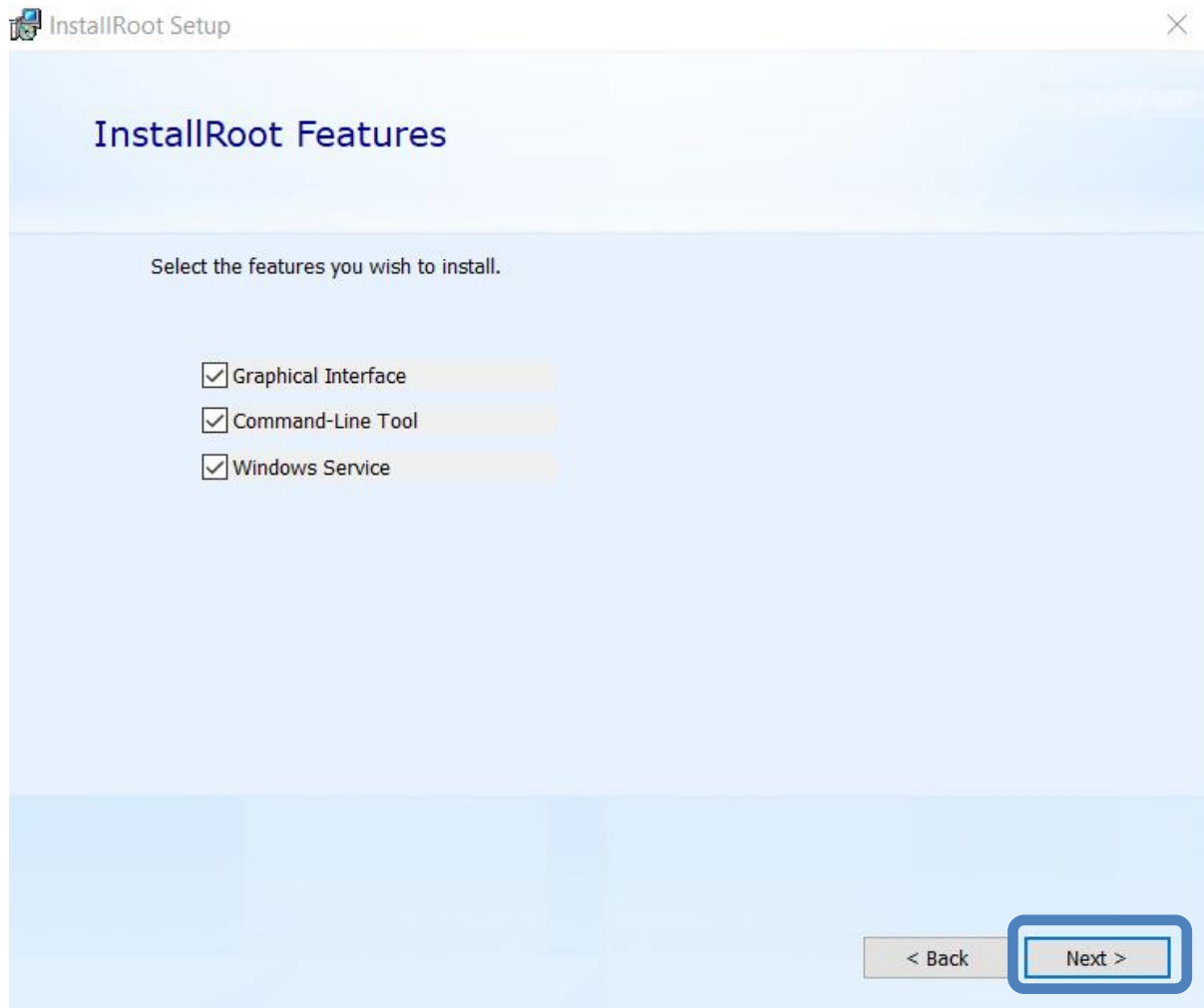
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5. **InstallRoot Features** contains three checkboxes, which will be checked by default. Leave both checked and click **Next**.



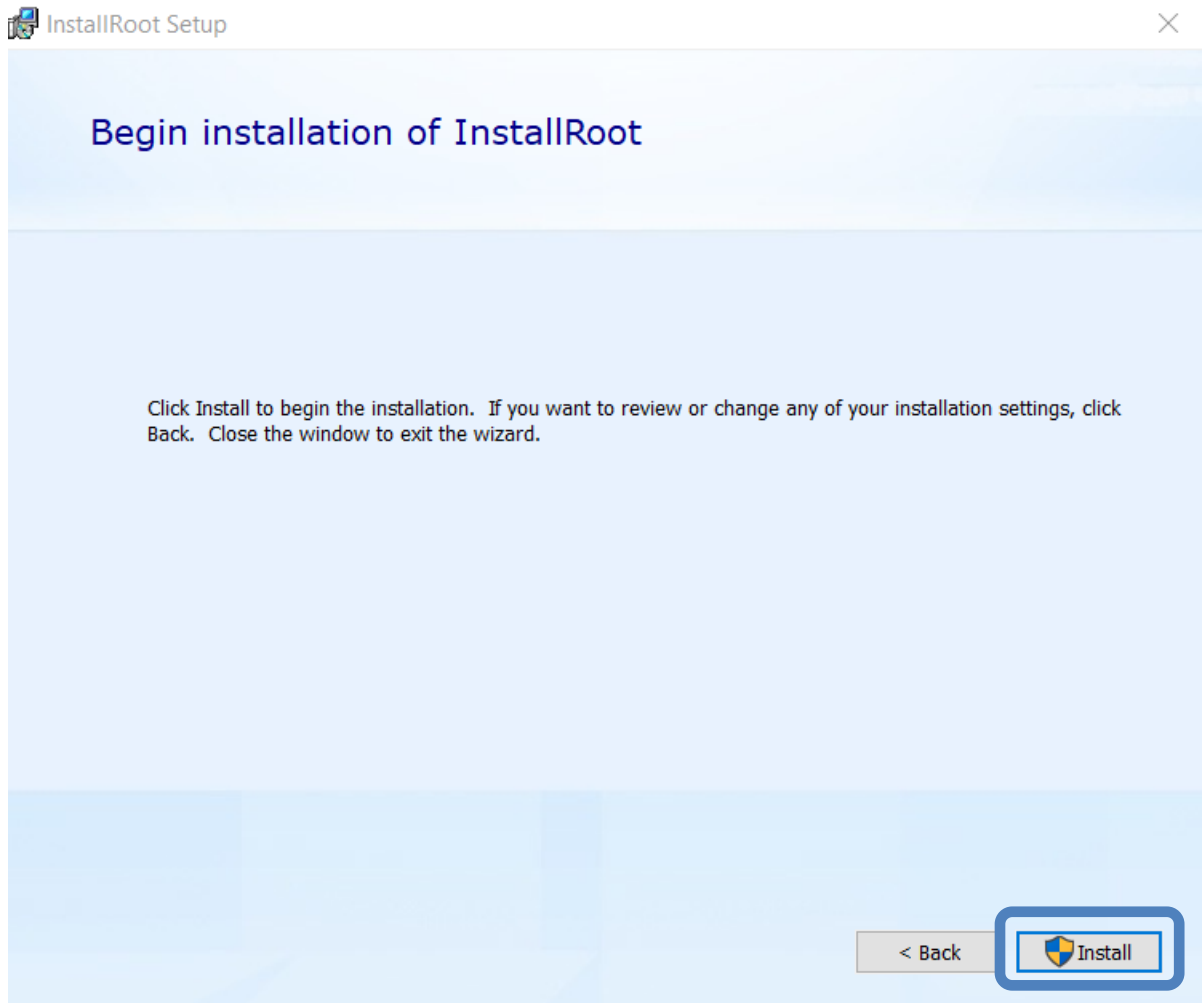
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7. You're now at **Begin installation of InstallRoot**. To begin, click **Install**. If your system asks you if you want to allow the program to run, click **Yes**.

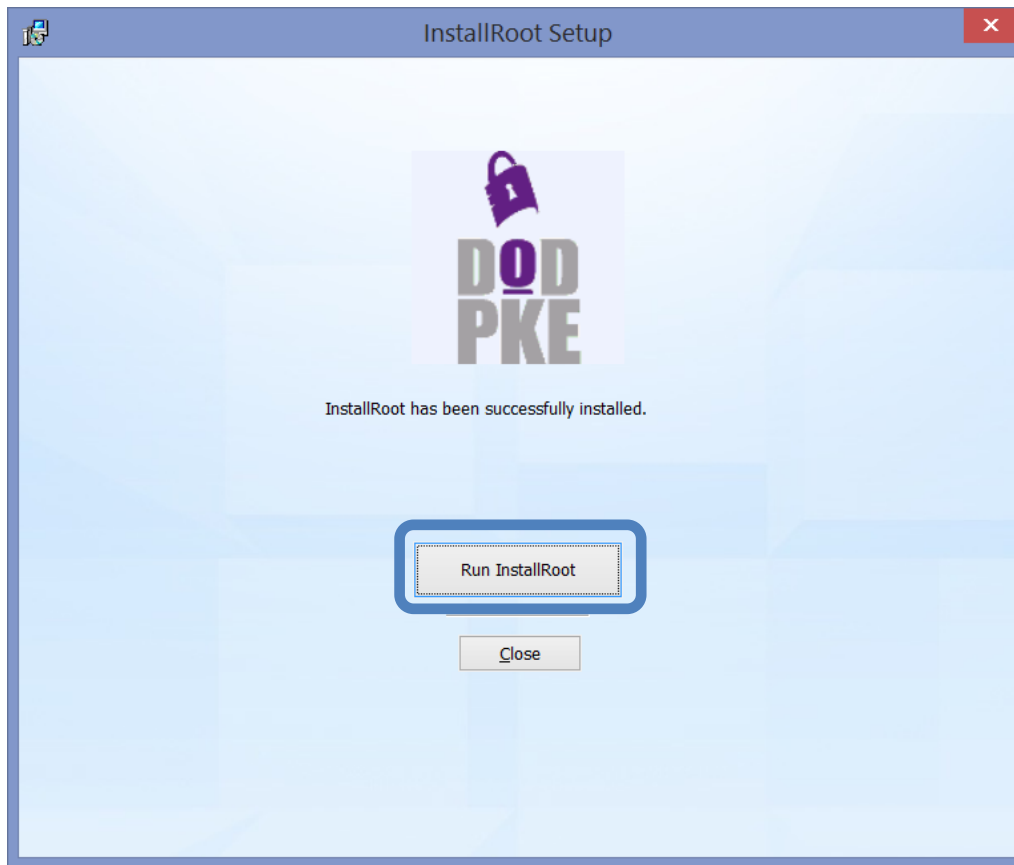


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8. A quick installation will happen, and then the program will inform you that InstallRoot has been successfully installed. Click **Run InstallRoot**.

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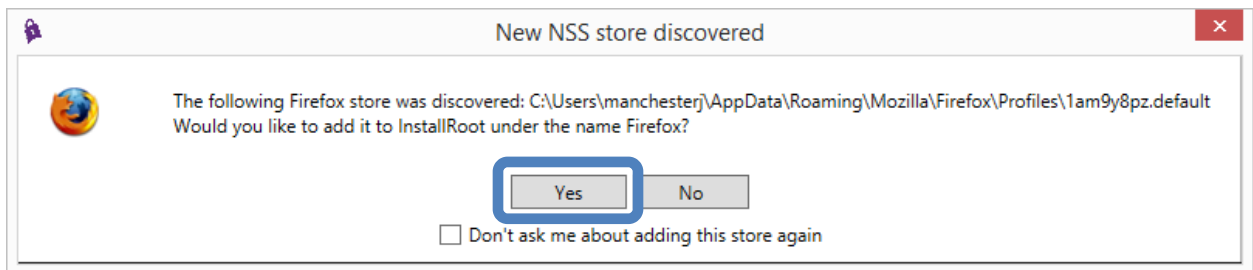


9. You may be asked to restart your PC after the InstallRoot is installed if so, please click No to proceed.

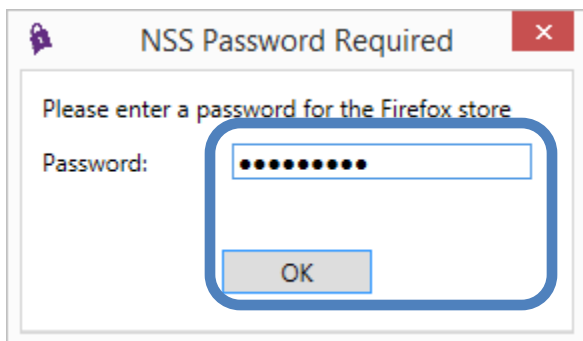
(Instructions continue on the next page.)

## Part 2: Running the tool

1. When you first open the program, a series of message boxes may pop up. If you have any Mozilla (Firefox, Thunderbird, etc.) products installed on your computer, you will be asked if you want to add the Firefox (or Thunderbird, etc.) certificate store(s) to InstallRoot. We recommend that you select 'Yes' for each of them.



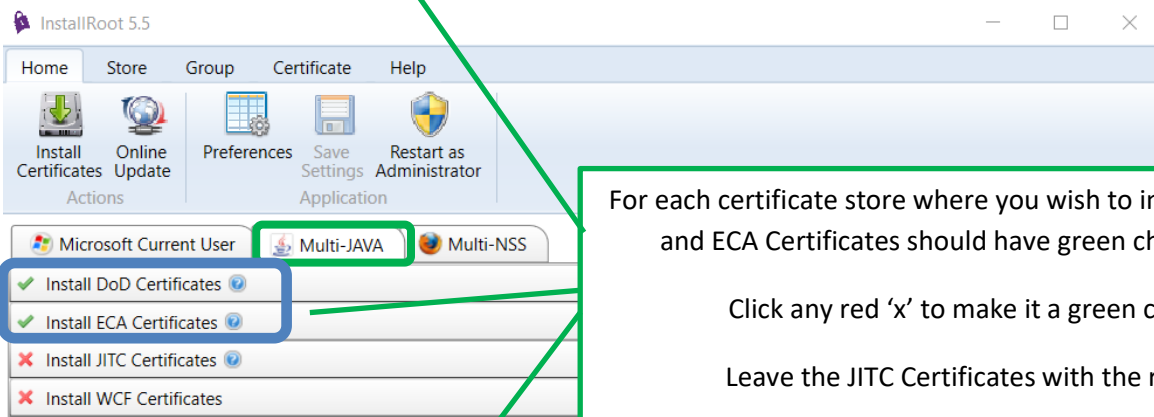
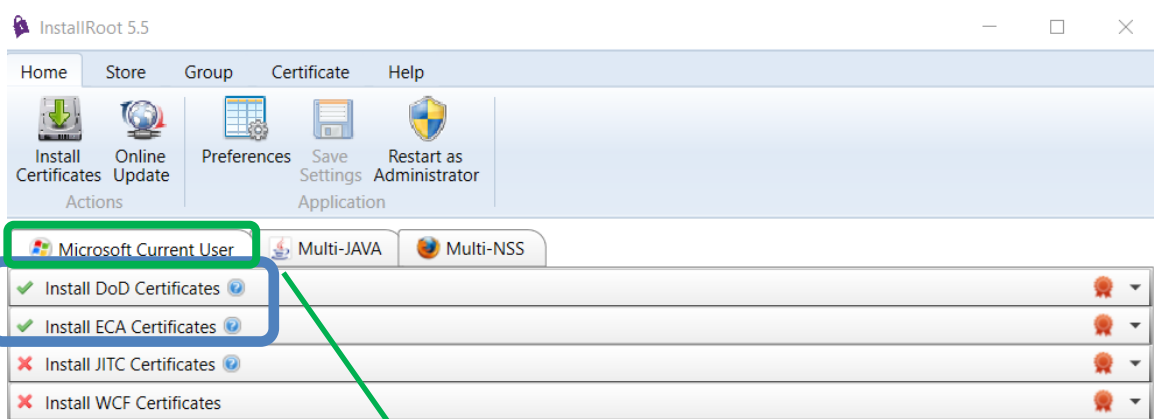
2. If you Firefox (or Thunderbird, etc.) certificate store(s) is password protected (as they should be), you will be prompted to enter the password.





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3. Two of the three items here are important to you: **DoD** and **ECA**. Look at the symbol on the far right of each row. **DoD** will probably show a green checkmark, while **ECA** will probably show a red X. Click on the X to change it to a checkmark. You want a green checkmark for both **DoD** and **ECA**.

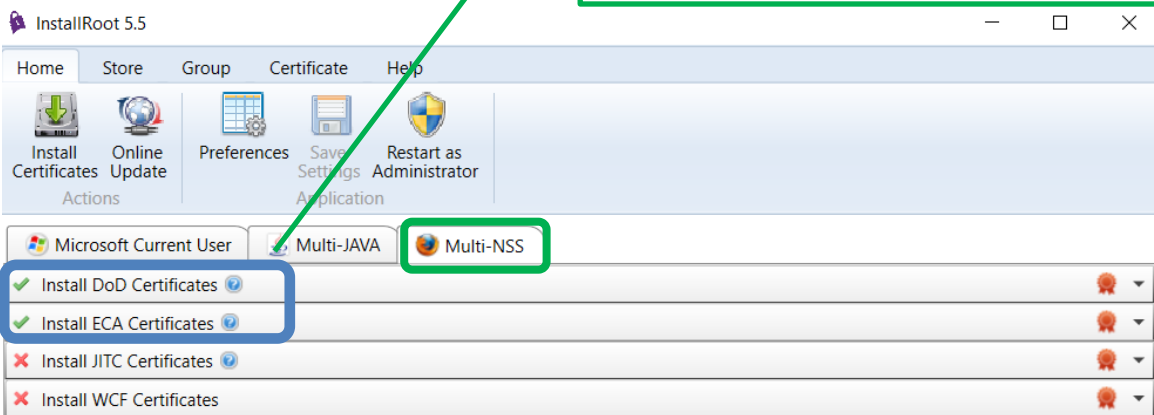


For each certificate store where you wish to install, both DoD and ECA Certificates should have green check marks.

Click any red 'x' to make it a green check.

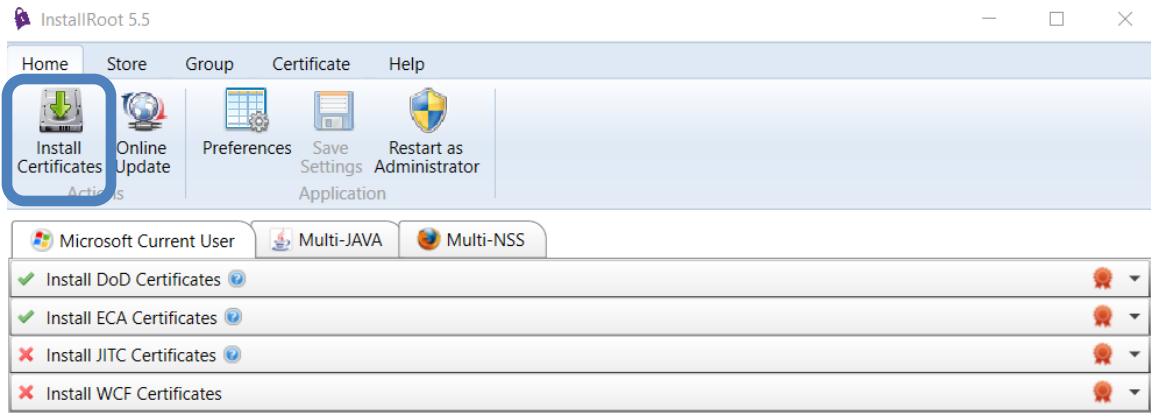
Leave the JITC Certificates with the red 'x'

Leave the WCF Certificates with the red 'x'

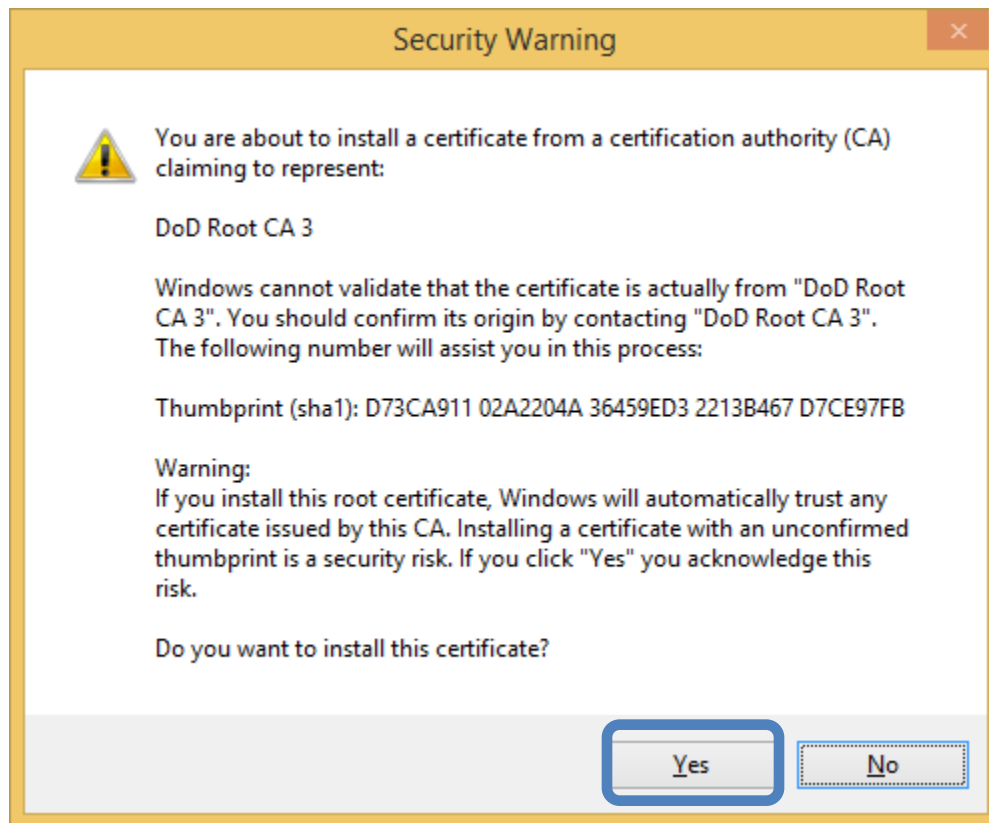


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4. When both **DoD** and ECA are marked with green checkmarks, click **Install Certificates**.

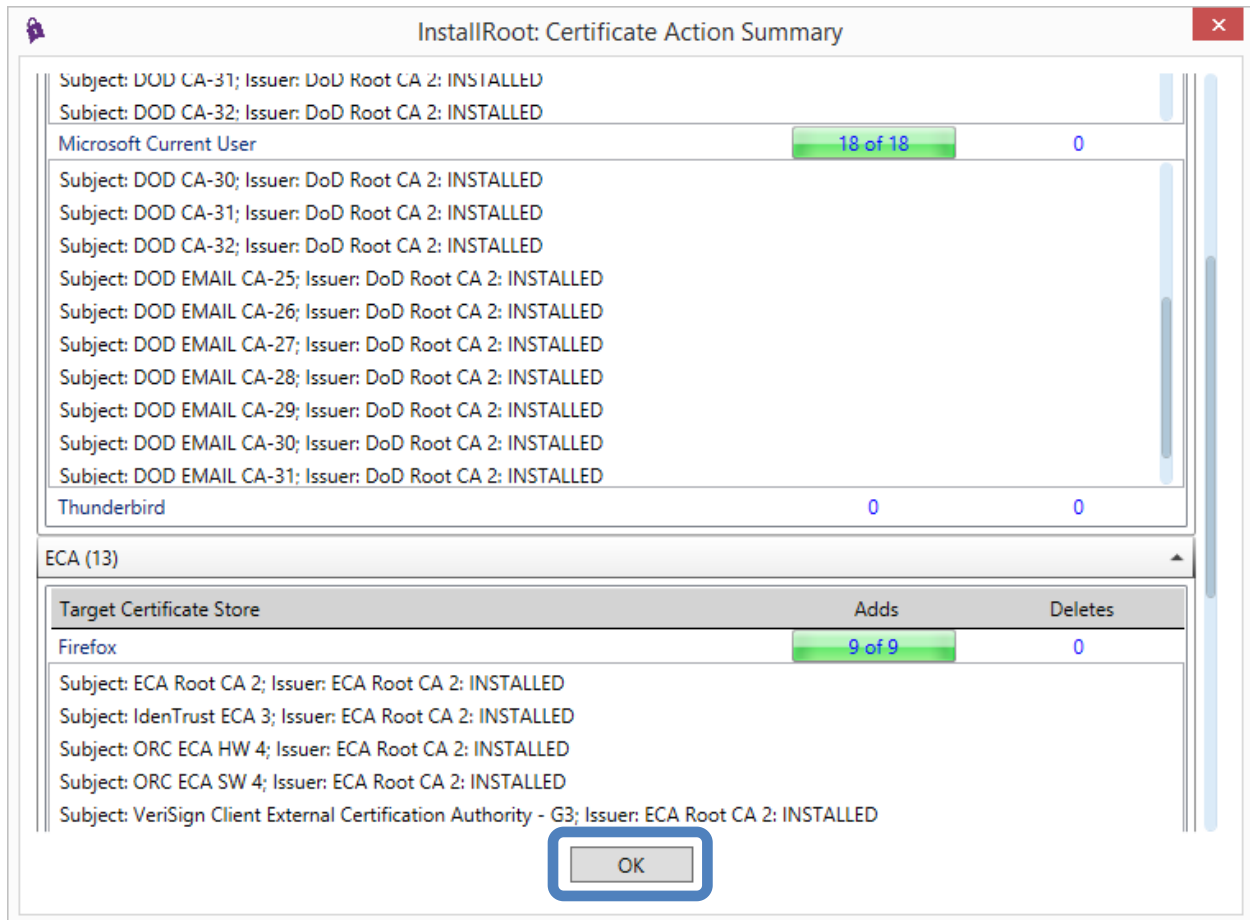


5. You may receive a security warning from Windows asking if you want to install DoD Root CA 3 and various other DoD PKI and (DoD) ECA PKI root certificates. Click **Yes** for each dialogue box.



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6. A box will pop up showing what actions were taken. The number of certificates installed, removed, or unable to be removed may differ from the screenshot here; as long as the number of certificates installed is **not** zero, the operation was a success. Click the OK to close the box.





## Trusting the DoD PKI and ECA PKI in Windows

7. Congratulations! You've trusted the DoD and ECA PKIs! You may now close the InstallRoot program.
8. InstallRoot will ask if you want to save. Click **Yes**

