



Trusting the DoD PKI and ECA PKI in Windows

Trusting the DoD and ECA PKIs: an explanation

In order for Internet Explorer (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 PKI: 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 5 tool. Please note that the default 'settings' of the InstallRoot tool will only establish trust of the DoD PKIs in Microsoft. There are optional settings to trust the DoD PKIs in Mozilla applications. If you are obtaining your certificates via Mozilla Firefox, you will also need to establish trust of the DoD PKIs in Mozilla Firefox. 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 previous versions of InstallRoot, the 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) 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 8.1 and Internet Explorer 11. If you are using a different version of Windows or Internet Explorer, what's on your screen may look slightly different than what you see in the screenshots presented here.



Trusting the DoD PKI and ECA PKI in Windows

Part 1: Downloading the tool from DISA

1. Using **Internet Explorer**, go to <http://iase.disa.mil/pki-pke/Pages/tools.aspx>. Click on **Trust Store** tab. *Note:* You can use any browser to download the file, but the download options you get may be different from what you see in this guide.

The screenshot shows the IASE (Information Assurance Support Environment) website. The header includes the IASE logo and a navigation menu with items like Home, Cybersecurity Training, Topic Map, STIGs, Tools, News, Help, and RSS Feeds. A dropdown menu for 'All Sites' is visible. The main content area is titled 'PKI and PKE Tools' and includes a note: '*PKI = DoD PKI Certificate Required'. Below this is a horizontal menu with tabs: Account Management, Certificate Tools, Certificate Validation, Email, Middleware, Mobile Devices, Trust Store, and ALL. The 'Trust Store' tab is highlighted with a blue box. Below the tabs, the 'Password Hash Refresh Script *PKI' is listed, with a description: 'The DoD PKE Password Hash Refresh script can be used to periodically change passwords (and by extension, their associated hashes) for smart card-enforced accounts within specific OU containers and Groups in Microsoft Active Directory (AD). (ZIP Download) Size: 2 KB'.

Trusting the DoD PKI and ECA PKI in Windows

2. Scroll down until you see the link for **InstallRoot 5.0: NIPR Windows Installer**. 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. [InstallRoot 5.0 was 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 version that is available.]

PKI and PKE Tools

*PKI = DoD PKI Certificate Required

Domain Management Certificate Tools Certificate Validation Email Middleware Mobile Devices Trust Store ALL

InstallRoot 4.1: SIPR Windows Installer *Downloads available on SIPRNet URL Only

This tool allows users to install the National Security Systems (NSS) PKI root, intermediate and subordinate CA certificates into their Windows and Firefox certificate stores. InstallRoot 4.1 is packaged with a command line version as well as an InstallRoot service, which can check for updated Trust Anchor Management Protocol (TAMP) messages that contain the latest certificate information from DoD. The following operating systems are supported: Windows XP, Vista, Windows 7, Windows 8 and 8.1, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, and Windows Server 2012 R2. This version should only be run on machines connected to Secret networks, and is only available from the DoD PKE SIPRNET site.

InstallRoot 5.0: NIPR Windows Installer

This tool allows users to install DoD production PKI, Joint Interoperability Test Command (JITC) test PKI, and External Certification Authority (ECA) CA certificates into their Windows and Firefox certificate stores. InstallRoot 5.0 is packaged with a command line version as well as an InstallRoot service, which can check for updated Trust Anchor Management Protocol (TAMP) messages that contain the latest certificate information from DoD. The following operating systems are supported: Windows Vista, Windows 7, Windows Server 2008, and Windows Server 2008 R2.

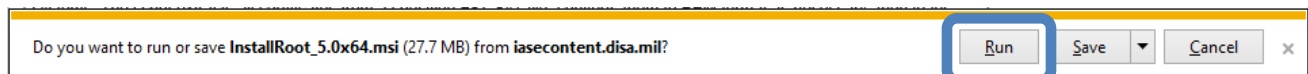
- 32-bit Installer
- 64-bit Installer
- Non Administrator

InstallRoot 5.0: User Guide

This guide provides installation and usage instructions for the DoD PKE
Size: 1,828 KB

You may download the User Guide if desired.

3. When Internet Explorer asks if you want to run or save the file, click **Run**.



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 that problem.

Trusting the DoD PKI and ECA PKI in Windows

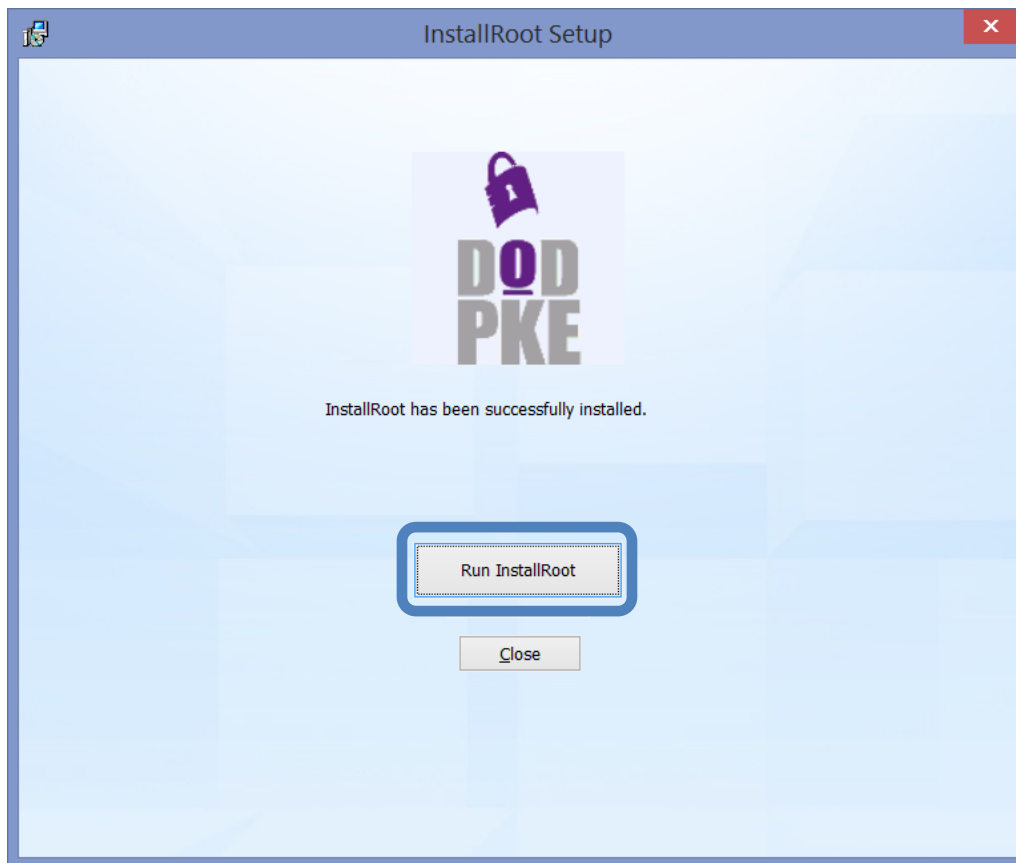
4. InstallRoot Setup Wizard will open. Click **Next**.



5. **Choose a file location** allows you to choose where you want the program installed. Let it install in the default location by clicking **Next**.
6. **InstallRoot Features** contains three checkboxes, which will be checked by default. Leave both checked and click **Next**.
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**.

Trusting the DoD PKI and ECA PKI in Windows

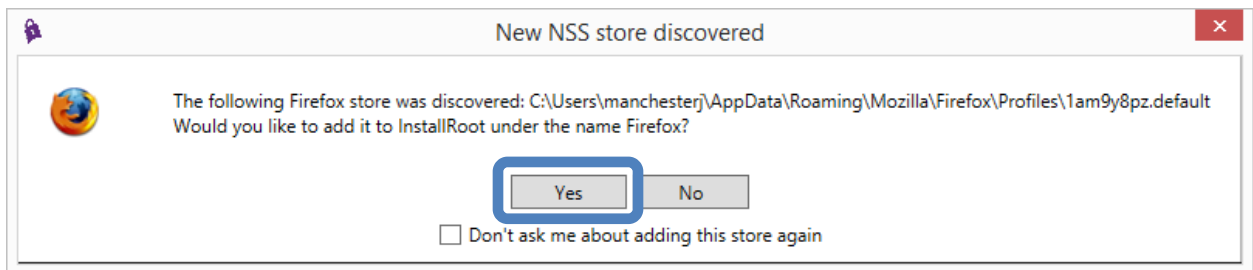
8. A quick installation will happen, and then the program will inform you that InstallRoot has been successfully installed. Click **Run InstallRoot**.



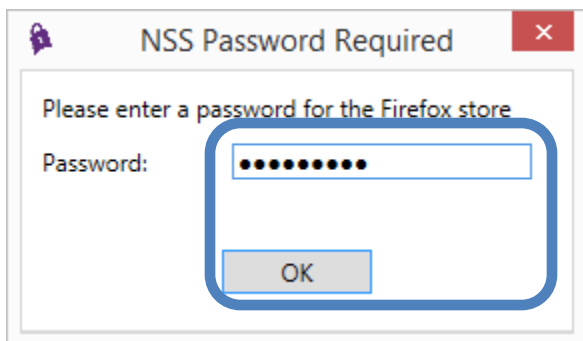
(Instructions continue on the next page.)

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.

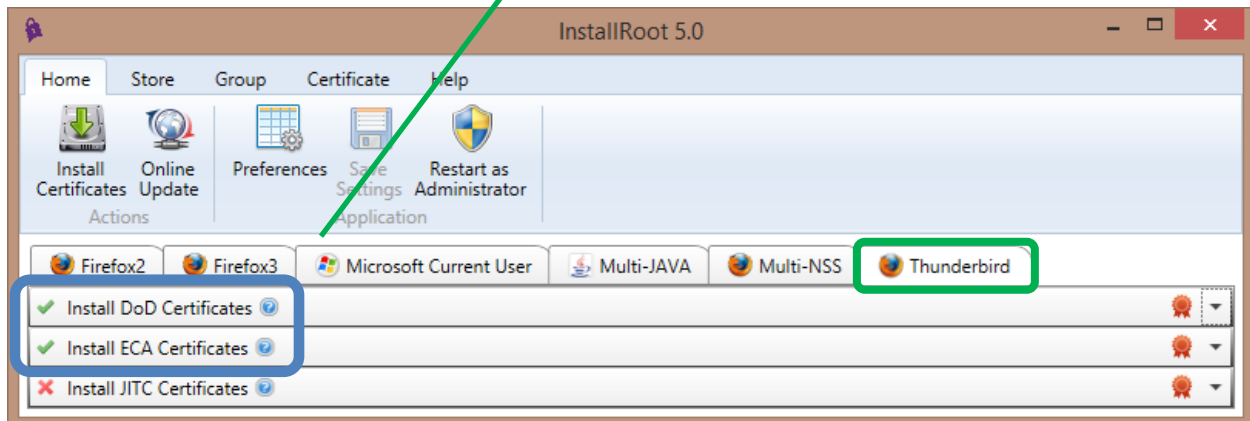
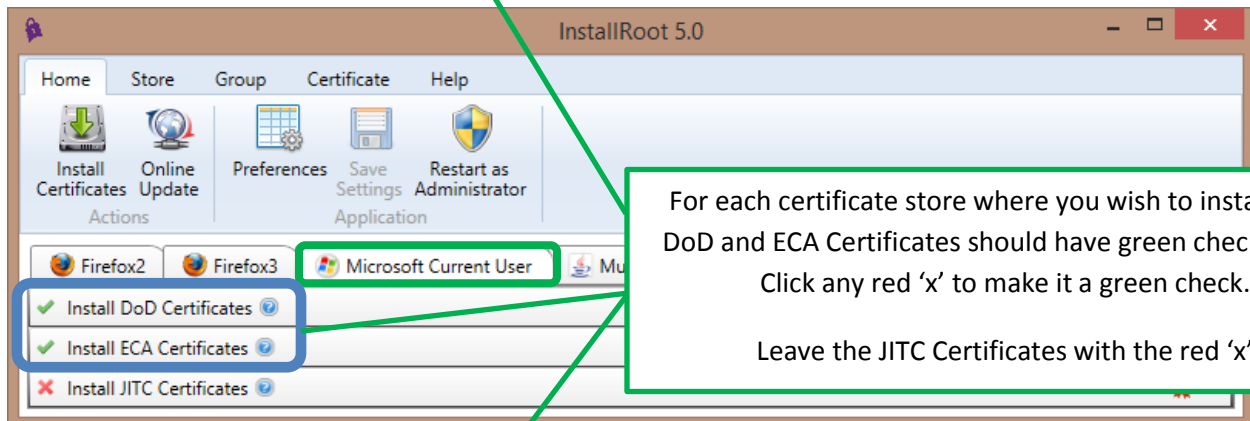
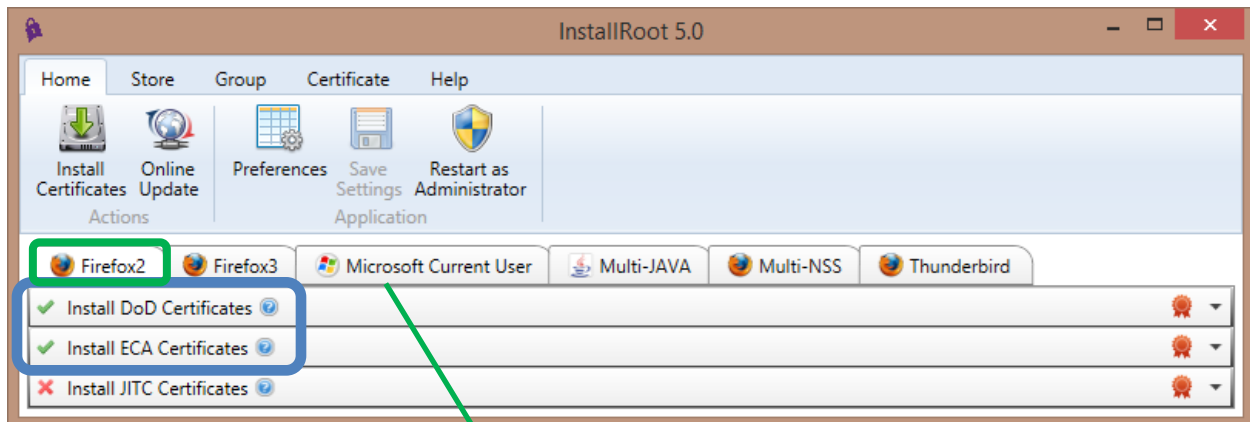


2. If you Firefox (or Thunderbird, etc.) certificate store(s) is password protected (as they should be), you will be prompted to enter the password.



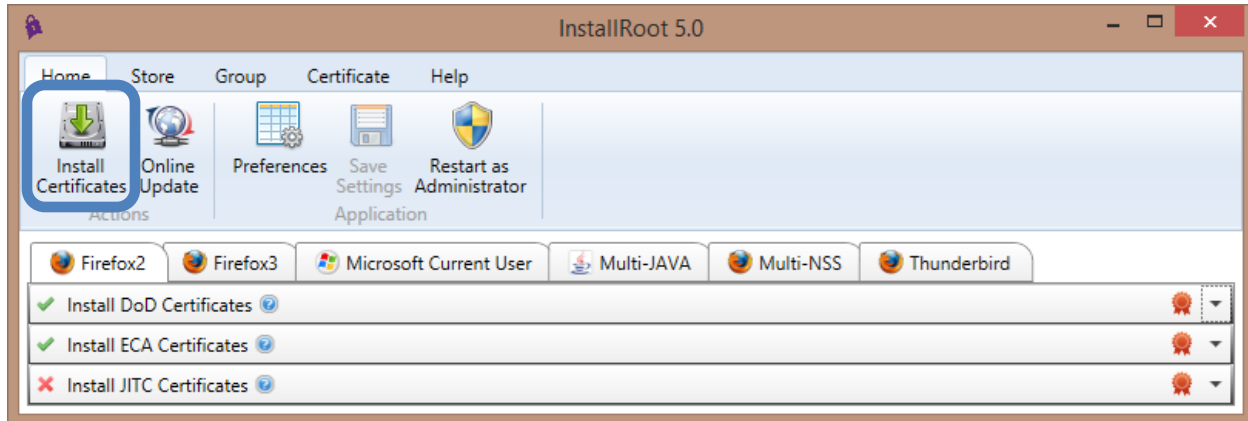
Trusting the DoD PKI and ECA PKI in Windows

- 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**.

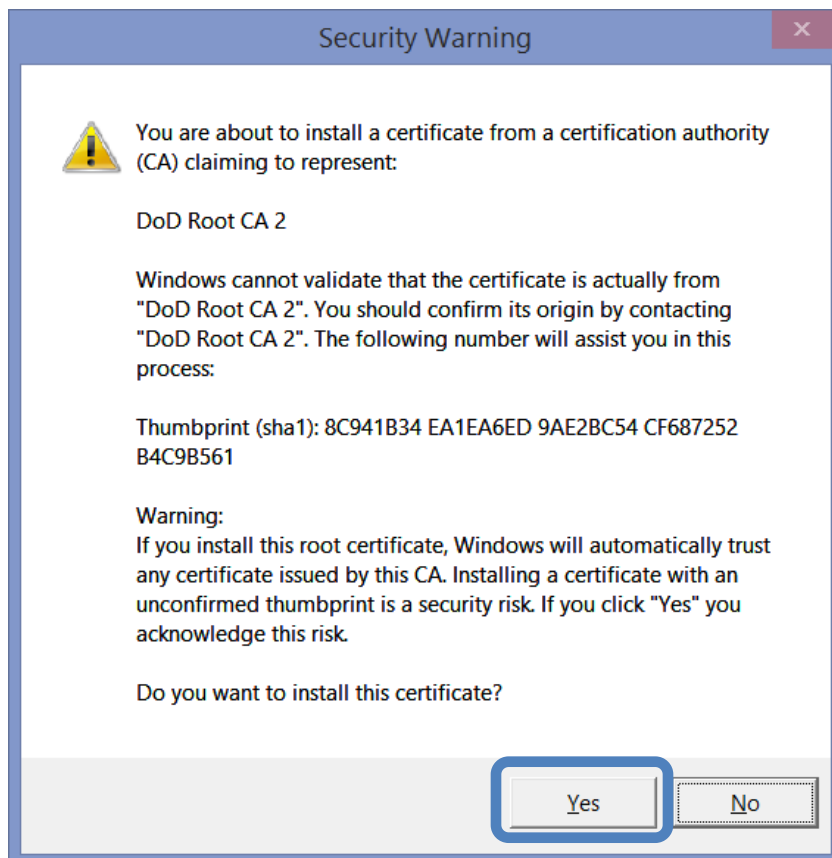


Trusting the DoD PKI and ECA PKI in Windows

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

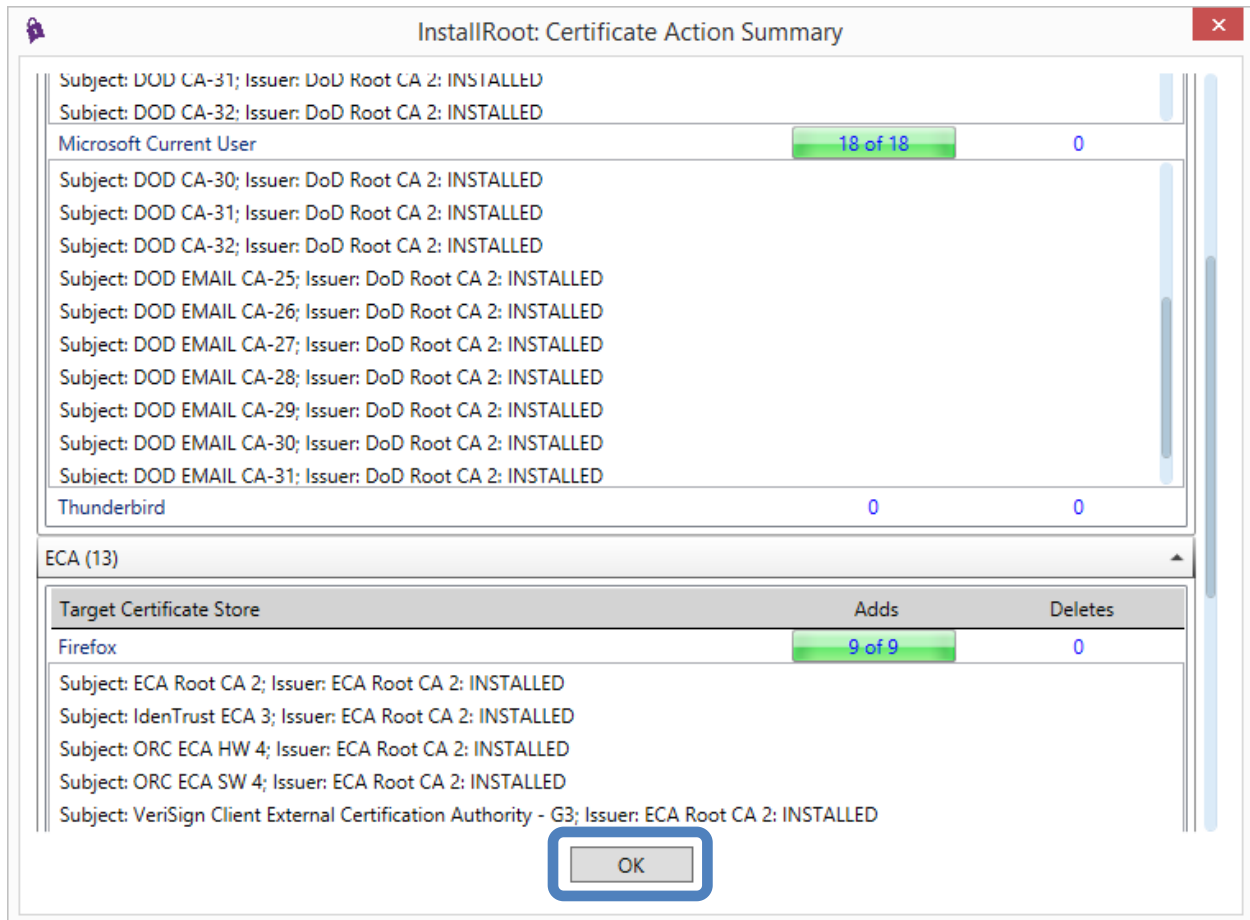


- You may receive a security warning from Windows asking if you want to install DoD Root CA 2 and various other DoD PKI and (DoD) ECA PKI root certificates. Click **Yes** for each dialogue box.



Trusting the DoD PKI and ECA PKI in Windows

- 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**

