

Imaging your roboRIO

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Before imaging your roboRIO, you must have completed installation of the [FRC Update Suite](#). You also must have the roboRIO power properly wired to the Power Distribution Panel as described [here](#).

Make sure the power wires to the roboRIO are secure and that the connector is secure firmly to the roboRIO (4 total screws to check).

Configuring the roboRIO

The roboRIO Imaging Tool will be used to image your roboRIO with the latest software.

USB Connection



Imaging your roboRIO

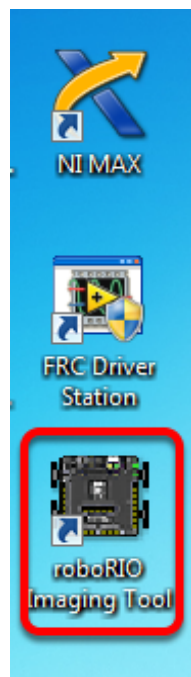
Connect a USB cable from the roboRIO USB Device port to the PC. This requires a USB Type A male (standard PC end) to Type B male cable (square with 2 cut corners), most commonly found as a printer USB cable.

Note: The roboRIO should only be imaged via the USB connection. It is not recommended to attempt imaging using the Ethernet connection.

Driver Installation

The device driver should install automatically. If you see a "New Device" pop-up in the bottom right of the screen, wait for the driver install to complete before continuing.

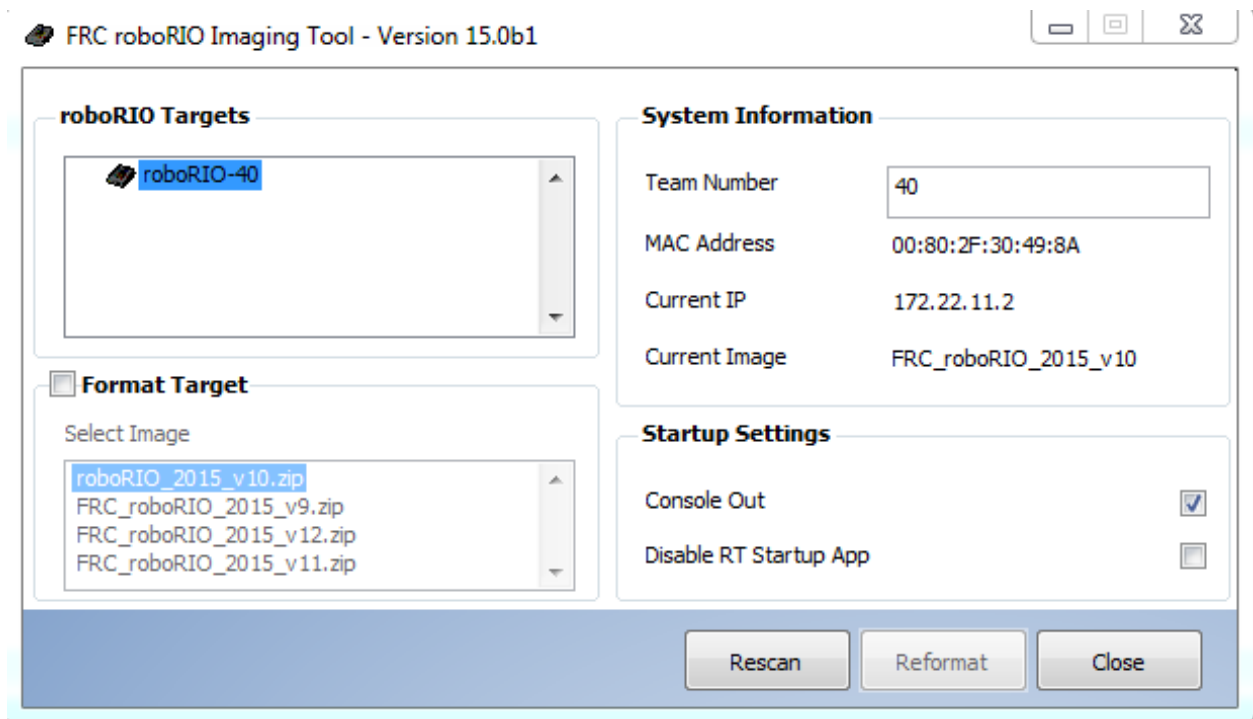
Launching the Imaging Tool



The roboRIO imaging tool and latest image are installed with the NI Update Suite. Launch the imaging tool by double clicking on the shortcut on the Desktop. If you have difficulties imaging your roboRIO, you may need to try right-clicking on the icon and selecting Run as Administrator instead.

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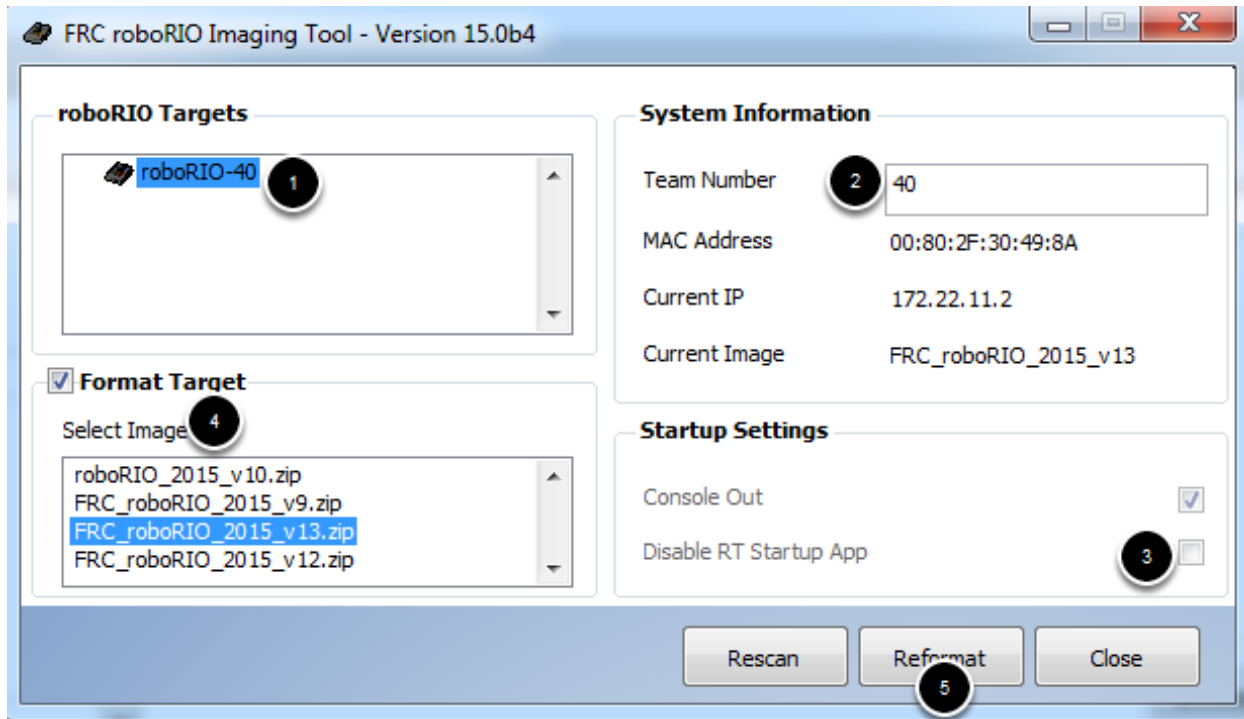
roboRIO Imaging Tool



After launching, the roboRIO Imaging Tool will scan for available roboRIOs and indicate any found in the top left box. The bottom left box will show the available image versions that may be loaded onto the roboRIO. The right hand column contains information and settings for the roboRIO selected in the top left pane.

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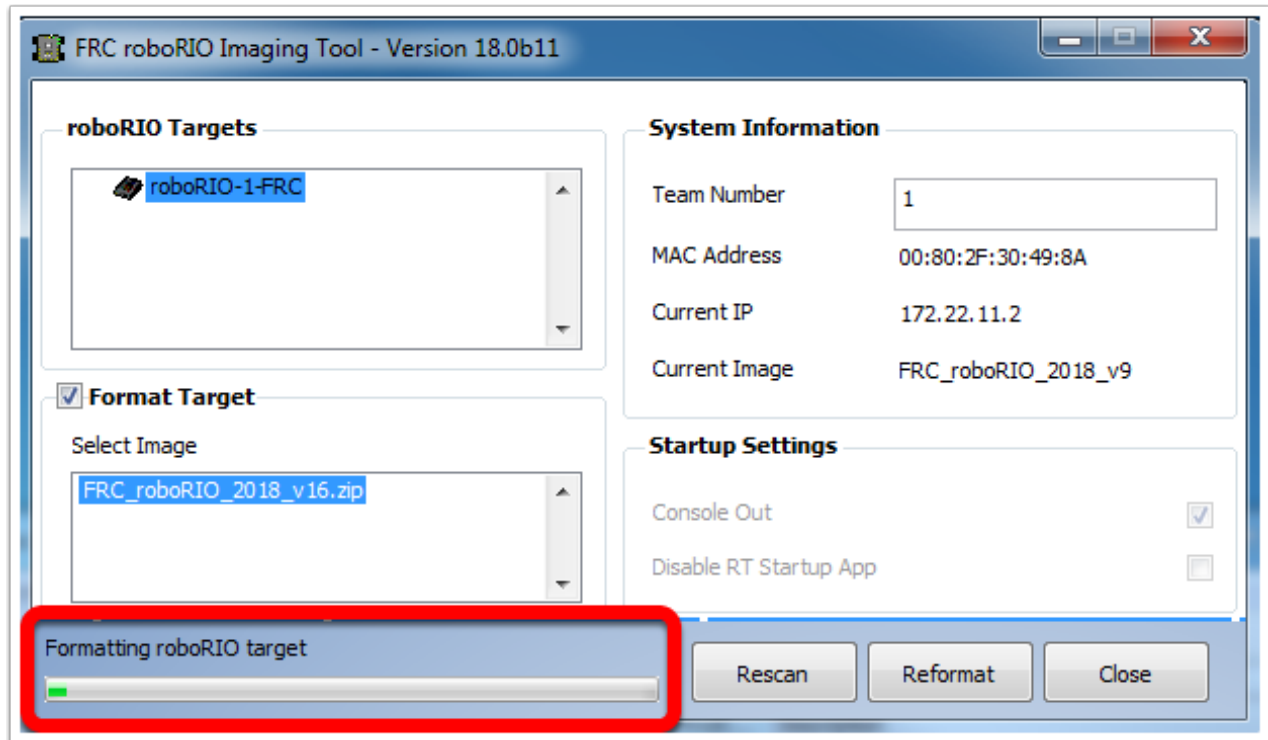
Imaging the roboRIO



1. Make sure the roboRIO is selected in the top left pane
2. Enter your team number in the box in the top right
3. Make sure the Disable RT Startup App box is unchecked in the bottom right
4. Check the box to Format Target and select the latest image version in the box.
5. Click Reformat to begin the imaging process.

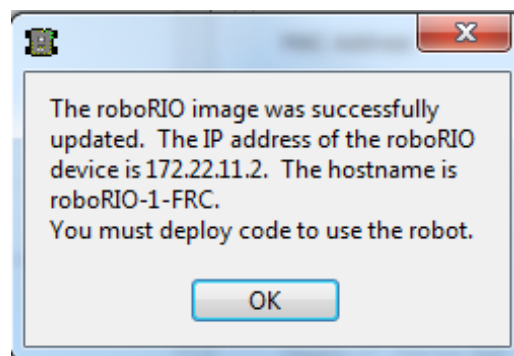
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Imaging Progress




The imaging process will take approximately 3-10 minutes. A progress bar in the bottom left of the window will indicate progress.


Imaging Complete



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When the imaging completes you should see the dialog above. Click Ok, then click the Close button at the bottom right to close the imaging tool. **Reboot the roboRIO using the Reset button to have the new team number take effect.**

 Note: The default CAN webdash functionality has been removed from the image (CAN devices will still work from robot code). You will need to use the [Phoenix Lifeboat tool from CTRE](#) to install the webdash plugin after imaging.

 Note: There is no longer a separate Java Installation process required after imaging for Java teams. The WPILib Eclipse plugin will deploy an OpenJDK version of the JRE to the roboRIO if necessary on each code deploy.

Troubleshooting

If you are unable to image your roboRIO, troubleshooting steps include:

1. Try running the roboRIO Imaging Tool as Administrator by right-clicking on the Desktop icon to launch it.
2. Try accessing the roboRIO webpage with a web-browser at <http://172.22.11.2/> and/or verify that the NI network adapter appears in your list of Network Adapters in the Control Panel. If not, try re-installing the NI Update Suite or try a different PC.
3. Make sure your firewall is turned off. More information on this can be found here: [Windows Firewall Configuration](#)
4. Make sure your roboRIO firmware is up to date using the instructions here: [Updating your roboRIO firmware](#)
5. Try a different PC
6. Try booting the roboRIO into Safe Mode by pressing and holding the reset button for at least 5 seconds.