

Programming your radio for home use

This guide will show you how to use the 2013 FRC Bridge Configuration Tool software to configure your robot's wireless bridge for use outside of FRC events.

Before you begin using the software:

1. Disable WiFi connections on your computer, as it may prevent the configuration utility from properly communicating with the bridge
2. Make sure no devices are connected to your computer via ethernet, other than the wireless bridge.

Installing the JRE



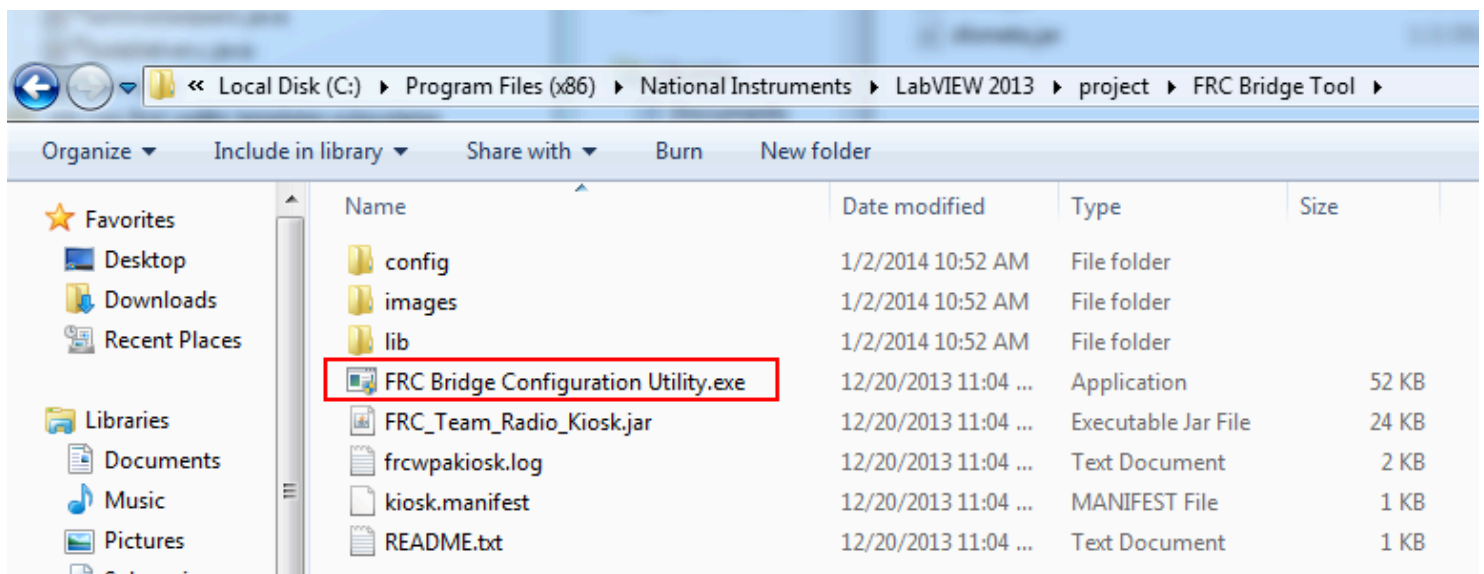
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The Java Runtime is required to use the FRC Bridge Configuration Tool. Many computers will already have Java installed, you can check by looking for a Java icon in the Control Panel. If you do not have Java already installed, download and install it from <http://www.java.com/en/download/index.jsp>

Install the Software

The FRC Bridge Configuration Utility is installed with the NI FRC Update. If you have not already installed this update see the [Installing the 2014 NI FRC NI Update](#) article for details.

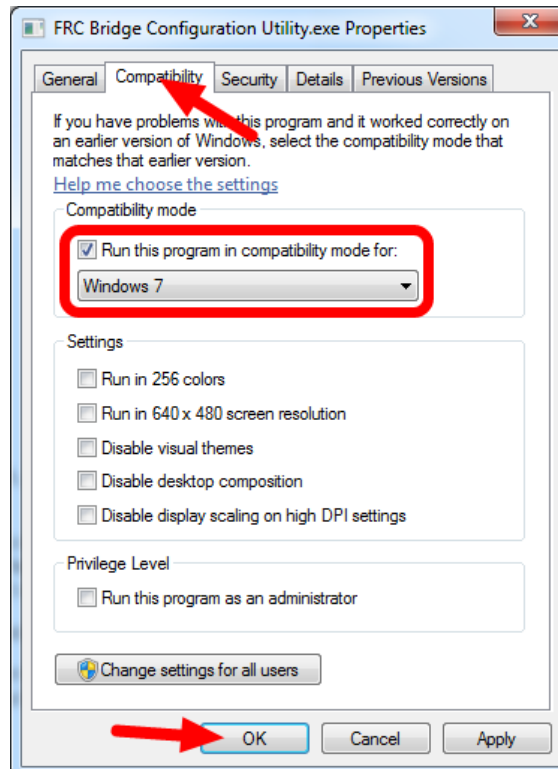
Launch the software



Browse to C:\Program Files\National Instruments\LabVIEW 2013\project\FRC Bridge Tool (Program Files (x86) on 64 bit machines). On Windows XP, Vista or 7 double click on FRC Bridge Configuration Utility to launch the utility. On Windows 8 see the next step to set compatibility mode before launching.

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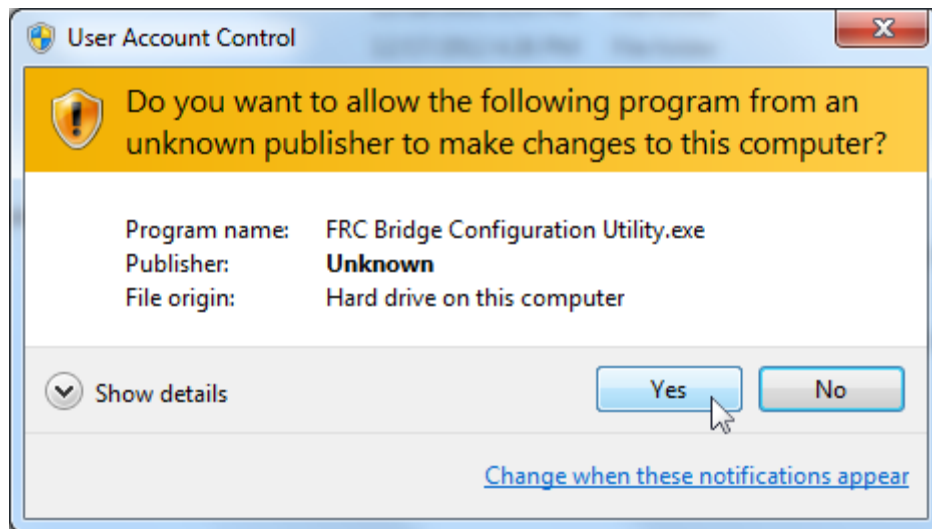
Windows 8 - Set Compatibility



To run on Windows 8 the program must be set to launch in Windows 7 compatibility mode. To do this right click on the file (as shown in the step above) and click Properties. Select the Compatibility tab, check the box for Compatibility Mode, select Windows 7 from the dropdown, then click OK. Start the program by double-clicking on the icon.

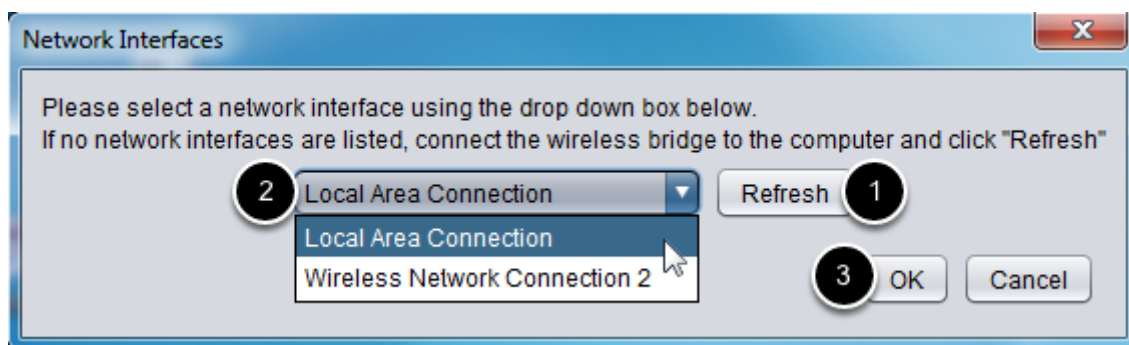
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Allow the program to make changes, if prompted



If the your computer is running Windows Vista or Windows 7, a prompt may appear about allowing the configuration utility to make changes to the computer. Click "Yes" if the prompt appears.

Select the network interface



Use the pop-up window to select the which ethernet interface the configuration utility will use to communicate with the wireless bridge. On Windows machines, ethernet interfaces are typically named "Local Area Connection". The configuration utility can not program a bridge over a wireless connection.

1. If no ethernet interfaces are listed, click "Refresh" to re-scan for available interfaces

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2. Select the interface you want to use from the drop-down list
3. Click "OK"

Select a bridge model and operating mode

Team Number: 1995 ¹

WPA Key: password ²

Configure

To program your wireless bridge:

- 1) Ensure the mode switch is set to "AP 2.4GHz"
- 2) Connect power and Ethernet to the wireless bridge
- 3) Wait for the blue power and AP lights to turn on
- 4) Enter your team number, and a WPA key (optional), above
- 5) Press "Configure", the process should take 15-60 seconds

If asked to reset your wireless bridge:

- 1) Ensure the mode switch is set to "AP 2.4GHz"
- 2) Connect power and Ethernet to the wireless bridge
- 3) Wait for the blue power and AP lights to turn on
- 4) Press and hold the "Reset" button 10 seconds
- 5) The blue AP light will turn off after a few seconds
- 6) Once the blue AP light turns on again, reset is complete

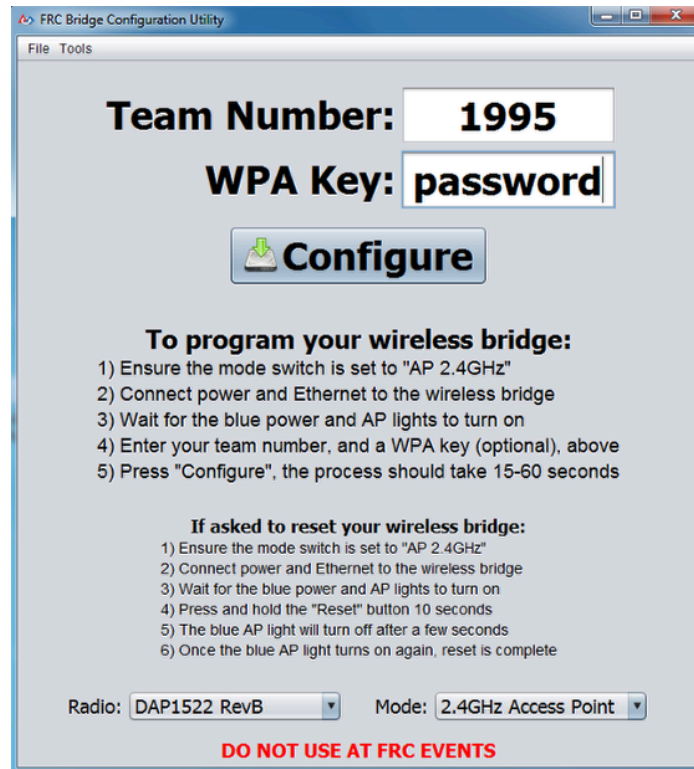
Radio: DAP1522 RevB ³ Mode: 2.4GHz Access Point ⁴

DO NOT USE AT FRC EVENTS

1. Enter the team number to configure the bridge for.
2. Enter the desired WPA key. Leave blank to configure with no security.
3. Select which DAP1522 revision you are configuring using the drop-down list
4. Select which operating mode you want to configure. For most cases, the default selection of 2.4GHz Access Point will be sufficient.

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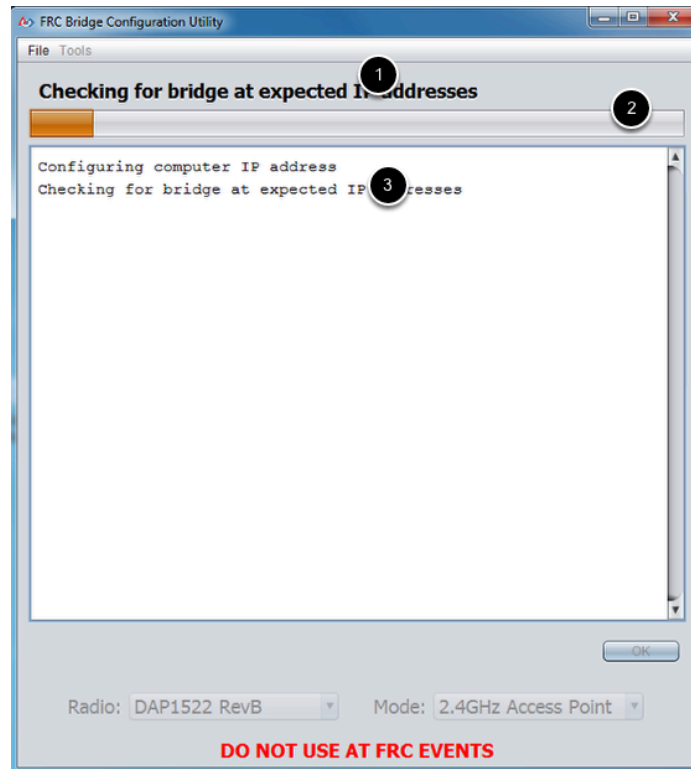
Prepare and start the configuration process



Follow the on-screen instructions for preparing your wireless bridge, entering the settings the bridge will be configured with, and starting the configuration process. These on-screen instructions update to match the bridge model and operating mode chosen at the bottom of the window.

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Configuration Progress

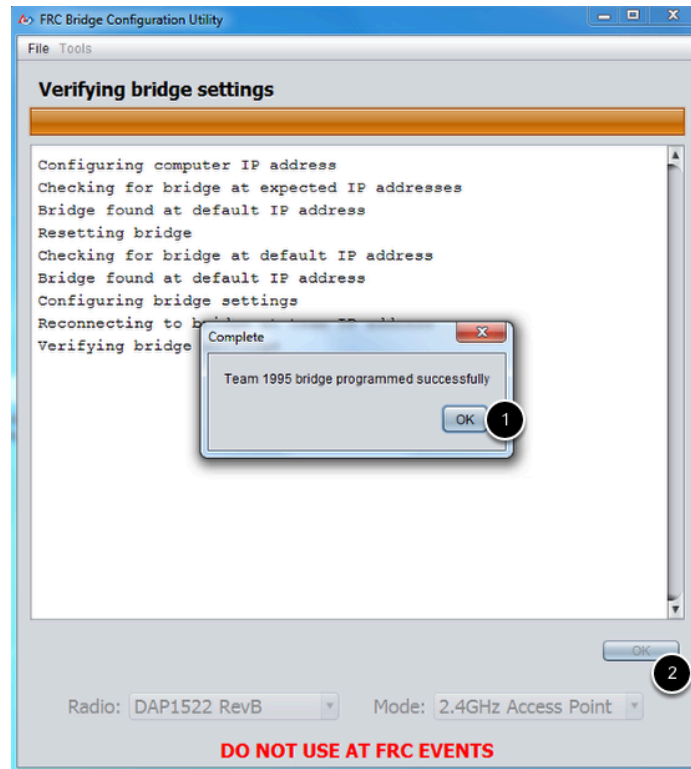


Throughout the configuration process, the window will indicate:

1. The step currently being executed
2. The overall progress of the configuration process
3. All steps executed so far

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Configuration completed

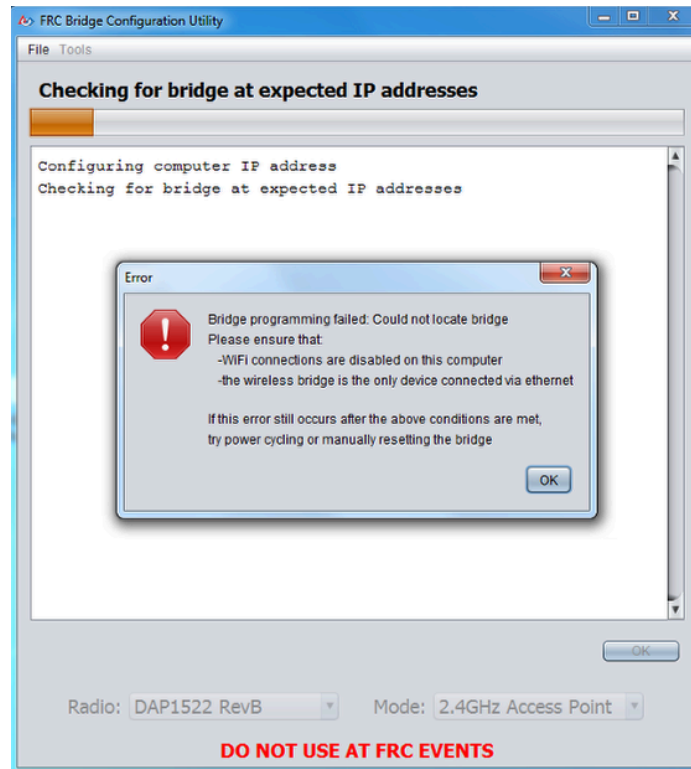


Once the configuration is complete:

1. Press "OK" on the dialog window
2. Press "OK" on the main window to return to the settings screen

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Configuration errors



If an error occurs during the configuration process, follow the instructions in the error message to correct the problem.