

RNDAC Micro-USB Firmwate Update

In the event that the RNDAC needs to have its firmware updated, follow this procedure:

Windows PC

For RNDAC firmware updates using a Windows PC, you will need to install the FTDI driver, USB Bootloader (Unified Host Bootloader 0.1.14) and Java 8 Runtime Environment.

These installers are included within the RNDAC_Firmware_Update_v23.zip download available on the Fidelice website (www.fidelice.com).

Step 1: Run the FTDI driver installer ("CDM21228_Setup") and complete the installation, following the on-screen prompts.

Step 2: Run the Java 8 Runtime Environment Installer and complete the installation, following the on-screen prompts.

Note: You will need to take note of the COM port number in Device Manager. This information will be needed later when configuring the Unified Host Bootloader for the RNDAC firmware update.

Mac

RNDAC firmware update using a Mac does not require the FTDI driver installer, but you may need to install the Java Runtime environment if it is not already installed in order to run the Unified Host USB Bootloader.

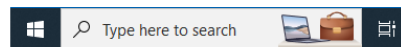
Step 1: Run the Java 8 Runtime Environment Installer and complete the installation, following the on-screen prompts.

Note: Mac does not require that the user looks up the COM port ahead of time. It will be the only available port in the Unified Bootloader drop down menu.

Troubleshooting:

WINDOWS 10 - Unified Host Bootloader 1.14 unexpectedly quits when applying COM port changes.

- Type "Add or Remove Programs" into Windows Taskbar Search
- In the "Apps" list, scroll down to find "Java 8 Update 361 (64-bit)" and click "Uninstall"
- Re-open Unified Host Bootloader 1.14 and repeat Steps 1-14.

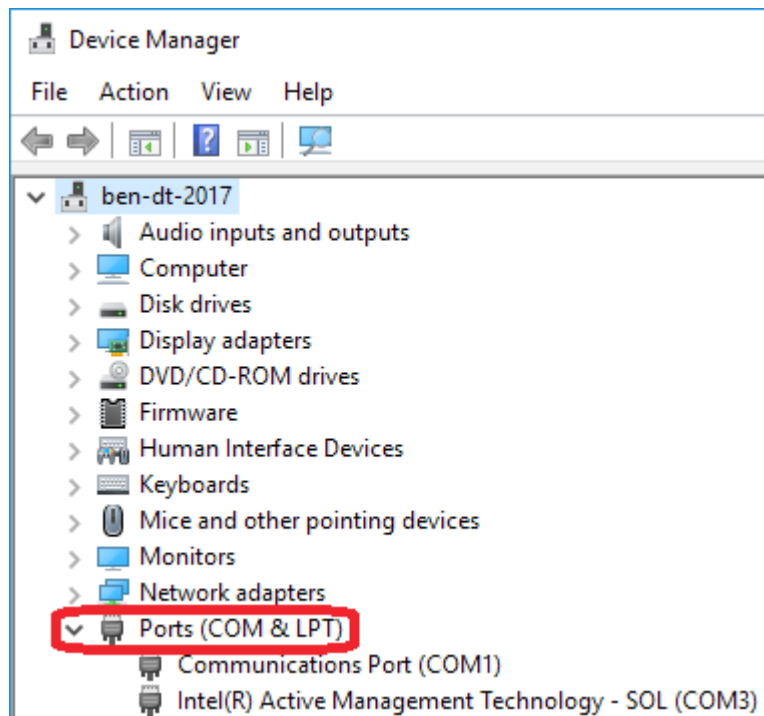


RNDAC Firmware Update Procedure:

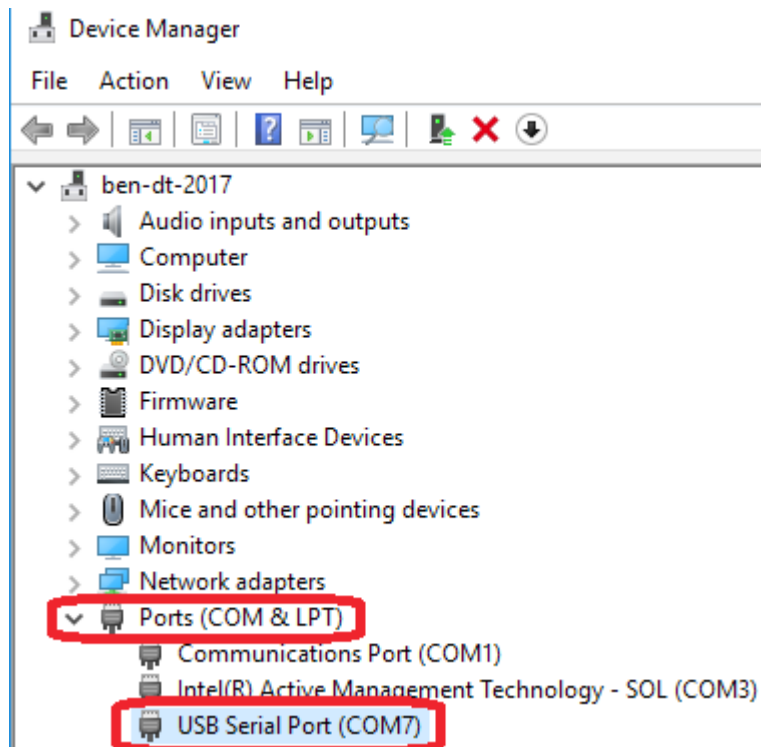
Now that you have installed the necessary components for your computer configuration, please continue with the following instructions.

1. Start with the RNDAC powered OFF.
2. Connect a USB-Micro to USB-A cable between your computer and the RNDAC rear-panel USB Firmware Update port but DO NOT power ON the RNDAC. For Mac, skip ahead to step 5.
3. (Windows PC Only) BEFORE turning on the RNDAC, open the Device Manager. Locate "Ports (COM & LPT)" in the device manager list and click on the drop-down arrow to show the available COM ports.

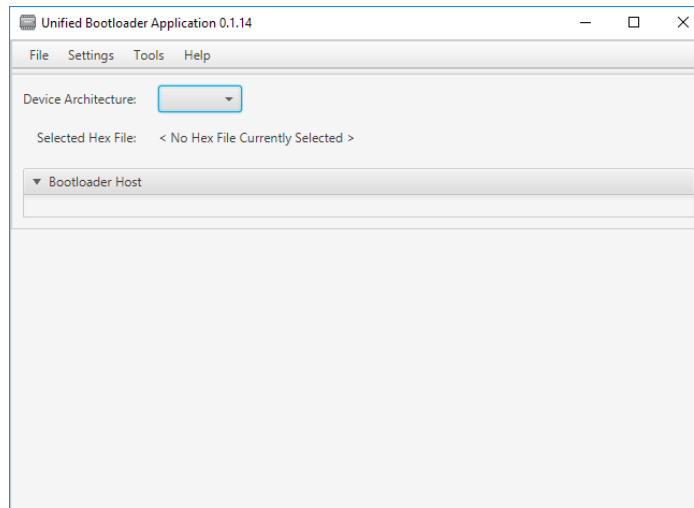
Note: While the Micro USB Firmware update port is connected to a computer during the update process, the RNDAC front panel will not illuminate while powered ON. This is normal operation during firmware update.



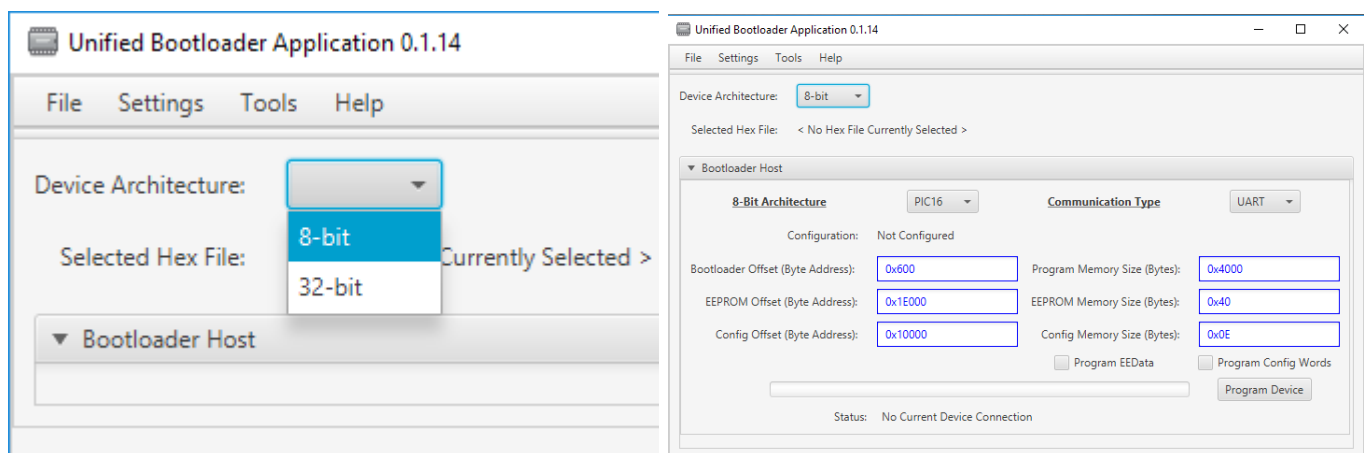
4. (Windows PC Only): With Device Manager still open, power ON the RNDAC and wait for a new COM port to show up in the drop-down list. Note the COM port number for later use (in the example below it's COM7).



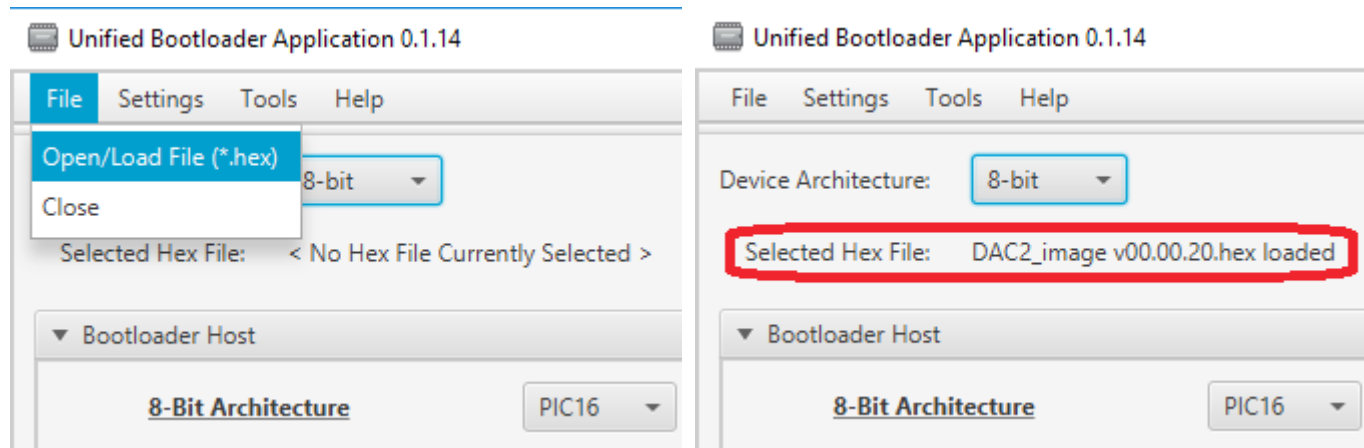
5. Open the RNDAC Bootloader: UnifiedHost-0.1.14. The following window will pop-up.



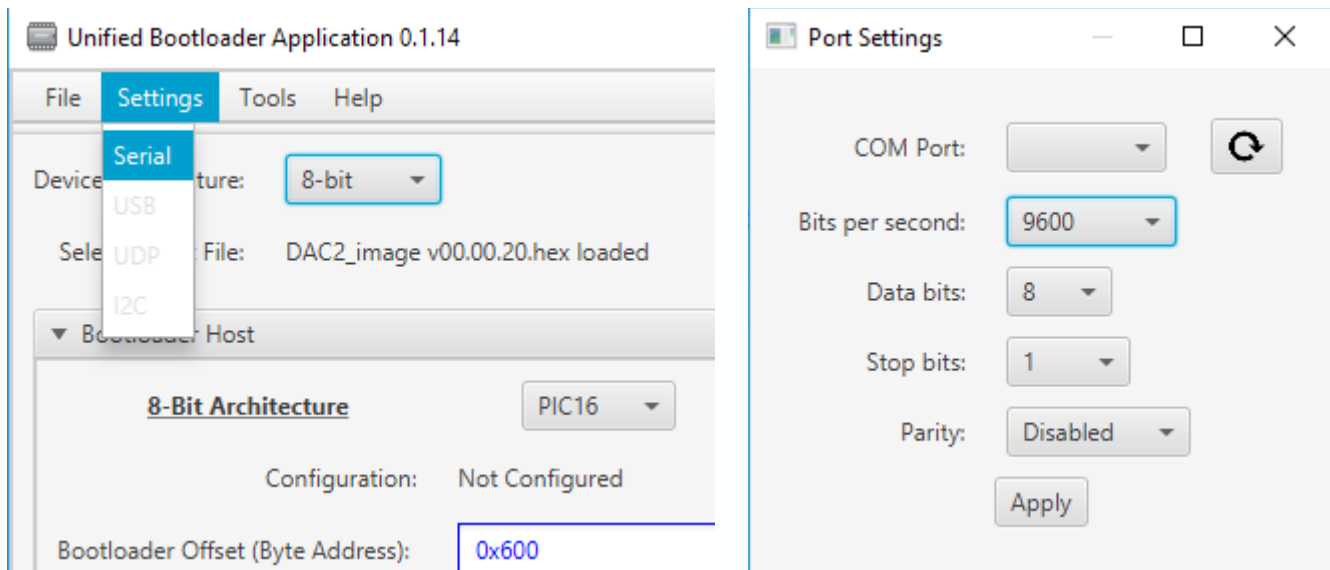
6. Click on the “Device Architecture” drop-down box and select **8-bit**. Once 8-bit architecture is selected, the Bootloader window will refresh with more configuration options. You may need to resize the window at this point to see the full configuration window.



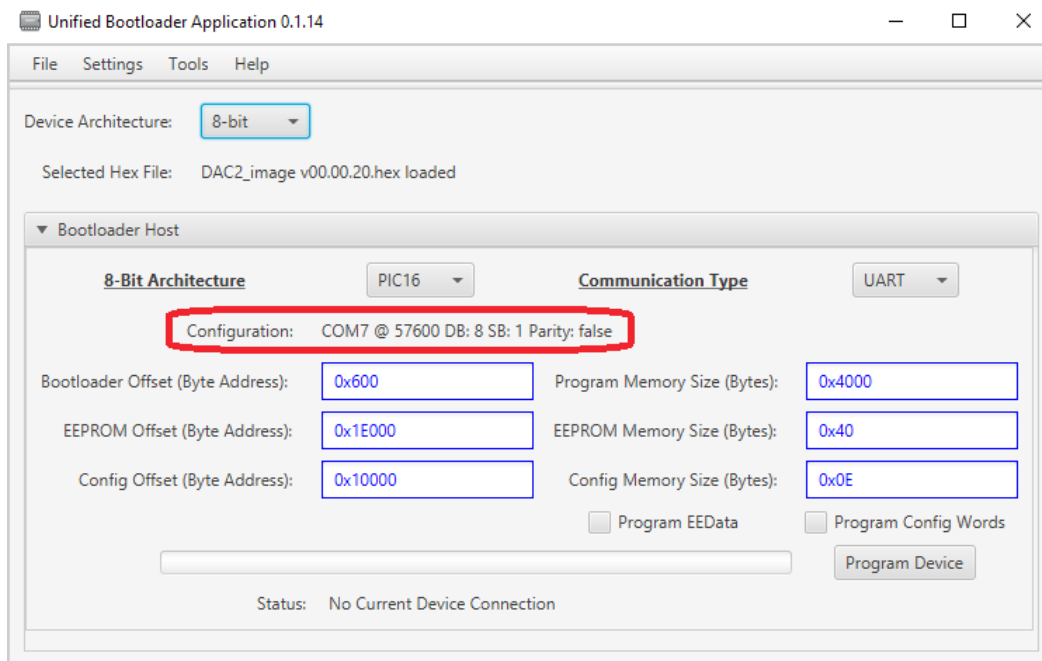
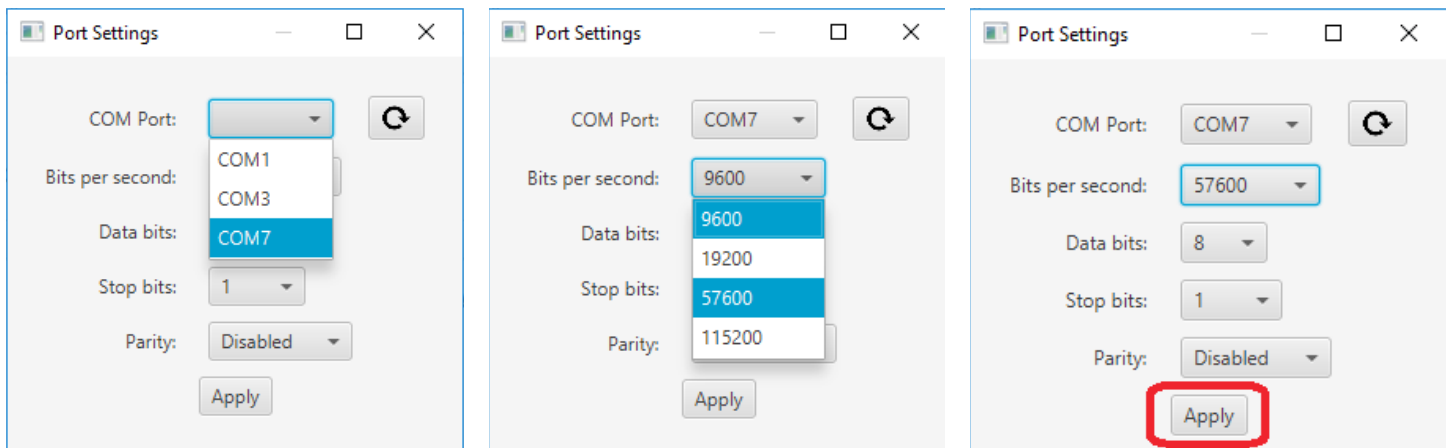
7. Click on File > Open/Load File (*.hex). Navigate to the directory where you saved the image hex file and click OK. Once the image hex file has been loaded, it will be indicated in the RNDAC bootloader under “Selected Hex File.”



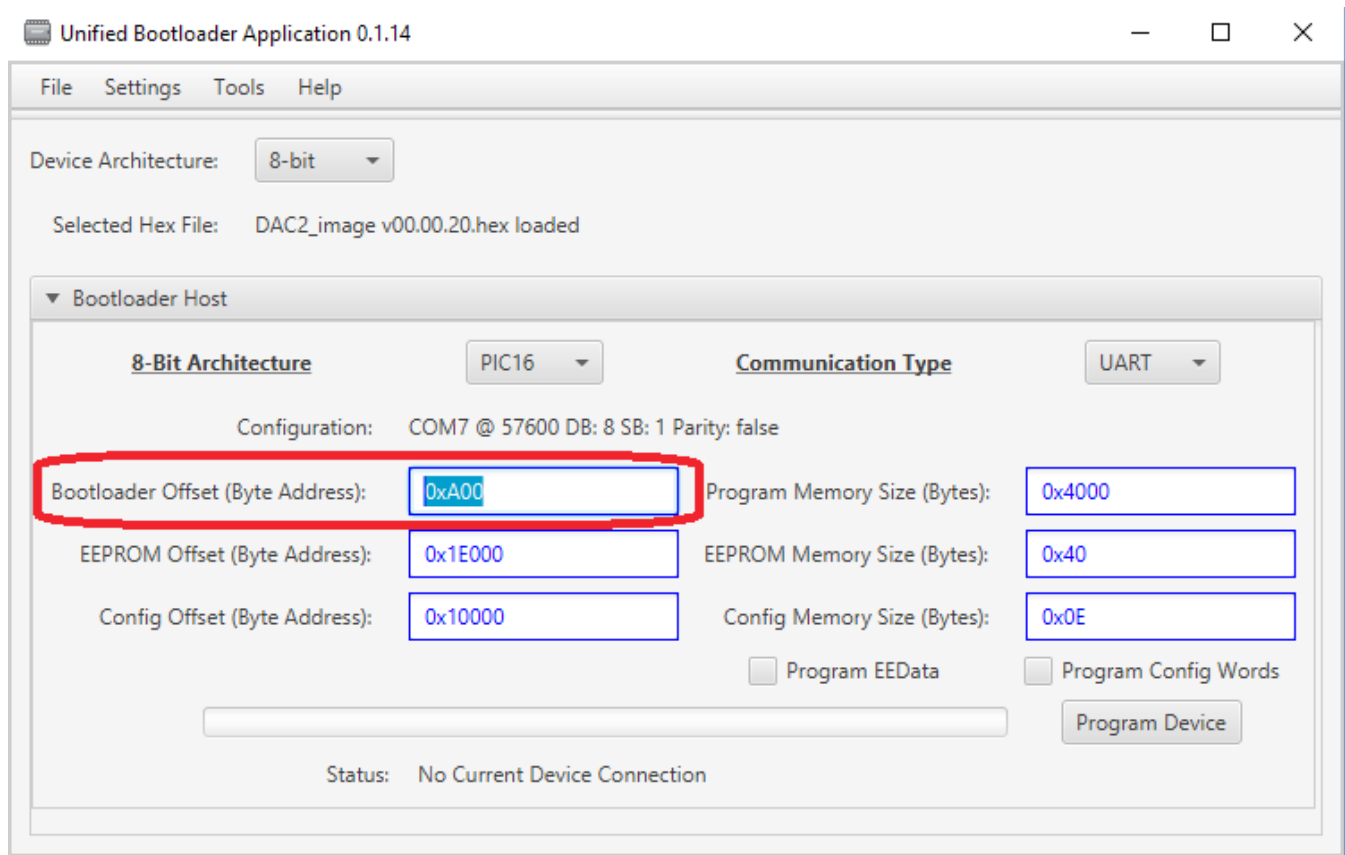
8. Navigate to the "Settings" tab. Click on "Serial" within the settings drop-down menu. A new panel will pop-up.



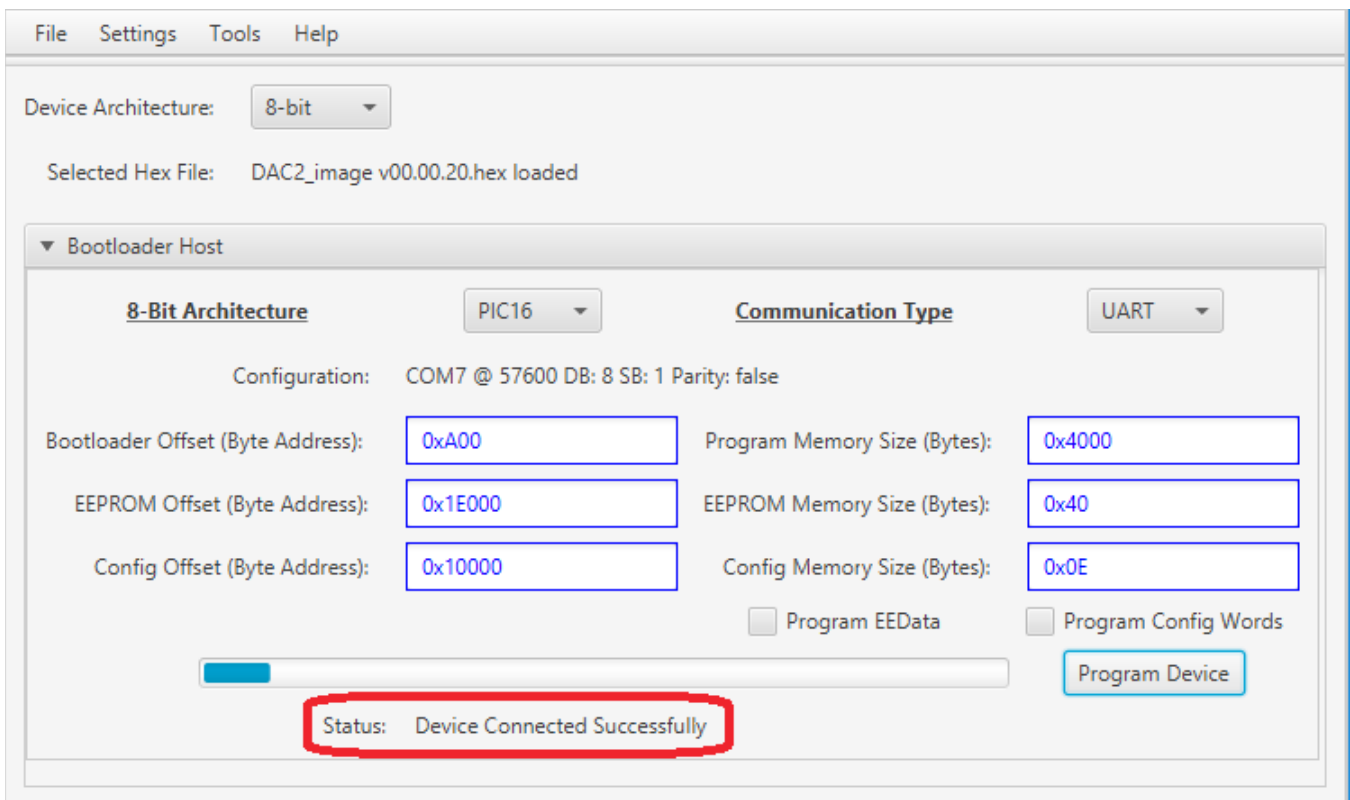
9. Click on the COM Port drop-down menu. Select the COM Port Number you referenced in Step 4 (in this example: COM7). Next, click on the "Bits per second" drop-down menu and select "57600." After both of these parameters have been selected, click "Apply". Double-check the "Configuration" section to confirm correct settings.



10. Manually change the “Bootloader Offset (Byte Address)” to read: **0xA00**

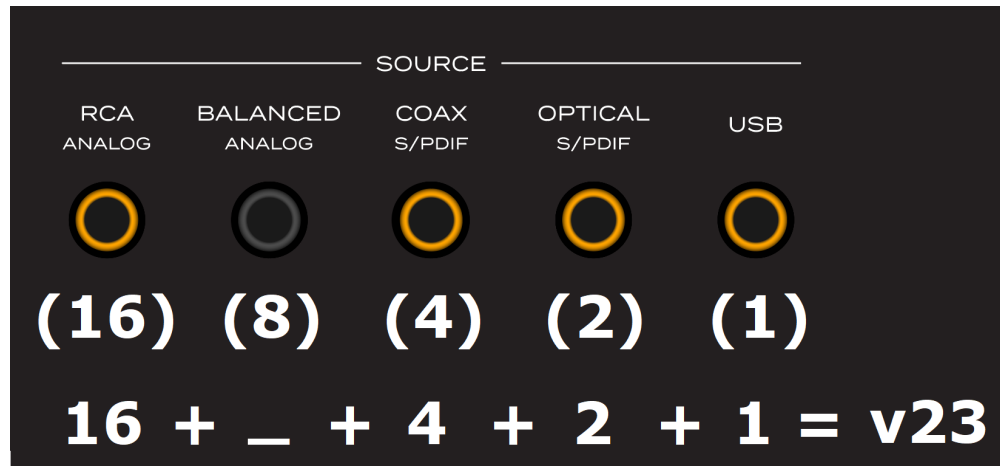


11. Click on the “Program Device” button in the bottom right corner. If a successful connection is made, you will see the “Status” change to “Device Connected Successfully” and the firmware update will commence.



12. Once complete, the Status will change to “Disconnected after Programming was Successful.” At this point, close the bootloader, power OFF the RNDAC, and disconnect the Micro USB cable.

13. To confirm that the RNDAC has been successfully updated, power ON the RNDAC. The front panel tactile switches will illuminate to indicate the current firmware version. See example below.



14. If the front panel indicates the correct firmware version, then the update process is complete and normal use can resume.

--END OF FIRMWARE UPDATE PROCEDURE--