

Firmware update mode

To put the WOLFWAVE into firmware update mode:

1. Disconnect any USB and DC power cables from the WOLFWAVE
2. While holding down the firmware update button located next to the USB socket, connect the WOLFWAVE to a computer using a USB cable.

When the WOLFWAVE is in firmware update mode, the display will normally be blank.

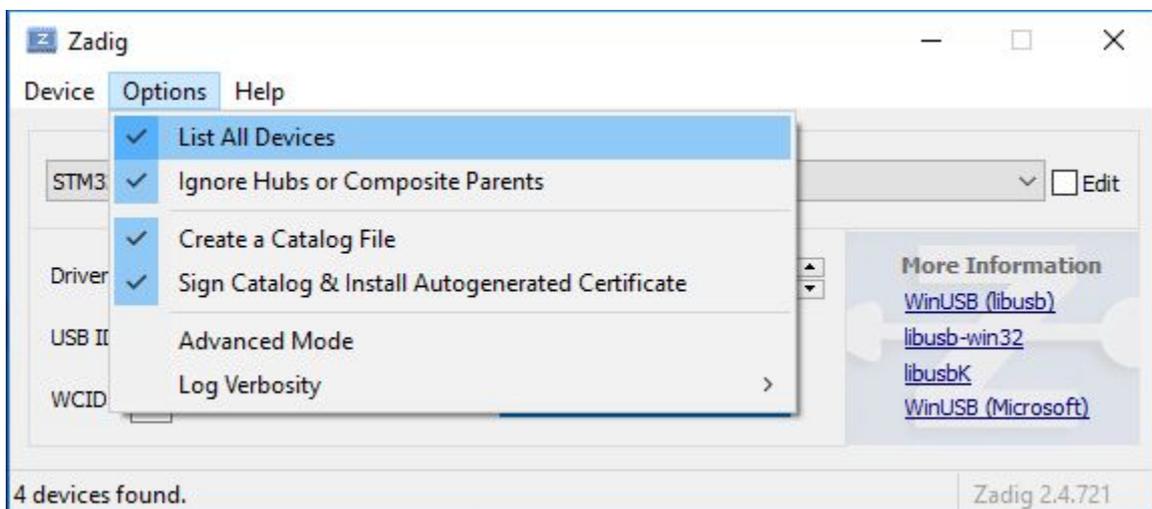
The firmware update button needs to be held down during the moment that power is applied. So either:

- plug the USB cable into the computer first, then hold down the button while plugging the USB cable into the WOLFWAVE, or
- plug the USB cable into the WOLFWAVE first, then hold down the button while plugging the USB cable into the computer

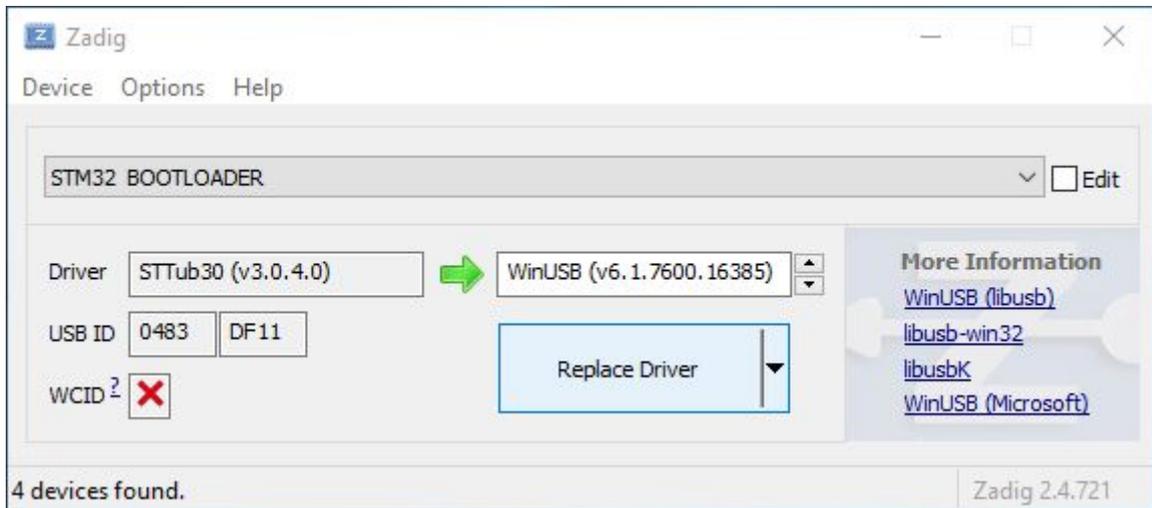
Driver installation

This should only need to be done once on each computer.

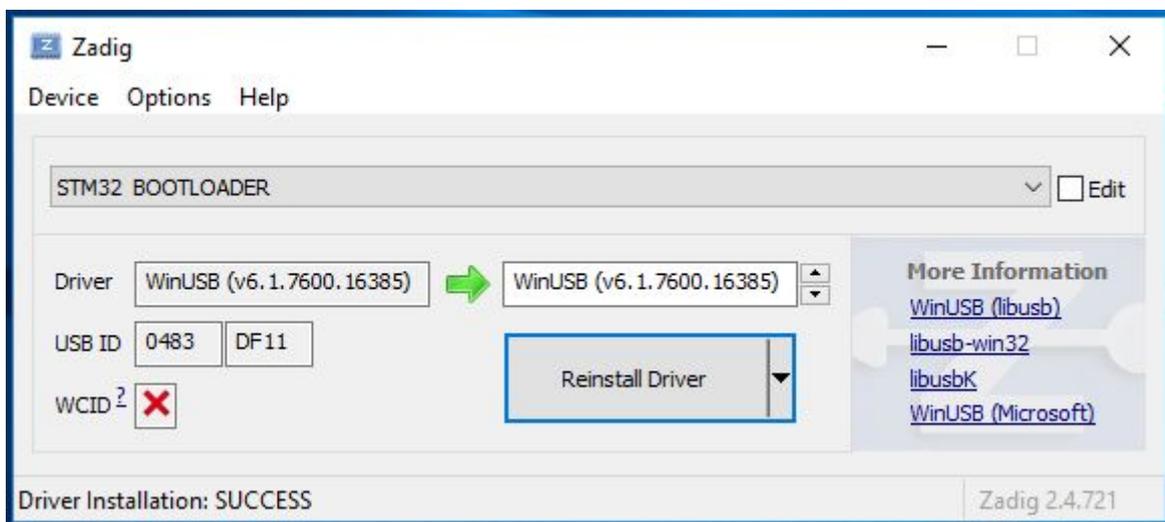
1. Connect a WOLFWAVE to the computer in firmware update mode (see instructions above).
2. Run Zadig (zadig-2.4.exe). If Windows asks “Do you want to allow this app to make changes to your device?”, click Yes.
3. Select “STM32 BOOTLOADER” in the device dropdown. If it does not appear in the dropdown, try turning on “Options > List All Devices”. If it still does not appear, try using a different cable (some USB cables do not support data - see “Troubleshooting” section).



4. Select WinUSB as the new driver (use the arrow buttons adjacent to the right hand box on the “Driver” row).



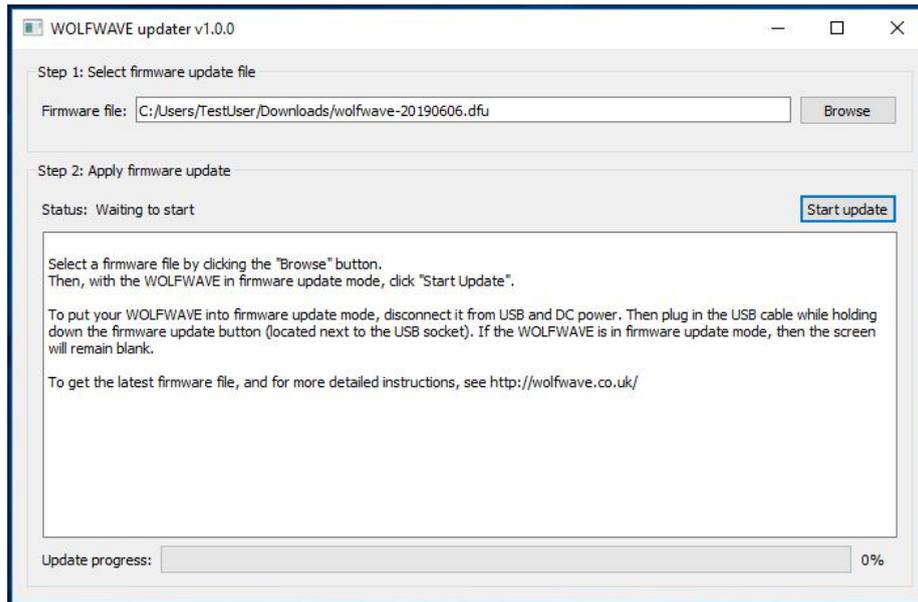
5. Double check that “STM32 BOOTLOADER” is selected in the dropdown, and that the USB ID is shown as 0483 DF11.
6. Click the big install/replace driver button.
7. Wait for installation to complete. It is normal for there to be a time of a few seconds to a few minutes where not much appears to be happening.
8. If installation was successful, the left hand box on the “Driver” row should now show the current driver as WinUSB.



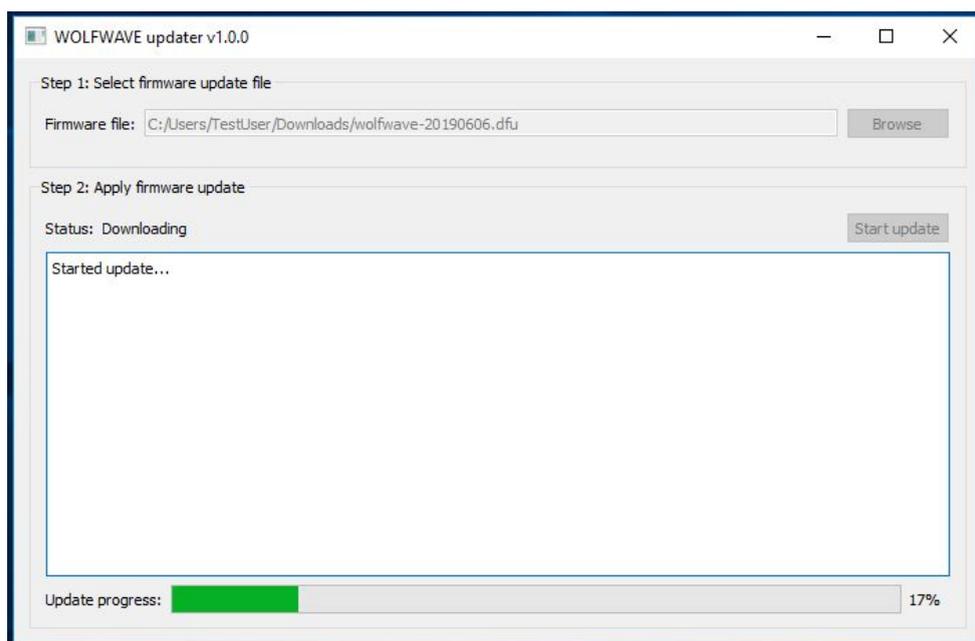
Programming

Setup:

1. Open the updater program (WolfwaveUpdate.exe).
2. Click “Browse” and select the correct firmware file.



3. Connect a WOLF WAVE to the computer in firmware update mode (see previous instructions).
4. Click the “Start update” button, and wait for it to finish. This should normally take less than 2 minutes.



5. When it has finished, the WOLF WAVE should automatically reboot into the new firmware. The WOLF WAVE can then be unplugged.

Troubleshooting

If the update process fails partway through, then unplug the WOLFWAVE, plug it back in while holding the firmware update button, and try again.

Updater program: “Cannot open DFU device”

Check that you have installed the drivers. Follow the driver installation instructions and check that WinUSB is listed as the current driver.

Zadig: does not list “STM32 BOOTLOADER” as an option, or Updater program: “No matching DFU capable USB device found”

- Check that the WOLFWAVE is in firmware update mode. Try plugging it in again with the firmware update button held down. The display should remain blank.
- Check that the USB cable supports data . Some cables are only suitable for charging.
 - The lead required is a common one that many people will have already - perhaps supplied with a mobile phone. Unfortunately many such leads are only suitable for charging the phone and do not support data. Suppliers do this to save money (2-core cable instead of 4-core, 4 connections instead of 8). It is not possible to tell visually which leads support data. While it is possible to check them with a multimeter, it's a bit fiddly.
 - Often the easiest way to test the lead is using your mobile phone. Connect it to your computer using the lead and see if it is recognised as a USB device. Importantly, also check that you can actually "see" the phone on the computer (often as a USB drive). If your lead passes these simple tests then it is suitable for using to update your WOLFWAVE.
 - If all else fails, over at SOTABEAMS we do stock an inexpensive lead that is guaranteed to support data.

Updater program: “More than one matching DFU capable USB device found”

Only one WOLFWAVE can be updated at a time on each computer. Make sure that only one WOLFWAVE is connected.

Some other devices may use the same firmware update mechanism, so if this error occurs when there is only one WOLFWAVE plugged in, then try unplugging some of the other USB devices connected to the computer.