Standardizing Device Firmware

Version 2.2

Purpose

This document describes how to standardize device firmware with FiberChekPRO™ in order to maintain firmware version stability and uniformity across a fleet of deployed devices. By default, FiberChekPRO will automatically install the latest available firmware when performing a firmware update on a device. However, by standardizing the device firmware, customers can lock into a specific version that will not change, even when new updates are published.

Standardization Process Overview

In general, the firmware standardization process is summarized as follows:

A. Lock the firmware package into the version you wish to standardize onto (the "locked version").

B. Perform a device System Reset (if necessary).

C. Perform a device Firmware Update to the locked version.

Limitations

Firmware locking is supported by FiberChekPRO version 2.2 or later, and you can only lock into a firmware version that is greater than or equal to the System Reset version. This is because, in order to *downgrade* a device from a version that is *newer* than the locked version, the device must go through the System Reset process (described in section B), and a device cannot be downgraded past the System Reset version. The following table lists the System Reset versions.

Product Name	System Reset Firmware Version
P5000i	2.0.273.3264, 2.0.1213.3264 *(depending on hardware revision*)*
OLP-82x/HD4ix	*Not supported*
FVAi/FVDi	2.0.1183.3226
FiberChek	2.0.846.3237
FBPP-WiFi	*Not supported*
Sidewinder/FVAm	2.0.1776.3236
FVAi-2030	2.1.1373.3501

* FiberChekPRO will automatically determine which version to use based on the unit's internal hardware revision.

Terminology

A *firmware package* is a stand-alone file which is utilized by FiberChekPRO to perform updates to a device. Each product and version has its own firmware package file.

A *firmware package installer* is an executable program which is used to place a firmware package file in the correct location for FiberChekPRO to use.

Locking is the process of locking a *firmware package* into the version you wish to standardize onto.

A. Locking Firmware

Once a firmware package is locked:
- It will *not* be overwritten even if FiberChekPRO is updated to a newer version.
- FiberChekPRO will *never* attempt to download the latest firmware package from the server.
- The package can be *unlocked* by rerunning the firmware package installer (described in the "Unlocking Firmware" section below).

Follow these instructions to lock into a standardized firmware package version.

1. Visit http://fcpro.updatemyunit.net, scroll to the bottom, and click on "View All Software Releases".
2. Locate the section titled "All available versions of [device] firmware", where [device] is the specific product name, such as FVAi/FVDi.
3. Under that section, click on the desired version. This downloads a firmware package installer.
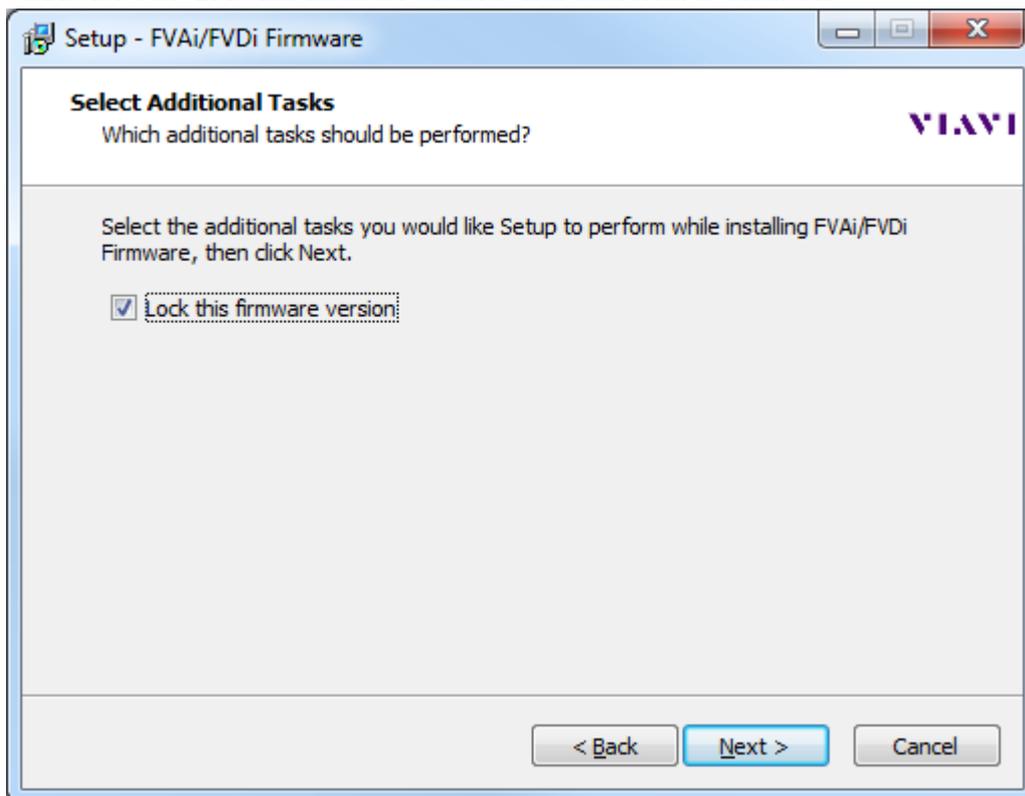4. Double-click to run the installer and click Next to continue.

5. If you have only one installation of FiberChekPRO, click Next to continue. Otherwise, click Browse to select the desired installation of FiberChekPRO, and then click Next to continue.
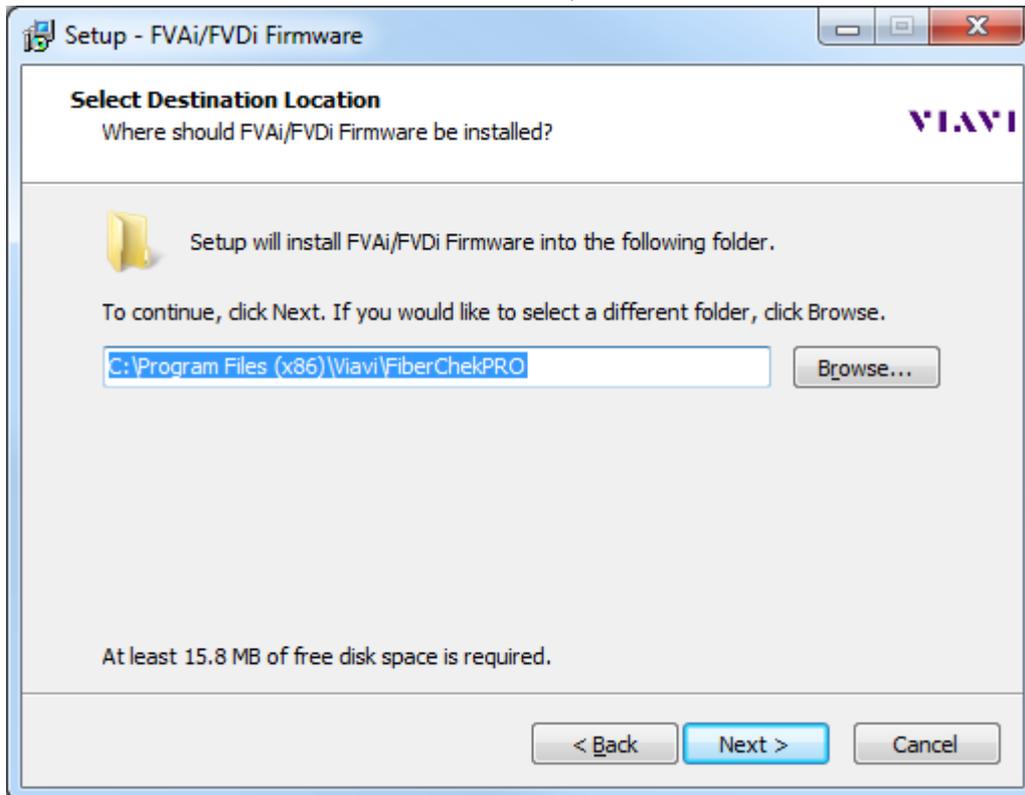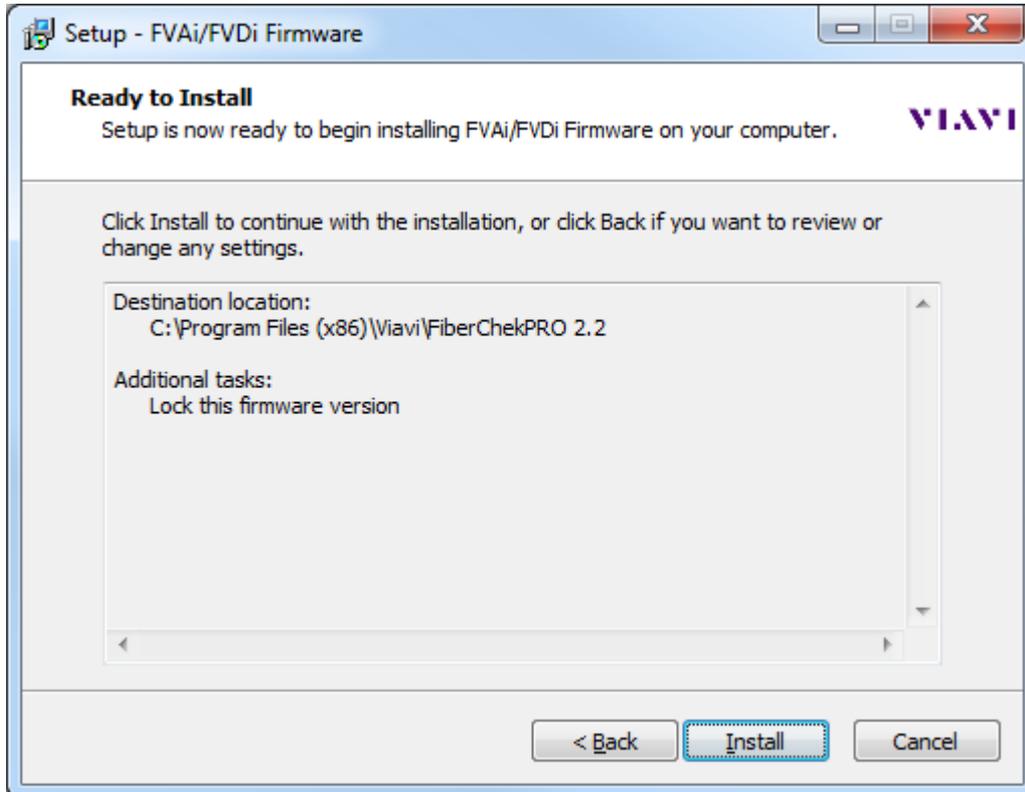

6. Check the box "Lock this firmware version" and click Next to continue.

7. Click Install.

8. Click Finish when done.

9. Start FiberChekPRO. Open the Setup menu, select FiberChekPRO, and then select Firmware on the left side. Verify that the Local Version for the product matches the locked version, and that the Cloud Version is NA. (The Cloud Version is the latest version published on the web server. If a firmware package is locked, it displays NA for the Cloud Version to indicate that it will not pull that version from the server.)
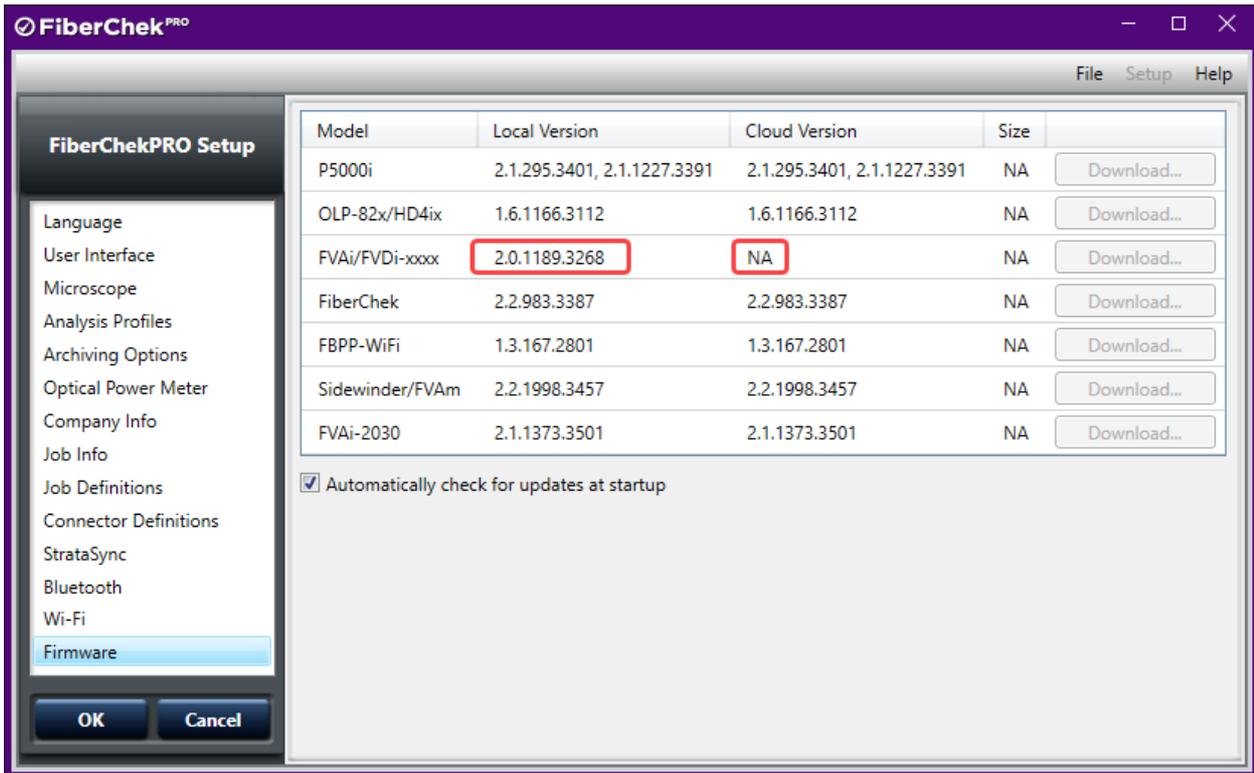
* Actual version numbers may be different.

Unlocking Firmware

To unlock a firmware package and resume the automatic updates, rerun the firmware package installer as described in the previous section, except uncheck the box in step 6.
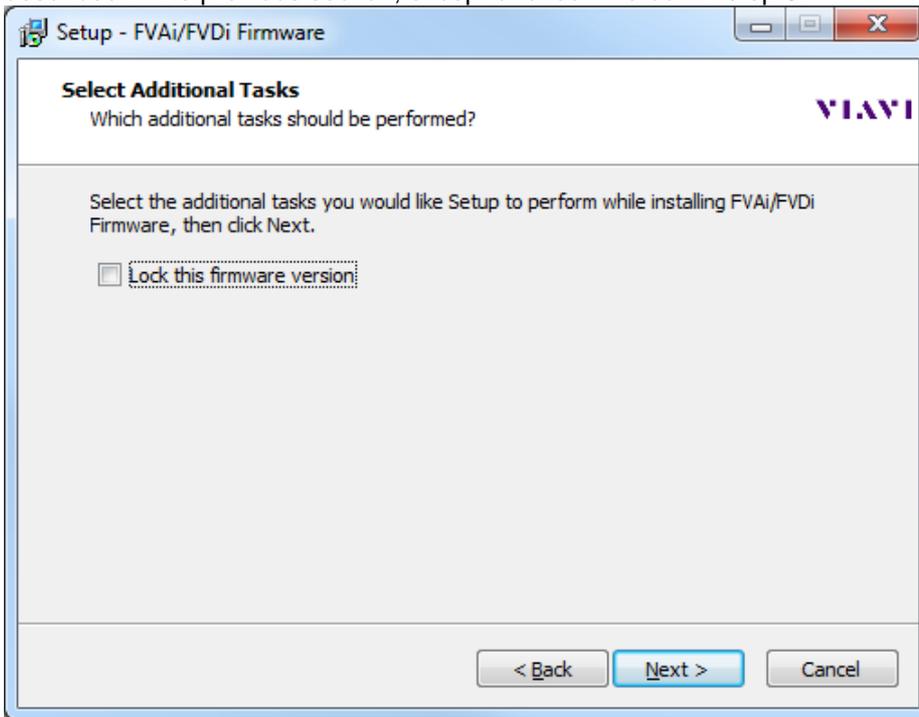
B. Performing Device System Reset

If a device has a firmware version that is *newer* than the locked version, then it *must* first undergo a System Reset <u>before</u> updating to the locked version. For example, consider the following scenario: The user has a device with version 3, but the locked version is version 2, and the System Reset version is version 1. In this case, the procedure would be:

1. Perform a System Reset (version 3 → version 1)
2. Perform a Firmware Update (version 1 → version 2)

System Reset is the process of reverting a device down to the System Reset firmware version. It also deletes all stored results and reverts all settings (including optical settings, profiles, and connector definitions) to their factory defaults. After the System Reset, then the device may be updated to the locked version.

VIAVI//Public

Follow these instructions to perform a System Reset:

1. Connect the device to FiberChekPRO. From the Setup menu, select the device name, and then select the Firmware option on the left side.
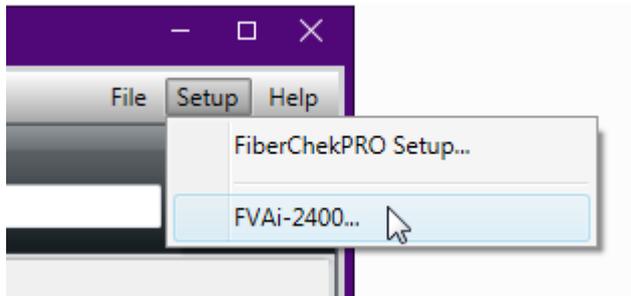
2. Note that the Current Version is newer than the Latest Available Version, which is the locked version you have standardized onto. As such, the Update Firmware button is disabled. If the current version is NOT newer than the available version, then skip to section C to update the firmware. Otherwise, click System Reset to start the System Reset wizard.
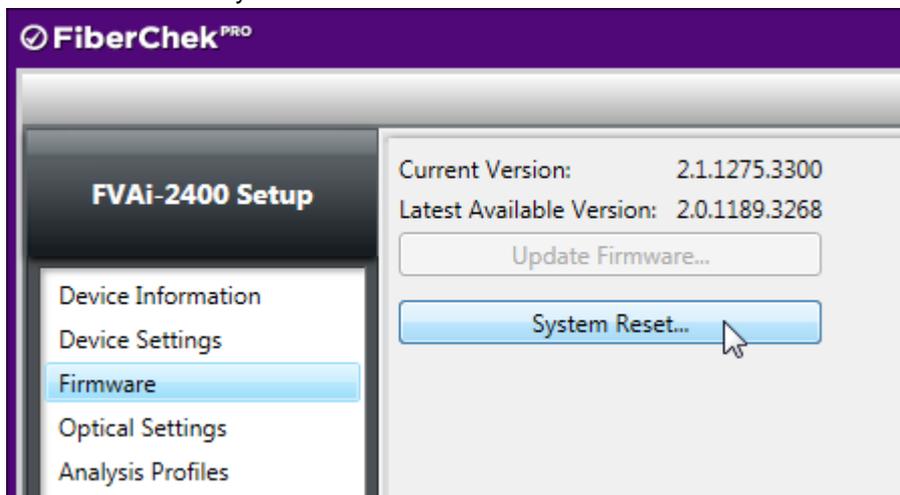
3. The first time a System Reset is performed for a device family, the system reset package needs to be downloaded from the internet. Click Next to download the package.
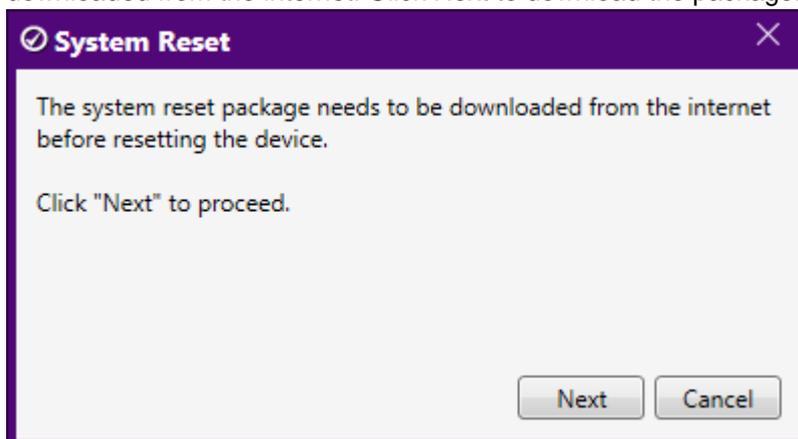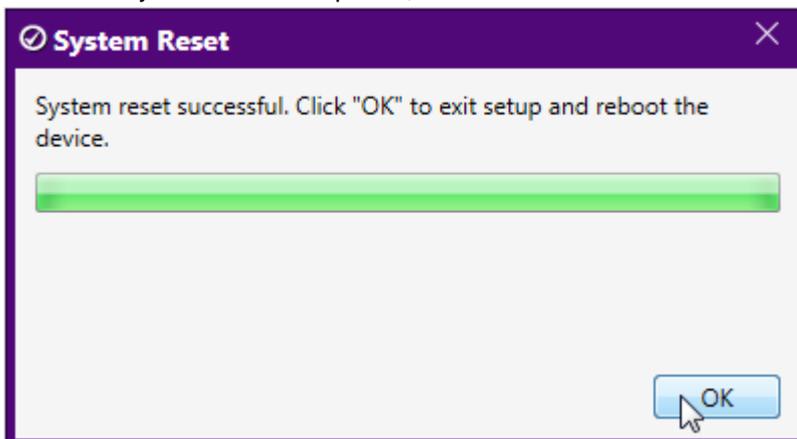
4. When the download is complete, the wizard shows a warning about the reset process. Note that the firmware version listed in the dialog is the System Reset version. Click Reset to start the process, which can take up to 20 minutes.
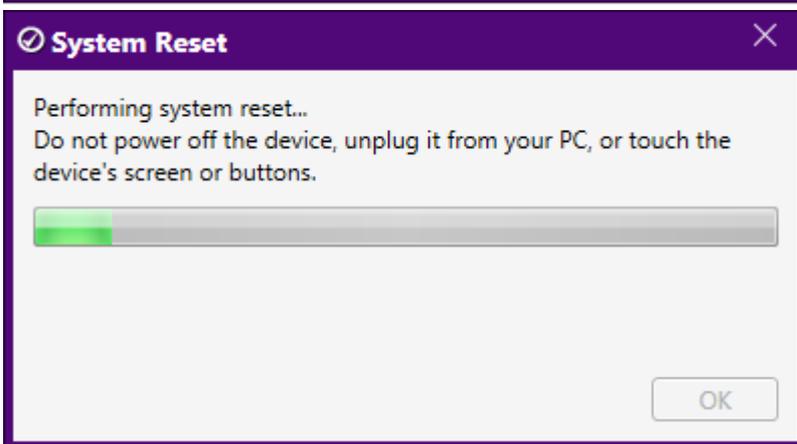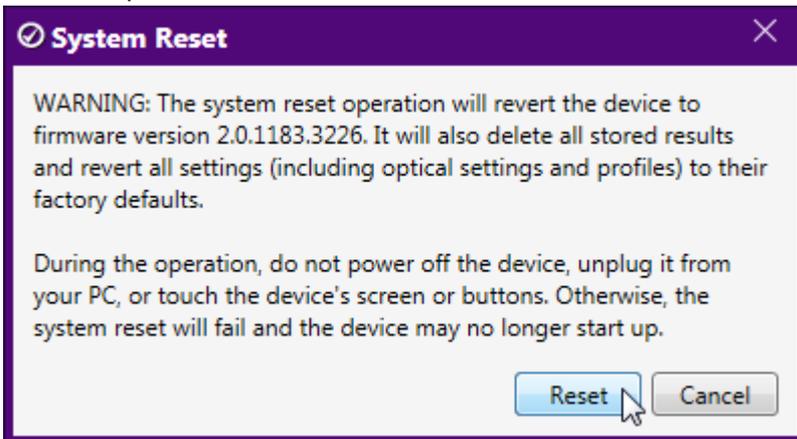
5. When the system reset completes, click OK to exit the wizard the reboot the device.
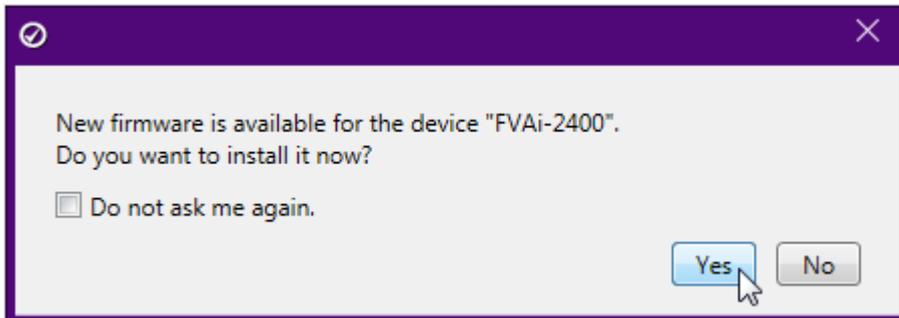

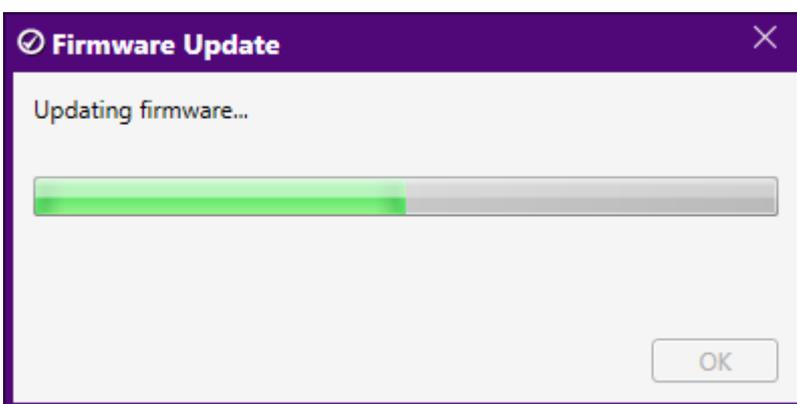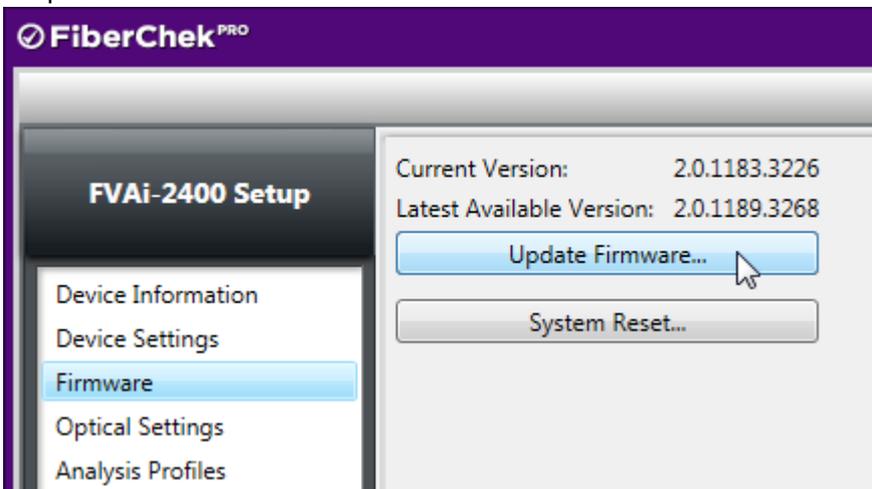6. After the device reconnects to FiberChekPRO, go to step 2 in the next section.

C. Performing Device Firmware Update

Follow these instructions to update a device to the locked version you have standardized onto:

1. Connect the device to FiberChekPRO.
2. A dialog box similar to the following will appear. Click Yes to navigate to the firmware setup page.
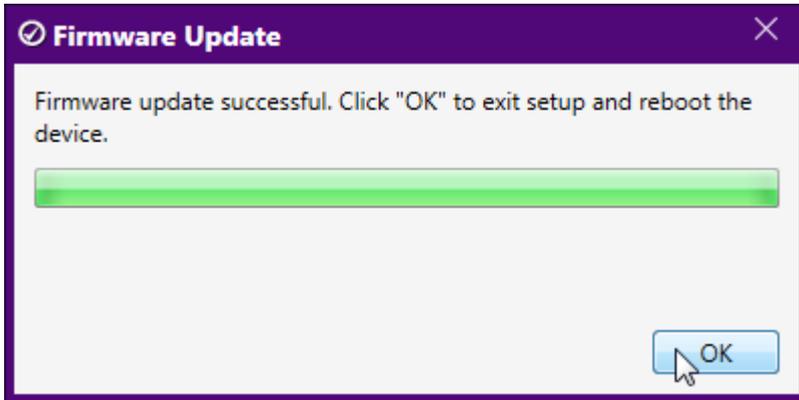

3. If you just performed a System Reset as described in section B, then the current version will be the System Reset version. Click Update Firmware to start the Firmware Update wizard. Follow the prompts to update the device to the locked version.

4. When the update completes, click OK to exit the wizard and reboot the device.

5. When the device reconnects to FiberChekPRO, from the Setup menu, select the device name, and then select the Firmware option on the left side. Note that the current version is now the locked version which you have standardized onto.