How to Update Firmware

For HP-DSO272 Oscilloscope
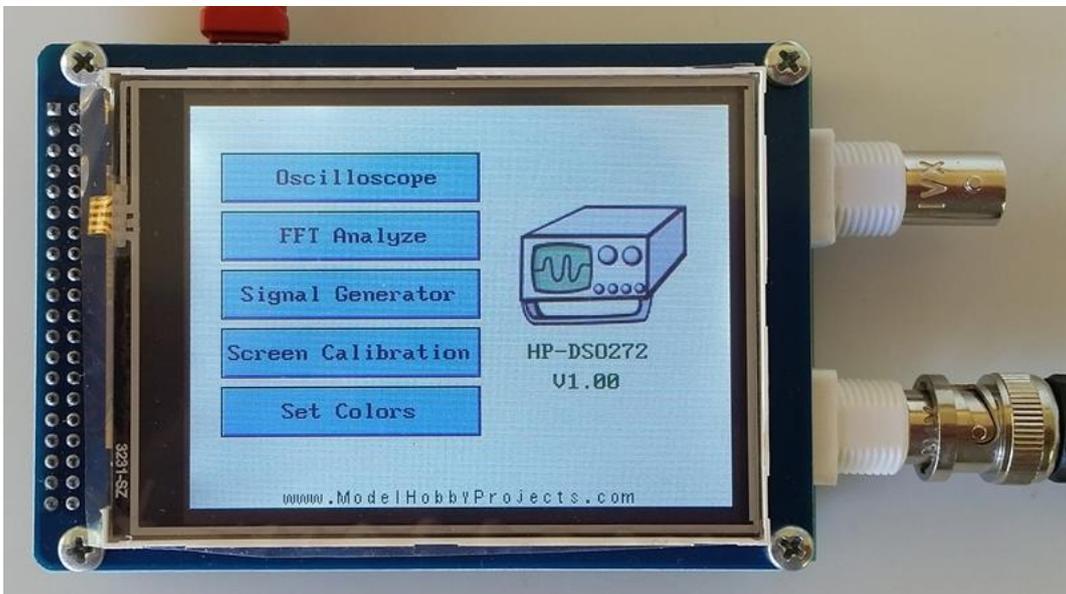
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1 GETTING STARTED

This guide walks you through how to upload the firmware manually in case you need to load a specific firmware version. The firmware update process is fairly simple and is outlined in this article. In many cases, updating the firmware can fix functional problems with the scope. Checking for updates regularly will ensure that your oscilloscope is functioning correctly, and avoid potential issues.

1.1 System Requirements

In order to upgrade your device, you need to download DfuSe demonstration program from this link. This software works with the Windows operating systems, a recent version of Windows, such as Windows 7, 8.0 or 8.1, must be installed on the PC.

1.2 Package contents

The following items are supplied in this package:
Software contents
1. STTube driver consisting of the two following files:
   - STTub30.sys: Driver to be loaded for the device.
   - STDFU.inf: Configuration file for driver.
2. DfuSe_Demo_V3.0.4_Setup.exe: Installation file which installs the DfuSe applications and source code on your computer.

1.3 DfuSe demonstration installation

1.3.1 Software Installation

Run DfuSe_Demo_V3.0.4_Setup.exe file: the Install Shield Wizard will guide you to install DfuSe applications and source code on your computer. When the software is successfully installed, click the "Finish" button. You can then explore the driver directory.

For 32bit OS, the driver files are located in the "Driver" folder in your install path (C:\Program files\STMicroelectronics\DfuSe). For 64bit, "C:\Program Files (x86)\STMicroelectronics\Software\DfuSe v3.0.4\Bin".

1.3.2 Hardware installation

- Connect the device to a spare USB port on your PC.
- The "Found New Hardware Wizard" then starts. Select the "Install from a list or specific location" as shown below and then click "Next".

- Select "Don't search. I will choose the driver to install" as shown below and then click "Next".
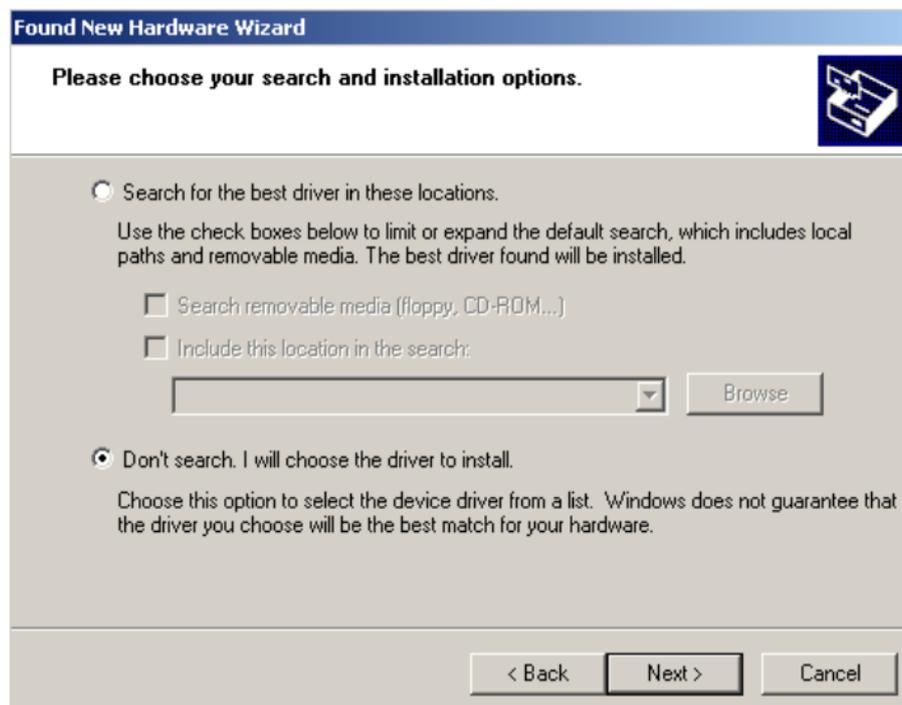
- If a driver is already installed, the model list will show the compatible hardware models, else click "Have Disk..." to locate the driver files.
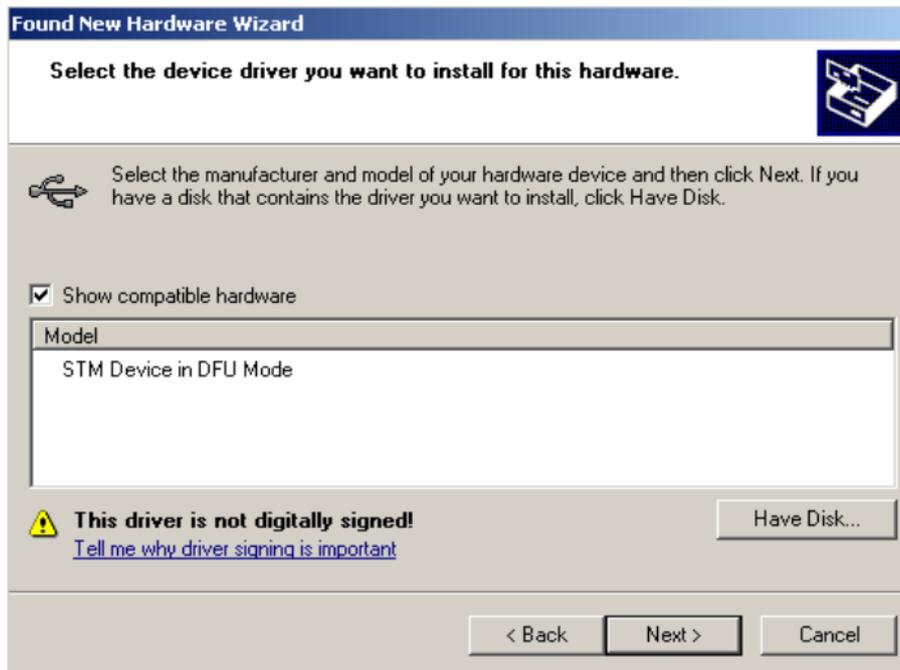
- In the "Install From Disk" dialog box, click "Browse..." to specify the driver files location, the driver directory is located in your install path (C:\Program Files (x86)\STMicroelectronics\Software\DfuSe v3.0.4\Bin\Driver), then click "OK". The PC auto selects the correct INF file, in this case STDFU.INF. Once Windows has found the required driver .INF file, the compatible hardware model will be displayed in the model list. Click "Next" to proceed.
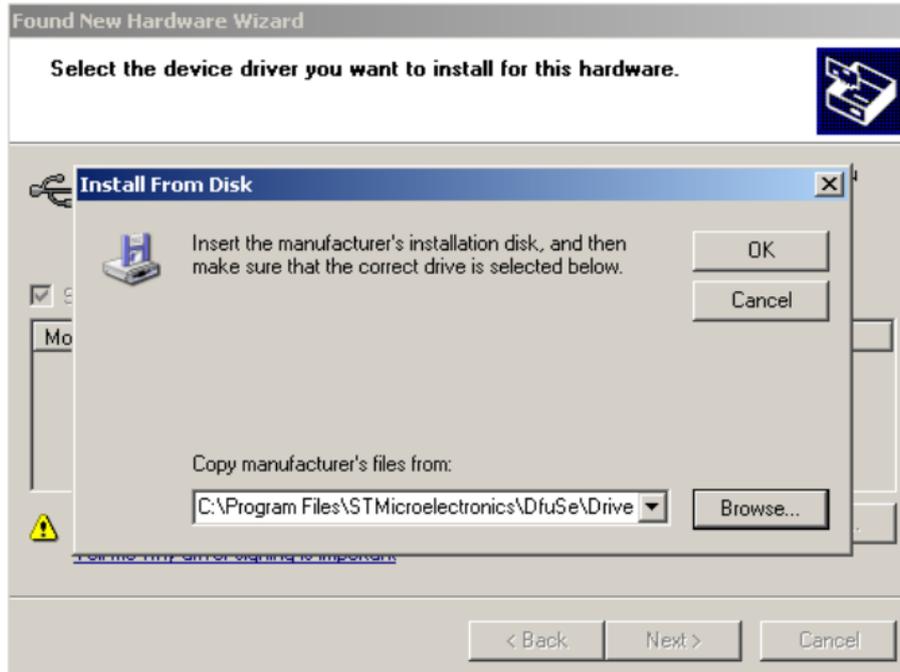
- When Windows is performing the driver installation, a warning dialog will be displayed indicating that the driver has not passed Windows logo testing, click "continue Anyway" to continue.
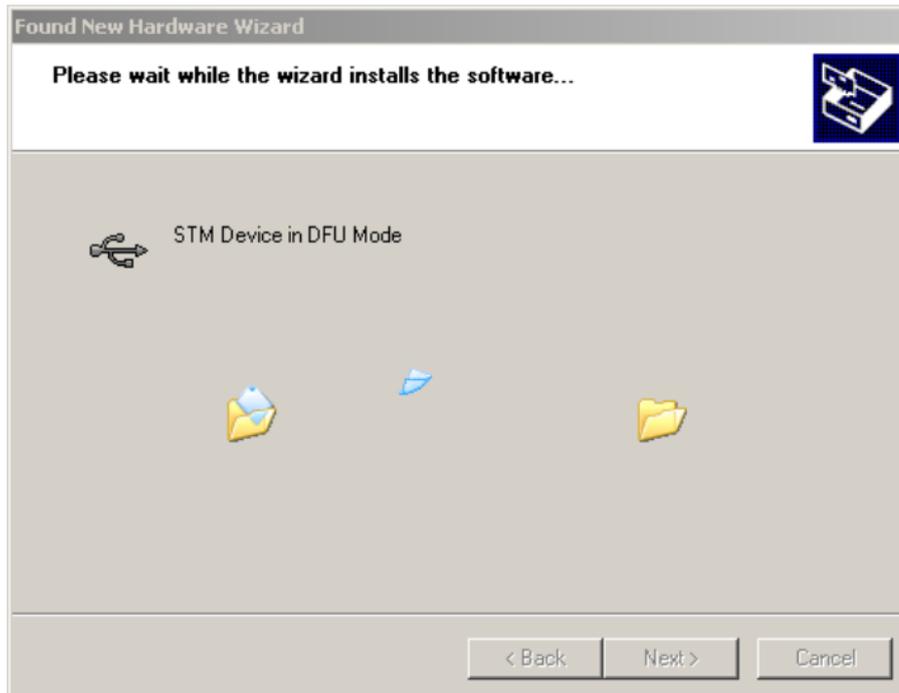
- Windows should then display a message indicating that the installation was successful. Click "Finish" to complete the installation.

2 Uploading procedures

2.1 Hardware setup

There are two buttons under LCD (Reset and Boot, as shown in the picture). Before upgrading new firmware, device must enter bootloader mode. In order to enter the bootloader mode press and hold "Boot" button then press and release "Reset" button. Finally release "Boot" button and now the device is in the bootloader mode.
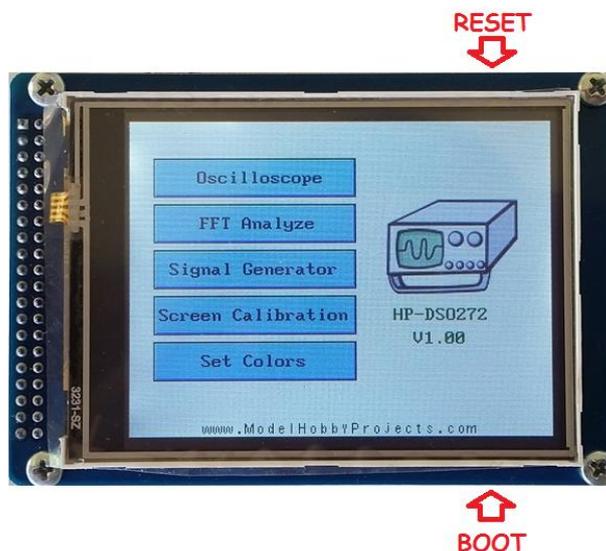
2.2 Step-by-step procedures

Firmware upgrades need to be able to be performed without any special training, even by novice users. Hence, the user interface was designed to be as robust and simple to use as possible.

How to upload a new firmware
- Download the latest firmware from this link and save it to a convenient place like your desktop. Unzip if needed.
  Note: The correct firmware file should have a ".dfu" extension.
- Run the "DfuSe demonstration" application (Start -> All Programs -> STMicroelectronics -> DfuSe -> DfuSe Demonstration).
- Enter the bootloader mode (Section 2.1).
- Click "Choose" button (Item 12) to select a DFU file.
- Select the "internal flash" in the memory mapping list (Item 6).
- Check the "Verify after download" checkbox if you want to launch the verification process after uploading data (recommended).
- Click "Upload" button (Item 13) to start uploading memory content to the selected DFU file. After clicking "Upload" button, a window will be shown about verification of firmware file. Click "Yes" button to continue.
- Reset the oscilloscope after successful upload.