Proteus Firmware Updates

Updating your sensor with latest firmware

Introduction

This application note serves as a guide to updating your sensor with the latest firmware. New versions of firmware are made available for download when new features are added, bugs are identified, or security related reasons.

The Proteus sensor comes with a built-in bootloader platform. You can update your sensor with the latest firmware with a PC application, and a USB cable. If your sensor did not come with a USB cable, this is a standard Micro B USB connector used with most phone charges today.
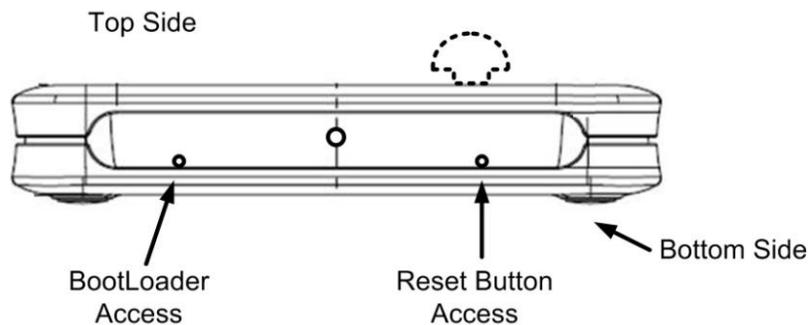
Fig 1 – Bootloader and reset buttons

How to update the firmware

Follow the steps to update the firmware on your proteus sensor.
- Remove the power supply.
- Hold the Bootloader button by inserting a paper clip into the small hole, then repower your Proteus device from your Windows PC through the USB cable. Power LED will be blinking and Activity LED will turn OFF to indicate Proteus is in boot-load mode. The Bootloader button can be released now.
- Run bootloader application " PIC32UBL.exe" on PC. Check the "Enable" checkbox for USB, click "Connect" button, as shown in Fig 2.
- Click "Load Hex File" button to locate the firmware file on the PC. For easy identification, the firmware file name starts with the device name (Proteus) and extension is ".hex". See Fig 3
- Click "Erase-Program-Verify" button to burn the firmware into device.
- After the loading is complete, Click "Disconnect" button, then remove USB cable from device. It may be desirable to reset the device to factory default state after updating the firmware.

Reset your sensor to factory default state

- Repower the device, while holding the reset button PRESSED
- After power on, both Power LED (green) and Activity LED(amber) will remain SOLID ON for few seconds in startup state.

- Release the button once both LEDs are turned OFF, which means restoration is done. The whole procedure takes about eight to ten seconds. The lights will be back ON after this.

Update the webpage

Once the device is reset, it will have the default IP address. Input **http://192.168.254.102/mpfsupload** or http://Device-Host-Name/mpfsupload in the browser's address bar. One should see, Fig.4

Click the "Choose File" button to locate the webpage file "**Proteusxxx_Webpages_xxx.bin**" and then click the "Upload" button to upload the webpage to device.
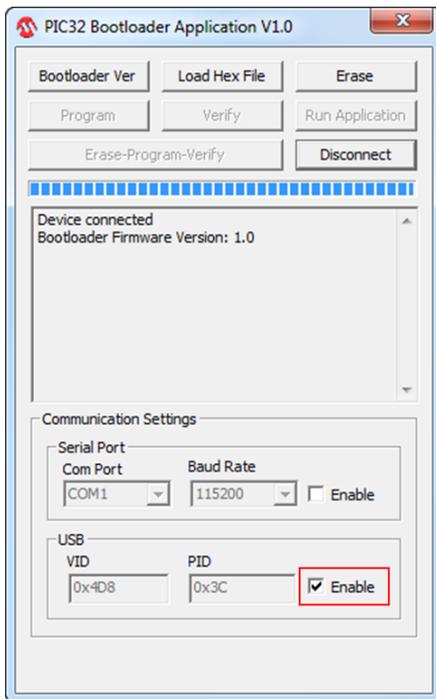
Fig 2 – Bootloader Application on PC
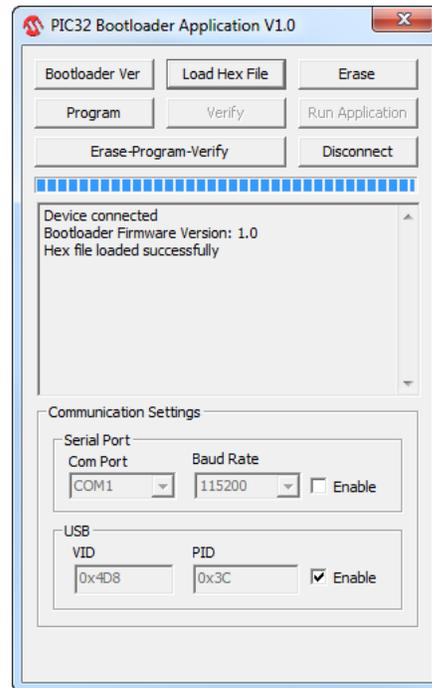
Fig3 – Load Firmware File
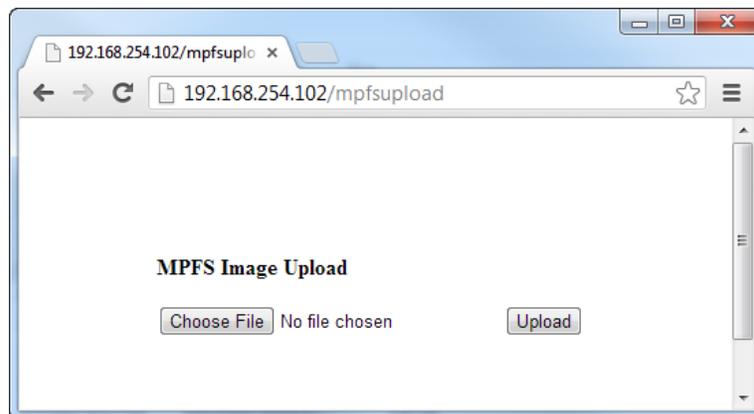
Fig. 4 Upload Webpage

Important Notes:

The extension of firmware file is ".hex" and uploaded by Windows application "PIC32UBL.exe". Extension of webpage file is ".bin" and is uploaded by browser via Http.

Conclusion

With the above steps, you have updated your Proteus sensor with the latest firmware. Make sure to enter the settings since the reset takes your sensor to factory default settings.