LigoPTP: Firmware upgrade using SHELL/PUTTY/SSH

Introduction

There may be cases when it is beneficial or even necessary to update the firmware on a device without using the web browser. It is possible to update the firmware by using SSH and the *fwupdate* command. This article serves as a walk-through for getting the image onto the device and then flashing it.

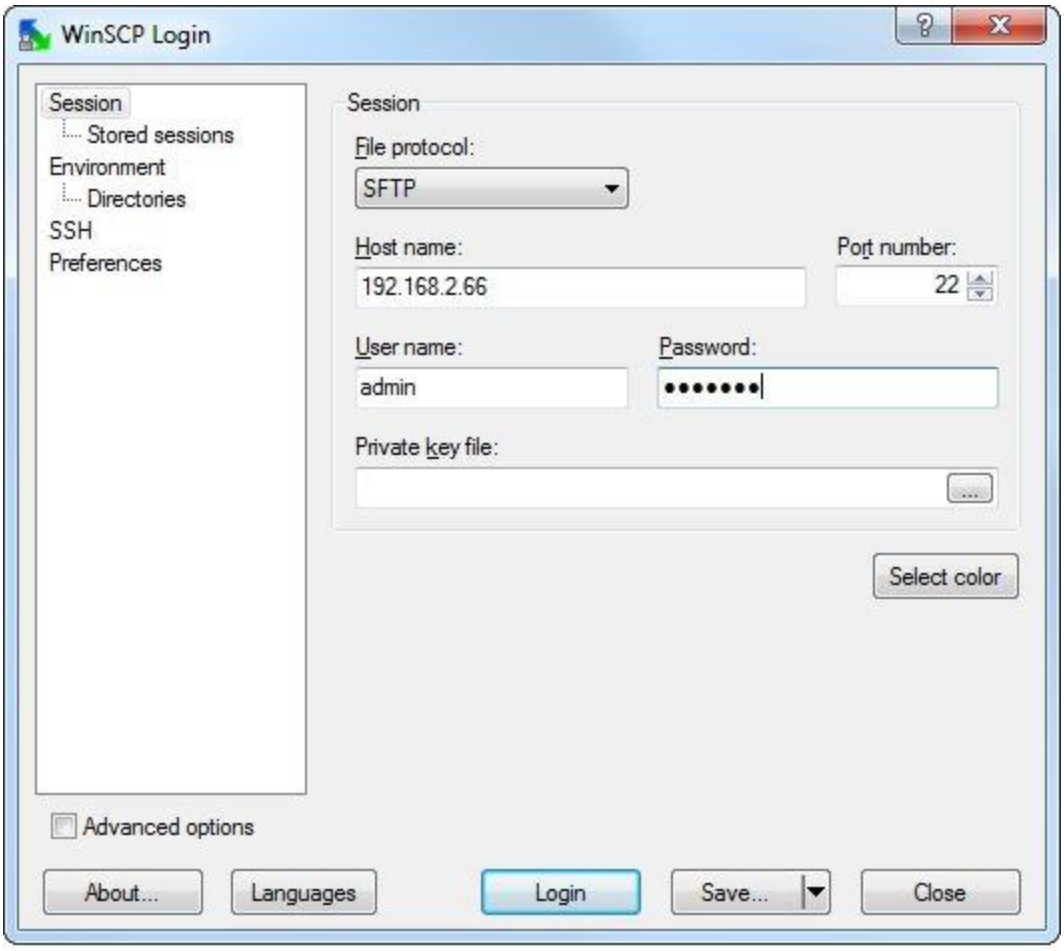
Getting the image onto the device

The first step of flashing an image in the shell is getting the firmware image onto the device. There are two easy ways to do this: using SFTP to upload the image onto the device, or using *wget* from the device to download the image from an external source.

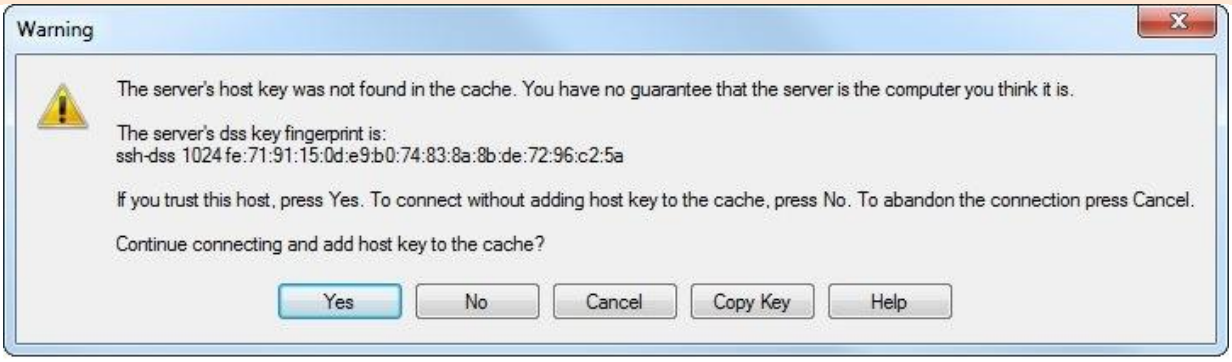
Instructions for Windows users

Step 1. Run WinSCP. Fill out the following fields:

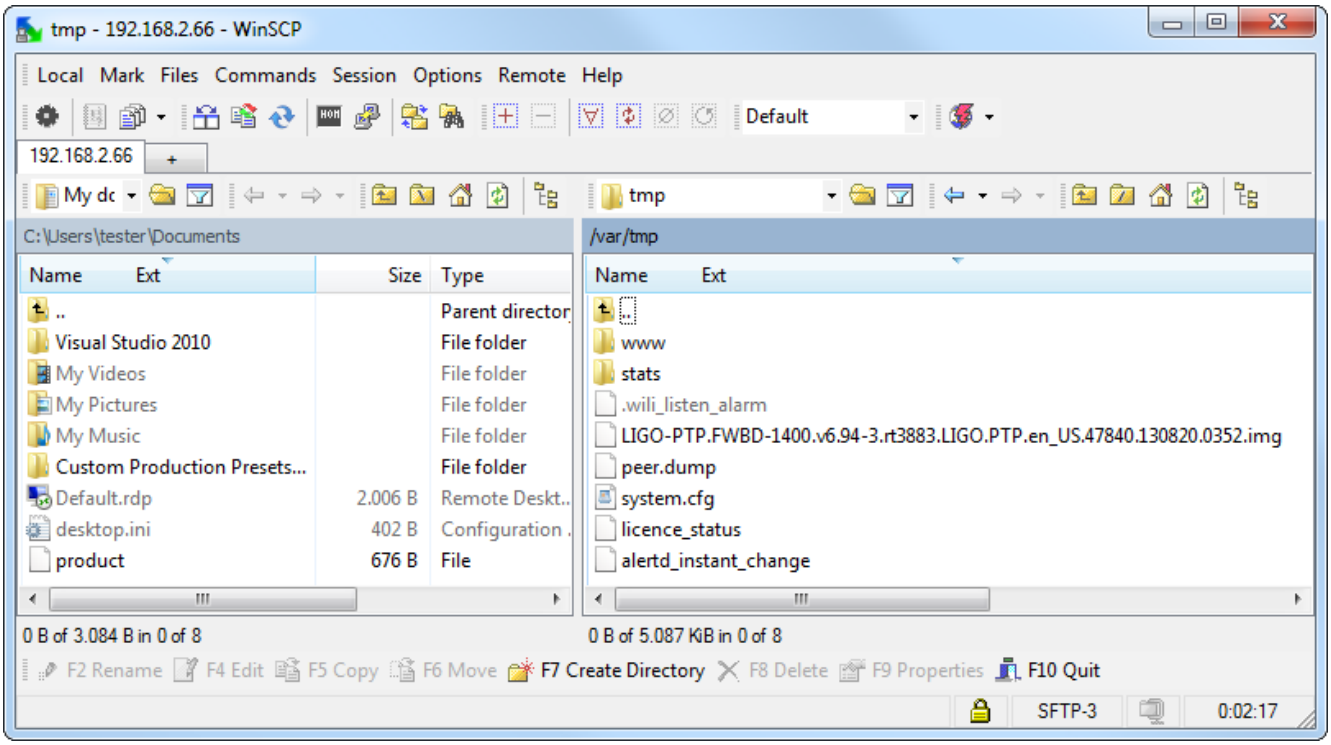
Host name – device IP address (default *192.168.2.66*)
Username – **admin**
Password – device login password (default: **admin01**)
Press **Login** to initiate an SSH connection to the device.



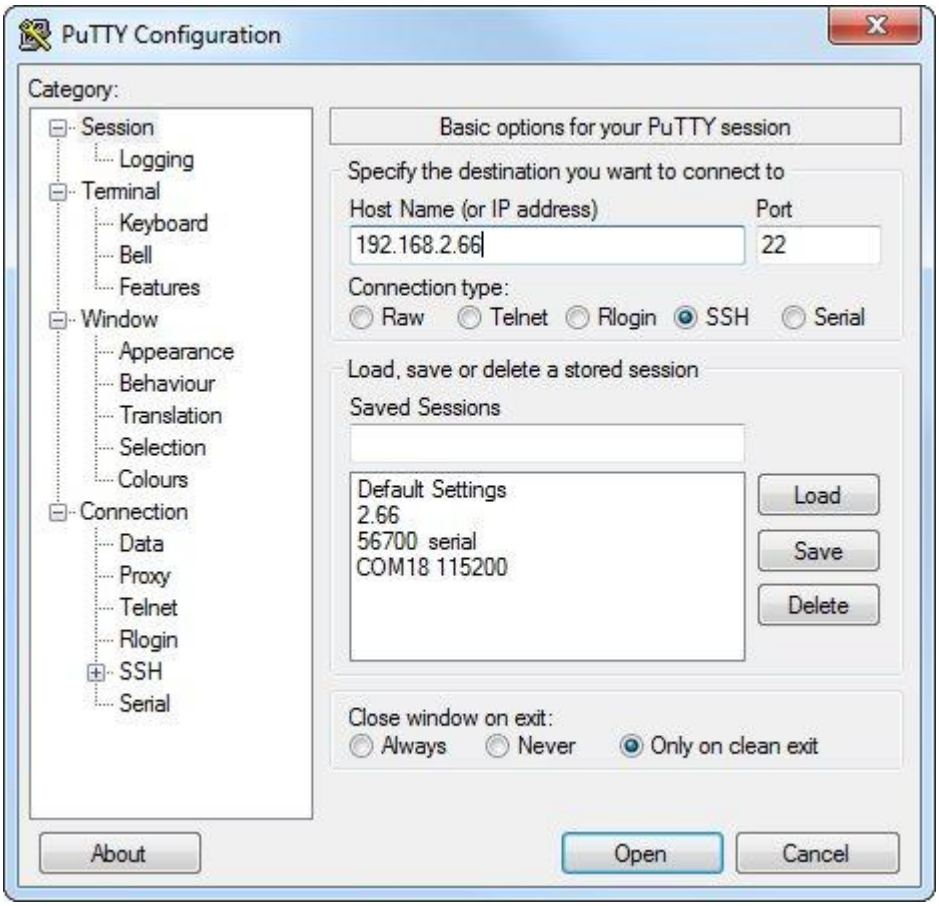
*Note: a warning message may appear after pressing **Login.** To continue the login process, press **Yes**.*



Step 2. In the next window, go to the */tmp* directory. Then copy the *fwupdate.bin* file to the */tmp* directory.



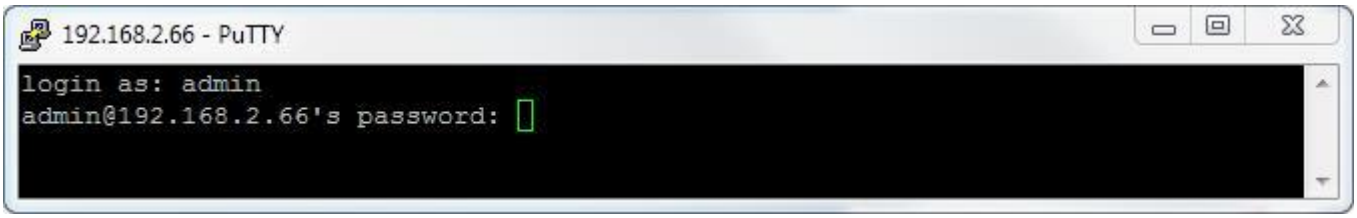
Step 3. Run PuTTY. In the **Host Name** field, type the device's IP address and press **Open**.



*Note: a warning message may appear after pressing **Open**. To continue the login process, press **Yes**.*

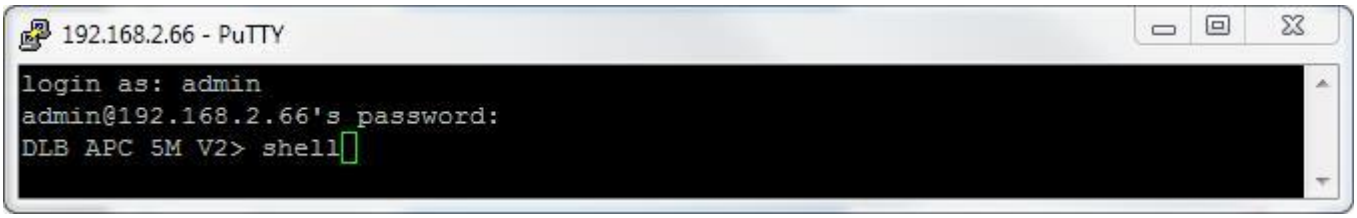
Step 4. Type in the username and the password in the next window.

Username – **admin**
Password – device's password (default: **admin01**)



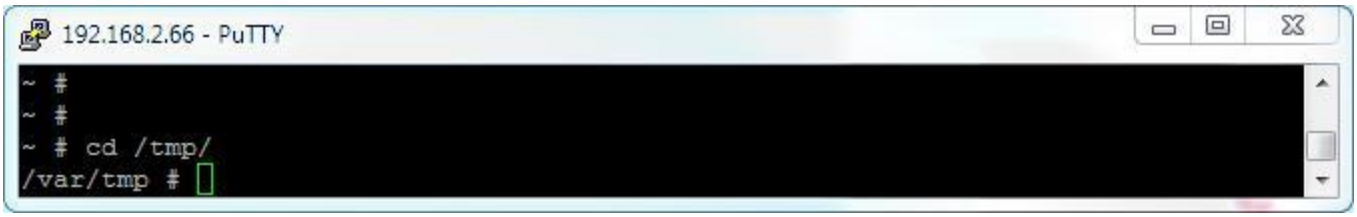
Step 5. Type in the *shell* command and press *Enter*. You are now ready to start the firmware upgrade.

```
shell
```



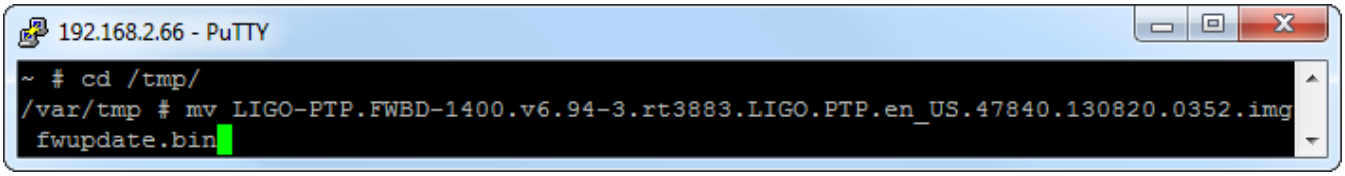
Step 6. Navigate to the */tmp* directory.

```
cd /tmp
```



Step 7. Rename the previously uploaded file to *fwupdate.bin*.

```
mv LIGO-PTP.FWBD-1400.v6.94-3.rt3883.LIGO.PTP.en_US.47840.130820.0352.img fwupdate.bin
```



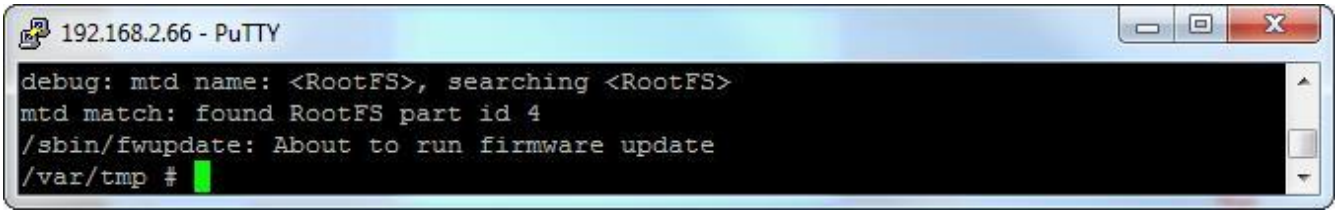
Step 8. TType the command *fwupdate –m* to start the firmware upgrade.

```
fwupdate -m
```

Do not turn off the device during the firmware upgrade.

Step 9. If the start of the upgrade is successful, a message will appear regarding the start.

```
/sbin/fwupdate: About to run firmware update
```



Step 10. Once the firmware upgrade is complete, the device should respond to a ping using the configured IP address.

Instructions for Linux users

Download the latest firmware and open the Terminal.

Step 1. Rename the downloaded firmware to *fwupdate.bin*.

```
mv LIGO-PTP.FWBD-1400.v6.94-3.rt3883.LIGO.PTP.en_US.47840.130820.0352.img fwupdate.bin
```

Step 2. Copy the firmware image to the device's */tmp* directory.

```
scp /home/fwupdate.bin admin@192.168.2.66:/tmp
```

Step 3. Log onto the device using SSH.

```
ssh admin@192.168.2.66
```

Username – **admin**

Password – device's password (default: **admin01**)

Step 4. Type the *shell* command and press *Enter*.

```
shell
```

Step 5. Type in the command *fwupdate –m* to start the firmware upgrade.

```
fwupdate -m
```

Do not turn off the device during the firmware upgrade.

Step 6. Once the firmware upgrade is complete, the device should respond to a ping using the configured IP address.