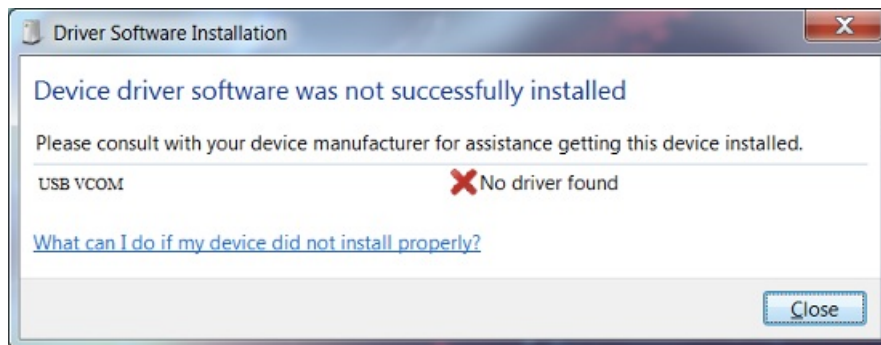


Configuration over USB

- Driver installation
- Uploading new firmware

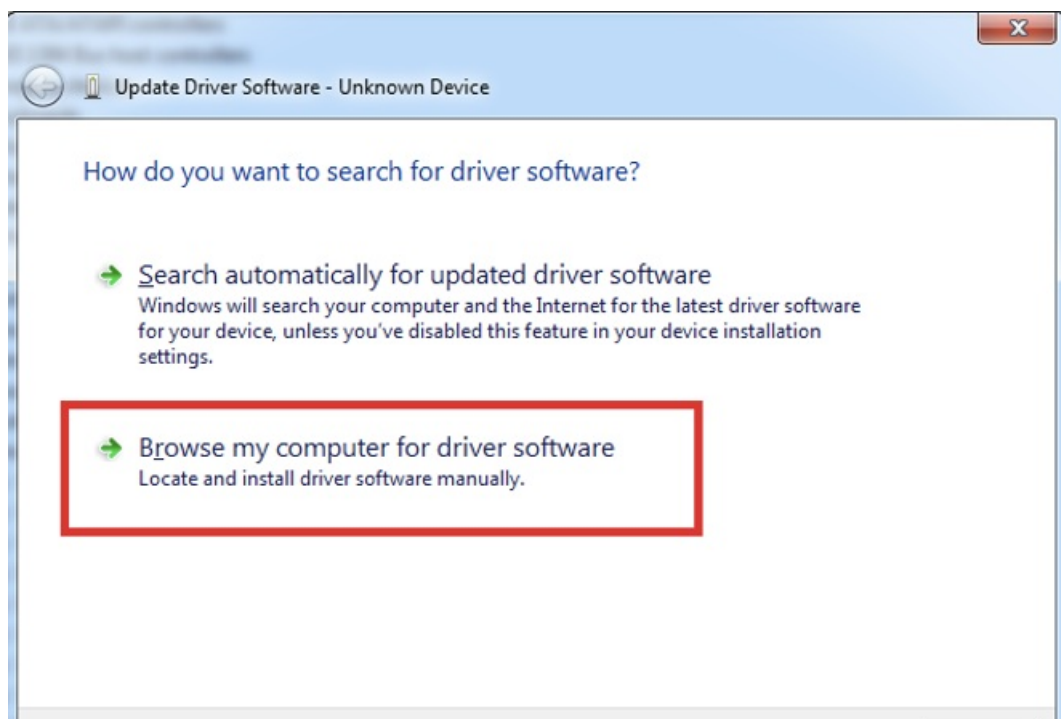
Driver installation

Device requires USB drivers to work as virtual com port. First-time connection between device and computer could result in "Device driver software was not successfully installed" error.



Device driver error message

User then manually installs drivers by selecting downloaded driver folder:
Go to *Control Panel* -> *Device Manager*;
Select failed device;
Press "Update driver software"; following screen should appear.



Manually searching for device drivers
Select "x86" driver for 32bit machine, or x64 for 64bit machine. If not sure, select root folder (folder in which x64 and x86 lays inside).

Library Share with Burn New folder				
Name	Date modified	Type	Size	
x64	11/24/2015 15:20	File folder		
x86	11/24/2015 15:20	File folder		
lpc-vcom	12/5/2014 20:46	Security Catalog	7 KB	
lpc-vcom	11/21/2014 23:20	Setup Information	3 KB	

Uploading new firmware

Upload of firmware through USB to IOMod device is done through CLI (Command Line Interface) on virtual COM port. Drivers needed for MS Windows to install VCOM will be provided. To open up CLI simply connect to specific VCOM port with terminal software (it is advised to use **PuTTY** terminal software. If other software is being used, user might need to send <return> symbol after each command). When connected user should immediately see main screen similar to one in Fig. 1.

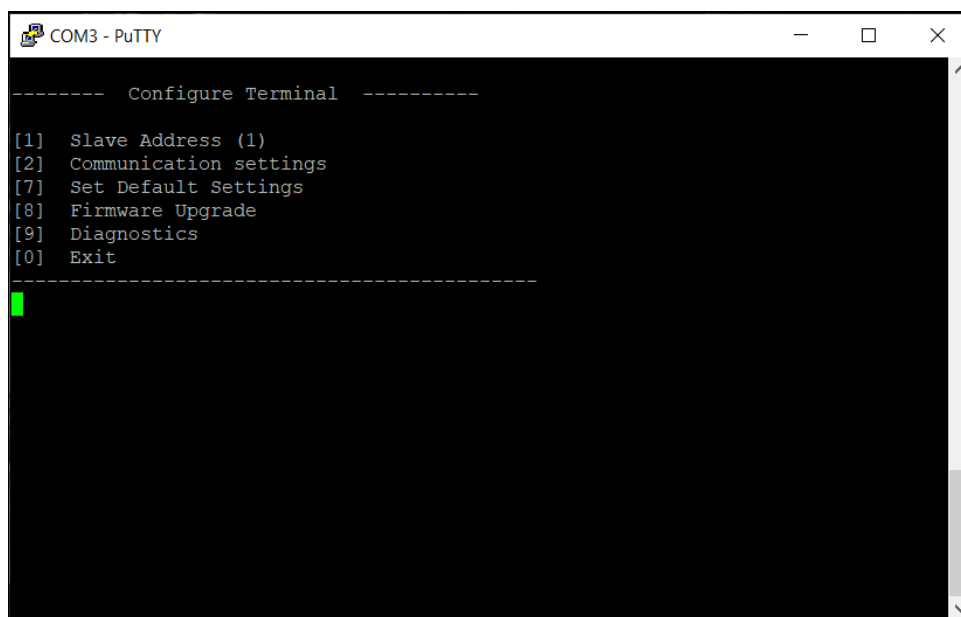


Fig. 1. PuTTY main screen.

Navigation is performed by pressing number connected to its function. User then should proceed by following further on-screen instructions. If terminal window is accidentally closed without exiting, user can connect to terminal again, and press any key on keyboard to show up main menu once again. For example, to upload new firmware to IOMod, in the main configuration menu press [8] to enter Firmware Upgrade screen and select confirm [1].

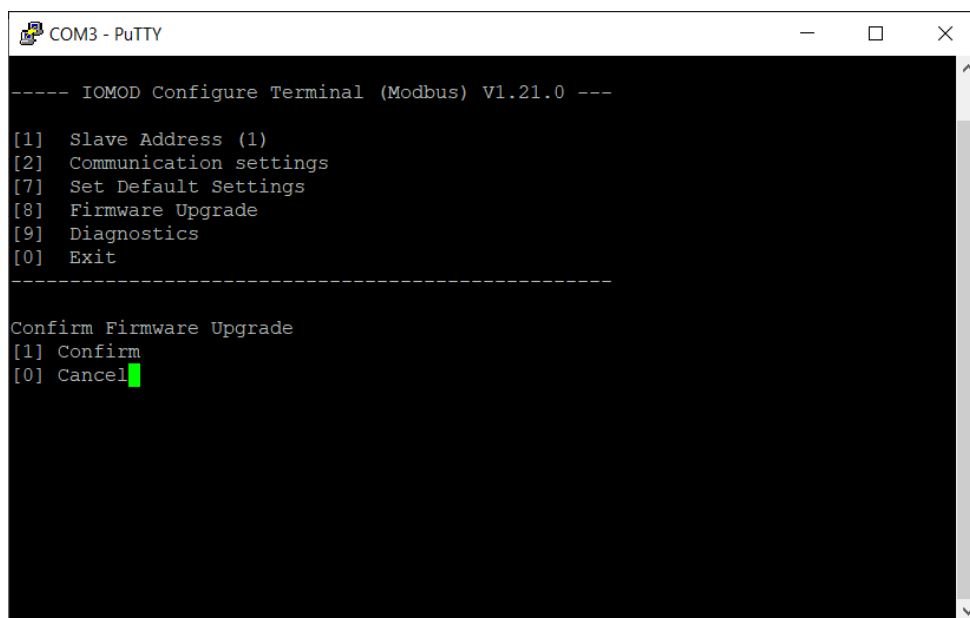


Fig. 2. Firmware upgrade confirmation screen.

User then must delete existing file "firmware.bin", and simply upload new firmware file by drag and drop (in this example after deleting "firmware.bin" user must drag and drop one the prepared firmware files on the left to the folder on the right).

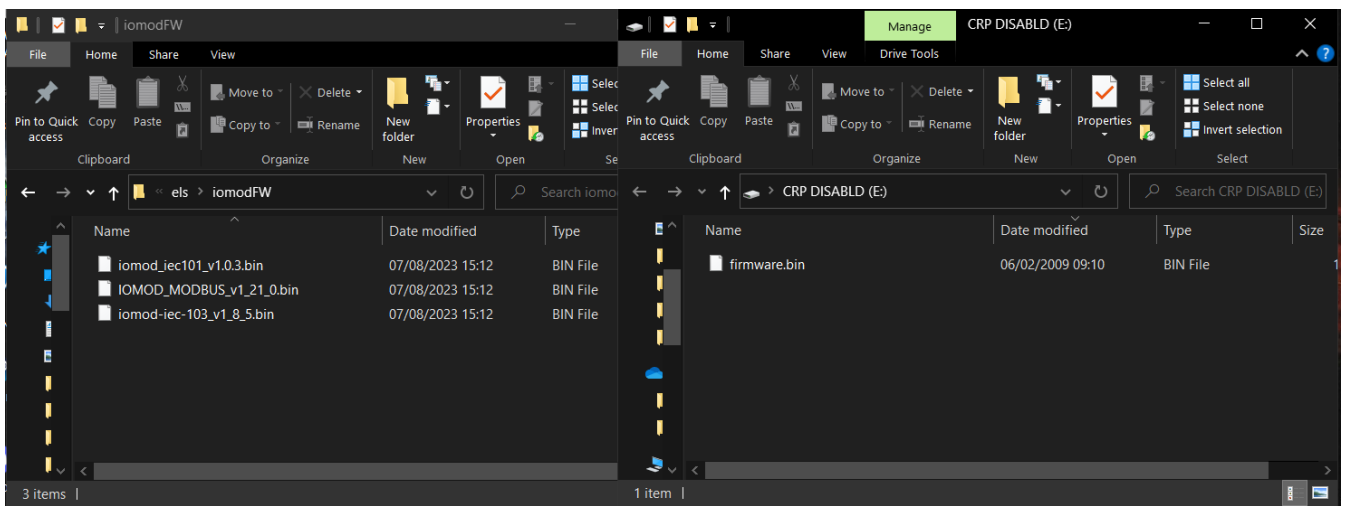


Fig. 3. Firmware "iomodFW" folder and the folder to delete "firmware.bin" and upload one of the new firmware.

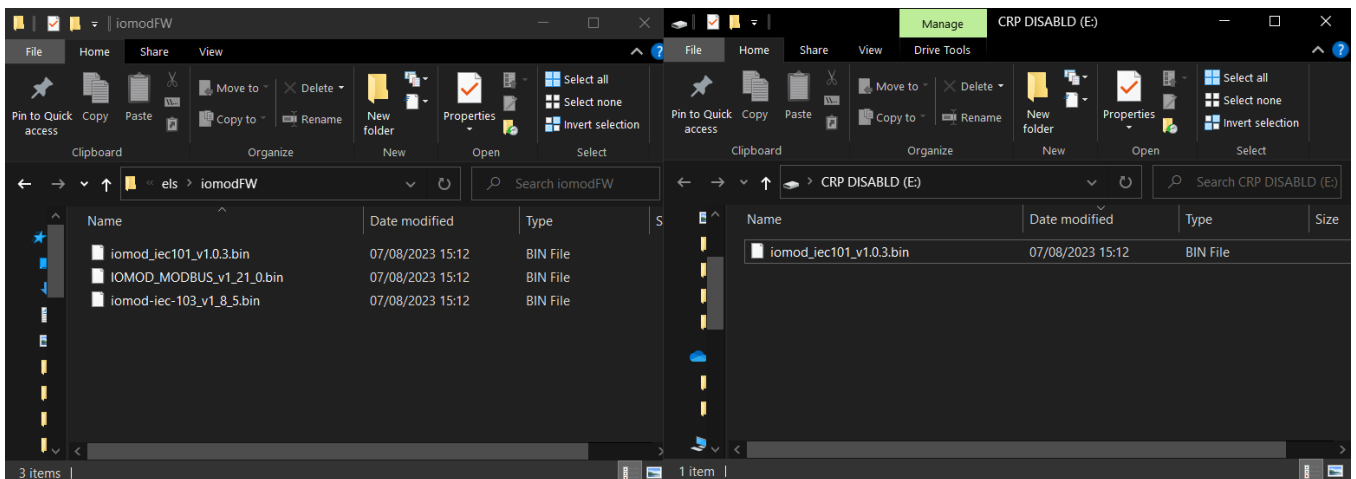


Fig. 4. Uploaded IEC-60870-5-101 firmware as an illustration.

After uploading the new firmware, user must exit the folder and dismiss the error caused by the firmware upgrade mode.

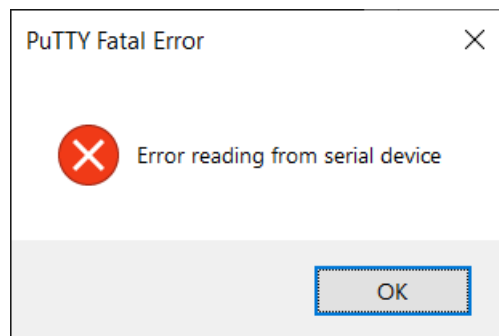
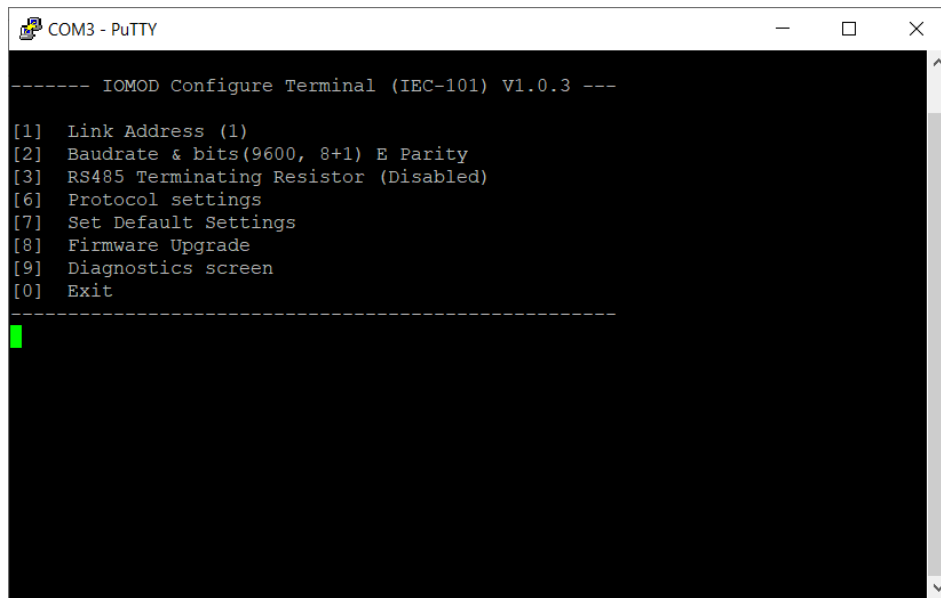


Fig. 5. Error caused by the upload.

Now the user must exit the PuTTY terminal software, and reinsert the USB cable.

🔔 Reconnect the device and check firmware version. It should now represent the one it was updated to.



```
COM3 - PuTTY

----- IOMOD Configure Terminal (IEC-101) V1.0.3 ----

[1] Link Address (1)
[2] Baudrate & bits(9600, 8+1) E Parity
[3] RS485 Terminating Resistor (Disabled)
[6] Protocol settings
[7] Set Default Settings
[8] Firmware Upgrade
[9] Diagnostics screen
[0] Exit
-----

```

Fig. 6. Successful upload of new firmware.



Configuration of device is not possible when USB Simulation Mode is entered. To access configuration menu again user should reset device and then try again.