**TPLD Programmer Firmware Update through USB User Guide**

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**Version 0.2**

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**1. Intro**

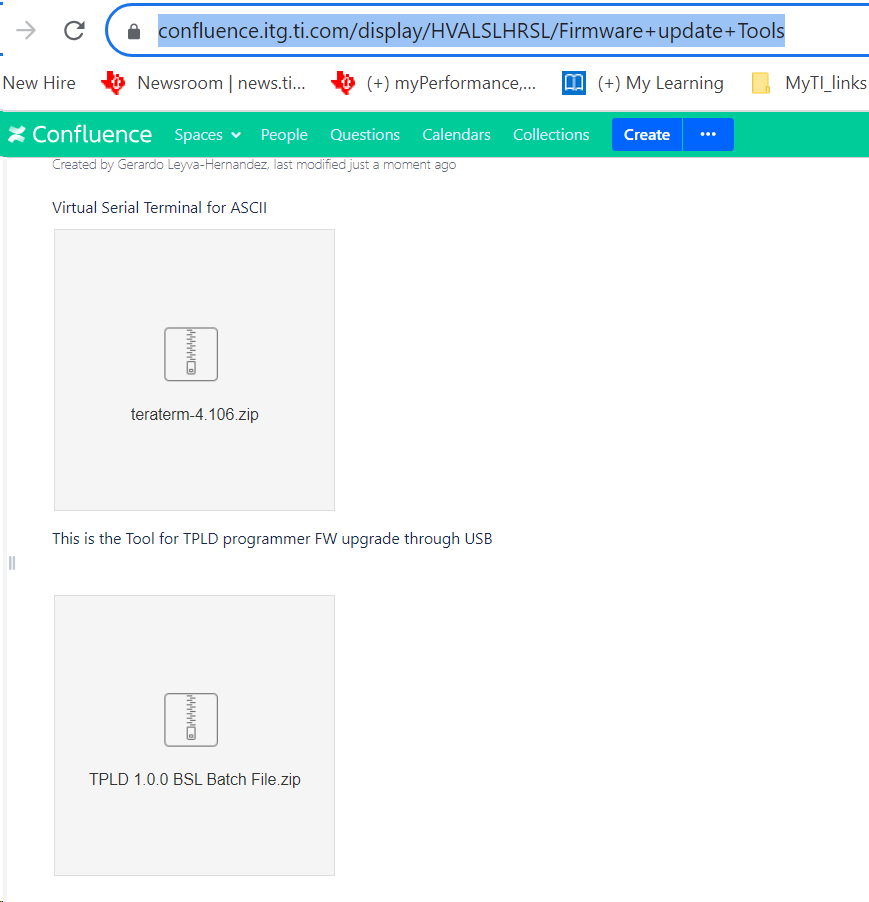
This is a guideline for the update of the TPLD Programmer using the USB interface. It is necessary the v0.03.58 installed Firmware version or later. The Firmware’s updates will be posted at

<https://confluence.itg.ti.com/display/HVALSLHRSL/Firmware>

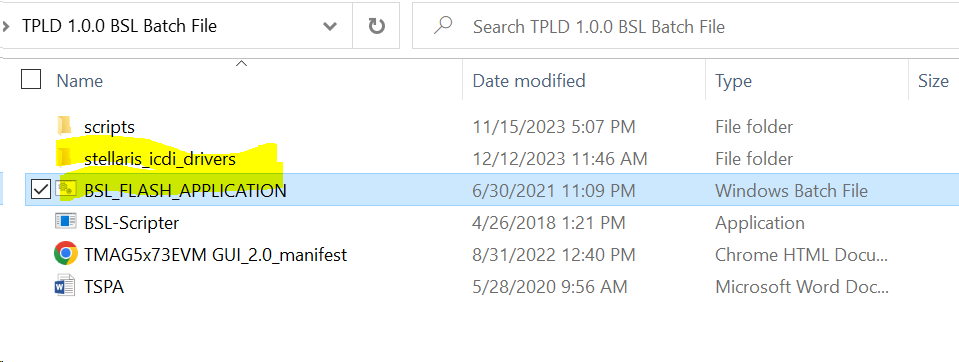
**2. Preparing the Tools needed**

Download the Teraterm and TPLD BSL BASH FILE from the following Confluence Link

<https://confluence.itg.ti.com/display/HVALSLHRSL/Firmware+update+Tools>

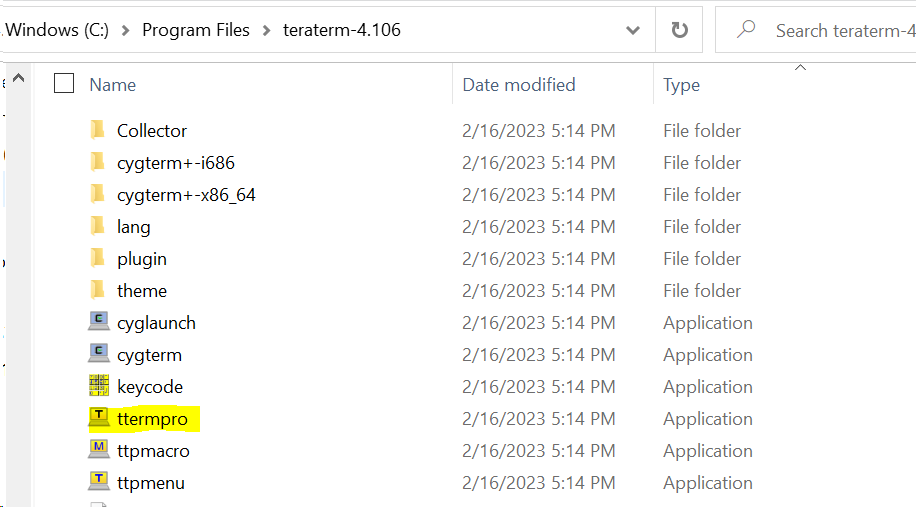


PuTTy can be used instead of TeraTerm if preferred. Unzip the TPLD BSL BASH File. Inside the folder **stellaris\_icdi\_drivers** you can find the USB DRIVERS for the Bootloader and also the BSL Flash file.

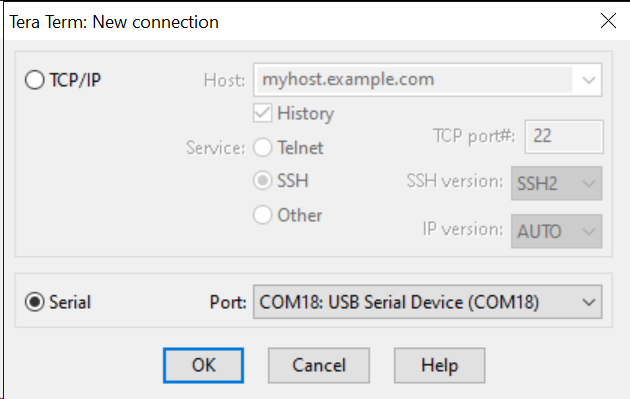


**3. Installing and using Serial Terminal to communicate with the TPLD Firmware**

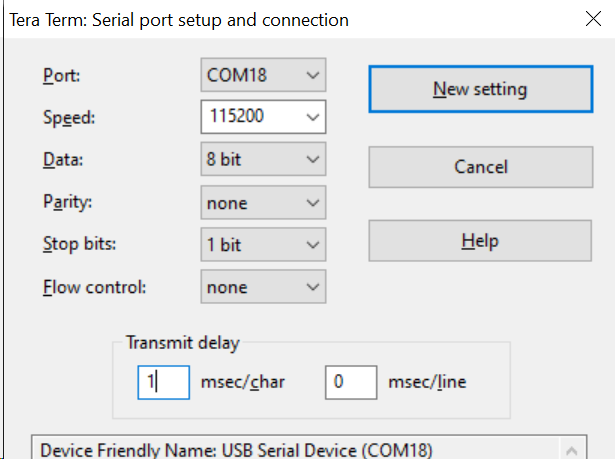
Once Teraterm is downloaded and unzipped launch TeratermPro



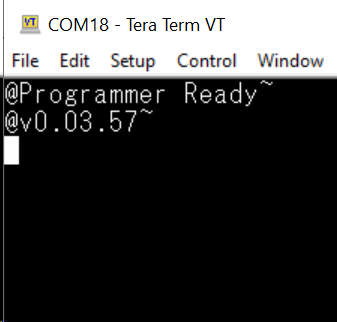
Open File/New connection and choose the USB port assigned to the TPLD programmer, COM18 in my case.



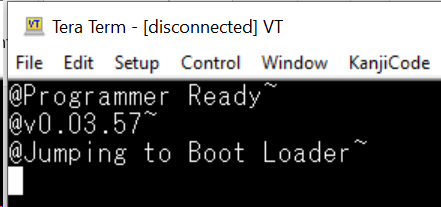
Click on setup/Serial Port… and set the following settings. Click on New setting to finish.



Send the commands ‘&’ and ‘#’ at the terminal. The TPLD Firmware will answer to those commands

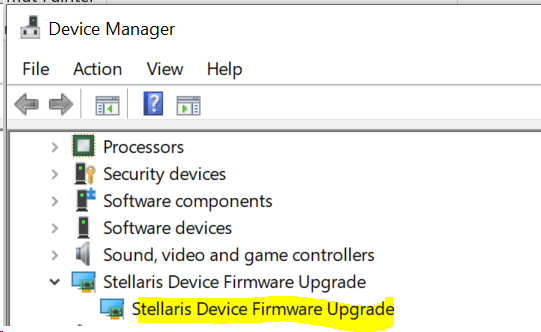


Send the command ‘b’ at the terminal to proceed to update the Firmware. After that the terminal will be unresponsive because the FW was erased from the MCU. Unplug the TPLD programmer for the USB port

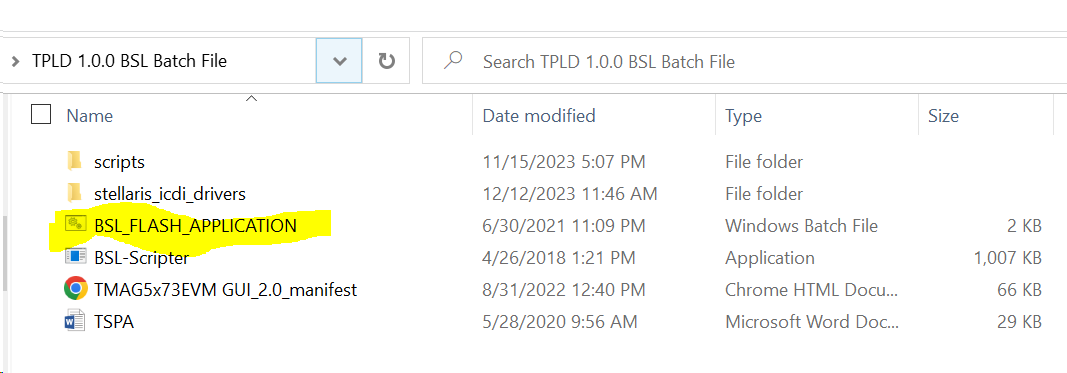


**4. Upgrading the TPLD programmer Firmware**

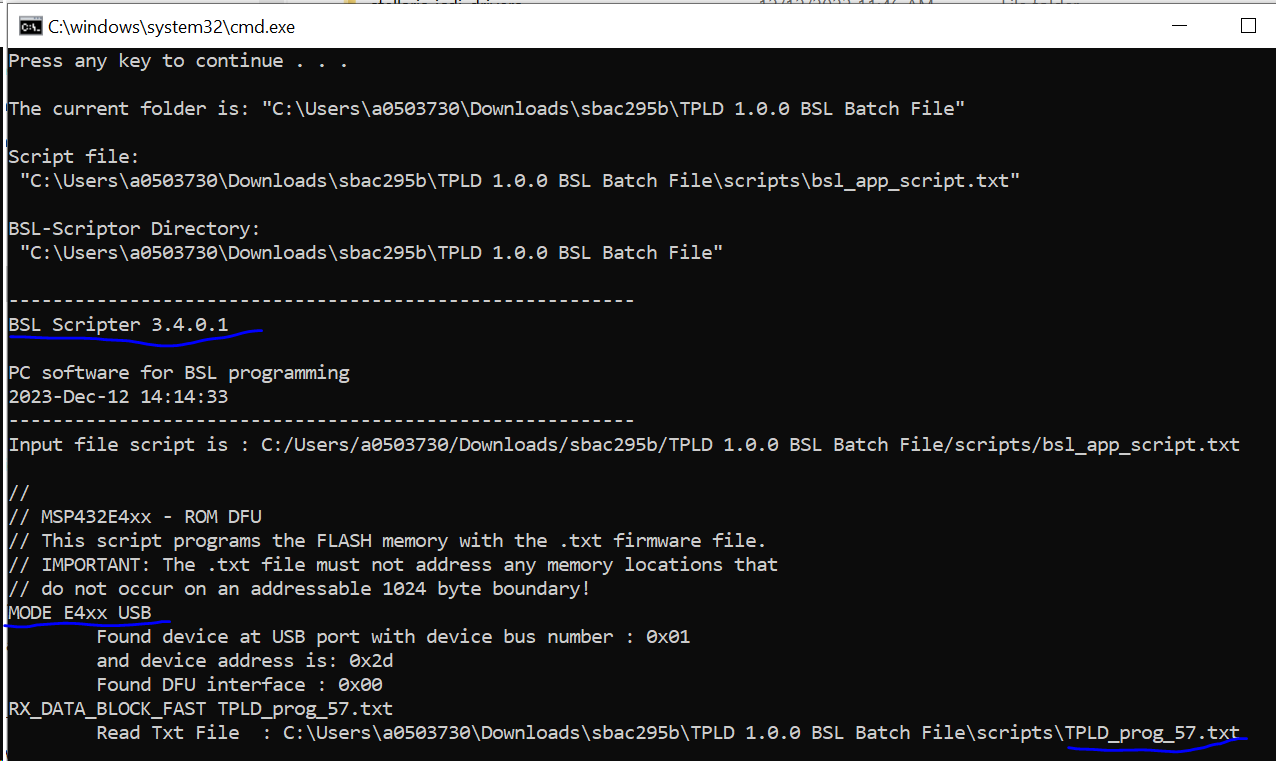
Plug the TPLD programmer to the Computer USB port and you would see the USB device enumerated in the Device Manager Windows Tool. If that is not the case, install the USB drivers for the device firmware update. The Drivers can be found at **TPLD 1.0.0 BSL Batch File/ stellaris\_icdi\_drivers** folder



Double click at the BSL\_FLASH\_APPLICATION file to execute it

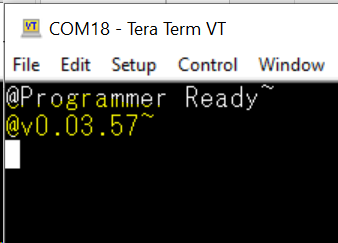


A new CMD terminal will be open.. press any key to continue… if everything is correct the Firmware update will start. Wait some minutes until the process finish.

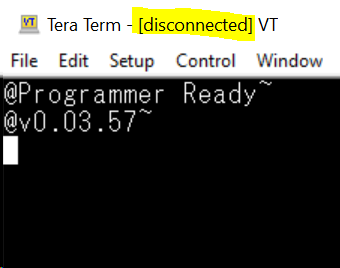


Press any key to finish. Power cycle the TPLD Programmer.

At the Teraterm terminal send again the commands ‘&’ and ‘#’ and you will see the updated firmware version. Your new firmware version is currently installed in the TPLD Programmer.

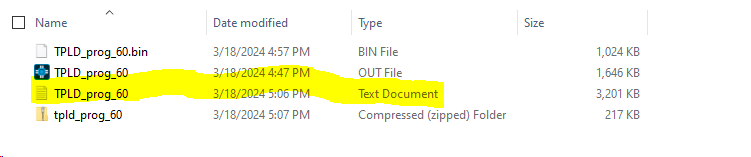


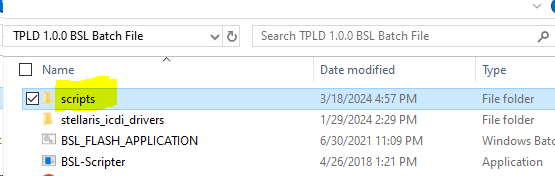
At Teraterm click on File/Disconnect and go to the ICS Tool to download any new design to the TPLD device.



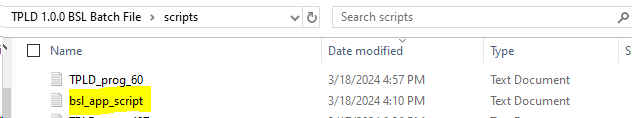
**5. Adding new Firmware file to the Bootloader Script Tool**

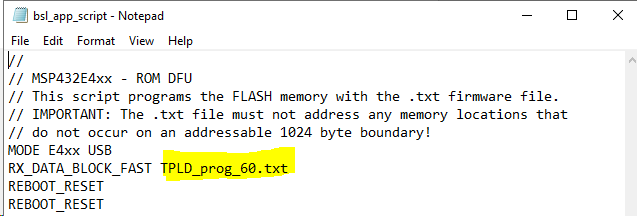
The Firmware files are in txt format. To add the newest version to the Bootloader scripter just copy the TPLD\_prog\_xx.txt file to the **scripts** folder





Next, open the **bsl\_app\_script.txt** file located at the **scripts** folder and edit the name of the new Firmware version that you want to flash to the TPLD programmer.





Finally close the script file and follow the instructions of the section **4 Upgrading the TPLD programmer Firmware**

**6. History**

|  |  |  |
| --- | --- | --- |
| Version | Date | Comments |
| V0.2 | 3/18/2024 | New section. Adding new Firmware file to the Bootloader Script Tool |
| V0.1 | 10/23/2023 | Initial Release |