

How to flash binary on STM32F7xxx

STM

Linux

1. Download STM32CubeProgrammer (a tool for flashing software to a device) from <https://www.st.com/en/development-tools/stm32cubeprog.html> and install the software. On Ubuntu the default install path is `/usr/local/STMicroelectronics/`
2. Connect the STM device to the host machine. For this you will need a USB to micro USB cable. On a device, use micro USB port which says "ST_LINK".
3. Use "STM32_Programmer.sh" (or the appropriate executable for your OS) which was installed in the step 1.

```
STM32_Programmer.sh --list
```

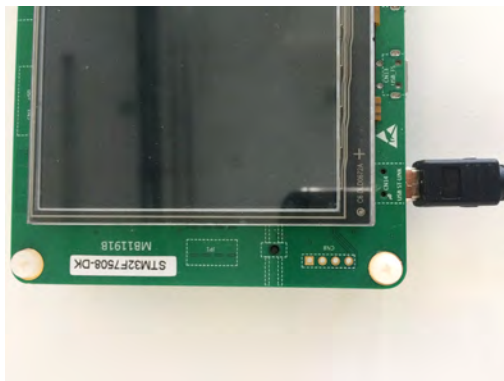
The device should be listed in the **==== STLink Interface ====** section. If the firmware is not up-to-date, there will be a message saying:

"**Error:** Old ST-LINK firmware version. Upgrade ST-LINK firmware"

To update firmware, download https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-programmers/stsw-link007.html and follow the instruction from the `readme.txt` file. In the downloaded package you will also find udev rules for STM devices.

4. Flash the demo binary:

stm32f7508-dk



```
`STM32_Programmer.sh -c port=SWD -el /usr/local/STMicroelectronics/STM32Cube/STM32Cu
```

stm32f769i-disco



```
STM32_Programmer.sh -c port=SWD -el  
/usr/local/STMicroelectronics/STM32Cube/STM32CubeProgrammer/bin/externalLoader/MX25L512G_STM32F769I-DISCO.stldr  
-w /path/to/demo_binary.elf -g
```

Explanations:

```
-c Establish connection to the device  
-el Select a custom external memory-loader  
-w Write  
-g Run the code at the specified address.
```

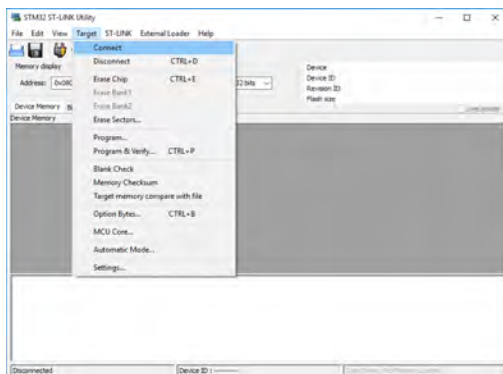
Windows

1. Download and install the STM32 ST-LINK Utility from www.st.com/en/development-tools/stsw-link004.html
2. Connect the device with the host PC by connecting the USB cable to the device port marked "ST-LINK"
3. Follow the instructions for each device type below:

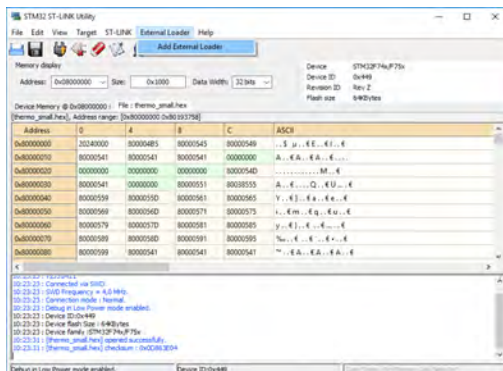
stm32f7508-dk



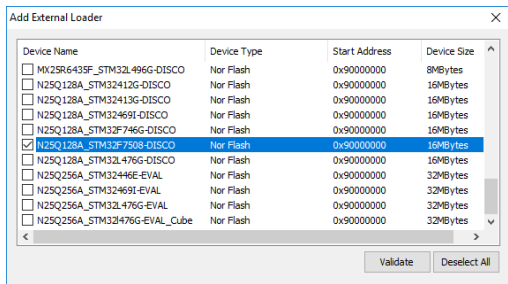
1. Open STM32 ST-LINK Utility and select menu **Target > Connect**



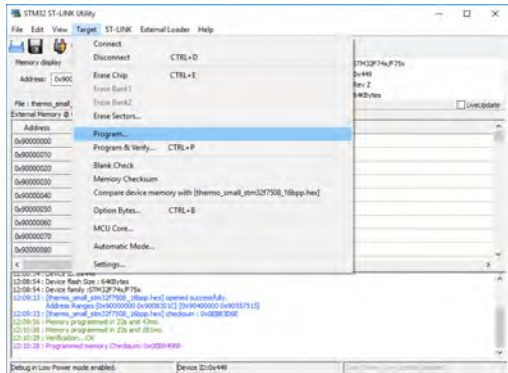
2. Go to menu **External Loader > Add External Loader**



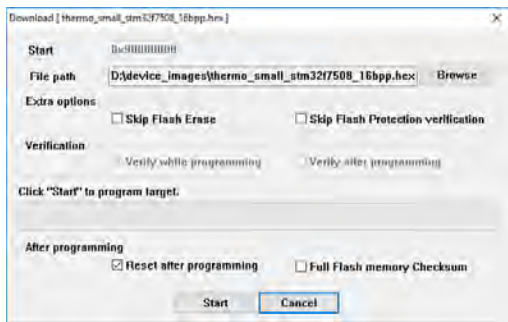
3. Click checkbox next to **N25Q128A_STM32F7508-DISCO** and click **Validate** button



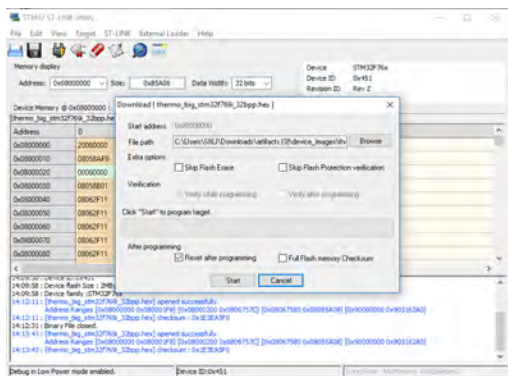
4. Select menu **Target > Program...**



5. Click **Browse** button, select desired binary file



6. Click start button and wait for software to reset device:

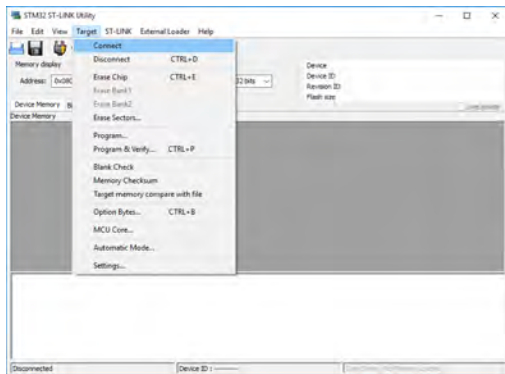


7. Note: You might need to disconnect power and connect again to start the application.

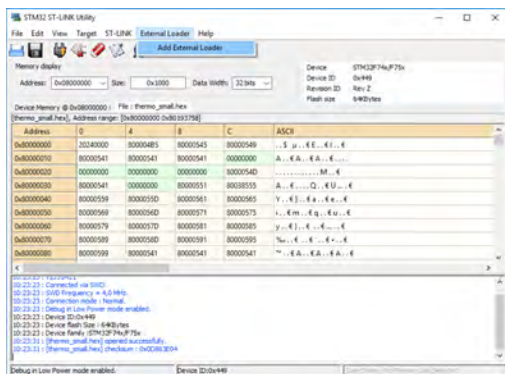
stm32f769i-disco



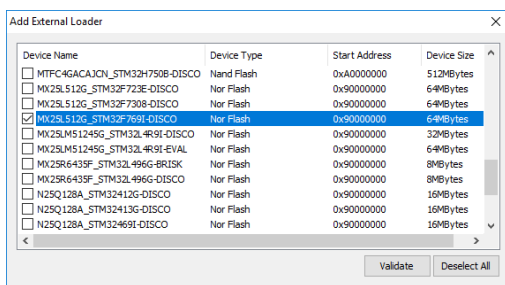
1. Open STM32 ST-LINK Utility and select menu **Target > Connect**



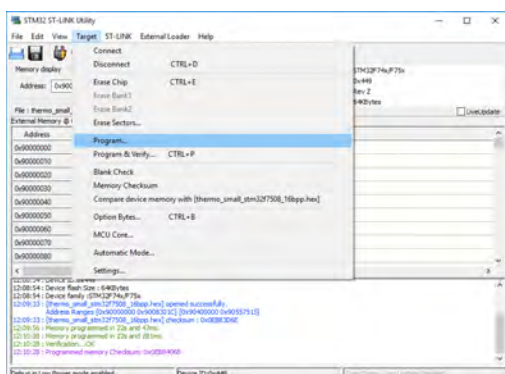
2. Go to menu **External Loader > Add External Loader**



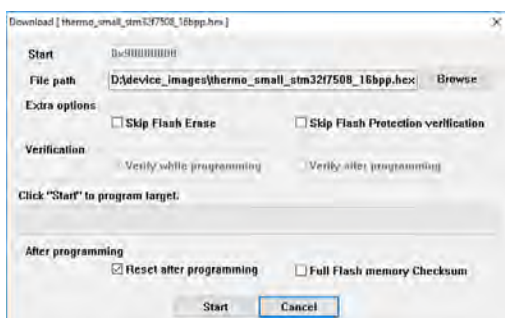
3. Click checkbox next to **MX25L512G_STM32F769I-DISCO** and click **Validate** button



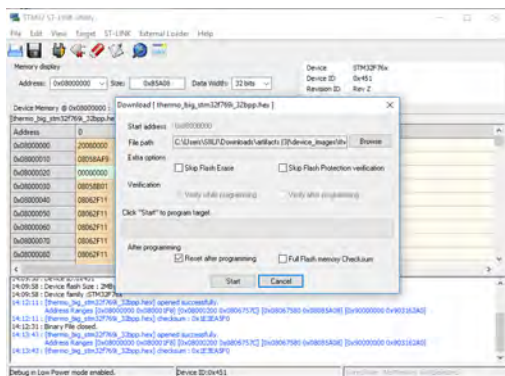
4. Select menu **Target > Program...**



5. Click **Browse** button, select desired binary file



6. Click start button and wait for software to reset device:



7. Note: You might need to disconnect power and connect again to start the application.