

1 Run Flash Programming on JLINK

1.1 Jlink programmer necessities

1. Turn ON power switch and Wake up chip from RTC power domain, and then Connect JTAG.



1.2 Edit flash_prog.jlink device setting

Note: partial programming please check chapter 1.5

1. Check your flash manufacturer: Winbond or Mxic or GigaDevice
2. Select a specific device based on flash manufacturer

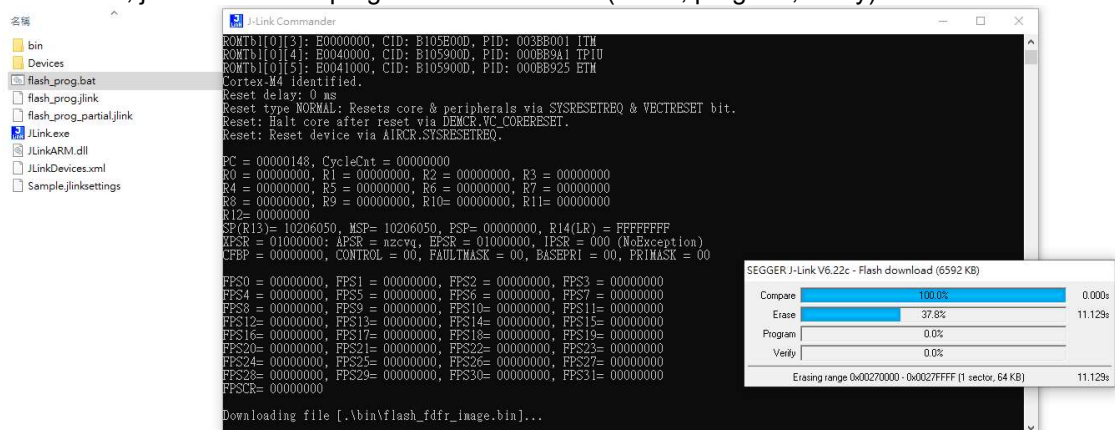
EX:

```
device KL520-WB    //Winbond
device KL520-MX    //Mxic
device KL520-GD    //GigaDevice
```

3. Copy the bin file to kl520_sdk\utils\JLink_programmer\bin\flash_fldr_image.bin

1.3 Double click “flash_prog.bat”

Afterwards, just wait until all progresses are finished (erase, program, verify)



1.4 Check programming result

Please ensure the result is “O.K.”, and enter “qc” to quit and close J-Link commander

```

J-Link Commander
CFBP = 00000000, CONTROL = 00, FAULTMASK = 00, BASEPRI = 00, PRIMASK = 00

FPS0 = 00000000, FPS1 = 00000000, FPS2 = 00000000, FPS3 = 00000000
FPS4 = 00000000, FPS5 = 00000000, FPS6 = 00000000, FPS7 = 00000000
FPS8 = 00000000, FPS9 = 00000000, FPS10 = 00000000, FPS11 = 00000000
FPS12 = 00000000, FPS13 = 00000000, FPS14 = 00000000, FPS15 = 00000000
FPS16 = 00000000, FPS17 = 00000000, FPS18 = 00000000, FPS19 = 00000000
FPS20 = 00000000, FPS21 = 00000000, FPS22 = 00000000, FPS23 = 00000000
FPS24 = 00000000, FPS25 = 00000000, FPS26 = 00000000, FPS27 = 00000000
FPS28 = 00000000, FPS29 = 00000000, FPS30 = 00000000, FPS31 = 00000000
FPSCR = 00000000

Downloading file [.\bin\flash_fldr_image.bin]...
J-Link: Flash download: Bank 0 @ 0x00000000: 1 range affected (6750208 bytes)
J-Link: Flash download: Total time needed: 89.748s (Prepare: 0.036s, Compare: 0.000s, Erase: 29.862s, Program: 27.517s,
Verify: 32.322s, Restore: 0.009s)
O.K.

Reset delay: 0 ms
Reset type NORMAL: Resets core & peripherals via SYSRESETREQ & VECTRESET bit.
Reset: Halt core after reset via DEMCR.VC_CORERESET.
Reset: Reset device via AIRCR.SYSRESETREQ.

Script processing completed.

Type "connect" to establish a target connection, '?' for help
J-Link>qc_

```

1.5 Edit flash_prog_partial.jlink device setting(optional)

To program specific bin file to specific flash address

1. Copy the bin file to kl520_sdk\utils\JLink_programmer\bin\
2. Select a specific device+'-P' based on flash manufacturer

EX:

device KL520-WB-P //Winbond partial programming
device KL520-MX-P //Mxic partial programming
device KL520-GD-P //GigaDevice partial programming

3. Edit loadbin command: Load *.bin file into target memory

Syntax: loadbin <filename>, <addr>

loadbin .\bin\boot_spl.bin,0x00000000
loadbin .\bin\fw_scpu.bin,0x00002000
loadbin .\bin\fw_ncpu.bin,0x0002A000

4. Double click "flash_prog_partial.bat" and wait until all progresses are finished

5. Check programming result

Please ensure the results is "O.K.", and enter "qc" to quit and close J-Link commander

EX:

```

sl 1
speed 10000
device KL520-GD-P
r
h
loadbin .\bin\boot_spl.bin,0x00000000
loadbin .\bin\fw_scpu.bin,0x00002000
loadbin .\bin\fw_ncpu.bin,0x0002A000
r
w

J-Link Commander
Downloading file [.\bin\boot_spl.bin]...
J-Link: Flash download: Bank 0 @ 0x00000000: 1 range affected (8192 bytes)
J-Link: Flash download: Total time needed: 0.348s (Prepare: 0.036s, Compare: 0.000s, Erase: 0.126s, Program: 0.102s, Ver
ify: 0.073s, Restore: 0.009s)
O.K.

Downloading file [.\bin\fw_scpu.bin]...
J-Link: Flash download: Bank 0 @ 0x00000000: 1 range affected (90112 bytes)
J-Link: Flash download: Total time needed: 2.634s (Prepare: 0.124s, Compare: 0.000s, Erase: 1.112s, Program: 0.854s, Ver
ify: 0.463s, Restore: 0.077s)
O.K.

Downloading file [.\bin\fw_ncpu.bin]...
J-Link: Flash download: Bank 0 @ 0x00000000: 1 range affected (65536 bytes)
J-Link: Flash download: Total time needed: 1.985s (Prepare: 0.122s, Compare: 0.000s, Erase: 0.817s, Program: 0.626s, Ver
ify: 0.343s, Restore: 0.076s)
O.K.

Reset delay: 0 ms
Reset type NORMAL: Resets core & peripherals via SYSRESETREQ & VECTRESET bit.
Reset: Halt core after reset via DEMCR.VC_CORERESET.
Reset: Reset device via AIRCR.SYSRESETREQ.

Script processing completed.

Type "connect" to establish a target connection, '?' for help
J-Link>

```