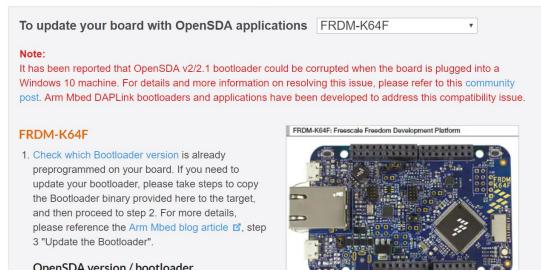1、 Prepare a JLink Lite FSL.Install Jlink on your computer.Link： www.segger.com
2、 Visit www.nxp.com/opensda.
   Select board.

Download – OpenSDA Bootloader and Application

To update your board with OpenSDA applications [Choose your board to start ▾]

When you choose the board you need ,you will find the content like this.

Download – OpenSDA Bootloader and Application

To update your board with OpenSDA applications [FRDM-K64F ▾]

Note:
It has been reported that OpenSDA v2/2.1 bootloader could be corrupted when the board is plugged into a Windows 10 machine. For details and more information on resolving this issue, please refer to this community post. Arm Mbed DAPLink bootloaders and applications have been developed to address this compatibility issue.

FRDM-K64F
1. Check which Bootloader version is already preprogrammed on your board. If you need to update your bootloader, please take steps to copy the Bootloader binary provided here to the target, and then proceed to step 2. For more details, please reference the Arm Mbed blog article ☑, step 3 "Update the Bootloader".

OpenSDA version / bootloader

FRDM-K64F: Freescale Freedom Development Platform

3、 Then,you should download bootloader binary.

OpenSDA version / bootloader

■ DAPLink rev0244 OpenSDA v2.2 Bootloader
(Download Binary / Source Code)

4、 Put the binary in your Jlink's installation path.
   I install the Jlink in "C:\Program Files (x86)\SEGGER\"
   So I put the binary in "C:\Program Files (x86)\SEGGER\JLink_V648a"

Name	Date modified	Type	Size
Devices	2019/8/2 14:33	File folder	
Doc	2019/8/2 14:33	File folder	
ETC	2019/8/2 14:33	File folder	
GDBServer	2019/8/2 14:33	File folder	
RDDI	2019/8/2 14:33	File folder	
Samples	2019/8/2 14:33	File folder	
USBDriver	2019/8/2 14:33	File folder	
0244_k20dx_bl_0x5000.bin	2019/9/3 10:22	BIN File	20 KB
JFlash	2019/7/30 21:19	Application	850 KB
JFlashLite	2019/7/30 21:19	Application	184 KB
JFlashSPI	2019/7/30 21:19	Application	559 KB
JFlashSPI_CL	2019/7/30 21:19	Application	468 KB
JLink	2019/7/30 21:19	Application	294 KB
JLink_x64.dll	2019/7/30 21:20	Application extension	14,539 KB
JLinkARM.dll	2019/7/30 21:19	Application extension	13,714 KB
JLinkConfig	2019/7/30 21:19	Application	447 KB
JLinkControlPanel	2019/7/29 17:00	Chrome HTML Docu...	3 KB
JLinkDevices	2019/7/29 16:56	XML Document	148 KB
JLinkDLLUpdater	2019/7/30 21:19	Application	140 KB
JLinkGDBServer	2019/7/30 21:19	Application	395 KB
JLinkGDBServerCL	2019/7/30 21:19	Application	336 KB
JLinkLicenseManager	2019/7/30 21:19	Application	92 KB
JLinkRDI.dll	2019/7/30 21:19	Application extension	309 KB
JLinkRDIConfig	2019/7/30 21:19	Application	116 KB
JLinkRegistration	2019/7/30 21:19	Application	124 KB

5、 Now, you need connect Jlink to your board and your PC.
Then you connect the board's usb to your PC.
Don't make the wrong order.

6、 The path you put binary has the application "JLink".Open it.And you should enter "connect" . Then review your schematic. Find your debugger mcu. For k64, it is 'mk20dx128'. Then "device MK20",Then "s","40000" at last. All commands is end with pressing button "enter".
It will appear a window "Target device settings".
Input "mk20dx128xxx5" and choose it.

```
Type "connect" to establish a target connection, '?' for help
J-Link>connect
Please specify device / core. <Default>: MK20DX128XXX5
Type '?' for selection dialog
Device>
Please specify target interface:
  J) JTAG (Default)
  S) SWD
  T) cJTAG
TIF>s
Specify target interface speed [kHz]. <Default>: 4000 kHz
Speed>
Device "MK20DX128XXX5" selected.


Connecting to target via SWD
InitTarget()
Found SW-DP with ID 0x2BA01477
Unknown DP version. Assuming DPv0
Scanning AP map to find all available APs
AP[2]: Stopped AP scan as end of AP map has been reached
AP[0]: AHB-AP (IDR: 0x24770011)
AP[1]: JTAG-AP (IDR: 0x001C0000)
Iterating through AP map to find AHB-AP to use
AP[0]: Core found
AP[0]: AHB-AP ROM base: 0xE00FF000
CPUID register: 0x410FC241. Implementer code: 0x41 (ARM)
Found Cortex-M4 r0p1, Little endian.
FPUnit: 6 code (BP) slots and 2 literal slots
CoreSight components:
ROMTbl[0] @ E00FF000
ROMTbl[0][0]: E000E000, CID: B105E00D, PID: 000BB000 SCS
ROMTbl[0][1]: E0001000, CID: B105E00D, PID: 003BB002 DWT
ROMTbl[0][2]: E0002000, CID: B105E00D, PID: 002BB003 FPB
ROMTbl[0][3]: E0000000, CID: B105E00D, PID: 003BB001 ITM
ROMTbl[0][4]: E0040000, CID: B105900D, PID: 000BB9A1 TPIU
Cortex-M4 identified.
J-Link>
```

7、 Input "erase"

8、 Input "loadfile 0244_k20dx_bl_0x5000.bin"Then you can close this application.

9、 Visit   https://www.nxp.com/design/microcontrollers-developer-resources/ides-for-kinetis-mcus/opensda-serial-and-debug-adapter:OPENSDA#FRDM-K64F

Select the board you need.

Download firmware application's binary.

Latest firmware application
- DAPLink rev0244
  (Download Binary / Source Code)

10、 Disconnect the Jlink and usb.

Press the "reset" button without releasing,then connect the usb to your board and PC.

At the same time check the content like this.

If the "MANTENANCE" appears,copy the firmware application's binary into it.

Then reboot.

∨ Devices and drives (2)

OSDisk (C:)
406 GB free of 476 GB

MAINTENANCE (D:)
63.9 MB free of 63.9 MB

You will find content like this.

12、Finally,you should download CMSIS-DAP driver in this link
   https://os.mbed.com/handbook/Windows-serial-configuration
   Then you can use the mcuxpress ,IAR or keil to download program.