

FAQ0137

Frequently Asked Questions

Enable FAP function for AT32F413_403A_407_F435_F437

Questions:

How to enable FAP for better encryption function?

Answer:

It is recommended for users to enable FAP (access protection function). FAP is mainly used in two scenarios below:

- Enable FAP during MCU production and programming
- Enable FAP for terminal product application code

Scenario 1: Enable FAP during MCU production and programming

Solutions:

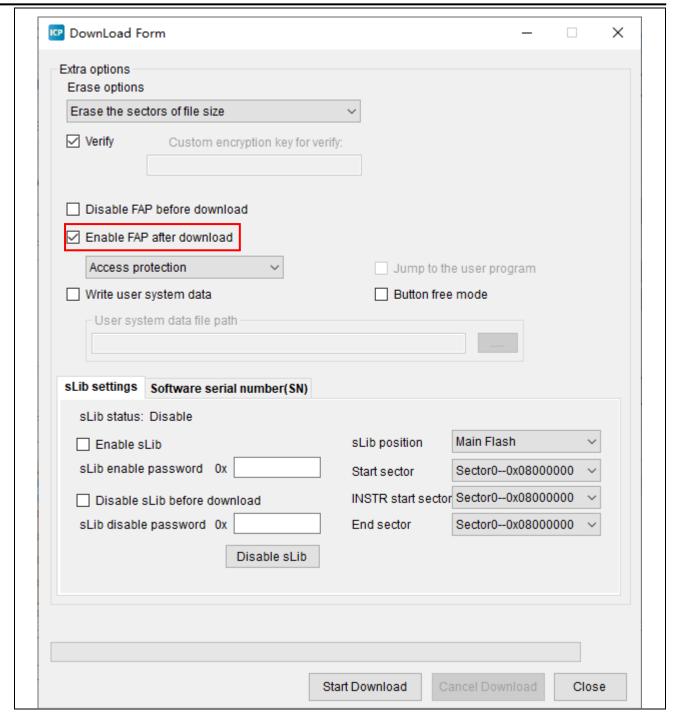
Use Artery's AT-Link and ICP for programming, and ICP and AT-Link versions are as follows:

ICP version: V3.0.2 and above (use ICP to automatically upgrade AT-Link firmware)

AT-Link firmware version: V2.0.2 and above

For online programming, tick the "Enable FAP after download" box, see below:

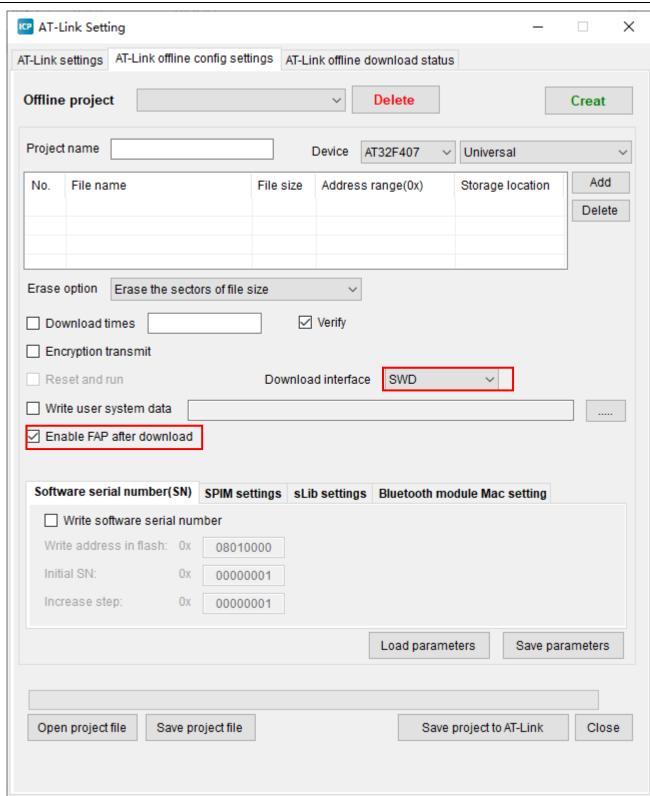




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For offline programming, tick the "*Enable FAP after download*" box, and select SWD interface, see below:



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Scenario 2: Enable FAP for terminal product application code

Solution:

Add the following judgement and FAP enable sentence in the application code.

BSP versions for calling FAP functions are as follows:

AT32F413_Firmware_Library_V2.0.6 and above versions

AT32F403A_407_Firmware_Library_V2.1.1 and above versions

AT32F435_437_Firmware_Library_V2.0.9 and above versions

```
if(USD->fap != 0xFFFF)
{
    flash_unlock();
    flash_fap_enable(TRUE);
    NVIC_SystemReset();
}
```

Type: MCU application

Applicable products: AT32F413, AT32F403A/407, AT32F435/437

Main function: FAP (access protection enabled)

Other function: None

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Document revision history

Date	Revision	Changes
2022.6.28	2.0.0	Initial release





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