UM1508
User manual

Programming PY32™ using JFlash Software

Preface

This document describes the installation and use of the JFlash software. This software allows downloading FLASH and OPTION for PY32 microcontrollers by installing plug-ins and working with J-LINK or other DAP-LINK emulators. It supports Program, Erase, Verify, Blank Check, etc.

Table 1: Applicable products

Type	Product Line
Micro controller series	py32c610, py32c611, py32c640, py32c641, py32c670, py32f001, py32f002a, py32f002b, py32f003, py32f030, py32f031, py32f040, py32f071, py32f072, py32f303, py32f403, py32l020, py32m010, py32m030, py32m070

Catalog

1 Software Installation

1.1 Download Software

Download links: SEGGER - The Embedded Experts - Downloads - Flasher

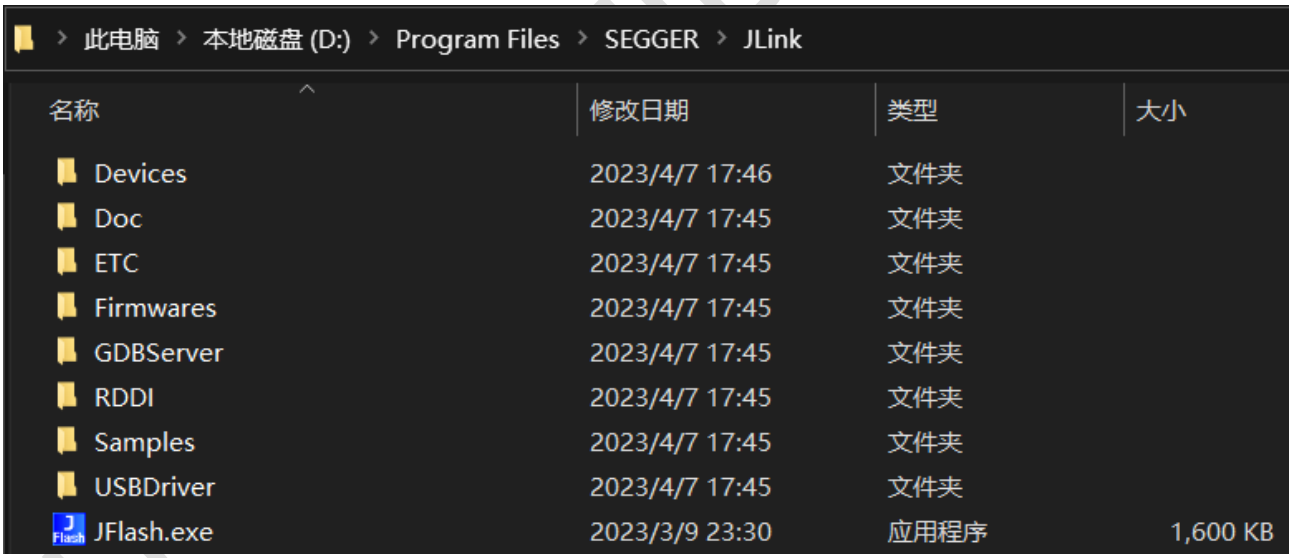
1.2 Installation Software

Double-click Flasher_Windows_V766b_x86_64.exe and follow the installation wizard prompts to complete the installation.

1.3 Installing plug-ins

Figure 1.3-1. Unpacking PY32_JFlash_Plugin.rar

Figure 1.3-2. Copy all files (folders) after unpacking to the JFlash installation directory



2 Hardware Connection

Table 2 - 1. J-LINK Connection Schematic

J-LINK	MCU
VCC	VDD
TMS/SWDIO	PA13(SWDIO)
GND	VSS
TCK/SWCLK	PA14(SWCLK)

3 Software Use

3.1 New Construction

Figure 3.1-1. Create new project dialog box click "..." button

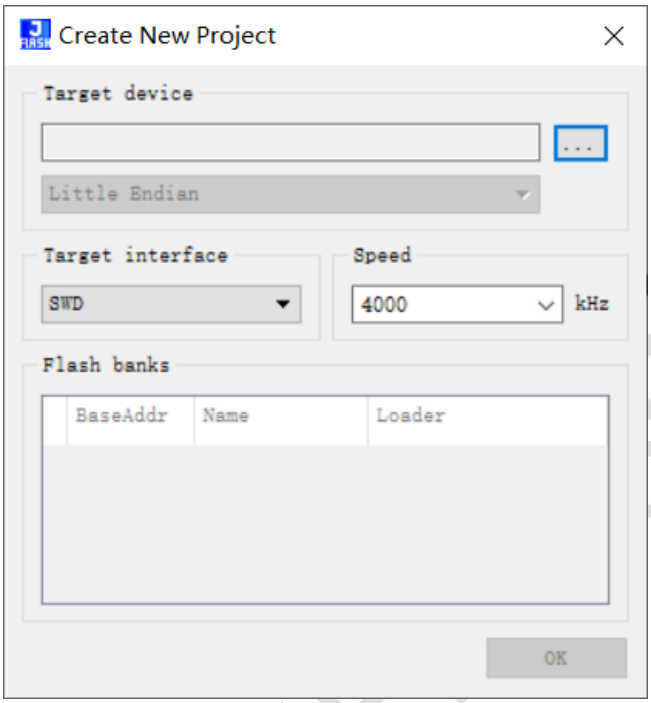


Figure 3.1-2. Target Device Settings dialog boxManufacturer column, enter Puya, select the chip model

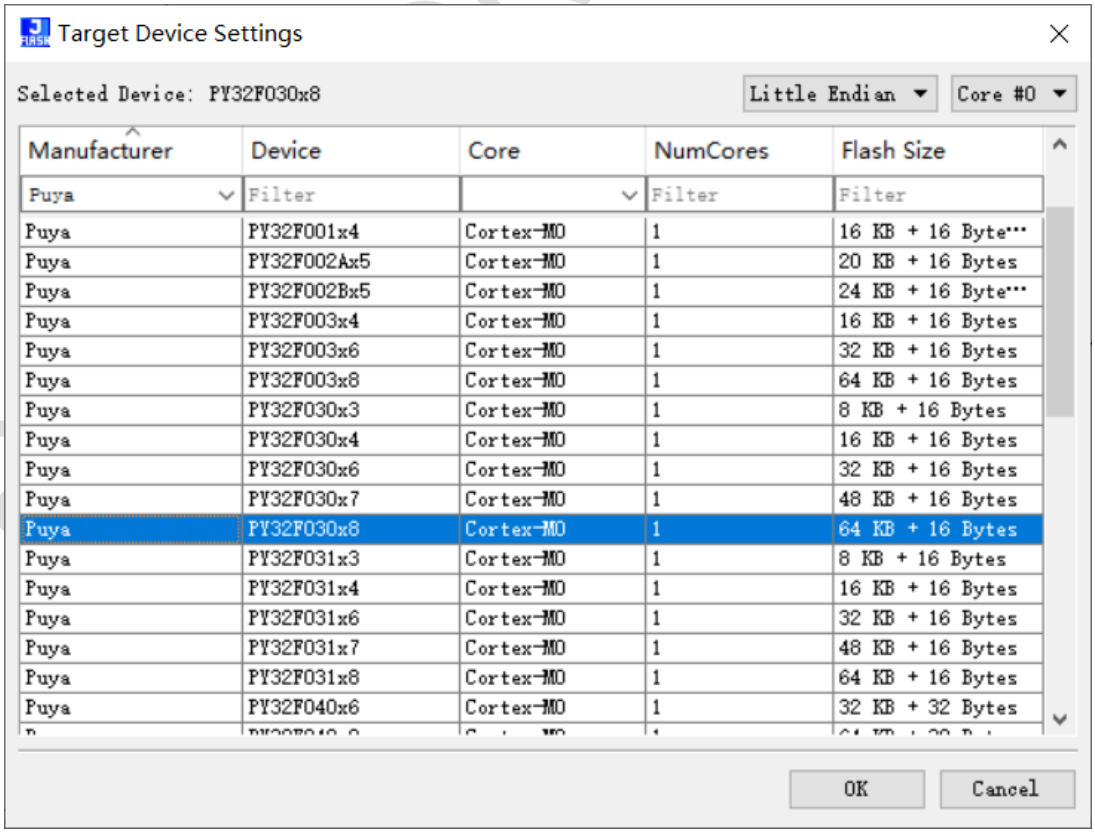


Figure 3.1-3. Click the OK button after selecting the chip model

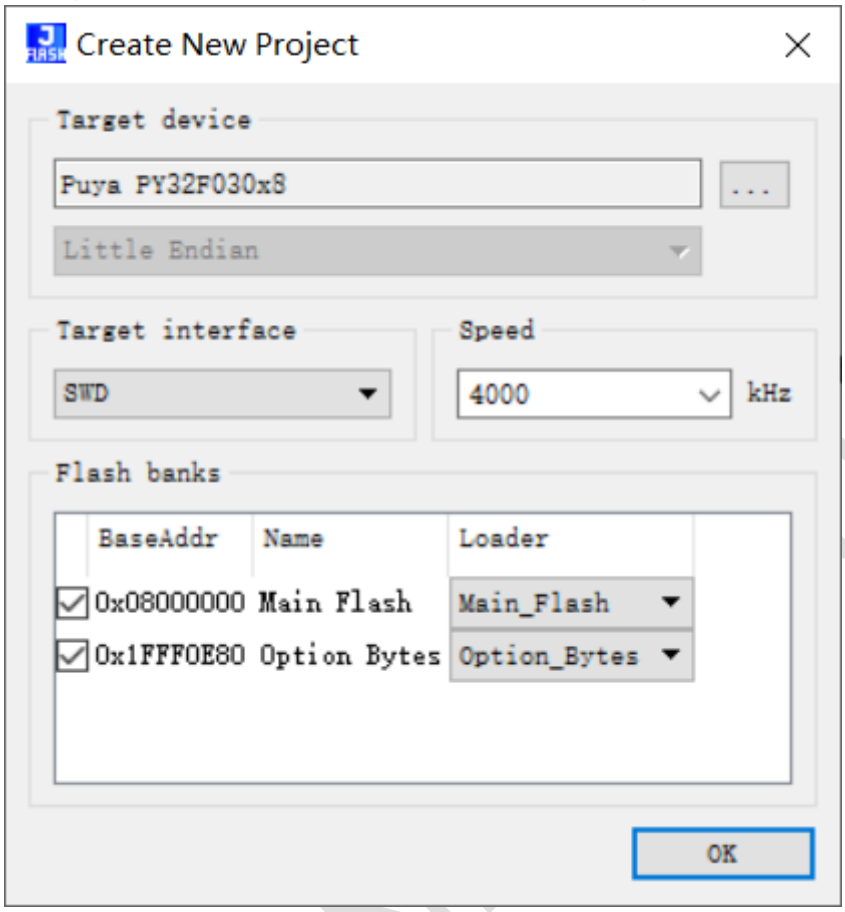
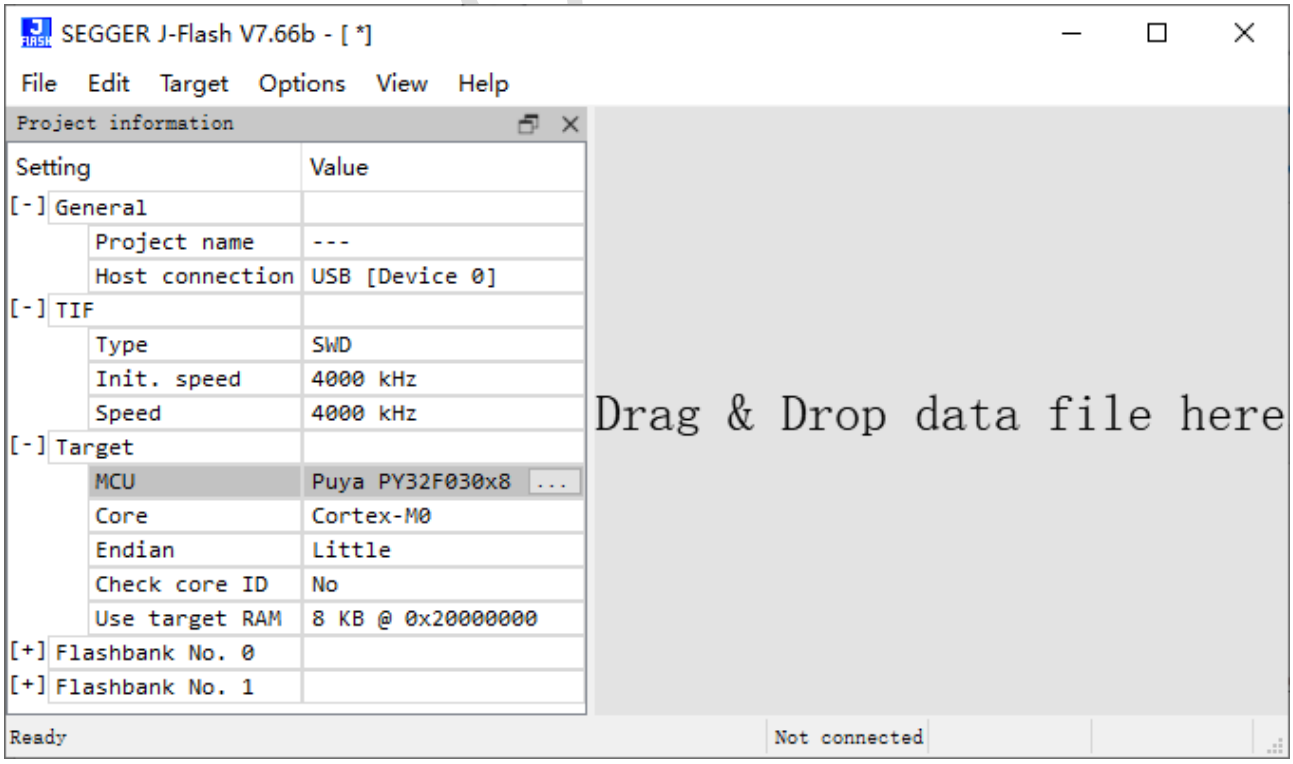


Figure 3.1-4. New project successfully, you can save the project for future use



3.2 File menu bar

Figure 3.2-1. File menu bar

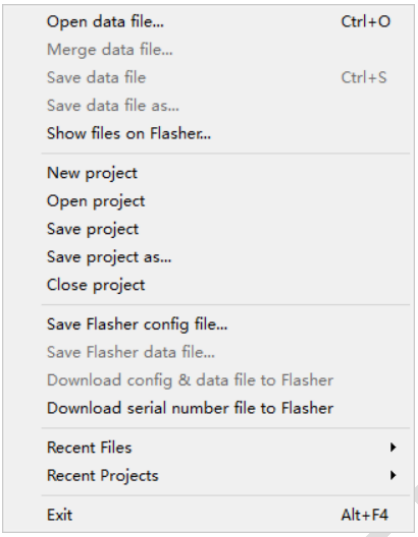


Table 3.2-1. Explanation of File menu bar terms

Name	Function
Open data file...	Open data file
Merge data file...	Merge data files
Save data file	Save data file
Save data file as...	Save data file as a separate file
New project	New Construction
Open project	Open Project
Save project	Preservation Project
Save project as...	Save Project
Close project	Close the project

3.3 Target menu bar

Figure 3.3-1. Target menu bar

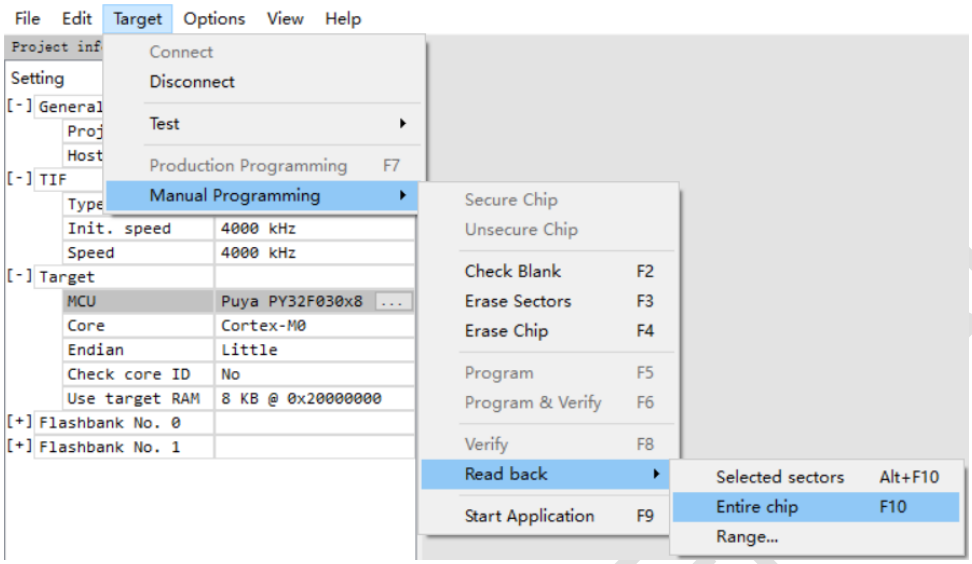


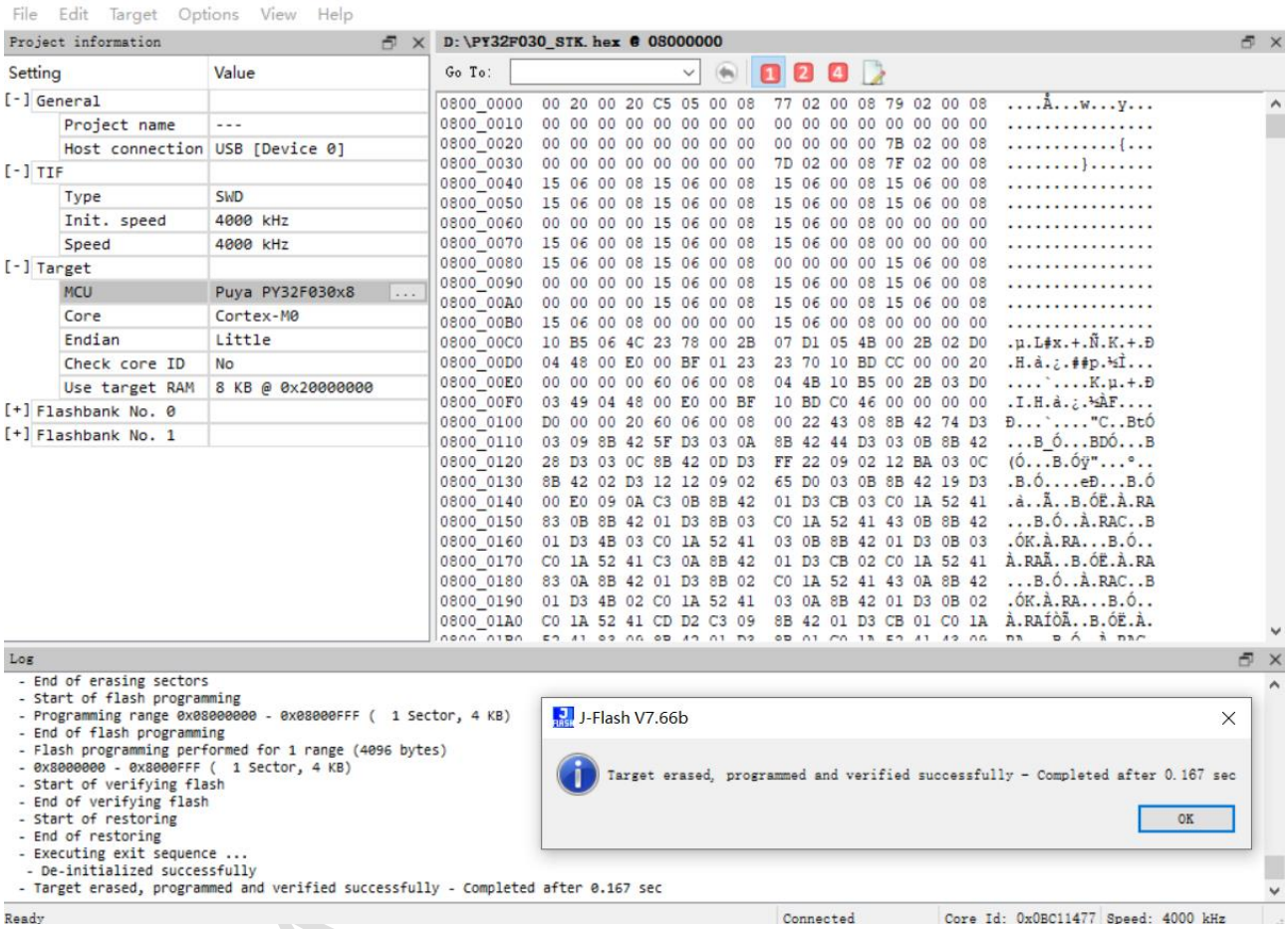
Table 3.3-1. Target menu bar terminology explanation

Name	Function
Connect	Connecting the target chip
Disconnect	Disconnection
Production Programming	Mass production programming (perform erase, program, and verify in sequence)
Check Blank	Chakung
Erase Sectors	Erase by sector
Erase Chip	Erase full film
Program	Programming
Program & Verify	Programming & Calibration
Verify	Calibration
Read back->Selected sectors	Read data from the selected sector
Read back->Entire chip	Read full slice data
Read back->Range...	Read data from the selected area
Start Application	Running applications

3.4 Main Flash Programming

- File menu bar Open data file...opens the compiled data file
- Click on Production Programming in the Target menu bar to start the Main Flash programming.
- A success message pops up when the programming is completed, and the log window displays the success message.

Figure 3.4-1. The success message box pops up when programming is completed, and the log window displays the success message.



3.5 Option Byte Programming

- Use PY32OptionBytesConfig software to configure the option and save it as a *.bin format file
- File menu bar Open data file...open the data file you just saved
- Click on Production Programming in the Target menu bar to start executing option byte programming
- A success message pops up when the programming is completed, and the log window displays the success message.

Figure 3.4-1. Using PY32OptionBytesConfig to configure option to be saved as a *.bin format file

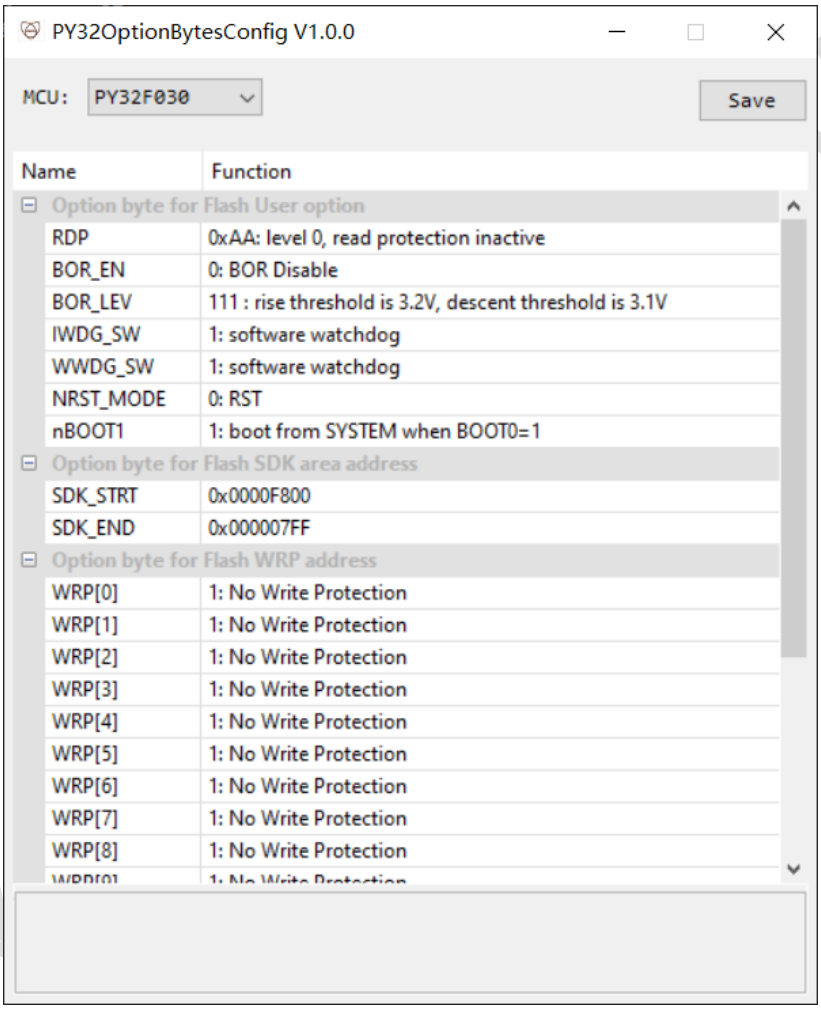
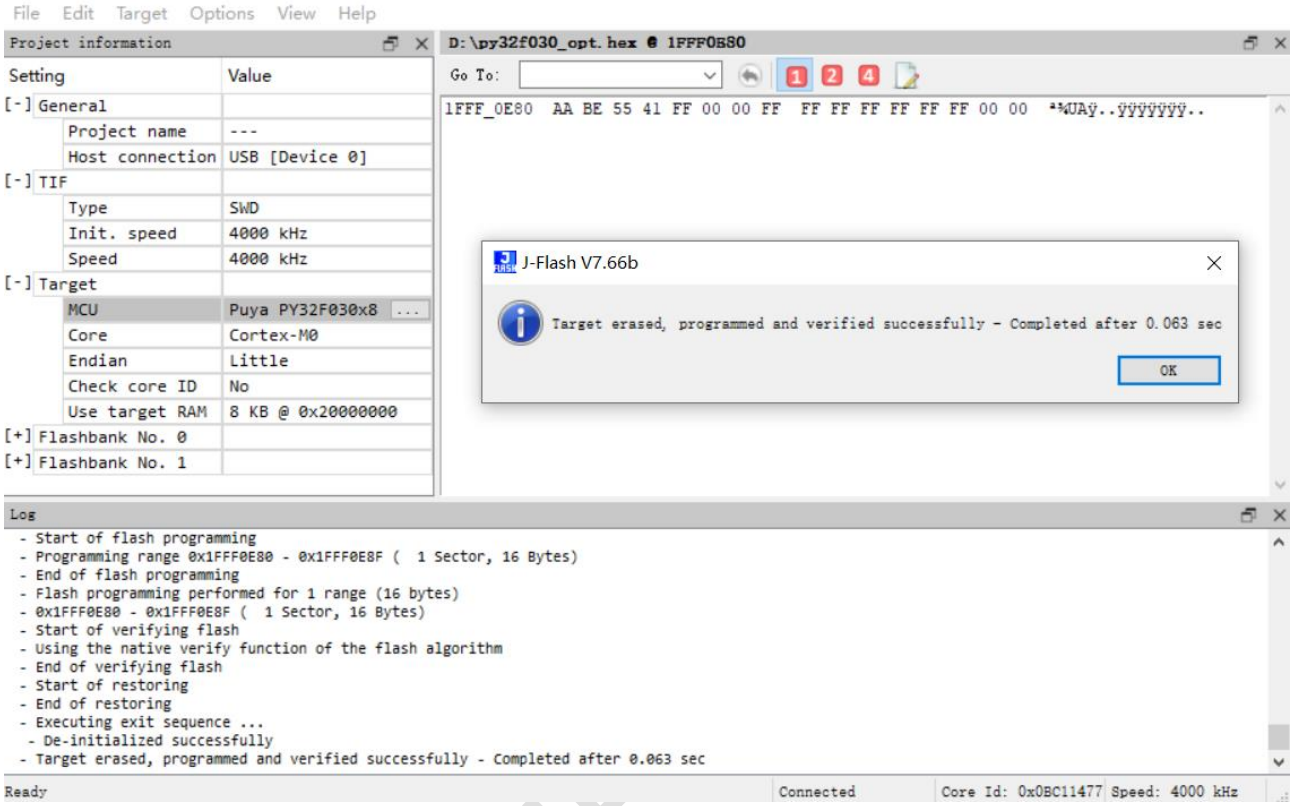


Figure 3.4-2. A success message pops up when programming is completed, and the log window displays the success message.



4 Version History

Versions	Date	Update Record
V1.0	2023.6.27	First Edition

Puya Semiconductor Co., Ltd.