INTRODUCTION

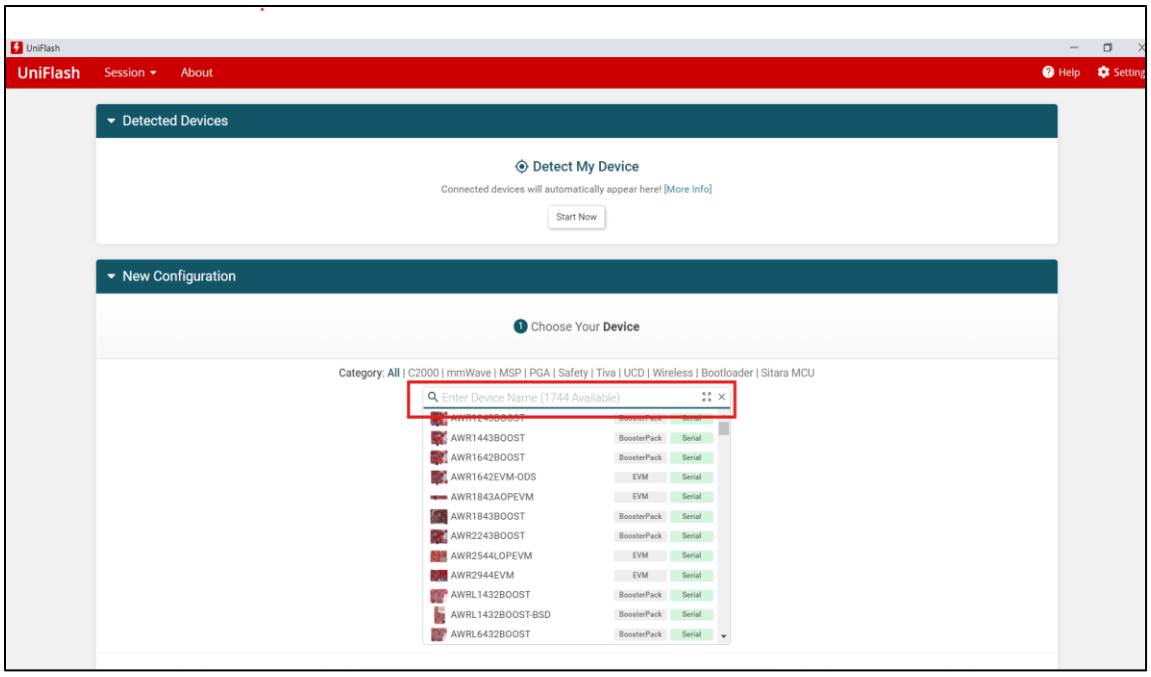
This document provides an overview of the software and tools required for programming the PCB card used in the propulsion system. The following tools are essential for utilizing the software effectively:

1. **Uni-Flash (latest version)**: A software programming tool by Texas Instruments (TI), available as freeware and downloadable from the internet. It must be installed on a Windows laptop.
2. **TMS320-XDS100-V3 Emulator**: A debugging emulator from Olimex featuring a mini-USB interface for connection to the laptop.
3. **14-Pin FRC Cable**: Used to connect the PCB card to the Olimex emulator.
4. **USB Cable**: A standard USB cable that connects the Olimex emulator's mini-USB interface to the laptop.

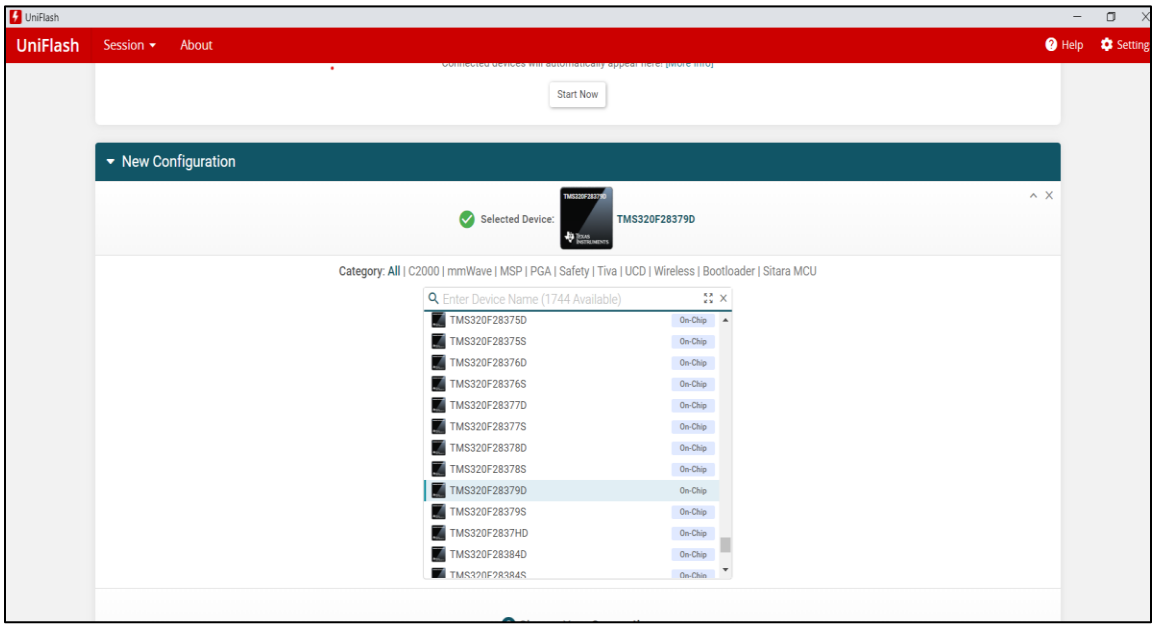
The following section outlines the procedure for using Uni-Flash for programming the PCB card.

PROCEDURE

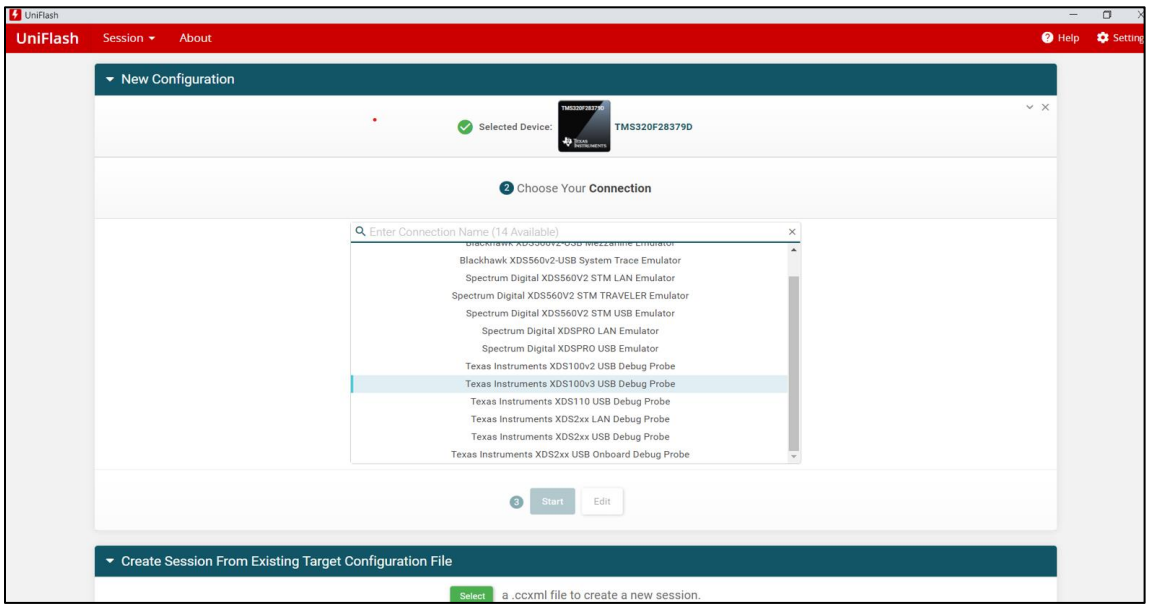
1. Launch the UniFlash tool on your laptop. Under "New Configuration," select the device that you wish to program.



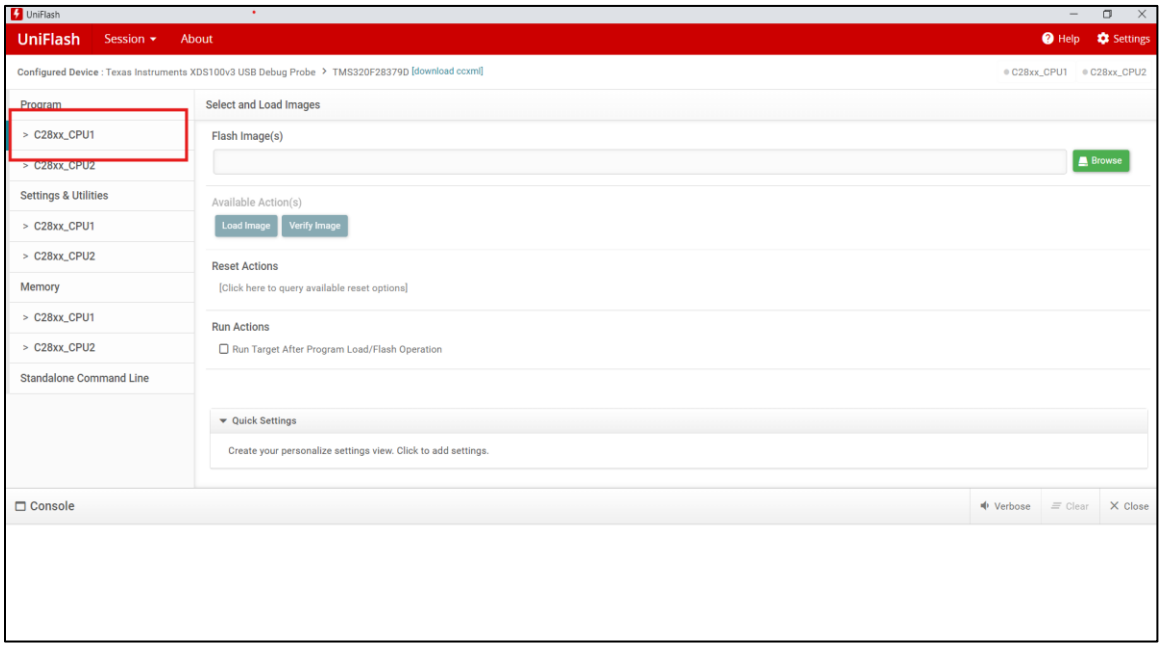
2. In the "New Configuration" panel, enter the name of the device to be programmed (e.g., TMS320F28379D, as shown in the screenshot).



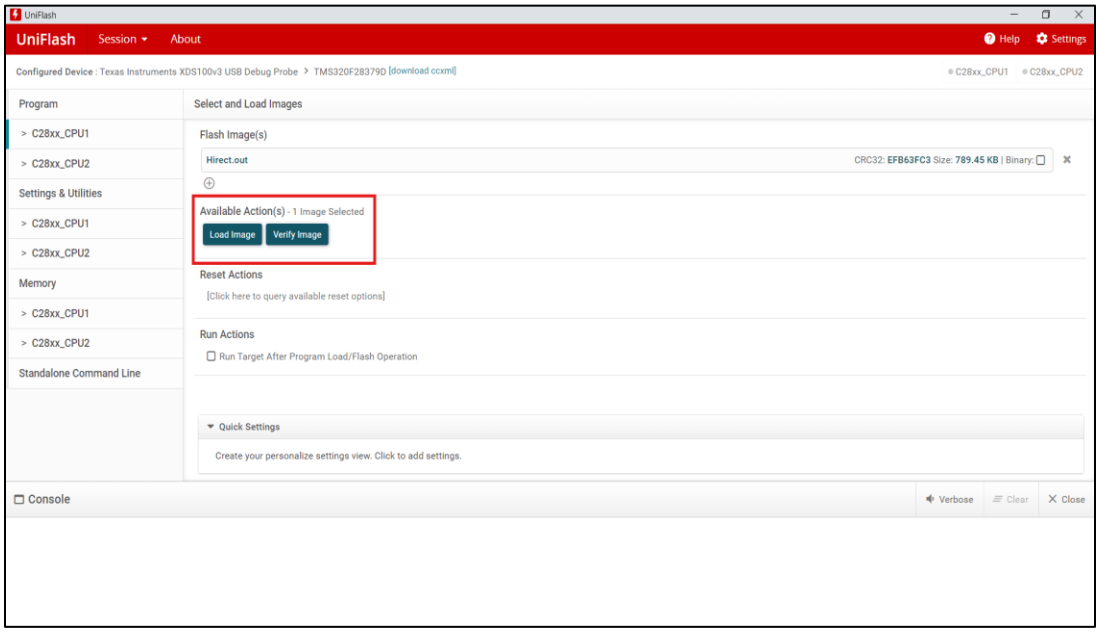
3. After selecting the device, choose the appropriate connection type (e.g., Texas Instruments XDS100v3 Debug Probe). Then, click on "Start" to select the file you wish to program onto the device.



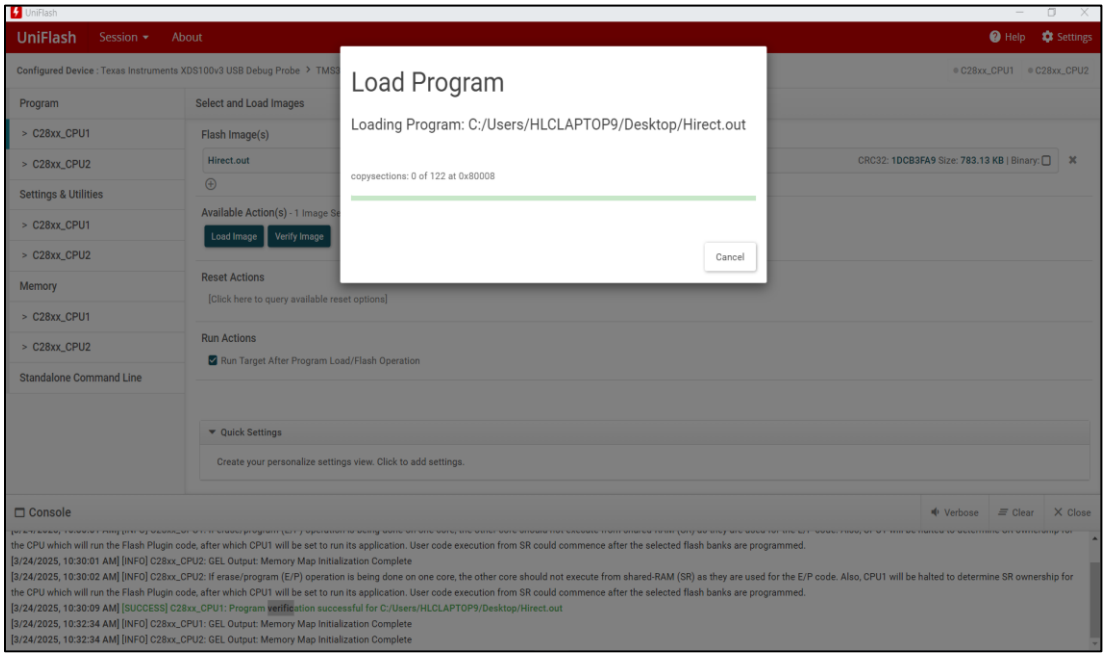
4. Click on the "Browse" option and select the .OUT file for programming. Ensure that you select the correct CPU to be programmed (CPU1 or CPU2). In this case, select CPU1.



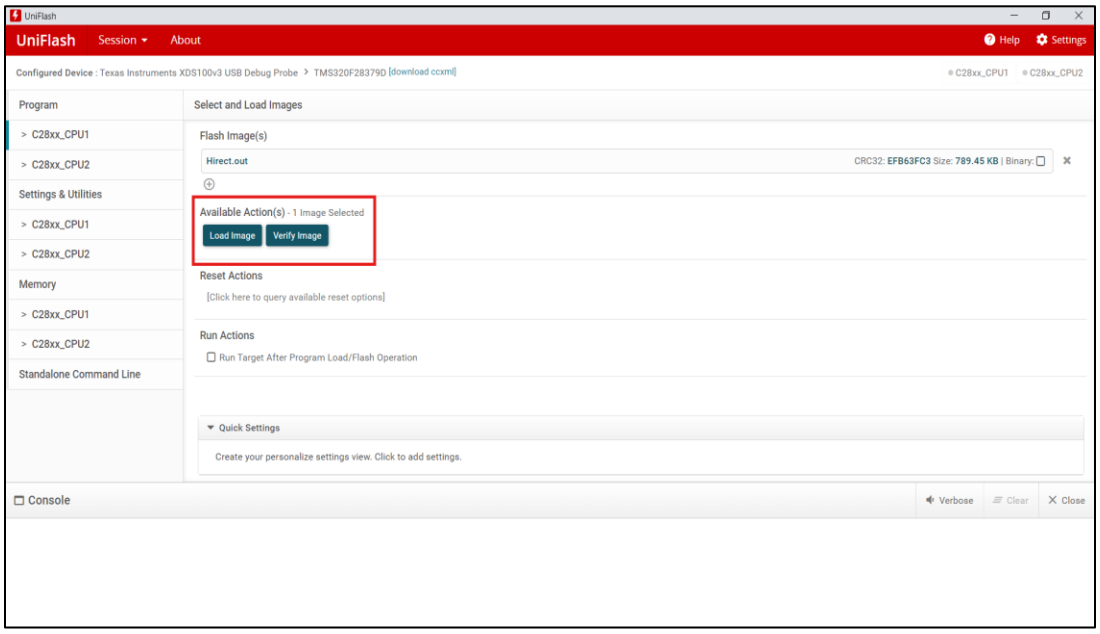
5. Once the file is selected, click on "Load Image" to begin loading the file onto the device.



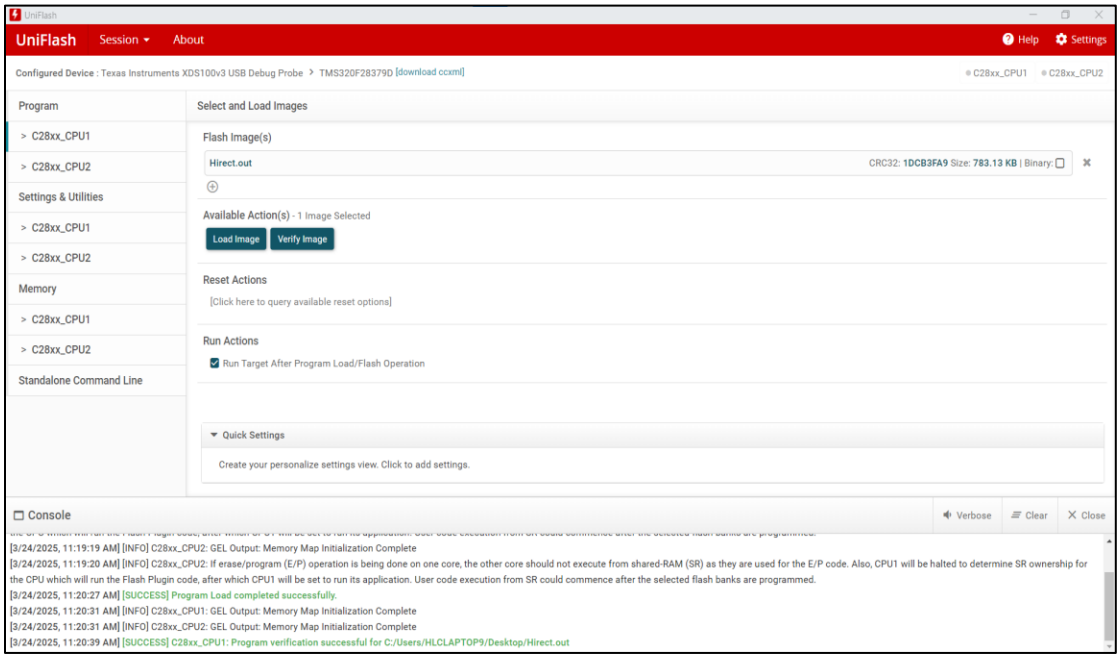
6. The program will begin loading onto the device, as shown in the following process.



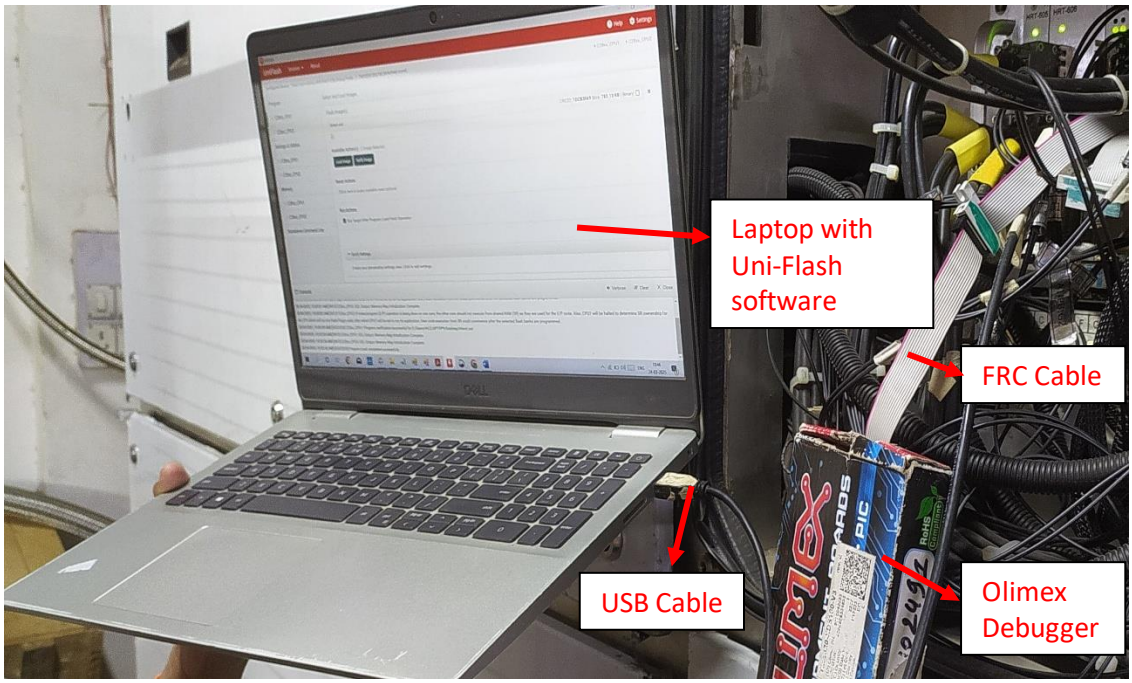
7. After the loading process is complete, click on "Verify Image" to ensure the program has been correctly written to the device.



8. Once the program has been successfully loaded, the console window will display the message: "Program load completed successfully."



9. After the program has been loaded, a power reset is required.



DEVICE USED ON PROCESSOR CARD

S. No.	Type Processor card	Device Used
1.	FLG Processor	TMS320F28379D
2.	SLG Processor	TMS320F28379D
3.	NSC processor	TMS320F28379D
4.	ASC processor	TMS320F28379D