

WriterM3_U1Plus

User Manual

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1. Introduction

WriterM3_U1Plus is AP of megawin's writers (U1Plus). The PC-Site AP corresponding to U1Plus supports megawin's CM3 series 32-bit MCUs. In addition to writing the entire flash area in On-Line mode, WriterM3_U1Plus can also write MCU H/W Options. Moreover, WriterM3_U1Plus provides Off-Line mode functions as well. This AP can also generate MPJ generation tools for customers.



megawin's writers (U1Plus-D or U1Plus)

If only user connect U1Plus-D and DUT's board through J9 connector(ICP Interface), U1Plus-D can program DUT on board.

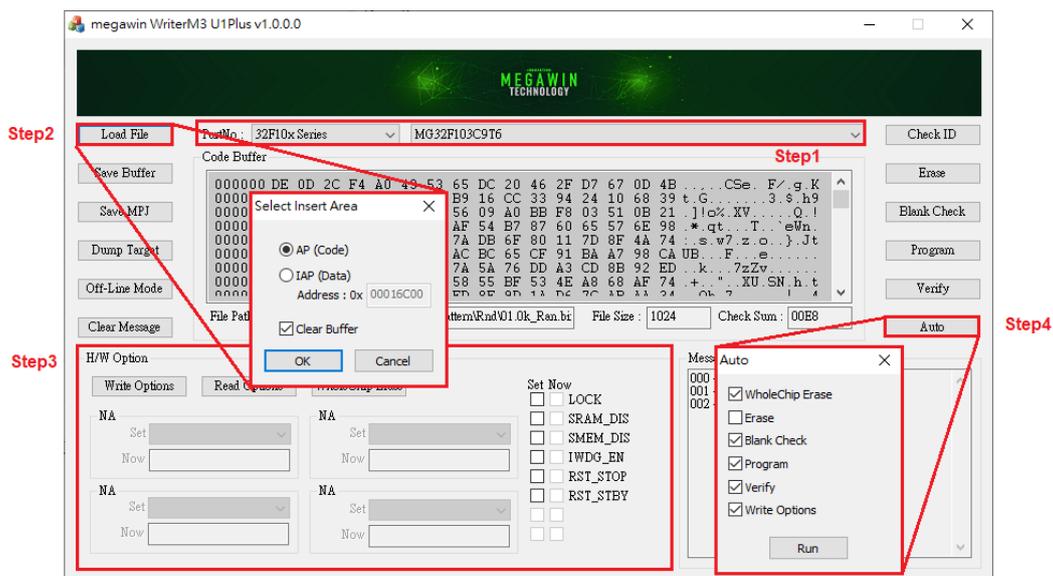
2. On-Line Mode Update

Step 1. Select Part No

Select a MCU Part No to be updated. If it is found to be incorrect, ID fail will be raised. After selecting a different Part No, the Code Buffer will be cleared automatically.

Step 2. Load File

Load Bin or Hex file to buffer, after clicking “OK”, users need to choose whether to place it in the AP area (read into the buffer at 0x00) or IAP (users can define any location to read into the buffer). Clicking “OK” to see update results in Code Buffer. Users can Load File repeatedly and overlay files on each other. If users execute Load File repeatedly, the overlapping file will be overwritten by the last file read. If there is a blank between the read position of the previous and last files, 0xFF will be filled in. Check “Clear Buffer” in the “Select Insert Area” dialog. After clicking “OK”, all the Code Buffer will be cleared and then read into the File.



Step 3. H/W Options

Customers can set OR setting by themselves. For the description of the setting value, please refer to the “User Guide: 8. Hardware Option”.

Step 4. Auto

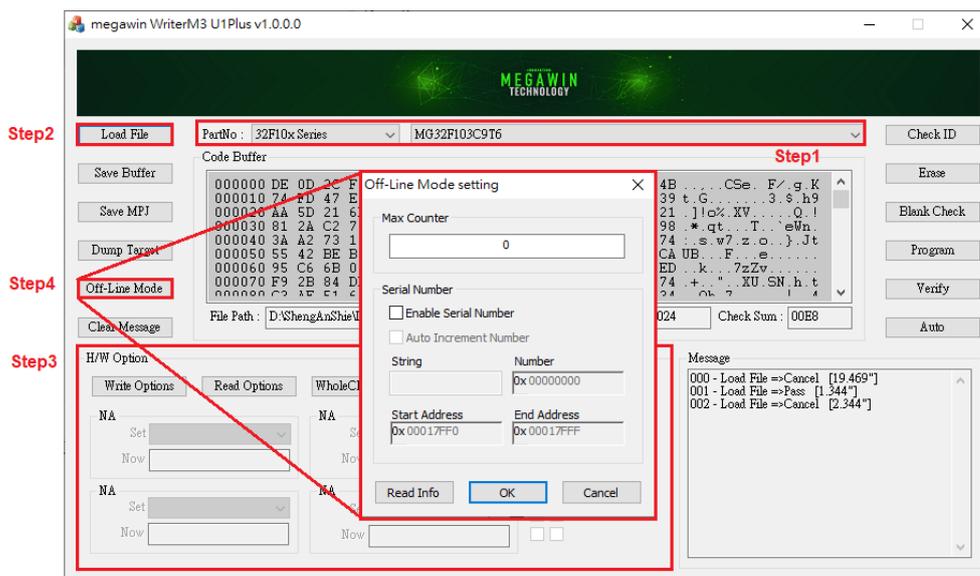
Click “Auto” to set execution options. The preset execution options are: “WholeChip Erase”, “Blank Check”, “Program”, “Verify”, and “Write Options.” Users can modify the execution options by themselves.

3. Off-Line Mode Update

Step 1. [Select Part No](#)

Step 2. [Load File](#)

Step 3. [H/W Options](#)



Step 4. Off-Line Mode

Click “Off-Line Mode” to download setting (flash & H/W options setting) to U1Plus H/W. Furthermore, users can also set Max Counter and Serial Number. Max Counter can control the number of times that U1Plus can perform off-line programming. Its default value is 0 (meaning unlimited). After Serial Number Enable, 12 strings and 8 numbers can be set and be placed in any position of the Code Buffer. The Serial Number function can even be implemented by Auto Increment Number. Click “Read Info” to read the current Off-Line setting in U1Plus H/W.

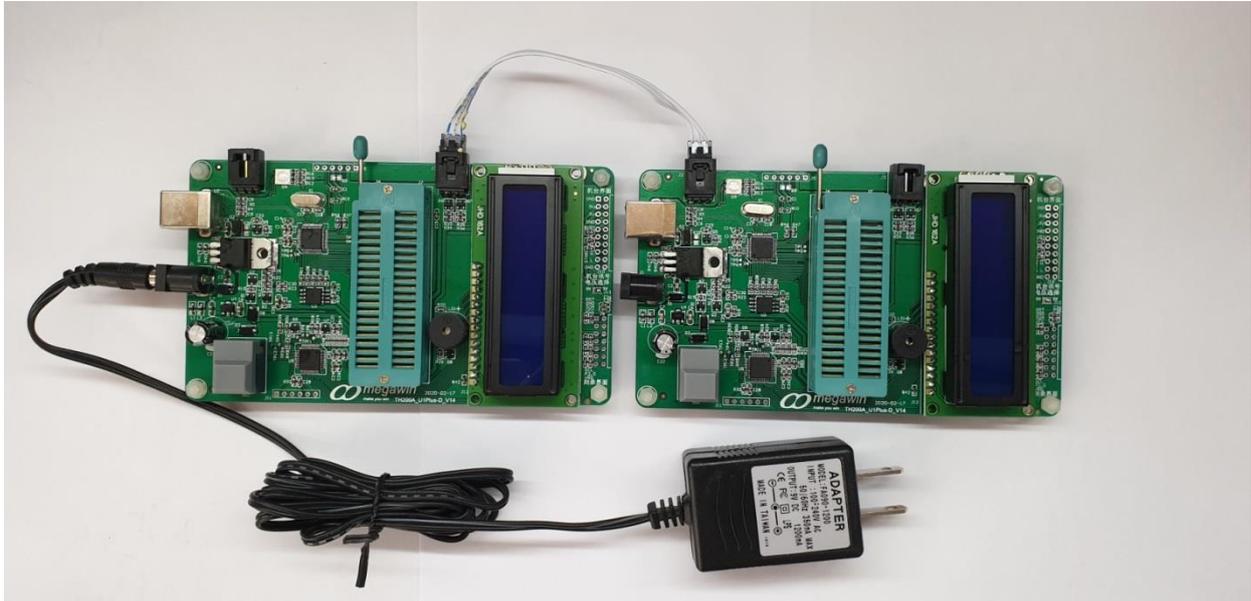
Step 5. Setup another U1Plus-D

Plug out the writer from PC, repeat “Off-line Mode Update” for another U1Plus-D. User connect the two writers as shown on the following figure. Press the RUN button to process the Off-line Copying operation, and then the LEDs will indicate the programming status:

Blue - the DUT is under programming.

Green - the operation is completed and passed.

Red - the operation is failed.



4. PS Tester signal interface

GND: Ground.

5V: source 5V power.

3V: source 3V power.

GND: Ground.

BUSY: the DUT is under programming, normal High, active Low.

OK: the operation is completed and passed, normal high, active Low 100ms pulse.

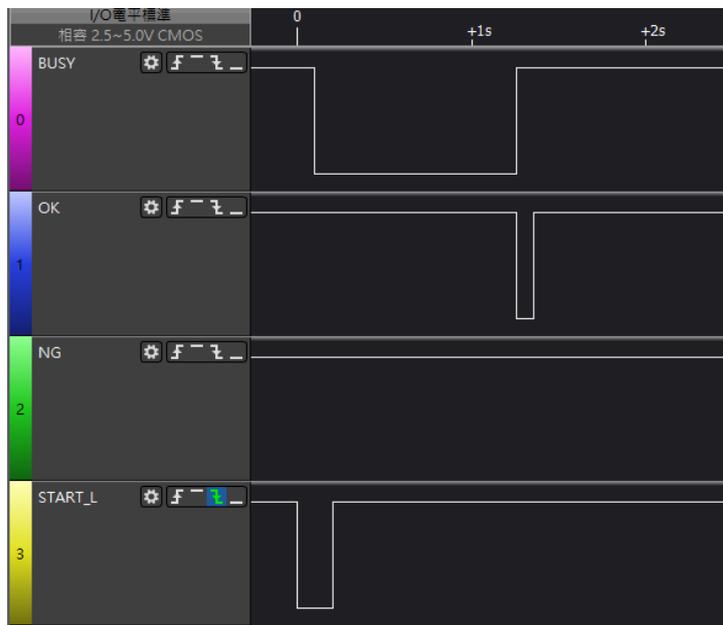
NG: the operation is failed, active Low.

Start_H: Tester triggers Run Button, active high and de-bounce 100ms..

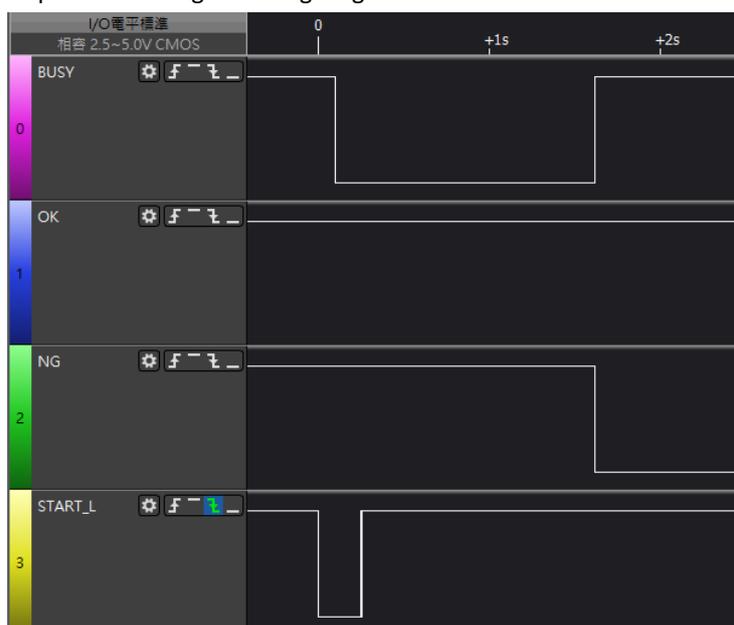
Start_L: Tester triggers Run Button, active low and de-bounce 100ms.

GND: Ground.

U1plus-D is successful signal timing diagram for tester interface as below:



U1plus-D is fail signal timing diagram for tester interface as below:



5. Function Button

Save Buffer

Click “Save Buffer” can save data in BIN file from Code Buffer.

Save MPJ

Click “Save MPJ” can save MPJ file. The MPJ file records the contents of the Code Buffer and the current setting of the H/W Option. Users can read the MPJ file through “Load File” and read back all settings. The MPJ file is also necessary information provided by users before megawin burns codes for customers. After users generate the MPJ file that needs to be burned, the AP will also generate an “MPJ Request Form” as a confirmation between megawin and users.

Dump Target

Click “Dump Target” to load flash data from MCU.

Check ID

Click “Check ID” to confirm if MCU ID is the same as PartNo.

Erase

Click “Erase” to erase all flash from MCU.

Blank Check

Click “Blank Check” to check flash is 0xFF from MCU.

Program

Click “Program” to download Code Buffer data to MCU flash.

Verify

Click “Verify” to check whether Code Buffer data is consistent with MCU flash.

Write Options

Click “Write Options” to write H/W Options to MCU.

Read Options

Click “Read Options” to read H/W Options from MCU.

WholeChip Erase

Click “WholeChip Erase” to erase flash and H/W Options. This function can unlock ID Lock.

Clear

Click “Clear” button to clear all information in Message.

6. Other

Language

Click Logo in the upper left corner of the UI to select the language from “Language.”

Check new AP

By clicking Logo in the upper left corner of the UI, users can open the interface from “Update WriterM3 U1Plus” Or they may click “Check” to check if there is a new version on the official website. If there is a new version, users can directly click “Download” to download.

Check “Show update message when start”, users can set to automatically detect if there is a new version when the AP start on.

7. Revision History

Revision	Description	Date
v1.0.0.0	Initial version	2022/12/14
v1.1.0.1	Add MG32F157 series Add option "WR_PROT" for MG32F10x series	2023/08/15
v1.1.0.2	1. U1Plus-D doesn't pull low RST pin when programming DUT 2. H/W Options error for 10x series	2023/08/16
v1.2.0.0	1. Add MG32F157RCT7 、 MG32F157VCT7 、 MG32F157CCT7 、 MG32F157CCU7 2. off DPI aware 3. set Tahoma(8) for all Dialog font 4. modify banner for AP	2024/01/05