

# Writer8\_U1Plus

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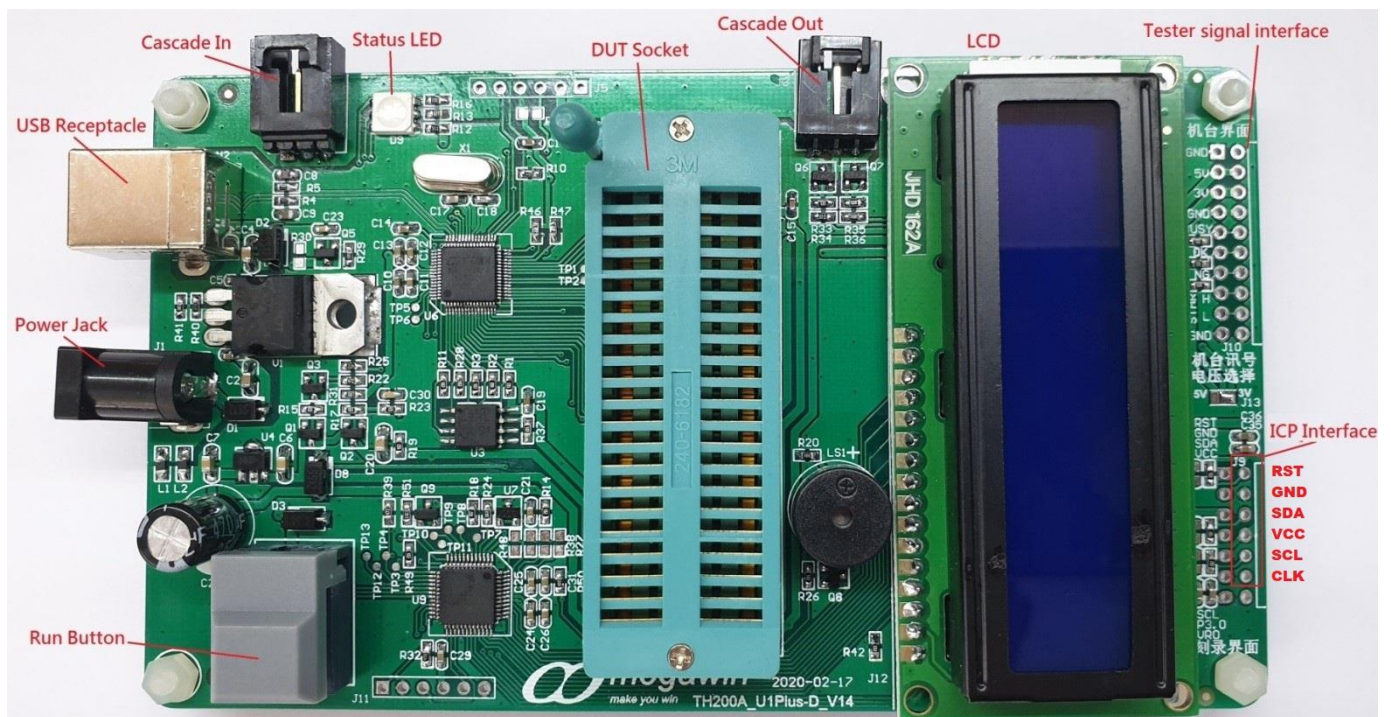
## User Manual

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## 1. Introduction

Writer8\_U1Plus is AP of megawin's writers(U1Plus). The PC-Site AP corresponding to U1Plus supports megawin's 8051 series 8-bit MCUs. In addition to writing the entire flash area in On-Line mode, Writer8\_U1Plus can also write MCU H/W Options. Moreover, Writer8\_U1Plus provides megawin's standard ISP code and Off-Line mode functions as well. This AP can also generate MPJ generation tools for customers.



**megawin's writers (U1Plus-D or U1Plus)**

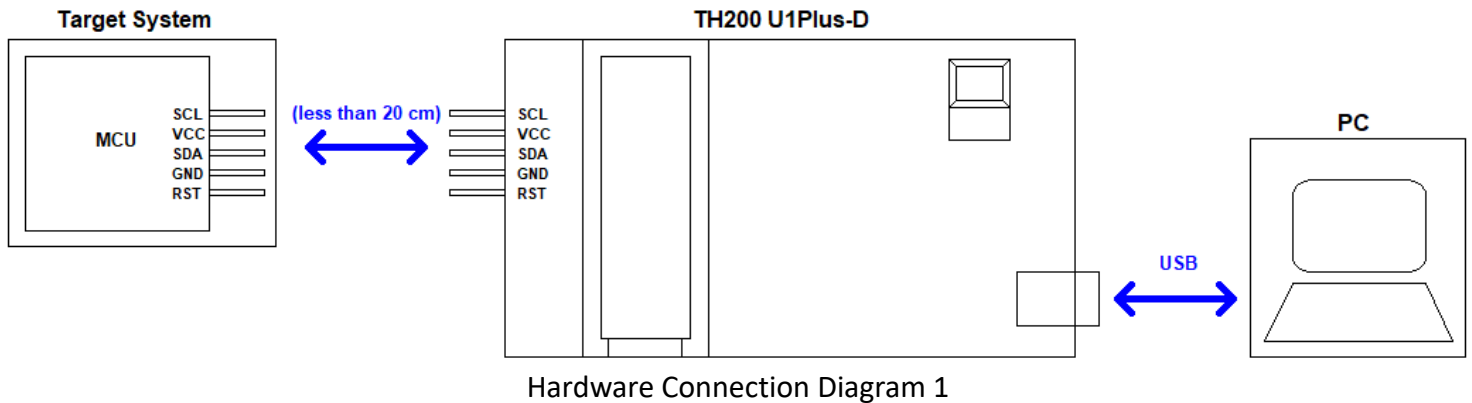
If only user connect U1Plus-D and DUT's board through J9 connector(ICP Interface), U1Plus-D can program DUT on board.

## 2. Hardware Setup

J9 of U1Plus-D contains the same ICP interface as M-Link, with 6 signals: RST, GND, SDA, VCC, SCL, and P30.

VR0 in the J9 is reserved for Pre-programming house, general users do not need to use it.

General users need to use 5 pins: RST, GND, SDA, VCC, and SCL.



The following models require 6 pins: RST, GND, SDA, VCC, SCL, and P30.

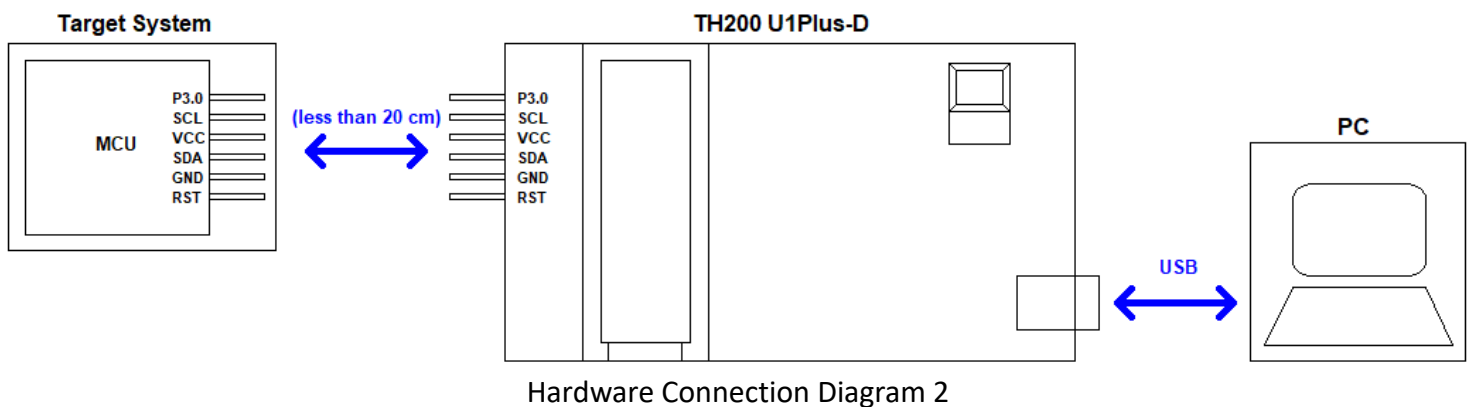
MG87E(L)51/MG87E(L)52

MG87E(L)2051/4051/6051

MG82FE(L)308/316

MG82FE(L)532/564

Please connect according to the image below.



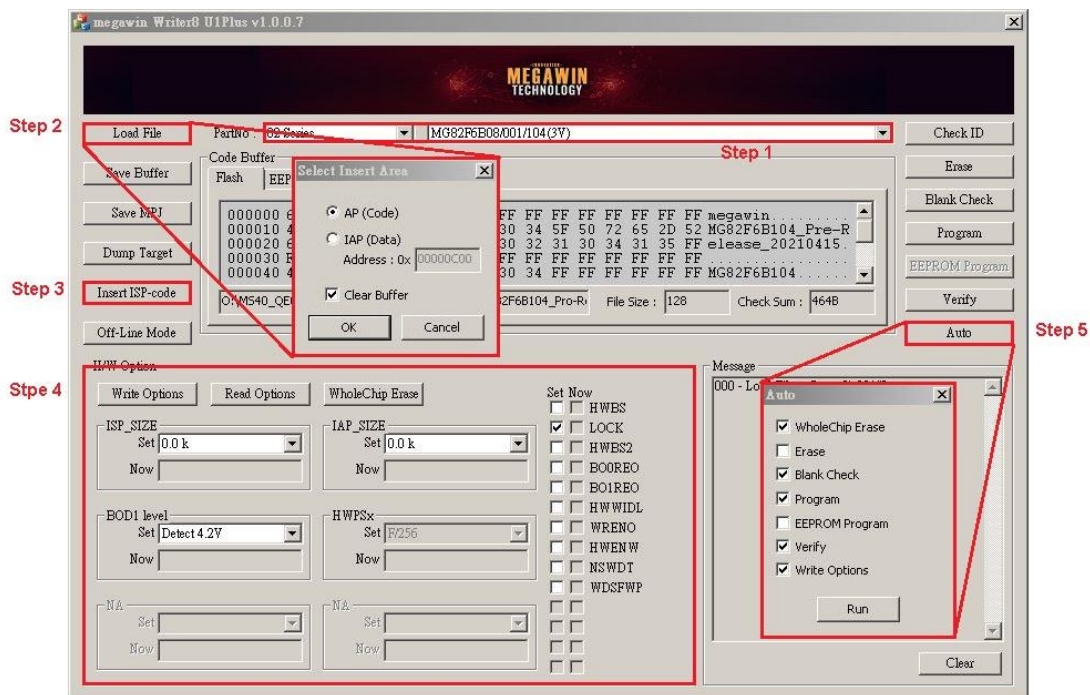
### 3. On-Line Mode Update

#### 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. Insert ISP-code

If users need to use ISP function, please click “Insert ISP-code” to insert megawin's standard ISP code, or choose their own developed ISP code. After clicking “OK”, the AP will automatically place the ISP code in the address corresponding to the Code Buffer and set the necessary H/W Options setting concurrently.

**Step 4. 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 5. 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.

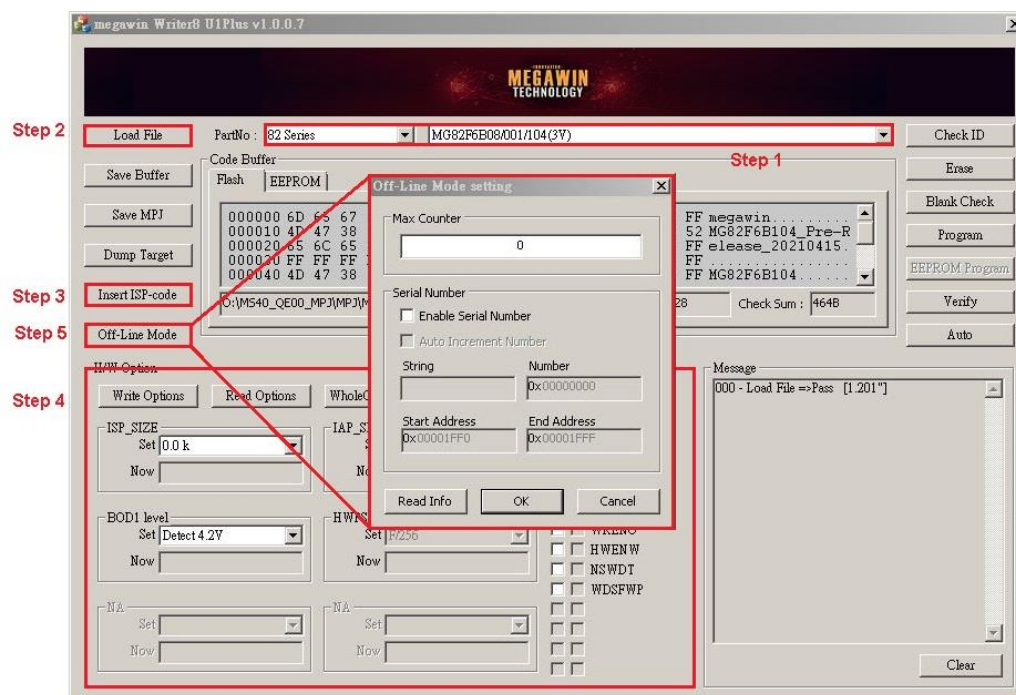
## 4. Off-Line Mode Update

Step 1. [Select Part No](#)

Step 2. [Load File](#)

Step 3. [Insert ISP-code](#)

Step 4. [H/W Options](#)



### Step 5. 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.

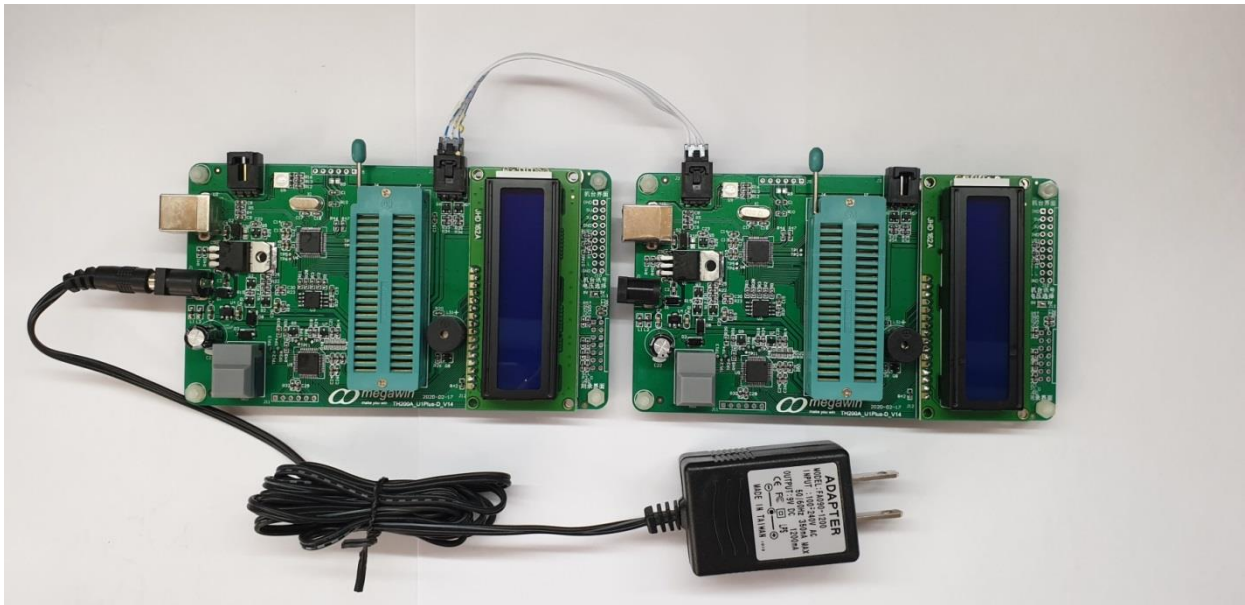
### Step 6. Setup another U1Plus-D

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.



### 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.

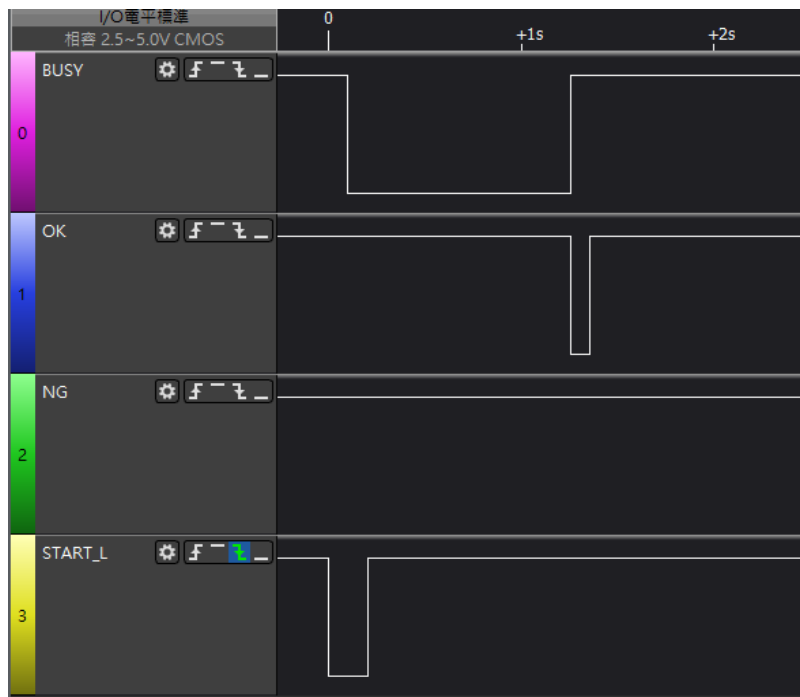
NG: the operation is failed, active Low.

Start\_H: Tester triggers Run Button, active high and de-bounce 100ms..

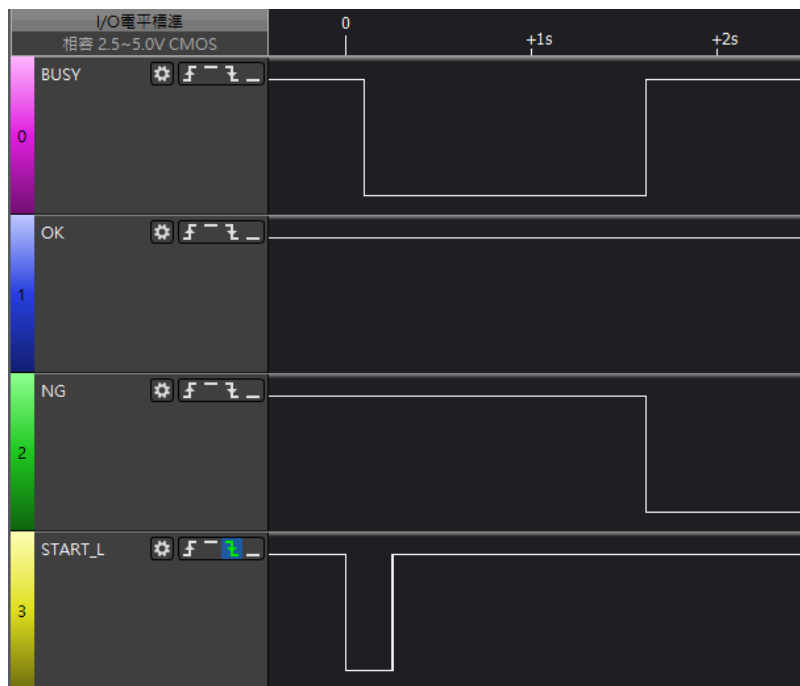
Start\_L: Tester triggers Run Button, active low and de-bounce 100ms.

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**

### **4.1. Save Buffer**

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

### **4.2. 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.

### **4.3. Dump Target**

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

### **4.4. Check ID**

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

### **4.5. Erase**

Click “Erase” to erase all flash from MCU.

### **4.6. Blank Check**

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

### **4.7. Program**

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

### **4.8. Verify**

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

### **4.9. Write Options**

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

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#### **4.10. Read Options**

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

#### **4.11. WholeChip Erase**

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

#### **4.12. Clear**

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

## 6. Other

### 5.1. Language

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

### 5.2. Check new AP

By clicking Logo in the upper left corner of the UI, users can open the interface from “Update Writer8 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
v1.0.0.7	Initial version	2021/04/16
v1.1.0.0	Support 89Series/82L(E)52/82L(E)54/82G516 Support 82FL(E)532/82FL(E)564/5A32/5A64/84FG516 Support 5B08/5B16/5B24/5B32/5C32/5C64/5D16/5E32 Support 6D16/6D17/6D32/6D64	2022/02/16
v1.2.0.0	Support MG82F5Bxx Support MG82F6B08/001/104	2022/05/30
v1.2.0.1	Debug : Fix MG87FL(E)51/52 Erase fail	2022/07/26
v1.2.0.2	Update MG82F6B08/001/104 ISP	2023/02/23
v1.3.0.0	Debug : MG82FG5Bxx, MA82F5Bxx info	2023/06/19
v1.4.0.0	Add MGEQ1C064	2023/08/21
v1.4.0.1	Update FW v0.23 Update show file path error when multi load	2023/09/26
v1.5.0.0	Add MG82F6P32 Update FW v0.13, SubFW v1.04 off DPI aware set Tahoma(8) for all Dialog font modify banner for AP	2024/01/16
v1.5.0.4	Add "Enable Modify Buffer" Add "Auto Reload" Add "Load Last Path" Add load "Last PartNo" Add check oversize when insert ISP Modify "tools_version.ini" web addr and parameter Rename version name (China & Universal)	2024/07/29
v1.5.0.5	Can SaveMPJ and Offline when Dump debug: Can't switch OR setting when Load Last PartNo	2024/08/21
v1.5.0.6	Debug: Can't switch OR setting when load MPJ	2024/08/23
v1.5.0.8	debug: Check tools.ini error Typo fix (蕊->芯) debug: buffer is empty when load MPJ Off-line info init	2024/09/13
v1.5.0.9	Modify MG82FG5Bxx OR	2025/02/18
v1.5.0.10	1. Modify Hex2Bin function	2025/04/15

	2. Move TrimFrequency before WriteOR	
v1.5.0.11	Add SAVE_CHK option & Read Checksum button for MG82F6D17/MG82F6P32	2025/06/23
v1.5.0.12	Add SAVE_CHK option & Read Checksum button for MG82FG5Bxx/MG82FG5Cxx/MG82F6Dxx/MGEQ1C064/MG82F6Bxx	2025/06/30
v1.5.0.13	Modify the checksum storage location	2025/07/02
v1.5.0.14	Add "Chip Checksum" Add "Fill unused bytes"	2025/09/23
v1.5.0.15	Update FW v0.15.0.3 (Trim, OR bug) Support SC for options tip	2025/11/03
v1.5.0.16	Add " <a href="#">Hardware Setup</a> " Update FW v0.15.0.4	2025/12/24
v1.5.0.17	Debug : off-line error	2026/01/05
v1.5.0.18	Modify Options-HWPS definition in MG82FG5Cxx	2026/02/04