SigmaStar
USB Factory Tool User Guide

Version 0.1

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REVISION HISTORY

Revision No.	Description	Date
0.1	• Initial release	10/11/2023

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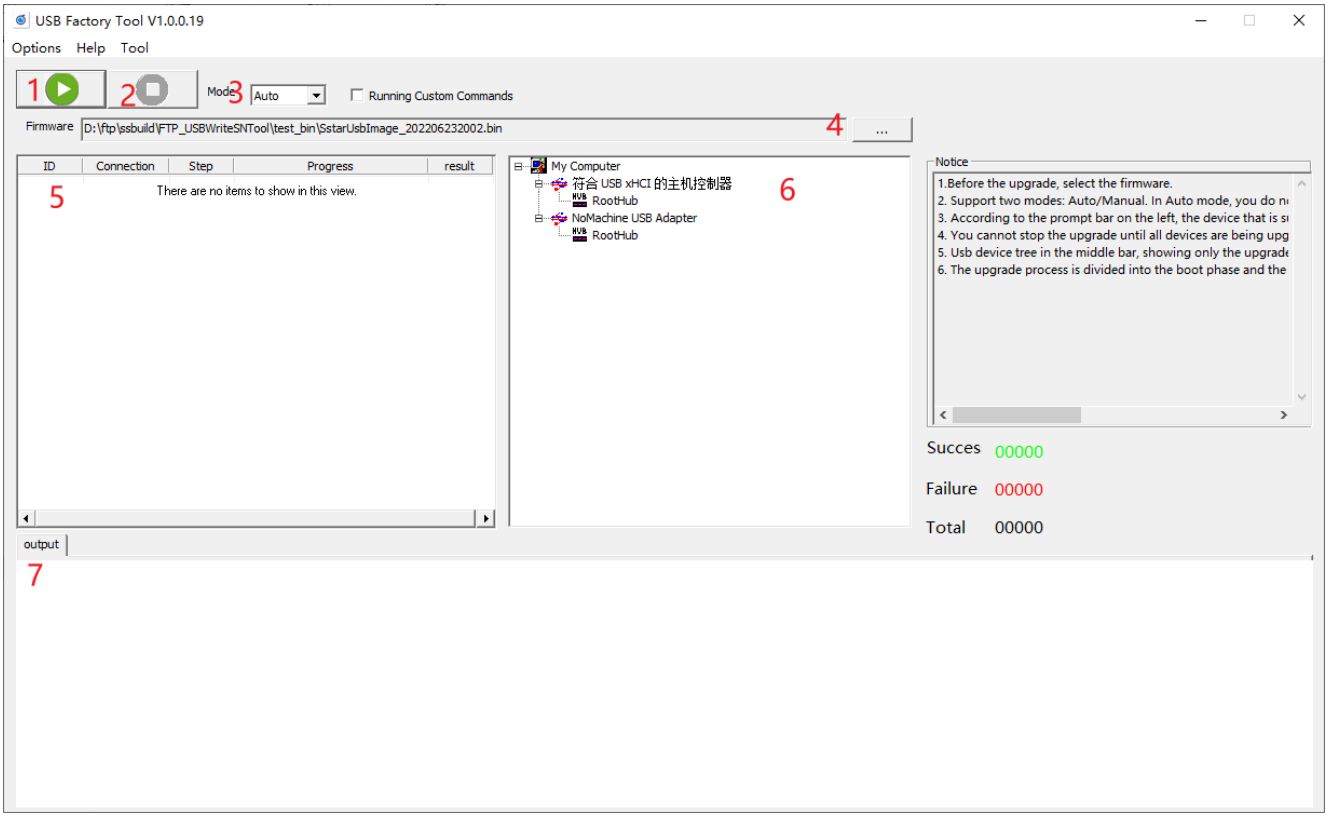
1. USB UPGRADE

USB Factory Tool Interface



1. Start.
2. End. Click to end. It will wait for all upgrades to be completed, and those that have not yet started will not be upgraded.
3. Mode
   Auto: Auto mode, device will be upgraded if there is any;
   Manual: Manual upgrade. Select the device to be upgraded from Number 6, the upgrade will end automatically if successful.
4. Select bin file.
5. Shows upgrade success or failure.
6. USB Tree, only the device of SigmaStar will be shown.
7. Output log.
8. Running Custom Commands
9. Option
   saveLog: Save the log in the application directory.
   writes: Write SN.

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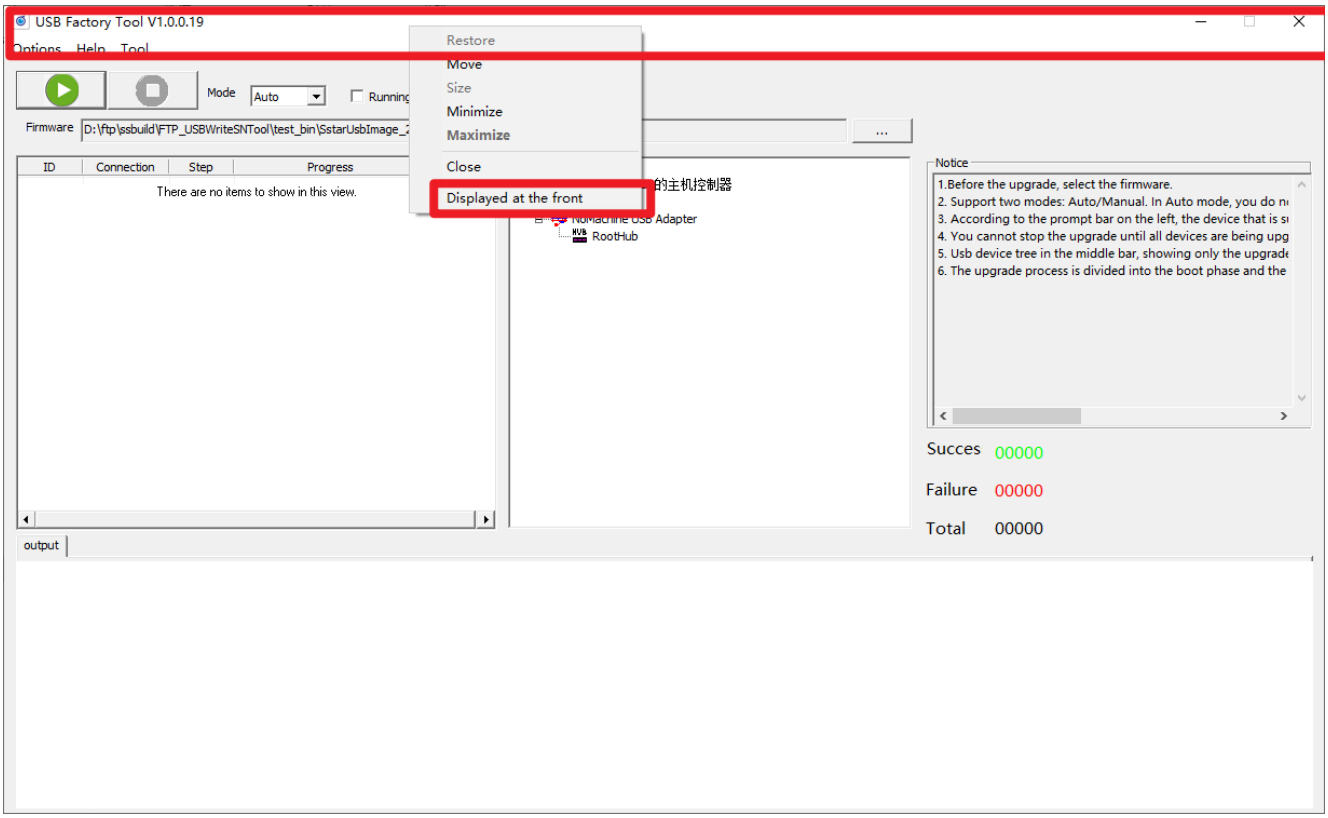
UVCMode: Enable UVCMode so that UVC can be identified.

10. Help

    View Help: View help.

11. Update History: Update history

System Menu:



1. Right-click area to access system menu.
2. Show on top: If you want the application to always be displayed at the front, select this option.

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2. UVC MODE

1. Click Options and then select UVCMode
   Since ordinary USB upgrade is different from UVC USB upgrade, do not mix them together.

2. Follow the same steps as ordinary USB upgrade.

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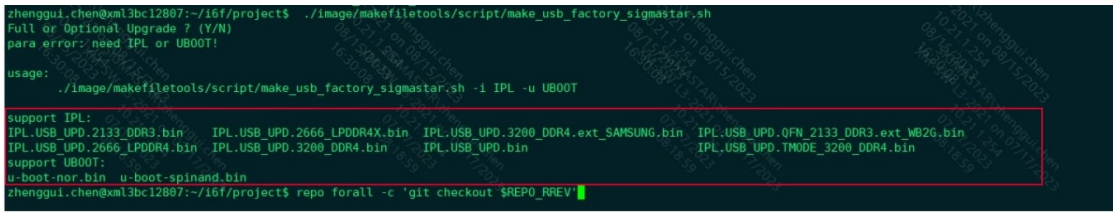
3. BIN FILE GENERATION

1. First, compile and generate the image normally, and then make image -j32 under the project directory.
2. Run ./image/makefiletools/script/make_usb_factory_sigmastar.sh -i IPL -u UBOOT under the project directory.

   This script is taken from the bin from project/board/i6f/boot/usb/upgrade, in which IPL and TF-A will be released, but uboot will not be released automatically. If there is no need to manually compile and copy to this directory, you can just run ./image/makefiletools/script/make_usb_factory_sigmastar.sh

   "usage" will show the bin that already exists in the directory.



3. Based on the method set out in Step 2, start running the script. You will have to manually select "Full or Optional Upgrade?" If you enter Y or press Enter, it will mean that all es in auto_update.txt have to be upgraded. The corresponding bin generated is shown below:

If you enter N, you will need to manually enter and select the corresponding es. These es are obtained by parsing auto_update.txt. After everything is completed, the corresponding bin will be generated.

After the operation is over, there will be a corresponding log. Select SstarUsbImage_xxxx.bin which has been generated in the upgrade tool to start upgrading.

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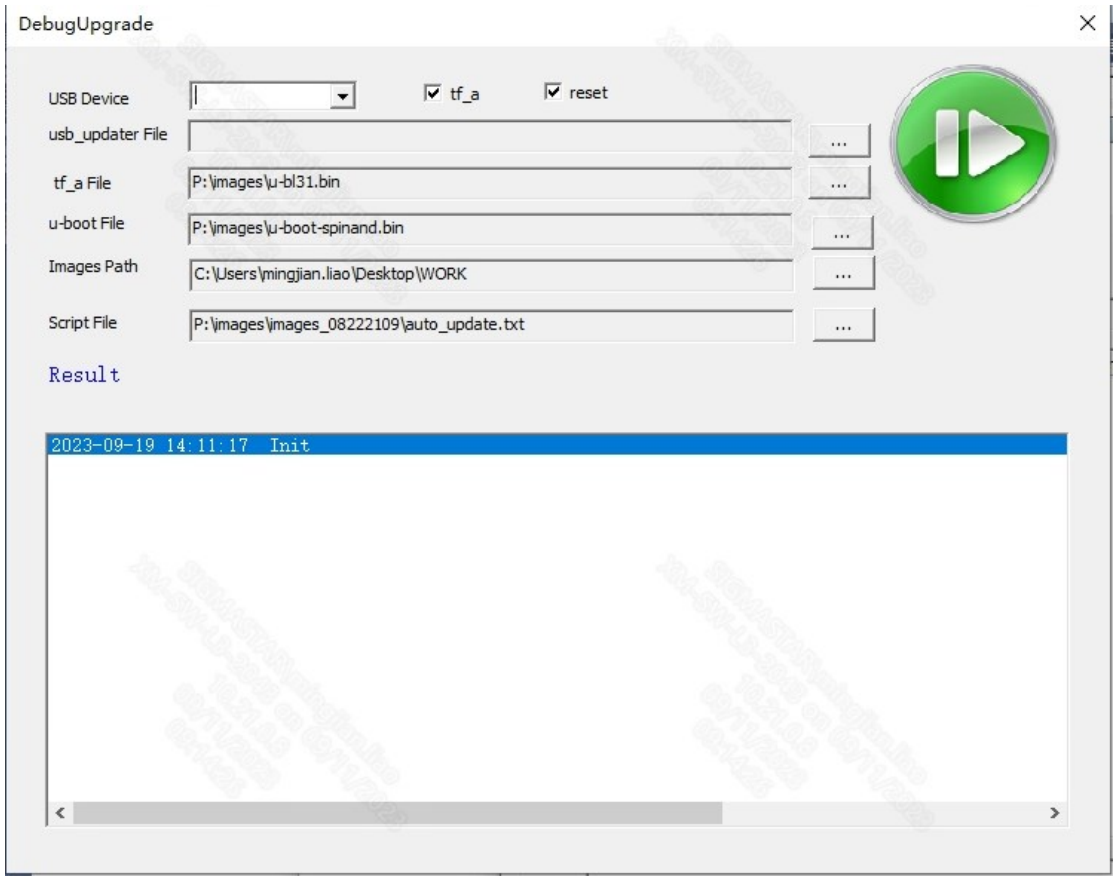
4. DEBUG UPGRADE BY SCRIPT

4.1. The Main Interface of Debug Upgrade

The main function of this interface: to facilitate tuning without the need to pack images.



1. USB Device: USB port.
2. usb_updater file: The IPL files you will need when performing empty-chip upgrading.
3. u-boot file: The u-boot you will need when performing empty upgrading.
4. images path: The root directory of image package.
5. script file: The script for upgrading.
6. Result: Upgrading result.
7. Upgrading log.
8. Reset: Whether the device should be reset after upgrading succeeds.
9. tf_a: Click if necessary.
10. tf_a File: the path to the tf_a document.

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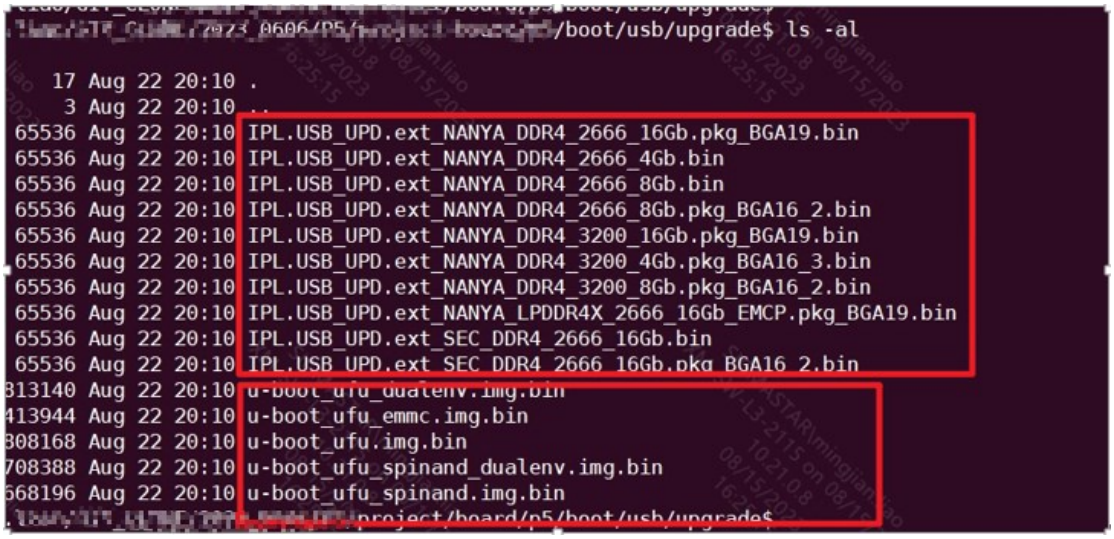
4.2. Empty USB Upgrading

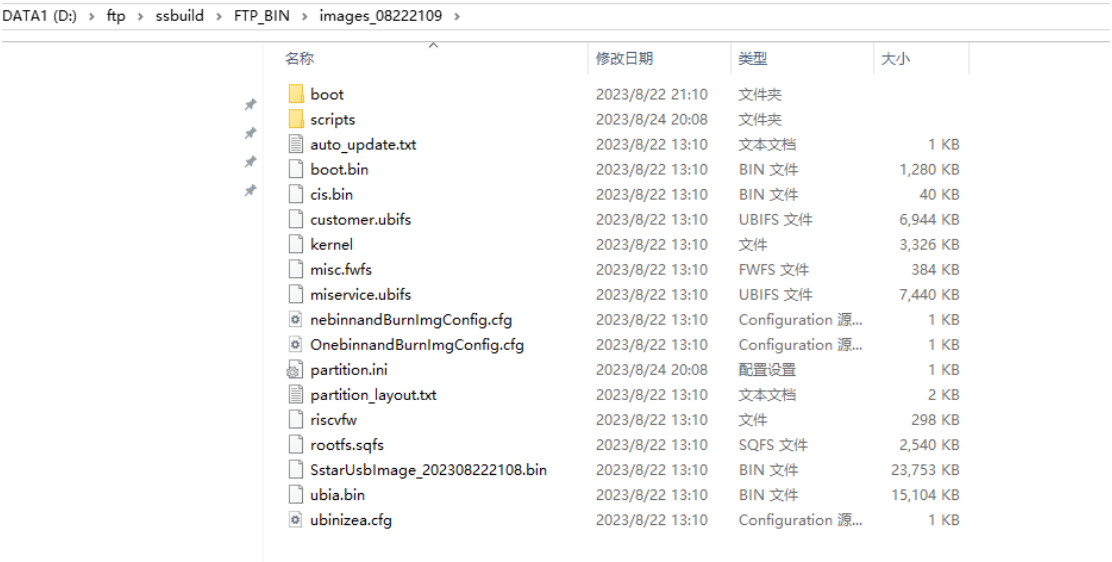
usb_updater file and u-boot file must be selected. They can be obtained as the following figure shows.

To use the spinand of OPERA series chips, for instance, select the ipl and uboot of your board.



4.3. USB Script Upgrading

Images path and script file must be selected, as the following figure shows.



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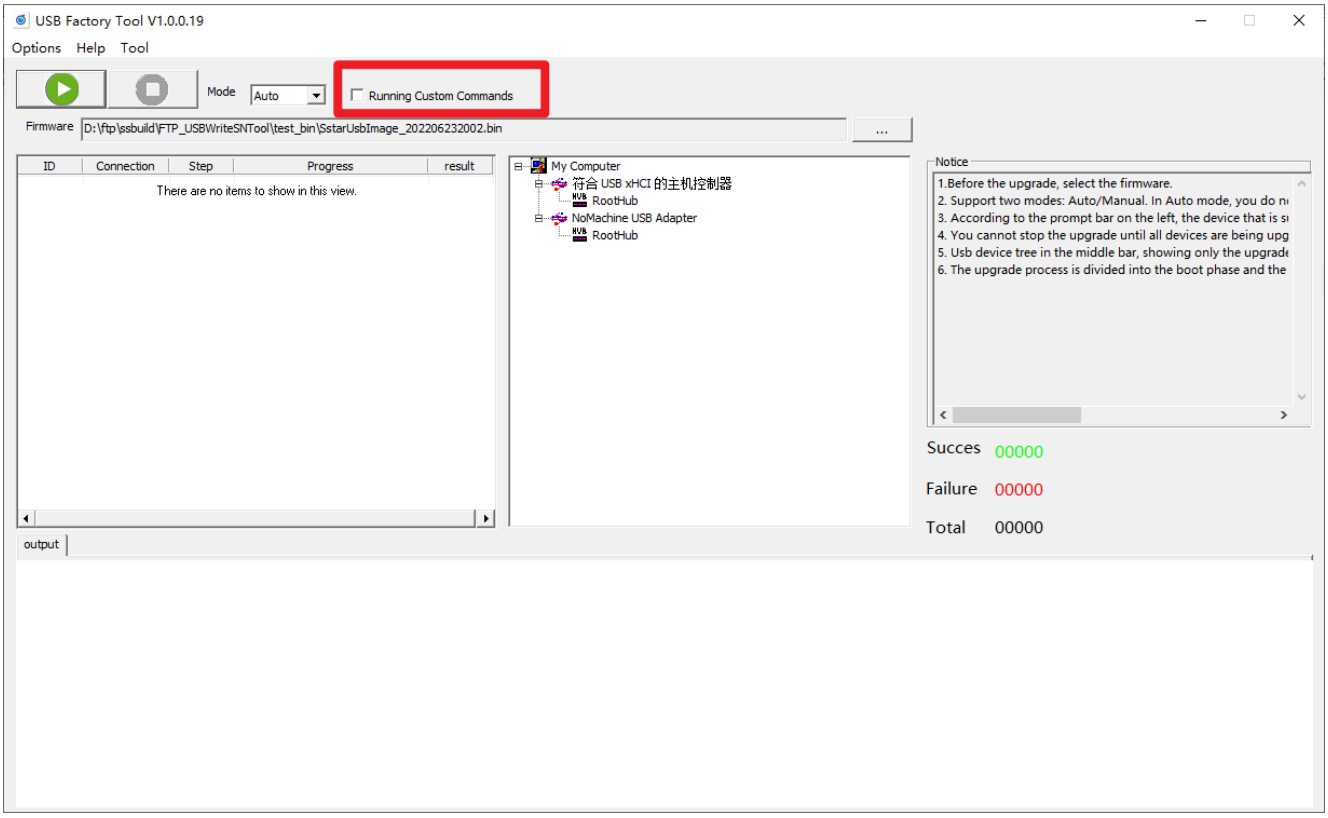
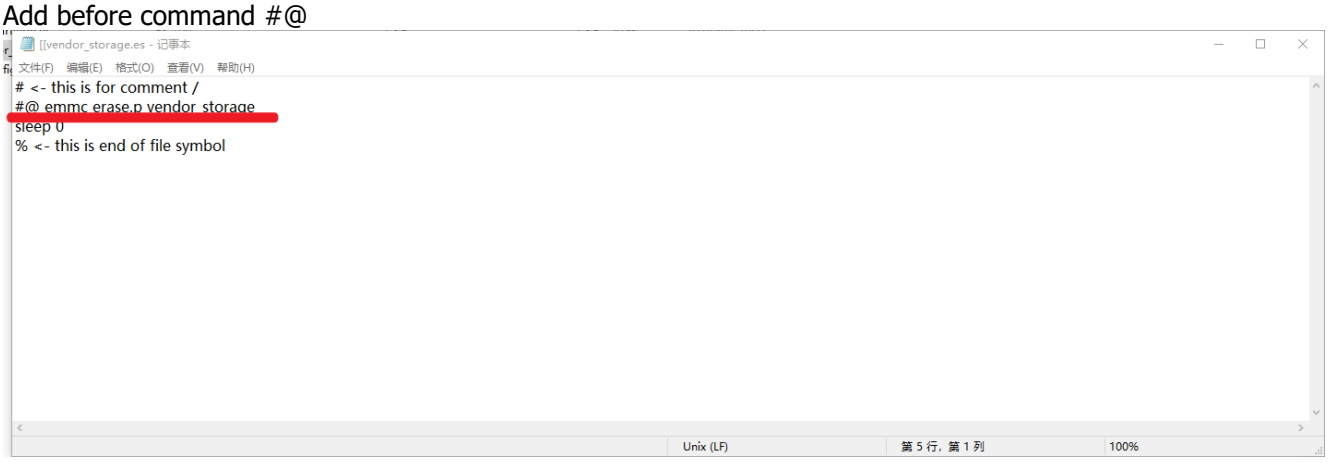
5. 5.RUNNING CUSTOM COMMANDS

During the upgrade process, you can run custom scripts to choose from

5.1. Custom Script Naming



Add before command #@



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5.1.1 Display Name Customization

```
[usb]
language=2
binFileName=D:\ftp\ssbuild\FTP_USBWriteSNTool\test_bin\SstarUsbImage_202206232002.bin
writeRetryCnt=5
[ui]
RunningCustomCommandName=
[USBDebugScript]
usb_updater=D:\ftp\ssbuild\FTP_USBFactoryTool\IPL.USB_UPD.DDRTRAIN.bin
u_boot=D:\ftp\ssbuild\FTP_USBFactoryTool\u-boot-spinand.bin
images=C:\Users\mingjian.liao\Desktop\tmp
script_file=
tfa_file=D:\ftp\ssbuild\FTP_isp_tool\dd3_0725_0940_v2.zip
tfaCheck=0
resetCheck=1
[USBDebugCustomer]
images=
```

RunningCustomCommandName： You can replace the "Running Custom Commands" name according to your own needs

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