

AndroidTool Manual

Version 1.2

2018-04-02

Revision

[illegible]

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1. Main Function

1.1.Import Partition config

#	Address	Name	Path	...
1	0x00000000	Loader	E:\Rockchip\3326安全工作\GPT-NAND_f...	
2	0x00000000	Parameter	E:\Rockchip\3326安全工作\GPT-NAND_f...	
3	0x00002000	Uboot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
4	0x00004000	trust	E:\Rockchip\3326安全工作\GPT-NAND_f...	
5	0x00006000	Misc	E:\Rockchip\3326安全工作\GPT-NAND_f...	
6	0x00008000	Resource	E:\Rockchip\3326安全工作\GPT-NAND_f...	
7	0x00010000	Kernel	E:\Rockchip\3326安全工作\GPT-NAND_f...	
8	0x00020000	Boot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
9	0x00030000	Recovery	E:\Rockchip\3326安全工作\GPT-NAND_f...	
10	0x0018A000	System	E:\Rockchip\3326安全工作\GPT-NAND_f...	
11	0x00592000	Vendor	E:\Rockchip\3326安全工作\GPT-NAND_f...	
12	0x00692000	Oem	E:\Rockchip\3326安全工作\GPT-NAND_f...	

Loader Ver.2.40 Run Switch Dev Partition C

Found One MASKROM Device

- Add Item
- Del Item
- Clear Items
- Move Up
- Move Down
- Load Config**
- Export Config

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You can import partition by load Config. You can set default config in the config.ini at DEFAULT_IMAGE_CONFIG

```

config.ini - 记事本
文件(F)  编辑(E)  格式(O)  查看(V)  帮助(H)

LangPath=Language\

Lang1File=Chinese.ini
Lang1FontName=宋体
Lang1FontSize=9

Lang2File=English.ini
Lang2FontName=Arial
Lang2FontSize=9

[System]
#Msc设备VendorID和ProductID, 值十六进制表示, 例:MSC_VID=0x0BB4, MSC_PID=C
MSC_VID=0x0bb4
MSC_PID=0x0c02

#指定是否支持全速usb设备, 当SUPPORTLOWUSB=TRUE时, 增加全速usb设备支持, 默
备
SUPPORTLOWUSB=true

MSC_TIMEOUT=30
ROCKUSB_TIMEOUT=30
#指定启动时加载的镜像配置文件, 默认为config.cfg
DEFAULT_IMAGE_CONFIG=config.cfg
#下载Image镜像后是否进行设备重启
RESET_AFTER_DOWNLOAD=true
#当设置FW_NOT_CHECK=TRUE时, 固件加载时不进行完整性校验
FW_NOT_CHECK=true

```

1.2. Export partition config

#	Address	Name	Path	...
1	0x00000000	Loader	E:\Rockchip\3326安全工作\GPT-NAND_f...	
2	0x00000000	Parameter	E:\Rockchip\3326安全工作\GPT-NAND_f...	
3	0x00002000	Uboot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
4	0x00004000	trust	E:\Rockchip\3326安全工作\GPT-NAND_f...	
5	0x00006000	Misc	E:\Rockchip\3326安全工作\GPT-NAND_f...	
6	0x00008000	Resource	E:\Rockchip\3326安全工作\GPT-NAND_f...	
7	0x00010000	Kernel	E:\Rockchip\3326安全工作\GPT-NAND_f...	
8	0x00020000	Boot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
9	0x00030000	Recovery	E:\Rockchip\3326安全工作\GPT-NAND_f...	
10	0x0018A000	System	E:\Rockchip\3326安全工作\GPT-NAND_f...	
11	0x00592000	Vendor	E:\Rockchip\3326安全工作\GPT-NAND_f...	
12	0x00692000	Oem	E:\Rockchip\3326安全工作\GPT-NAND_f...	

Add Item
 Del Item
 Clear Items
 Move Up
 Move Down
 Load Config
Export Config

Loader Ver:2.40 Run Switch Dev Partition Clear

You can save partition config by export config

1.3. Download image

#		Address	Name	Path	...
1	<input type="checkbox"/>	0x00000000	Loader	E:\Rockchip\3326安全工作\GPT-NAND_f...	
2	<input type="checkbox"/>	0x00000000	Parameter	E:\Rockchip\3326安全工作\GPT-NAND_f...	
3	<input checked="" type="checkbox"/>	0x00002000	Uboot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
4	<input checked="" type="checkbox"/>	0x00004000	trust	E:\Rockchip\3326安全工作\GPT-NAND_f...	
5	<input type="checkbox"/>	0x00006000	Misc	E:\Rockchip\3326安全工作\GPT-NAND_f...	
6	<input checked="" type="checkbox"/>	0x00008000	Resource	E:\Rockchip\3326安全工作\GPT-NAND_f...	
7	<input checked="" type="checkbox"/>	0x00010000	Kernel	E:\Rockchip\3326安全工作\GPT-NAND_f...	
8	<input type="checkbox"/>	0x00020000	Boot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
9	<input type="checkbox"/>	0x00030000	Recovery	E:\Rockchip\3326安全工作\GPT-NAND_f...	
10	<input type="checkbox"/>	0x0018A000	System	E:\Rockchip\3326安全工作\GPT-NAND_f...	
11	<input type="checkbox"/>	0x00592000	Vendor	E:\Rockchip\3326安全工作\GPT-NAND_f...	
12	<input type="checkbox"/>	0x00692000	Dem	E:\Rockchip\3326安全工作\GPT-NAND_f...	

Loader Ver:2.40

Step by step:

- Device enter into loader or maskrom and connect with pc. you should check loader at the state of maskrom
- Check download item, if address of item is zero, you can select parameter to load partition
- Click" Run"

1.4. Switch

When tool found one msc|adb|mtp|uvc, you can click switch to enter loader or maskrom state.

1.5. Dev Partition

You want to user partition in the device, you can click" Dev Partition" at the loader or maskrom state.

1.6. Download update.img

The screenshot shows the Rockchip upgrade utility interface. At the top, there are three tabs: "Download Image", "Upgrade Firmware", and "Advanced Function". The "Upgrade Firmware" tab is selected and highlighted with a red box and the red text "3. 升级". Below the tabs, there are four buttons: "Firmware", "Upgrade", "Switch", and "EraseFlash". The "Firmware" button is highlighted with a blue border and the red text "2. 选择固件". Below the buttons, there are three input fields: "Fw Ver:", "Loader Ver:", and "Chip Info:". Below these fields is a large text area labeled "Firmware:". At the bottom of the interface, there is a status bar that says "Found One MASKROM Device". The red text "1. 连接设备" is placed near the bottom left of the main interface area.

Notice:

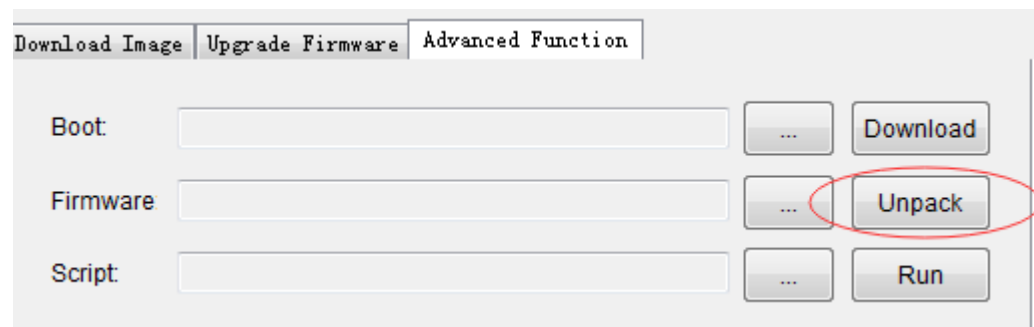
- You can only download update.img at the loader or maskrom. otherwise, switch firstly
- click "Firmware" can select update.img or loader file.

1.7. Erase Flash

EraseFlash will erase all of data in the flash.

1. click "Firmware" to select update.img or loader.bin firstly
2. device enter into maskrom or loader and connect with pc
3. click "EraseFlash"

1.8. unpack update.img

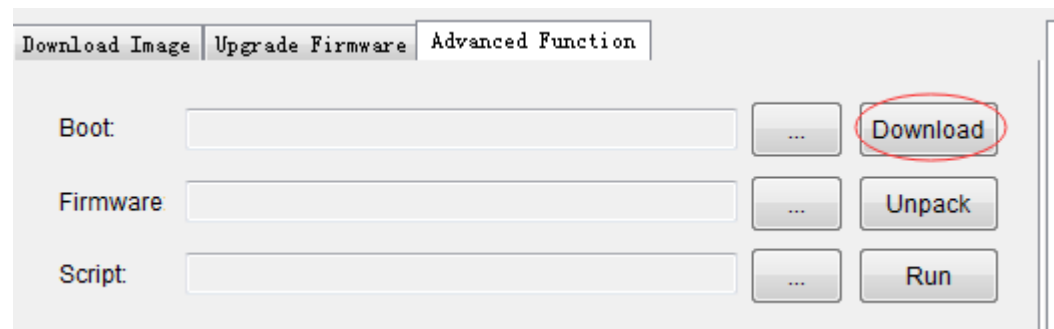


Unpack all of download item from update.img saving into output dir.

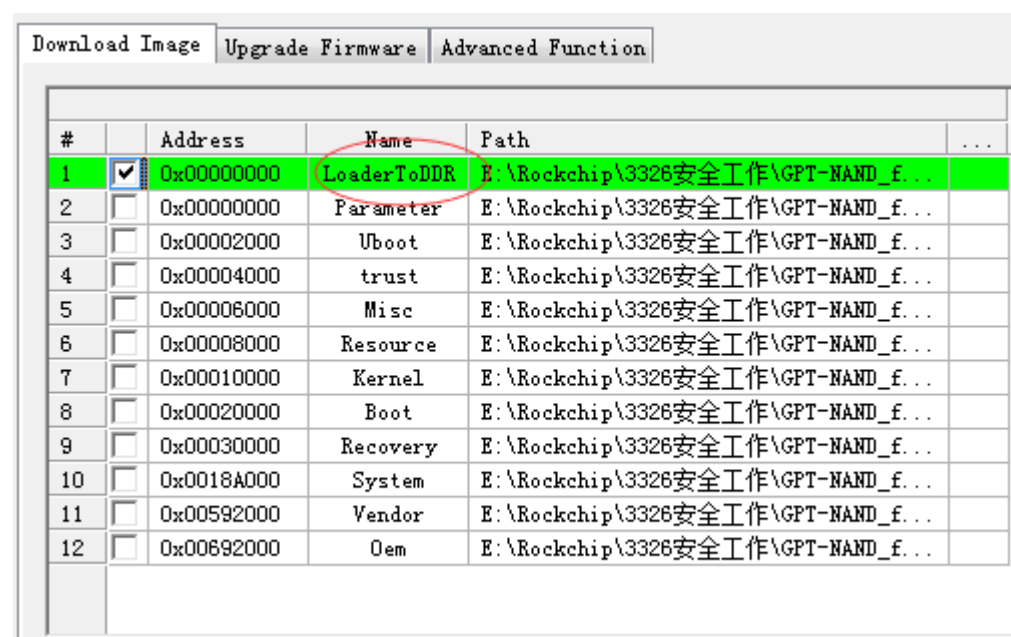
1.9. Download Boot

It will do two things.

1. download ddr init code into sram and run
2. download rockusb code into ddr and run



Or double click "Loader" and choose "LoaderToDDR"



1.10. Download gpt

Gpt file have two format: parameter or partition_table.img,

Parameter pay attention to two point

1. It must have "TYPE:GPT" line in the parameter.

```
FIRMWARE_VER:7.1
MACHINE_MODEL:RK3126c
MACHINE_ID:007
MANUFACTURER:rk3126c
MAGIC: 0x5041524B
ATAG: 0x00200800
MACHINE: 3126c
CHECK_MASK: 0x80
PWR_HLD: 0,0,A,0,1
TYPE: GPT
CMDLINE:mtddparts=rk29xxnand:0x00002000@0x00004000(uboot),0x00002000@0x00006000
```

2.if last partition will want to have all of remain room,it must have "grow"property follow with name.

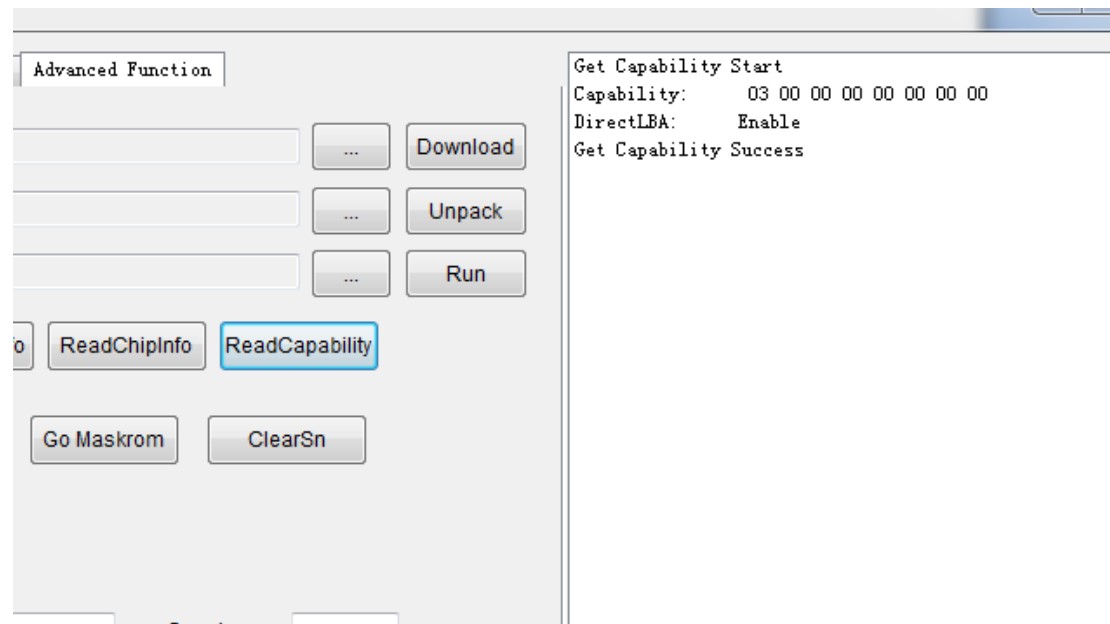
```
6000 (atf),0x00038000@0x00008000 (boot:bootable),-@0x0040000 (rootfs:grow)
```

Download Image
Upgrade Firmware
Advanced Function

#		Address	Name	Path	...
1	<input checked="" type="checkbox"/>	0x00000000	LoaderToDDR	E:\Rockchip\3326安全工作\GPT-NAND_f...	
2	<input type="checkbox"/>	0x00000000	Parameter	E:\Rockchip\3326安全工作\GPT-NAND_for_ly\gpt.txt	
3	<input type="checkbox"/>	0x00004000	Uboot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
4	<input type="checkbox"/>	0x00006000	trust	E:\Rockchip\3326安全工作\GPT-NAND_f...	
5	<input type="checkbox"/>	0x00008000	Misc	E:\Rockchip\3326安全工作\GPT-NAND_f...	
6	<input type="checkbox"/>	0x0000A000	Resource	E:\Rockchip\3326安全工作\GPT-NAND_f...	
7	<input type="checkbox"/>	0x00012000	Kernel	E:\Rockchip\3326安全工作\GPT-NAND_f...	
8	<input type="checkbox"/>	0x00022000	Boot	E:\Rockchip\3326安全工作\GPT-NAND_f...	
9	<input type="checkbox"/>	0x00032000	Recovery	E:\Rockchip\3326安全工作\GPT-NAND_f...	
10	<input type="checkbox"/>	0x0018C000	System	E:\Rockchip\3326安全工作\GPT-NAND_f...	
11	<input type="checkbox"/>	0x00594000	Vendor	E:\Rockchip\3326安全工作\GPT-NAND_f...	
12	<input type="checkbox"/>	0x00614000	Oem	E:\Rockchip\3326安全工作\GPT-NAND_f...	

Loader Ver:2.40
Run
Switch
Dev Partition
Clear

1.11. Read Capability



It must enable DirectLBA to download gpt,otherwise popup error”Writing gpt did not support”

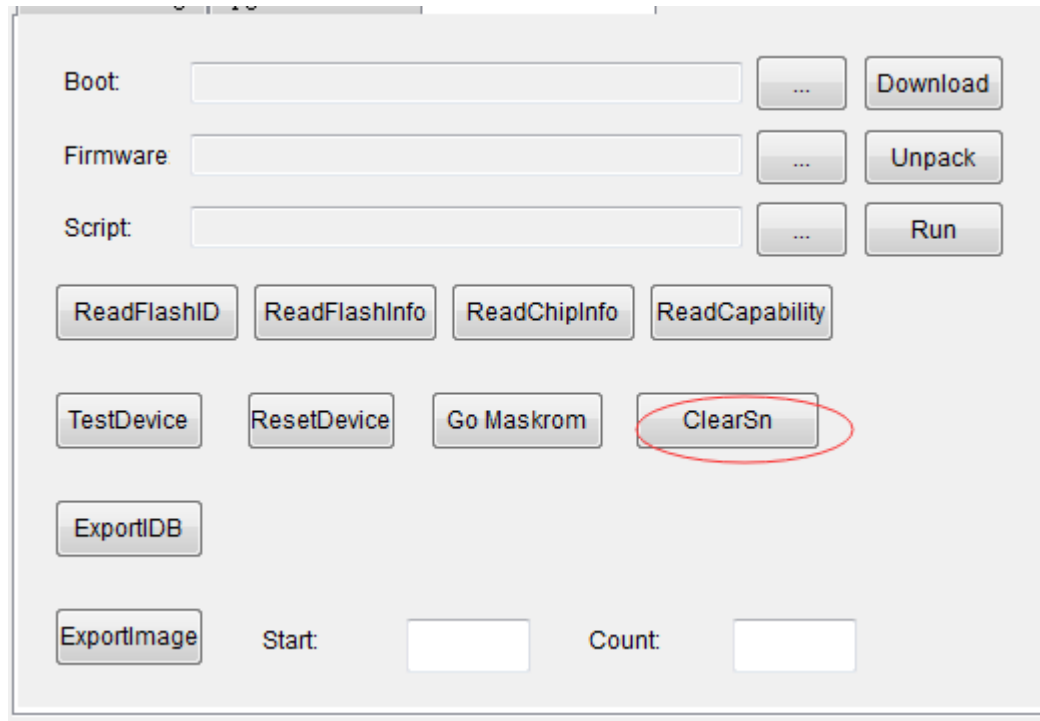
1.12. Go Maskrom



If you want device enter into maskrom at the state of loader,you can click “Go maskrom”

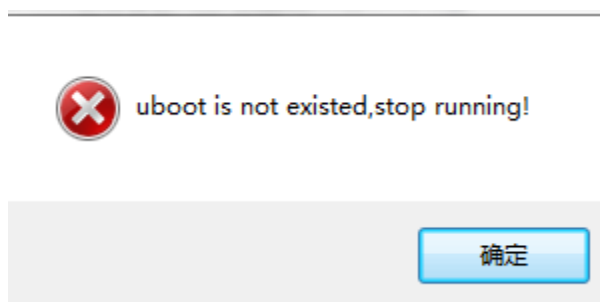
1.13. Clear sn

If you want to clear sn mac ... in the idblock sector3,you can click “clear sn”



2. Problems

2.1. Download item not exist



It show you uboot item is not exist.

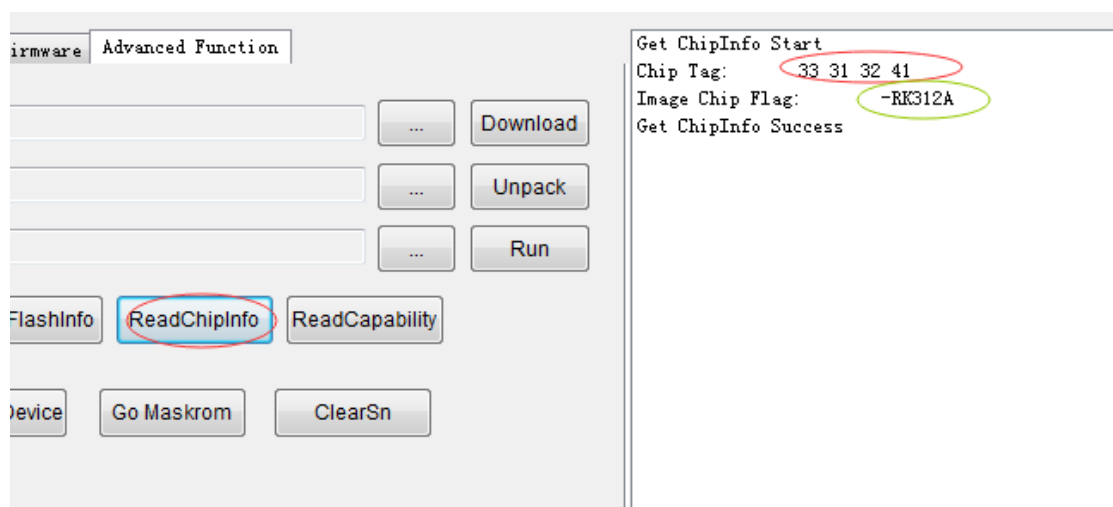
2.2. Loading firmware failed



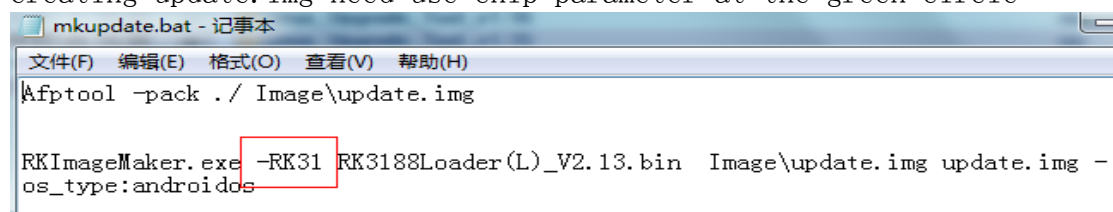
- Check whether firmware was open by other process
- Checking format of firmware failed
- Firmware was modified

2.3. Check chip failed

- Chip info in the firmware was different with device
- Click "ReadChipInfo" to get chip info from device, chip info show at the red circle



- Creating update.img need use chip parameter at the green circle



2.4. Download Boot failed

- Detect ddr hardware

- Check loader if match with device

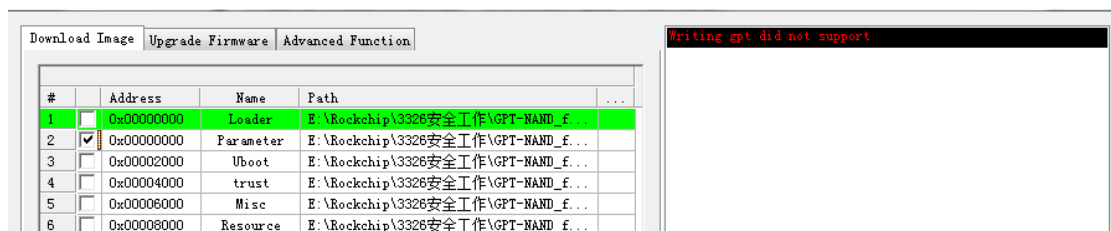
2.5. Download image failed

- Update tool and loader
- Connect device with pc into back usb port
- Detect flash hardware

2.6. Check image failed

- Confirm that partition size is enough in the parameter
- Flash driver has some bug, erase flash and retry
- Test ddr with tool

2.7. GPT not support



click “Read Capability” to confirm if function of DirectLBA is enabled

3. Notice

- Copy tool into dir including only ascii char under the non-chinese os
- Tool must run under the administrator account
- After updating Config.ini, it will be effect to restart tool .