RKDevTool Manual

Version 1.2

2018-04-02

Revision

Ver	Data	Author	Brief	Publish	Memo
1.0	2014-07-28	LY			
1.1	2018-01-10	LY			
1.2	2018-04-02	LY			

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1. Main Function

1.1. Import Partition config

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=0
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

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

Wnen 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.
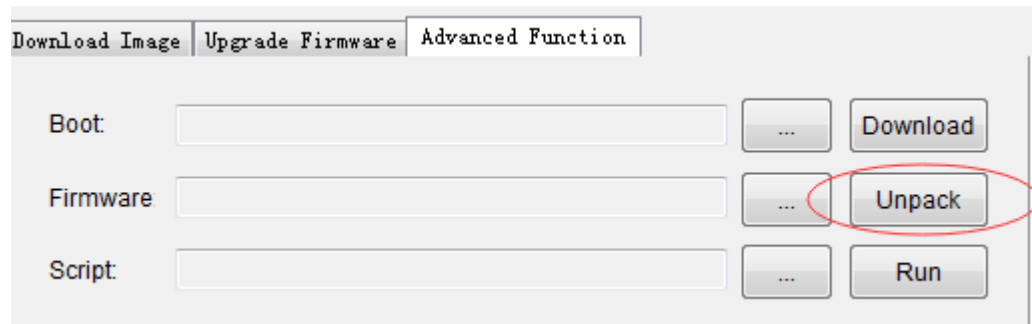
1.6. Download update.img

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
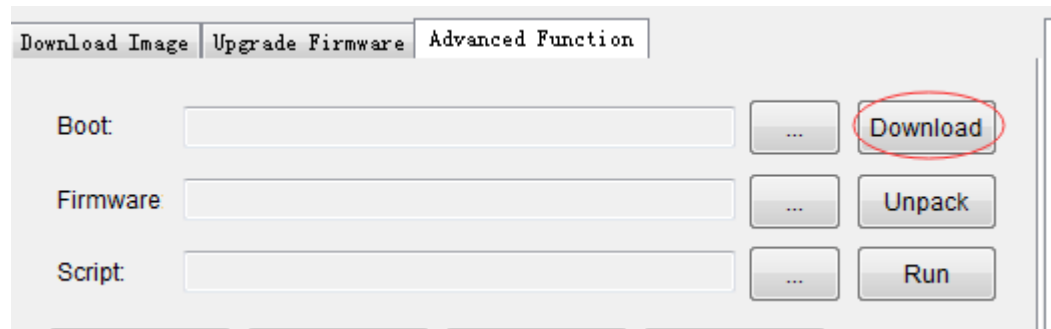3. click "EraseFlash"

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:mtdparts=rk29xxnand:0x00002000@0x00004000(uboot),0x00002000@0x00006
```
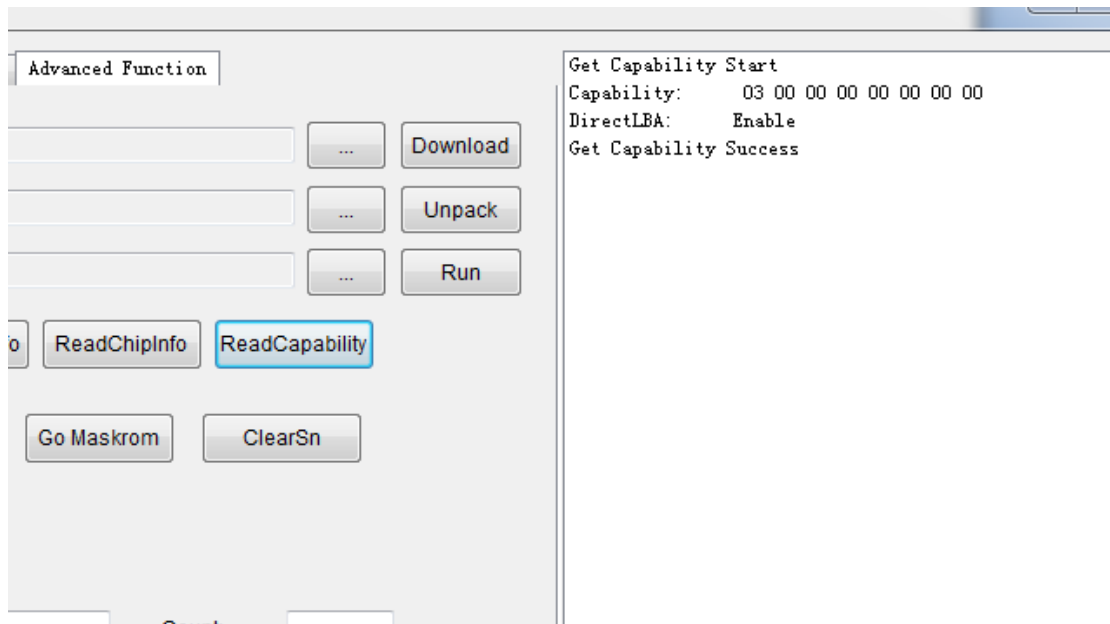
2.if last partition will want to have all of remain room,it must have "grow"property follow with name.

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

1.11. Read Capability

It must enable DirectLBA to download gpt,otherwise popup error"Writing gpt did not support"
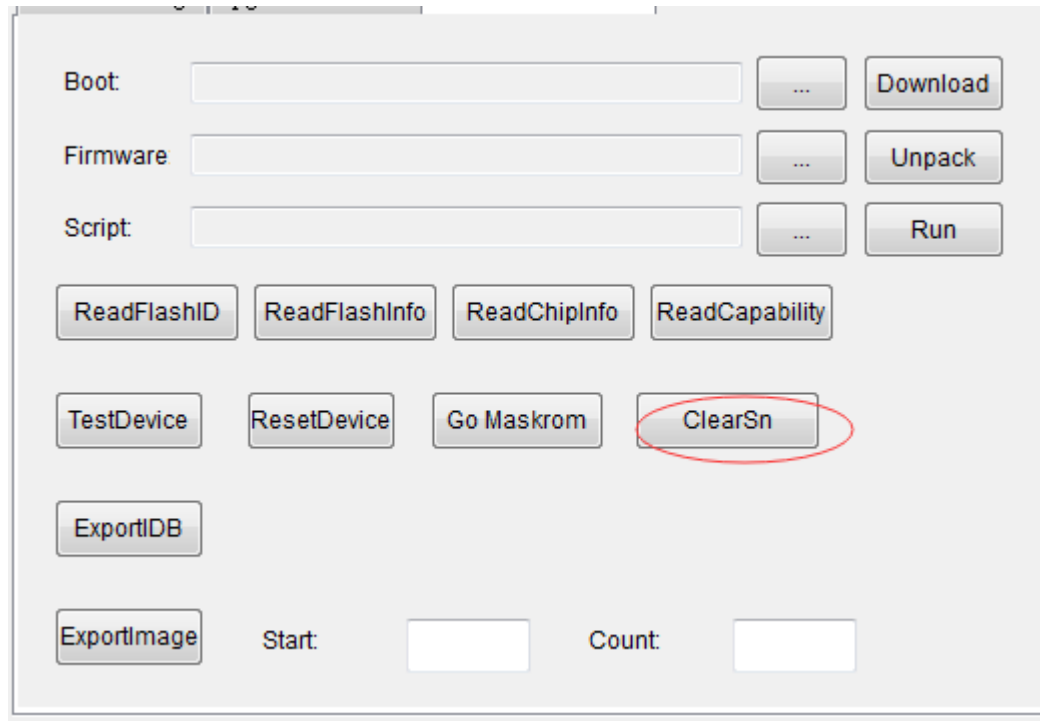
1.12. Go Maskrom

If you want device enter into maskrom at the state of loader,you can click "Go maskrom"
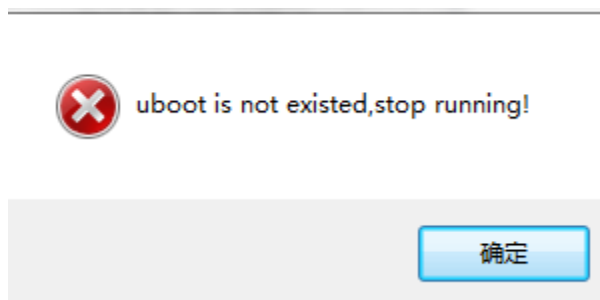
1.13. Clear sn

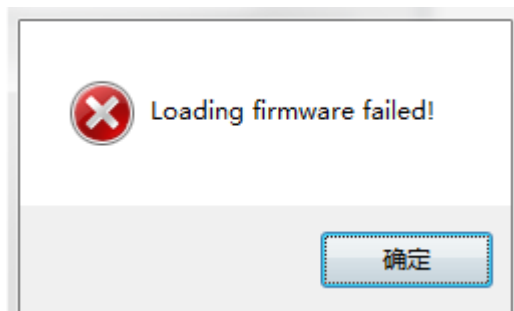If you want to clear sn mac … in the idblock sector3,you can click "clear sn"

2. Problems

2.1. Download item not exist

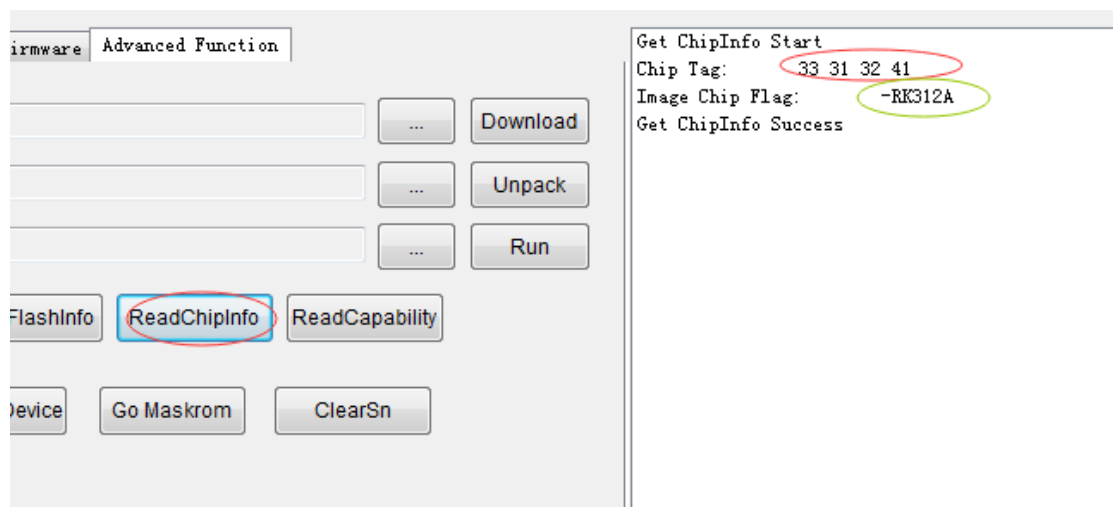
It show you uboot item is not exist。
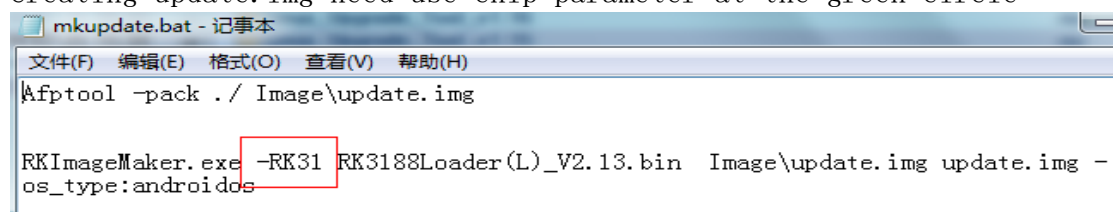
2.2. Loading firmware failed

- 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
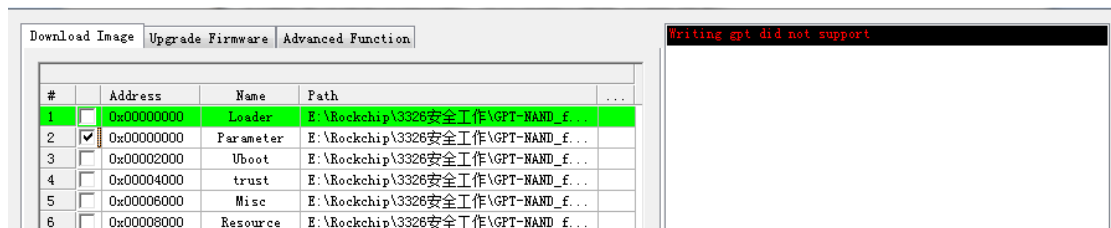
● Check loader if match with device

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 .