## Burning Tool Prepare

1. Download win32diskimageer tool

<https://sourceforge.net/projects/win32diskimager/files/latest/download>

1. unzip the following file



## compile u-boot

1. $ cd [source tree]/u-boot
2. $ make rk3288\_secure\_defconfig
3. $ make -j4

after compile it will have a uboot file which named rk3288\_loader\_v1.05.233.bin

## 3. compile kernel

1. $ cd [source tree]/kernel
2. $ make ARCH=arm rockchip\_defconfig
3. **for Tinker board :**

$ make ARCH=arm rk3288-miniarm.img

## 4. compile Android

1. $ cd [source tree]
2. $ source build/envsetup.sh
3. $ lunch rk3288-userdebug
4. $ make -j8

if you want to generate the android image as well as the OTA and the target files

1. $ make otapackage
2. $ ./mkimage.sh ota

If you only want to create the android image

1. $ ./mkimage.sh

## 5. copy the generated image from step 2, 3, 4 to the specific folder

1. cd [source tree]/RKTools/linux/Linux\_Pack\_Firmware/rockdev
2. ./collectImages.sh && ./mkupdate.sh

After the step 5.B, it will generate a file which named update.img and located at [source tree]/RKTools/linux/Linux\_Pack\_Firmware/rockdev/update.img

## 6. change format of the update.img

1. open the SpiImageTools.exe and load the update.img as the following

After step 2, it will generate data.bin which is located at the same folder as the SpiImageTools.exe



Step 2

Step 1

1. use the Win32diskImager.exe tool to burn the data.bin into sdcard, then you can boot the Tinker Board with sdcard.

## 7. How to update image from OTA difference package

## 7.1 generate the OTA difference update package

1. Prepare 2 target files, one is the target file of old image and the other is the target files of new image. We call them old\_target\_files.zip and new\_target\_files.zip respectively.
2. Download the source code and follow the steps from 4.A to 4.D of this SOP to build the source code.
3. Use the below command to generate the OTA difference update package

$ cd [source code folder]

$ ./build/tools/releasetools/ota\_from\_target\_files -v -p out/host/linux-x86 -k build/target/product/security/testkey -i old\_target\_files.zip new\_target\_files.zip update.zip

(update.zip is the output file of the above command)

## 7.2 update image by the OTA difference package

adb root

adb push output.zip /data/media/0/update.zip

adb shell “echo "--update\_package=/data/media/0/update.zip" > /cache/recovery/command”

adb reboot recovery