

Jetpack旧系统升级亚博SUPER出厂系统

[Jetpack旧系统升级亚博SUPER出厂系统](#)

1、说明

2、烧录SUPER引导

 2.1、硬件连接

 2.2、软件连接

 2.3、烧录引导

3、固态恢复出厂镜像系统

 3.1、格式化固态硬盘

 3.1.1、下载DiskGenius

 3.1.2、使用DiskGenius

 删除分区

 新建分区

 3.2、恢复出厂镜像

 3.2.1、安装Win32DiskImager

 3.2.2、使用Win32DiskImager

4、固态硬盘扩容

 4.1、安装GParted

 4.2、使用GParted

 4.3、调整分区

1、说明

该教程主要提供给以下客户

1.2025年3月31日之前购买Jetson Orin Nano/NX的用户

2、烧录SUPER引导

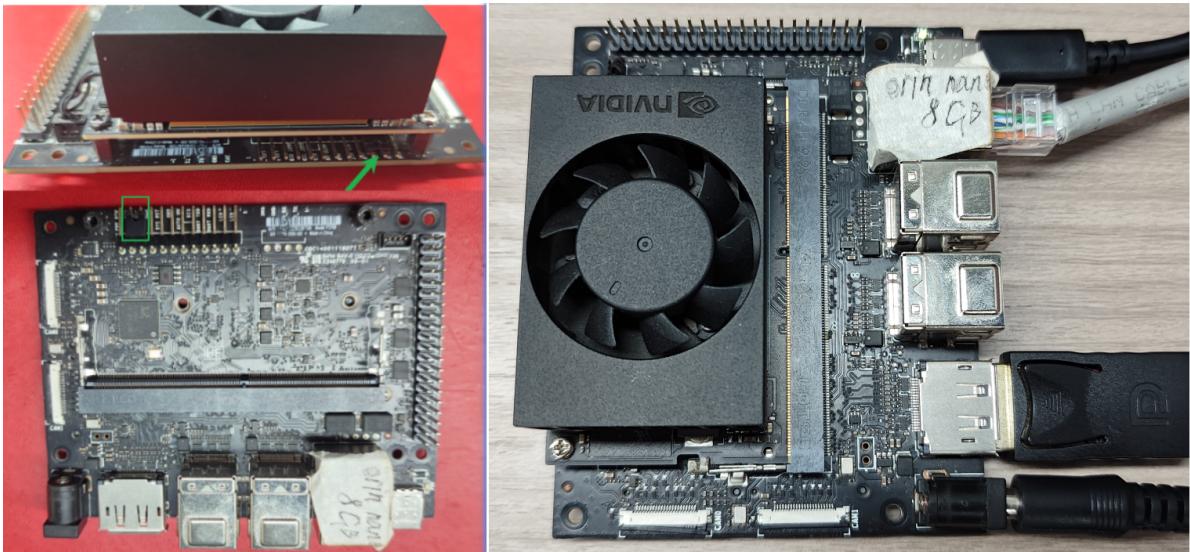
教程目的是给Jetson Orin系列主板烧录SUPER引导（搭配Jetpack 6.2系统使用），烧录过程无需安装固态硬盘。

2.1、硬件连接

1、使用跳线帽短接核心板下方的FC REC和GND引脚：可以不拆核心板，图片只是为了更清晰观察

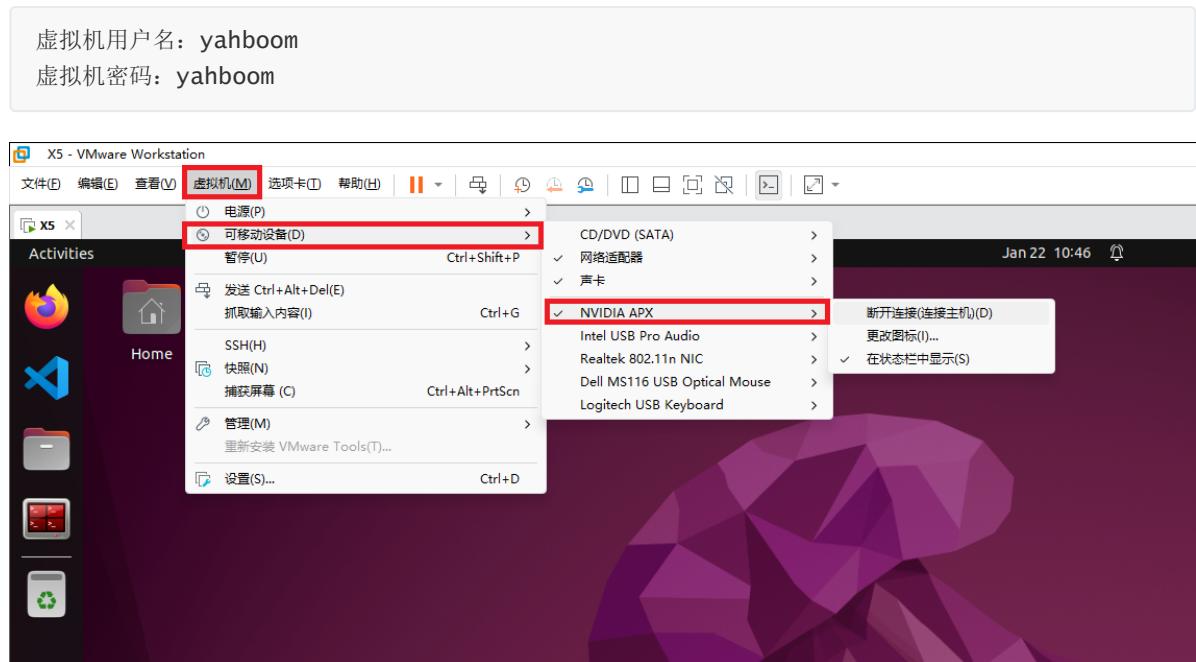
2、Jetson Orin主板需连接DC电源适配器、DP数据线、网线以及Type C数据线：Type C数据线连接电脑

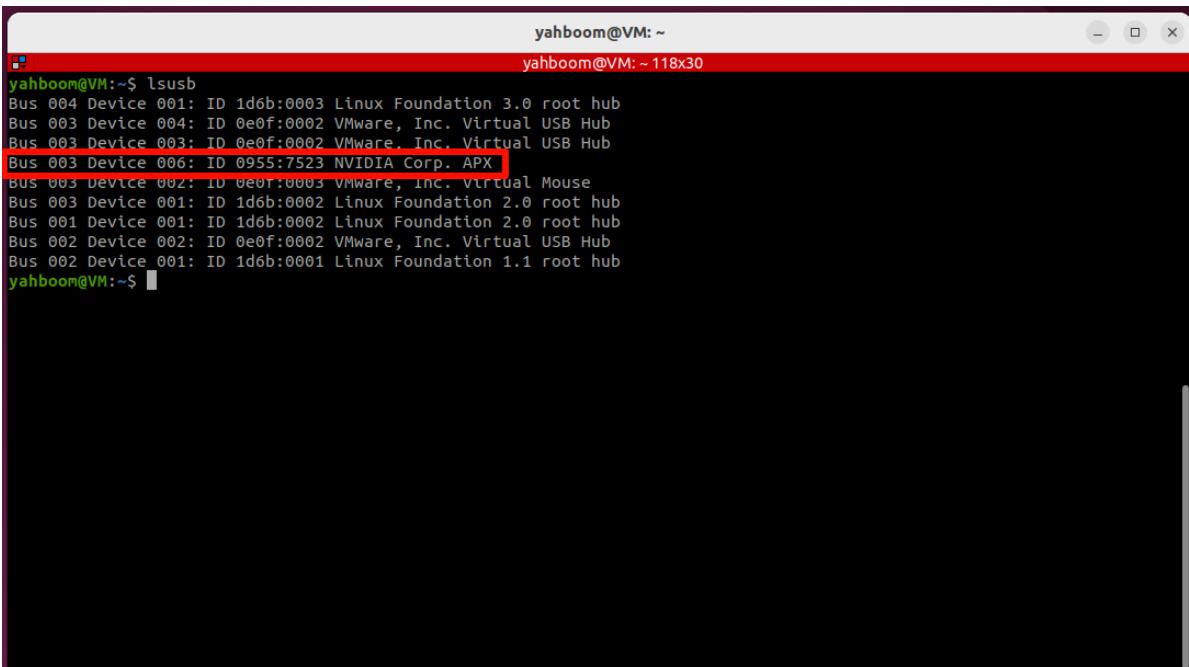
注意：烧录引导可以不接DP数据线和网线，但是后期使用主板需要用到



2.2、软件连接

用户需要使用我们提供的虚拟机进行SUPER引导的烧录，我们需要将主板连接到虚拟机内部才可以被Ubuntu系统识别：



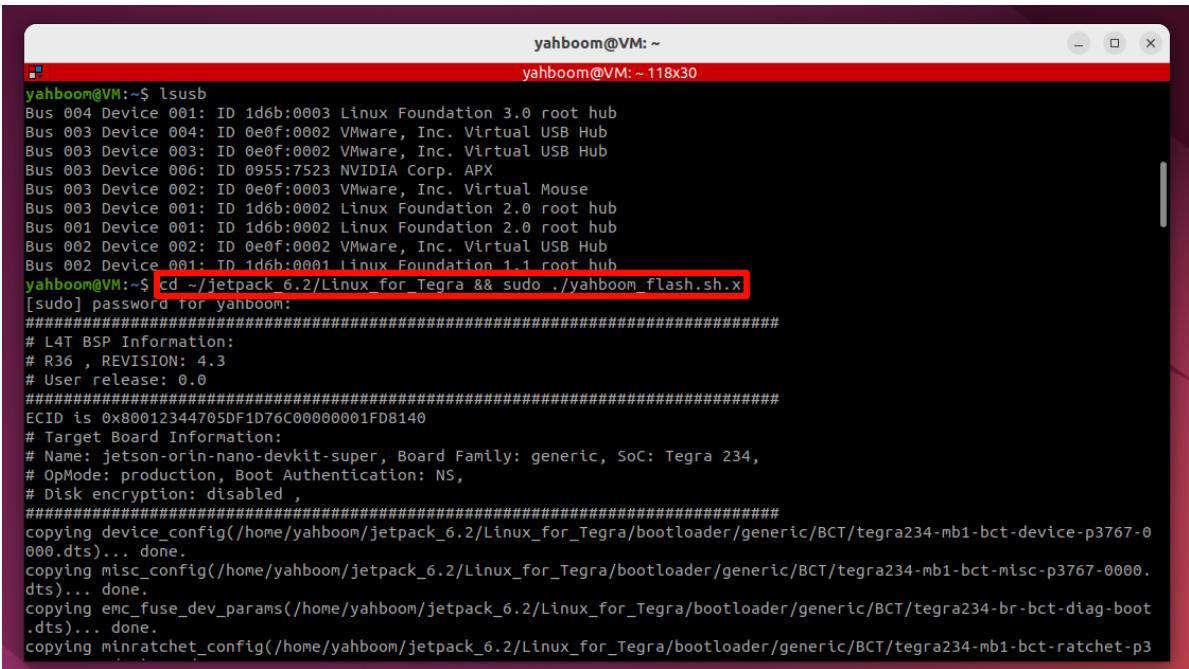


```
yahboom@VM:~$ lsusb
Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 003 Device 004: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 003 Device 003: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 003 Device 006: ID 0955:7523 NVIDIA Corp. APX
Bus 003 Device 002: ID 0e0f:0003 VMware, Inc. Virtual Mouse
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 002: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
yahboom@VM:~$
```

2.3、烧录引导

打开终端，进入指定文件夹并运行脚本：若烧录失败，可以断开主板电源重新连接虚拟机运行命令

```
cd ~/jetpack_6.2/Linux_for_Tegra && sudo ./yahboom_flash.sh.x
```



```
yahboom@VM:~$ lsusb
Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 003 Device 004: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 003 Device 003: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 003 Device 006: ID 0955:7523 NVIDIA Corp. APX
Bus 003 Device 002: ID 0e0f:0003 VMware, Inc. Virtual Mouse
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 002: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
yahboom@VM:~$ cd ~/jetpack_6.2/Linux_for_Tegra && sudo ./yahboom_flash.sh.x
[sudo] password for yahboom:
#####
# L4T BSP Information:
# R36 , REVISION: 4.3
# User release: 0.0
#####
ECID is 0x80012344705DF1D76C00000001FD8140
# Target Board Information:
# Name: jetson-orin-nano-devkit-super, Board Family: generic, SoC: Tegra 234,
# OpMode: production, Boot Authentication: NS,
# Disk encryption: disabled ,
#####
copying device_config(/home/yahboom/jetpack_6.2/Linux_for_Tegra/bootloader/generic/BCT/tegra234-mb1-bct-device-p3767-000.dts)... done.
copying misc_config(/home/yahboom/jetpack_6.2/Linux_for_Tegra/bootloader/generic/BCT/tegra234-mb1-bct-misc-p3767-0000.dts)... done.
copying emc_fuse_dev_params(/home/yahboom/jetpack_6.2/Linux_for_Tegra/bootloader/generic/BCT/tegra234-br-bct-diag-boot.dts)... done.
copying minratchet_config(/home/yahboom/jetpack_6.2/Linux_for_Tegra/bootloader/generic/BCT/tegra234-mb1-bct-ratchet-p3
```

```
yahboom@VM: ~/jetpack_6.2/Linux_for_Tegra
```

```
[ 76.0156 ] Writing partition BCT with br_bct_BR.bct [ 8192 bytes ]
[ 76.0160 ] [.....] 100%
[ 82.6710 ] tegradevflash_v2 --write BCT-boot-chain_backup bct_backup.img
[ 82.6717 ] Bootloader version 01.00.0000
[ 83.0245 ] Writing partition BCT-boot-chain_backup with bct_backup.img [ 32768 bytes ]
[ 83.0248 ] [.....] 100%
[ 83.4461 ] tegradevflash_v2 --write A_MB1_BCT mb1_cold_boot_bct_MB1_sigheader.bct.encrypt
[ 83.4467 ] Bootloader version 01.00.0000
[ 83.7399 ] Writing partition A_MB1_BCT with mb1_cold_boot_bct_MB1_sigheader.bct.encrypt [ 17600 bytes ]
[ 83.7402 ] [.....] 100%
[ 83.9829 ] tegradevflash_v2 --write B_MB1_BCT mb1_cold_boot_bct_MB1_sigheader.bct.encrypt
[ 83.9833 ] Bootloader version 01.00.0000
[ 84.2747 ] Writing partition B_MB1_BCT with mb1_cold_boot_bct_MB1_sigheader.bct.encrypt [ 17600 bytes ]
[ 84.2754 ] [.....] 100%
[ 84.5188 ] tegradevflash_v2 --write A_MEM_BCT mem_coldboot_sigheader.bct.encrypt
[ 84.5192 ] Bootloader version 01.00.0000
[ 84.8233 ] Writing partition A_MEM_BCT with mem_coldboot_sigheader.bct.encrypt [ 243712 bytes ]
[ 84.8236 ] [.....] 100%
[ 87.8096 ] tegradevflash_v2 --write B_MEM_BCT mem_coldboot_sigheader.bct.encrypt
[ 87.8703 ] Bootloader version 01.00.0000
[ 88.1617 ] Writing partition B_MEM_BCT with mem_coldboot_sigheader.bct.encrypt [ 243712 bytes ]
[ 88.1632 ] [.....] 100%
[ 91.2087 ] Flashing completed

[ 91.2088 ] Coldbooting the device
[ 91.2096 ] tegrarm_v2 --chip 0x23 0 --ismb2
[ 91.2101 ] MB2 version 01.00.0000
[ 91.5296 ] Coldbooting the device
[ 91.5301 ] tegrarm_v2 --chip 0x23 0 --reboot coldboot
[ 91.5306 ] MB2 version 01.00.0000
*** The target generic has been flashed successfully. ***
Reset the board to boot from internal eMMC.

Total:132 seconds
yahboom@VM:~/jetpack_6.2/Linux_for_Tegra$
```

3、固态恢复出厂镜像系统

完成该教程可以将固态硬盘写入SUPER (Jetpack6.2) 系统。

注意：用户需要提前准备固态硬盘盒，将固态硬盘安装到固态硬盘盒连接电脑进行格式化和系统烧录。

3.1、格式化固态硬盘

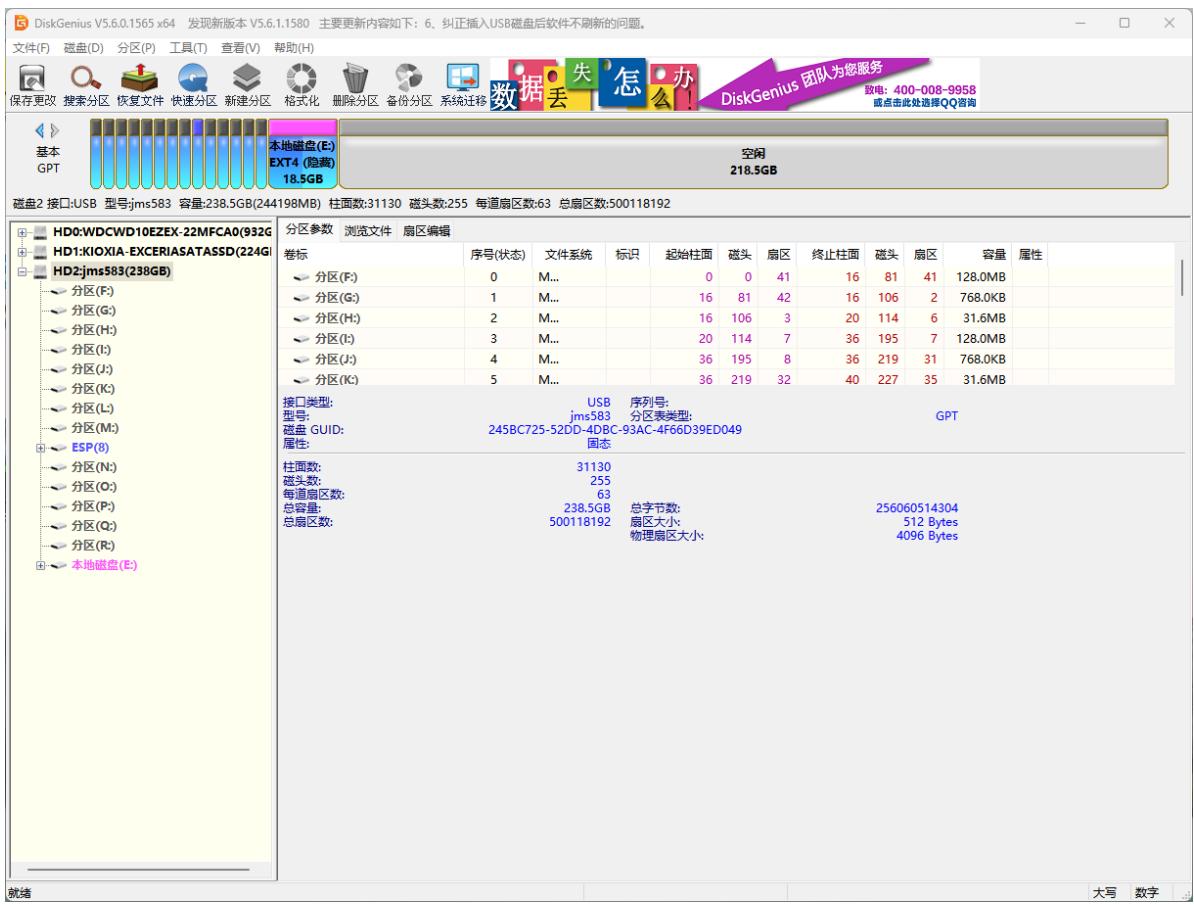
恢复出厂镜像前需要将固态硬盘格式化成exFAT格式。

3.1.1、下载DiskGenius

下载网址: <https://www.diskgenius.cn/>



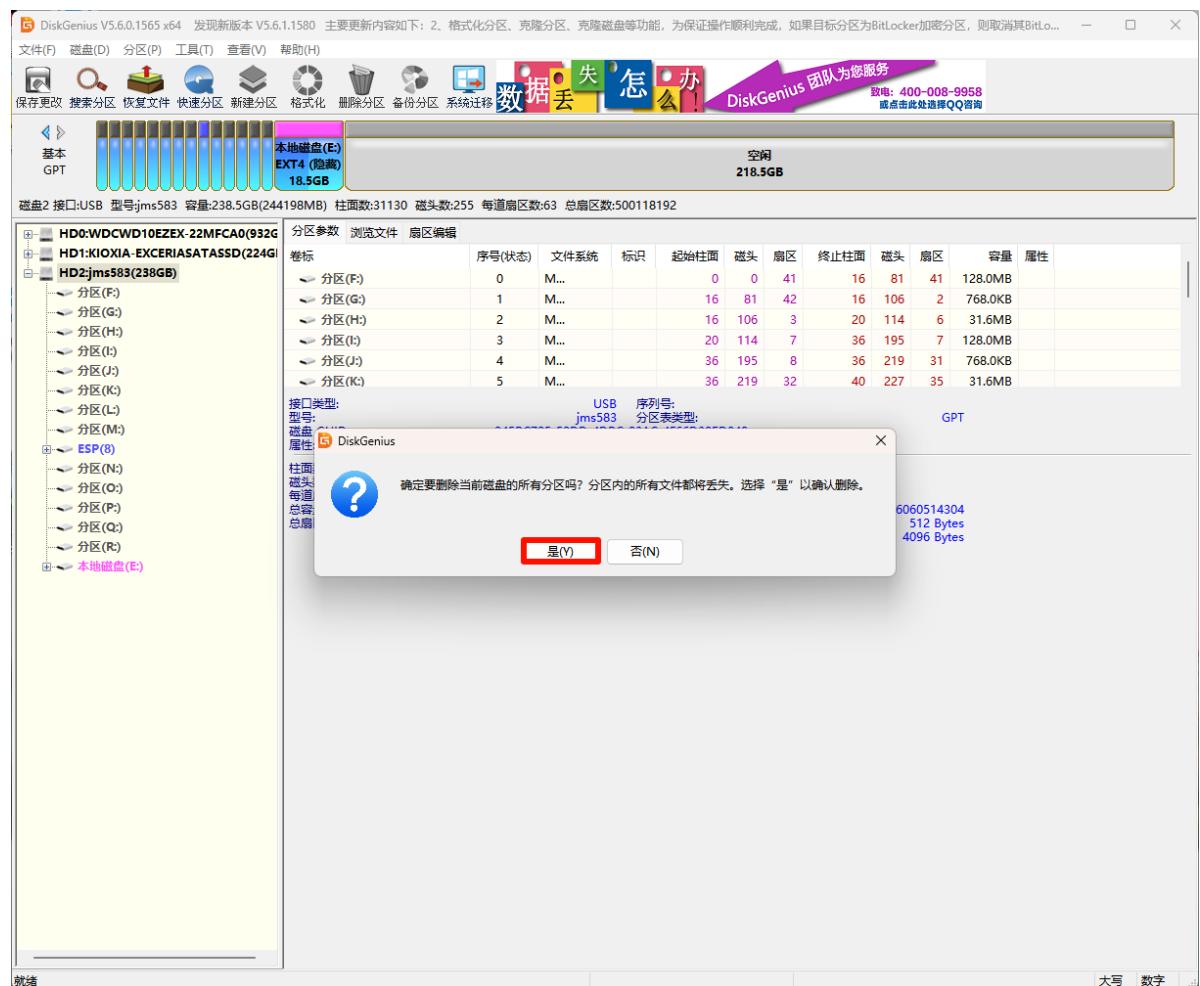
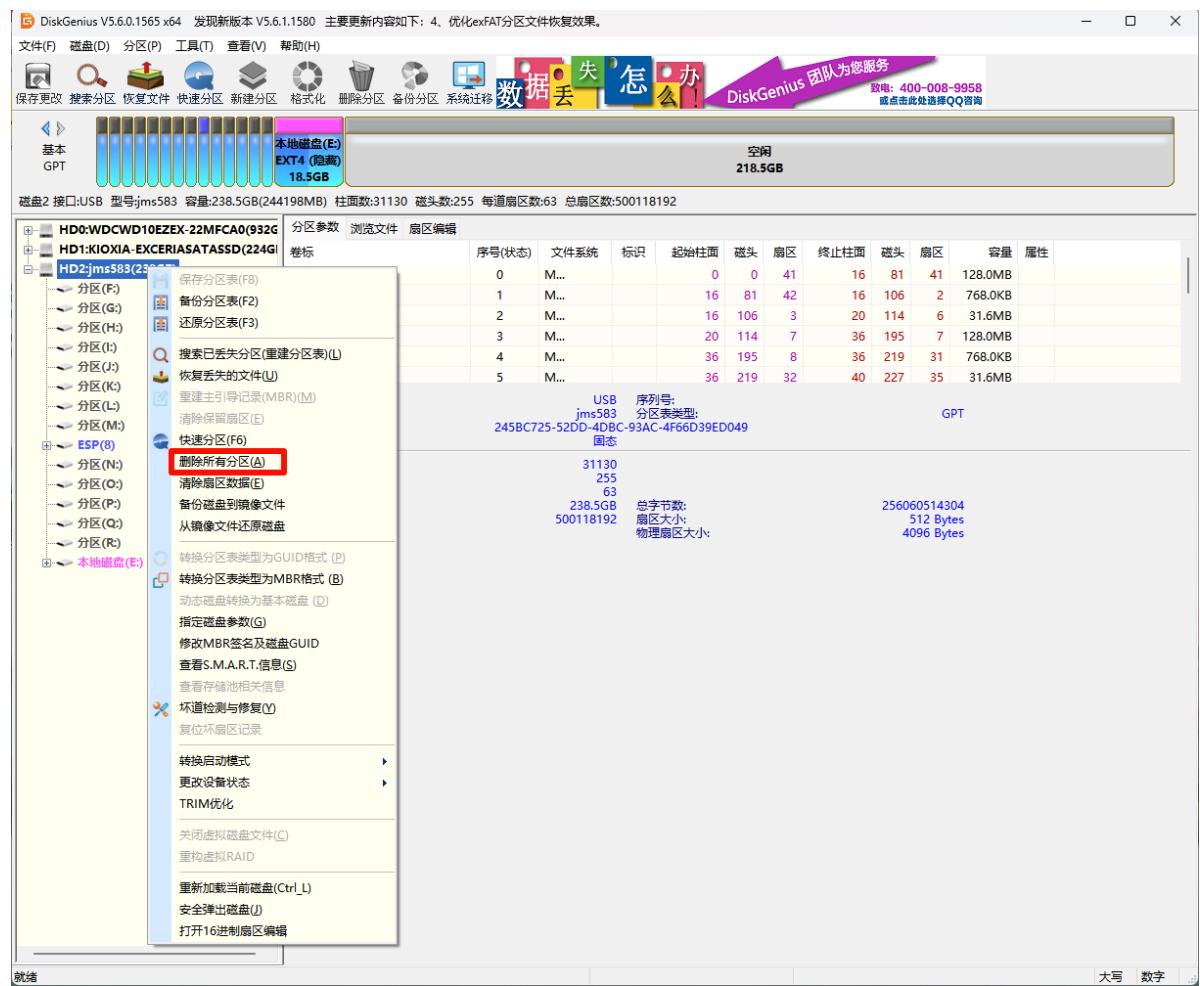
解压下载的压缩包就可以打开 DiskGenius.exe 使用：

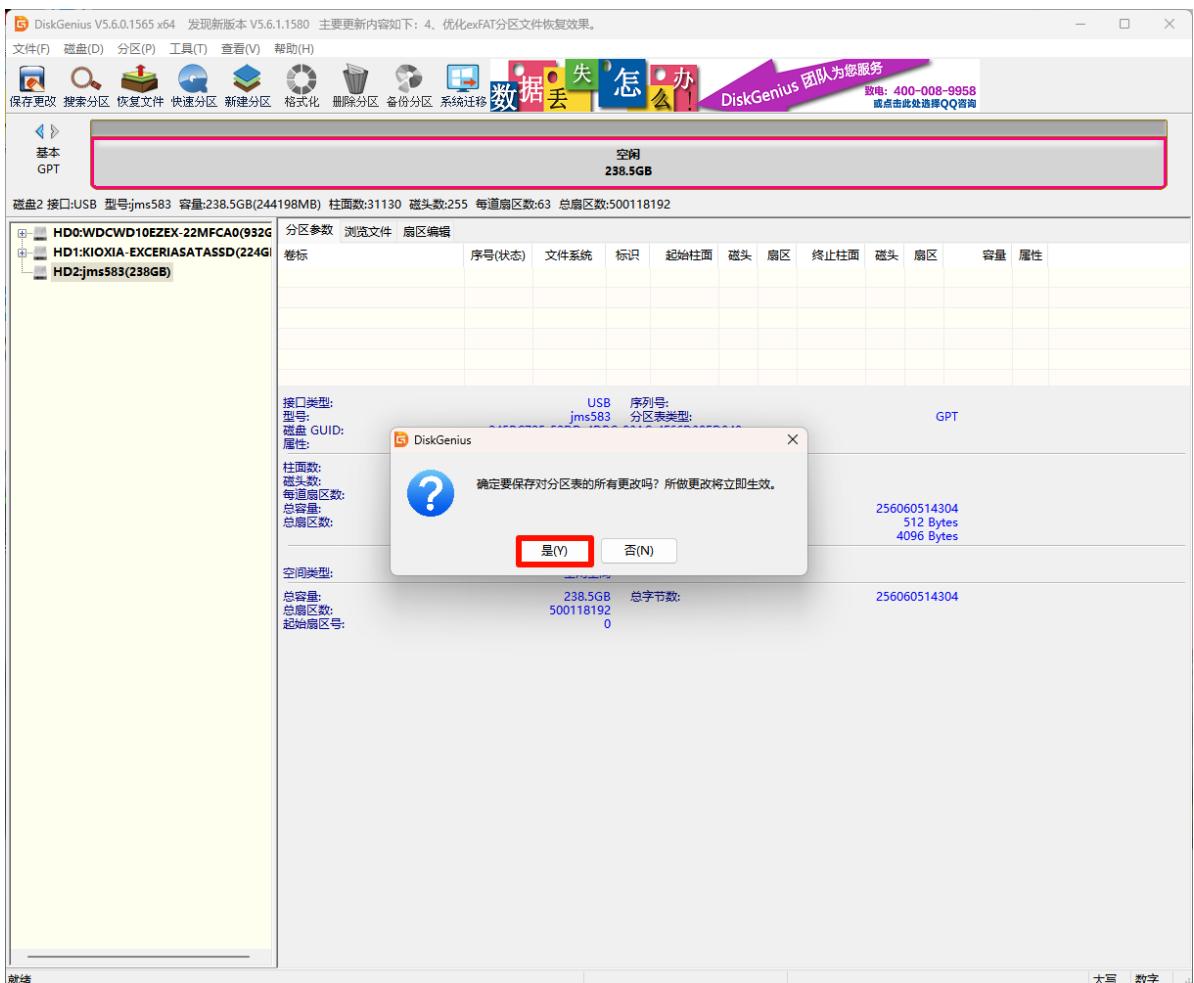
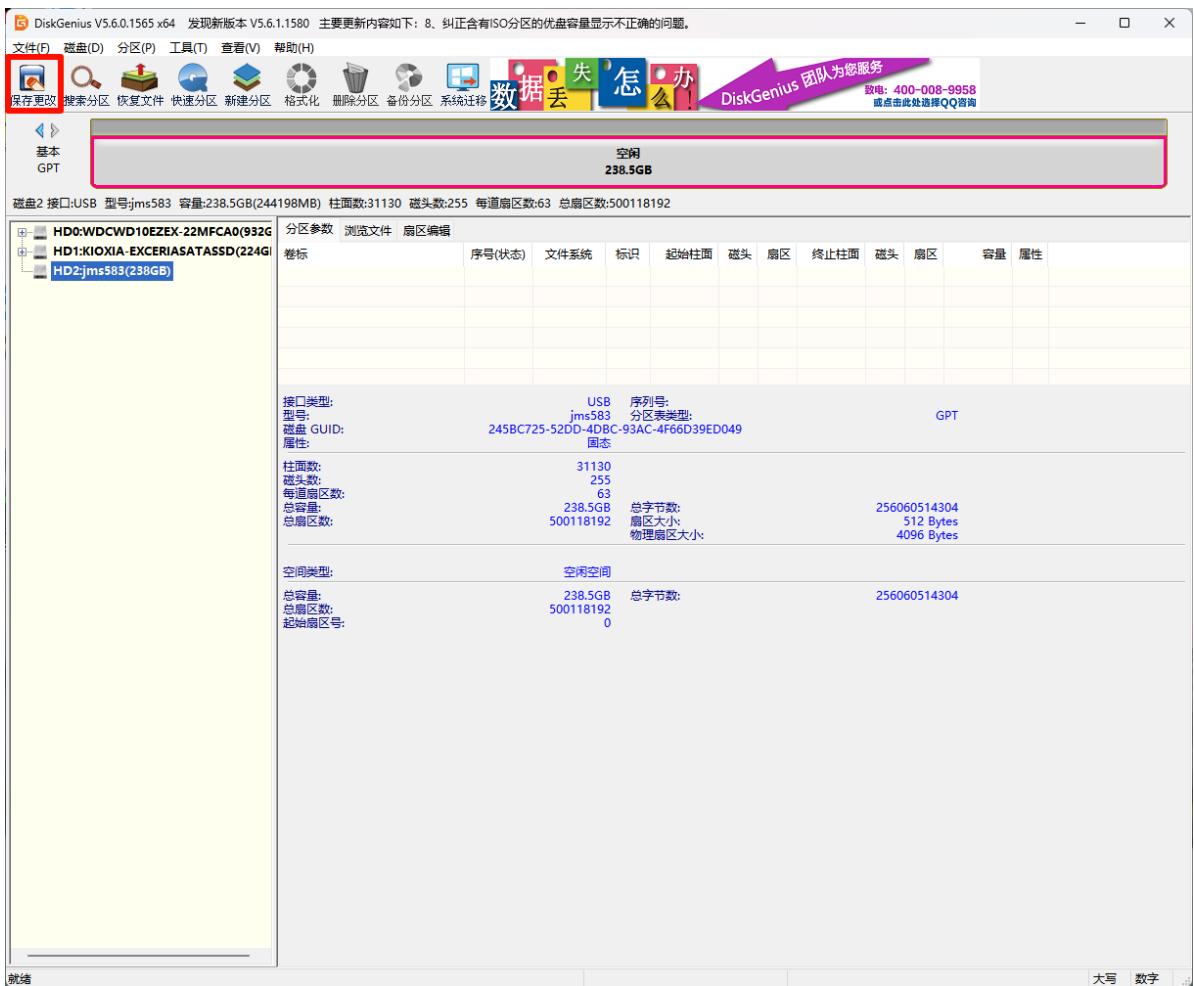


3.1.2、使用DiskGenius

删除分区

删除分区会将磁盘数据清除，请确认盘符是需要被格式化的磁盘再确认操作：可根据磁盘大小以及接入磁盘新增的盘符判断

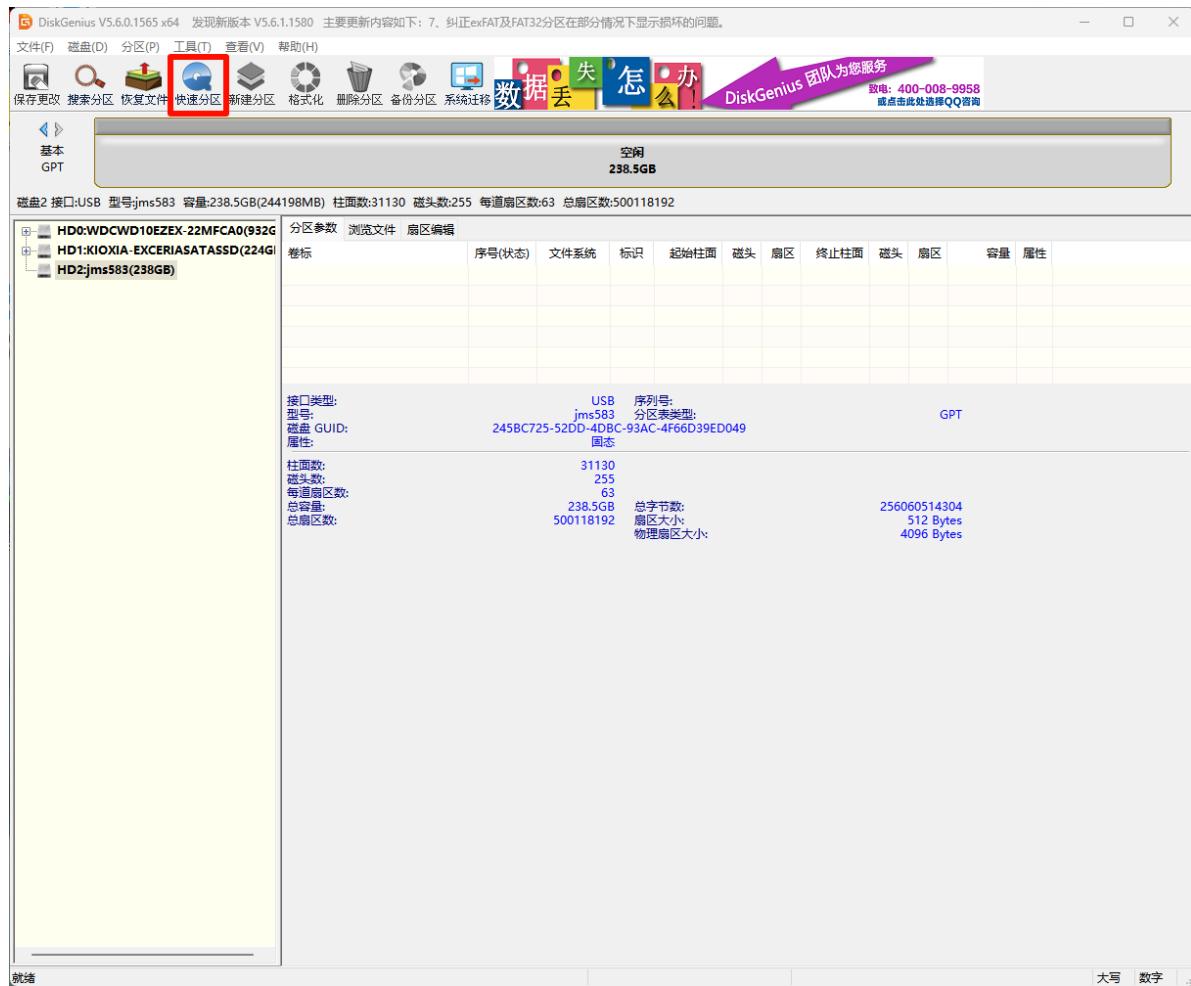




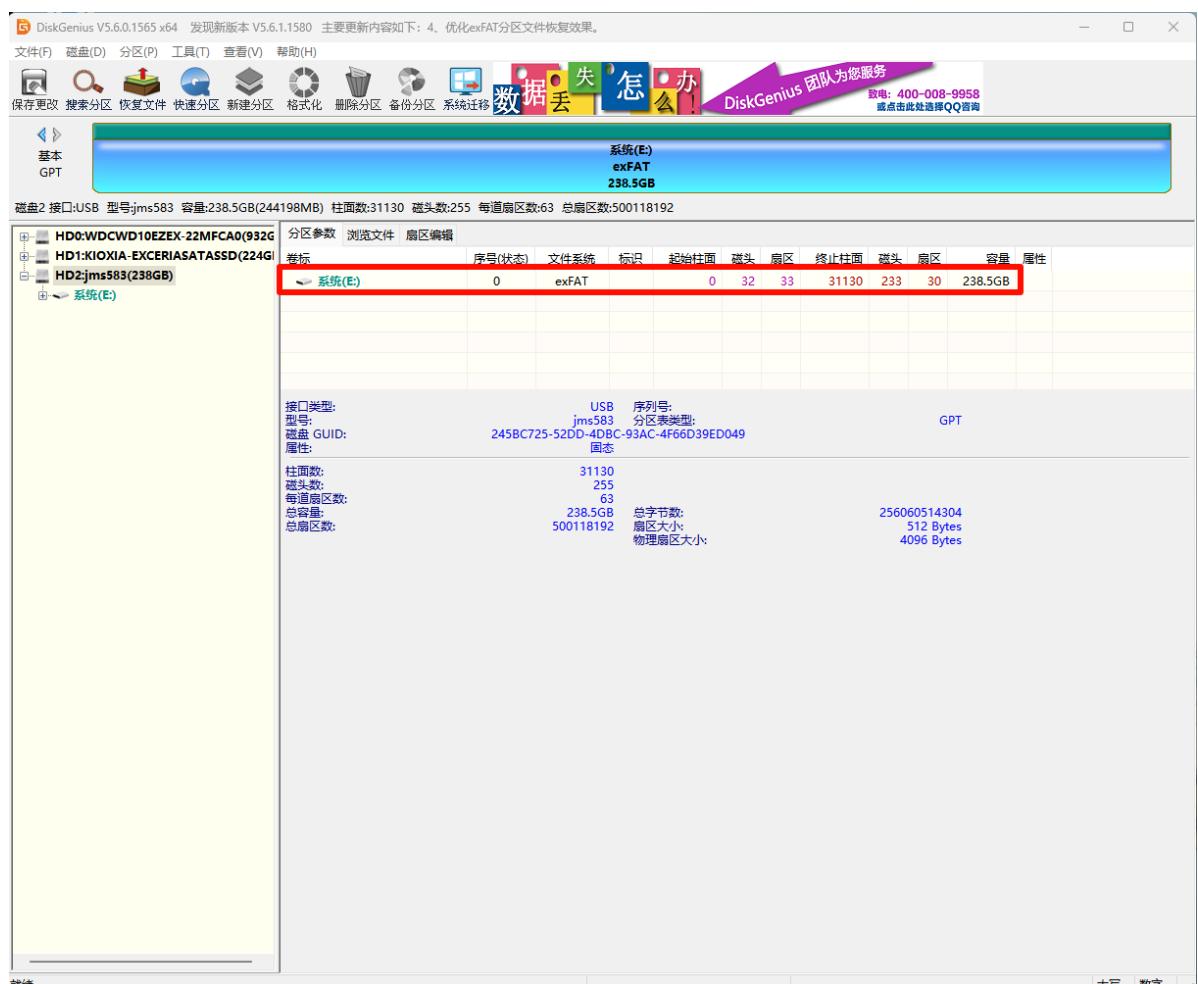
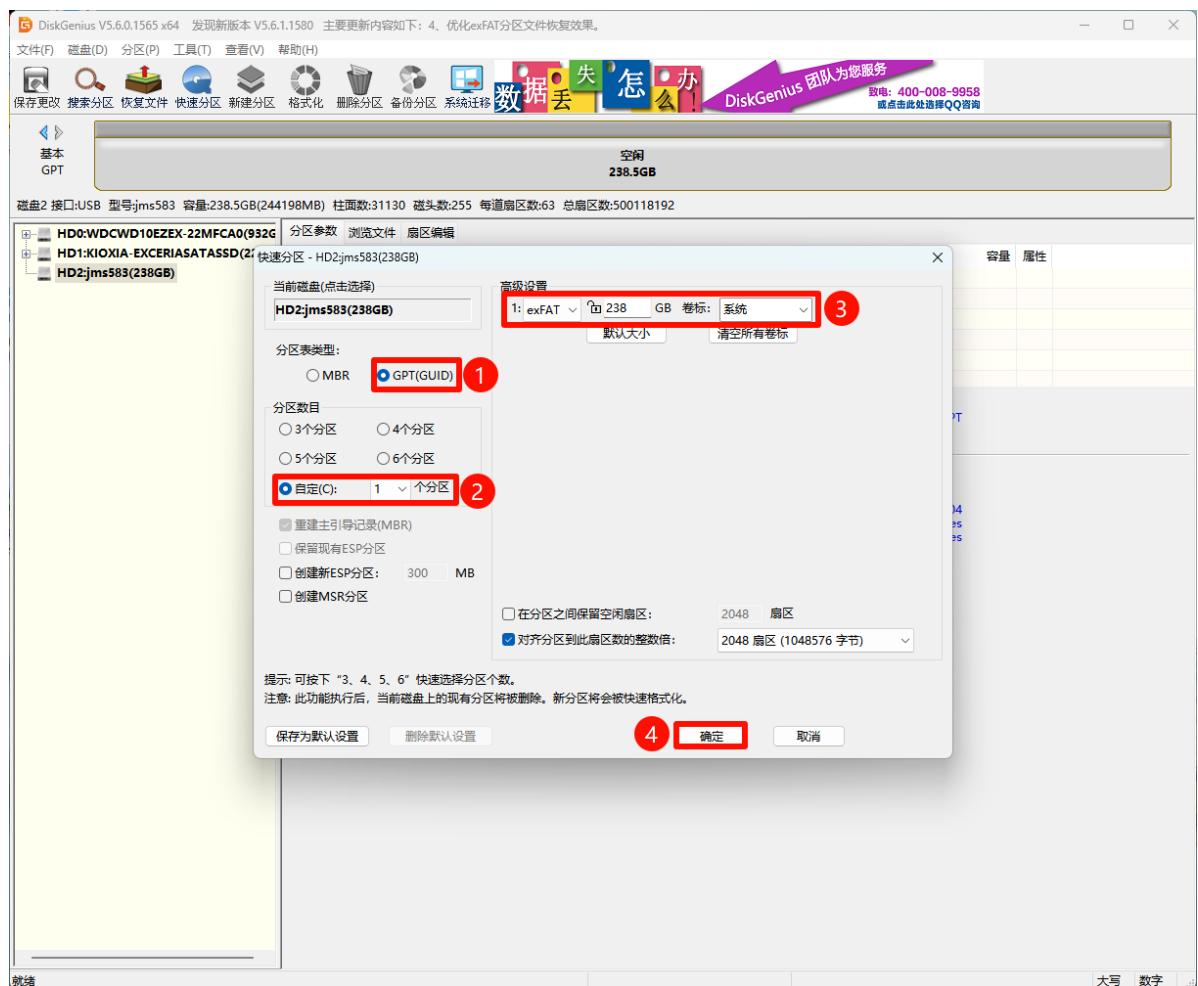
新建分区

将固态硬盘分区成exFAT格式。

选中固态硬盘对应的盘符，然后点击快速分区：



分区选项：可按照下图勾选



3.2、恢复出厂镜像

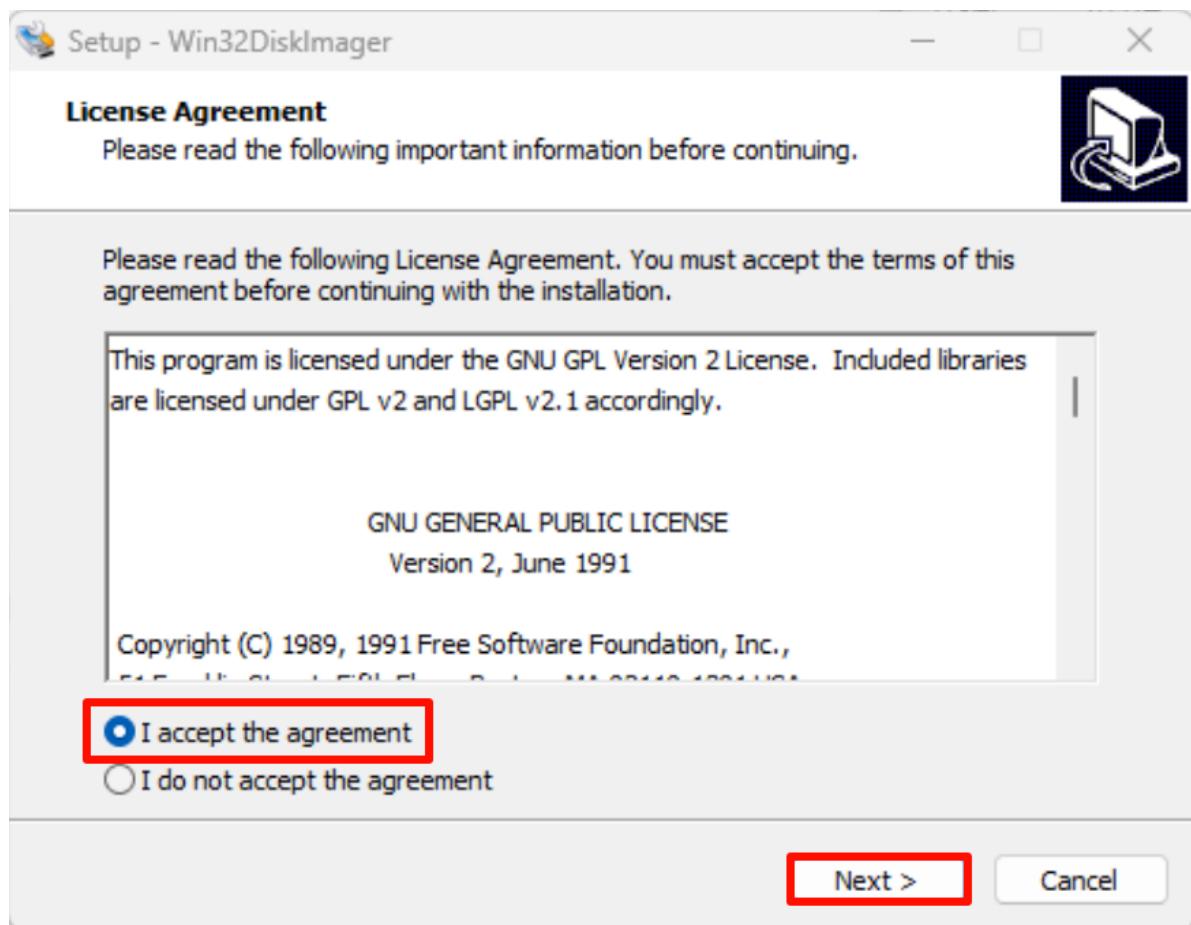
需要提前将资料内的出厂镜像系统下载并解压到本地。

3.2.1、安装Win32DiskImager

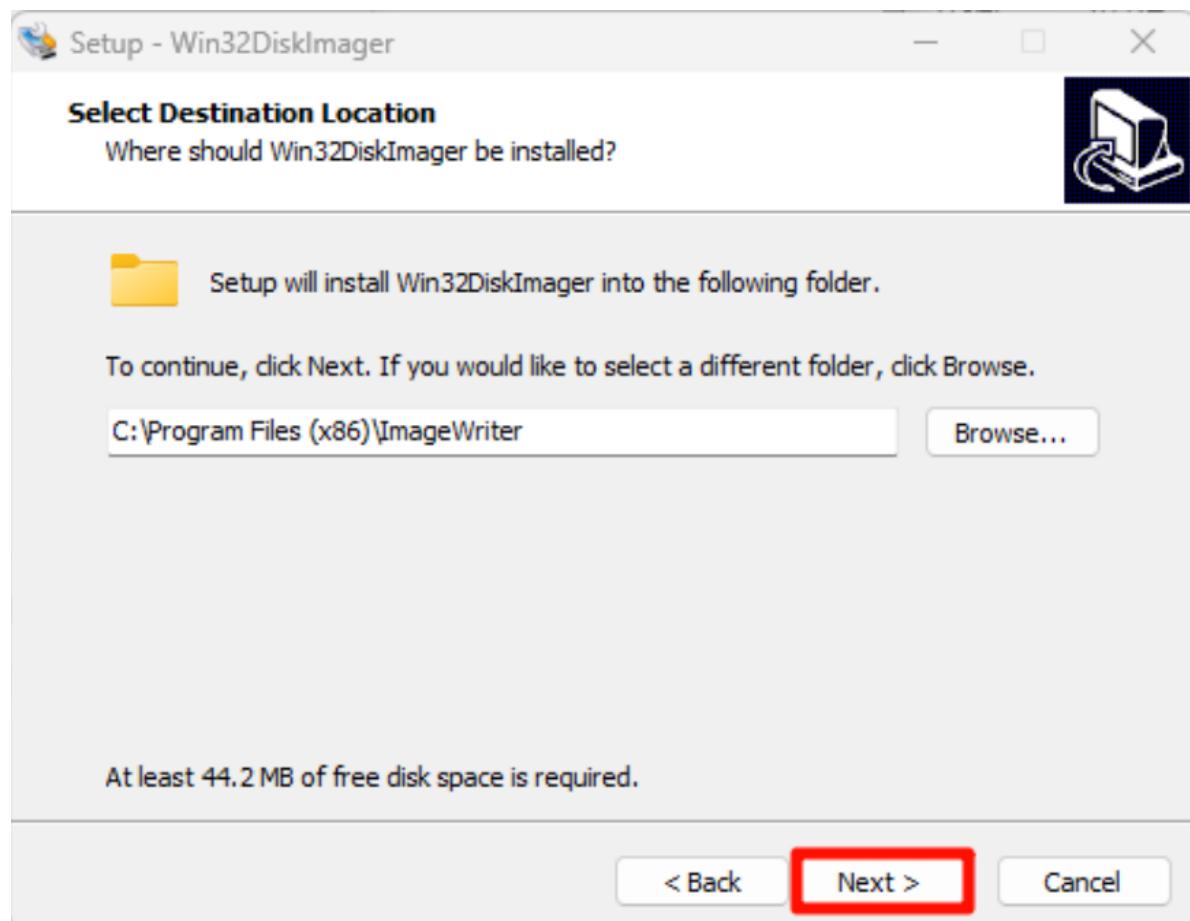
下载网址: <https://sourceforge.net/projects/win32diskimager/>

The screenshot shows the SourceForge project page for Win32 Disk Imager. At the top, there's a navigation bar with links for Business Software, Open Source Software, SourceForge Podcast, Resources, and a search bar. Below the header, the project name 'Win32 Disk Imager' is displayed with a small icon of a USB drive. A brief description follows: 'A Windows tool for writing images to USB sticks or SD/CF cards. Brought to you by: gruemaster, tuxinator 2009'. To the right, there's an 'OPEN SOURCE EXCELLENCE' badge. Below this, the project stats are shown: 126 Reviews, 20,634 Downloads This Week, and Last Update: 2024-12-02. There are buttons for 'Download', 'Get Updates', and 'Share This'. A 'Windows' tab is selected, showing other tabs for Summary, Files, Reviews, Support, Wiki, Feature Requests, Bugs, Code, Mailing Lists, and Blog. On the right side, there's a 'Recommended Projects' sidebar with links to Annoy, UNetbootin, and XBian.

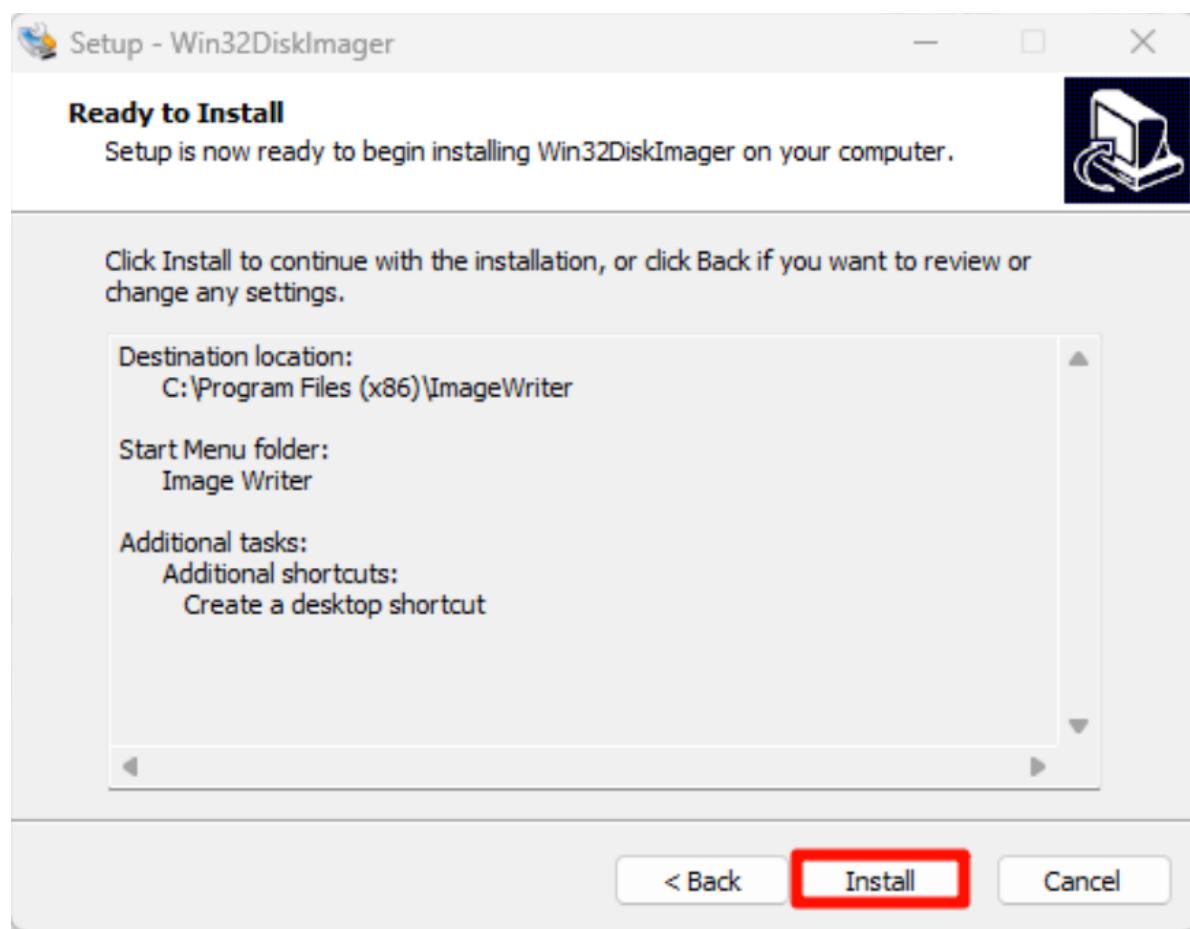
以管理员身份打开 `win32diskimager-1.0.0-install.exe` 安装包，接受协议：

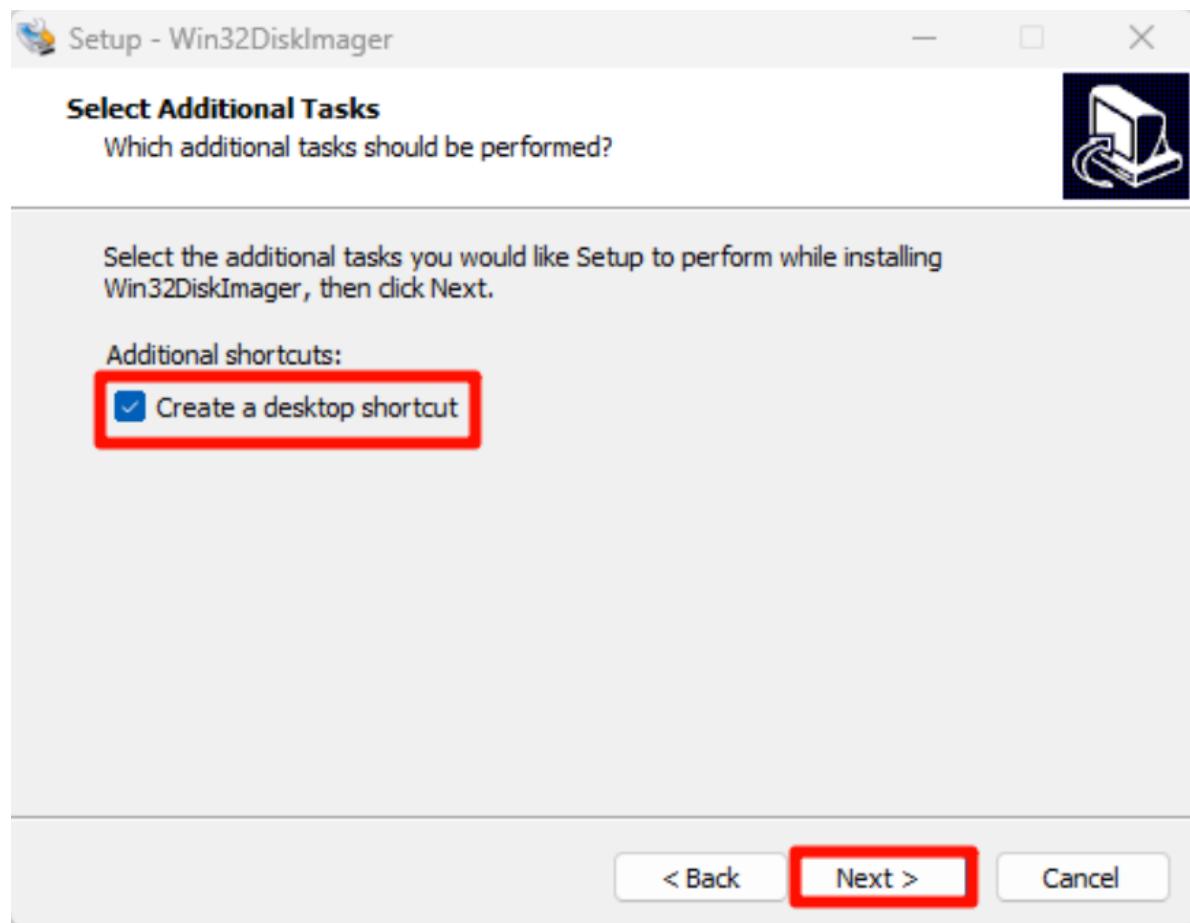


安装位置：建议默认位置

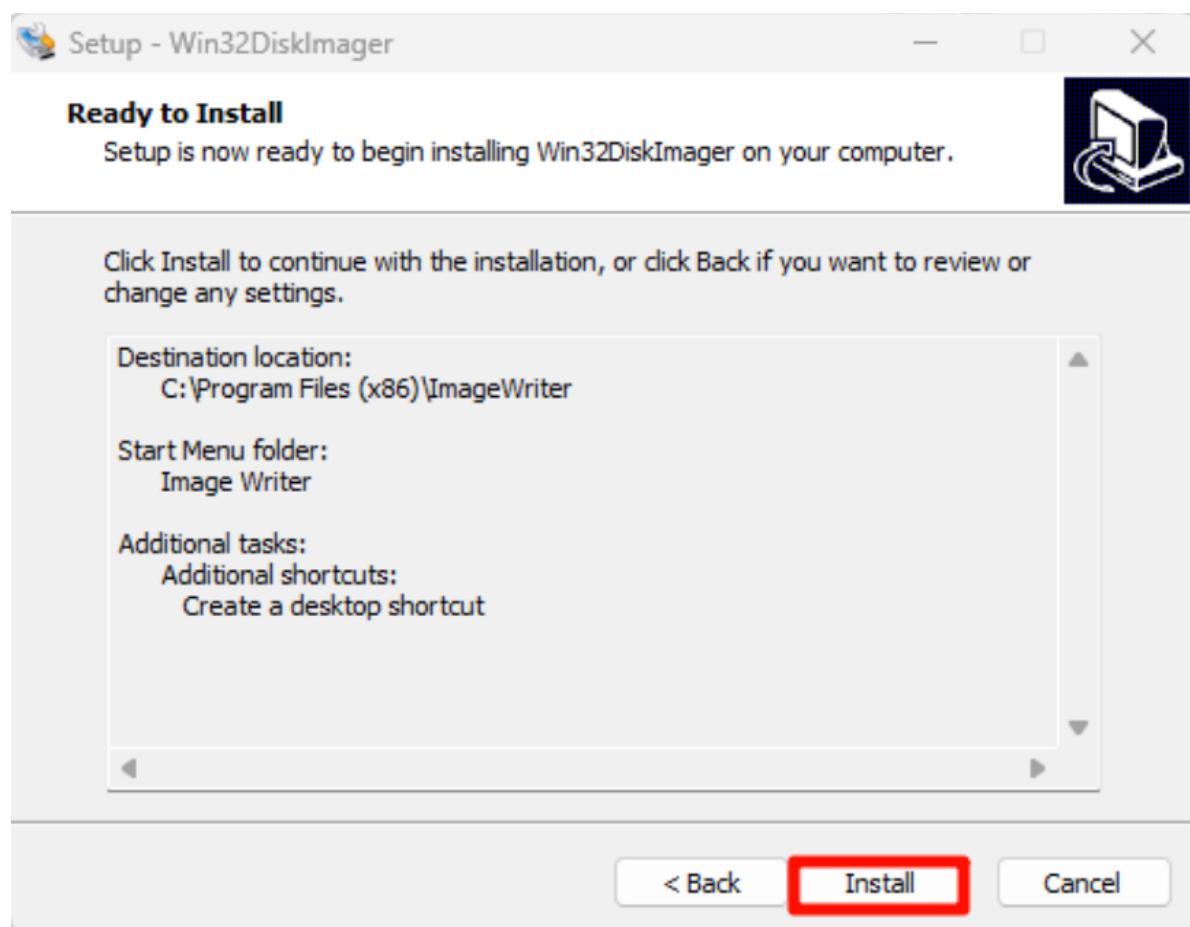


安装选项：

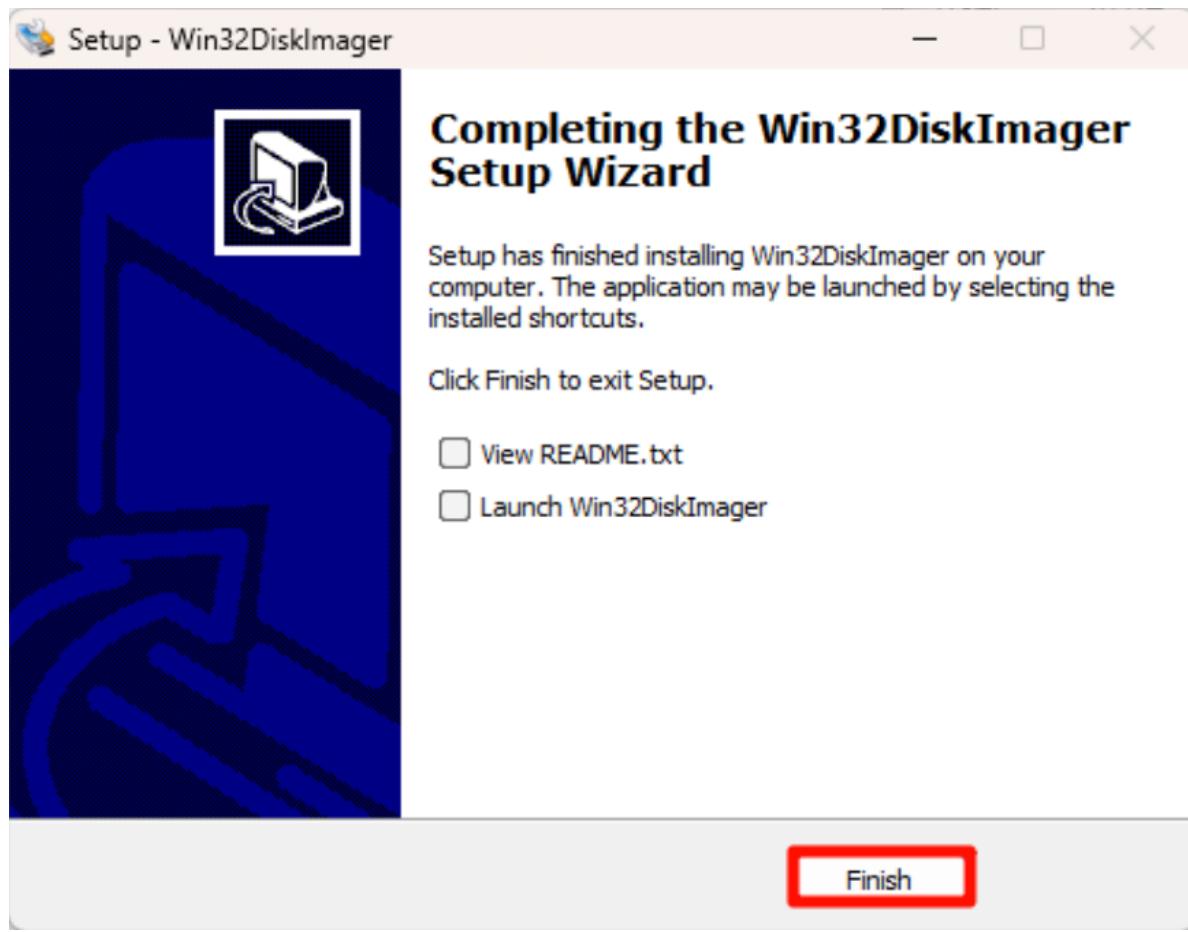




开始安装:

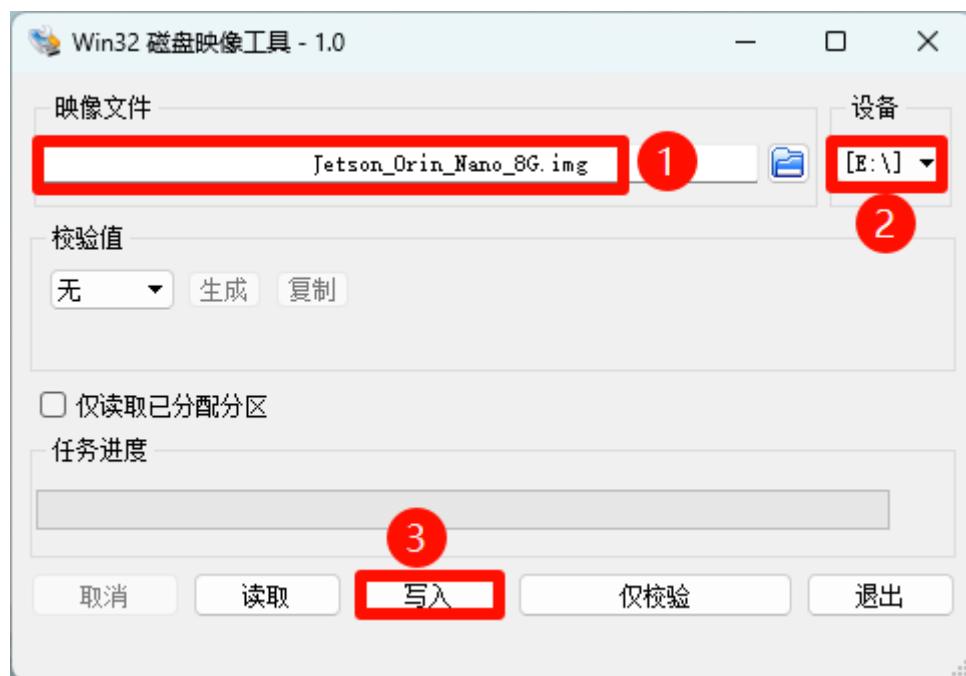


完成安装:

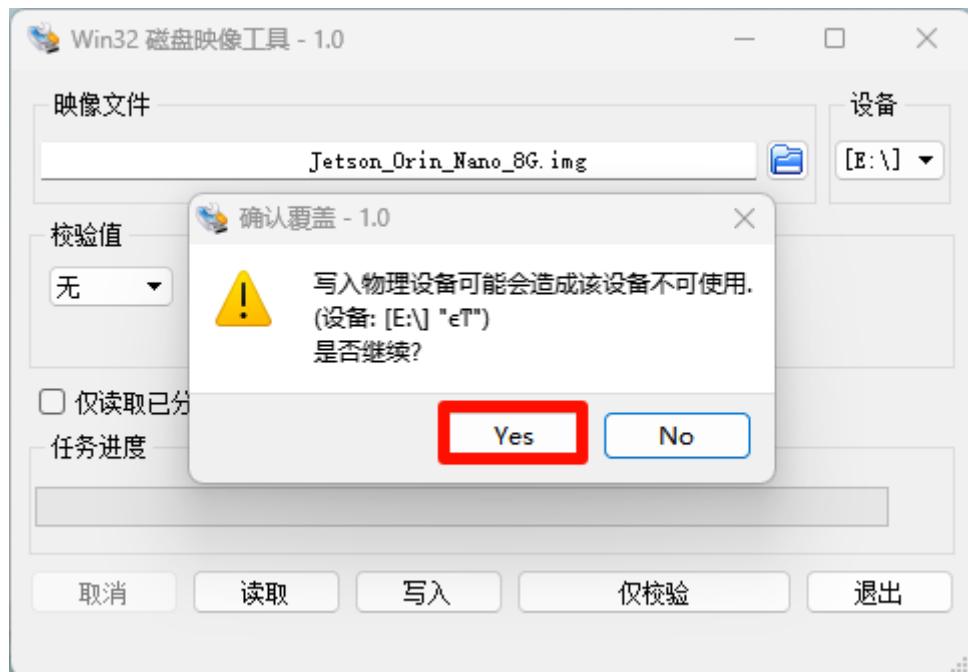


3.2.2、使用Win32DiskImager

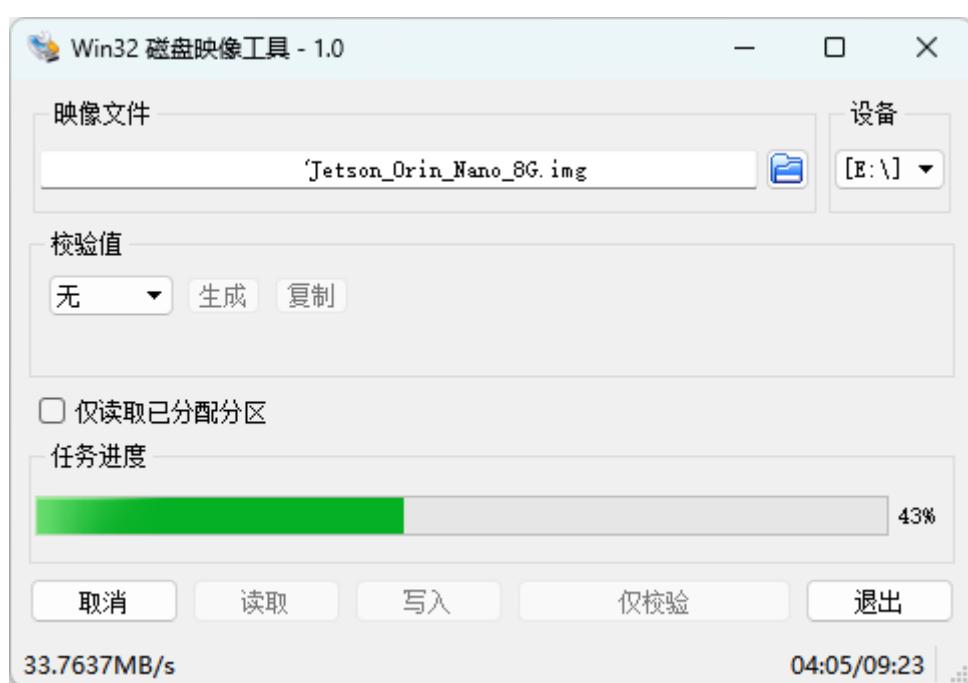
- ①：选择资料内的出厂镜像文件 (*.img)
- ②：选择固态硬盘对应的盘符
- ③：将出厂镜像写入固态硬盘

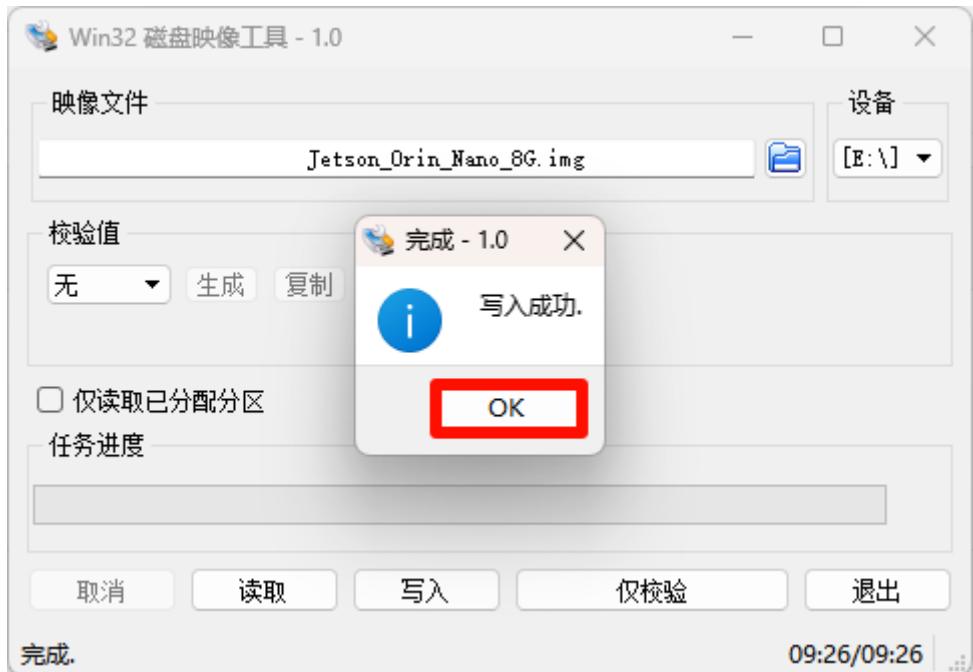


确认写入系统：



等待系统写入成功：





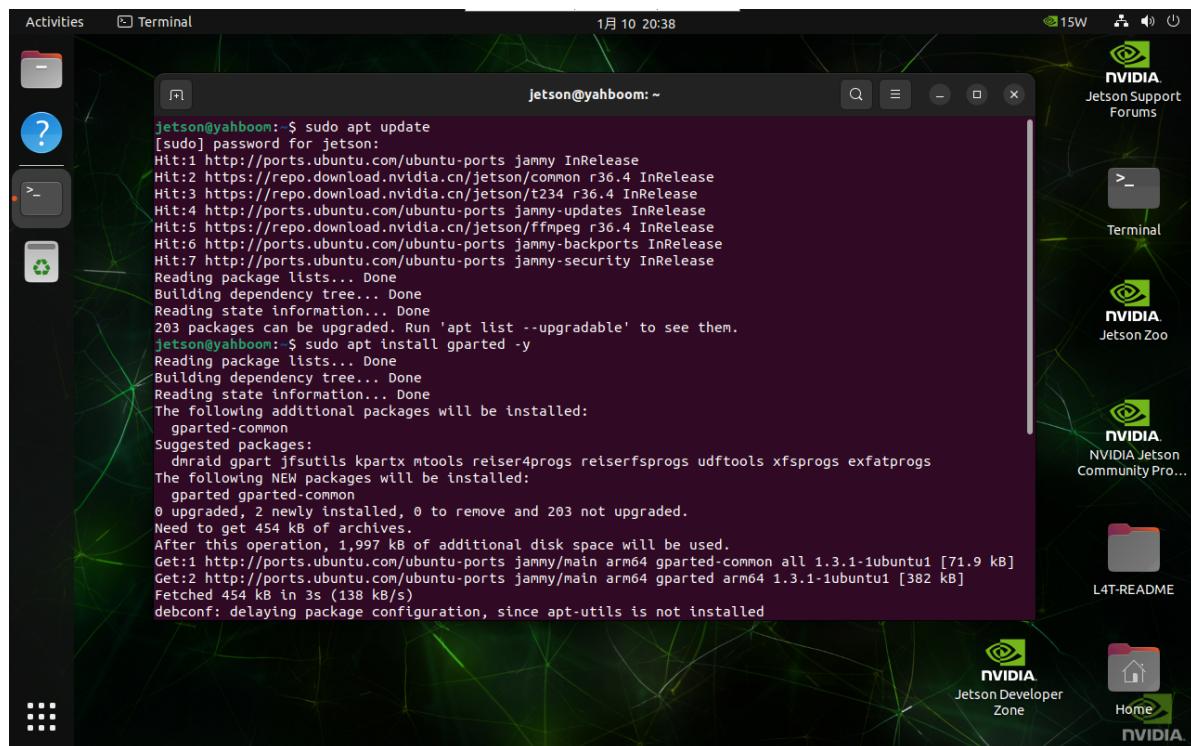
完成系统写入后，可以关闭程序，将固态硬盘安装到jetson Orin主板！

4、固态硬盘扩容

完成该教程可以将固态硬盘未分配的空间分配出来。

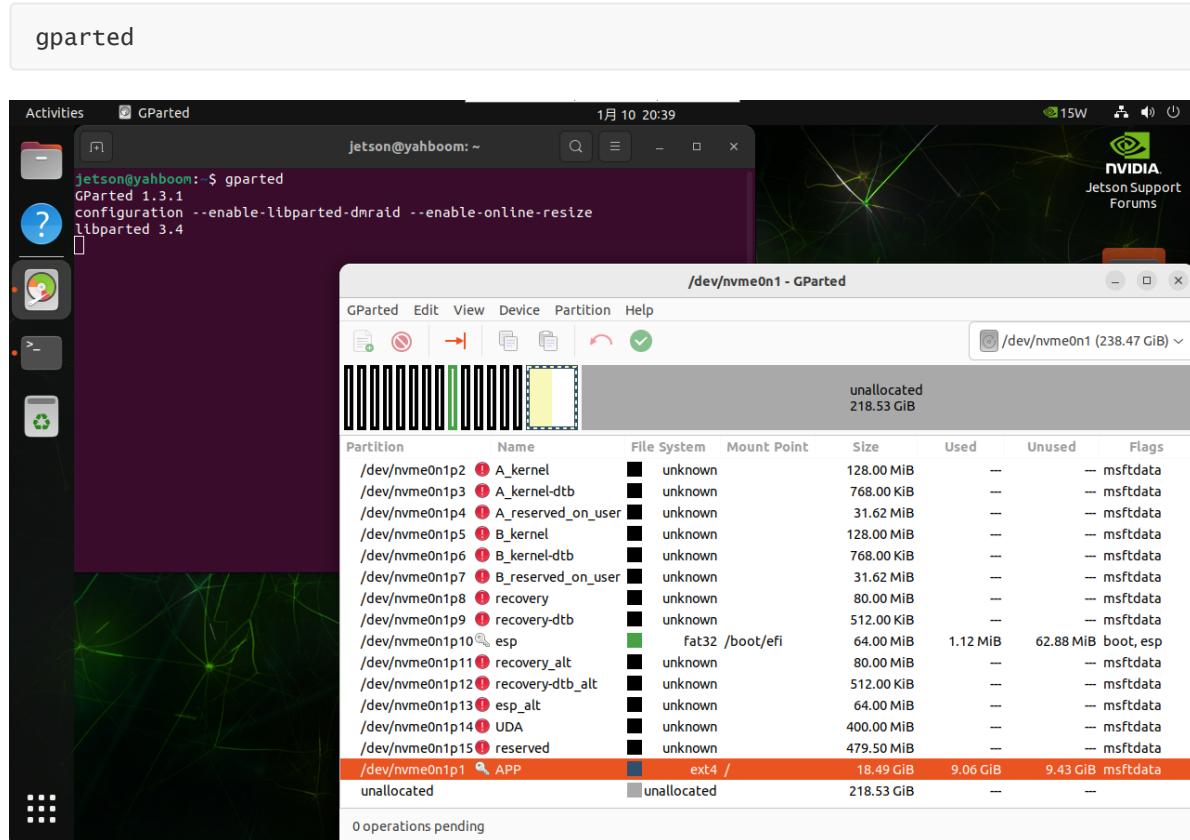
4.1、安装GParted

```
sudo apt update  
sudo apt install gparted -y
```



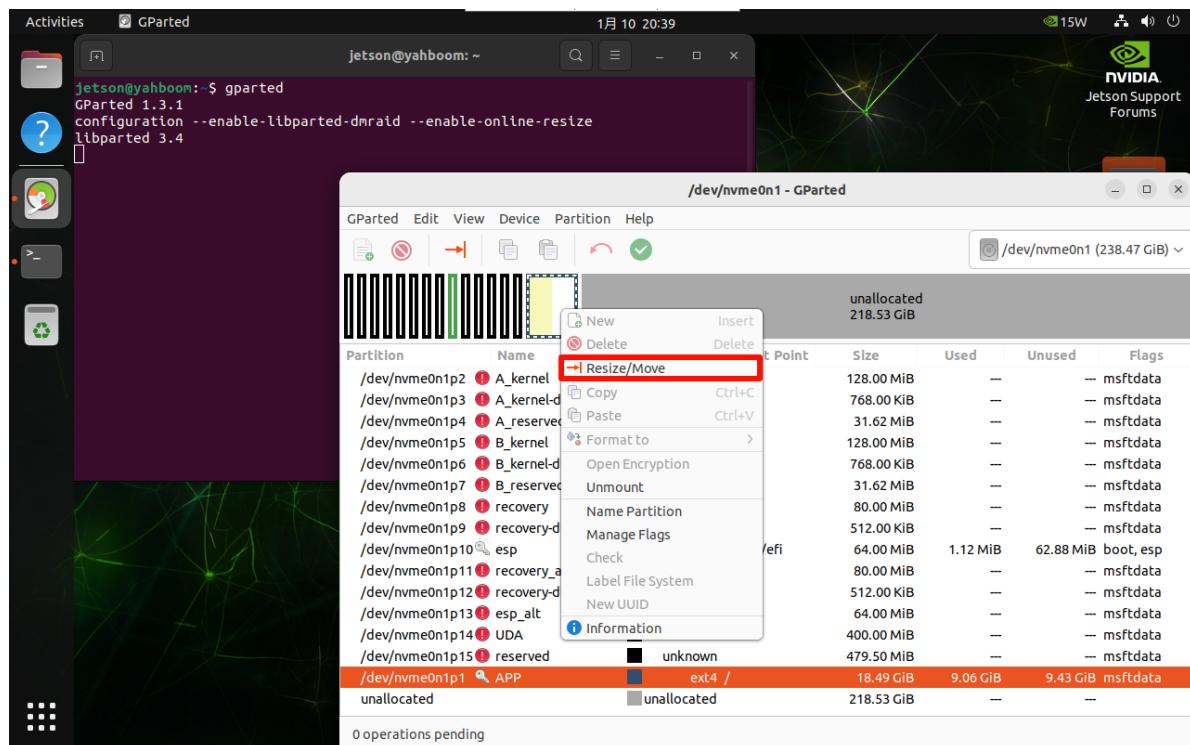
4.2、使用GParted

系统应用菜单栏找到 GParted 应用图标打开或者终端输入下面命令启动：

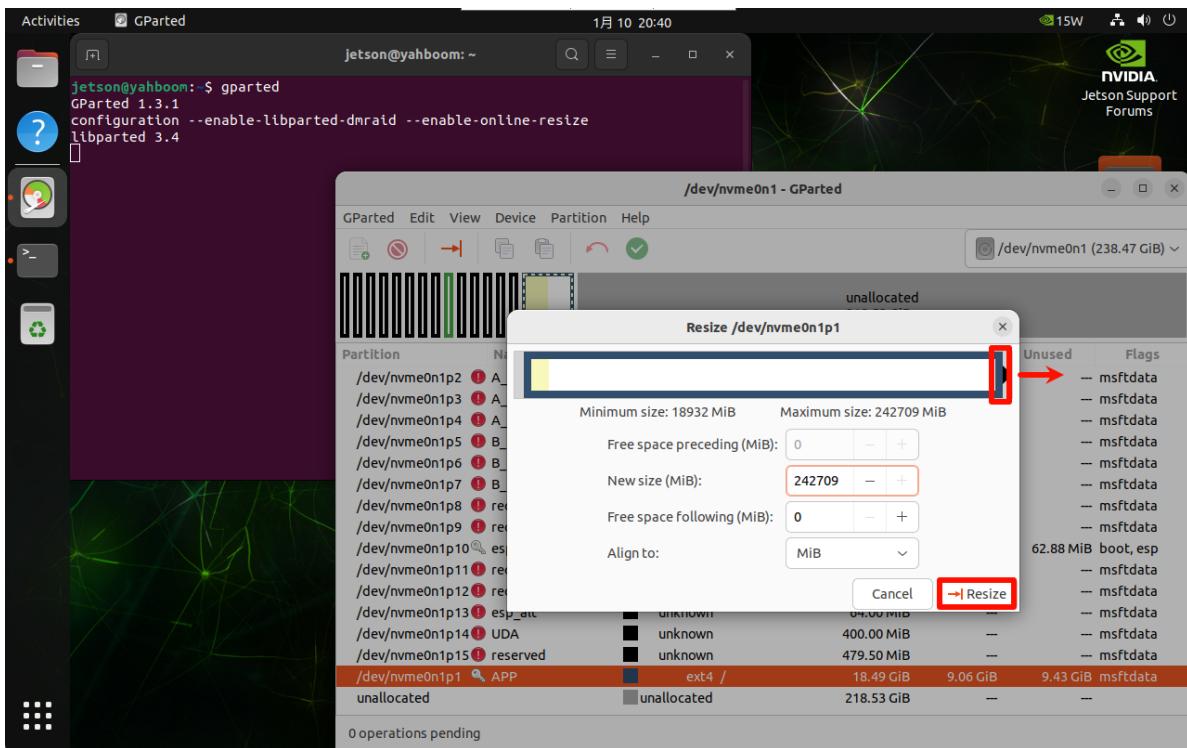


4.3、调整分区

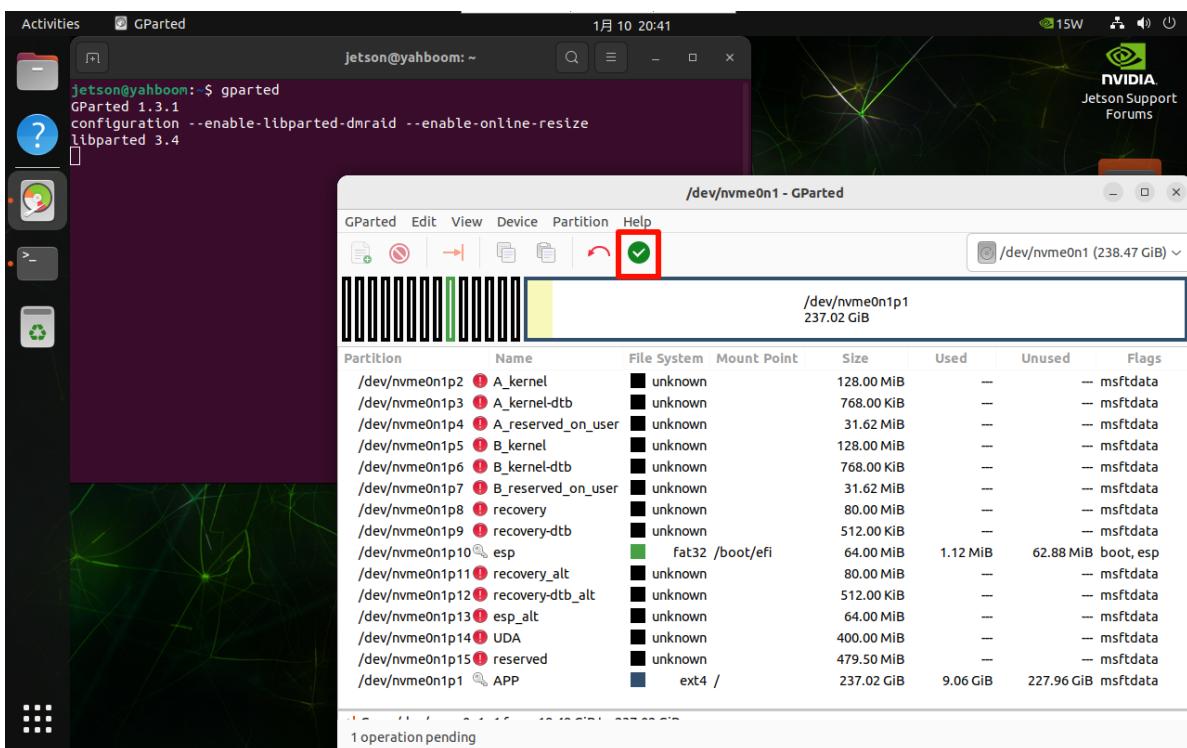
鼠标右击需要扩容的磁盘分区：一般选择磁盘中的最大分区

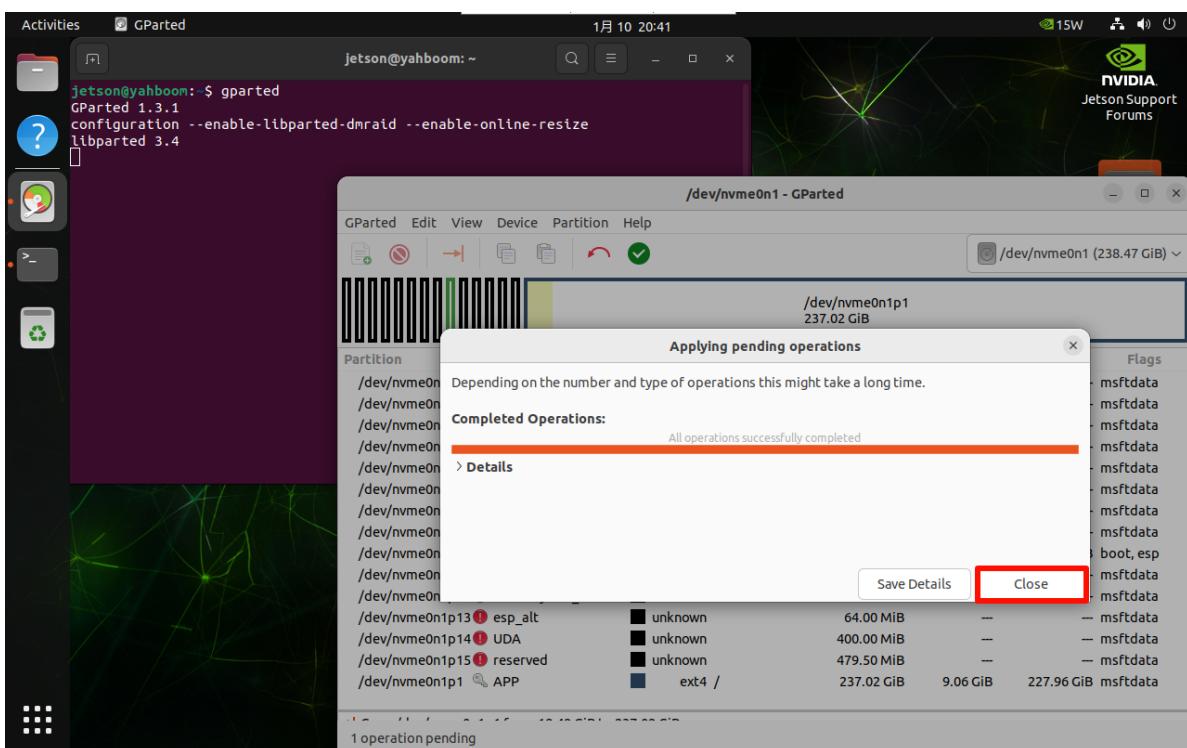
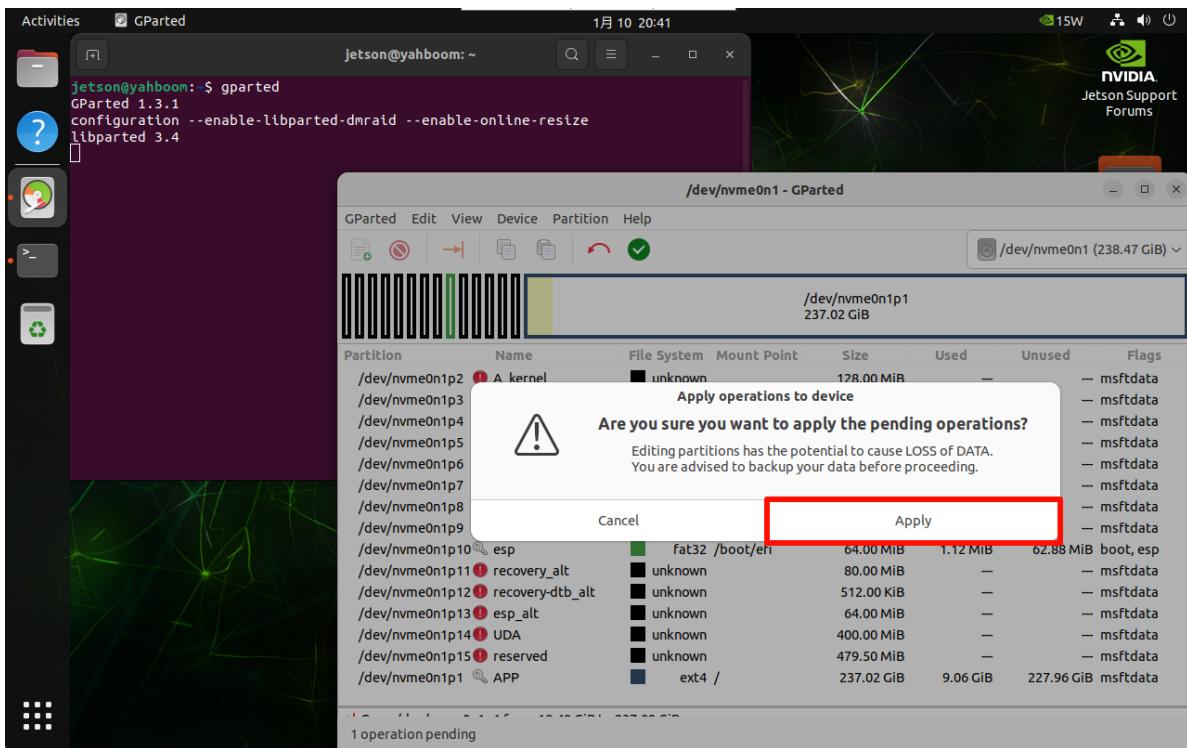


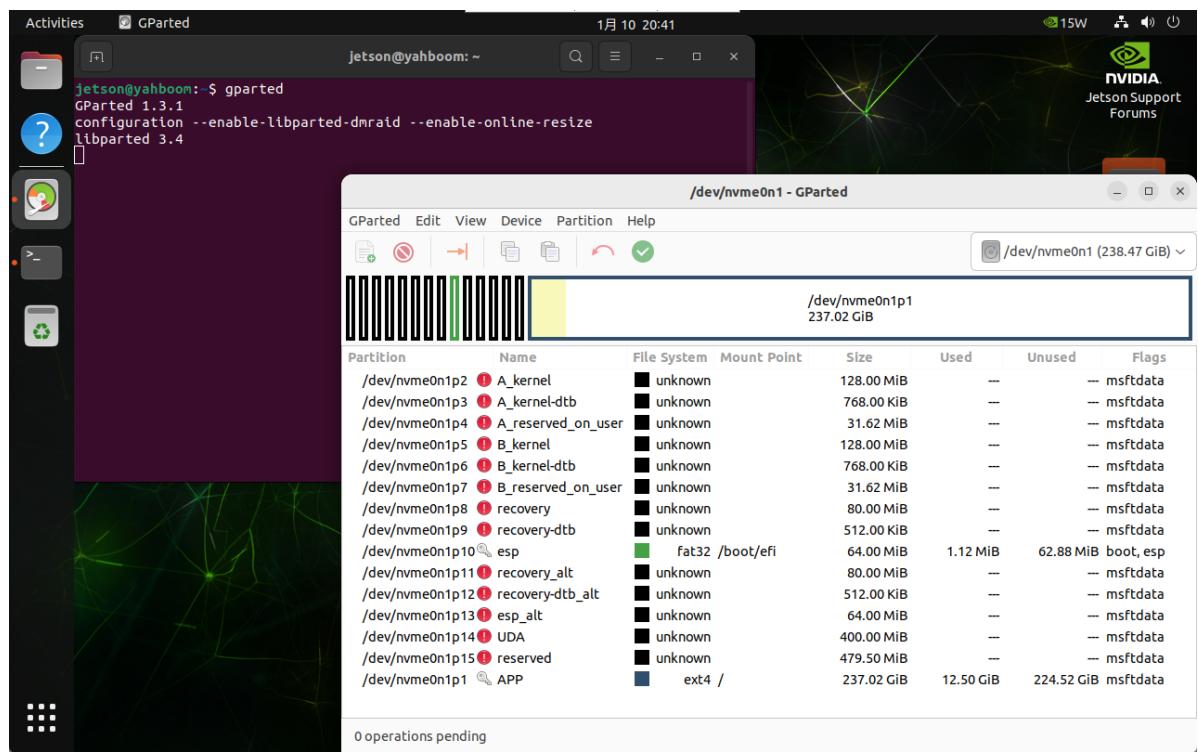
可以通过滑块调整分区大小：可以将空间最大化，滑倒最右侧



确认分区调整操作：







分区完成后，自行关闭 GParted 软件！