DeepLens Factory Restore Instruction

Release date: Jun-20-2018

The tutorial will instruct you how to restore your DeepLens device to factory settings. The DeepLens software versions on the device after resetting may be outdated. You will be asked to upgrade the software during device registration.

WARNING: ALL DATA PREVIOUSLY STORED ON THE DEVICE WILL BE ERASED!!

Prerequisite:

- 1 USB flash drive, 32GB or larger[1]
- A DeepLens device to restore
- A personal computer to facilitate preparation

Preparation:

You only need to do this once to setup the USB drive. After that, you can use it to reset your device over and over again.

- Format the USB flash drive into 2 partitions (See Appendix A for how we do)
  - 1st partition: FAT32, 2GB
  - 2nd partition: NTFS, >16GB
- Make the USB drive bootable (See Appendix B for how we do)
  - Download the customized Ubuntu live image
  - Use the downloaded image to turn your USB drive into a bootable device from partition 1
- Put the factory restore files on the USB drive
  - Download the compressed factory restore package (~3.5GB)
  - Unzip the package and put the unpacked files to the 2nd partition of the USB drive: image file (.bin, ~16GB) and script file (flash.sh)

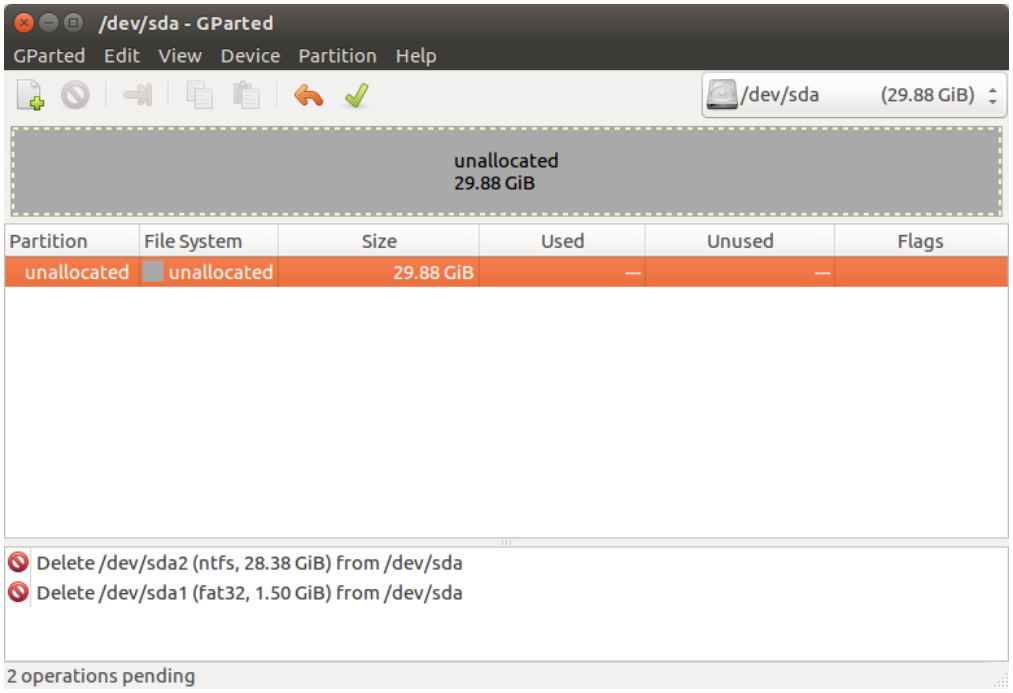
Steps:

- Insert the USB drive to Deeplens and power on. Repeatedly pressing ESC to enter BIOS.
- Select "Boot From File" → USB VOLUME → EFI → BOOT → BOOTx64.EFI.
- After the live system is up, an automatic flashing will happen to recover the device. You should see a Terminal window popping up with the progress displayed. No user interaction is needed. In this process, some error may happen and the recovery can fail. If this happens, repeat from first step. A result.log will be generated on the USB drive.
- Wait for flashing to complete (~ 6min). After that, your device will automatically reboot.
- Your device is now restored. And you can disconnect the USB flash drive from the device.

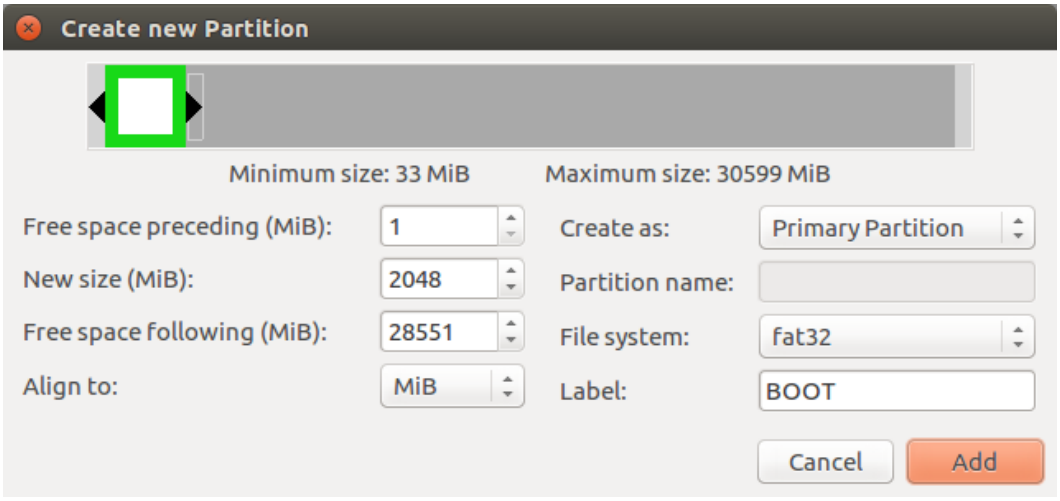
[1] Micro SD card works only with a card reader. The automatic flashing will not happen if using the card slot on the back of the device.

Appendix A:
There are multiple ways to partition and format a USB drive. You can use your personal computer to do it. In this appendix, we introduce how to prepare the USB drive on a DeepLens device using Gparted. If you decide to use a different approach, please search the internet for alternatives.

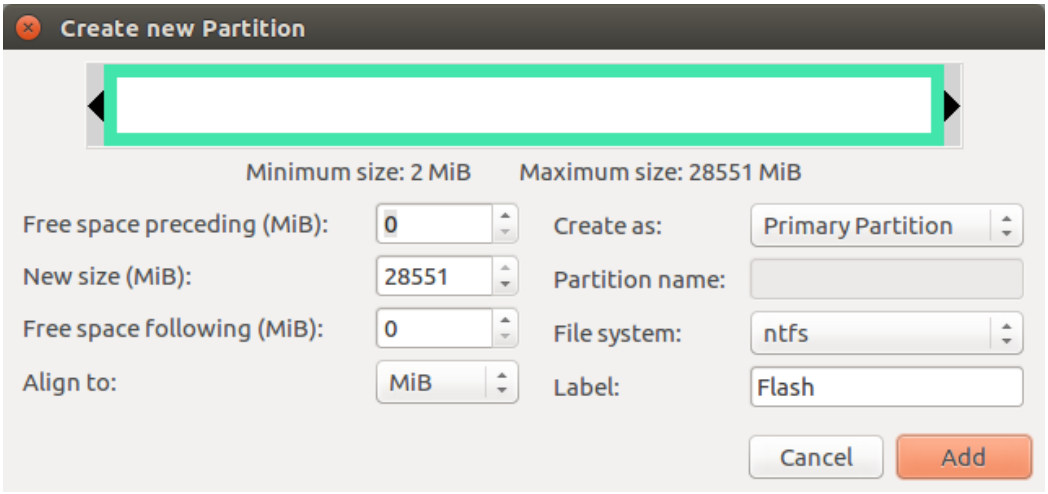
- On DeepLens, run 'sudo apt-get update; sudo apt-get install gparted' to install GParted.
- Launch GParted by 'sudo gparted'
- Once the interface of GParted shows up, make sure /dev/sda is selected on the top-right corner. Then delete all exiting partitions.



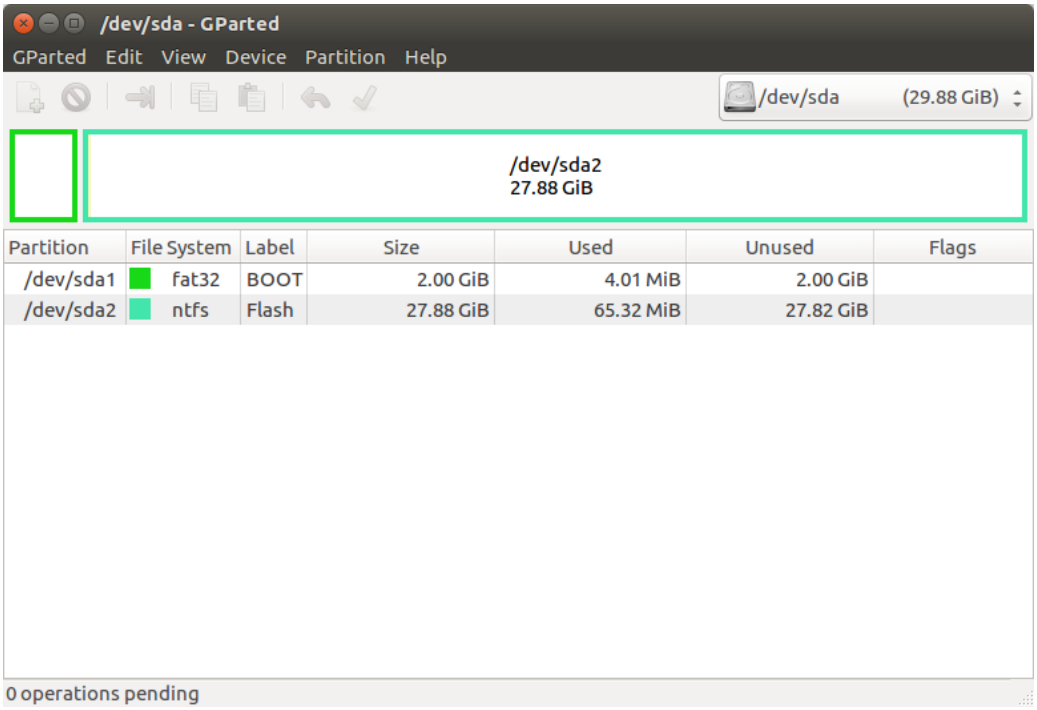
- Create the first partition, with size equal to 2GB and format as FAT32.



- Create the second partition on the remaining space, with format as NTFS.



- Apply the above changes. On success, you USB drive partition information may look like the following.



Appendix B:
Taking the previously partitioned USB drive, in this step you need to make this drive bootable on its 1st partition. It can be done with various operating systems and software, so you can use your personal computer if it's easier. In this appendix, we will show you how to complete this step on a DeepLens using UNetbootin. If you decide to use a different approach, please search the internet for alternatives.

- On DeepLens, run 'sudo apt-get update; sudo apt-get install unetbootin' to install UNetbootin.
- Launch UNetbootin by 'sudo unetbootin'
- Select the downloaded Ubuntu ISO file as Diskimage and '/dev/sda1' as the drive to flash. Click "OK" to start the live system creation.