Application Note AN-117

Using GParted
Reach Technology, Inc.
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1 Overview

This application note describes how to create an additional partition, or extend/resize an existing partition, on the SD card of a G2 Display Module using the Linux `GParted` utility.

This application note assumes familiarity with using the Linux VM, and with using terminal-level commands within the VM.

2 Quick Steps

2.1 Add a partition

- Start the VM, insert the SD card into a USB SD card reader attached to the host system.
- From the VM menu bar, select:
  `VM->Removable Devices-><Your USB Storage Device>->Connect (Disconnect from Host).`
- Open a `Terminal` session (click the `Terminal` icon on the Desktop).
- Install `gparted` with the following command in the `Terminal` session (when prompted, the root password in the VM is "`password`" without the double-quotes):
  ```
  $ sudo apt-get install gparted
  ```
- Launch `gparted` with the following command in the `Terminal` window:
  ```
  $ sudo gparted
  ```
- Select device `/dev/sdb` from the drop-down list on the right.
- Click on the unallocated section.
- From the top menu, select `Partition->New`.
- To create a new partition that uses all of the remaining free space, leave all the defaults.
- On G2H2, select `File System` of `ext4`. On G2C1, select `File System` of `ext3`.
- Optionally add a `Label`.
- Click `Add`.
- Click `Apply All Operations`.
- When prompted, click `Apply` to apply all pending operations.
- When operation is complete, click `Close`.
- From the top menu, select `GParted->Quit`.
- From the terminal menu, select `File->Close Window`.

2.2 Extend/Resize a partition

- Start the VM, insert the SD card into a USB SD card reader attached to the host system.
- From the VM menu bar, select:
  `VM->Removable Devices-><Your USB Storage Device>->Connect (Disconnect from Host).`
- Open a `Terminal` session (click the `Terminal` icon on the Desktop).
- Install `gparted` with the following command in the `Terminal` session (when prompted, the root password in the VM is "`password`" without the double-quotes):

  ```
  $ sudo apt-get install gparted
  ```
- Launch `gparted` with the following command in the `Terminal` window:

  ```
  $ sudo gparted
  ```
- Select device `/dev/sdb` from the drop-down list on the right.
- Click on the partition to extend.
- From the top menu, select `Partition->Resize/Move`.
- Drag the black arrow in the slider to the far-right side to extend the partition to the maximum available space.
- Click `Resize`.
- Click `Apply All Operations`.
- When prompted, click `Apply` to apply all pending operations.
- The operation may take a while to complete. When operation is complete, click `Close`.
- From the top menu, select `GParted->Quit`.
- From the terminal menu, select `File->Close Window`.

3 Detailed Steps

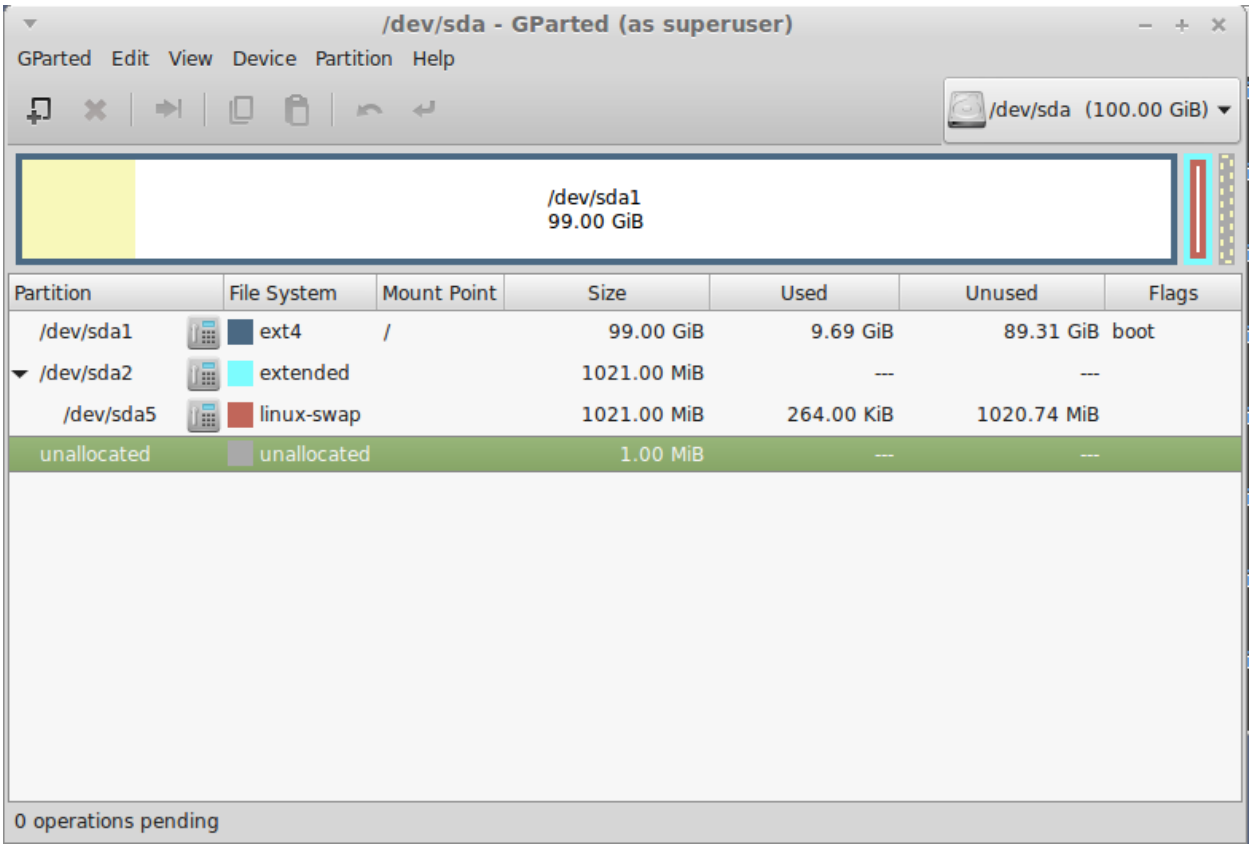
3.1 Add a partition

- Start the Linux VM.
- Once the VM is up and running, install the SD card into a USB card reader attached to the host system.
- If opened, close any new browser windows to the new mount points.
- You will see new '`Volume`' icons on the desktop for each partition currently on the SD card.
- Open a `Terminal` session by clicking on the `Terminal` icon on the desktop.

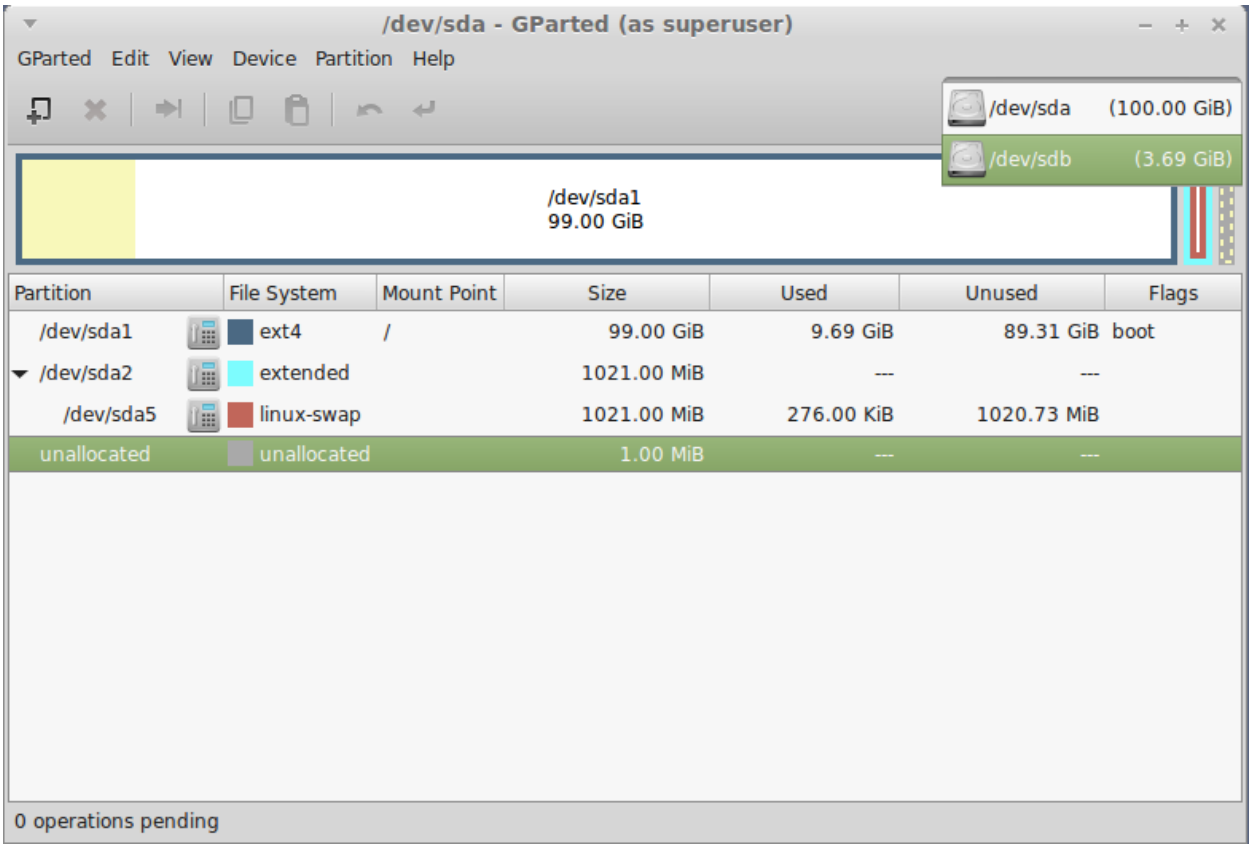
- Install and launch `Gparted` by running the following commands in the `Terminal` window. When prompted, the root password in the VM is "`password`", without the double-quotes.

```
$ sudo apt-get install gparted
$ sudo gparted
```

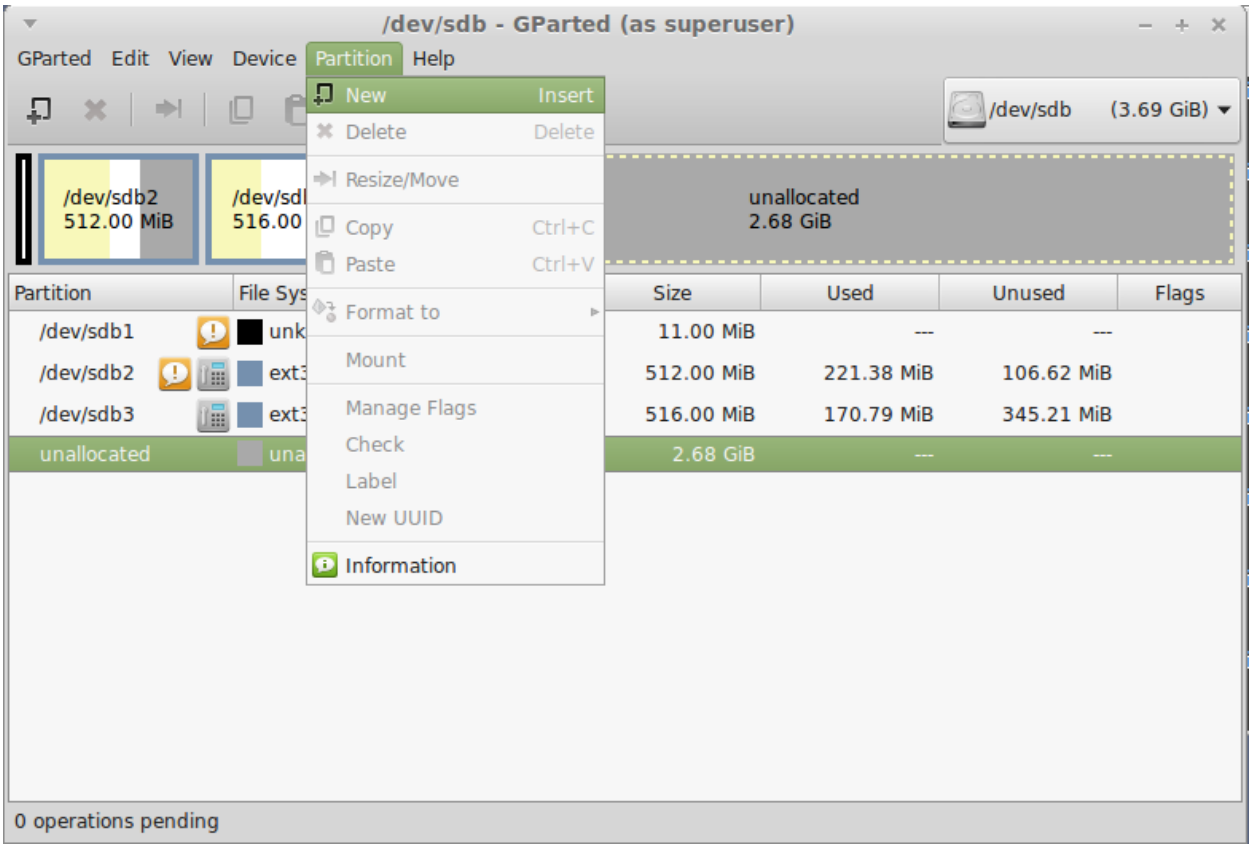
(Start-up screen for `gparted`.)



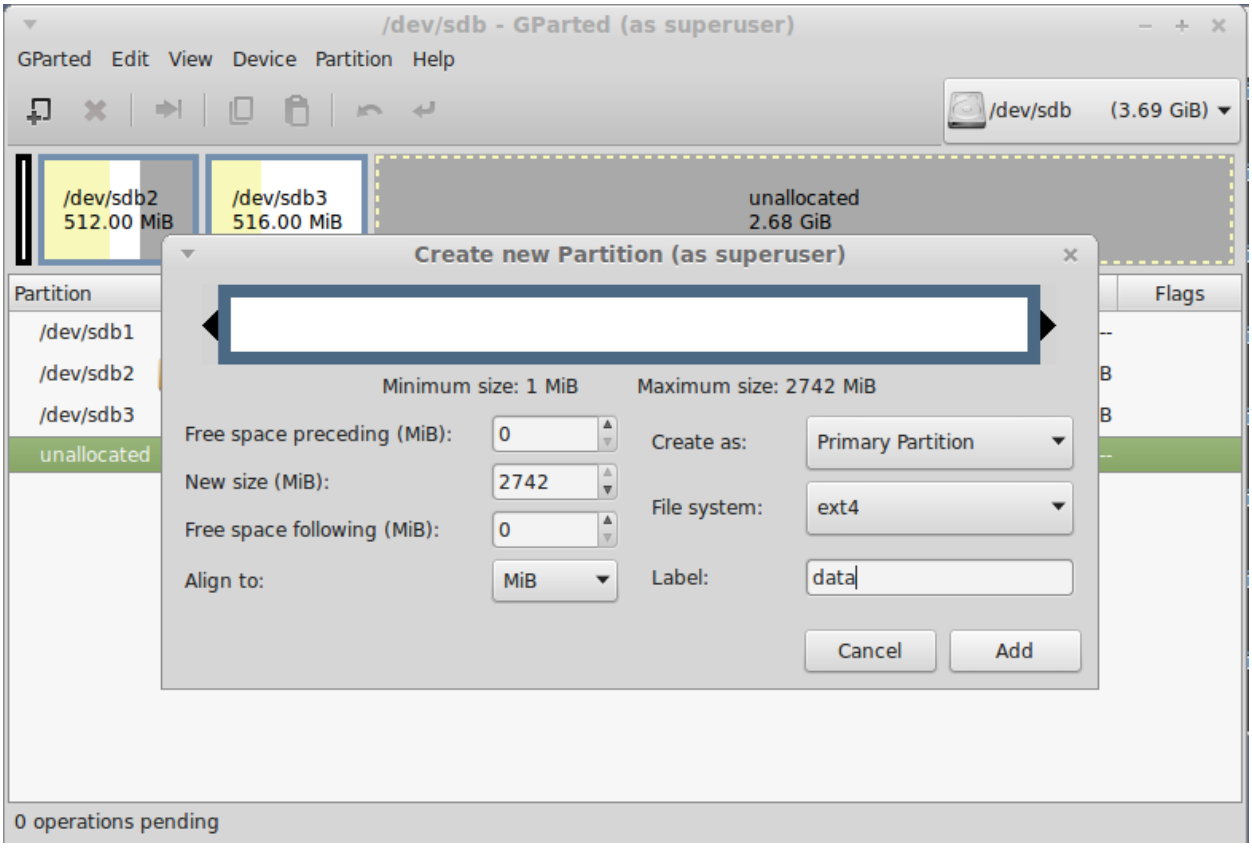
- Select `/dev/sdb` from the drop list on the right, and click on the unallocated section.



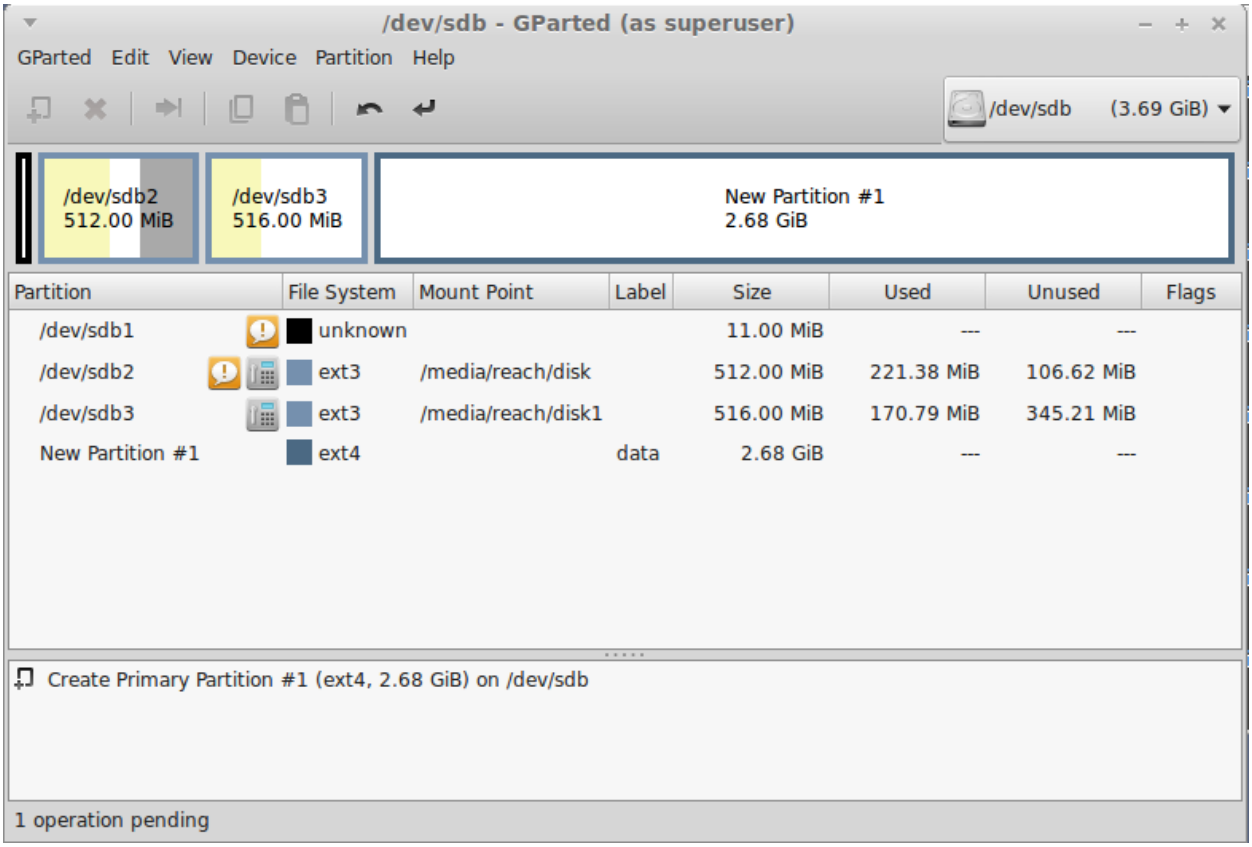
- From the top menu, select `Partition->New`.



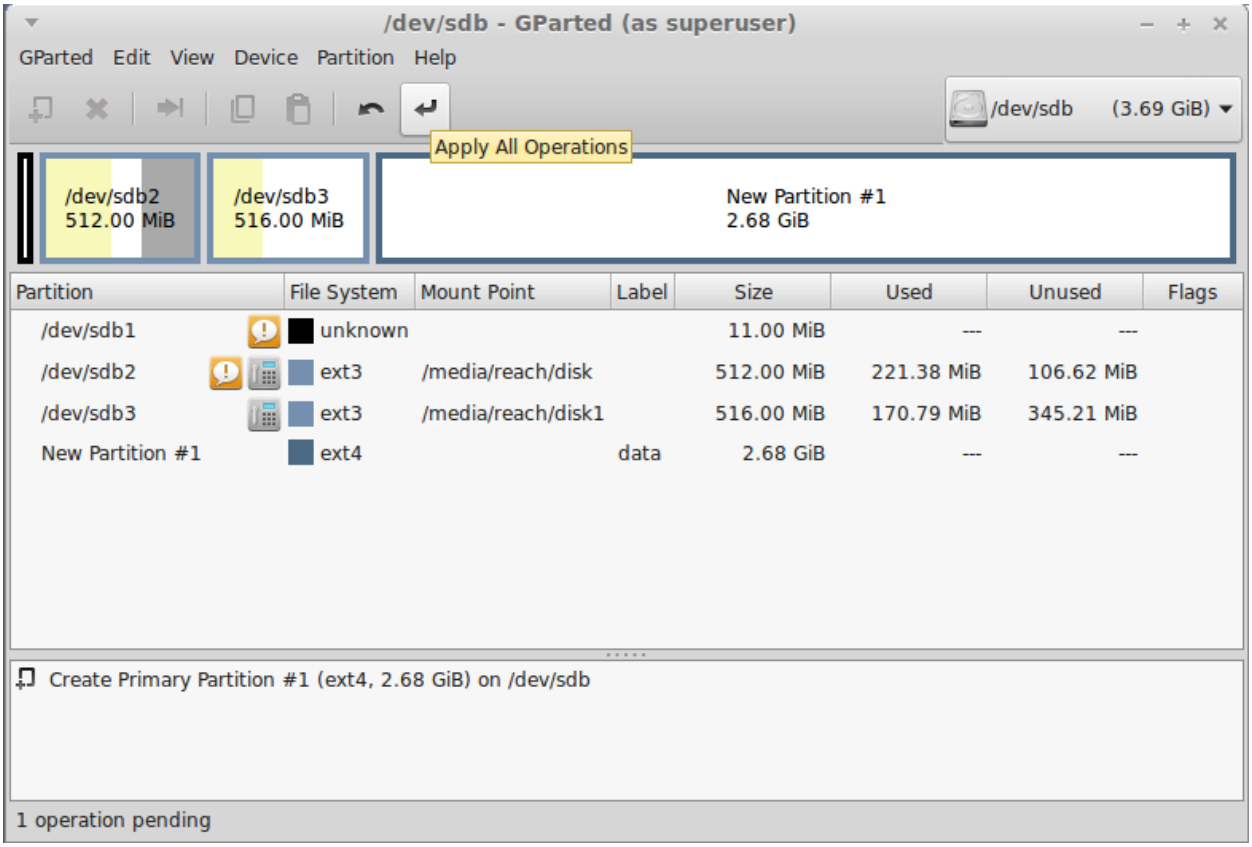
- To create a new partition that uses all of the remaining free space, leave all the default settings.
- On G2H2, select `File System` of `ext4`. On G2C1, select `File System` of `ext3`.
- Optionally add a `Label`.
- Click `Add`.



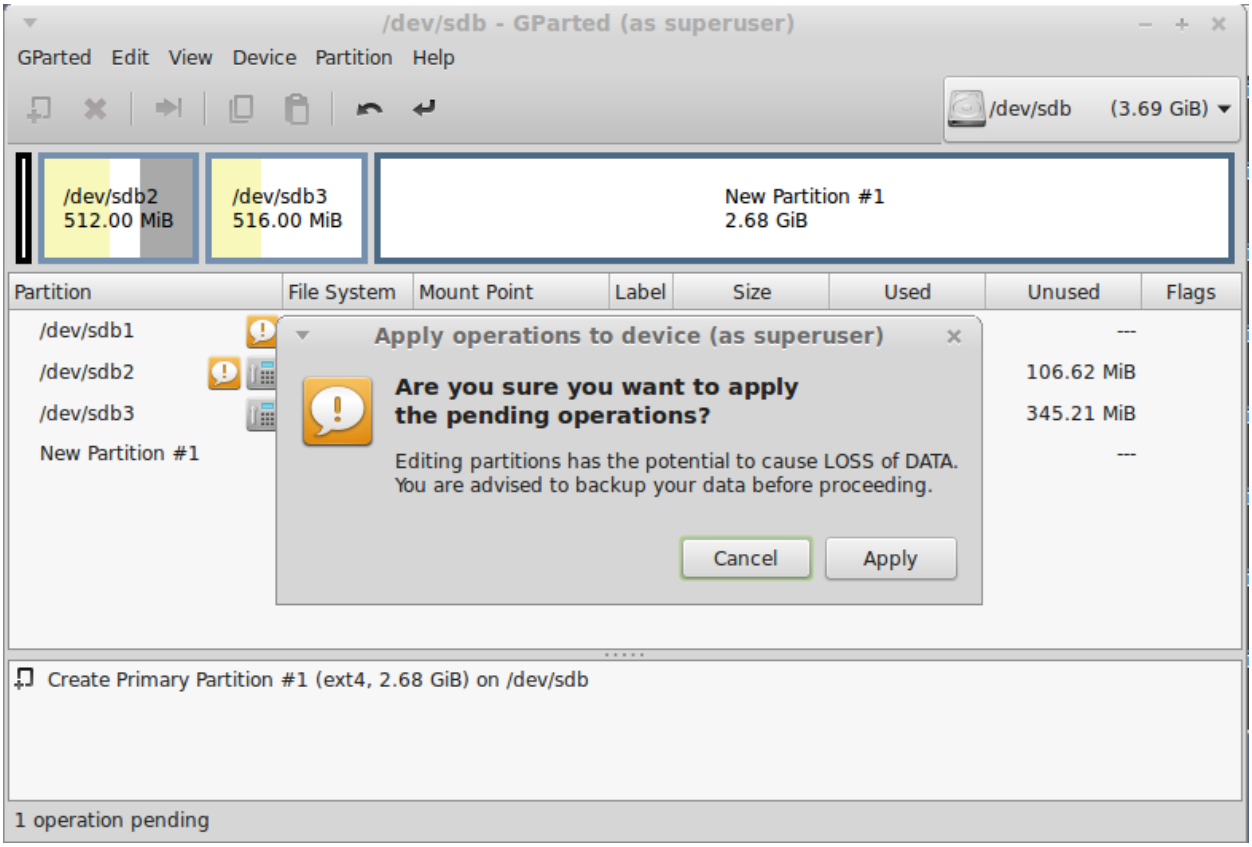
(After clicking `Add`. Note pending operations.)



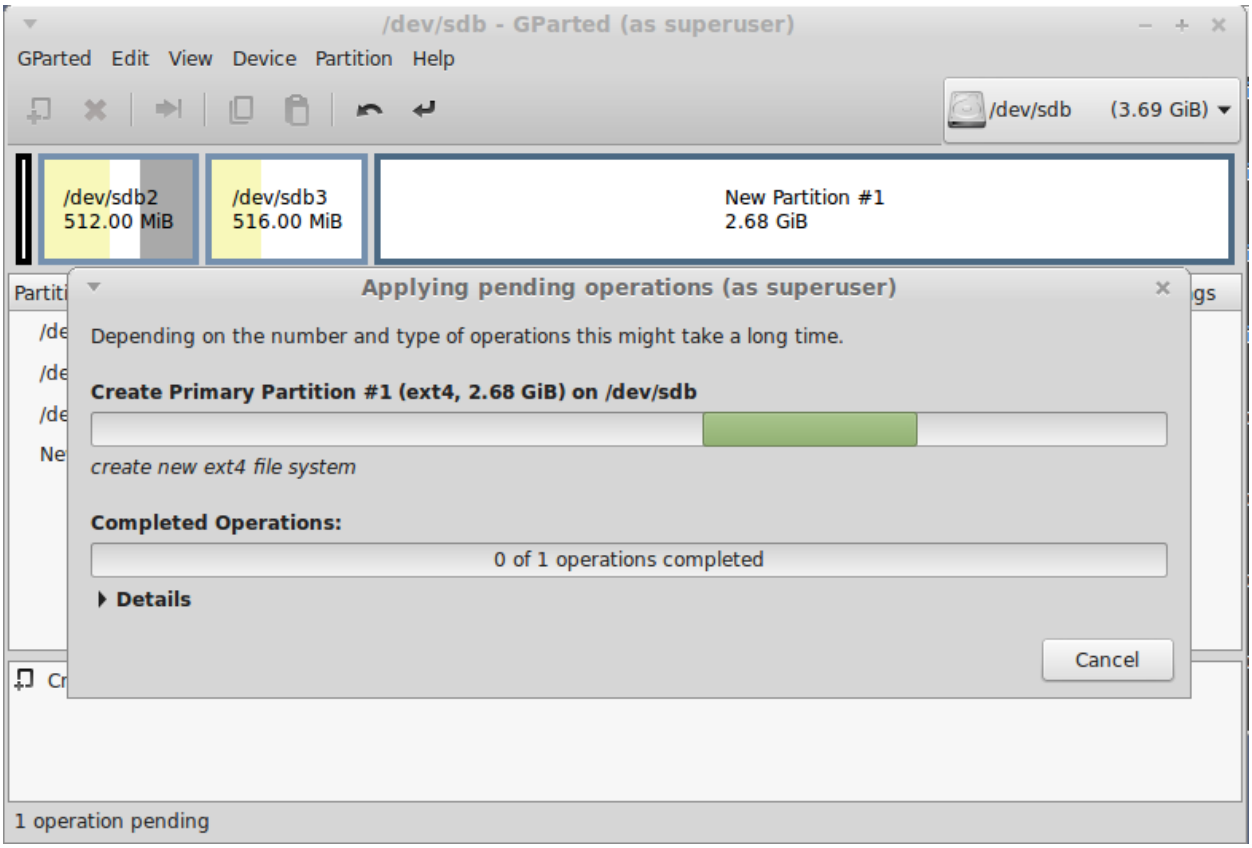
- Click `Apply All Operations`.



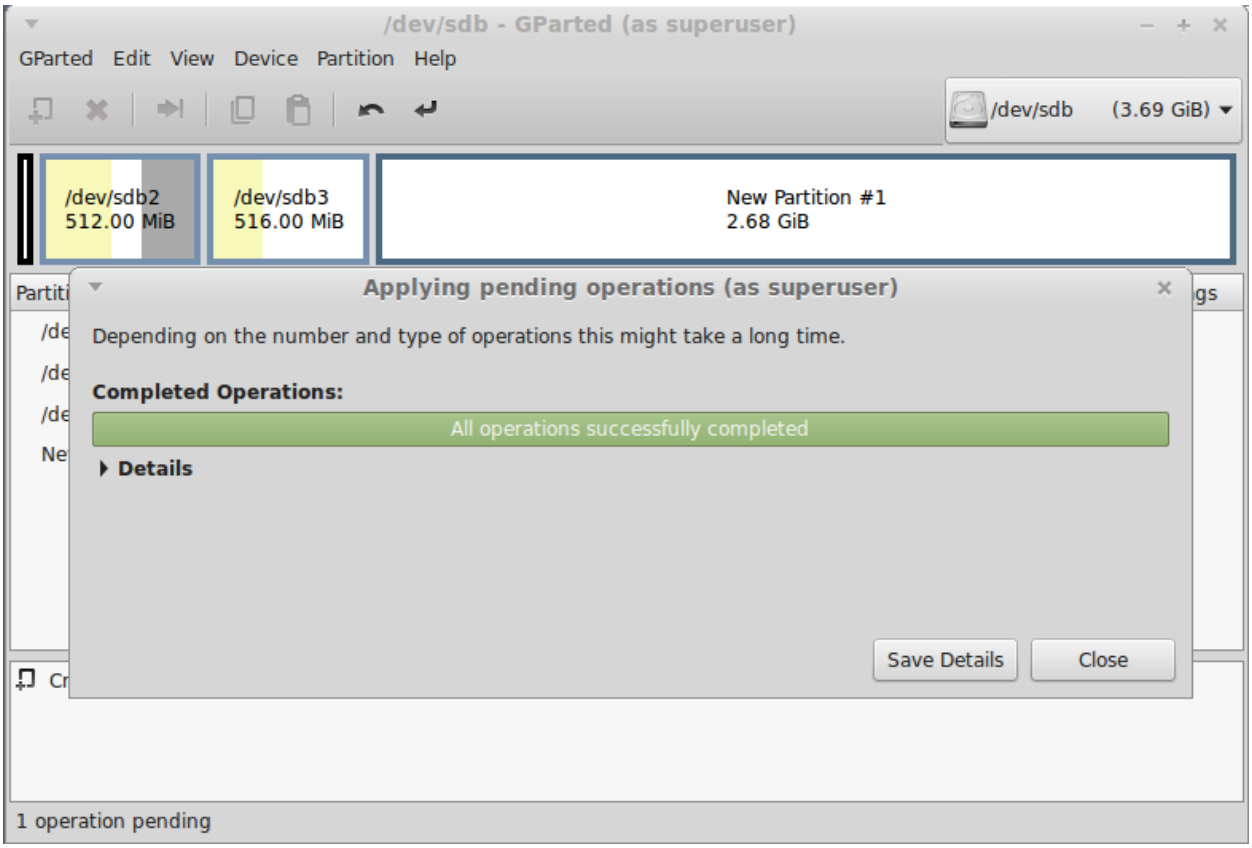
- When prompted, click `Apply` to apply all pending operations.



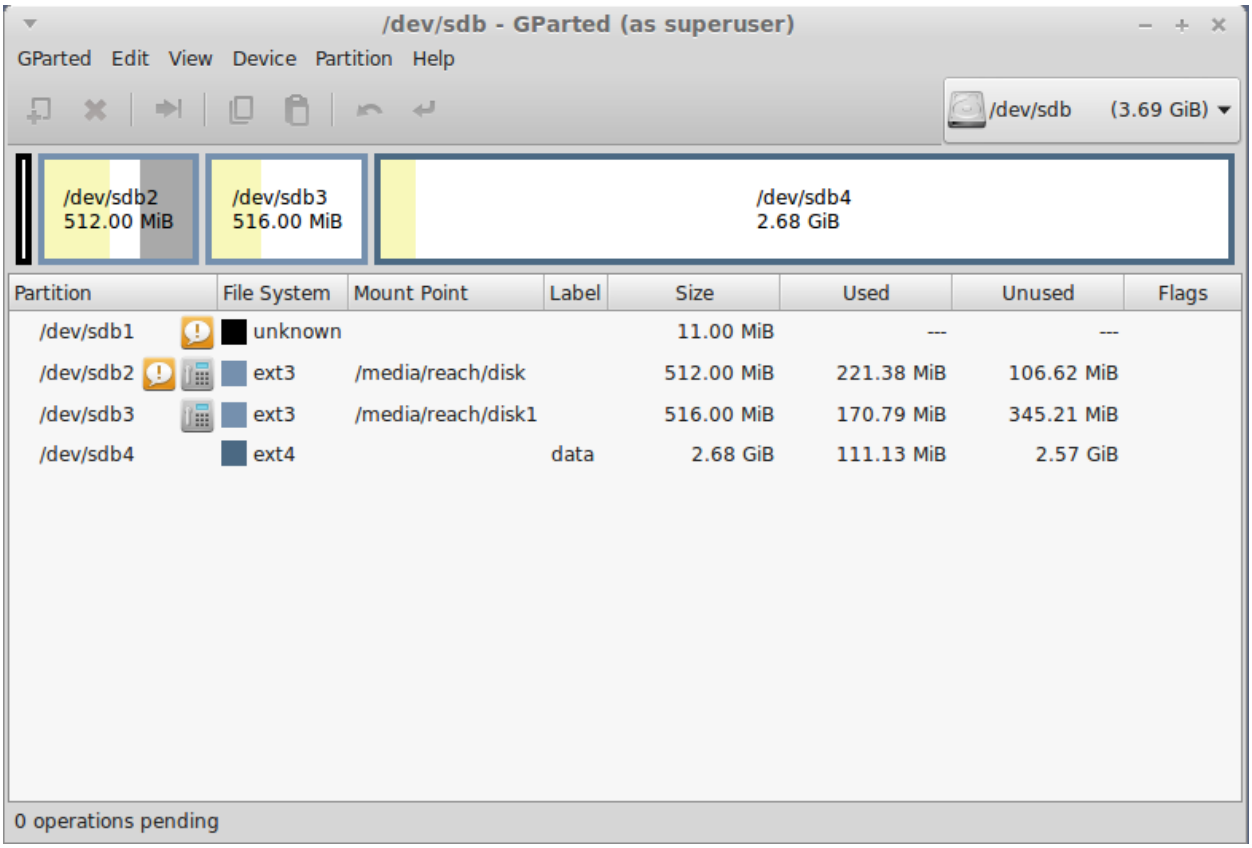
- Wait for the operation to complete.



- When the operation is complete, click `Close`.



- Operation complete.



- From the top menu, select `GParted->Quit`.
- From the terminal menu, select `File->Close Window`.

3.2 Extend/Resize a partition

- Start the Linux VM.
- Once the VM is up and running, install the SD card into a USB card reader attached to the host system.
- If opened, close any new browser windows to the new mount points.
- You will see new '`Volume`' icons on the desktop for each partition currently on the SD card.
- Open a `Terminal` session by clicking on the `Terminal` icon on the desktop.

- Install and launch `Gparted` by running the following commands in the `Terminal` window. When prompted, the root password in the VM is "`password`", without the double-quotes.

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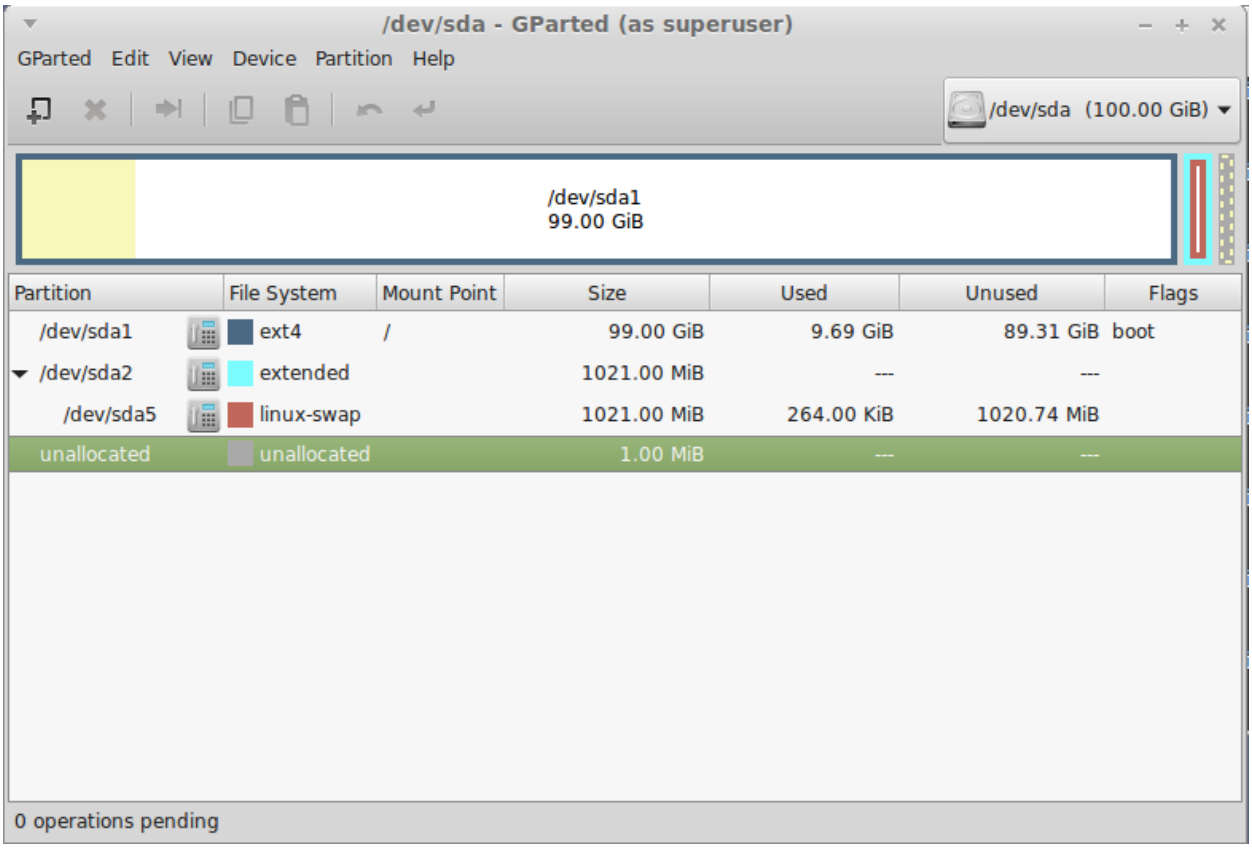
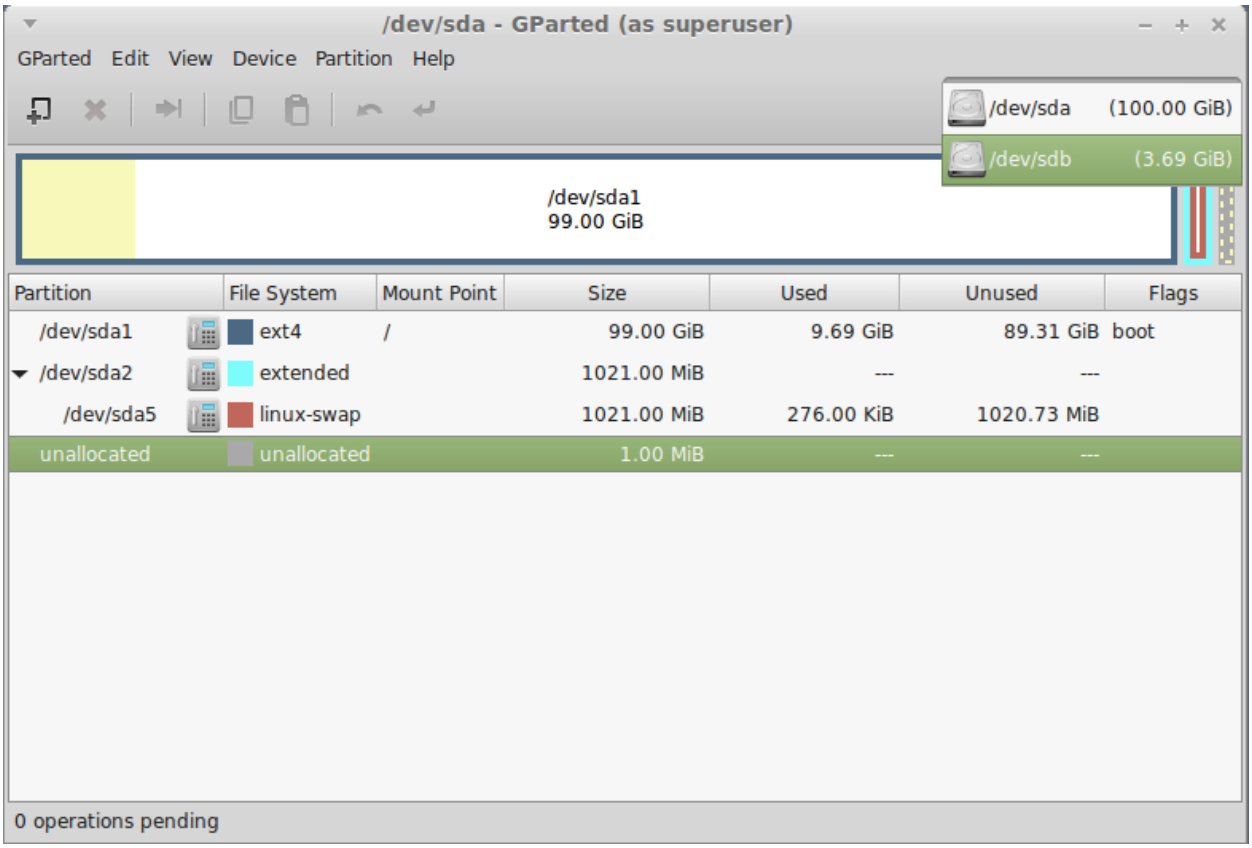
$ sudo gparted
```

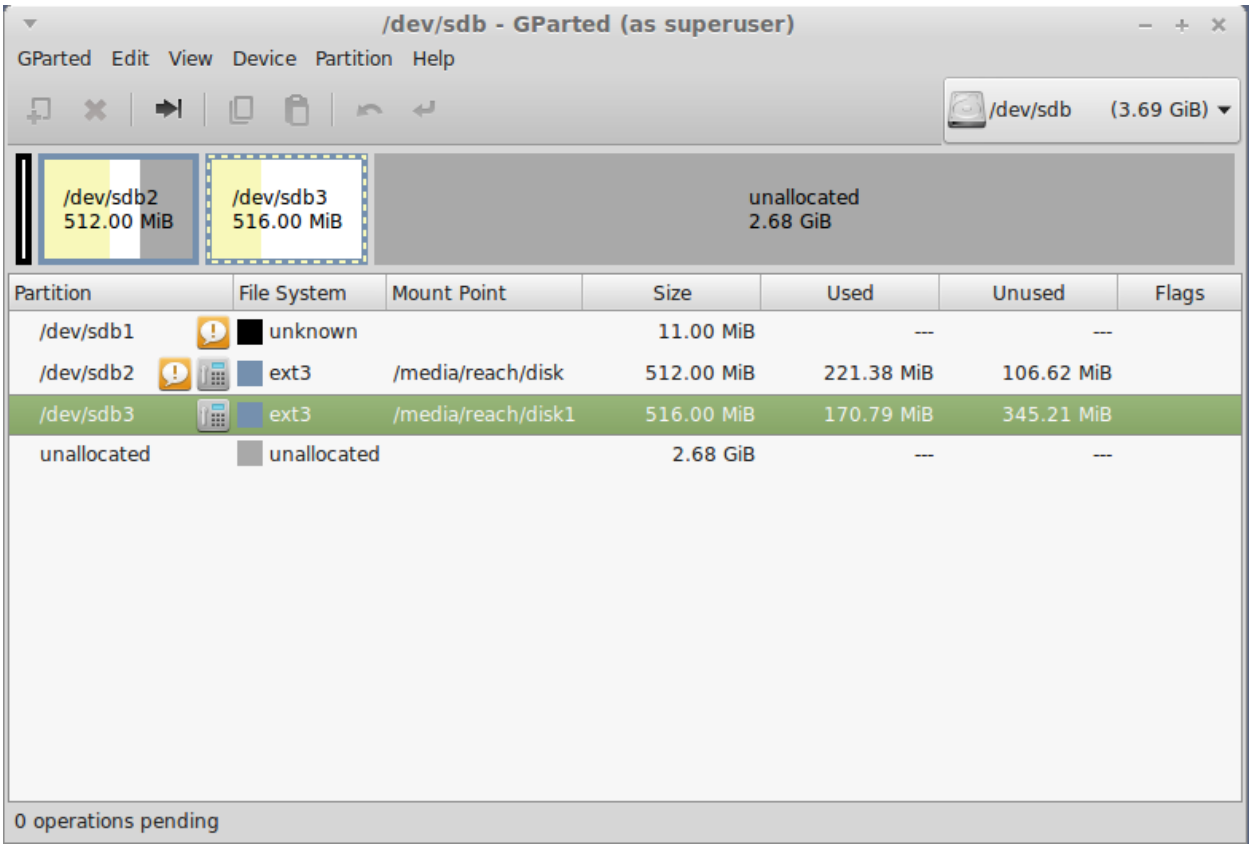
(Start-up screen for `gparted`.)



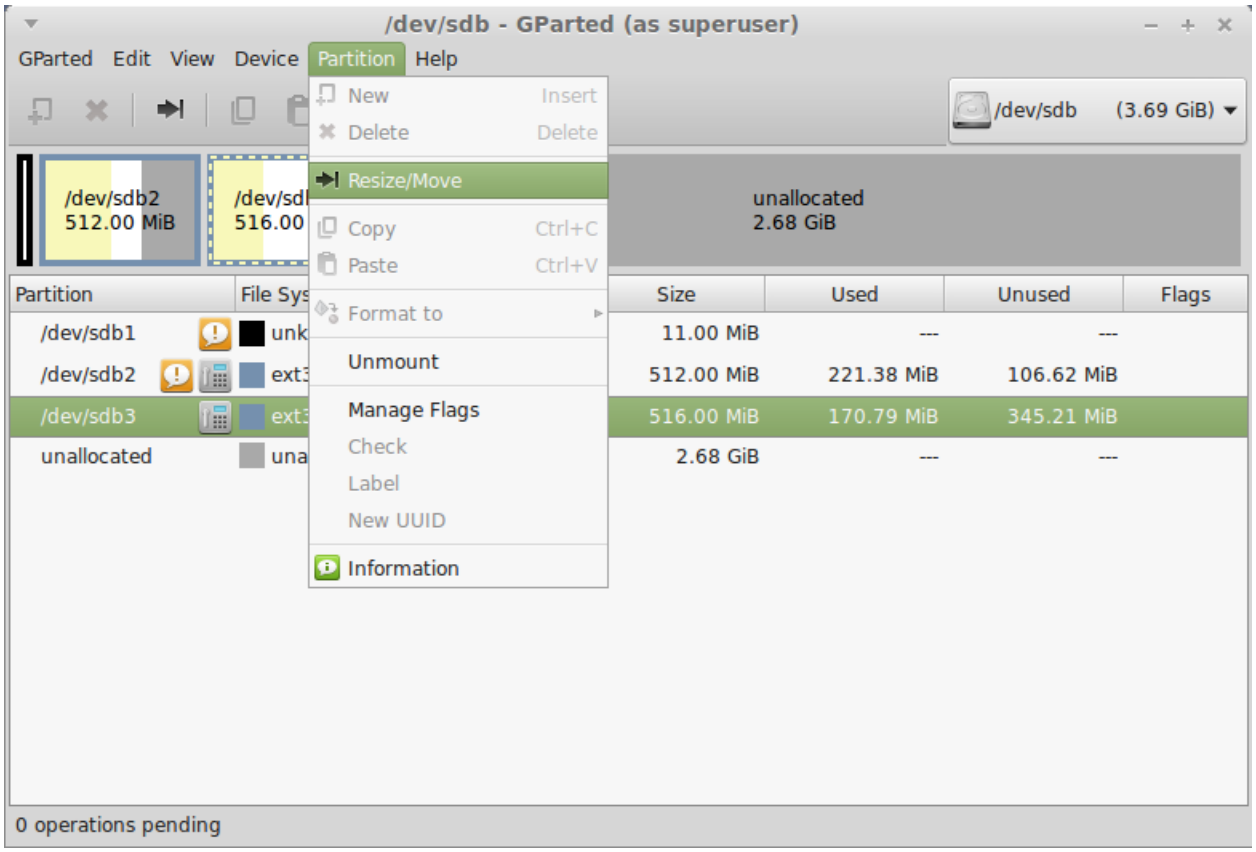
- Select `/dev/sdb` from the drop list on the right.



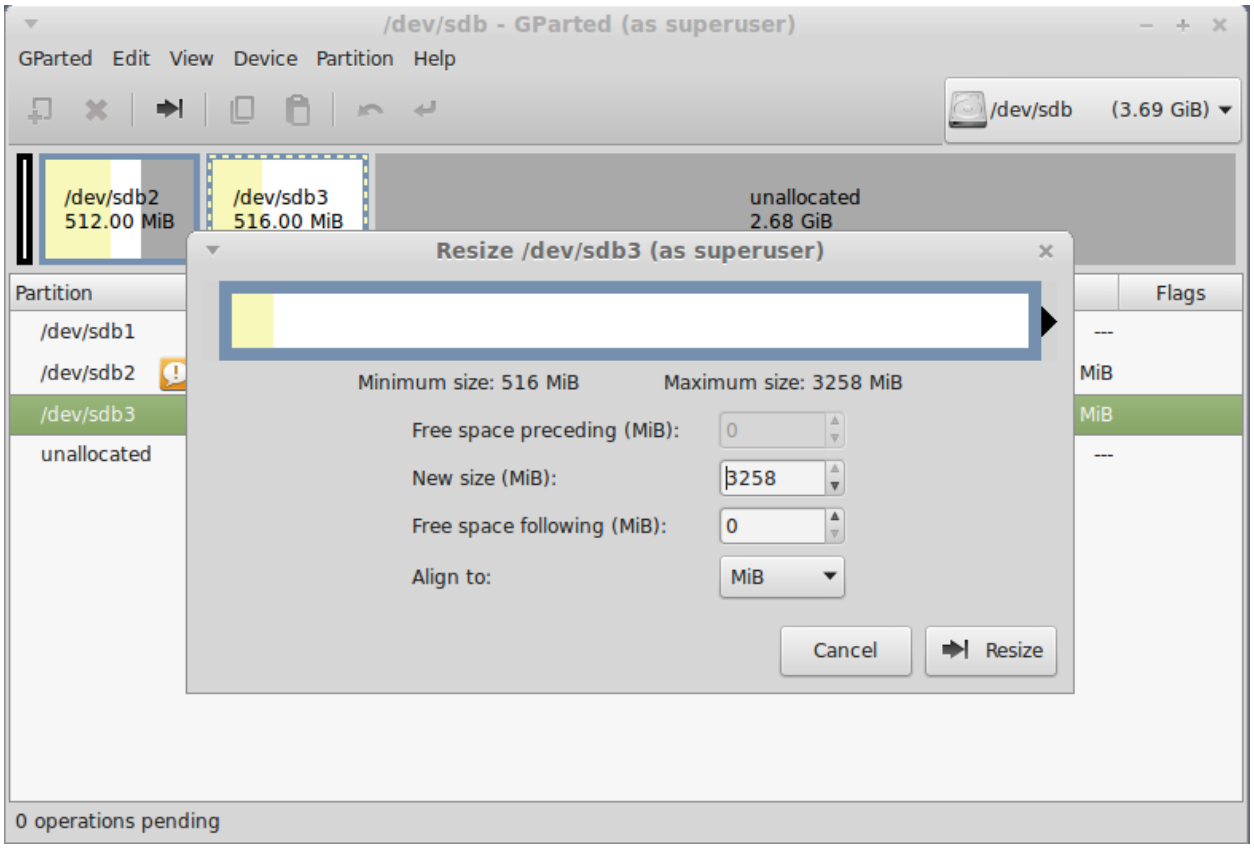
- Click on the partition to extend.



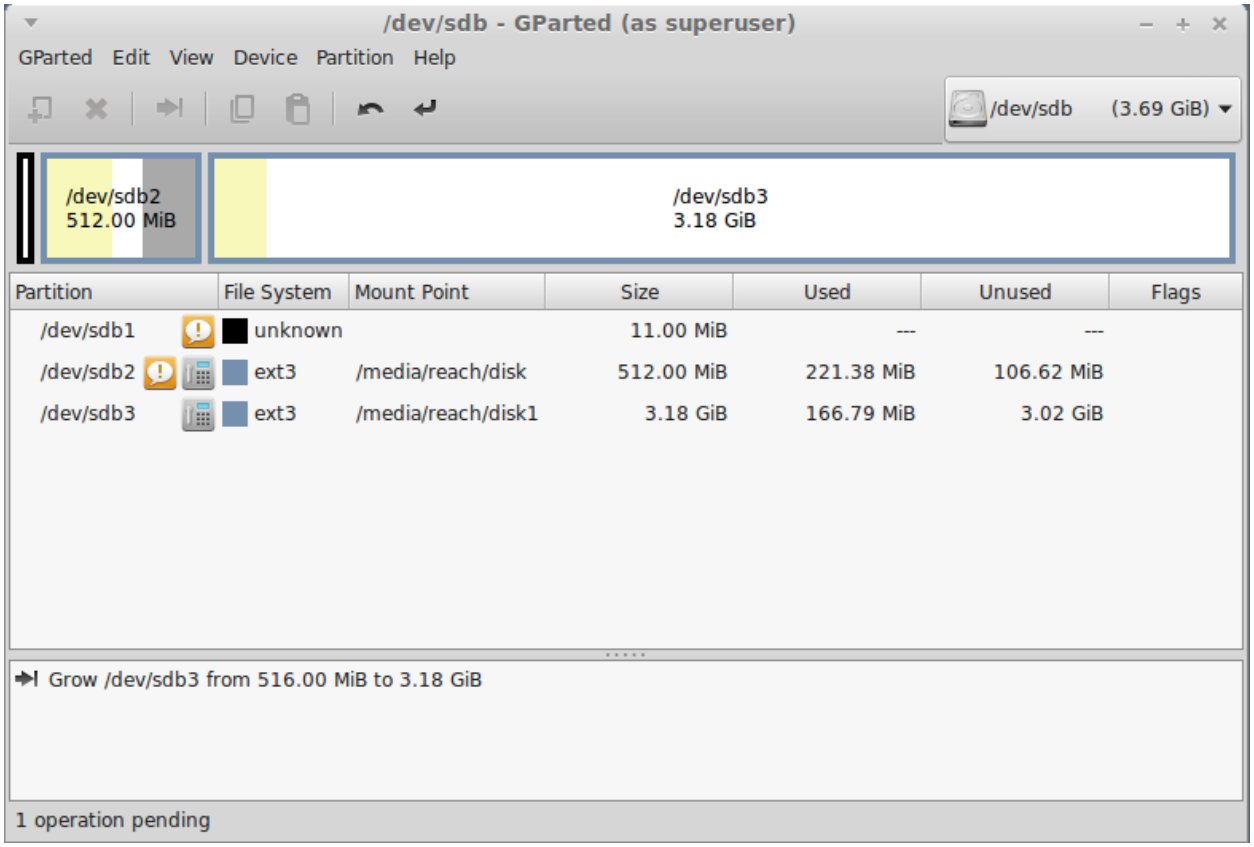
- From the top menu, select `Partition->Resize/Move`.



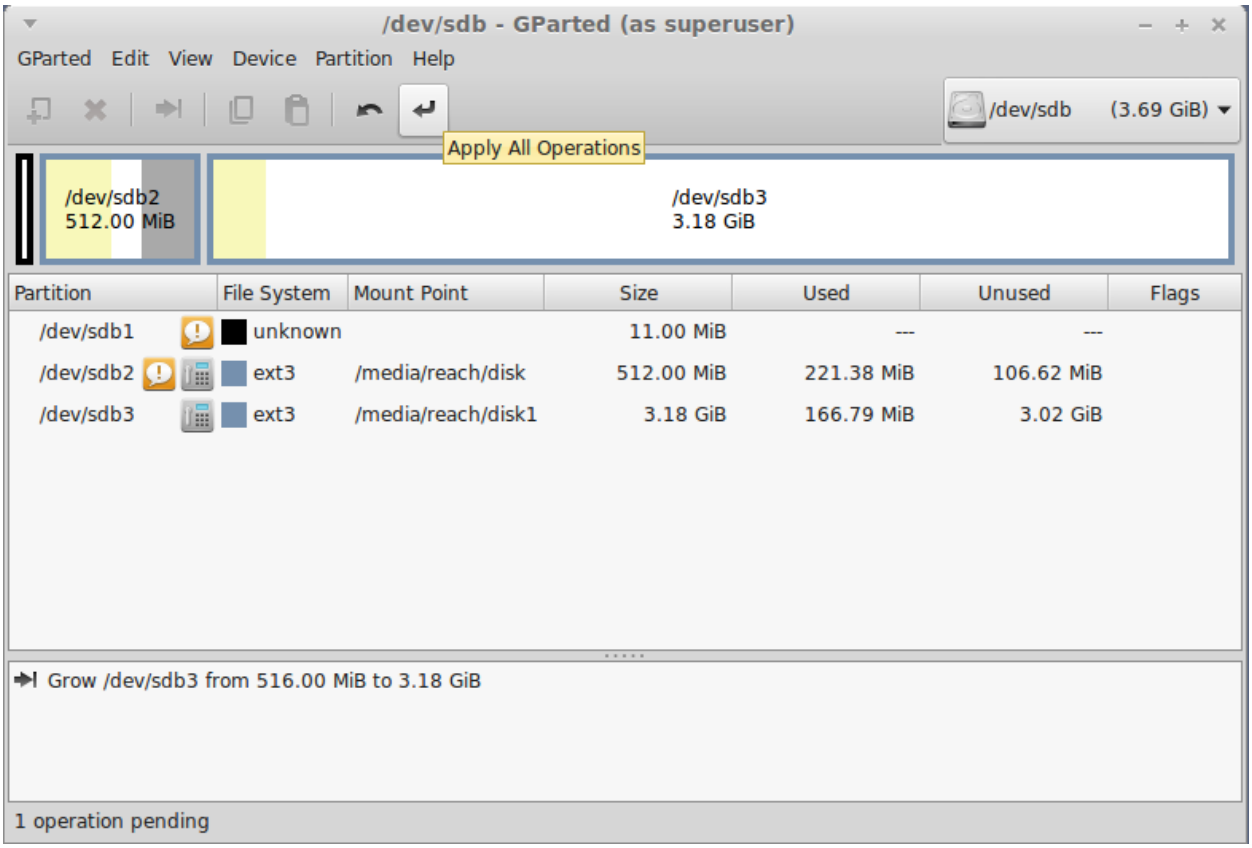
- Drag the black arrow in the slider to the far-right side to extend the partition to the maximum available space.
- When done, click `Resize`.



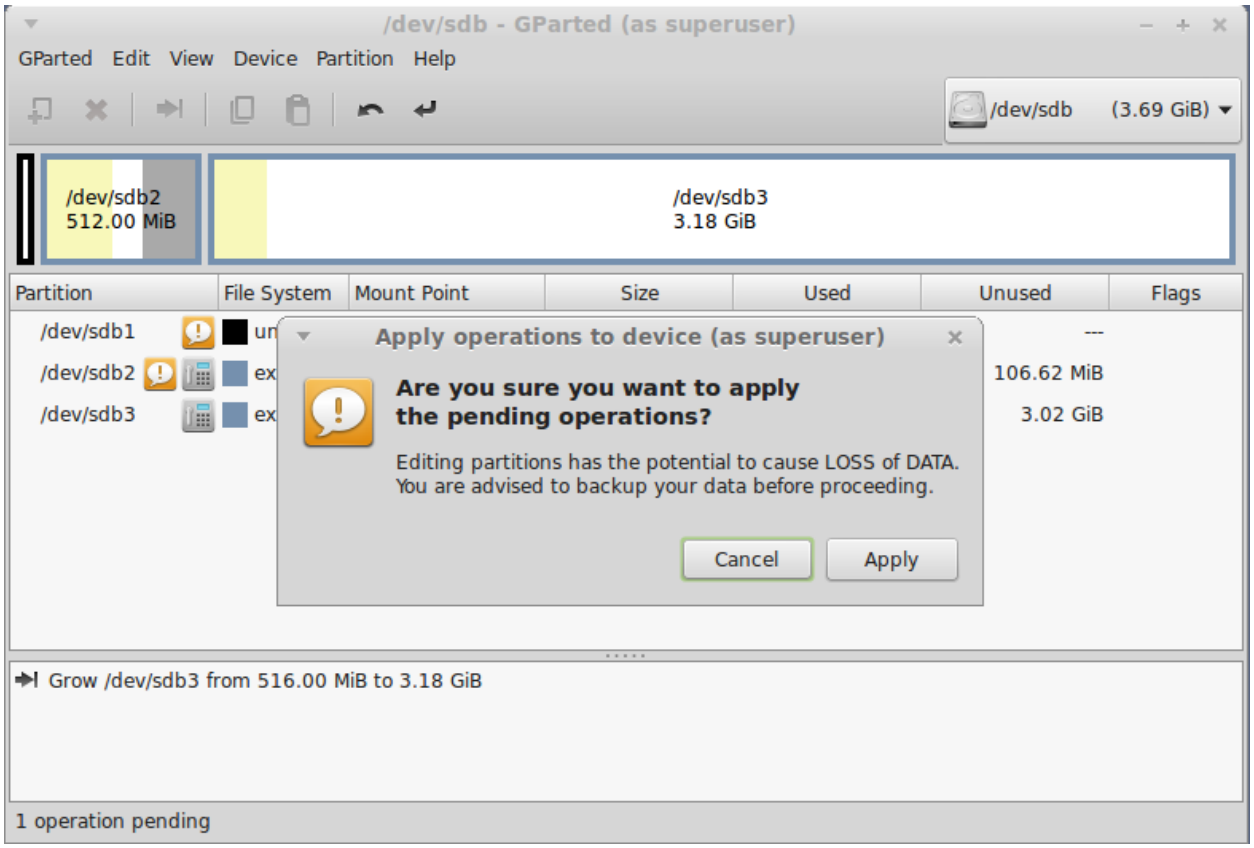
(After clicking `Resize`. Note pending operations.)



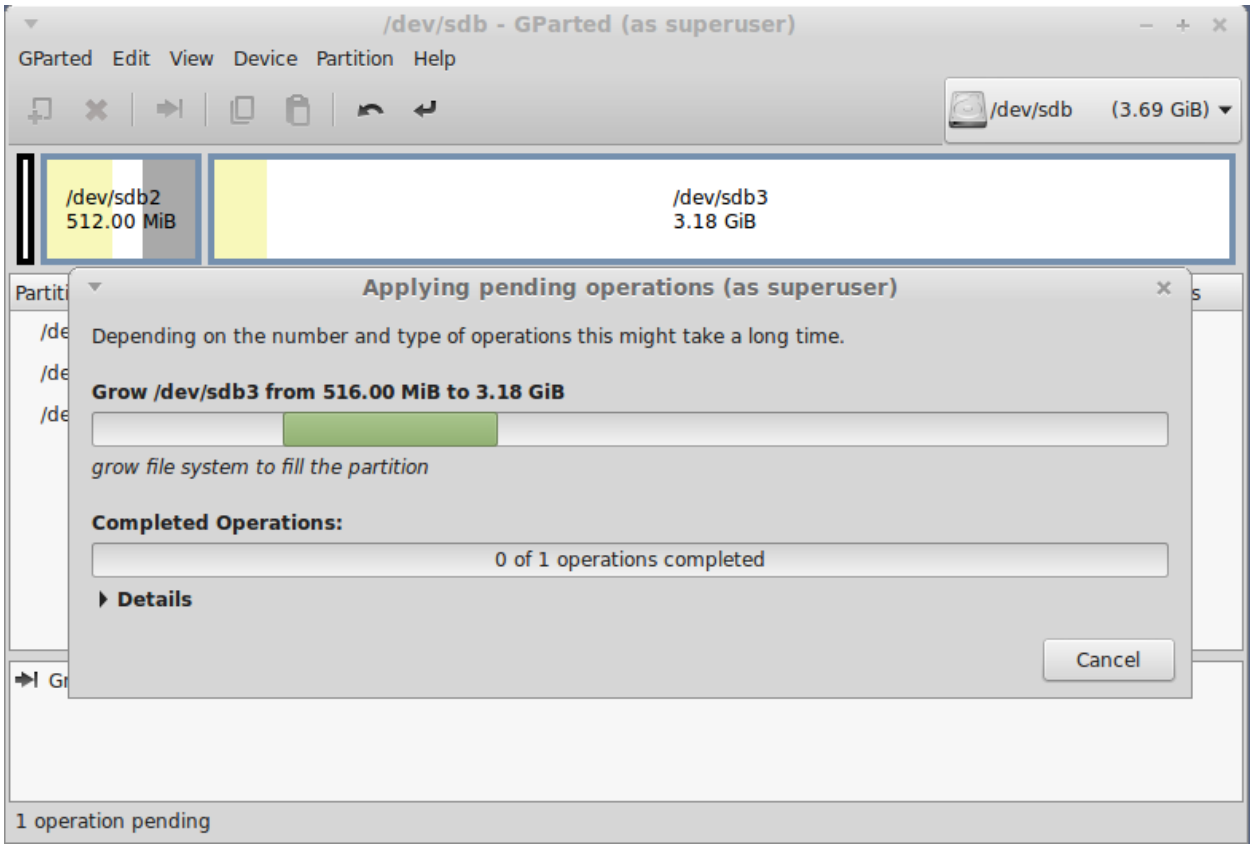
- Click `Apply All Operations`.



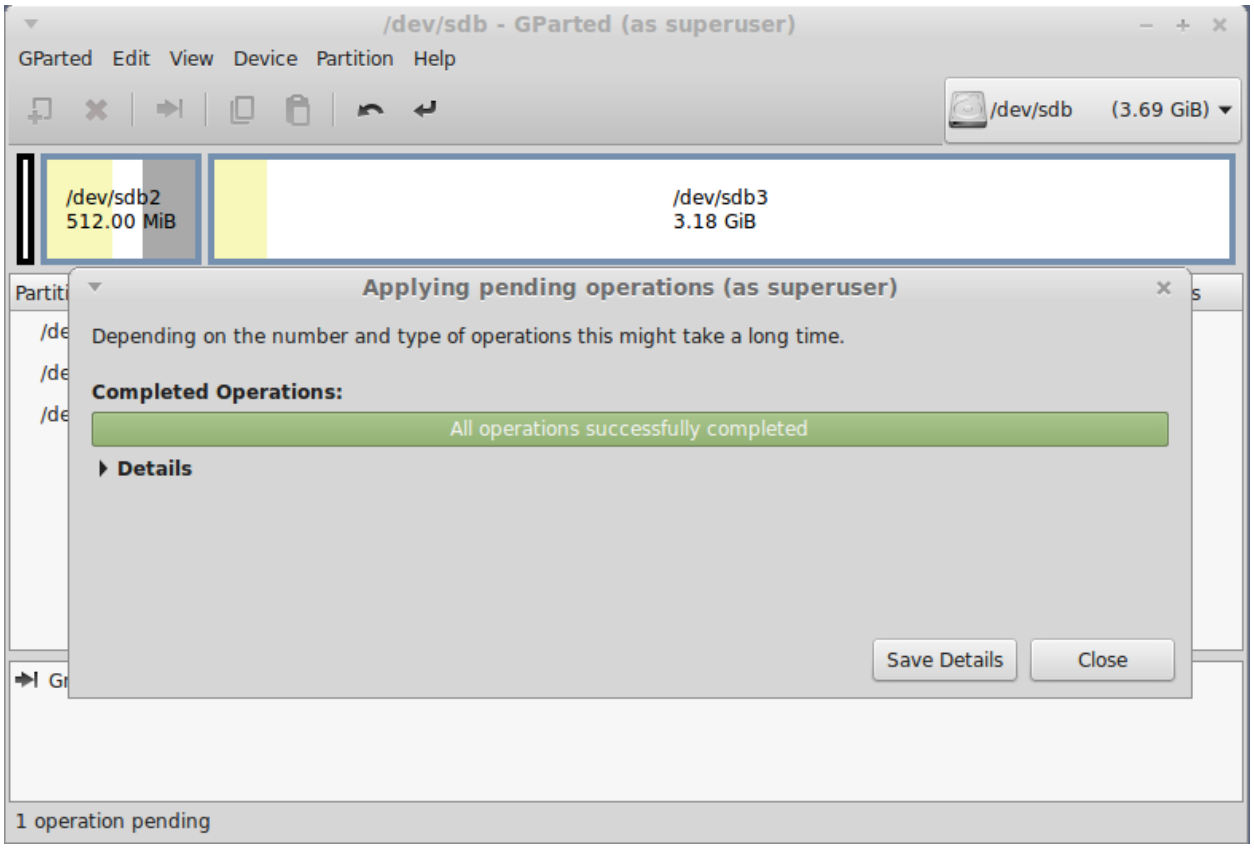
- When prompted, click `Apply` to apply all pending operations.



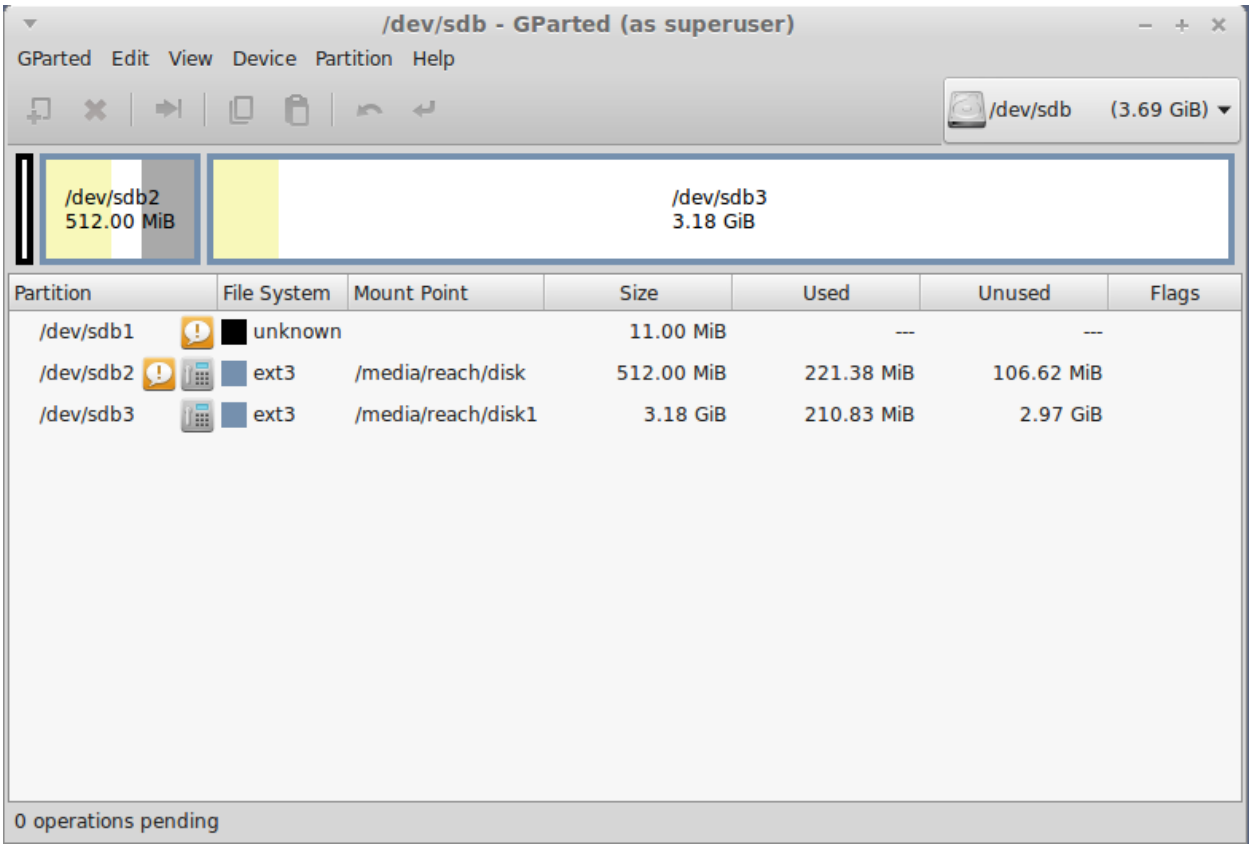
- The operation may take a while to complete.



- When operation is complete, click `Close`.



- Operation complete.



- From the top menu, select `GParted->Quit`.
- From the terminal menu, select `File->Close Window`.