

## Programming SSDs on M.2 4x4 to 4K Block Size for macOS 10.13.6 Compatibility

1. macOS 10.14.6+ supports both 512 and 4k block size SSDs, but macOS 10.13.6 supports only 4k block size SSDs. Today most SSDs are shipped from the factory programmed with a 4k block size. If your SSDs are programmed with 512 block size, however, and you need to be compatible with macOS 10.13.6, you will need to reprogram your SSDs to a 4k block size. Sonnet has written a script to do this, but it needs to be run on a Linux computer.
2. Download the script `Set4KBlockScript.py` to the root of a desktop Linux computer.
3. Install up to four SSDs into the Sonnet M.2 4x4 card and secure with screws.
4. Making sure the machine is shut down, install the M.2 4x4 card into a PCIe slot.
5. Press the power button to start the computer.
6. Open Terminal.
7. Type `./Set4` and the tab key. It is important that the S is capitalized. If you typed correctly, the command will auto complete to `./Set4KBlockScript.py`
8. Press the enter key.
9. The system will show “enter password:” Type `sonnet` and press the enter key. Note that the cursor will not move while you are typing.
10. If you installed four SSDs, the display should show:

```
NVMeDevices
/dev/nvme0n1
/dev/nvme1n1
/dev/nvme2n1
/dev/nvme3n1
```

```
Device:/dev/nvme0n1 has 4K:True is4K:False flbas=0 nlbaf=1
setDevice /dev/nvme0n1 to 4K blocksize
```

```
Successformatting namespace:1
```

```
Device:/dev/nvme1n1 has 4K:True is4K:False flbas=0 nlbaf=1
setDevice /dev/nvme1n1 to 4K blocksize
```

```
Successformatting namespace:1
```

```
Device:/dev/nvme2n1 has 4K:True is4K:False flbas=0 nlbaf=1
setDevice /dev/nvme2n1 to 4K blocksize
```

```
Successformatting namespace:1
```

```
Device:/dev/nvme3n1 has 4K:True is4K:False flbas=0 nlbaf=1
setDevice /dev/nvme3n1 to 4K blocksize
```

```
Successformatting namespace:1
```

11. If successful, all four devices show **Successformatting namespace:1**.

12. If your devices were already programmed to 4k block size, the display will show as below. You may repeat the process for verification, and the display will also appear as below.

```
NVMeDevices  
/dev/nvme0n1  
/dev/nvme1n1  
/dev/nvme2n1  
/dev/nvme3n1
```

```
Device:/dev/nvme0n1 has 4K:True is4K:True flbas=0 nlbaf=1  
Device:/dev/nvme1n1 has 4K:True is4K:True flbas=0 nlbaf=1  
Device:/dev/nvme2n1 has 4K:True is4K:True flbas=0 nlbaf=1  
Device:/dev/nvme3n1 has 4K:True is4K:True flbas=0 nlbaf=1
```

13. Shut down and remove the M.2 4x4 card from your computer. The SSDs in you M.2 4x4 card will now be supported by macOS 10.13.6.