

## MDADM + install Lubuntu Alternate on RAID0

Mdadm is useful package for making software disk array software controller. Please refer to user manual ( #man mdadm ). Please refer to these commands for providing non system-bootable disk for separate data IO, or swap area:

1) install mdadm package:

```
#sudo aptitude install mdadm
```

2) cut every disk to constant size with Gparted Graphical User Interface:

```
#sudo aptitude install gparted && sudo gparted
```

Device->Create Partition Table -> msdos

Partition->New->#ConstantSizeOnEachDisk

```
#sudo mdadm --create --verbose /dev/md0 --level=0 --raid-devices=X /dev/sdx /dev/sdy /dev/sdz ...
```

### install Lubuntu Alternate on software RAID0

RAID 0 is non-disk-failure-robust disk array implementation providing simplest and fastest solution for multiple disk utilization. One can configure and install system on such solution. Most motherboard supports up to 2-3GBps throughput for all peripheral ports. In such system software disk array provides quite good results with capacity, price, real Read/Write throughput, and kIOPS/GB. On the other hand it would be cheaper to use efficiently M.2 disks – but this technology is not popular, and still expensive nowadays. At beginning of 2018y. capacity optimal are: used 3.5” SATA( 4 – 6 pieces )/PATA( 4 pieces ) HDD’s, 7.2krpm, 8MB SRAM cache, 80-250GB ( for example 6x160GB ) via 512B/disk sequential accesses. Pseudo random access optimal is usage of 2.5” SATA( 2 – 4 pieces ) SSD’s, 120GB via 4kB/disk sequential accesses.

1) download Lubuntu Alternate, and make bootable pendrive via Startup Disk Creator, or UNetBootIn:

<https://lubuntu.net/downloads/>

2) install in an ordinary way ( please refer to: “<https://www.youtube.com/watch?v=cNQq53bbgQI&t=169s>” ). Set on each disk two partitions with CONSTANT SIZE. Firstly delete every past partition on disks ( please make sure, that data is copied, and there are connected, disk meant only for erasing ).

Raid space1:

Use as: “physical volume for RAID”

Type for Swap: “primary”

From beginning

Raid space2:

Use as: “physical volume for RAID”

Type for operating system: “logical”

beginning

Configure software RAID->Create MD Device -> RAID 0, and check with space:

space1 disk partitions Raid 0 – for boot

space2 disk partitions Raid 0 – for swap

space3 disk partitions Raid 0 – for operating system

Created RAID 0 disks set to:

space1 Raid 0 Use as: “EFI”

space2 Raid 0 Use as: “swap area”

space3 Raid 0 Use as: “Ext4 journaling file system”;

Mount point: “/ - the root file system”

Post Scriptum: if one is not sure, he or she should physically disconnect essential disk devices.