

# Operation

- Copy Disk with dd using an Emergency BootISO

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## Introduction

You need to make a backup of an active disk to a image file, the following describes howto do this.

## Problem Description

Maybe you have an SSD where S.M.A.R.T. is telling you that badblocks are starting to show up. So you need to replace the SSD with a new one. You need to create an image of the actual disk (If te badblocks are not too high you can try it).

## Solution

Take a backup to an Image on the running system:

```
dd if=/dev/sda conv=sync,noerror bs=128k status=progress | gzip -c > YYYYMMDD-boot-disk.gz
```

- Then you need to save the resulting file to any storage (USB stick, external disk etc.).
- Shutdown the system and replace the faulty SSD with a new one.
- Boot from a emergency disk/iso, check the links section for downloadable ISO files.

Restore the Image File. Double Check that you use the right Device Name (/dev/sda, /dev/da0 etc.)

```
gunzip -c YYYYMMDD-boot-disk.gz | dd of=/dev/sda
```

Boot the System with the new SSD.

## Links

- <https://ubuntu.com/download/server>
- <https://www.system-rescue.org/Download/>
- <https://www.ultimatebootcd.com/download.html> (Only BIOS, no UEFI)

- <https://www.eset.com/int/support/sysrescue/> (Malware Cleaning)
- <https://www.hirensbootcd.org/download/> (If you need Windows)