

Virtual Machines

Overview

- Physical vs. Virtual Machines
- VM use cases
- VirtualBox
- Practical application
- Automation

Physical vs. Virtual Machines

Physical:

- CPU
- Harddrive
- CDROM
- Sticks of RAM

Virtual:

- Shared CPU cycles
- File as HD
- File as CDROM
- Allocated shared RAM

VM Use Cases

- Testing configurations and software
- Run multiple OS's at once
- Security sandbox
- Fluctuating compute demands
- Portable environments (Hardware independant)

VirtualBox

- Open source virtualization
- Started by Sun, continued by Oracle
- Works on Windows, Mac, and Linux
- Free! Hurray!

Installing VirtualBox

<https://www.virtualbox.org/wiki/Downloads>

Download installer for you platform

VirtualBox GUI

Tour time!

Practical Application

- Booting from different boot disks
- Second network device
- Increasing RAM

Automation

<https://www.virtualbox.org/manual/ch08.html>

Command-line tools

VboxManage

VboxHeadless