SeaBIOS and GRUB: A quick introduction

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Who am I?

- (Economic) Mathematician by studies at TU Berlin
- Free Software enthusiast
- Active in coreboot since 2005 (still LinuxBIOS back then)



 System architect at Max Planck Institute for Molecular Genetics

SeaBIOS

Quick facts

- 1. Payload implementing a BIOS in mostly C code
- 2. Kevin O'Connor main developer
- 3. Used in QEMU
- 4. Mainly used as boot menu in coreboot context
- 5. Default payload and most popular in non-commercial coreboot devices

Demo

- 1. Build outside and add with cbfstool
- 2. Debug levels
- 3. Boot order
- 4. Run-time configuration

GRUB

Quick facts

- 1. Most popular boot loader
- 2. Vladimir -coder Serbinenko main developer
- 3. Works on most boards and can be directly loaded
- 4. Can act as boot menu, but hard autodetection
- 5. Setup with drive encryption
- 6. TPM

Demo

- 1. Build outside and add with cbfstool
- make default_payload.elf
- etc/grub.cfg
- 4. GRUB command line interface
- 5. CBMEM console, time stamps
- 6. Boot time instrumentation

Questions?