Skulls - coreboot your X230 the easy way

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Who am I?
- work for https://www.ginzinger.com/en/ in Austria
- kernel developer, C programming, tslib maintainer, ...
- use Tor!
Let's curl an image and coreboot your Laptop!
Lenovo Thinkpad X230 Laptop
3rd gen. Intel i series (Ivy Bridge)
The coreboot project
https://coreboot.org - "for end users"
"coreboot is a replacement for your BIOS / UEFI with a strong focus on boot speed, security and flexibility."
free software (GPL)
hardware init / ACPI interface
coreboot distributions
it’s all there, but how to configure and how to flash (how to or not to enable internal flashing without disassembling)

- Libreboot (X200)
- Heads (X230, Librem Laptops)
- Skulls - not quite Heads (X230)

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Skulls goals
faadfce initial infos
75b154334d.config | 686
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
README.md | 100 ++++++++++++ 
pci8086,0166.rom | Bin 0 -> 65536 bytes 3 
files changed, 786 insertions(+)
make coreboot easy to install, easy to use
no excuse for running the proprietary vendor BIOS
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build reproducibly (important because we release ROM images)
security through simplicity (flash a known good image often)
Heads - http://osresearch.net
easy to install
# ./external_install_top.sh -k "backup-file-to-create"
# ./external_install_bottom.sh -m -k "backup-file-to-create"
easy to use
SeaBIOS (version rel-1.11.1-0-g8551a4b)
Machine UUID 1d945c01-5165-11cb-9ffc-8fd632be452d

Press ESC for boot menu.

Select boot device:

1. AHCI/0: Crucial_CT525MX300SSD1 ATA-10 Hard-Disk (409 GiBytes)
2. Payload [nvramcui]
3. TPM Configuration
How does a release currently look like?
Thinkpad X230 only. 2 different images:
- free software except microcode update binary
- Intel’s proprietary VGABIOS (currently looks more beautiful)
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coreboot master branch HEAD at time of release
latest SeaBIOS release
latest microcode update by Intel
upstream work
ensure latest SeaBIOS and MCU versions are in coreboot

test and update coreboot’s board-status
(Supported Motherboards wiki)
recorded demo (there’s not VGA/HDMI during reboot)
https://github.org/merge/skulls
https://www.coreboot.org/users.html