

Other Dasharo-related Projects
Roadmaps



- Introduction to Dasharo Tools Suite (DTS)
- Overview of DTS v1.2.0
- Future Plans: DTS v2.0.0 and Beyond
- Unveiling the Dasharo Openness Score
- Exploring Dasharo Openness Score v0.1
- Upcoming Features: Dasharo Openness Score v0.2 and Beyond
- Q&A



- Set of tools and scripts running in minimal Linux environment
 - <https://docs.dasharo.com/dasharo-tools-suite/overview>
- Vision
 - ***Versatility.*** Swiss army knife for Dasharo users and the open-source firmware community, providing a broad range of tools and scripts that simplify firmware operations.
 - ***Simplified Deployment.*** Efficient firmware deployment, updates and recovery to improve open-source firmware adoptability.
 - ***User-friendly Interface.*** Shiny, beautiful, and most importantly, user-friendly interface for sensitive operations related to firmware.
 - ***Diagnostics and System Verification.*** Accessible trustworthiness verification, assisting in platform security features provisioning and attestation.

- Released: 2023-05-10 (initially planned for: March 2023)
- Changelog
 - Added Dasharo firmware update option, in DTS menu, for supported platforms.
 - Updated Dasharo firmware versions to latest released compatible with deploy script.
 - Disabled SSH server by default and added DTS menu option to start/stop SSH server.
 - Improved versions comparison so update from any rc or dev version of Dasharo firmware is possible.
 - Improved UX a little by saving flashrom logs to `/var/local/flashrom.log`.
 - Added IXGBE driver as a module, what enables DTS on Supermicro X11SSH.
 - Fixed CI workflows.

DTS version v1.2.0

- 1) Dasharo HCL report - dump hardware information from this device
- 3) Restore firmware from Dasharo HCL report
- 4) Load SE keys
- 5) Update Dasharo firmware
- 9) Shell
- 10) Power off system
- 11) Reboot system

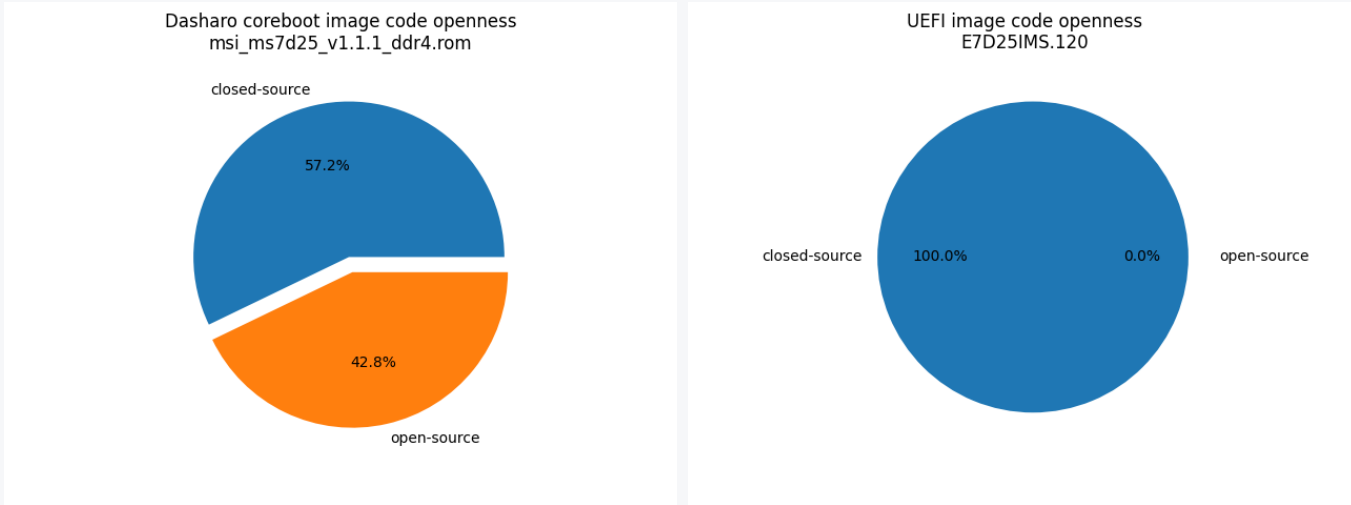
- We keep working on improving the way we leverage HCL reports we received from community.
- Our goal is to make HCL Dasharo documentation part of our CI/CD pipeline.

- ETA: Q3 2023
- [GitHub Milestone](#)
- Planned features
 - add QEMU image with sets of basic tests of the system
 - update UI; make it shiny, beautiful and what more important - user friendly
 - enable Dasharo zero-touch initial deployment on Dell Precision T1650
 - work on DTS logo
 - introduce nightly/develop builds

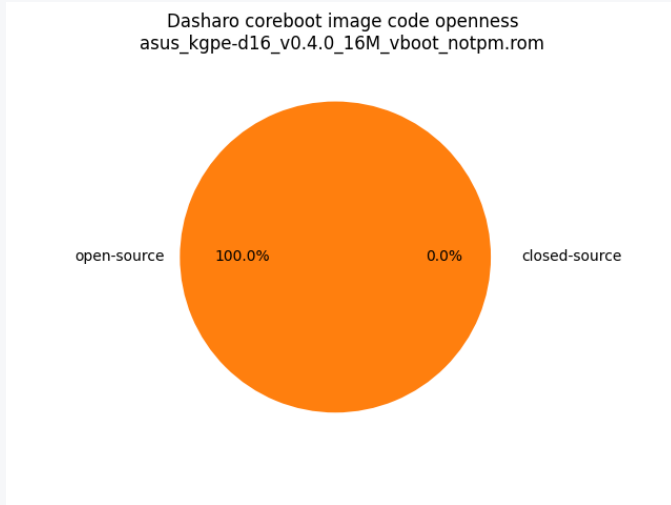
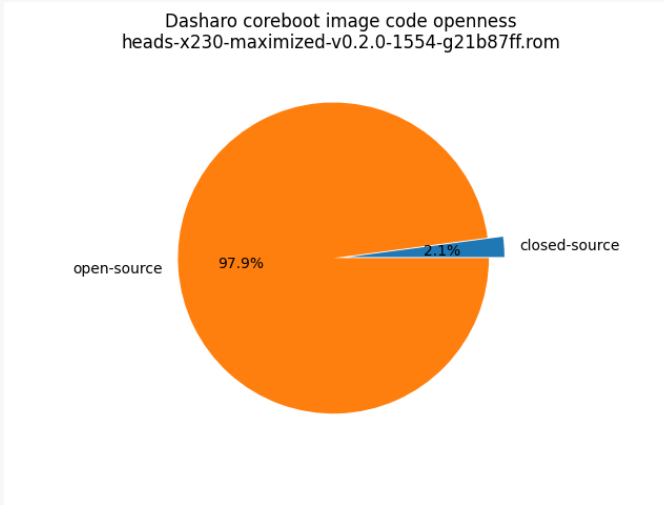
- Device authentication to improve Dasharo firmware update
 - client authentication mechanism working with updates
 - ETA: Q4 2023
 - [GitHub issue #55](#)
- Expanding DTS root file system via NFS or other solution
 - adds possibility to load custom kernel modules
 - protects against endless growth of root file system size
 - ETA: Q4 2023
 - [GitHub issue #366](#)
- DTS zero touch initial deployment for firmware as `is`
 - multistage approach to improve open-source firmware adoptability
 - ETA: Q1 2024
 - [GitHub issue #384](#)
- DTS security features provisioning and attestation
 - improve the trustworthiness of computing device
 - ETA: Q2 2024
 - [GitHub issue #385](#)

- Dasharo Openness Score is a tool designed to quantify the openness of firmware images, providing insights into the ratio of open-source to closed-source components.
- Python, MIT licensed, <https://github.com/Dasharo/Openness-Score>
- **Vision**
 - ***Universal Standard.*** Establish Dasharo Openness Score as the benchmark for firmware openness.
 - ***Visual Clarity.*** Provide visually appealing and easily understandable results.
 - ***Integration and Engagement.*** Embed within CI/CD processes and regularly update in community platforms.
 - ***Certification Component.*** Make it a pivotal element of the Dasharo Certification Program.
 - ***Transparency in Open-Source.*** Create a clear measure of openness in the open-source firmware community.

- Released: 2023-05-31
- Changelog
 - Supports both coreboot images and vendor UEFI images.
 - Automatically parses coreboot fmap layout to extract regions' properties.
 - Identifies fmap regions with CBFSeS.
 - Parses CBFSeS regions to extract file properties.
 - Checks for required utilities (cbfstool, UEFIEExtract).
 - Categorizes components as open-source, closed-source, or data.
 - Calculates total size of open-source, closed-source, and data components per region, CBFS, or the whole image.
 - Extracts coreboot config to verify known open-source and closed-source components.
 - Creates pie charts illustrating the percentage share of each type of component in the image.
 - Exports numerical statistics to CSV files.



- Dasharo compatible with MSI PRO Z690-A vs vendor firmware.



- Heads compatible with x230 maximized vs Dasharo compatible with ASUS KGPE-D16 16M vboot no-TPM

- ETA: Q3 2023
- Planned features
 - **Improved Visualization:** Enhancing visual representation for user-friendliness.
 - **CI/CD Integration:** Including Openness Score script in CI/CD processes.
 - **Increased Visibility:** Openness Score updates in newsletters and Dasharo User's Guide.
 - **Binary Comparison:** Comparing Dasharo binary with reference binaries.
 - **Documentation Upgrade:** Improving methodology explanation in documentation.
 - **Versioning & Wide Application:** Implementing versioning and supporting multiple platforms.
 - **Advanced Parsing:** Utilizing ifdtool for improved image parsing.



Q&A