



Dasharo Configuration Utility Introduction



Agenda

- Short Introduction to Dasharo Configuration Utility (DUC)
- Exploring Dasharo Configuration Utility v0.2.1
- Q&A

Dasharo Configuration Utility

dcu Public

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About Dasharo Configuration Utility

Readme Apache-2.0 license Activity 1 star 5 watching 0 forks Report repository

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File	Commit Message	Commit Hash	Time	Commits
macpijan	dcu: do not fail on cbfstool remove	6817e69	3 weeks ago	18
.vscode	dcu: added		last month	
src	dcu: do not fail on cbfstool remove		3 weeks ago	
test	add tests		3 weeks ago	
.codespellrc	dcu: added		last month	
.codespellx	dcu: added		last month	
.conform.yaml	dcu: added		last month	
.gitignore	add tests		3 weeks ago	
.markdownlint.yaml	dcu: added		last month	
.pre-commit-config.yaml	pre-commit fixes		3 weeks ago	

- The Dasharo Configuration Utility is a tool designed to configure Dasharo firmware binary images. It includes tasks such as customizing the boot logo, and setting unique UUIDs or Serial Numbers in SMBIOS tables.
- DCU can be run in two modes - standalone, or as a container. The container setup contains all of the prerequisites, so it should be easier to use.
- Bash, Apache 2.0 licensed, <https://github.com/Dasharo/dcu>

Support for Mass Deployment Features

- **Custom Configuration Profiles:** Enable the creation of custom configuration profiles that can be applied across multiple systems, ensuring consistency in deployment.
- **Sane Defaults Verification:** Integrate a feature in DCU for verifying and aligning user configurations with established sane defaults, ensuring optimal security and performance settings for various hardware setups.

Simplifying Data Transition

- **Data Migration Tools:** Develop options within DCU to facilitate the smooth transition of data and settings from proprietary BIOS to Dasharo firmware.

Enabling Dasharo Enterprise Features

- **Intel Boot Guard Integration:** Integrate capabilities for fusing Intel Boot Guard with customer or user keys during the first boot, enhancing security.
- **Enterprise Security Features:** Include advanced security features like TPM configuration, secure boot customization, and hardware-based encryption support.
- **Chipsec and HSI Checks Integration:** Enhance DCU by incorporating Chipsec for in-depth security analysis and Host Security ID (HSI) checks, along with other fwupd related assessments, to provide a comprehensive security audit of the firmware and hardware.

Enabling Dasharo Enterprise Features

- **Integration with Commercial Tools like Binarly:** Expand DCU's capabilities by integrating commercial tools such as Binarly Scanner, offering advanced scanning and analysis for firmware vulnerabilities, thus elevating the utility's effectiveness in identifying and mitigating security risks.

Getting Started

- Clone repo:

```
git clone git@github.com:Dasharo/dcu.git
```

- Run container:

```
cd dcu && ./dcuc
```

Getting Started

```
Unable to find image 'ghcr.io/dasharo/dasharo-sdk:v1.2.0' locally
v1.2.0: Pulling from dasharo/dasharo-sdk
8285c3e1284d: Pull complete
0f8ccaf821af: Pull complete
6e515abfab04: Pull complete
f3904770b5ac: Pull complete
a442011cbbb3: Pull complete
ff420ae8a2ab: Pull complete
0f1475b56e0c: Pull complete
ec99378fd72f: Pull complete
d650a0f92b92: Pull complete
Digest: sha256:12044628c33a77989822f416ef884609d60b7fc5c045183c53e4f97a7080019a
Status: Downloaded newer image for ghcr.io/dasharo/dasharo-sdk:v1.2.0
dcu - Dasharo Configuration Utility
```

Usage:

```
dcu COMMAND
dcu [COMMAND] --help | -h
dcu --version | -v
```

Commands:

```
smbios  Edit SMBIOS data in a firmware image
logo    Insert custom logo boot splash into firmware image
```


dcu - Dasharo Configuration Utility

Usage:

dcu COMMAND

dcu [COMMAND] --help | -h

dcu --version | -v

Commands:

smbios Edit SMBIOS data **in** a firmware image

logo Insert custom logo boot splash into firmware image

dcu logo - Insert custom logo boot splash into firmware image

Alias: l

Usage:

```
dcu logo DASHARO_ROM_FILE [OPTIONS]
```

```
dcu logo --help | -h
```

Options:

```
--logo, -l LOGO (required)
```

Custom logo **in** BMP/PNG/JPG/SVG format to be displayed on boot

```
--help, -h
```

Show this [help](#)

Arguments:

```
DASHARO_ROM_FILE
```

Dasharo firmware file (e.g. coreboot.rom)

Examples:

```
dcu logo coreboot.rom -l bootsplash.bmp
```

dcu smbios - Edit SMBIOS data **in** a firmware image

Alias: s

Usage:

```
dcu smbios DASHARO_ROM_FILE [OPTIONS]
dcu smbios --help | -h
```

Options:

```
--uuid, -u UUID
  UUID in RFC4122 format to be set in SMBIOS type 1 structure

--serial-number, -s SERIAL
  Serial number to be set in SMBIOS type 1 and type 2 structure

--help, -h
  Show this help
```

Arguments:

```
DASHARO_ROM_FILE
  Dasharo firmware file (e.g. coreboot.rom)
```

Examples:

```
dcu smbios coreboot.rom -u 96bcfa1a-42b4-6717-a44c-d8bbc18cbea4
dcu smbios coreboot.rom -s D07229051
dcu smbios coreboot.rom -u 96bcfa1a-42b4-6717-a44c-d8bbc18cbea4 -s D07229051
```

The background is a dark gray color with decorative circuit-like lines in a lighter gray color. These lines are located in the four corners of the page, forming a border. The lines consist of straight segments and right-angle turns, ending in small circular nodes.

Q&A