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DCWS Datalocker Partitioning Tool

∴ Overview

The **DCWS Datalocker Partitioning Tool** is designed to format and configure a bootable USB drive for **DCWS deployments**. It partitions the USB drive, installs **GRUB**, and prepares it for use with **HAT**, **SHB_Deploy**, and **DCWS_Deploy**.



- Automated partitioning and formatting
- GRUB bootloader installation
- HAT-OFFLINE setup for hardware acceptance testing
- Prepares partitions for SHB_Deploy and DCWS_Deploy
- Creates a system log for tracking operations

Directory Structure

This tool consists of the following files and folders:

```
DCWS_Datalocker_Partition_Tool/
                                # Storage for DCWS deployment files (User must
— DCWS_Deploy/
manually add files)
- SHB Deploy/
                                # Storage for SHB deployment files (User must
manually add files)
— grub-2.06-for-windows/
                                # GRUB bootloader files
— signed-grub-files/
                                # Signed GRUB EFI boot files
- HAT-OFFLINE-dev20250210.iso # Hardware Acceptance Tool (HAT) ISO (Mounted &
Copied Automatically)
— DCWS USB Setup.ps1
                                # PowerShell script to partition, format, and
set up the USB
- README.md
                                # Documentation (this file)
- README.pdf
                                # PDF version of documentation
```

∧ Notes

- **DCWS_Deploy & SHB_Deploy** are empty by default. The user must manually **import** deployment files before use.
- HAT-OFFLINE-dev20250210.iso is automatically mounted and copied by the script.
- **GRUB files** are required for booting—do not delete them.
- The PowerShell script (DCWS USB Setup.ps1) handles the full partitioning and setup process.

USB Partition Layout

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Partition	Label	File System	Size	Purpose
SHB_Boot	SHB_BOOT	FAT32	3GB	Bootloader partition (GRUB)
SHB_Deploy	SHB_DEPLOY	NTFS	35GB	Storage for SHB deployment files
HAT	HAT-OFFLINE	FAT32	6GB	Hardware Acceptance Tool (HAT)
DCWS_Deploy	DCWS_DEPLOY	NTFS	Remaining Space	Storage for DCWS deployment files



% How to Use the Tool

Step 1: Manually Import SHB_Deploy and DCWS_Deploy Files

- The SHB_Deploy and DCWS_Deploy partitions will be empty by default.
- Users must manually **import the deployment files** to these partitions.
- Simply copy your files into:
- SHB_Deploy (H:) → Store SHB deployment files.
- DCWS_Deploy (I:) → Store DCWS deployment files.

Step 2: Run the Partitioning Script

- 1. Insert the **USB drive** into your computer.
- 2. Open PowerShell as Administrator.
- 3. Navigate to the tool's folder:

```
cd "C:\Path\To\DCWS_Datalocker_Partition_Tool"
```

4. Run the script:

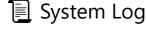
```
.\DCWS_USB_Setup.ps1
```

5. Select the disk number (WARNING: This will erase all data on the selected disk!).

Step 3: Verify the USB Drive

After the script completes:

- The USB should contain **SHB_Boot**, **HAT-OFFLINE**, **SHB_Deploy**, and **DCWS_Deploy** partitions.
- The log file (DCWS_USB_Setup.log) will be available on the local machine in the folder where the deployment script was run from.



The script logs all actions in:

• Local machine → DCWS_USB_Setup.log

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Use this log to debug any issues.

Marnings

- Import SHB_Deploy and DCWS_Deploy files manually before setup.
- All data on the selected USB drive will be erased.
- Ensure you have the correct disk number before running the script.



- This tool was developed by James A. Muldrow for the SealingTech DCWS Program.
- For support, contact the **DCWS engineering team**.

Modifying GRUB Boot Entries

If you need to update the GRUB boot menu, modify grub.cfg on the SHB_Boot partition.

Example grub.cfg:

```
menuentry "Boot SealingTech Hardware Acceptance Tool (HAT) (J: FAT)" {
   insmod part_gpt
   insmod fat
   search --no-floppy --set=root --label "HAT-OFFLINE"
   chainloader /efi/boot/bootx64.efi
}

menuentry "Boot SHB_Deploy (H: NTFS)" {
   insmod part_gpt
   insmod ntfs search
   --no-floppy --set=root
   --label "SHB_Deploy"
   chainloader /EFI/Boot/bootx64
}
```


For any issues, please contact the **DCWS Engineering Team**.