

# DCWS Datalocker Partitioning Tool

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## 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**.

## Features

- **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**
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## Directory Structure

This tool consists of the following files and folders:

```
DCWS_Datalocker_Partition_Tool/  
|— DCWS_Deploy/                # Storage for DCWS deployment files (User must  
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

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.

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## System Log

The script logs all actions in:

- **Local machine** → **DCWS\_USB\_Setup.log**

Use this log to debug any issues.

## Warnings

- **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.**
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## Notes

- 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**:

```
set timeout=5 set default=0

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
}
```

## Support

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