New Version

HDClone X.2 is the legitimate successor of HDClone X. This latest version of HDClone is a seamless continuation of its successful predecessor HDClone X, which is why we chose to name it X.2. This does not mean that HDClone X.2 is a sub-release of HDClone X, but instead the name reflects that HDClone X.2 is the result of having taken HDClone X to the next level. This is also evident by the list of new features. We have consistently advanced the development of HDClone in all aspects. Aside from the main features, we have improved upon many details in order to make HDClone even easier and more efficient to use. Once again, these improvements were also aided by the ideas and suggestions that we welcomed from the HDClone community. In addition to the nine existing HDClone language versions English, German, French, Italian, Spanish, Portuguese, Polish, Russian and Turkish, HDClone X.2 is now also available in Traditional Chinese and Simplified Chinese. This expansion of our language version lineup is our response to the steadily growing worldwide popularity of our products, especially HDClone, which is evidenced by our customers in 169 countries.

What's New?

HDClone X.2 comes with two completely new apps – ResumeImage for data rescue, specifically when it comes to disks with thermal issues, and DirectCopy, which can create fast (SmartCopy) 1:1 copies. In addition, six apps have been significantly improved. With HDClone X.2, you can now create images in the ESXi image format and convert images to ESXi with the ImageConvert app. The OS-Adjust app lets you change the Windows SID while copying or restoring. The DirectRestore app can now also restore image overlays.

Two new applets have also been added. The SafeDisk applet lets you manage and view disk security settings, including the new DiskQuarantine feature. Its purpose is to prevent issues when copying or imaging corrupted file systems. The Online Services applet with the remote status function allows you to monitor program processes online and sends out email notifications to alert to completed processes.

Once a process is completed, HDClone X.2 allows you to immediately view the report within the app, in addition to saving it, either as a PDF or a text file, The Spot File Manager has been advanced and can now be used to view all files with the auxiliaries Pad (text) and Hex (hex editor). New to the Spot File Manager is the auxiliary Pic, which allows you view pictures (PNG, JPG and GIF formats).

As always, the drivers for the self-booting Symobi-based HDClone variant (HDClone/S) have been further developed and optimized. Especially noteworthy: the support for Intel network controllers (LAN) has been significantly enhanced and support for Intel SATA/NVMe combi controllers on modern Intel chipsets and the new Intel VMD controller has been added.

Details about HDClone's ongoing improvements can be found online in the HDClone changelog at:https://www.miray-software.com/Changelog/HDClone

New Features (★ incl. version 11.1)

Change Windows SIDs On The Fly | 11.0 PE and up

The Windows SID can now be automatically changed when copying Windows installations or when restoring from an image. This feature can be chosen as an option in the respective apps.

ResumeImage App – Resume Data Rescue | 11.0 PE and up

Sometimes it can take several attempts to read an entire disk when recovering data from disks with physical defects. The ResumeImage app now lets you continue a previously cancelled data rescue process.

DirectCopy App – Fast 1:1 Copies | 11.0 AE and up

The DirectCopy app allows you to easily create identical 1:1 copies while combining a 1:1 result with the processing speed of a SmartCopy. For complete 1:1 copies, e.g. when recovering data or for forensic purposes, BitCopy remains the right choice.

DirectRestore App – Now With Overlays | 11.0 AE and up

The DirectRestore app can restore images that have been altered by means of overlays, including the changes made, back to a disk.

OS-Adjust App – Change Windows SID | 11.0 PE and up

The OS-Adjust app lets you change the Windows SID of an existing Windows system without copying it or restoring it from an image.

ESXi Images – Hypervisor Compatible | 11.0 PE and up

The ESXi image format is now an available target mode for VM images, so that they can be used directly with the VMware ESXi Hypervisor.

View Report Prior To Saving | 11.0 PE and up

Reports that are generated by certain apps upon process completion can now be viewed directly within the app before being saved.

Thunderbolt Device Support | 11.0 FE and up

HDClone's self-booting variants now also support devices that are connected via a Thunderbolt port.

Intel NICs – Advanced Support | 11.0 FE and up

In HDClone/S, support for Intel network adapters (NIC) has been significantly expanded and now encompasses various additional LAN NICs, including many onboard adapters.

Live Status – Track Processes Online | 11.0 PE and up

Once authorized by the user, program statuses can be monitored online. This is especially convenient when needing to track several simultaneous processes without being physically present or on site.

Email Notifications Upon Completion | 11.0 PE and up

To complement the tracking in Live Status, you can also be notified by email once a program process is completed.

DiskQuarantine – Block File System Errors | 11.0 BE and up

DiskQuarantine prevents sector or data errors from disrupting or impeding data recovery, especially when data is being recovered from defective disks.

SafeDisk Applet – Disk Safety Features | 11.0 FE and up

Aside from the DiskQuarantine feature, the SafeDisk applet also allows you to unlock password protected disks. It will also alert you when the Windows Controlled Folder Access is active.

Pic Auxiliary – Open Pictures In Spot | 11.0 FE and up

The Pic auxiliary has been added to the Spot File Manager. Pic lets you open pictures directly within the Spot File Manager to provide a better oversight of folders by being able to view their contents.

Intel SATA/NVMe-Merged Controllers | 11.0 FE and up

HDClone/S supports the special remapping capabilities of Intel SATA/NVMe controllers for both types of SSDs (SATA and NVMe), so that disks which are connected to them can be used normally.

★ Intel VMD – Advanced Support | 11.1 AE and up

HDClone/S and HDClone/L now support the new Intel Volume Management Device – a special controller for NVMe SSDs. Disks that are connected to this controller can be used with HDClone.

★ ImageConvert App for ESXi | 11.1 PE and up

The ImageConvert app lets you convert existing images to the ESXi image format and vice versa.

★ Support for PCIe Hot-Swapping | 11.1 PE and up

Hot-swapping of PCIe devices is now supported, provided that both of the PCIe device (e.g. adapter card) and the PCIe port are capable of hot-plugging.

HDClone X.2

★ **SafeRemove Applet** Improvement | 11.1 FE and up

The SafeRemove applet has been equipped with an intuitive display for disks and volumes, and now informs of successful disk removal with a popup.

★ **SecureBoot** Up-To-Date | 11.1 SE and up

UEFI SecureBoot was raised to a new security level for all operating systems in 2021. HDClone has been equipped accordingly and is therefore future-proof to run on PC platforms with UEFI Secureboot.

Feature Matrix

The table below provides an overview of the main features that have been added to HDClone, along with their availability in the respective editions. Unfilled dots (□) indicate that, while the feature is available, it cannot be used to its full extent when working with the edition in question.

Ver.	New Features in HDClone X	FE	BE	SE	AE	PE	EE
11.0	**Change Windows SIDs** On The Fly					■	■
11.0	**ResumeImage App** – Resume Data Rescue					■	■
11.0	**DirectCopy App** – Fast 1:1 Copies				■	■	■
11.0	**DirectRestore App** – Now With Overlays				■	■	■
11.0	**OS-Adjust App** – Change Windows SID				■	■	■
11.0	**ESXi Images** – Hypervisor Compatible					■	■
11.0	**View Report** Prior To Saving					■	■
11.0	**Thunderbolt** Device Support	□	□	□	■	■	■
11.0	**Intel NICs** – Advanced Support	□	■	■	■	■	■
11.0	**Live Status** – Track Processes Online					■	■
11.0	**Email Notifications** Upon Completion					■	■
11.0	**DiskQuarantine** – Block File System Errors			■	■	■	■
11.0	**SafeDisk Applet** – Disk Safety Features	□	□	■	■	■	■
11.0	**Pic Auxiliary** – Open Pictures In Spot	■	■	■	■	■	■
11.0	**Intel SATA/NVMe-Merged Controllers**	□	□	■	■	■	■
11.1	★ **Intel VMD** – Advanced Support				■	■	■
11.1	★ **ImageConvert App** for ESXi					■	■
11.1	★ **PCIe-Hotplugging** Support				■	■	■
11.1	★ **SafeRemove Applet** improved	■	■	■	■	■	■
11.1	★ **SecureBoot** Up-To-Date				■	■	■

Information on Modifications

The following information pertains to modifications which do not represent features in the actual sense, yet which bring about a different or new program behavior in comparison to the previous version. Therefore, this information is specifically aimed toward users of HDClone X or older versions.

Changed 32/64 Bit Automation

With HDClone X.2, the 64 bit variant has been made the standard in all areas. As a result, the names of the EXE files have been changed. The file "hdclone.exe" now contains the 64 bit variant. To explicitly use the 32 bit variant, choose "hdclone32.exe".

Boot Setup for 32/64 Bit

64 bit can no longer be deselected in the Boot Setup. Instead, boot files are automatically installed for both the 64 bit and 32 bit variants, provided they are available.

Note: The "hdclone32.exe" file is necessary to create the Linux-based boot variant (HDClone/L). If it is not present, the boot variant HDClone/L cannot be created.

Locations of New Applets

Both new applets "Online Services" and "SafeDisk" are located on the right side of the system bar.

Locations of New Apps

▪ "Resume BitImage" can be found in the "Image" section under the "Data Rescue" tab.

▪ "DirectCopy" is located in the "Special Modes" section under the "Migration" tab.

Spot Opens All Files (And Pictures)

In the Spot File Manager, any files can now be opened in the hex editor "Hex" or the text editor "Pad" via the context menu. The picture formats PNG, JPG and GIF can also be opened in the new image viewer "Pic" by double-clicking.

★ Revised Boot Setup

The options in the Boot Setup menu have been revised. The UEFI options have been replaced with a "Boot mode" drop-down element. This now allows for better handling of specific target systems, notably there is also a dedicated mode for booting on very old systems.

In addition, all available boot options (HDClone/S32, HDClone/S64 and HDClone/L) are now installed automatically. The boot options element presents as a straightforward display, which not only shows the available boot options, but also indicates potential causes in the event that one or more boot options are not available.

The options "Format Disk" and "Add Boot Configuration..." remain as before.

★ Optional Online Transmission of System Logs

In the event that you need to contact our support, the transmission of necessary log files is now easier, provided the system can connect to the internet successfully. A new option called "Upload Log" in the System applet (heartbeat monitor icon) serves as an alternative to the usual process of saving a system log to a local disk. It allows to transmit the system log online in one easy step. Upon successful transmission, you will be given a code consistent of five characters. When contacting our technicians with your description of the issue at hand, you can add this code to reference the system log.