

## Cloning | Backup | Migration | Rescue



Hard disks, SSDs & USB drives

**New:** NVMe and M.2 SSDs

**New:** SmartCopy for Btrfs & APFS

**New:** 64 bit HDClone/W

VHDX, VMDK and VDI

- Editions
- Free Edition <sup>F\*</sup>
  - Basic Edition <sup>W,V\*</sup>
  - Standard Edition <sup>W,V\*</sup>
  - Advanced Edition <sup>W,V\*</sup>
  - Professional Edition <sup>W,V,T,M\*</sup>
  - Enterprise Edition 4x/8x/16x <sup>M\*</sup>

- Highlights
- HotCopy, LiveImage, SmartCopy
  - **New:** SmartImage for Ext, Btrfs, APFS
  - **New:** Mount images as drives directly
  - **New:** HDClone/L for LAN, SAS/SCSI & RAID
  - TRIM for SSDs with SATA, IDE, SAS and SCSI
  - Disks above 2 TB and with Advanced Format <sup>1)</sup>



HDClone is the universal cloning solution for storage media and includes backup, data rescue, migration and mass-copy.

The core of HDClone is a specially developed CopyEngine, making it one of the fastest cloning applications in the world.

### Running with and without Windows

HDClone can be started self-booting or in Windows, offering the familiar drive letters, dynamic volumes, RAIDs and media requiring special Windows drivers to be used for copying.

### Automation

The command line interface (CLI) for Windows can be used from batch scripts or the task scheduler for predefined tasks. Specify drives by ID, port, device name and/or serial number.

### Fault tolerance with SafeRescue

Special strategies for reading defective sectors and a timely preferred rescuing of healthy data areas.

### File images and VM images – **NEW: Ext, XFS, Btrfs**

Storing images on FAT and NTFS media, on network drives<sup>2)</sup> and optionally compressed and/or encrypted, or in VM format (VMDK/VHDX/VDI) for VMware/VirtualPC/VirtualBox.

### HotCopy & LiveImage

Consistent copies and images – even at runtime ('live') in Windows and even of the system volume itself.

### Adjusting partition sizes & Defragmentation – **NEW: ExFAT**

HDClone can automatically enlarge, shrink and defragment NTFS, FAT & HFS+ during copying.

### Faster with SmartCopy & SmartImage – **NEW: Btrfs, APFS**

Smart images and copies (NTFS/FAT/HFS+) additionally save storage and time. Perfect for backup and migration.

### TRIM keeps SSDs fast

The TRIM command optimizes SSDs, reviving their original performance during cloning and for subsequent use.

## Edition Overview

Complete comparative matrix at: [miray-software.com/HDClone](http://miray-software.com/HDClone)

	Free	Basic	Standard	Advanced	Professional	Enterprise
Max. copying throughput MB/sec	30	50	60	∞ <sup>3)</sup>	∞ <sup>3)</sup>	∞ <sup>3)</sup>
IDE, SATA, USB	•	•	•	•	•	•
SSD performance enhancement with TRIM				•	•	•
SAS/SCSI und RAID <sup>4)</sup>					•	•
Dynamic Disks as source					•	•
Intel Software RAID 0/1/10/5					•	•
SATA hotplug & Port-Multiplier						•
HotCopy	•	•	•	•	•	•
Enlarging file system's size	•	•	•	•	•	•
Shrinking file system's size		•	•	•	•	•
SafeRescue data retaining		•	•	•	•	•
SmartCopy & SmartImage			•	•	•	•
InherentDefrag			•	•	•	•
Advanced Format (4K sectors) <sup>1)</sup>			•	•	•	•
Verification mode			•	•	•	•
Command line interface (CLI)					•	•
Storing a report (PDF)					•	•
MultiCopy (4x, 8x, 16x)						•
NTFS, FAT (FAT16 & FAT32)	•	•	•	•	•	•
ExFAT, <b>New:</b> Ext			•	•	•	•
HFS+ (Apple), ext (Linux), <b>New:</b> APFS (Apple)				•	•	•
ReFS (Win Server), XFS (Linux Server), <b>New:</b> Btrfs					•	•
LiveImage	•	•	•	•	•	•
SmartImage, <b>New:</b> Single file image format			•	•	•	•
Compressed images			•	•	•	•
Differential images/backups			•	•	•	•
QuickCompress			•	•	•	•
AES-encrypted images				•	•	•
Images on Network shares <sup>2)</sup>				•	•	•
VM images (VMDK, VHDX, VDI), <b>New:</b> DMG				•	•	•
Miray Virtual Disk (MVD)	•	•	•	•	•	•
Multiple mounted volumes	1	1	7	7	7	7
Mounting VM images (VMDK, VHDX, VDI)				•	•	•
<b>New:</b> Command line interface (CLI)					•	•
HDClone/W + HDClone/S (32 bit)	•	•	•	•	•	•
<b>New:</b> HDClone/W (64 bit)					•	•
<b>New:</b> HDClone/L (SAS/SCSI, RAID, LAN) <sup>6)</sup>					•	•

## Technical Data

### Areas of Application

- Migrating or duplicating entire system installations
- Data backup, data rescue, system recovery
- Mass installation of computer systems (roll-out, deployment)
- Clone, backup or rescue proprietary file systems
- Copies between SATA, IDE, USB, Firewire, SCSI, SAS & RAID

### HDClone/S & HDClone/L (Self-booting)

Variant /L adds a Linux base to the normal /S variant, including support for SAS/SCSI, RAID and LAN <sup>6)</sup>.

- PC Pentium III or higher, 512 MB RAM, CD or USB boot

### HDClone/W (Windows Application)

Launch HDClone directly on Windows.

- Windows XP (SP2), Vista, 7, 8/8.1, 10
- Windows Server 2003, 2008, 2008 R2, 2012, 2016 <sup>4)</sup>

### Supported Media

- IDE-, ATA-, SATA- & eSATA hard disks & SSDs, CompactFlash
- USB hard disks, USB sticks, USB SSDs
- SD/SDHC/MMC, CompactFlash, xD, Memory Stick etc.
- Firewire/IEEE1394 hard disks (internal & external) <sup>4)</sup>
- Dynamic Disks, RAID, SAS <sup>2)</sup> and other <sup>2)</sup>

### Supported Controllers <sup>5)</sup>

- SATA, SATA-II, SATA 6G over IDE/AHCI, M.2 SSDs with NVMe
- USB 1.1/2.0/3.0/3.1 controllers with UHCI/OHCI/EHCI/XHCI
- Firewire/IEEE1394 controllers with OHCI
- SAS/SCSI host adapters <sup>6)</sup>

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