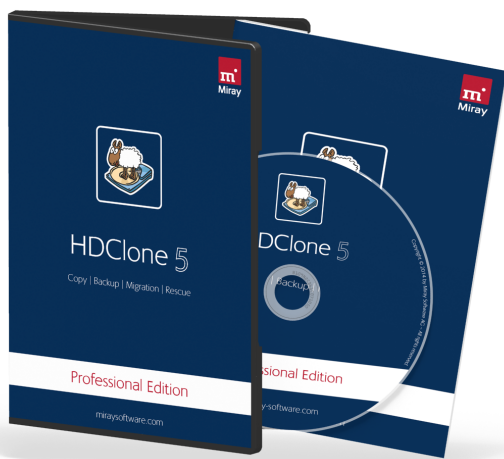




# HDClone 5

Copy | Backup | Migration | Rescue



- ▶ **Free Edition**  
Simple 1:1 copying solution at no cost, very suitable for one-time system migration
- ▶ **Basic Edition**  
Basic functionality for private use, especially for backup and system migration
- ▶ **Standard Edition**  
Backup, migration and data rescue solution for home or small office environments
- ▶ **Advanced Edition**  
High performance solution for backup, migration and data rescue with SSD support
- ▶ **Professional Edition**  
Universal disk cloning with high speed and special options for the professional user
- ▶ **Enterprise Edition 4x | 8x | 16x**  
High-speed data feeding of up to 4/8/16 disks or other storage media at a time

## Highlights

- ▶ HotCopy, LiveImage, SmartCopy
- ▶ Downsizing and Defragmenting NTFS & FAT
- ▶ File images (VMDK/VHD(X)/VDI, password)
- ▶ Disks with Advanced Format\* and > 2 TB
- ▶ Using file images as virtual drives

## New in HDClone 5

- ▶ Cloning and backing up Intel SATA RAID
- ▶ USB and SATA hotplug, Port-Multiplier
- ▶ Creating dynamic VHDX & VDI images
- ▶ MVD: Virtual drives from VHDX & VDI
- ▶ ATA password & TRIM for IDE and SATA

\* Copying between disks with different sector sizes (512 bytes, 1K, 4K)



# HDClone 5

HDClone is the universal copying solution for storage media. Uses include backup, data rescue, migration and mass-copy

**Windows XP/Vista/7/8/8.1 and Server 2003-2012**  
 HDClone can be started self-booting<sup>1)</sup> or in Windows<sup>2)</sup>, 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 by scripts or the task scheduler for predefined tasks. Drives can be specified by ID, port, device name and/or serial number.

**Fault tolerance**  
 HDClone contains strategies to rescue defective sectors. Moreover, defective sectors will not obstruct the copying process.

**File images – NEW: Dynamic VHDX & VDI images**  
 HDClone stores images on FAT and NTFS media as well as on network drives<sup>7)</sup> as optionally compressed and encrypted, or as dynamic VMDK/VHDX/VDI for VMware/VirtualPC/VirtualBox.

**HotCopy & LiveImage in Windows at runtime**  
 In Windows, HDClone creates consistent copies and images at runtime ('live') – even of the system volume itself.

**Adjusting partition sizes & Defragmentation ('on-the-fly')**  
 HDClone can expand NTFS, FAT & Ext partitions, downsize and defragment NTFS & FAT partitions during copying.

**SmartCopy & SmartImage**  
 Logical images and copies (NTFS/FAT/ext2-ext4) save a huge amount of storage and time. Perfect for backup and migration.

**NEW: TRIM command**  
 The TRIM command can optimize SSDs by bringing their original high performance back for the copying process and further use.

## Edition overview

|  | Free | Basic | Standard | Advanced | Professional | Enterprise |
|--|------|-------|----------|----------|--------------|------------|
| Max. copying throughput MB/sec                   | 30   | 50    | 60       | ∞        | ∞            | ∞          |
| IDE, SATA, USB                                   | ●    | ●     | ●        | ●        | ●            | ●          |
| New: Unlocking ATA password protection           | ○    | ○     | ○        | ●        | ●            | ●          |
| New: TRIM command for enhancing SSDs             | ○    | ○     | ○        | ●        | ●            | ●          |
| New: Intel Software RAID 0/1/10/5                | ○    | ○     | ○        | ○        | ●            | ●          |
| SCSI support <sup>9)</sup> & Firewire / IEEE1394 | ○    | ○     | ○        | ○        | ●            | ●          |
| New: SATA hotplug & Port-Multiplier              | ○    | ○     | ○        | ○        | ○            | ●          |
| HotCopy  | ●    | ●     | ●        | ●        | ●            | ●          |
| SafeRescue mode                                  | ○    | ●     | ●        | ●        | ●            | ●          |
| Advanced Format                                  | ○    | ○     | ●        | ●        | ●            | ●          |
| Downsizing & Defrag (FAT & NTFS)                 | ○    | ○     | ●        | ●        | ●            | ●          |
| Verification mode                                | ○    | ○     | ●        | ●        | ●            | ●          |
| SmartCopy  | ○    | ○     | ●        | ●        | ●            | ●          |
| Command line interface (CLI)                     | ○    | ○     | ○        | ○        | ●            | ●          |
| Storing a cloning report                         | ○    | ○     | ○        | ○        | ●            | ●          |
| MultiCopy (4x, 8x, 16x)                          | ○    | ○     | ○        | ○        | ○            | ●          |
| LiveImage  | ○    | ●     | ●        | ●        | ●            | ●          |
| SmartImage                                       | ○    | ○     | ●        | ●        | ●            | ●          |
| Password protected images                        | ○    | ○     | ●        | ●        | ●            | ●          |
| Compressed images                                | ○    | ○     | ●        | ●        | ●            | ●          |
| QuickCompress                                    | ○    | ○     | ○        | ●        | ●            | ●          |
| StrongCompress                                   | ○    | ○     | ○        | ○        | ●            | ●          |
| New: 256-bit AES-encrypted images                | ○    | ○     | ○        | ○        | ●            | ●          |
| Network shares <sup>2)</sup>                     | ○    | ○     | ○        | ○        | ●            | ●          |
| New: Hidden network shares <sup>2)</sup>         | ○    | ○     | ○        | ○        | ●            | ●          |
| Dynamic VMDK & VHD images                        | ○    | ○     | ○        | ○        | ●            | ●          |
| New: Dynamic VHDX & VDI images                   | ○    | ○     | ○        | ○        | ○            | ●          |
| Miray Virtual Disk                               | ○    | ●     | ●        | ●        | ●            | ●          |
| Managed file images                              | ○    | 1     | 1        | 1        | ●            | ●          |
| Multiple mounted volumes                         | ○    | 1     | 1        | 1        | 7            | 7          |
| Mounting VMDK & VHD images                       | ○    | ○     | ○        | ○        | ●            | ●          |
| New: Mounting VHDX & VDI images                  | ○    | ○     | ○        | ○        | ●            | ●          |
| Mounting directly from network shares            | ○    | ○     | ○        | ○        | ●            | ●          |
| Writeable virtual volumes                        | ○    | ○     | ○        | ○        | ●            | ●          |

### Areas of use

- ▶ Migrating or duplicating entire system installations
- ▶ Data backup / data rescue / system recovery
- ▶ Mass installation of computer systems (roll-out, deployment)
- ▶ Copy/backup/rescue 'exotic' and proprietary file systems
- ▶ Copying between SCSI, IDE, USB, Firewire, SATA, SAS & RAID
- ▶ Forensics, rescuing and securing of evidence

### Hardware requirements <sup>3)</sup>

- ▶ PC 586+/64 MB, VGA, keyboard & mouse (PS/2 or USB)
- ▶ Bootable floppy disk or CD/DVD drive or USB medium

### Supported Media

- ▶ IDE-, ATA-, SATA- & eSATA hard disks, CompactFlash (IDE) <sup>4)</sup>
- ▶ SCSI hard disks <sup>9)</sup>, USB hard disks, USB keys <sup>5)</sup>
- ▶ SD/SDHC/MMC <sup>6)</sup>, CompactFlash <sup>6)</sup>, xD <sup>6)</sup>, Memory Stick <sup>6)</sup> etc.
- ▶ Firewire/IEEE1394 hard disks (internal & external)
- ▶ Dynamic Volumes, SAS, RAID and other <sup>7)</sup>

### Supported Controllers <sup>8)</sup>

- ▶ PCI IDE controllers / Busmaster IDE controllers
- ▶ SCSI host adapters <sup>9)</sup>, SATA/SATA-II controllers with IDE/AHCI
- ▶ USB 1.1/2.0/3.0 controllers with UHCI/OHCI/EHCI/XHCI
- ▶ Firewire/IEEE1394 controllers with OHCI

### Manufacturer

Miray Software AG  
 Gailbacher Straße 18  
 81371 Munich  
 GERMANY

### More Information

Homepage: [miray-software.com](http://miray-software.com)  
 Product page: [miray-software.com/HDClone](http://miray-software.com/HDClone)  
 Online shop: [miray-software.com/Shop](http://miray-software.com/Shop)  
 Email contact: [mail@miray.de](mailto:mail@miray.de)

1) SP = self-booting program 2) WP = Windows progra 3) WP: the hardware requirements of Windows apply 4) media with TrueIDE support 5) using the USB-Mass-Storage-Class protocol 6) using a card reader (USB/Firewire) 7) WP only 8) WP: all controllers managed by a Windows drive 9) SP: Adaptec SCSI adapters only, see [miray-software.com/products/applications/scsi.html](http://miray-software.com/products/applications/scsi.html)