

HDClone 3.8

Copy - Backup - Rescue



HDClone is the universal tool for copying hard disks and other mass storage media. Major areas of use are backup, data rescue, migration of system installations, creating file images, and mass copying.

Self-booting or on Windows XP/Vista/Server

HDClone can be started either as a self-booting application¹⁾ or directly under Windows²⁾. Under Windows, the usual drive letters can be used for copying. Furthermore, dynamic volumes, RAIDs, and media requiring special Windows drivers can be copied, too. The self-booting application even works in the absence of any operating system. It is used for rescuing damaged hard disks and for restoring data from a backup.

File images - **NEW: supporting NTFS with HDClone/S**

Physical image files contain an exact image of the data source. Logical image files usually require only a fraction of space and time, but may not be used for rescuing data. HDClone writes and reads FAT and NTFS formatted media. HDClone/W can access network drives, too.

NEW: HotCopy / LiveImage on Windows at runtime

Under Windows, HDClone creates consistent copies and images at runtime ('live') - even of the system volume itself.

AutoExpand - Automatic Expanding - **NEW: now supports ext2/ext3**

HDClone can expand NTFS, FAT, ext2, and ext3 partitions automatically during copying. When migrating to a larger hard disk, the additional disk space will then be available immediately. If a medium contains more than one partition, the last one will be expanded automatically. Other partitions can be expanded as well using partition copy mode.

Fault Tolerance

HDClone uses different strategies to rescue defective sectors. Moreover, defective sectors will not obstruct the copying process.

SmartCopy / SmartImage - **NEW: now for ext2/ext3 file systems**

Creates *logical* 1:1 images & copies of NTFS, FAT, and ext2/ext3. Duplication takes only a fraction of the time physical 1:1 copies need. The ideal mode for fast backups and for migrating disks/partitions quickly.

Areas of Use

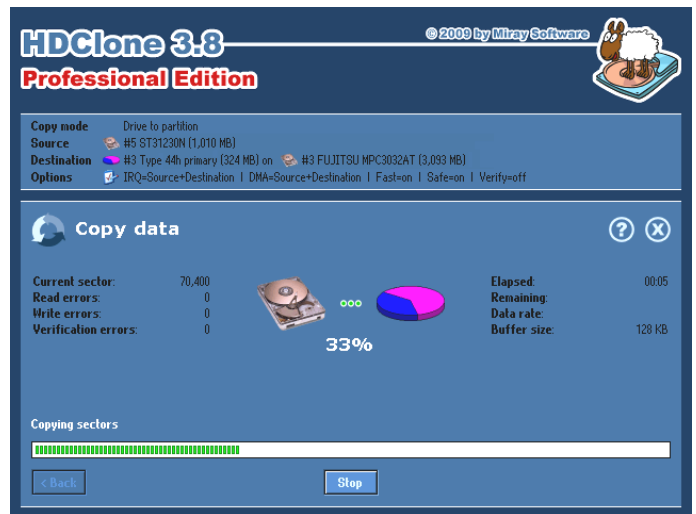
- migrating or duplicating entire system installations
- data backup / data rescue / system recovery
- mass installation of computer systems (roll-out, system builder)
- copy/backup/rescue 'exotic' and proprietary file systems
- copying between SCSI, IDE, USB, Firewire, SATA, SAS, and RAID
- forensics, rescuing and securing of evidence

Applications from Private to Professional use

HDClone offers a cost-efficient solution for every purpose:

- **Free Edition (private use only):** Simple and free-of-charge solution for 1:1-copies, especially for one-time system migration.
- **Basic Edition (private use only):** For occasional operation on private computers for backup and system migration.
- **Standard Edition:** For regular application in home and small-office areas, as backup, migration, and data rescue solution.
- **Professional Edition:** Universal professional copying solution for migrating systems, mass installations, backup, and data rescue at high speed, with a wide range of supported devices and special options.
- **Enterprise Edition:** Professional solution for mass copying, e.g. for comprehensive mass installations. Up to 16 simultaneous copies with up to 1 GB/sec (60 GB/min) and on all supported device types.

A feature overview is to be found at www.hdclone.de. The Free Edition contains a **compatibility and speed test** and is available as free download at <http://www.miray.de/download/sat.hdclone.html>.



SafeRescue Mode

In particular, physical defects will spread over the whole medium during operation. SafeRescue mode reads the data by stressing the hard disk as little as possible. The copy then can be used to try different recovery methods without putting the original data at risk.

Hardware Requirements³⁾

- PC, min 586/90 MHz/64 MB, VGA, keyboard & mouse (PS/2 or USB)
- bootable floppy disk or CD/DVD drive or USB medium

Supported Media

- IDE-, ATA-, SATA- and eSATA hard disks, CompactFlash via IDE⁴⁾
- SCSI hard disks
- USB hard disks (internal & external), USB keys⁵⁾
- SD/MMC⁶⁾, CompactFlash⁶⁾, MicroDrive⁶⁾, xD⁶⁾, Memory Stick⁶⁾
- Firewire/IEEE 1394 hard disks (internal & external)
- **NEW: hard disks > 2 Terabytes** (IDE, SATA, SCSI, USB, and Firewire)
- Dynamic Volumes, SAS, RAID and other⁷⁾

Supported Controllers⁸⁾

- PCI IDE controller / Busmaster IDE controller
- SCSI host adapters⁹⁾
- SATA Controllers with IDE interface, SATA-II controllers with AHCI
- USB 1.1/2.0 controllers with UHCI/OHCI/EHCI
- Firewire/IEEE1394 controllers with OHCI

Edition Overview	Free	Basic	Standard	Professional	Enterprise
IDE, SATA, USB	●	●	●	●	●
NEW: media > 2 TB	○	○	○	●	●
SCSI support	○	○	○	●	●
Firewire / IEEE1394	○	○	○	●	●
max. copy rate MB/sec	18	36	40	100	1000+
AutoExpand	●	●	●	●	●
NEW: HotCopy	●	●	●	●	●
SafeRescue mode	○	●	●	●	●
NEW: LiveImage	○	●	●	●	●
Verification mode	○	○	●	●	●
SmartCopy mode	○	○	●	●	●
Smart file images	○	○	●	●	●
MultiCopy (4x, 8x, 16x)	○	○	○	○	●
private use	●	●	●	●	●
companies/institutes	○	○	●	●	●
technician license	○	○	○	●	●

1) SP = self-booting program 2) WP = Windows program 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 driver 9) SP: Adaptec SCSI adapters only, see <http://www.miray.de/products/scsicompat.html>