

# Image

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**(Registered Version)**  
**Installation and Getting Started Guide**



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## **What Is Image**

Image is a DOS based backup and restore utility that creates snapshot of an entire partition or volume to a set of files or directly to most ATAPI CD-R/RW drives. If something should ever happen to that partition or volume, you'll be able to simply restore the snapshot image.

OEM system builders with the appropriate license can supply their customers with a bootable system restore CD.

Image is compatible with the imaging feature of BootIt NG.

## **Limitations**

Image relies on the BIOS for processing disk functions. If your computer BIOS limits access to the hard drive for any reason and no drive manager is available to correct the limitation, Image will also be limited.

## **System Requirements**

100% IBM-compatible personal computer with an i80386-compatible microprocessor, 16MB RAM, XMS.

## **Getting Started**

- 1) Install/upgrade Image on your hard drive by following the steps in installation (see below).
- 2) Read the "Issues to be aware of" section (see page 6).
- 3) Read the "Examples of Use" section (see page 7).

## **Installation**

There isn't much to install. Image itself is just one file named image.exe. Simply extract the image.exe file and use it.

If you are going to burn directly to CD and want the CD bootable then extract CDBOOT.F35. Image will look in the current directory for CDBOOT.F35 during the creation of a CD. If it's found, the CD will be able to boot and run image.exe.

OEM's who have ordered the client license should use the CDBOOT.F35 included with the OEM client license.

## **Environment variables**

Image will display the contents of an environment variable named IMSG on the screen. To set the message use the set command (i.e. set imsg=This is the message and it must be less than 80 chars).

To change the method used to burn a set of CDs so that it doesn't prompt for the last CD during a restore, set the environment variable IBXT to a value of 1. (i.e. set ibxt=1). Use of this setting may not work with all CD-R/RW drives.

If you experience errors or problems when a CD is being closed during a image to CD operation then set the CDCMZ to a value of 1 to use a different closing technique (i.e. set cdcnz=1).

You can have Image auto respond to prompts and error messages when creating an image to a file by setting an environment variable IAR to either Y or N (i.e. set iar=Y). With this setting all prompts that require press enter are automatically responded to. Prompts that ask a 'Y'es or 'N'o question will be answered with the setting of the IAR variable. You can use errorlevel in a batch files to determine if the operation was successful or failed.

If you're having slow network performance it may be to do bugs or compatibility issues in the DOS NIC drivers. You can use the IOBS variable to see if it solves your performance issues. For IOBS, set it to a value of A (to auto determine best value), 1, 2 or 3 (i.e. set IOBS=A).

## **Command line options**

Use can use image.exe with command line options. The options are required to be separated by spaces and entered in the order given below. Use the /? Command line option for additional command line options not explained here.

### **Creating a compressed image to a file:**

```
Format 1:      image /Ch# d:\filename.img          (no validation)
Format 2:      image /Ch#V d:\filename.img          (validation)
Format 3:      image /Ch#VB d:\filename.img         (byte-for-byte validation)
Explanation:   Replace the h with the source hard drive number from 0 to 7
                and the # with the partition entry id. For most users the
                partition id will be a number from 1-4 or for volumes a
                number formatted as 0xPVV where P is the extended partition
                and VV is the volume number in hexadecimal from 01 to FF.
                If you're not sure of what the partition or volume id is,
                run image without any parameters and choose create image.
                The screen that lists the partitions and volumes also will
                display the id in parentheses as a hexadecimal number. You
                should prefix that number with a 0x on the command line.
```

### **Creating a uncompressed image to a file:**

```
Format 1:      image /Ch# /U d:\filename.img        (no validation)
Format 2:      image /Ch#V /U d:\filename.img        (validation)
Format 3:      image /Ch#VB /U d:\filename.img       (byte-for-byte validation)
Explanation:   Same as above.
```

### **Creating a compressed image to a CD drive:**

```
Format 1:      image /Ch# /CDx                      (ATAPI)
Format 2:      image /Ch# /CDSx                     (ASPI)
Explanation:   The h and # information is same as above. The x after /CD
                is the CD drive number to use. Omit the number (/CD or
                /CDS) to get a list of the devices.
```

### **Creating a uncompressed image to a CD drive:**

```
Format 1:      image /Ch# /U /CDx                   (ATAPI)
Format 2:      image /Ch# /U /CDSx                  (ASPI)
Explanation:   Same as above
```

### **Restoring an image from a file:**

```
Format 1:      image /R d:\filename.img             (no validation)
Format 2:      image /RV d:\filename.img             (validation if needed)
Explanation:   Restores the image to the same hard drive and location on
                the hard drive that is was backed up from.
```

```
Format 1:      image /R /CDx                      (ATAPI)
Format 2:      image /R /CDSx                      (ASPI)
Explanation:  The x after /CD is the CD drive number to use.  Omit the
               number (/CD or /CDS) to get a list of the devices.
```

Format: d:\filename;s  
Explanation: Replace the s after the ';' with 0 for 2GB, 1 for 698MB, or 2 for 648MB.

- When you are creating an image you shouldn't use the partition being backed up as the location of the image file. This is because the partition is being updated at the same time you're trying to back it up. When you restored the partition the file system wouldn't be in a consistent state.
- When you are restoring an image you shouldn't restore over the partition that contains the source image file. This is because the restore will overwrite the file system structures and the image file itself.
- After restoring the system will reboot. This is required because partitions and file system being used by the operating system have changed. If you didn't reboot then the OS would still think the partition and file system was as it was before the restore. This could cause data corruption. You can override a command line restore with /RN but it should only be used by advanced users who know its safe to not reboot.
- When you do a command line restore, the restored partition will go to the same hard drive number and physical location on the drive as from where it was backed up. If it was a volume and there is no extended partition now at that location then it will attempt to create the original extended partition but, if it can't create the extended partition, it will be restored as a primary partition. If it was a primary partition and now an extended partition encompasses that location then it will be restored as a volume. If an existing partition or volume occupies the same starting location as the partition to be restored then, a warning message is issued before overwriting that partition or volume.
- Image doesn't change the SID of Windows NT/2K/XP systems. If you're going to use Image for deployment purposes then you should see the "For Deployment Purposes" under the "Examples of Use" section below. If you'd like to change the SID for WinNT/2K you can download a free utility named NewSID at:  
<http://www.sysinternals.com/ntw2k/source/newsid.shtml>
- You can only restore via booting the CD when the CD drive is an ATAPI drive. For SCSI drives you must create your own CDBOOT.F35 file which will load the appropriate DOS, ASPI drivers as well as launch image via autoexec.bat if desired.

## **Examples of Use**

### **Local Use**

Create a special image drive (preferably on another physical drive) then setup the advanced program settings of a shortcut to use MS-DOS mode. Later, burn the image files to CD or copy to a network drive for safekeeping.

Setup a shortcut to use MS-DOS mode (advanced program settings under properties of the shortcut) and save directly to an ATAPI CD drive.

### **Across the network**

Create a network diskette and create or restore the image file to/from a mapped network drive.

Use push technology (not included with Image) to automatically start the backup or restore across the network.

### **For Deployment Purposes**

Use Microsoft's SYSPREP tool along with Image for deployment purposes. You should setup the base machine so that the last partition ends at one track less than the actual end of the hard drive (around 8MB less) to leave room for different brands or models of the same size hard drive. See the following for more information:

#### **Windows XP:**

*How to Prepare Images for Disk Duplication with Sysprep*

<http://www.microsoft.com/WINDOWSXP/pro/using/itpro/deploying/duplication.asp>

*Windows XP Professional How-to Articles for IT Pros*

<http://www.microsoft.com/windowsxp/pro/using/itpro/default.asp>

#### **Windows 2000:**

*Download for the Microsoft Windows 2000 Sysprep Tool*

<http://www.microsoft.com/windows2000/downloads/tools/default.asp>

*Deploying MS Windows 2000 Professional and MS Office 2000 Using Sysprep*

<http://www.microsoft.com/technet/treeview/default.asp?url=/TechNet/prodtechnol/windows2000pro/deploy/depopt/sysprep.asp>

*Using Sysprep to Duplicate Disks*

[http://www.microsoft.com/WINDOWS2000/techinfo/reskit/en/Deploy/dgcb\\_ins\\_izyl.htm](http://www.microsoft.com/WINDOWS2000/techinfo/reskit/en/Deploy/dgcb_ins_izyl.htm)

#### **Windows NT:**

*Windows NT Workstation Deployment*

<http://www.microsoft.com/ntworkstation/technicalresources/deployment/default.asp>

### **OEM**

Create a special bootable tools partition, have a network diskette, backup all partitions to the tools partition. Create an autoexec.bat that runs image /RN d:\first.img until the last which would run image /R d:\last.img. Once setup, image the tools partition (uncompressed) to a network drive. Have a burn station burn the recovery CD using the OEM version of CDBOOT.F35.

Have some type of bootable removable drive/disk setup to boot (and keep HD0 as HD0) then burn to CD-R/RW directly or across the network to a burning station.

Note that you should setup the machine so that the last partition ends at one track less than the actual end of the hard drive (around 8MB less) to leave room for different brands or models of the same size hard drive.

### **With BootIt NG**

Setup a special partition with batch files to restore certain partitions from a network or local drive. At the end of the batch file have it run the DOS version of BootNow to boot some partition. Enable BootNow support in BootIt NG and setup boot items to automatically run the correct batch file (via keystrokes). Now you can have a certain partition rebuilt and booted by just selecting the item from the boot menu.



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## **Support and License**

### **Support Policy**

The primary support communication method will be use of on-line services. The most recent versions of software and information will be available on the TeraByte Unlimited website, <http://www.terabyteunlimited.com>.

Registered users that require technical support should try to use e-mail as the primary communication method. Telephone support will also be given as needed.

### **Ombudsman Statement**

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9.2 This agreement shall be interpreted and enforced in accordance with and shall be governed by the laws of the State of Nevada. Any action or proceeding brought by either party against the other arising out of or related to this agreement shall be brought only in a STATE or FEDERAL

COURT of competent jurisdiction located in Clark County, NV. The parties hereby consent to in personam jurisdiction of said courts.

- 9.3 If any terms or provisions of this agreement shall be found to be illegal or unenforceable then, notwithstanding, this agreement shall remain in full force and effect and such term or provision shall be deemed stricken.
- 9.4 No amendment of this agreement shall be effective unless it is in writing and signed by duly authorized representatives or both parties. No term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to or waiver of a breach by the other, whether express or implied, shall not constitute a consent to, waiver of or excuse for any other, different or subsequent breach.
- 9.5 This agreement shall be binding on and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties hereto, but nothing in this paragraph shall be construed as a consent to any assignment of this agreement by either party except as provided hereinabove.

## Image Order Form

Remit To:  
TeraByte Unlimited  
1350 Town Center Dr. #1049  
Las Vegas, NV 89144

Registration Name: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ Phone #: \_\_\_\_\_

\_\_\_\_\_ Phone #: \_\_\_\_\_

\_\_\_\_\_ Fax #: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ PC Brand/CPU Type: \_\_\_\_\_

Shipping Address: \_\_\_\_\_ Hard Drive Type: IDE EIDE SCSI

\_\_\_\_\_ Primary OS: \_\_\_\_\_

How did you learn about Image: \_\_\_\_\_

Description	Unit Price	Qty	Extended Price
Image	\$18.95		\$
OEM Image Client (Up to 500 clients)	\$1500.00		\$
OEM Image Client (Up to 1000 clients)	\$2500.00		\$
OEM Image Client (Up to 5000 clients)	\$7500.00		\$
OEM Image Client (Up to 10000 clients)	\$9000.00		\$
OEM Image Client (Unlimited)	\$14000.00		\$
Sub-Total			\$
Shipping and Handling Fees for orders not sent TO YOU via e-mail add \$9.95			\$
Nevada Residents add applicable sales tax			\$
TOTAL CHECK OR MONEY ORDER ENCLOSED*			\$

\* Check or Money Order must be drawn on a U.S. bank in U.S. Dollars.

\* If you do not have a US Checking account, you can send an international postal money order or have your bank issue a check on a U.S. bank in U.S. Dollars. Be sure to send this order form whichever method you choose.

☐ Check mailed separately. (Please ask your bank to include your name on the memo line of the check.)