WinImage v3.00

English documentation translationed with the assistance of Joël Demay, Michael Segall, Peter Sohn and Matthew Gardiner.

German version translated with the assistance of Walter Scheffel.
Spanish version translated with the assistance Diana M. Galindo P.
Italian version translated with the assistance of Roberto Paterlini.
Portuguese version translated with the assistance of Nuno Dionísio and Vítor Bueno.

WinImage - The Disk Image Management Utility

- ASP Member -

WinImage is a shareware product from an ASP member. You may copy and distribute WinImage as long as no fee is charged. You may charge a small fee to cover the diskette cost and shipping only. WimImage must be distribute it in it's entirety and include all of the files from the author.

What is a disk image ?

A disk image is a file which is an exact and complete image of a floppy disk. The image contains information on the disk format and structure, such as FAT, boot sector, directories, and all files.

By using WinImage, you can create an exact copy of an original disk, including non-standard capacity and format disks.

As an example, you can read a floppy disk and copy it as one image file to your hard disk. Later, without using the original floppy disk, you can extract any file from the image - just as if you had copied the file from the original floppy disk itself.

You can create exact copies of the original disk onto new floppy disks.

You can also create disk images with WinImage. For example. If you want to put five files, taking 1.3 Mb, on a 3"1/2 HD that has a normal capacity of 1.2Mb, you can create an empty 1.44 Mb image on the floppy, inject the five files into it from the hard disk, and in one operation you have formatted the floppy and written the image on it.

Unlike the DOS DiskCopy command, WinImage can format and use very large-capacity and non-standard format disks. As an example, a 3"1/2 HD floppy can be formatted out to 1.72 Mb and a 5"1/4 HD can be formatted out to 1.44 Mb.

Windows 3.1 and MSDOS. When running WinImage 16bit under MSDOS and Windows 3.1, the TSR utility FDREAD.EXE must be loaded at DOS level (first) if you wish to read and write non-standard formats. FDREAD.EXE is a shareware program from Christoph H. Hochstätter. If you will be using standard formats only, FDREAD is not needed.

Windows95 and NT. FDREAD.EXE is not needed when running the WinImage version for Windows'95 and NT.

Once loaded, you can extract files from an image to any floppy, hard disk or network disk.

You can add files to an image.

The image can be copied onto a floppy (which must have the same format), or saved in a file.

An image file contains all the sectors of a floppy disk. If it's not full, you can truncate unused image parts, making the image file smaller.

WinImage can read images created by other disk copy utilities.

- Wimage (in FdFormat utility) from C.H. Hochstätter
- CopyVit from Sébastien Chatard
- DrDos 6
- OS/2 2.x and 3.x
- DCF (Disk Copy Fast) from Chang Ping Lee
- DF (Disk Image File Utility) from Mark Vitt
- Super-DiskCopy from Super Software
- SabDu from S.A. Berman
- Disk-RW from K. Hartnegg
- DiskDupe from Micro System Design

and the internal Microsoft and Lotus image features and utilities along with the MFMT sample Windows NT application that comes with the Windows NT SDK.

Using WinImage

You can load an image into WinImage by either reading a floppy, reading an image file, or creating an empty image.

When an images is loaded, WinImage shows the files and directories present. You can change directory by double-clicking on the directory. You can return to the parent directory by double-clicking on the parent or first entry ("..").

WinImage can load an .ISO CD-ROM image file, in read only mode.

The image is loaded into memory. When there is no image loaded, some features are not available.

You can create a directory, delete or add files in the image with from toolbar or the Image menu option. You can use drag-and-drop from the Windows File manager to WinImage to inject data into an image, or from WinImage to another application to extract from it.

You can extract files in three ways: From the Image menu option or toolbar icon, by launching a file by double-clicking on it, or by dragging it to another application.

WinImage allows you to drag the image file from WinImage to another application by placing the mouse pointer onto the status bar or in the toolbar background. Press the left mouse button and keep it depressed, slide the pointer onto another application (drag and drop client), and release the mouse button. This original function allows you to add the image to a .ZIP or .ARJ file when using Nico Mak's WinZip utility, or attach the image to an e-mail created with Microsoft™ MS-Mail, or Lotus™ Notes or ccMail.

I suggest that you do not use the 820 KB or 1.72 MB formats, because Windows NT can not read them. I suggest that you use the DMF or the 1.68 MB format instead.

About DMF

DMF and 1.68 MB format are the same physical format of 80 tracks and 21 sectors per track. The 1.68 MB format has 224 entries in the root directory, and a cluster size is 512 bytes. DMF format has 16 entries in the root directory, and the cluster size is 1024 or 2048 bytes. Microsoft uses DMF 2048 for the floppy version of some of their newer software. Windows 95 and Windows NT 3.5x read and write directly in DMF format. You will need FDREAD for this format under MSDOS or Windows 3.1.

Some Microsoft DMF floppy disks contain information to make them write-protected under Windows 95 or Windows NT 3.5x. To write to these floppy disks, you will need to reformat them first to remove this.

The DMF 2048 format is often used for distribution floppies under Windows 95 and Windows NT. Under Windows 95, unlike other operating systems, formatting for DMF uses the BIOS. This may cause compatibility problem on some computers. If you experience such problems, I suggest you try the following:
- If your system has a flash BIOS, upgrade the BIOS to the latest release. If you have an Intel motherboard, you can find BIOS upgrades at ftp://ftp.intel.com/pub/bios.
- Format the floppy to 1.44 MB before trying DMF.
- Try to get more conventional memory (ideally by having a near empty config.sys) .
- Try using both winimage.exe and winima16.exe under Windows 95. (Ignore the message from winima16.exe that suggests not running using this O.S.) .
- download FDFormat (ftp://ftp.coast.net/SimTel/msdos/diskutil/fdform18.zip). Under DOS (or Windows 95 command line only without graphics interface - this is accomplished by pressing F8 and selecting 6 when booting) try 'FDFORMAT A: F168'. As is true with WinImage, FDFormat uses the BIOS. If FDFormat cannot format a disk at 1.68 MB, WinImage will also be unable to.

Some problems with DMF formatting under Gateway 2000 computers can be solved by downloading a BIOS update from the Intel FTP or web site (www.intel.com).

Under Windows 95, the following options are available In the Options Settings, Disk tab:

- If both *Use new DMF format technology* and *Use new DMF technology for writing data* are both selected, WinImage will use the new 3.0 DMF formatting code by default.
- If both *Use new DMF format technology* and *Use new DMF technology for writing data* are both un-selected, WinImage will use a slightly fixed version of the 2.5 DMF formatting code.
- If *Use new DMF format technology* is un-selected, WinImage uses the same code as version 2.20 to format.

Some DMF related problems can be corrected by adjusting the disk gap. To change this setting, you must modify the registry. Be very careful! The key value to modify is HKEY_CURRENT_USER\Software\WinImage\iGapDmf. A value of "0" specifies the standard DMF GAP. One WinImage user needed "17" for a 2.88 driver.

Please report any problems solved by modifying the GAP.

File Menu

New

Creates a empty new image. You must select a format (for example: 1.44 Mb).

Open

Opens an image file.

Close image

Closes the current image.

Save

Saves the current image.

Save as

Saves the current image with a new name.

Batch Assistant

Opens the Batch assistant dialog box.

Exit

Quits WinImage.

Image Menu

Create directory

Creates a directory in the current image.

Select

Selects files in the current image.

Inject

Injects files into the current image.

Inject a directory

Injects a complete directory or subdirectory, into the current image.

Extract

Extracts files from the current image.
If no file is selected, WinImage extracts all files from the image by default. Otherwise it extracts only selected files.
Depending on the Confirmation option, you will have to specify the extraction path. (A dialogue box with some Preference fields is shown).

Delete file

Deletes files from the current image, after asking for confirmation.
If there is no file selected, WinImage deletes all the files from the image by default, otherwise it deletes only the selected files.

Change Label

Changes the volume label of the current image.

Change size

Changes the size of the current image.
The new size must be greater than the total size of the files in the image.
As example: a 1.44 MB image can be changed into a 360 KB image only if it has less than 60 KB of files.

Defrag current image

Defragments the current image files.

Image information

Shows information about the current image, and allows editing the image's comment.

Diskette Menu

Use drive A: or B:

Selects drive A: or B: to read and write floppies.

On a computer with two drives, this command lets you choose the physical drive you want to use for reading or writing disks.

Format disk

Formats a blank floppy.

Create CDRom Iso image

Creates and opens an ISO image file from a CD-ROM. This options requires Windows NT.

Read disk

Reads a floppy and store the image in memory.

Compare disk

Compares the current image with a floppy.

Write disk

Writes the current image to a floppy.

Format and write disk

Formats a floppy and writes the current image onto it.

Option Menu

- **Sort by Name**
- **Sort by Type**
- **Sort by Size**
- **Sort by Date**

These options are used for displaying the files present in the image.

Font

Changes the current font (used for displaying the files present in the image).

Setting

Under Windows 95, Windows NT 3.51 or Win32s 1.30, all options appear in one tabbed dialog box. Items in the dialog boxes are the same as in Options, Settings, Confirmation and Sound settings. You'll only have these items in addition in the disk tabs :

- *Use IOCTL* : Tells WinImage to use 32 bit IOCTL operations (except for format DMF, which is not affected by this checkbox). The default status is - checked.

- *Use new DMF format technology* : If this is not checked, WinImage formats DMF in the same way as in version 2.20. If it's checked, it uses new code.

- *Quick format in 1.44 MB before DMF* : If this is not checked, WinImage does a quick format in 1.44 MB before formatting in DMF. It seems to be difficult to format a blank floppy in DMF without formatting first for 1.44 MB.
For more info on DMF, see the DMF section.

Preference

Sets WinImage Options

You'll see this dialog ox:

Ignore unused track when reading : if this option is checked, when reading or comparing a floppy which isn't full, WinImage will ignore unused tracks.

Ignore unused track when writing : if this option is checked, when writing an image to a floppy which isn't full, WinImage will ignore unused tracks.

Verify writing : if this option is checked, WinImage verifies after writing to a floppy. This takes a bit more time, but you will be sure the new disk is readable.

Use only standard format : if this option is checked, WinImage creates only standard floppies. Under MSDOS and Windows 3.1 FDREAD will not then be needed.

Select floppy for image : if this option is checked, WinImage selects a floppy type appropriate for the image in memory. (If you load a 360Ko image, WinImage selects a 5"1/2 floppy format).

Truncate unused image part : if this option is checked, WinImage reduces the size of the image when writing an image file which isn't full.

Use incremented open/save wizard : if this option is checked, WinImage increments the filename by 1. As example: after opening (or saving) "DISK01.IMA", WinImage proposes "DISK02.IMA" or the next file name.

Path : Here you specify where to get the files to form the image.

The following options are for extracting subdirectories.

Ignore subdirectories : WinImage won't extract the subdirectory(~es) selected.

Extract all in the same directory : WinImage extracts all the files in a subdirectory of the image in the Path location.

Extract with pathname : WinImage extracts files from a subdirectory of the image to a subdirectory of the Path location.

Default viewer: defines the viewer application launched when double-clicking on a file without association.

Confirmation

Inject: The first two options allow you to enable/disable the use of a dialog box when injecting files. The third asks for confirmation when replacing files.

Extract: The first three options control the display of the confirmation dialog box when extracting files.

Confirm overwriting when extracting: if this option is checked, when extracting risks overwriting a file, WinImage will asks for confirmation before proceeding.

When deleting files: this option controls the display of the confirmation dialog box when deleting files on image.

Options for registered user: see Registering.

Verify disk content before writing : if this option is checked, WinImage asks for confirmation before writing to a disk which already contains data.

Sound and notification

Select sound and message

With this option, you can ask WinImage to play a sound, beep, play a .WAV or .MID file. Under Windows 95 or NT, .AVI files can also be played.

Batch assistant

By using the batch assistant, you can chain operation on several images. When selected, the dialogue box appears.

When WinImage executes a batch, it repeats the sequence of :
creating an image in memory reading a *source*, and saving this image for saving to a *destination*. When the source has no image, the batch is complete.

The following sources can be selected.

- Set of floppies : WinImage will read floppies. You need to tell WinImage how many floppies you want to be read.
- Set of images files : WinImage will load images. You can open a list file (.WIL), or add some images manually.
- Directory injecting : WinImage will inject directories into an image. If the directory name contains a number, it can increment the directory name, and make an image for each directory. If a directory is bigger than an image, WinImage will make several images.

The follwing destinations can be selected.

- Set of floppies : WinImage will write to floppies. You tell WinImage if you want it to format also.
- Set of image files : WinImage will write images. You specify the filename of the first, and WinImage increments the subsequent filenames. You can optionally make a list file (.WIL) with a comment.
- file extraction : WinImage will extract files from an image to directories that you specify. It can also increment the directory name.

In this example, WinImage is configured to extract the file images DISK1.IMA through to DISK5.IMA, to directories c:\temp\disk1 through c:\temp\disk5.

Evolution of WinImage

September 1996 : Version 3.00

- Added ZIP compatible compressed image file (.IMZ and .WLZ)
- Added a comment feature for compressed image files.
- Added drag and drop from WinImage to the Windows 95/Windows NT 4.0 Explorer for file extraction
- When you drag a file into WinImage without opening an image, WinImage will automatically display the "New" dialog box
- WinImage can copy MacIntosh 1.44 MB floppies, but will not view the files in the image.
- Under Wintows NT, WinImage can build CD-ROM ISO compatible images.

April 1996 : Version 2.50

- Support of the new ListView control and tabbed dialog boxes for settings under Windows NT 3.5x, Windows 95 and Win32s 1.30
- Open an ISO CD-ROM image in read-only.
- Fixed bug while formatting DMF under Windows 95

September 1995 : Version 2.20

- Support for 32bit Win32s for the Intel version under Windows 3.1x.
- Format a blank disk without creating a new image.
- Fixed bug while formatting and writing DMF under Windows 95 and Windows NT 3.5x

June 1995: Version 2.10

- Windows 95 compatibility
- Support of Microsoft DMF - 1.68 Mb floppy

January 1994: Version 2.00

- Added the Batch assistant.
- Show disk directory when reading.
- WinImage can be iconised when reading or writing a floppy.
- New toolbar.
- Image information.
- Title bar.
- Sound notification.
- Support for .DLL resources (for languages other than French or English).

September 1993: Version 1.11

- Support of directory drag from Windows File Manager.

September 1993: Version 1.10

main differences:
- Windows NT version: built for the released version of NT, drag and drop server run correctly.
- Functions for deleting files in an image, changing format and defragmenting.
- Drag server of image file.
- Better usability: new menu, news option and confirmation dialog boxes, "Always on top" in system menu, last four files in File menu. Help on toolbar via button.

- Incremented filename.
- Better support of comparing and option saving.

May 1993 : Version 1.0

First version.

I plan on writing a WinImage self-extractor to allow creating a Win32 EXE file which will recreate or extract files from an embedded image. A WinImage SDK with functions to create an image, read/write it on file or floppy, inject/extract, etc., is also planned. Please send me email if you think this project could be useful to you. A professionnal version of WinImage is also planned. It will contain the self-extractor, SDK, a print/export directory function, and other advanced features.

There are two versions of WinImage: a 16 bit version for Windows 3.1 (WINIMA16.EXE) and a 32 bit version for Windows NT (WINIMAGE.EXE). Background reading or writing disks using WINIMAGE.EXE will ABSOLUTELY NOT degrade application performance under Windows NT or Windows 95 (with the exception of operations with the DMF format under Windows 95). Note: in previous version, WINIMAGE.EXE was the 16 bits version and WINIMANT.EXE was the 32 bits.

There are Intel 80x86, MIPS R4000, PowerPC, and DEC Alpha versions of WinImage NT. I'm interested in receiving feedback from users of the RISC version.

There are English, French, German, Italian, Portuguese and Spanish (Swedish, Dutch, and perhaps Russian probably soon) versions of WinImage. If you would like to provide translations of WinImage or the documentation in another language, please contact me.

WINIMAGE.EXE (the Win32 version of WinImage) uses WIM16T95.DLL and WIM32T95.DLL under Windows 95, and WIM1632S.DLL under Windows 3.1x + Win32s 1.30. The file HLR20A16.EXE, distributed in some beta releases, is no longer used.

The next version of WinImage will be available only in Win32, support for Windows 3.1 will be provided only through Win32s (ftp://ftp.microsoft.com/softlib/MSLFILES/PW1118.EXE).

I hope you will send me feedback about WinImage. My CompuServe ID is 100144,2636 and my Internet e-mail box is 100144.2636@compuserve.com.

If you find WinImage useful, give it to your friend and upload it to your BBS.

Acknowledgements

Building user-friendly software requires the help of a lot of people.

The DOS utilities FdFormat and Wimage from *Christoph H. Hochstätter* gave me some great ideas. Without his source code, I couldn't format large format floppies.

By creating new icons and bitmaps, *François Liger* gave WinImage a better look. By giving me pieces of code, Francois saved a lot of my time.

By correcting the French documentation, *Monique Vollant* improved its syntax. *François Liger*, *Joël Demay*, *Michael Segall*, *Peter Sohn* and *Matthew Gardiner* assisted in the same way with the English documentation. *Kent Cedola*, *Mickey Lane* and *Mary Geddry* built the Dec Alpha and Mips R4000 Windows NT version.

Some ideas and tests have been coming from beta-testers. My thanks to *David Chemla*, *Thierry Halin*, *Ralph Burri*, *Sylvain Surcin*, *Amando Senra* and particularly *Fabrice Letard*, *Joël Demay*, *Michel Nedelec* and *Luc Coiffier.*

Patrick Rafamantanantsoa, *Bernard Maudry*, *Nico Mak, Serge Delbono* and *Michael Segall* suggested additional ideas for WinImage.

I'm using the ZLib library (http://quest.jpl.nasa.gov/zlib/) written by *Jean-loup Gailly* and *Mark Adler*, for compression support. I want to thank them a lot !

Where to find WinImage

You can find the latest version of WinImage :
- On the WinImage web site, http://ourworld.compuserve.com/homepages/gvollant/winimage.htm
- On the French BBS at (33-1) 49.60.10.70 (login and password : WinImage)
- On CompuServe, in the WUGNET (library disk/disk util), and WINFR (library disk/disk util and utility NT) forums

You will find these files : (xx is the version number, for example, WINIMA30.ZIP is a ZIP for version 3.00) :
- WINIMAxx.ZIP : English help and executable files for Windows 95/NT Intel and Windows 3.1 + Win32s 1.30 (win32)
- WIMA1630.ZIP : English help and executable files for Windows 3.1 (Win16). The 3.00 is definitely the last Win16 version
- WIMAXPxx.ZIP : English help and executable files for Windows NT Dec Alpha
- WIMAMPxx.ZIP : English help and executable files for Windows NT Mips R4000
- WIMAPPxx.ZIP : English help and executable files for Windows NT PowerPC

- WIMAFRxx.ZIP : French help and resource files.
- WIMADExx.ZIP : German help and resource files.
- WIMAESxx.ZIP : Spain help and resource files.
- WIMAITxx.ZIP : Italian help and resource files.
- WIMAPTxx.ZIP : Portuguese help and resource files.

For example, a French user of WinImage 3.0 under Windows 95 will download WINIMA30.ZIP and WIMAFR30.ZIP and unzip them in the same directory.

Registering

WinImage is a shareware product, you may copy, distribute, and try it, but if you use it after the evaluation period, you must register. When you register you will receive a license, registration code, and the latest release of WinImage.

When you register WinImage, you will receive a unique regision number. You should install that number into WinImage by selecting Registering in the Option menu, and enter the code when prompted.

Once registered, WinImage will then allow you to hide the first screen in the Preference (Option menu).

The licence price is now **150 French francs** or **$30.00 (US)**.

Send check in French francs or US dollars to :

Gilles Vollant
13, rue François Mansart
91540 Mennecy
France

Fax : (33) (1) 64 99 94 55

Site Licence : You can contact WindowShare B.P. 2075 / 57051 Metz cedex 2 France, Fax : (33) 87 32 37 75

You can use the CompuServe shareware registration service (GO SWREG). The WinImage registration number is 1233.
You can register by internet. Connect the http://ourworld.compuserve.com/homepages/gvollant/order.htm

Credit Card Ordering:

To order by MasterCard, Visa, American Express, or Discover, call the Public (software) Library at 1-800-2424-PsL or 1-713-524-6394 or send your order by FAX to 1-713-524-6398 (U.S.A. phone number) or by CompuServe Email to 71355,470. You can also mail credit card orders to PsL at P.O. Box 35705, Houston, TX 77235-5705. You'll need to provide the cardholder's name exactly as it appears on the customer's credit card, plus the billing address for the card. PsL's office hours are 7:00 am to 6:00 PM CST Monday-Thursday and 7:00 am to 12:30 PM CST Fridays. You can give your internet address if you have one.
The WinImage number on the PsL registration service is #10976.

Use these numbers only for Credit Card orders. For site licenses or WinImage information, contact me at CompuServe 100144,2636.

This software is produced by a member of the Association of Shareware Professionals (ASP). ASP wants to make sure that the shareware principle works for you. If you are unable to resolve a shareware-related problem with an ASP member by contacting the member directly, ASP may be able to help. The ASP Ombudsman can help you resolve a dispute or problem with an ASP member, but does not provide

technical support for members' products. Please write to the ASP Ombudsman at 545 Grover Road, Muskegon, MI 49442-9427 USA, FAX 616-788-2765 or send a CompuServe message via CompuServe Mail to ASP Ombudsman 70007,3536.

Japanese customers may contact P&A Shareware Co, Ltd., of Japan 302 Bellwins, 1367-23, Nakagami, Akishima, Tokyo, 196, Japan Phone: 0425-46-9141 / Fax: 0425-46-9142 (NIFTY : PAF02461, internet email:PAF02461@niftyserve.or.jp). You can visit web page http://www.pandasw.com