WinImage 8.10

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http://www.winimage.com

http://forum.winimage.com for user to user support forum.

WinImage 8.0 software is compatible with Microsoft Windows 95, 98, Millenium (Me), Windows NT 4.0, Windows 2000, Windows XP, Windows 2003 and Windows Vista server.

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WinImage - The Disk Image Management Utility

What is a disk image file?

WinImage and Virtual Hard Disk image (image build by Microsoft® Virtual PC and Virtual Server)

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- 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 distributed 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 disk formats. 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.

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.

WinImage and Virtual Hard Disk image

WinImage can open .vhd file, created by Microsoft® Virtual PC and Virtual Server, and .vmdk file created by VMWare software.

To open a .vhd/.vmdk file, just do File Open, and select the .vhd/.vmdk file.

WinImage can open FAT partition in either read only or read/write mode.
WinImage can open NTFS and Linux EXT2FS/EXT3FS partition in read only mode only.

If the FileDisk driver is installed, WinImage can <u>mount</u> FAT or NTFS partition on VHD file created using Fixed Size format (not supported under Windows Vista).

WinImage Standard, Professional and Developer Edition

There are two versions of WinImage : standard and professional.

Registering options are different:
WinImage 8.10 Professional - price for NEW USERS of WinImage is $60.
WinImage 8.10 Standard - price for NEW USERS of WinImage is $30.
WinImage 8.10 Standard - price for registered users of any previous version of WinImage is FREE
WinImage 8.10 Professional - price for registered users of any previous version or WinImage 4.0/5.0 or 6.0 Standard is $30.
WinImage 8.10 Professional - price for registered users of WinImage 4.0/5.0/6.x or 7.0 Professional is FREE.

WinImage 8.10 Developer Edition - price for NEW USERS is $200.
WinImage 8.10 Developer Edition - price for registered users of WinImage Professional is $150

WinImage Professional adds all these feature to WinImage standard:
- Self extractor with unlimited redistribution license.
- File Properties - allows modification of file dates within image.
- You can export the directory of the current image in text or HTML.
- Printing of the directory of the image
- Edit boot sector properties (i.e. load another boot sector file, edit text in the boot sector...)
- Supports the creation of large images of removable and hard disks under Windows NT/2000/XP/2003/Vista and Windows 95/98/Me. Large images are not loaded in memory, read and write operations are done directly in image files.

WinImage Developer Edition contain WinImage Professional, the WinImage SDK and a licence to distribute software made with WinImage SDK and the WinImage SDK DLL on 10 (ten) computers.

Note: the upgrade for registered users of WinImage versions 1.0, 2.x, 3.0, 4.0, 5.0, 6.x or 7.0 standard to 8.10 standard is free. The upgrade from WinImage 4.0, 5.0 or 6.0 professional to 6.10 professional is also free.

If you don't have a WinImage Professional license, you can use the Professional version for 30 days (30 REAL days : if you start testing on July 1st and use it only on even numbered days, you can use it until September 1st).
At that time, you'll be automatically switched to standard mode.

WinImage self extractor

With WinImage's self extractor, you can create a Win32 x86 .EXE file with one or several image files.

If you are a registered user of WinImage professional, you can redistribute this executable without restriction.

The file.exe you create can be used under Windows NT-x86/Windows 2000/Windows XP/Windows 2003 server, Vista, Windows 95/98/Me.

How to create a self-extracting file:
- Create a .IMZ or a .WLZ file with WinImage
- Under the File menu, select Create Self-Extracting file…
- in the "Select source Image file" screen, click on "Select an image source file" and select the .IMZ, .WLZ or .IMA
- in the second screen, select the .EXE file to create

To create a self-extracting file with one image, you can also open this image and Under the File menu, select Create Self-Extracting file…Then create the EXE from the image in memory.

After selecting the source of the image file, choose the default command line options of self-extractor. The self extracting executable accepts the following options:

A: Write to floppy A: (or B:)
/F :   Format floppy when writing
/N:xx :   When writing a floppy, select the number of sets (xx is number>1)
/X directory :   Select file extraction to specified destination directory
/NI :   Don't increment directory when file extraction is selected
/W:xxx :   Writing image file xxx
/H :   Hide dialog
/B :   Stop reading command line (ignore options following)
/QF :   In self extractor command line to hide "insert floppy disk" dialog
/T: WinImage always issues a warning with a Yes/No dialog when the target disk is not empty and files will be overwritten. Default = "/T+, don't warn: "/T-" option
/V   Verify writing. Default = "/V+", don't verify: "/V-" option
/I   Ignore empty tracks when writing. Default = "/I+" , don't ignore= "/I-"
/O   Confirm Overwrite when extracting. Default = "/O-", do ask = "/O+"

These options can be embedded in the .EXE with SFXSETUP.EXE, or when running the .EXE
(the SFX runs the embedded option first, and EXE command line after).
If you specify the /B option at the end of a command line (when creating an SFX executable file),
command line options specified by the user, when starting the .EXE will be ignored.

WinImage SDK

The WinImage SDK is a Win32 DLL, with C, Visual Basic and Delphi importation files.
With the WinImage SDK, you can create a Win32 application that can read and write floppies, read and write image files, extract files from images, inject files into images and other Basic WinImage functionality.

The WinImage SDK is an additional product, based on the WinImage technology.
For download an evaluation version or for more information, visit the Web site
http://www.winimage.com/wima_sdk.htm .

The WinImage Developer Edition contain WinImage Professional and the WinImage SDK.

Introducing SmartVersion 2.0

SmartVersion 2.0 is a new shareware from Gilles Vollant, the creator of WinImage.

SmartVersion is a tool for storing multiple versions of your files inside SmartVersion Files (SVF files). You may then send these SVF files to your end-users. Your end-users can use SmartVersion to extract the version they desire from the SVF files and update their product. You may also customize exactly which versions are delivered to your end-users.

SmartVersion uses intelligent compression and file comparison algorithms. Only the changes between the different product versions are stored in the SVF files. This eliminates redundant data in your SVF files and makes sure the patches you create for new versions of your products are as small as possible.

For some file's types (such as text file, HTML files, Word Processing files...), it takes a significant smaller disk space than compressing each version individually.

SmartVersion, unlike other patching schemes, is not limited to working with software products, or providing single version upgrades.

For more information, and for downloading SmartVersion, just visit the SmartVersion Web Page (http://www.smartversion.com)

Real world usage example:
1) A Book writer

Let's say you're working on a book. How can SmartVersion help you?

As the author, you can use SmartVersion to store several versions of the file of your book. Let's assume you work with an editor who reviews and modifies your work. Your editor has a slow connection to the Internet, which complicates matters when you are emailing him files of your book.

The first time you send the book to your editor, you will send a SmartVersion file which contains only one version of the book (an empty patch, which will be exactly the same size as a ZIP file of your book file). The editor does take a lot of time to download the book, but with SmartVersion, this is the only time he will suffer for the duration of the project.

So moving along, your editor makes some changes to the book, and adds a new version of the book with his changes to the SmartVersion file (adds a new version to a patch). As he makes further changes, he adds those to the SmartVersion file as well. When he wants to correspond with you to send you his best copy, he makes a new SmartVersion file which contains just his changes (a minimal patch with a version subset). In this way, your editor obtains a very small SmartVersion file that he has no trouble at all sending back to you, even over his slow Internet connection.

Finally, when you receive the file, you open it with SmartVersion. SmartVersion asks you for the location of file of the first version of this patch (specifying an existing version folder), and then lets you extract your editors latest version with all his changes.

2) A Webmaster

A webmaster designs a web site. Sometimes, he experiments with several different styles on his site, and wants to be able go back if the modifications are not satisfactory.

Each day, he adds the current version on the SmartVersion file for his web site. On days when he tries several modifications, he saves several versions of the web site inside the SmartVersion file (adding new

versions to a patch). The website contains a lot of HTML files and images in the form of JPGs and GIFs, all contained inside the SmartVersion file.

Before the webmaster discovered SmartVersion, he had created 10 ZIP files containing 10 different versions of his website. But now, he just creates a single SmartVersion file with all these 10 versions. He imports his exising ZIP files (adding new versions to a patch) into a new SmartVersion file (starting with an empty patch). And he discovers that while the ZIP files together took up 10 MB, the SmartVersion file just takes 2.5 MB of space, and neatly contains all his website versions!

When he is done with his site, our webmaster has a SmartVersion file with, say 40 versions. At any time, he can extract one or several files from any of the versions (extracting versions from a patch). Let's say he wants to keep an archive of the evolution of his web site...but he doesn't want to keep all the versions of the site either...no problem! The webmaster selects the, say 10 versions he wants to keep, and then creates a new SmartVersion file for safekeeping (building partial patches).

What is new in SmartVersion 2.0:
SmartVersion 2.0 is a major release. There are major enhancements:

New SmartVersion compression engine
SmartVersion 1.0 was very slow to create patch of big file (more than 10 MB). The compression engine was fully rewritten, and is now far faster for creating patch of big file.
SmartVersion 2.0 can create patch for very big file, including file greater than memory or greater than 4 GB.

Adding/Delete file in existing version, and delete existing version
SmartVersion 2.0 can modify existing SmartVersion file, without recalculate patch (except when this is absolutely needed). User can now adding or delete file in existing version, or and delete existing version.

Appending version from another SmartVersion file
When a SmartVersion file contain a version which is exactly the same than the latest version of another file, its latest version can be appended the other file.

With the generate version subset feature, this is useful for exchanging work on some files by exchanging only patch.

Enhanced command line utility
The Command line utility is updated with new SmartVersion feature.

Using WinImage

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

When an image is loaded, WinImage shows the files and directories present. You can change directories 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 from the toolbar or the Image menu option. You can use drag-and-drop from the Windows File manager to WinImage to <u>inject</u> data into an image, or from WinImage to another application to <u>extract</u> 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 <u>DMF</u> or the 1.68 MB format instead.

You can start WinImage with options in the command line:
'WINIMAGE [source [destination] [options]]'
'WINIMAGE file.ima' :   Load the file file.ima
'WINIMAGE file.ima A:' :   Load the file file.ima, write on A: and exit
'WINIMAGE A: file.ima' :   Load from floppy A: and save file.ima
WINIMAGE /MAKESFX imagefilename.??z imagesfx.exe <command option>:   Create a <u>self-extractor</u>
file using a .wlz or .imz file, and with <command option> default option for the SFX file.

Option :
/F :   Format when writing a floppy from the command line
/E :   Do Extract (second parameter can be destination)
/X :   Do Extract with sub-dir (second parameter can be destination)
/Q :   Always exit after command line operation
/H :   Hide the main WinImage window
/NX :   Never exit after command line operation
/Nxxx :   Create a new image (where xxx is DMF1024, DMF2048, 144, 120...)
/Txxx: Transform image size (where xxx is DMF1024, DMF2048, 144, 120...)
/I xxx :   Inject file or directory xxx
/NOASPI :   Disable the ASPI device checking in start (this disable CDRom image creation
option under Windows 95/98/Me)

About DMF

DMF and 1.68 MB formats 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 *only 16 entries* in the root directory (you need create a subdirectory to copy more than 16 files), and the cluster size is 1024 (DMF 1024) or 2048 bytes (DMF 2048). You can check the cluster size in the Image Information...
Microsoft uses DMF 2048 for the floppy version of some of their newer software. Windows 95/98/Me and Windows NT/2000/XP/2003/Vista read and write directly in DMF format. You will need FDREAD for this format under MSDOS or Windows 3.1.

1.72 MB format uses 82 tracks and is not compatible with Windows NT/2000/XP/2003/Vista. 1.68 MB and DMF are the same physical format, and are compatible with Windows NT/2000/XP/2003/Vista. **I highly suggest you don't use 1.72 MB.**

Some Microsoft DMF floppy disks contain information to make them write-protected under Windows 95/98 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 95/98 and Windows NT. Under Windows 95/98, 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 95/98. (Ignore the message from winima16.exe that suggests not running using this O.S.) . Note : The latest 16 bits version of WinImage is WinImage 3.0. The latest 32 bits version of WinImage compatible with Windows 3.1+Win32s is 6.0.
- download FDFormat (from **http://www.winimage.com/othertl.htm**). Under DOS (or the Windows 95/98/Me command line without the graphical 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. FDFormat package contain also FDRead to read DMF/1.68 MB/1.72 MB floppy under MSDos.

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

Under Windows 95/98, the following options are available In the Options Settings, Disk tab:

- If *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 *Use new DMF format technology* and *Use new DMF technology for writing data* are both unselected, WinImage will use a slightly fixed version of the 2.5 DMF formatting code.
- If *Use new DMF format technology* is unselected, 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. A WinImage user needs "17" for a 2.88 driver.

Please report any problems solved by modifying the GAP.

WinImage and hard disk Image

The professional version of WinImage can create images of hard disks and removable (SyQuest, Zip…) drives.
To create an image, select your disk on Disk menu, and select Disk Read disk. WinImage will ask you the name of the image to create. It'll read your entire disk, and open the image.
When WinImage opens a large image (hard disk or removable), it doesn't load the image in memory. All modifications (Inject, etc…) will be immediately committed in the image.
For writing the image on the disk, open the image in WinImage, select the disk in Disk Menu, and select Disk Write disk.

WinImage is a Windows application. You will need Windows to run WinImage to restore the image.

If the free space in the partition is defragged and at the end of the partition, and if you select "Ignore empty track in reading" in the Disk tab in Option settings, the image size will be reduced and will not contain free clusters

If you have a FAT32 partition (created by Windows 95 OEMSR2, Windows 98/Me or Windows 2000/XP/2003/Vista), you cannot read this partition under Windows NT 4.0. With File Connect Fat32 drive..., you can open your partition under Windows NT 4.0 (you need Administrative rights). This option is only available under Windows NT 4.0.

If you have a Linux EXT2FS or EXT3FS partition, and run Windows NT4/2000/XP/2003 server/Vista, you can connect this partition in read only mode with "File Connect Linux drive…". You need Administrative right to use this feature.

Defining custom format and resizing image

WinImage can defragment and change the image format of a FAT image.
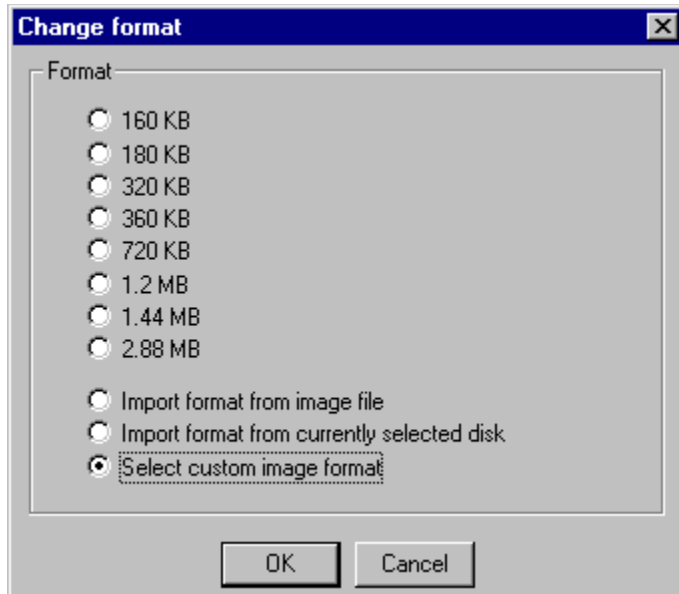
When you resize (using Image Change Format), you can:
- Select a floppy size.
- *Import format from image file*: WinImage reads the size (and other disk configuration) parameter of an existing image file. This can be a .IMA file, a .IMZ file or just a boot sector file .BIN written by change boot sector option.
- *Import format from currently select disk*: WinImage reads the size (and other disk configuration) on the disk you select on Disk menu
- *Select custom image format*: WinImage displays a dialog box with all disk parameter. This option is only available on professional version

```
Edit FAT image size                                          ×

    File system:                    FAT 12/16      ▼

    Bytes per sector:               512 (0x200)

    Sectors per cluster (size in bytes):   4 (2048)    ▼

    Total number of sectors:        20000          0x4e20

    Total image size (in KB)        10 000 (0x2710)
    (Modify the total number of sectors to change the image size)

    Number of FATs:                 2 (0x2)

    FAT12/16 Root entries:          512            0x200

    Media descriptor:               248            0xf8

    Sectors per FAT:                20 (0x14)

    Sectors per Track:              32             0x20

    Heads:                          64             0x40

    Reserved sectors:               1 (0x1)

    Hidden sectors:                 32             0x20

    Physical Drive Number:          128            0x80

              [    OK    ]        [   Cancel   ]
```

With *File - New…*, and *Select custom image format*, WinImage displays the parameters of a 128 MB disk partitions. The most important parameter is "Total number of sectors". The size of a sector is 512 bytes; you just need modify the total number of sectors to change the image size).

With *Image - Change Format…*, and *Select custom image format*, WinImage displays the parameter of current image.

WinImage can read a boot floppy, and convert the floppy image to a bootable USB Flash Drive image using the *Change Format* option.

You can also create an empty partition, and change boot sector.

Typically, a standard hard disk image has the following parameters:

- 248 as media descriptor
- 32 sectors per tracks
- 64 heads
- 32 hidden sectors
- 128 as physical drive number.

Some CD-ROM burning software (Like Nero 6) can use uncompressed .IMA with hard disk image as image file for boot image on bootable CD-Rom. Other CD-ROM burning software need adding a Master Boot Record adding on the file, before the partition image.

WinImage enables you to create these files by using the Using *Image – Export to an image with MBR…* option.

WinImage and CD-Rom Iso image

WinImage can open and build ISO-9660 image files directly from a CD-Rom.

WinImage can read and open ISO-9660 images created with CD-writer utilities such as Easy-CD Creator or CDRWin. You can also burn with these software packages ISO image build by WinImage.

Unlike FAT, FAT32 or NTFS file systems, the ISO-9660 file system, used in CD-Rom and CD-Rom image file is not designed to allow add, suppress or rename file.

WinImage cannot modify an ISO image. You can only open the image, display list of files in the image and extract them.

There is only one exception, introduced in WinImage 6.0: WinImage can replace a file by a new version of the same file (same filename, same length).

Mounting image to emulate physical disk or CD-ROM

When running on Windows 2000, Windows XP, Windows 2003 Server or Windows Vista, WinImage can collaborate with the FileDisk driver to mount disk images. FileDisk is a virtual disk driver for Windows 2000/XP/2003 Server/Vista that uses one or more uncompressed images files to emulate physical disks. FileDisk can mount uncompressed FAT images (.IMA images of floppy, removable disk or hard disk partition) or ISO CD-ROM/DVD images.

FileDisk is a free software build by Bo Brantén, who has nicely agreed to the distribution and integration of the FileDisk driver with WinImage. Thanks Bo!

To manually install FileDisk drivers, you need:
- Copy the driver (filedisk.sys) to %systemroot%\system32\drivers\.
- Optionally edit filedisk.reg for automatic/manually start and number of devices.
- Import filedisk.reg to the Registry.
- Reboot.

These website contain more information about FileDisk :
http://www.insidewindows.info, the original site from Bo Brantén.
http://www.winimage.com/filedisk.htm

These sites also provide a link to a console application that enables you to use FileDisk without WinImage.

Encoding files with a password

Starting with WinImage 6.0, you can encode .WLZ and .IMZ files with a password.

When you save a .WLZ or .IMZ file, you can enter a password. WinImage will encrypt the image file with this password. This password will be required for opening these files later.

WinImage use MD5 algorithm (http://userpages.umbc.edu/~mabzug1/cs/md5/md5.html) to build a 128 bits keys from password, and then the new Rijndael encryption algorithm (http://www.esat.kuleuven.ac.be/~rijmen/rijndael/index.html).
You can create Self-Extracting EXE file with encrypted file. Of course, this executable will prompt the user for a password.

Before sending encrypted file on the Internet, check that your country laws allow 128 bits encrypted files transmission.

File Menu

New

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

Open

Opens an image file.

Connect Linux or Fat32 drive

This option exists only under Windows NT/2000/XP/2003 server/Vista if you have a hard disk with a Linux (or Fat32 partition for Windows NT 4.0). You'll open a Fat32 partition in WinImage.

Close image

Closes the current image.

Save

Saves the current image.

Save as

Saves the current image with a new name.
File can now be saved with a password. In this case, the user needs to enter the password for opening the file.

Save as Text/Html

This option exists only in the professional version. You can write a text or Html file with the directory of current image.

Print
Configure printer

These options exist only in the professional version. They allow you to print the directory of the current image.

Batch Assistant
Batch Assistant wizard

Opens the Batch assistant dialog box. The wizard option offers an alternative interface to select options, step by step.

Create Self-Extracting file
This option allows you to create a self-extracting executable which contains one or several images. If you are a registered user of WinImage professional, you can redistribute this executable without restrictions.

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.

File properties

Change the file date (only in professional mode), attributes and name. The file can only be renamed when only one file is selected

Change Label

Changes the volume label of the current image.

Boot sector properties

You need the professional version to edit boot sector properties. With this option, you can change the OEM string of a disk, the serial number, or choose a Windows NT/2000/XP/Vista, MS-Dos 6.22,

Windows 95/98/Me or WinImage (Reset button) boot sector. On a WinImage boot sector, you can enter the text displayed when booting the floppy.

When a bootable CD-ROM image is loaded, this option display the boot properties of the CD-ROM. You can also export the boot image included on the CD-ROM 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.
For example: a 1.44 MB image can be changed into a 360 KB image only if it has less than 360 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.

Disk Menu

Use drive x: (where x: is a letter)

Selects drive to read and write.

This command lets you choose the physical drive you want to use for reading or writing disks.
In the professional version, you will also see the disk (hard disk and removable) drive, for disk image operation.

Format disk

Formats a blank floppy.

Edit Master Boot record

This feature allow you reset, backup and restore the Master Boot Record of removable drive. WARNING: modifying a hard disk Master Boot Record may prevent your computer from starting up. Only proceed if you know exactly what you are doing.
On professional version, you can also include non removable hard disk.

Create CDRom Iso image

Creates and opens an ISO image file from a CD-ROM.

Read disk

Reads a floppy and stores 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.

Classic Listbox
Large Icon
Small Icon
List
Details

Theses options change the presentation of the directory in WinImage's main Windows. These are the same options as in the Windows explorer.
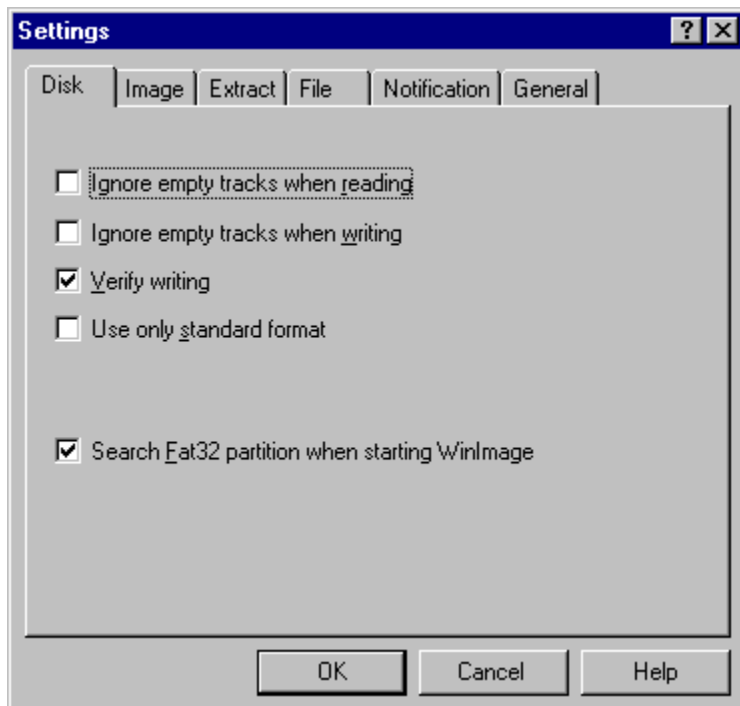
Font
Changes the current font (used for displaying the files present in the image).

Setting

All options appear in one tabbed dialog box.

Disk Tabs

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

- Ignore empty 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 then not be needed.

Under Windows NT 4.0, you'll have :
- Search Fat32 partition when starting WinImage : Asks WinImage to search a Fat32 partition in your hard disk. If it's found, you'll be able to connect on this partition.

Under Windows 95/98/Me, you'll have these options :

- Use IOCTL : Tells WinImage to use 32 bit IOCTL operations (except for formatting 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 as 1.44 MB.
For more info on DMF, see the DMF section.

Image tabs
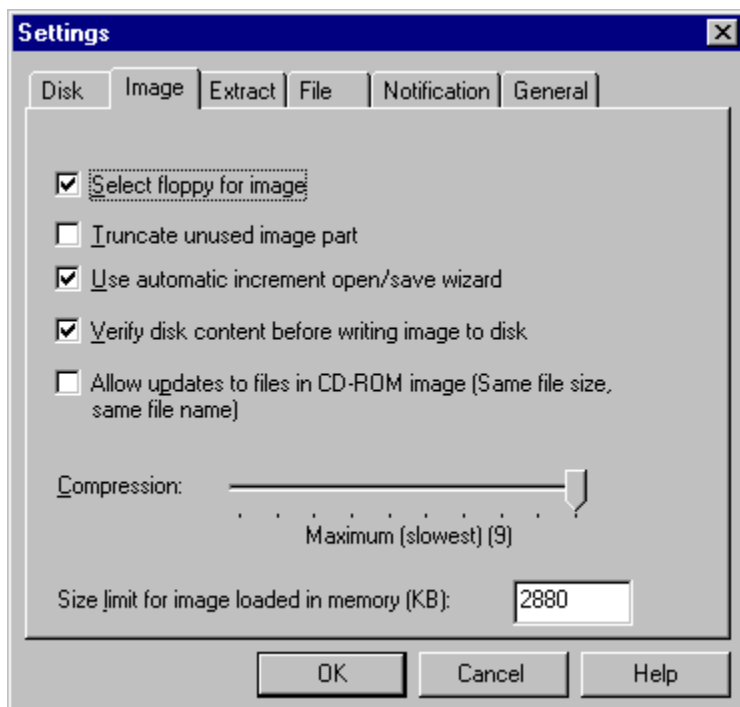
- *Select floppy for image* : if this option is checked, WinImage selects a floppy type appropriate for the image in memory. (If you load a 360Ko image, WinImage selects a 5"1/2 floppy format).
- *Truncate unused image part* : if this option is checked, WinImage reduces the size of the image when writing 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.
- *Verify disk content before writing* : if this option is checked, WinImage asks for confirmation before writing to a disk which already contains data.
- *Compression* : select the level of compression when saving compressed image file.
- *Size limit for image loaded in memory (KB)* : Before WinImage 7.0, all image with size equal or below 2.88 MB are loaded in memory, and all image bigger are stored on uncompressed .IMA file. The limit size for image in memory is now user defined. Some features are only available on image loaded in memory, like same as .IMZ compressed file.

Extract tabs
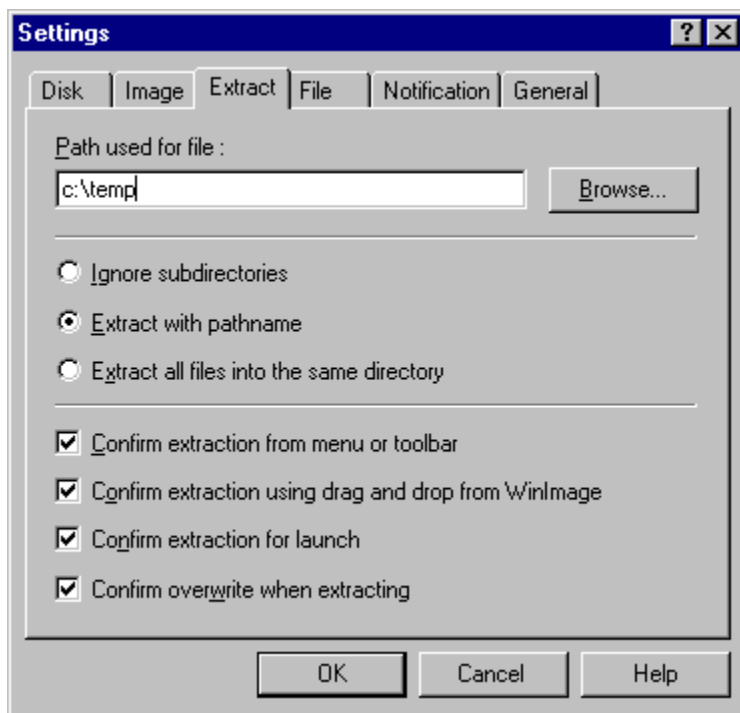
- *Path* : Here you specify where to get the files to form the image.

The following options are for extracting subdirectories.
- *Ignore subdirectories* : WinImage won't extract the subdirectory(s) 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.

The first three checkboxes 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 ask for confirmation before proceeding.
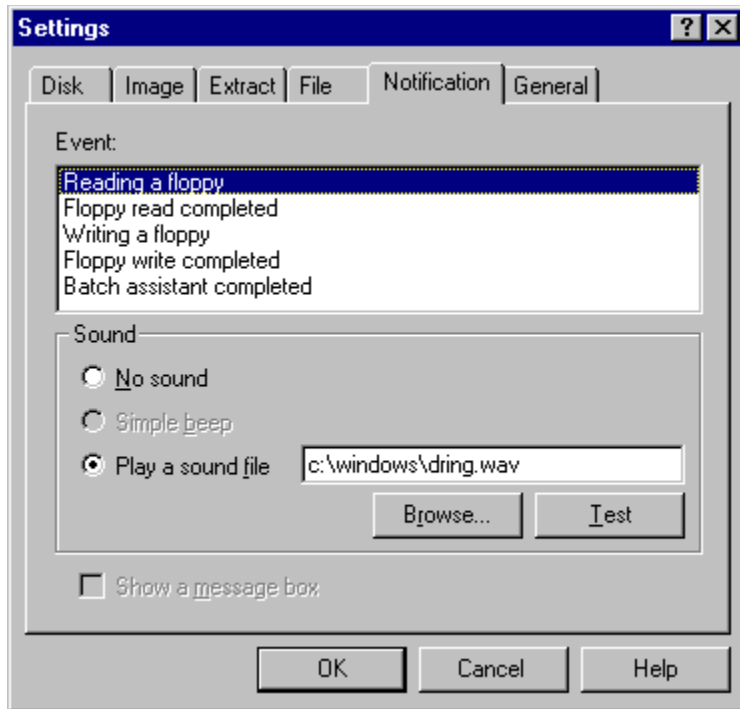
File tabs
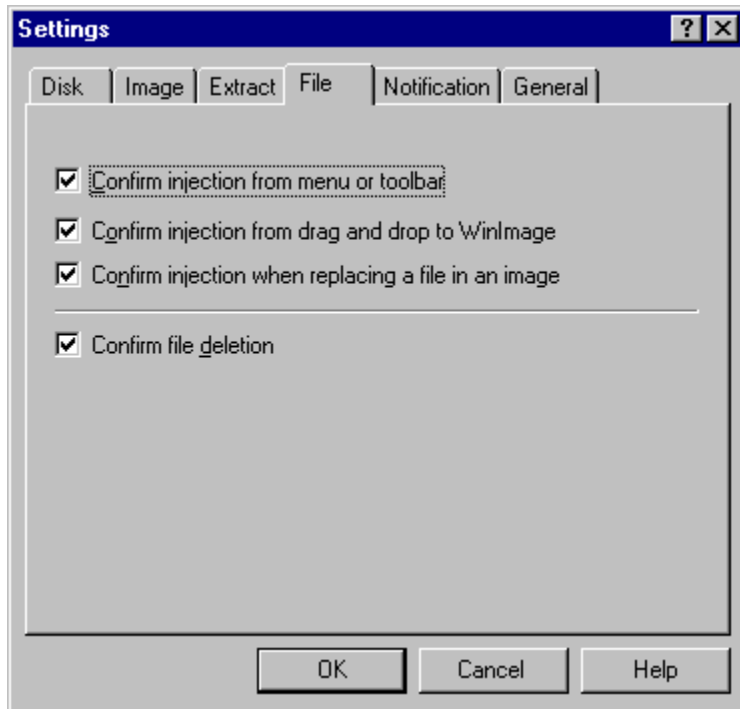
The first two options allow you to enable/disable the use of a dialog box when injecting files. The third asks for confirmation when replacing files.
- *Confirm file deletion* : this option controls the display of the confirmation dialog box when deleting files on image.

Notification tabs

Select sound and message
With this option, you can ask WinImage to play a sound, beep, play a .WAV or .MID file. Under Windows 95/98/Me or NT/2000/XP/Vista, .AVI files can also be played.

General tabs

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

association.

- Use new control for browsing directory : select the control used for searching a directory.

- Drag and Drop within explorer : allows user to extract files by dragging from WinImage to the explorer (and the desktop)

- Display icon in taskbar when working : when WinImage works on floppy or in batch assistant mode, it displays an icon in Windows taskbar. It blinks when user input is needed.

- Automatically show WinImage when user input is needed : When user input is needed (change floppy, error, etc...), WinImage pops up automatically. This allows you to minimize WinImage during long operations (floppy...), and be sure not to forget it!

*- Options for registered user :* see <u>Registering</u>.

Batch assistant

By using the batch assistant, you can chain operations on several images.
There are two different interfaces of the Batch assistant :
    - With File Batch Assistant, you'll have all settings in one dialog box
    - With File Batch Assistant wizard, you'll have several dialogs boxes, step by step.

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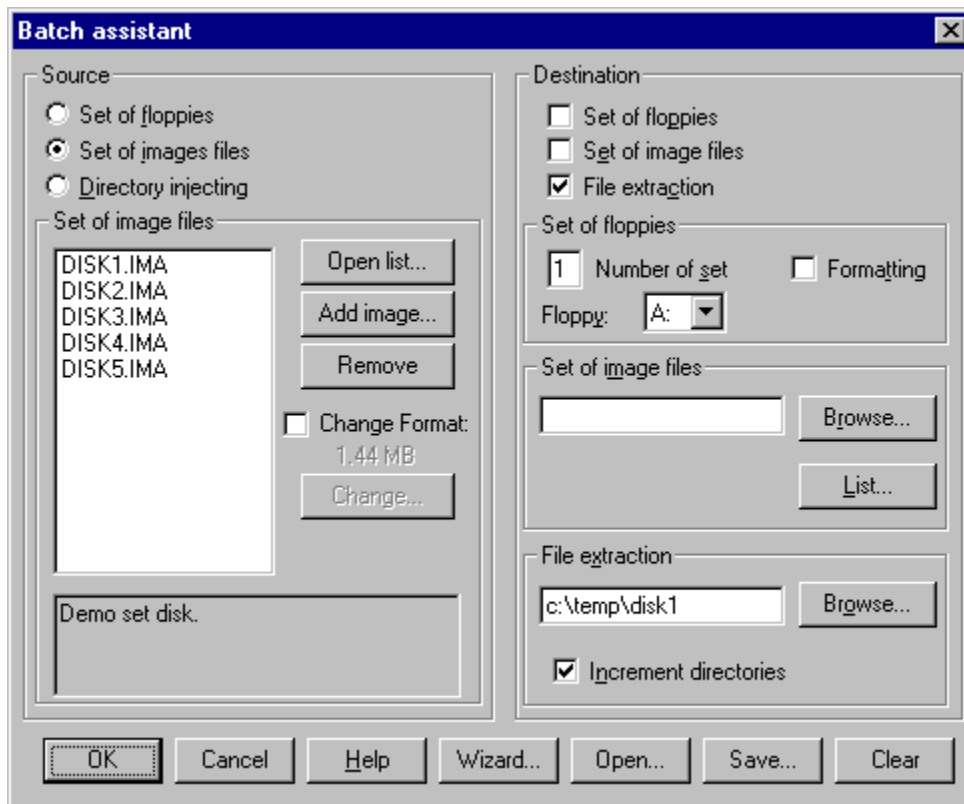
When WinImage executes a batch, it repeats the sequence of :
creating an image in memory reading a *source*, and saving this image for saving to a *destination*. When the source has no image, the batch is complete.

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), a set of compressed image (.WLZ, a ZIPfile with a .WIL and several .IMA) 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 following 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 and you can optionally make a list file (.WIL) with a comment. Or you can create a set of compressed images (.WLZ): one file will contain the list and all images.

- 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.

Before running the batch, you can save your configuration in a batch configuration file (.BWZ). This file can be opened later to run batch with same parameters. Like .WIL, BWZ files are text readable files.

Evolution of WinImage

July 2007 : Version 8.10
- Compatibility with <u>VMWare Vmdk Disk image</u>.
- fixes for Windows Vista compatibility problem.

October 2005 : Version 8.00
- Compatibility with <u>Virtual Hard Disk image</u> (used by Microsoft® Virtual PC and Virtual Server), in both read only or read/write mode.
- Support of NTFS and Linux EXT2FS/EXT3FS image (only in read only mode)
- <u>Connecting</u> on Linux partition (to view content of Linux partition on connected hard disk)
- Speed improvement in read of write password encrypted file

September 2004 : Version 7.00
- New toolbar and icon
- Interface improvement: A folder bar can be displayed with the tree of the image in memory. The "folder bar" item in Options menu can be used to enable/disable it
- Option to save/restore/reset the Master Boot record of physical drive (to standard Windows)
- Option to <u>mount</u> CDRom image and uncompressed file image, if the FileDisk drivers is loaded.
- <u>Self-extracting</u> file can (option /R) extract to removable drive, by resizing image. You can extract a self extracting bootable floppy to USB key with this feature
- You can export an hard disk fat image to an image with MBR. This is useful for CD-ROM burning software that don't add the MBR
- You can move file from one folder to another by drag it to the treeview
- The option to <u>modify image size</u> allow you choose the physical drive parameter
- You can modify image and and defrag large FAT image not loaded in memory
- With previous version of WinImage, all image with size equal or below 2.88 MB are loaded in memory, and all image bigger are stored on uncompressed .IMA file. The limit size for image in memory is now user defined (in Options Settings, Image tab). This is useful because some features are only available on image loaded in memory, like same as .IMZ compressed file.
- You can now select the size of an image (when you create a new image or change format) with three new options: import the size from existing image file (or from boot sector file), get the size of an existing partition, or enter custom value
- You can view the boot <u>properties</u> of a CDRom image
- The <u>boot sector properties</u> dialog box is now available on FAT32 image. This is useful to create FAT32 bootable image
- 64 bits version for Intel Itanium and x64 (for AMD 64 bits and Intel EM64T)
- minor bug fixes (including some fixes on code which create CDRom image under Windows NT/2000/XP/2003/Vista)

September 2002 : Version 6.10
- Compatibility with some CDRom images file (some version of Easy CD Creator…) is added
- Displaying very large directory (>500 files by example) is faster again. Useful for ISO or hard disk image
- Several minor bug fixes.

July 2001 : Version 6.00

- File can now be saved with a <u>password</u>. WinImage use MD5 algorithm to build a 128 bits key, and Rijndael encryption algorithm
- WinImage can now be installed with a self-install setup executable
- File in <u>.ISO CDRom image</u> can be replaced by a file with the exact SAME SIZE and FILENAME. Note: Because the .ISO file format is not designed to be altered, this is the only modification possible in ISO image.
- The /MAKESFX option is fixed (for create SFX .EXE in command line)
- New Self Extractor command line options

- WinImage can now open/read/write Linux EXT2fs image, but don't understand file system (like Macintosh floppies)
- Displaying very large directory (>500 files by example) is faster. Useful for ISO image
- Better support of DBCS resource file under Windows 2000
- When starting under Windows 2000 (or Windows NT4) with old and buggy ASPI layer, previous WinImage sometimes crashes. This is fixed.

April 1999 : Version 5.00

- File Properties allow the modification of filename and attributes of files within the image.
- Better international support: WinImage and self-extracting files can now be translated into far-east languages (like Japanese).
- The CD-ROM ISO image creation option is now compatible with Windows 95/98.
- Inject and Extract progress dialog boxes contain a "Stop" button.
- The delete option can now delete non-empty subdirectories in an image (and do recursive delete).
- The opening of Fat32 is faster and has better support of large FAT32 partitions.
- The documentation now states WinImage's Year 2000 compatibility (but previous versions were already fully Y2K compliant).

And only in professional mode:
- File Properties allow the modification of file dates within the image.
- Self extractor file creation is now integrated into the WinImage interface, and SFX executable are now translated (in WinImage 4.0, SFX file were only in English).
- More options in the self extractor

And the WinImage Developer Edition, with WinImage SDK and WinImage professional is released

July 1997 : Version 4.00

- Command line option
- There is now a true wizard (several screens with Next and Previous !) as an alternative to the Batch assistant dialog box.
- Under Windows NT, WinImage can directly open a Fat32 partition on the disk (useful because Windows NT 4.0 cannot directly read a Fat32 partition)
- Batch options can be saved in a .BWZ file
- option Display icon in taskbar when working.
- option Automatically show WinImage when user input is needed.
- Toolbar buttons are modernized
- There is now only a Win32 version of WinImage. Users of Windows 3.1 need install Win32s 1.30 to use WinImage.

And, in the *professional* version :
- Self extractor with unlimited redistribution license
- You can export the directory of the current image in text or HTML.
- Printing of the directory of the image
- Edit boot sector properties (ie load another boot sector file, edit text in the boot sector...)
- Supports the creation of large images of removable and hard disks under Windows NT and Windows 95. Large images (> 2.88 MB) are not loaded in memory, read and write operations are done directly in image files

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 format - 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 runs correctly.
- Functions for deleting files in an image, changing format and defragmenting.
- You can drag an image file from WinImage to another application.
- 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 filenames.
- Better support of comparing and option saving.

May 1993 : Version 1.0

First version

A WinImage SDK with functions to create an image, read/write it on file or floppy, inject/extract, etc., is planned. Please send me email if you think this project could be useful to you.

There is now only a 32 bit version of WinImage. Users of Windows 3.1 need to install Win32s 1.30 (downloadable at ftp://ftp.microsoft.com/softlib/MSLFILES/PW1118.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 version 2.x, WINIMAGE.EXE was the 16 bit version and WINIMANT.EXE was the 32 bit. Now, WINIMAGE.EXE is the 32 bit version.

There are Intel 80x86 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, Brazilian, Dutch and Spanish versions of WinImage. If you would like to provide translations of WinImage or the documentation in another language, please contact me.

WINIMAGE.EXE 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 old beta releases, is no longer used.

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

Acknowledgements

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

First, I want to thanks to Francois Liger for his technical expertise and contribution to this release.

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 correcting the French documentation, *Monique Vollant* improved its syntax. *François Liger*, *Joël Demay*, *Michael Segall*, *Peter Sohn*, *Matthew Gardiner*, *Ray Kaliss* and *Francis Weil* 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, Augustin Garcia, Badara Dafe* and particularly *Fabrice Letard*, *Joël Demay*, *Michel Nedelec*, *Luc Coiffier, Claude Renaud.*

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

Bo Brantén wrote the great FileDisk driver, which is now used by WinImage.

I'm using the ZLib library (http://www.zlib.org/) 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://www.winimage.com** and **http://www.winimage.com/download.htm**

You will find these files: (xx is the version number, for example, WINIMA80.ZIP is a ZIP for version 8.00):
- WINIMAxx.EXE: English help and executable files for Windows 95/98/Me/NT/Win2000/WinXP/2003/Vista Intel 32 bits, as a self-install setup.
- WINIMAxx.ZIP: English help and executable files for Windows 95/98/Me/NT/Win2000/WinXP/2003/Vista Intel 32 bits.
- WIMA64xx.EXE: English help and executable files for Windows XP/2003/Vista x86-64 bits, as a self-install setup. This is compatible with Windows x64 Edition, for Amd Athlon 64, Amd Opteron, Intel Xeon and Pentium with Intel Extended Memory 64 Technology (EM64T)
- WIMA64xx.ZIP: English help and executable files for Windows XP/2003/Vista x86-64 bits.
- WIMAIAxx.EXE: English help and executable files for Windows 2000/XP/2003/Vista 64 bits on Intel Itanium 64 bits architecture
- WIMAIAxx.ZIP: English help and executable files for Windows 2000/XP/2003/Vista 64 bits on Intel Itanium 64 bits architecture
- 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 (only old version of WinImage)
- WIMAMPxx.ZIP: English help and executable files for Windows NT Mips R4000 (only old version of WinImage)
- WIMAPPxx.ZIP: English help and executable files for Windows NT PowerPC (only old version of WinImage)

- 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.
- WIMABRxx.ZIP: Brazilian help and resource files.

For example, a French user of WinImage 8.00 under Windows XP will download WINIMA80.ZIP or WINIMA80.EXE and WIMAFR80.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 registration 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).

If possible, check the web page http://www.winimage.com/order.htm Internet page before registering. You'll have up-to-date registering information (foreign reseller…).
This page contains also link to internet secure server with credit card payment. This is the fastest and easiest way to order WinImage !

The price of WinImage standard is **$30.00 (US)** or **27.50 Euro**.

The price for an upgrade from WinImage standard (or a version of WinImage previous 4.0) to WinImage professional is **$30.00 (US) or 27.50 Euro**. I'll check if you are in my registered user database when you order upgrade.

The price for WinImage professional, full version is **$60.00 (US)** or **55.00 Euro**.

The price of WinImage Developer Edition, with WinImage Professional and WinImage SDK is **$200.00 (US)**.

The price for an upgrade from WinImage professional to WinImage Developer Edition is **$150.00 (US)**. I'll check if you are in my registered user database when you order upgrade.

Of course, before accepting an upgrade, I'll check on my registered user database. If you can, I suggest you contact me by email before buying the upgrade.

Contact me for site licence pricing. This is a very advantageous option !!

You can send check in Euro (french bank) or US dollars to (USA bank) to:

Gilles Vollant
4, rue de Morsang
91600 Savigny sur Orge
France

Fax : (+33) (0) 1 69 05 85 54
Fax : (+33) (0) 1 64 99 94 55 (backup number only)
E-mail : info@winimage.com
If possible, send an email when you send a letter or a fax for ordering.

If you send Eurocheque, be sure to write the amount in French francs.

If you can, I suggest you send me an email when you register by any method.

Credit Card Ordering:

You can order by credit card through Yaskifo and Digibuy, credit card order service, by fax or phone (and of course by Web, from http://www.winimage.com/order.htm). The Web site contains also other ordering services.

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. You can visit web page at http://www.panda.co.jp and http://www.pandasw.com. WinImage page is http://www.panda.co.jp/winimage/index.html .

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