Application Note

Related Products	WEBasDISK (NET1)
Subject	How to create an image for the use with WEBasDISK
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Usage	Common

1. REVISION HISTORY

Date	Document Name	Subjects added, changed, deleted	Changed by
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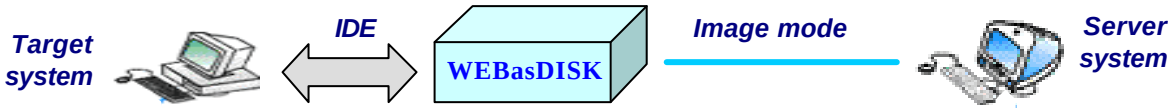
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3. INTRODUCTION



With image-mode, WEBasDISK will use a single file to access, to boot from and to write back changes to. This file is an image-file containing all the files of an Operating System, installed on a partition or harddisk. When WEBasDISK is operated in image-mode, a valid image-file needs to be created and stored on the server-system. The following directions will guide you from creating this image file to successfully boot WEBasDISK via an image-file.

4. CREATING THE IMAGE

Generally a program is required to create an image file from a partition or harddisk. There are two programs, which qualify for the use with WEBasDISK. Depending on the Operating System you would like to create an image of, different specifications and settings will have to be selected.

- The first step is to download and install *HDCopy*, available at http://212.223.28.218/english/HDCOPY/download.htm. After downloading start the setup.
- Create a DOS-startdisk for the use with this program. With Windows 95, 98, ME, XP you can easily create a startdisk by making a right click on “3 ½ Floppy”, selecting “format” and checking “create DOS-startup disk”.
- Insert this disk into the floppy drive and start up HDCopy.
- Use HDCopy to create a DOS-startdisk containing HDCopy-files.
- Restart your computer with the floppy drive as your first boot device and the startdisk inserted.

3.1 MS-DOS/DR-DOS/Windows 95/Windows 98/Windows ME

- After starting the program, from menu “Action” choose “Backup”
- In the following window select your source-partition or source-harddisk
- Now choose your destination path, the location where the image file is saved. First select the drive by moving up or down your cursor. Choose a specific directory you want the image to be saved to.
- By hitting the tab-button now choose a filename for your image-file.
- After hitting enter to confirm your settings, it is now possible to optionally enter some additional information on the image your about to create.
- In the next window an overview over your selections is given. Hit F10 to start the process or F3 to make changes.
- **Note, that following settings must be selected:**
    - **Compression: No**
    - **Logical Datasaving: Physical**
    - **Maximum Filesize: equal or more than the size of partition/harddisk you are creating an image from.**
- If you need to change any of these setting, hit F3, select the item that is to change and hit space-button.
- After finishing making changes hit F10 to confirm your settings and F10 again to start the process.
- After finishing creating the image, copy the image file to the directory, WEBasDISK is to access and proceed with the steps described in WEBasDISK’s user manual.

3.2. Windows NT/2000/XP

With Windows NT/2000/XP the process of creating a valid image for the use with WEBasDISK is a little more complicated. When Windows NT/2000/XP is set up on a system, it creates a registry of the system's hardware configuration, especially on IDE- and PCI-controllers. If this installation is used on another system with different hardware (or if an image is taken to have WEBasDISK boot from), a boot failure will be returned, since the hardware configuration does not match with the expected configuration.

Generally there are two ways to avoid this problem:

1. Use Microsoft's "Sysprep"-tool to clean the registry of IDE- and PCI-controllers. After doing so, create an image of the system as described in 1.1.
   For further information and directions on the use of Sysprep, please refer to www.microsoft.com. Microsoft also provides detailled documentation on how to operate Sysprep.

2. Do a Windows NT/2000/XP setup on your target system first. This way local hardware configuration will later match with the registry. After setup, perform the image-process on the harddisk, you have set up Windows NT/2000/XP before. Proceed as described in 1.1.

After having created your image, please refer to WEBasDISK's user manual for further instructions.

3.3. Linux

Creating a disk image from a system which operates under Linux is fairly easy because image creation can be directly achieved using the “dd“ command. Even the harddisk of which the image should be taken not necessarily needs to be prepared with a typical unix file system like ext2 or similar. Just connect the hardisk as slave drive (or second master), boot up Linux and take an image from the complete **(unmounted)** harddisk. Assuming, the image should be taken from the harddisk which is connected as slave drive at ide port one:

- login as root
- change to an appropiate directory where you would like to store the image (or just remain in root’s home directory)
- issue “dd if=/dev/hdb of=diskimg.bin”
    - this takes an complete image from **i**nput **f**ile “/dev/hdb” (the slave device on the 1st IDE Port)
    - and writes it to **o**utput **f**ile “diskimg.bin”.

Be aware that depending on the size of the harddisk above mentioned procedure can be very time consuming. For checking the copy process just switch to a other console, issue the
“ps ax” command and verify that process “dd” is marked with state “R” (running). After the process finished just use a suitable mechanism (e.g. ftp) to transfer the image to the WEBasDISK server.

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