

 O&O DiskImage 4

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# Contents

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About O&O DiskImage 4.....	1
New Features in Version 4.....	1
Overview of important features.....	2
Differences between the three Editions.....	4
Additional properties of the Workstation and Server Editions.....	4
System Requirements.....	6
Installation.....	7
Note about Licensing.....	7
Entering the License Key.....	7
Uninstall.....	8
Updates for O&O DiskImage.....	8
Online-Registration.....	10
What are the advantages of online registration?.....	10
How does online registration work?.....	11
General Terms and Definitions.....	12
Drive/Partition.....	12
Image.....	12
Image File.....	12
Complete Image.....	12
Images of changes made.....	12
Differential Images.....	13
Incremental Images.....	13
Base Image.....	13
Getting Started.....	14
Create an Image of your drive.....	15
Creating an Incremental Image.....	16
Cloning a Drive.....	16
Image Restoration.....	18
Using the Win PE Version (Start CD)*.....	20

---

Load drivers .....	21
Program Settings .....	23
Change Default Settings .....	23
Authentication in the network .....	25
Explanation: Password management .....	25
Authenticate yourself in the network .....	26
Reset security confirmations .....	28
Specific imaging program settings .....	28
Tools .....	29
Mount Image File as a Drive .....	29
Unmount Drive .....	31
Convert Image File .....	31
Merging Images (OMG) .....	32
Handling virtual hard disks (VHD) .....	32
Merge Incremental Images .....	32
Validate Image File .....	32
Check for Drive Errors .....	33
Save Images onto CD/DVD .....	33
Map/Disconnect Network Drive .....	34
Change Computer Identity .....	35
Schedule functions .....	37
Creating a Job - General Information .....	37
Plan a Schedule .....	38
Settings for a Job .....	39
Disable User Inquiries while job is being run .....	40
Abort entire job when an error occurs .....	41
Run after job is completed .....	41
Characteristics of an Imaging Job .....	41
Create jobs for incremental and differential images .....	41

---

Run commands before and after a job .....	42
Job information .....	43
Editing jobs.....	43
Checking a job.....	43
Delete jobs.....	43
Run jobs.....	44
Export jobs.....	44
Import jobs.....	44
Reports.....	44
Imaging Options.....	45
Selecting Imaging Methods.....	46
Used Sector Imaging .....	46
Incremental/Differential.....	46
Forsensic Imaging .....	46
Direct Forensic Imaging .....	46
Determine the size of an image file.....	47
Encrypting Image.....	47
Set Compression Level.....	47
Exclude Files from an Image.....	47
Exclude Data from Compression.....	48
Lock a Drive.....	48
Ignoring Bad Sectors.....	49
Data Comparison with Checksums.....	50
Creating an Image Profile.....	50
Restoration Options.....	51
Write over Unused Sectors.....	51
Creating a Restoration Profile.....	51
Write directly to disk.....	52
Settings for Cloning Drives.....	53

---

Set a Cloning Method .....	54
Lock a Drive .....	54
Ignoring Bad Sectors .....	54
Write over Unused Sectors .....	54
Write directly to disk .....	54
Set a Copy Profile .....	54
Frequently Asked Questions .....	56
Frequent Questions on Authentication .....	58
Support and Contact .....	61
Authorized Resellers .....	61
End user license agreement 2.1 (EULA) .....	62

# About O&O DiskImage 4

Thank you for choosing O&O DiskImage!

This is something you probably know all too well: how suddenly important data can be lost as a result of a system crash or viral attack. O&O DiskImage is the ideal tool for quickly and easily taking the trouble out of such inconveniences! O&O DiskImage enables the convenient duplication or archiving of entire operating systems and individual disks. It even supports dynamic drives and RAID systems.

Create image files of your drives on a regular basis and you'll be fully protected against data loss!

You can customize the imaging methods to suit your own individual needs. Even a 1:1 image of your system or user-defined images are possible. O&O DiskImage features many other options for creating and restoring images exactly the way you'd like. As a result of the special O&O DiskImage program settings, a substantial amount of computer performance is saved, allowing you to continue working on your PC parallel to the imaging!

The following chapters will explain how you can get started and obtain the optimum usage from O&O DiskImage.

We hope you enjoy our product and that it saves you valuable time, both at work and at home!

Your O&O Software GmbH Team

<http://www.oo-software.com>

## Quick Start

- [Create an Image of your drive](#)
- [Image Restoration](#)
- [Save Images onto CD/DVD](#)
- [Create new job](#)
- [Mount Image File as a Drive](#)
- [Start O&O DiskImage without operating System](#)

Please Note: As a result of regular program updates, some information in the printed manual may vary from that found in Online Help. For this same reason, there may be slight differences in the presentation of the program's interface.

Note: The special edition does not include the Start CD, which runs O&O DiskImage without needing an operating system and restores a system partitions.

## New Features in Version 4

Besides the continuous maintenance and enhancement of the existing program components, you will find several additional new and helpful features in Version 4.

### NEW: DiskView

New interactive graphical display, which provides an overview of the entire hard disk. Free as well as used space, as well as the size of the individual partitions are displayed.

### NEW: Additional compression types(BZIP2)

Besides the LZNT1 compression, it is now also possible to use a BZIP2 compression on the image.

**NEW: Handling of virtual hard disks(VHD)**

To facilitate the work with Microsoft Virtual PCs (VPC), you can now convert images to virtual drives (VHD). The converted image can be included as a virtual drive in the VPC, without having to install O&O DiskImage there. Also, images (OMG) can be created from virtual drives (VHD) of the VPCs, or can be restored directly.

**NEW: Advanced Burn Function**

O&O DiskImage 4 now also supports Blu-Ray Disks und HD/DVD's.

**NEW: Change Computer Identity**

With O&O DiskImage you can change the identity of your computer to avoid authentication problems, if the same computer identity already exists in the network. This might be helpful when creating several system images in a network.

**NEW: TrayIcon**

The new TrayIcon monitors the service status and informs you on the active program functions. In that way, it can be avoided that you cancel a running job of O&O DiskImage, which is operating in the background.

**NEW: Advanced Validation**

While checking the image a checksum comparison also takes place.

## Overview of important features

O&O DiskImage is a reliable and affordable solution to protect your data either private or business.

O&O DiskImage offers everything from the creation of images and restoring entire Server Systems to the restoration of individual files - everything you need to professionally protect your data.

### Create Images while system is running

Maintenance needed for images could take up to half a day and hinder the Server or your computer from running at full capacity. O&O DiskImage allows you to create reliable images of individual disks or entire systems without hindering the Server or the user. The Snapshot function with integrated buffer memory ensures that the stored data is exactly the way it was when the image was created: Changes to the data set through usage or by the user do not influence the running image creation. This ensures consistent images of systems without any interruptions.

After imaging all of your data and your installed environment is available immediately should you encounter any problems - And thanks to the O&O DiskImage Start CD (BareMetal-Technology) also without a previous installation.

\* Imaging and restoring Server systems is only possible with the O&O DiskImage Server Edition.

### Imaging methods for every need

Different imaging methods allow the adaptation to different needs. You get a space saving image, if you select the setting "only used sectors". If you want to rescue data from a damaged hard disk, then we recommend a forensic image - all sectors are imaged the way they are. This enables a later data rescue with special software e.g. O&O DiskRecovery, without affecting the original disk.

After a creating a base image you can create incremental or differential images to save modifications since the last image.

### Work comfortably within the network

O&O DiskImage offers the possibility to save the image on network drives. You only have to authenticate yourself within the network.

The special feature of O&O DiskImage Workstation and Server Edition is the interface with the O&O Enterprise Management Console. You can install and plan your jobs for O&O DiskImage from one central location within the network. Further information is available in chapter ["Additional properties of the Server and Workstation Edition"](#).

### Clone

When cloning, an exact copy of a disk is created, which can be used instead of the original disk. This function enables you to make a cloned image of an entire drive with all the saved data, and without having to create image files. You do, however, require a lot more storage space for a clone than for an image.

No incremental or differential follow up image can be done with a clone, which would lessen the data volume. In addition, an image can be compressed (clones cannot) and/or encrypted, which makes the data unusable for outsiders or unauthorized users.

### Job management for regular automated imagings

O&O DiskImage enables a time schedules execution of activities. With the help of a useful Wizard you can set that the data will be imaged regularly at predefined times.

### Restoration of entire computers and individual volumes

Restoring your data is as easy as creating an image. If you want to restore data volumes, it is sufficient to start O&O DiskImage under Windows. If you want to restore an entire computer including its operating system and all applications, then run O&O DiskImage directly from the Start-CD. The additional integrated system rescue tools also offer the chance to restore the original system and identify mistakes.

To start O&O DiskImage directly from CD it is not necessary for the operating system to run properly. The CD includes a bootable Windows operating system including all the needed drivers. If special hardware is not recognized, you can download additional drivers, e.g. for a controller or network cards with the help of an assistant.

### Restoration of individual files

You can also restore single files from an image fast and easy. Simply load the created image as virtual drive. This allows you to copy files or folders from the image file onto existing drives. Making changes to the image file, such as deleting or adding files, however, is not possible.

### Apply system environment on a new computer

O&O DiskImage can also assist you when installing/configuring new acquired computers. If the hardware is the same in the new computers you can set them all up using O&O DiskImage. Just set up one, install O&O DiskImage and create a system image. Then apply the image on all remaining computers. Time consuming individual installations are a thing of the past.

### Work with the command interpreter (Script capability)

With the help of the O&O DiskImage command interpreter, it is possible to manage disks, partitions or volumes and images with the help of command files. All directly or indirectly displayed scenarios by O&O DiskImage can in that way be re-enacted. This function is available only for the Workstation and Server Edition. The PDF on the command interpreter is included on delivery and provides an overview on all commands and the possibilities of their implementation.

### Supports the most current technologies

O&O Software is always en par with the newest on technology. All current Windows systems and 64-bit versions are supported, so that the creation of images and their restoration can be run as fast as possible.

Further Functions:

- Reporting (Job/Parameter/Timing)
- Supports Windows 2008 Server - only for the Server Edition
- Base operating system for the direct start from CD, without Windows.
- Secure encryption of your data (AES with up to 256-bit)
- Compression process LZNT1 and BZIP2
- Integrated burn function to archive images on CD/DVD
- Checking drives and images for errors and inconsistencies.
- Exclude Files
- Convert Image File
- Utilizes the speed advantages of multi-core and multiprocessors
- Supports all common removable data storage media
- Checks image files and drives for damage
- Checksum function for checking and distinguishing sums of images and originals
- Native support of dynamic drives
- And much, much more...

## Differences between the three Editions

O&O DiskImage 4 is available in three Editions:

- O&O DiskImage 4 Professional Edition
- O&O DiskImage 4 Workstation Edition and
- O&O DiskImage 4 Server Edition

The Professional Edition is intended for imaging a desktop computer or individual drives. It cannot be used on a server operating system and has no network capabilities.

The Workstation Edition contains interfaces for running O&O DiskImage across a network in conjunction with O&O Enterprise Management Console 2. The Workstation Edition can only be applied on desktop computers.

The Server Edition contains interfaces for running O&O DiskImage across a network in conjunction with O&O Enterprise Management Console 2. The Server Edition can be applied on both servers and desktop computers.

## Additional properties of the Workstation and Server Editions

You can run the following network functions when using O&O DiskImage Workstation and Server Editions in conjunction with O&O Enterprise Management Console 2:

- Image the entire network of your business
- Management of your computers in groups (Sites)
- Definition of group settings for PCs
- Create a schedule for the automatic imaging of computers or sites across a network, with just a few clicks of the mouse
- Automatic remote installation of O&O DiskImage on network computers
- Execute Windows commands (batches) before and after the running of a job across a network

The O&O Enterprise Management Console 2 is delivered on a separate CD - the O&O Network Components CD. It is part of your software delivery when you have acquire licences in the volume licence program of O&O EasyLicensing. If you haven't received a CD or have not yet purchased a volume license agreement, please

get in touch with us. We will send you the CD and provide a consultation on application of the O&O Enterprise Management Console 2 within your company.

E-Mail: [sales@oo-software.com](mailto:sales@oo-software.com)

# System Requirements

## Operating System

	Professional Edition/Special Edition	Workstation Edition	Server Edition
Windows Vista	yes	yes	yes
Windows XP	yes	yes	yes
Windows 2000 Professional	yes	yes	yes
Windows 2000 Server	no	no	yes
Windows 2003 Server	no	no	yes
Windows 2008 Server	no	no	yes

Starting from Windows XP/Windows 2003 Server, 64-bit as well as 32-bit systems are supported.

### Hardware:

To install O&O DiskImage under Windows there must be at least 256 MB of RAM available.

For booting the O&O DiskImage Start CD, a minimum of 1 GB RAM is required. The hardware requirements of the Windows Vista operating system must also be met:

<http://www.microsoft.com/windowsserver2008/en/us/system-requirements.aspx>

In order to install and register O&O DiskImage you must be a member of a local administrator group or possess an equivalent level of permissions. If you are a domain administrator, then you ordinarily possess the adequate level of administrative permissions.

# Installation

**Note:** Please make sure that no other backup or imaging software is installed on your computer when installing or working with O&O DiskImage. This can lead to complications with the filter driver, especially when different software is working simultaneously on the same drive.

Installing O&O DiskImage is very straight forward. Simply follow the instructions set out below:

- Start the computer on which you would like to install O&O DiskImage.
- Log on as a local administrator or user with equivalent privileges.
- Start the installation file (SETUP.EXE) from O&O DiskImage, which you have either downloaded from our server or have on your personal CD ROM.
- After the set-up program has been successfully initialized, please follow the on-screen instructions to complete the installation.
- When prompted, restart your computer.

## Note about Licensing

You can test O&O DiskImage for 30 days free of charge and with no obligation. The remaining trial period will be displayed each time you start the program.

If you would like to implement O&O DiskImage in your company or as a technician for your customers, then please contact our resellers or distributors.

## Entering the License Key

**Note:** In order to activate the product after installation or to gain access to the Full Version at a later time, you must possess a valid license key. This license key is also called a registration code, serial number, or product ID. You can still use O&O DiskImage as a fully functional trial version for up to a maximum of 30 days, if you do not enter a valid license key. Should you have any questions, please contact our Support Team.

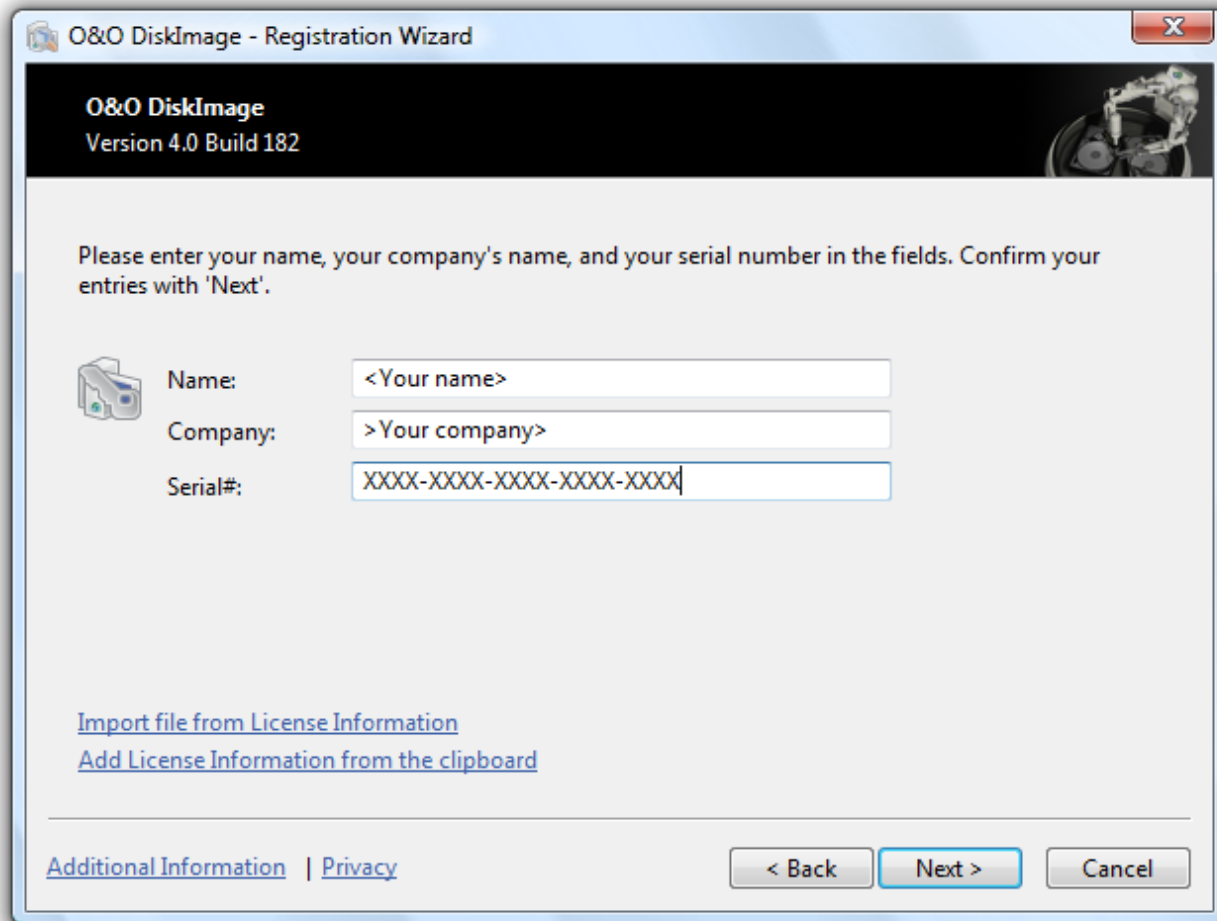
The dialogue for registration always appears automatically at the start to guide you if you are using an unregistered version or have entered the registration code incorrectly.

The registration wizard allows for a simple registration process. When you select the option Enter your Registration Code, a dialog box will appear where you can enter the registration code you received when purchasing the software. Please make sure that you do not confuse the digit “1” with “l” or enter any empty spaces where they don’t belong.

Press Next to save the registration data or Cancel to leave the dialog window without saving the data.

When you have correctly entered the license code you will receive confirmation in the dialog window.

Should you run into any problems when entering your registration code, please contact our Support Team.



Registration Wizard: Enter the License Key

## Uninstall

To remove O&O DiskImage from your computer, please follow the instructions below:

1. Open the Control Panel in the Windows start menu and select Add or Remove Programs.
2. Please select O&O DiskImage from the list of installed software programs and then click on the Add/Remove button.
3. Confirm the uninstallation of O&O DiskImage. Once uninstallation is complete you will receive a confirmation message,
4. To apply all settings, you have to restart the computer after a successful deinstallation when you are asked to do so.

## Updates for O&O DiskImage

If you want to update O&O DiskImage to a newer version, you'll need the license key. Please follow the following directions:

1. First uninstall the previous version of O&O DiskImage.
2. Start the O&O DiskImage installation.
3. Complete the O&O DiskImage installation in the normal way.

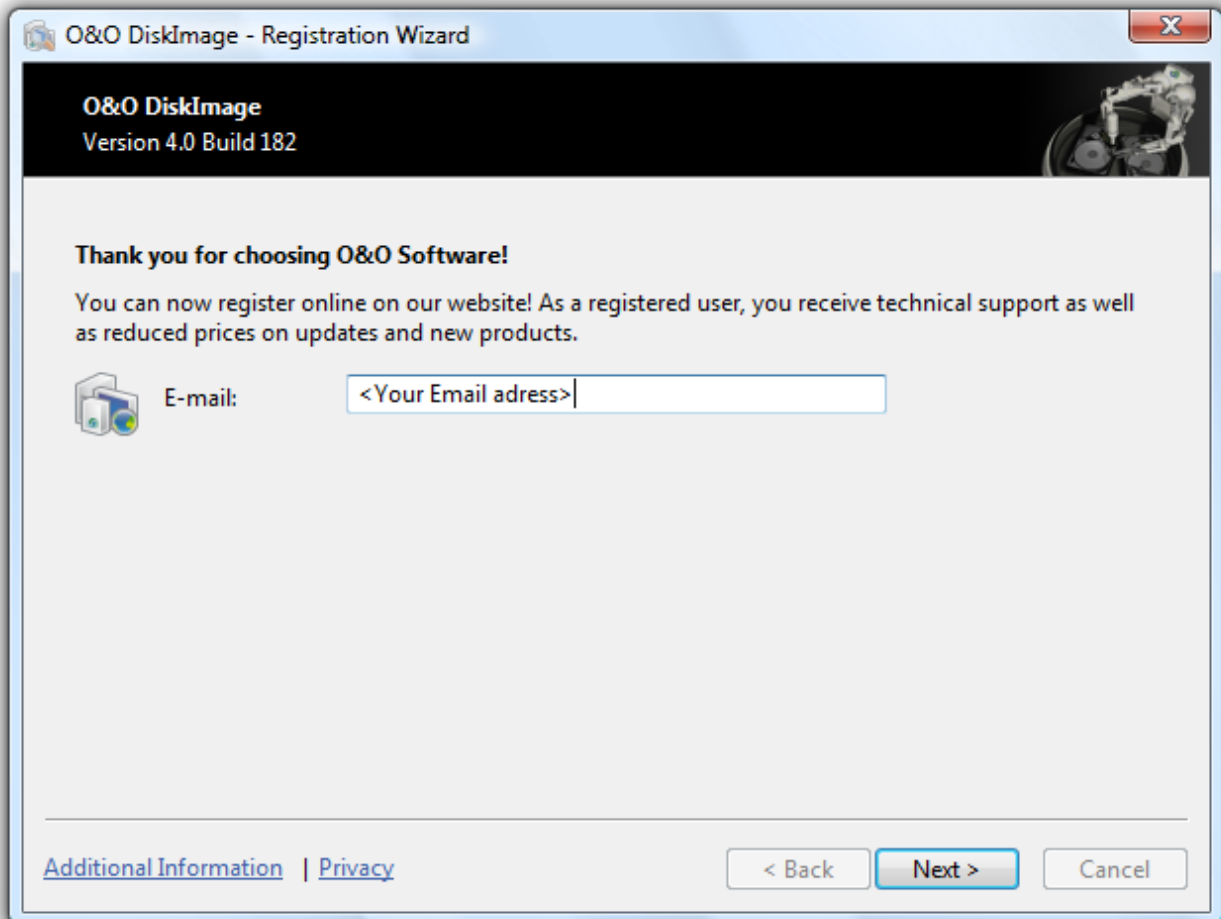
4. Once finished, the new version is fully installed.
5. Restart the computer, when asked to do so.

Important! Only when using O&O DiskImage in the network: When performing a major update, then you will have to secure the password file (copy) if the authentication data will be adopted. After a full installation and the restart, you have to place the password file in the standard directory of O&O DiskImage (%APPDATA%\OO Software\DiskImage\). Afterwards, the password management has to be started after the restart and the password has to be entered for the password file. The required initialisations will be run and the automatic authentication is still possible.

## Online-Registration

In order to register online, you will need the license key, which you have received when you purchased the program.

If you'd like to register online, start the O&O Program. The questions related to online registration always appear at the start, provided you haven't registered online.



More:

[What are the advantages of registering online](#)

[How does online registration work?](#)

What are the advantages of online registration?

Online registration gives you the benefit of having your customer data kept safely on our files, which means we can provide you with even better service. This comes in very handy if, for example, you're unable to find the access code to your product. You will need the license key for Updates or if you reinstall your O&O programs because you had to set up your computer again.

Further advantages will let you:

- Be supplied with the latest information about our products
- Make free updates on new versions of purchased items (minor updates)
- Upgrade to a new version at a special discount price (major update)
- Obtain support from our Customer Service
- And much, much more...

### How does online registration work?

If your O&O program was purchased on our Online Shop, you've automatically registered with us. If it was purchased through a Dealer, you'll be asked during installment if you'd like to register. You then have the option of either registering immediately or at another time. All you'll need is a functioning Internet connection and a valid license key.

You may also complete the registration form right here:

<http://www.oo-software.com/register>

Just return the completed online form by clicking "Send" and you'll be eligible to take full advantage of our O&O Customer Service.

# General Terms and Definitions

To simplify working with O&O DiskImage, certain terms will be explained in the following chapters:

[Drive/Partition](#)

[Image](#)

[Image File](#)

[Complete imaging](#)

[Images of changes](#)

[Base Image](#)

## Drive/Partition

A drive is a reserved area of the hard disk. Multiple drives can be found on a hard disk. In the following text, the term “drive” will be used to depict (single) partitions as well as logical drives in expanded partitions.

Drives are used, for example, to separate documents from programs. A division in two partitions has become generally accepted:

- Drive C: for operating systems and programs
- Drive D: for documents, e.g. photos, Office documents, music, etc.

This makes it easier to image data using data imaging products such as O&O DiskImage.

## Image

An image is a “copy” of your drive or partition. This “copy” contains all information taken from the original. A special feature of an image is that the file format is especially compressed and takes up much less disk space than the original. The more often you create images of your drive, the less you need worry about data loss. Should data on the original drive be lost or damaged, you can restore your last image with all its data onto your computer. With just a few clicks of the mouse, you can recover the original status of your drive before the last imaging.

## Image File

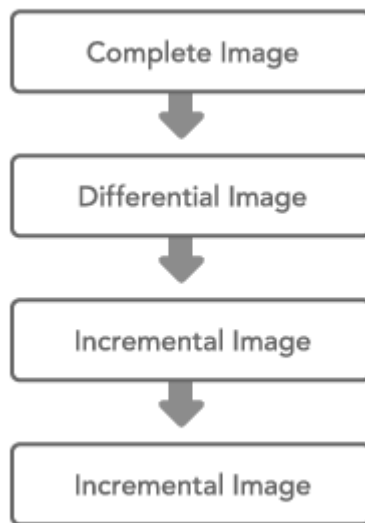
An image can be made up of many image files (\*.omg). For instance, if the storage medium you wish to put the image on is not large enough, you can split the image onto different storage media. When you wish to split an image onto several disks, a new image file is created on each volume that forms part of one image. It is vital that the volumes (CD/DVD) are numbered in case you wish to recover a drive with the image or use it as a base image for an incremental imaging.

## Complete Image

All data to be imaged will be imaged again and stored in a folder on the target volume during a Complete Image procedure. Complete images can be created by choosing the methods "Used sectors", "Forensic" or "Direct Forensic".

## Images of changes made

If you want to image changes to your hard disk or of your partitions, you must have created at least one [complete image](#). Changes made can be saved as [differential](#) and [incremental](#) images.



Connection between image types

More:

[Differential Images](#)

[Incremental Images](#)

## Differential Images

Differential images match their data with one of the previous complete image and store the changes. The first "follow up" image after the complete image is always a differential image. To restore a differential image, you will need a complete image as well as the differential image.

## Incremental Images

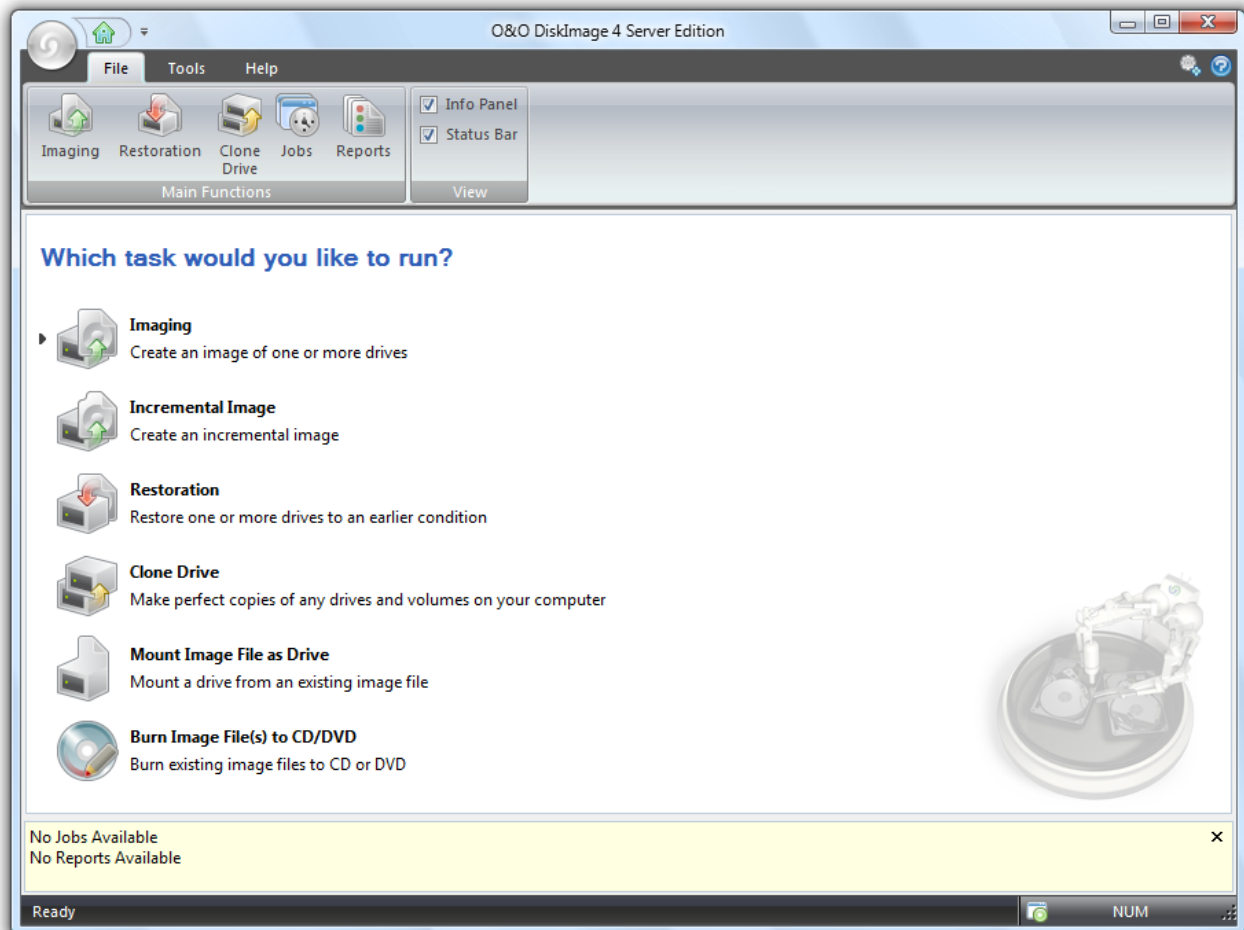
Incremental images are images, which only store the changes made since the [base image](#). As a rule, a data is compared using checksums in O&O DiskImage, so that the incremental image does not require a [complete image](#) as base image. The last incremental or differential image is sufficient for this. To restore an incremental image, you need the last complete image as well as all the following images recording any changes.

## Base Image

A base image is used as base for further images of changes made. Differential images require a complete image as base image. The last image of changes made as base image is normally sufficient to run incremental images. A differential image can for instance serve as base image for an incremental image. An incremental image can therefore also serve as base image for further incremental images. Compare to picture in chapter "[Images of changes made](#)".

# Getting Started

The following chapters explain, how you can create images and restore them on your computer after successfully installing O&O DiskImage. Start O&O DiskImage either from an icon on the Desktop or under Start/Programs/O&O Software/O&O DiskImage. You can also have online help displayed by clicking Help or pushing F1.



Start Page of O&O DiskImage

More:

[General Terms and Definitions](#)

[Create an Image of your drive](#)

[Creating an Incremental Image](#)

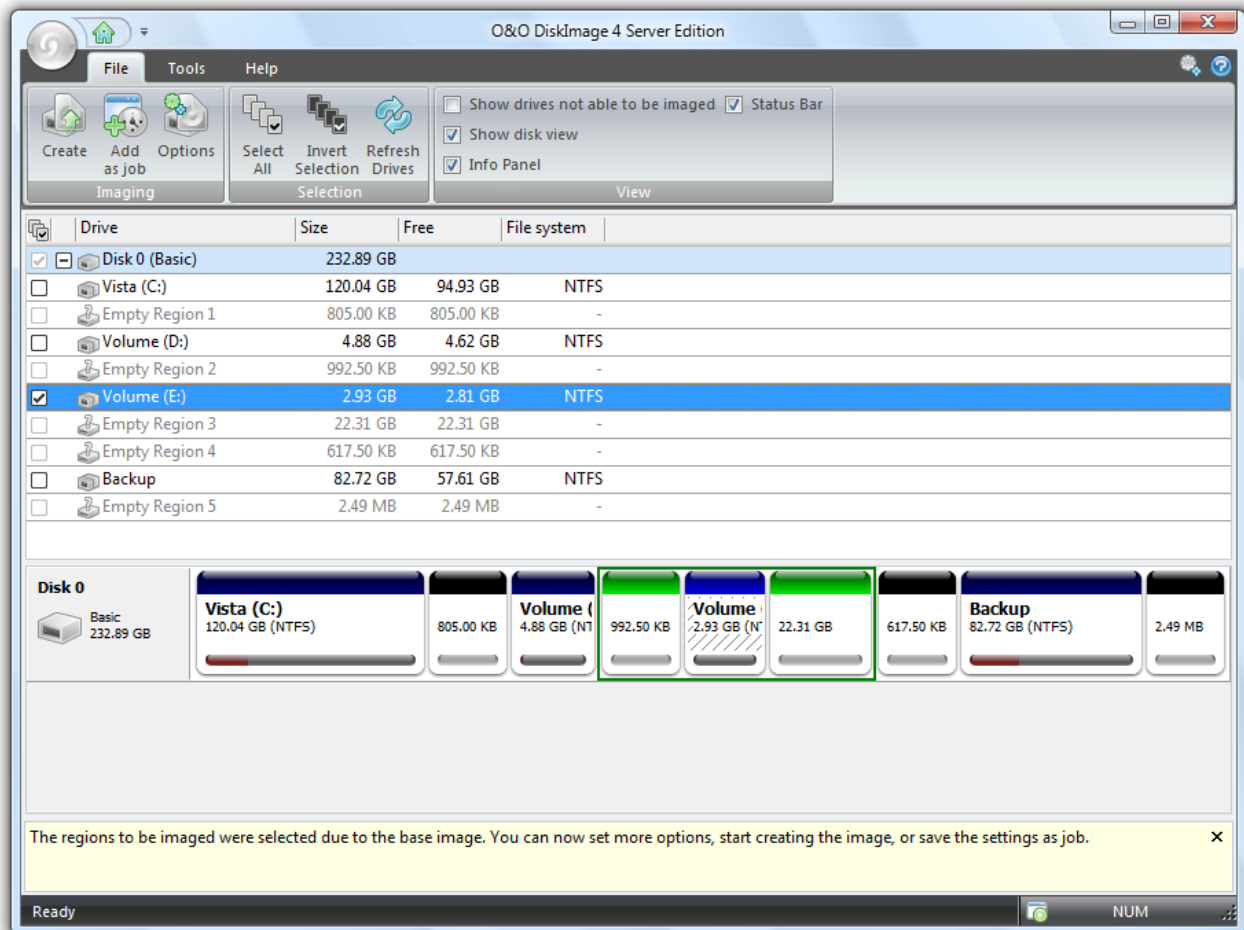
[Cloning a Drive](#)

[Image Restoration](#)

## Create an Image of your drive

To create an image of one or more drives, please follow the instructions below:

- In the start screen or file menu, click on Imaging. The program window for creating images will appear.



Program Window for creating an image

1. Select the drive for imaging by ticking the box next to it.
2. You can create advanced settings for your image under Options\*.
3. Click on Create, once you have completed the additional optional settings.
4. Enter the target path of the drive on which you want to save the image. You can either accept the suggested default path or select another location. Under Program Settings, you can also select individual default paths.
5. The image is automatically named after the date of creation. You can, however, enter a name manually. All information from the image will be saved and can later be accessed through Image Information.
6. Select Start. The image file will now be created.

\*Note: Additional setting options, i.e. Imaging Methods, will be described in the chapter "Imaging Options".

Note: If one disk is not large enough to save an entire image, you will be prompted to enter a new target

path.

Note: Should not all connected drives be displayed, above Selection click on Refresh Drives.

## Creating an Incremental Image

An incremental image is recommended when you have already made several images of your drive. When creating an incremental image, only an image of the changes to the [base image](#) is made. An incremental image normally has a smaller data volume than a [base image](#).

To create an incremental image, you must have first created a Base Image of the respective drives. As a base image you can use either a complete image, using the methods "Used Sector Imaging", "Forensic Imaging" or "Direct Forensic Imaging", or by using a previously created [incremental/differential image](#). The first "incremental" image after the base image is always a differential image.

Follow the instructions below:

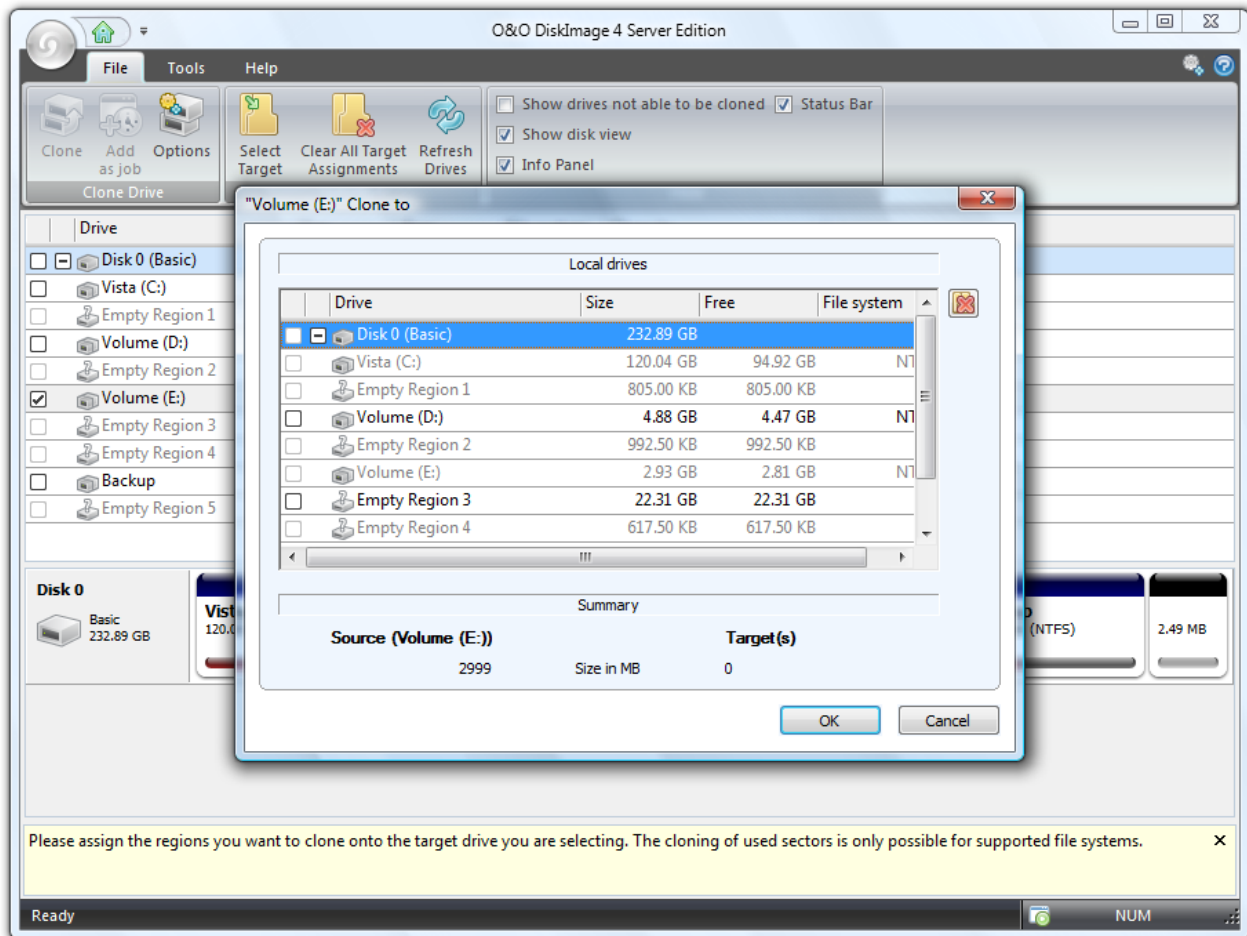
1. Please make sure that the drive containing the base image is connected to your computer.
2. Click on Incremental Image in the start screen of O&O DiskImage.
3. A pop-up window will open where you can select your base image. You can find all details of the image under Image Information and the related Drive Information.
4. Click then on Create.
5. You can either select the suggested drive for creating the incremental image or select a new target path. For greater clarity, it's advisable to store the base image and its respective incremental image file on the same drive. You may, however, use any drive you wish.
6. The image is automatically named after the creation date. You can however enter a name manually. All information from the image will be saved, which you can later access through Image Information.
7. Now click on Open and then on Start. An incremental image will be created from the base image. The Imaging Method of the original "complete" image, e.g. Used Sector Imaging, remains the same and cannot be amended.

Note: The option Compare data with checksums is always set as a standard. While creating incremental images, it is sufficient to use the last incremental image as base image. Should Use Checksums to administer unchanged data not be set, you will need the last base image and all the incremental image previously created, since all of them will be accessed to create this image.

## Cloning a Drive

When cloning (copying) an exact copy of a drive is created, which can be used instead of the original drive. This function enables you to make a cloned image of an entire drive with all the saved data, and without having to create image files. You do, however, require a lot more storage space for a clone than for an image.

Compared to an image, a copy cannot be used to create follow up incremental or differential copies to lower the data volume. Also, copy cannot be compressed and/or encrypted, which would render the data useless for third persons or other unauthorized access.



Program Window for cloning a drive

1. Select Clone Drive from the start page.
2. Select from the list the drive you wish to copy.
3. Afterwards a dialogue will appear, where you must select a target drive.
4. Then click on Map and confirm you entries.
5. You can also "reverse" your clone in exactly the same fashion.

Important! When cloning your Drive (Source Drive), the selected target drive, i.e. the place chosen for the clone to be stored, will be overwritten. All data stored on it will be deleted and replaced by the clone! You should therefore save the cloned image on, for example, an external hard disk chosen for this purpose.

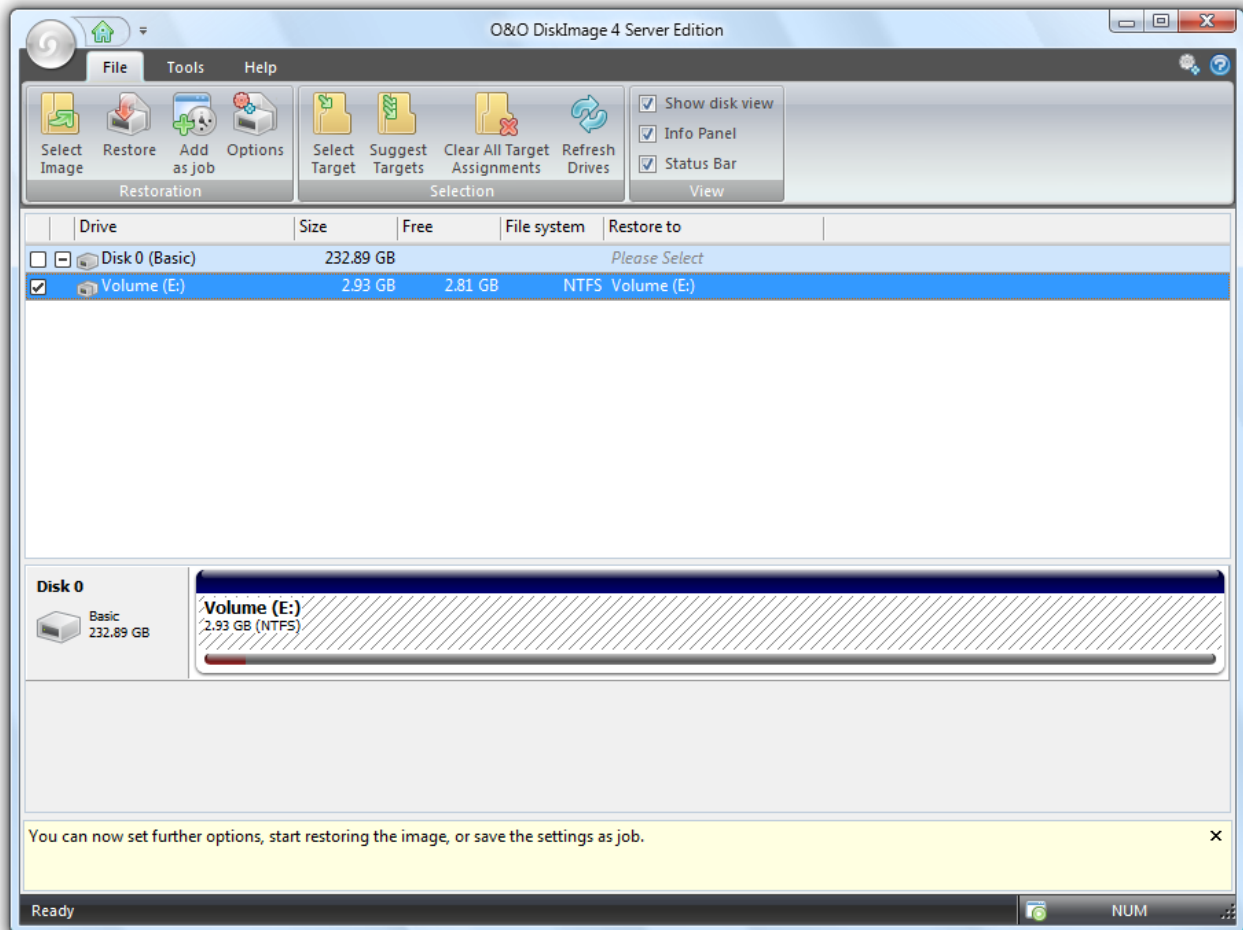
Note: When making a cloned image of the drive, you should adjust the features of the target drive for future application. Make sure, for example, that the system partitions of the cloned image will be able to boot.

Note: Additional options for cloning the image may be selected under Cloning Options. See chapter "Cloning Options".

## Image Restoration

If you wish to transfer an existing image to your computer, click on Restoration on the start page or in the file menu.

You can access all information on your newly created image in Image Information and display the related Drive Information. You can also apply further settings under Options.



Program Window for restoring an image

To restore an image, please follow the instructions below:

1. Please make sure that the drive containing the image is connected to your computer.
2. Select Restoration on the start page.
3. Under File click on Select Image.
4. A window appears with the drive and image file (\*.omg) or (\*.vhd) Should the image file presented not match the one required, browse through your drives and enter the path to the image file.
5. Select Open.
6. Set the check in the box of the drive you want to restore, and select a target drive for the image in the following dialogue. You can either substitute an existing drive or create a new drive, e.g. in an empty sector.
7. Then click on Mapping.
8. In the program window click on restore. The image will now be restored.

Important: During restoration, the image overwrites your selected drive with the data of the drive

contained within the image. All data on the target drive is thereby lost and replaced by that of the image.

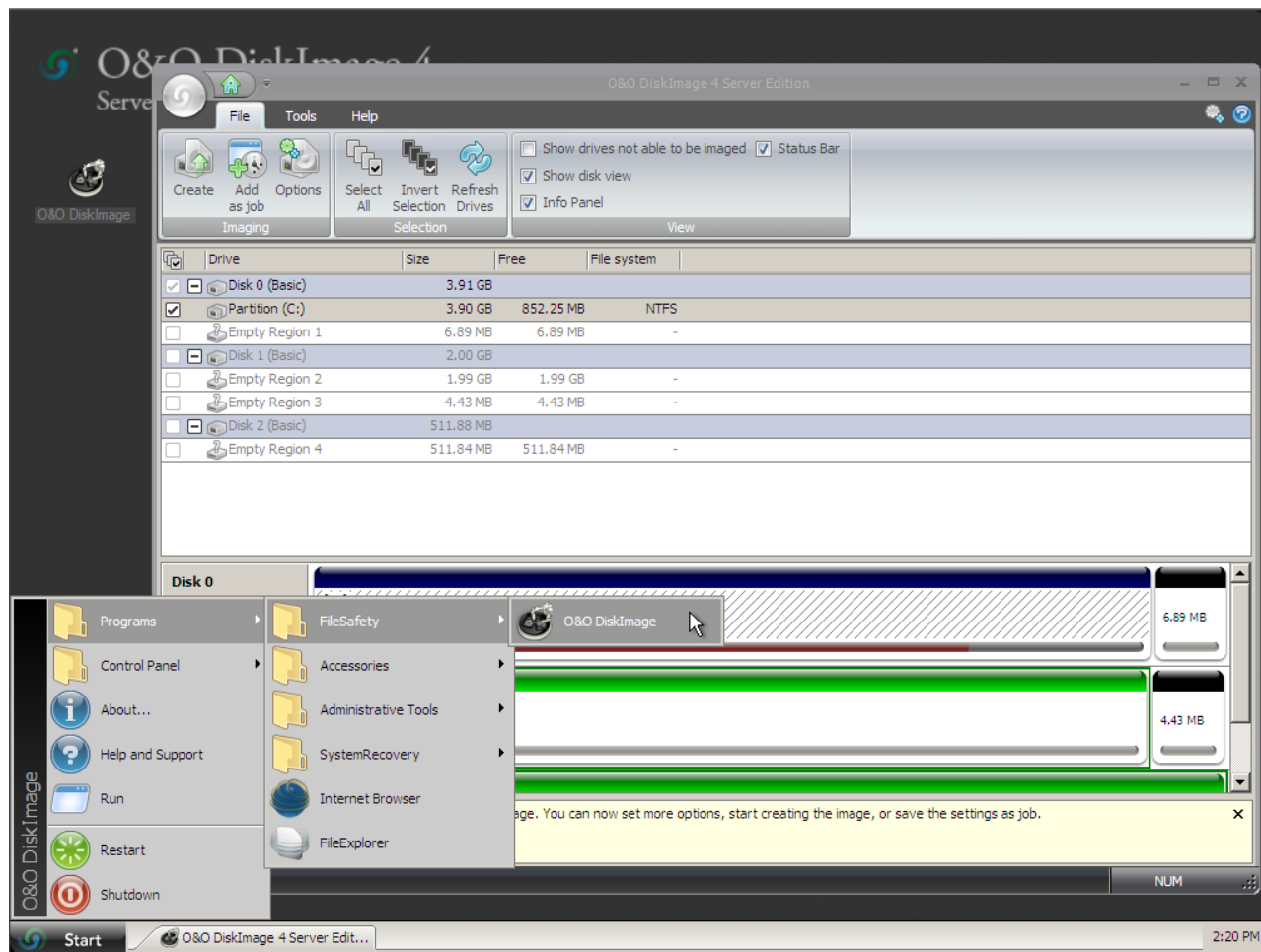
**Note:** If you are not restoring the image onto the original hard disk, the memory of the hard disk you're using must have at least as much storage capacity as the original one. This is extremely important when imaging an entire hard disk.

**Note:** If you split your image onto various storage volumes, all such storage volumes will be required for a restoration. If you have opted to make an incremental image, all images from the original base image to all subsequent incremental images will be required.

**Note:** If you want to re-image a system drive, you will have to start your computer using the Start CD of O&O DiskImage and start the re-imaging from there. The Start CD designed for running O&O DiskImage without an operating system and to restore system partitions is not included in the Special Edition.

## Using the Win PE Version (Start CD)\*

No installation is necessary for the Windows PE Version of O&O DiskImage. O&O DiskImage starts directly from CD. You will need this Start CD when, for example, you wish to restore your system partition. For starting from the CD, proceed as follows:



Using the Start CD from O&O DiskImage

1. Please ensure that your system can be booted from the CD. The appropriate settings can be created in BIOS. You can obtain further information on this from your Motherboard manufacturer.
2. Put the O&O DiskImage Start CD in your computer's CD/DVD drive.
3. Restart the computer.
4. Follow the instructions at the start of the CD. A window containing the system settings will then appear.
5. Select a language and region.
6. At the next stage you can load drivers for those devices where no drivers under Windows PE were initially found.
7. O&O DiskImage will start after confirmation of the license regulation.

**Note:** The Start CD, which enables the execution of O&O DiskImage without a running operating system and the restoration of system partitions, is not included with the Special Edition.

More:

[Load drivers](#)

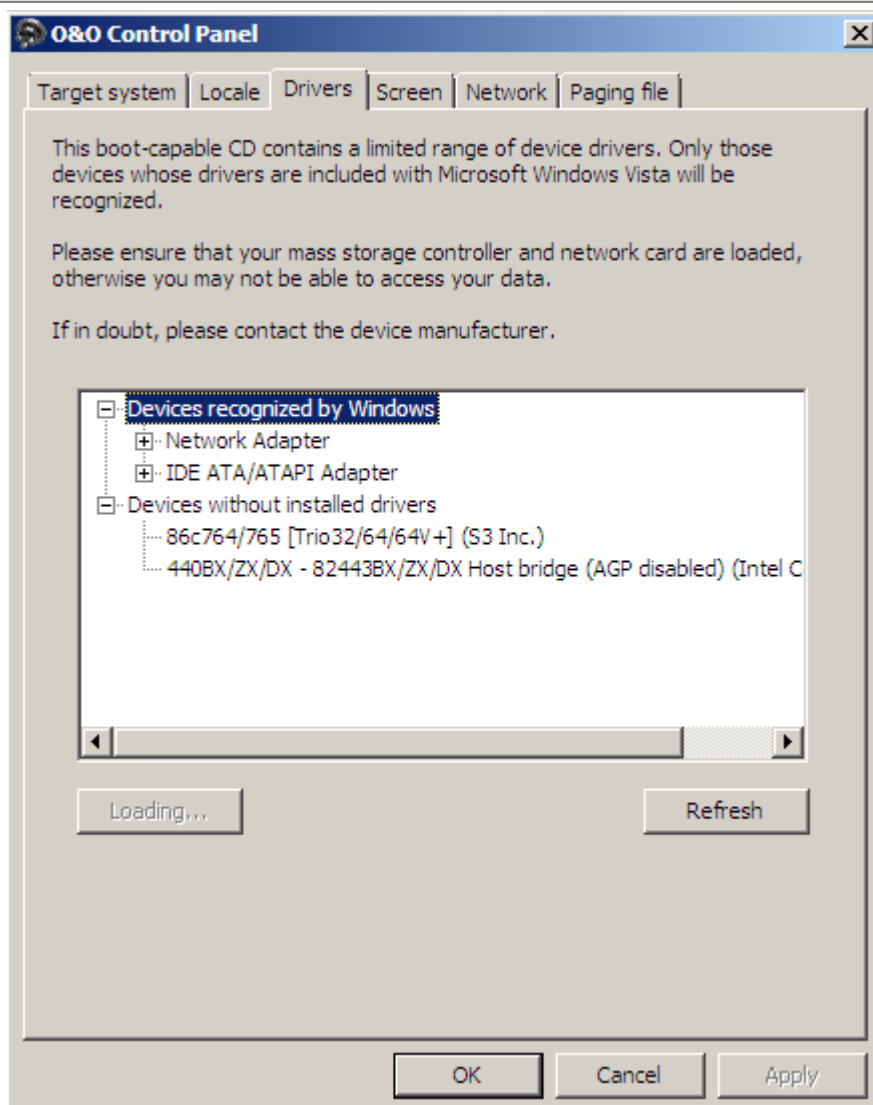
## Load drivers

Before starting O&O DiskImage, it's possible to install hard disk controller drivers to make sure the program will be able to detect all connected hard disks. This also applies to drivers for network cards.

- Under Drivers in the system settings, you can load drivers for those devices still unable to be found under PE.

Note: Under certain circumstances you may receive a message requiring you to restart if you have loaded an additional driver under Windows PE. This message is automatically generated by Windows PE but is irrelevant when starting from a CD. Simply decline the request and follow the further instructions in the pop-up window.

Note: Encrypted drives are not supported by O & O DiskImage under Windows PE!

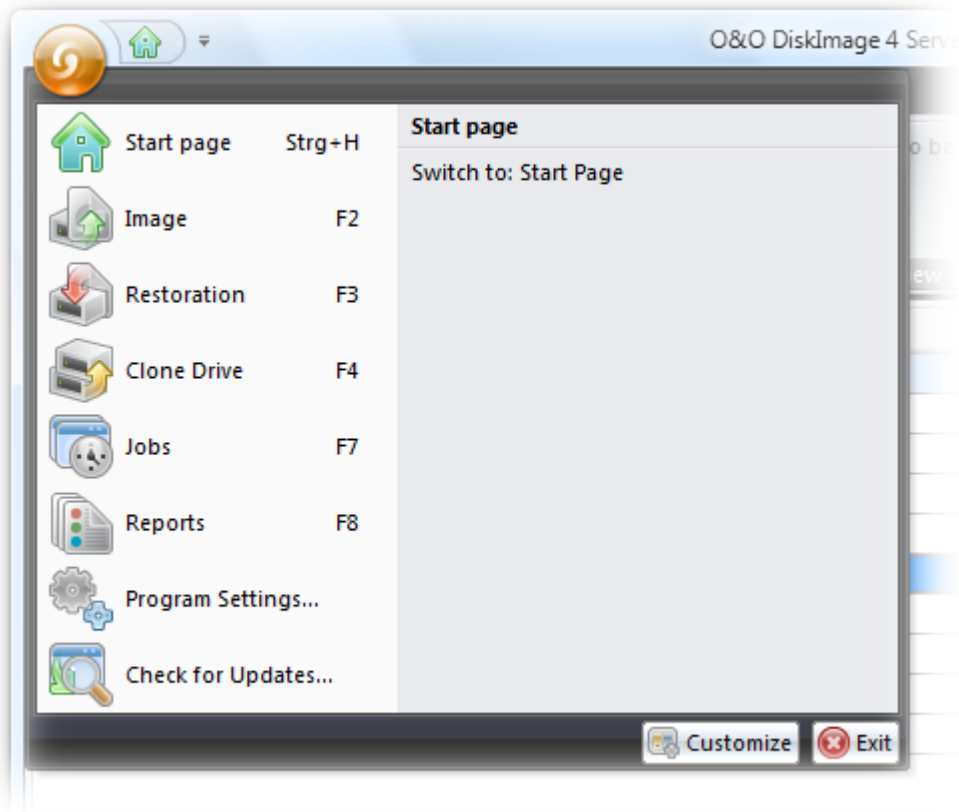


Using the Win PE Version (Start CD)\*

Load drivers

## Program Settings

Under Program Settings in the top right of the ribbon bar, you can customize O&O DiskImage to suit your own requirements. Here it's possible to determine, for example, whether created settings should be saved and applied as preferred settings when you start the program the next time.



Button for program settings

More:

[Change default settings](#)

[Authenticate within the network](#)

[Specific imaging program settings](#)

[Reset security confirmations](#)

## Change Default Settings

Under General in the Program settings you have the possibility to determine the program page that will be displayed at the start of O&O DiskImage. For example, you could ensure that the "Imaging" page immediately appears as the start page or that the latest settings for creating images should be saved. An additional exam-

## Program Settings

ple would be selecting Incremental Imaging as an imaging method, which would then function as a default setting at the next start of the program.

### Customize User Interface

Under Appearance and Behavior you can adjust the display of the user interface. There is a choice between “Modern”(default) or “Classic”.

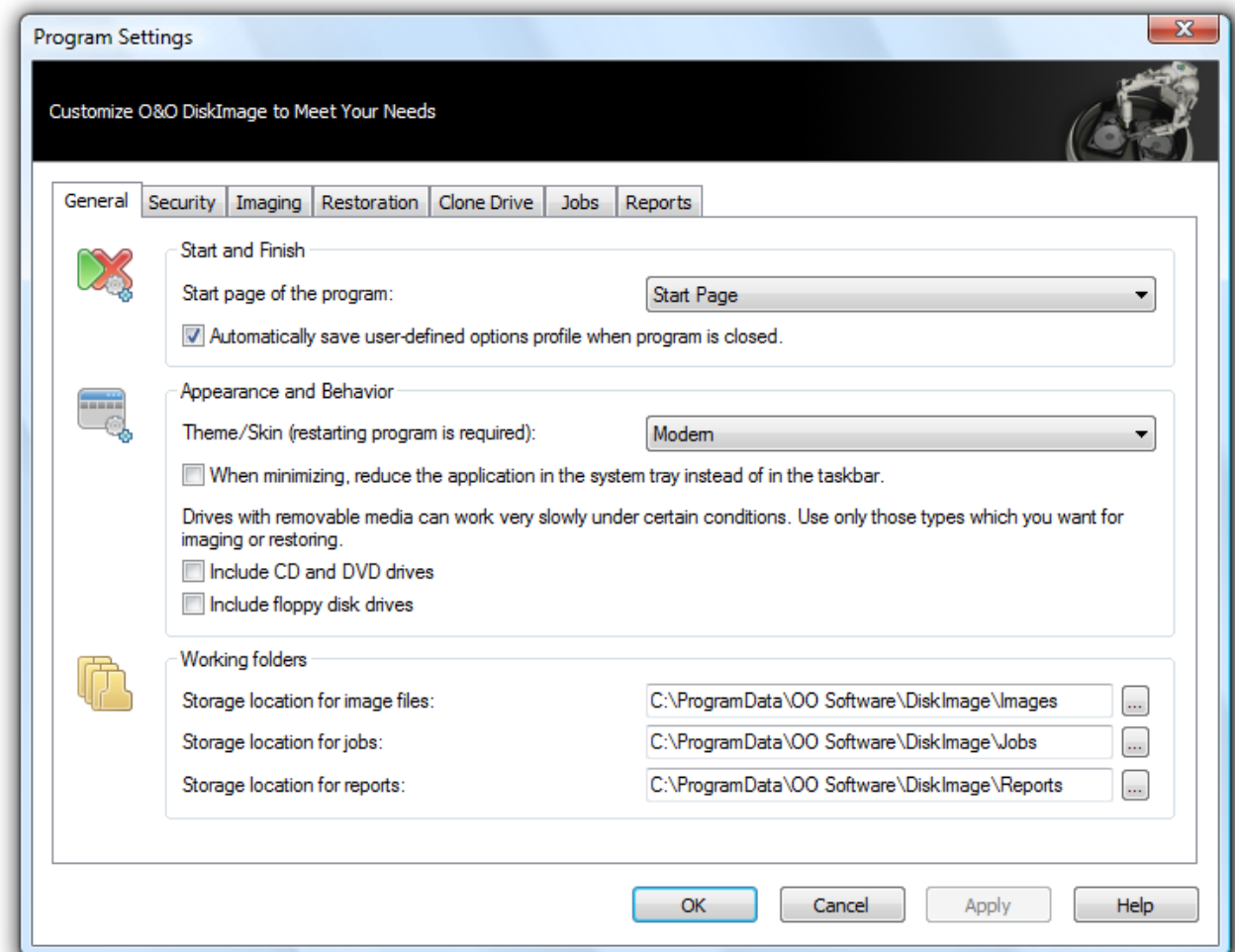
### Accessing Removable disks

Under Appearance and Behavior you can decide if a drive with removable disks should be accessed while creating images or during restoration. As these removable volumes tend to work very slowly under certain conditions, it is advisable to use only those types which you would want for imaging or restoring.

### Default Settings for Storage Locations

Under Working folders you can change or set the folder, where the image has been stored. The path entered (target path) will be saved and applied to every imaging by default.

The storage location for jobs and reports can be similarly determined.



General program settings

## Authentication in the network

To login locally or to the network, e.g. to enable access to protected folders, you have to authenticate yourself. The authentication occurs through your user account. The user account is composed of the user name and the corresponding password. The user account can be coupled with additional access rights. It is possible to place the images on network drives while working with O&O DiskImage.

Please use the password manager of O&O DiskImage to authenticate yourself automatically.

More:

[Explanation password manager](#)

[Authenticate yourself in the network](#)

### Explanation: Password management

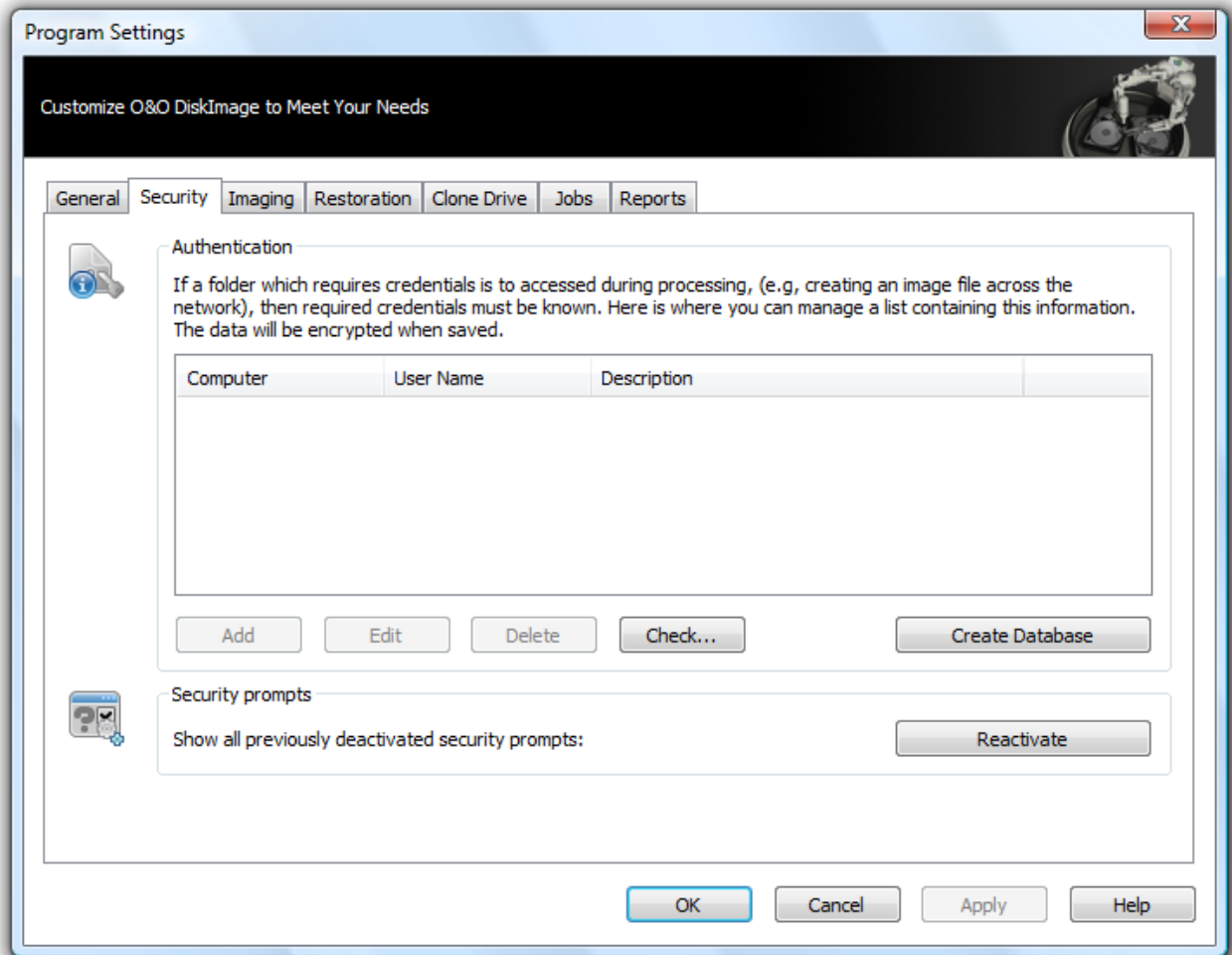
Managing the password is a program function, which allows you to store authentication data encrypted and to manage it. These data is compressed in the password file, using the Advanced Encryption Standard-Algorithm and then stored. In addition, the order of the data sets is chosen at random.

A public and a private key are used to encrypt the password. The public key is preset and can be changed in the Registry under „O&O DiskImage\Edition“. Please bear in mind that the key has to hold a value. An empty key will not be accepted. The private key is preset to a size of 64 Byte.

Important! Changes in the Registry may cause severe problems affecting the entire system and may cause the need to reinstall the complete operating system. Before making changes in the Windows Registry database, you should create an image of all the important data on your computer using O&O DiskImage.

Note: If you make changes in the Registry, it will require loading the database again.

### Authenticate yourself in the network

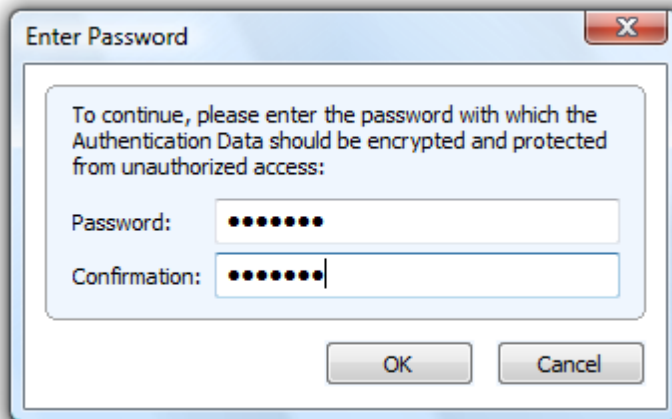


### Program Settings Security

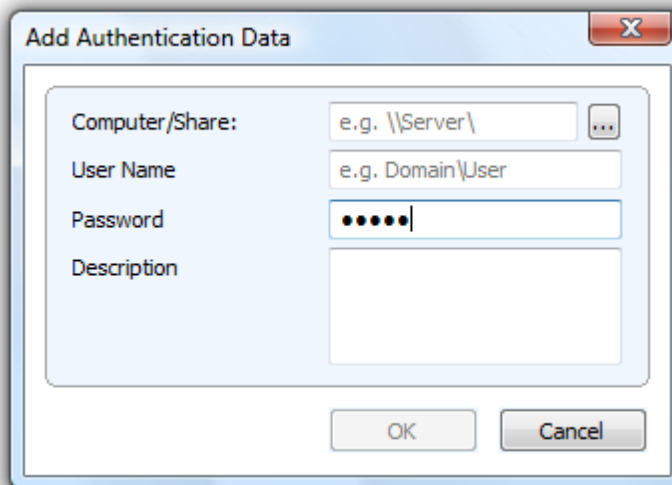
Enter the following settings under Program Settings/Security:

1. If you have not yet created a database, click on Create Database.
2. Enter a password of your choice and confirm your entry. This password will be encrypted. The key for this password is composed of a public key and a private key, so that the password file will only be

opened and read by you or O&O DiskImage.



3. Afterwards, click on Add in the security dialogue in the program settings.
4. Under Computer/Sharing enter the path under which the image is to be saved, or from where it is supposed to be loaded from: \\Computer name\Folder name or Domain name\Folder name\User name. Alternatively, you can also enter the computer name only, if all the sharing options of this computer can be opened by the selected user.
5. You have to enter a qualified name of a user account while entering the user name. For example, the corresponding domain for the specific domain account has to be entered and covered, e.g. domain\user1 or User1@domain.
6. Enter the network password of the user, or of his user account. Be aware that the user under which you login, has to possess the corresponding access rights to the target computer or the target folder. You can check for them under Properties in the corresponding target folder under "Security".



7. Optionally, you can also add descriptions to the credentials.
8. After the authentication, you can, for instance, enter a new "network path" as saving location and also restore an image from there.

Additional information is available in chapter ["Frequent Questions"](#).

## Reset security confirmations

Most of the security confirmations of O&O DiskImage can be deselected. Once deactivated, they will be suppressed and not be displayed anymore. If you want all the security confirmations to be displayed just like when the program first started, click under Program settings/Security on Reactivate.

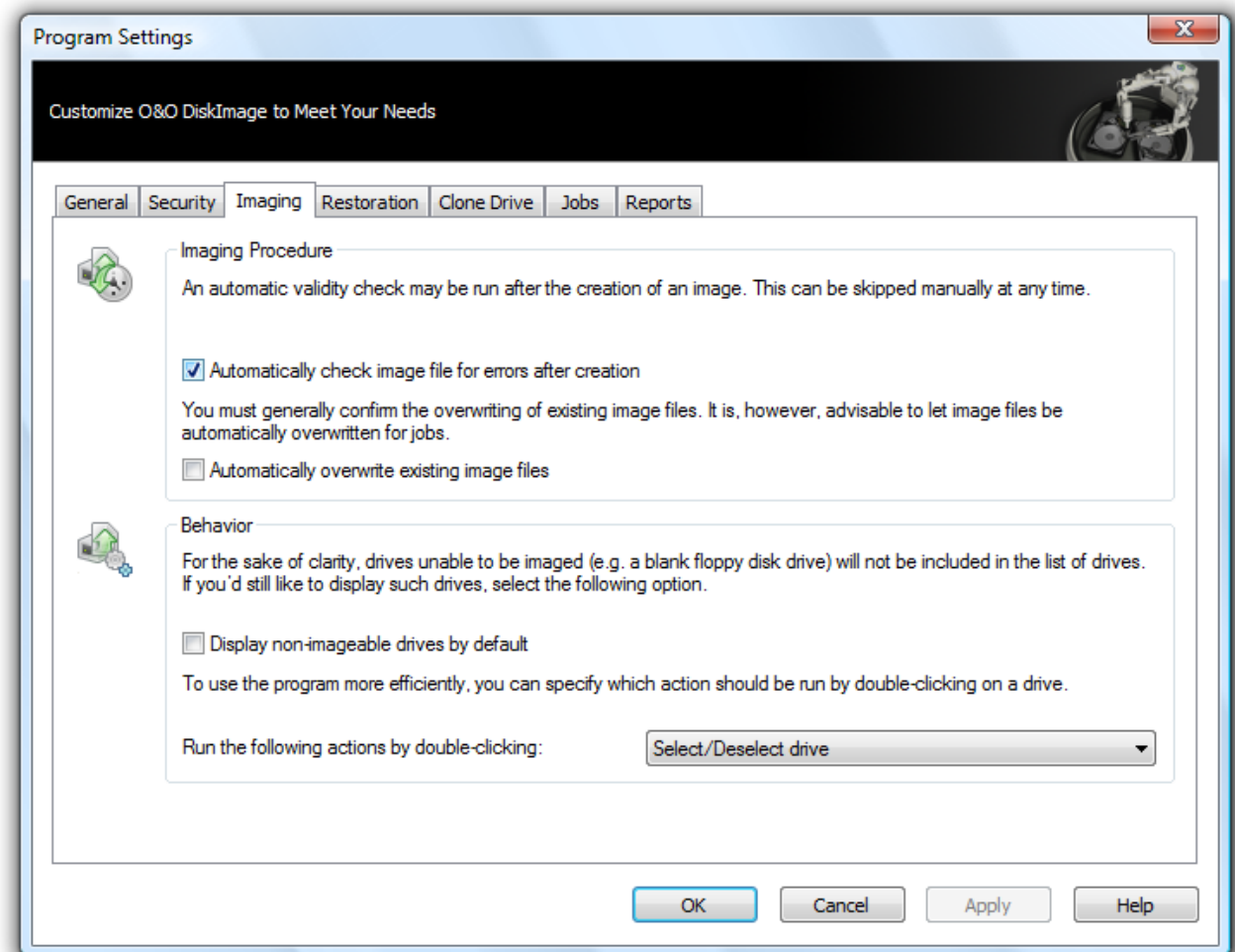
## Specific imaging program settings

Under Imaging in the Program Settings you can make image specific settings.

You also have the option of displaying those drives not visible in the program window, e.g. "Microsoft reserved partitions" under GPT Drives, OEM BIOS Partitions with DELL and IBM or the System Area (1MB) on basic disks.

Under the option Automatically check image file for errors after creation you can determine if image files should be checked for errors immediately after they are created.

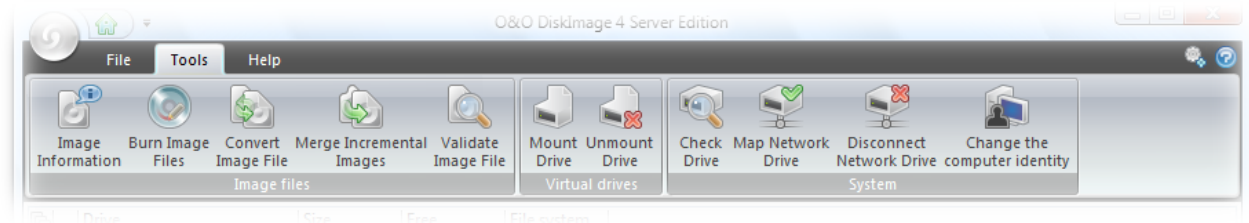
This option is also available when restoring an image, whereby the image file is checked for errors prior to being restored.



Program settings Imaging

## Tools

This chapter will show you which tasks you can run on a created image. The various imaging tasks can be found under Tools in the ribbon bar.



Selection of tools for a task

More:

[Mount Image File as a Drive](#)

[Unmount Drive](#)

[Convert Image File](#)

[Merge Incremental Images](#)

[Validate Image File](#)

[Check for Drive Errors](#)

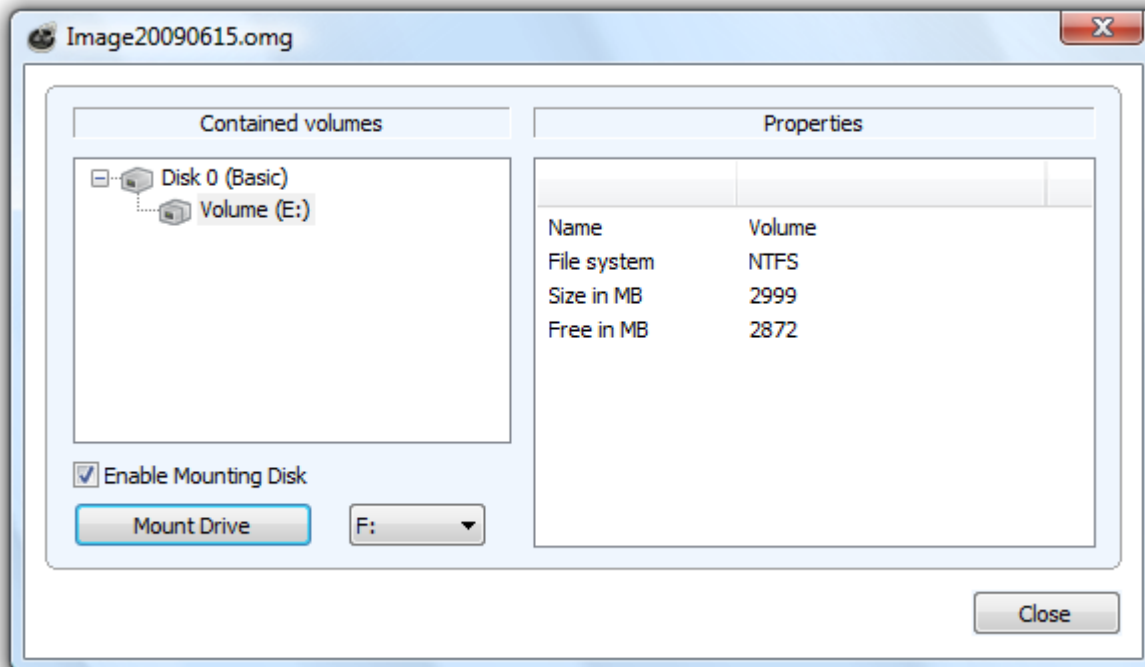
[Save Images onto CD/DVD](#)

[Map/Disconnect Network Drive](#)

[Change Computer Identity](#)

## Mount Image File as a Drive

You can have your created image file displayed in Explorer as a virtual drive. This allows you to copy files or directories from the image file onto existing hard disks. Making changes to the image file, such as deleting or adding files, however, is not possible.



#### Mount Image File as a Drive

1. Open the option Mount Drive in the ribbon bar.
2. Then select the original drive (e.g. F:) and further select the image file you want from the program window.
3. Check Enable Mounting
4. Select the displayed drive as image. Here in the example "Volume (E:)".
5. Afterwards, you can select any name from the drive list for the drive (e.g. K:).
6. then click on Mount Drive. If the mounting process was successful, you will see the image displayed as Drive (K:) in Windows Explorer.

Please note that you may only access sectors which contain image files. Refreshing can take a few moments.

Note: A notification to restart your computer may appear by the initial mounting of an image file under Windows 2000. Cancel this in order to mount the image as a drive.

#### Technical Limitations

Refreshing under Windows: If you are working over a remote desktop connection, you must restart your computer to display the newly created drive.

Loading images, which are larger than 2TB, are not supported by Windows 2000 and Windows XP (32-Bit).

#### For forensic purposes only:

Initialising an entire hard disk as a virtual drive can lead to problems of recognition for the virtual storage volume, if the imaged hard disk contains one of the following:

- a damaged partition table partitioning process not supported by your operating system (e.g. GPT)
- a RAID System component, where only one physical hard disk was imaged

- a dynamic drive
- encrypted hard disk

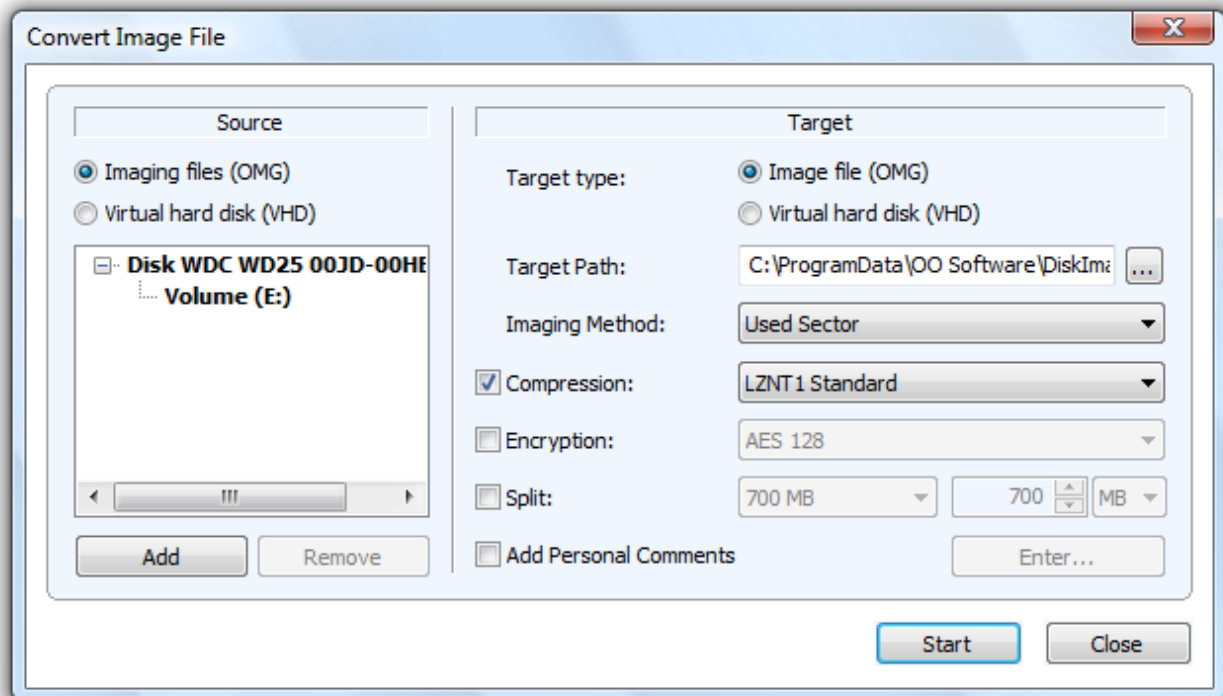
## Unmount Drive

If you wish to remove a mounted drive with the image file, click under Tools on Unmount Drive and remove the drive in the program window

## Convert Image File

The tool Convert Image File allows you to change the properties and content of existing images (OMG) or change a virtual hard disk (VHD). It creates a copy of the image file (OMG) or virtual hard disk (VHD), so that the original image remains intact.

Further settings like compression, encryption or splitting images into several image files with a certain size are possible. Please note the limitations, which are valid while working on [working on virtual hard disks\(VHD\)](#).



Convert images and virtual hard disks

More:

[Merging Images](#)

[Handle virtual hard disks](#)

[Determine the size of an image file](#)

[Encrypt images](#)

[Compress image](#)

### Merging Images (OMG)

In Tools under Convert Images/Add you can select the volumes to be imaged.

This enables separate image files to be merged together. Only image files of similar types can be merged together, either forensic, direct forensic or used sector images.

- Simply add the drive from the list.

### Handling virtual hard disks (VHD)

To simplify the work with Microsoft Virtual PCs (VPC), you can now convert images into virtual drives (VHD). The converted image can be included as a virtual drive on the VPC, without having to install O&O DiskImage there. Also, images (OMG) can be created from virtual hard disks (VHD).

1. To convert an image to a virtual drive file (VHD), click on Convert image file in the Tool Menu.
2. Select the Image file (OMG) from the conversion dialogue as the base and add the desired image file.
3. Enter Virtual hard disk (VHD) as target and click on Start.

You can also convert virtual hard disks (VHD) into an image file (OMG).

Note: The following options cannot be selected with a VHD: compression, encryption and splitting. In addition, only the following imaging methods are available "Only used sectors" or "Forensic".

### Merge Incremental Images

If you have created several incremental images, you can merge these to form a new base image. The newly created base image is now a "complete" image. Previous incremental images can then be deleted after the merge has been completed.

1. Make sure all the drives with the base image and incremental images are available to the computer.
2. In the menu list under Tools click on Merge Incremental Images.
3. A program window will appear where you can select and merge the existing incremental image files.

Note: Only incremental image files with the same base image may be merged together. By clicking Image Information and the corresponding Drive Information you will be able to view all of details regarding the image.

### Validate Image File

Under Tools is a function called Validate Image File. This function checks the structural integrity of an image file. It determines whether the logical structure is intact. Such damage can be caused by virus attacks or defective hardware. In addition, encrypted and/or compressed images will be checked to determine if decryption or decompression is possible without error.

Reasons for an abortive validation:

- Encryption and decryption are not functioning
- Compression and decompression are not functioning (Windows API/System interfaces)
- The user has changed the image file
- Image has been changed by a program driver (e.g. anti-virus software)
- Image is stored on a defective volume

**Note:** To make sure your image is created or restored without error, keep the validation process running until the imaging or restoration is completed. If you choose to “Skip” or “Abort”, there’s no guarantee that your image will be created or restored intact.

## Check for Drive Errors

Under Tools is the function Check Drive, which performs an intensive analysis of the file system and data storage interface to protect yourself against any possible loss of data.

CheckDisk is an assistant that leads you step-by-step through the examination of your drives. Simply follow the instructions in the dialogue window and select your drive.

In the next stage the analysis is carried out. You can monitor progress by means of a progress bar. All program messages will appear in the window.

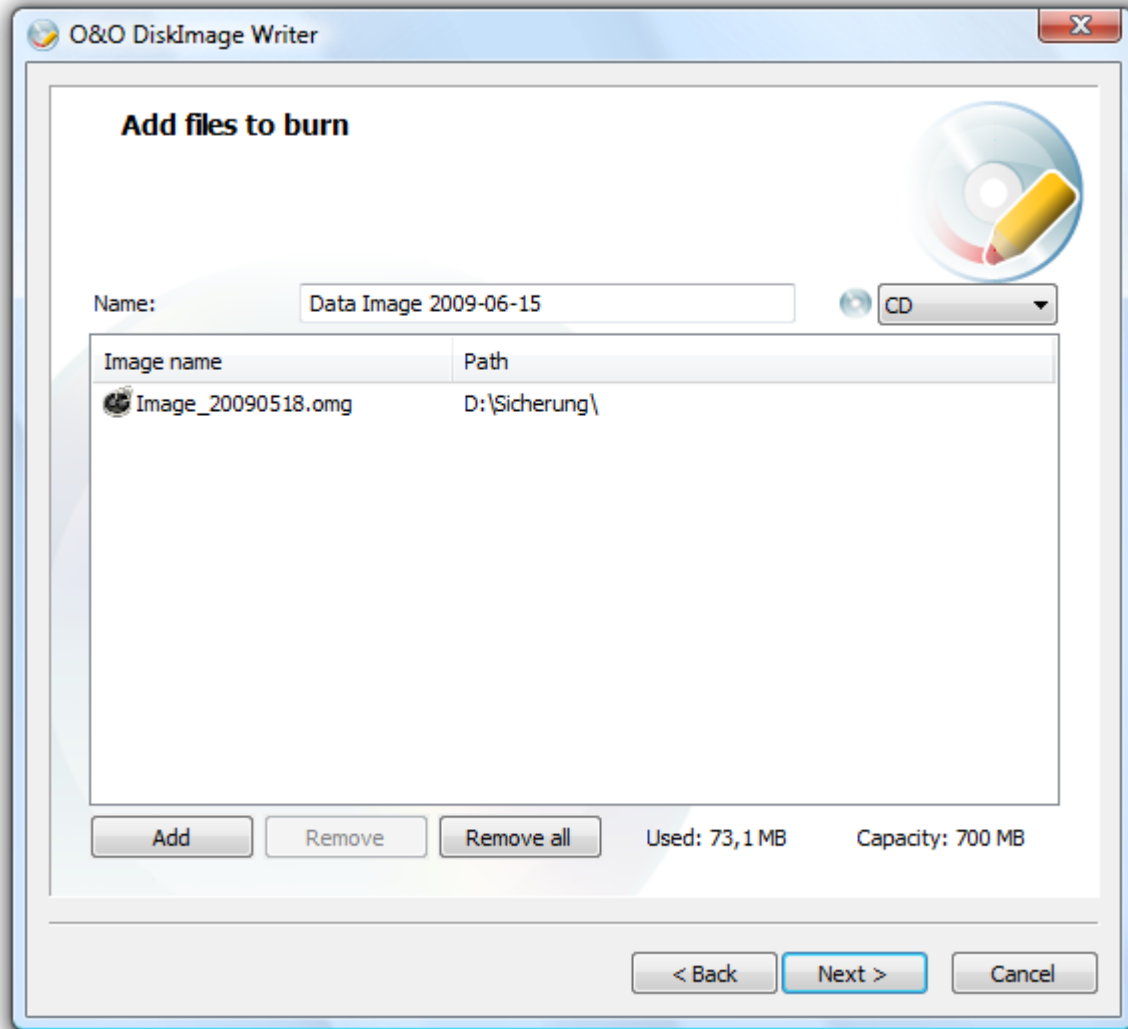
## Save Images onto CD/DVD

To save your image to CD/DVD, it is necessary to have first created an image, as described in the section entitled "Creating an Image". The image file(s) must be stored on an internal or external drive. Only then will it be possible to save your image file(s) (\*.omg) to CD/DVD. Images (\*.omg) or virtual drives cannot be saved directly on CD/DVD without having first been saved on cache.

1. Under Imaging Options/Image File/File Size limit the image files to the size of your blank CD/DVD. The image will then be split into multiple image files. The splitting of the image file at a later time is also possible, (See “Converting Image File”).
2. Go back to the O&O DiskImage start page and then click on Image File(s) to CD/DVD.
3. Follow the instructions in the dialogue window.

**Tip:** Besides CD/DVDs the program also supports Blu-Ray Disks and HD/DVDs.

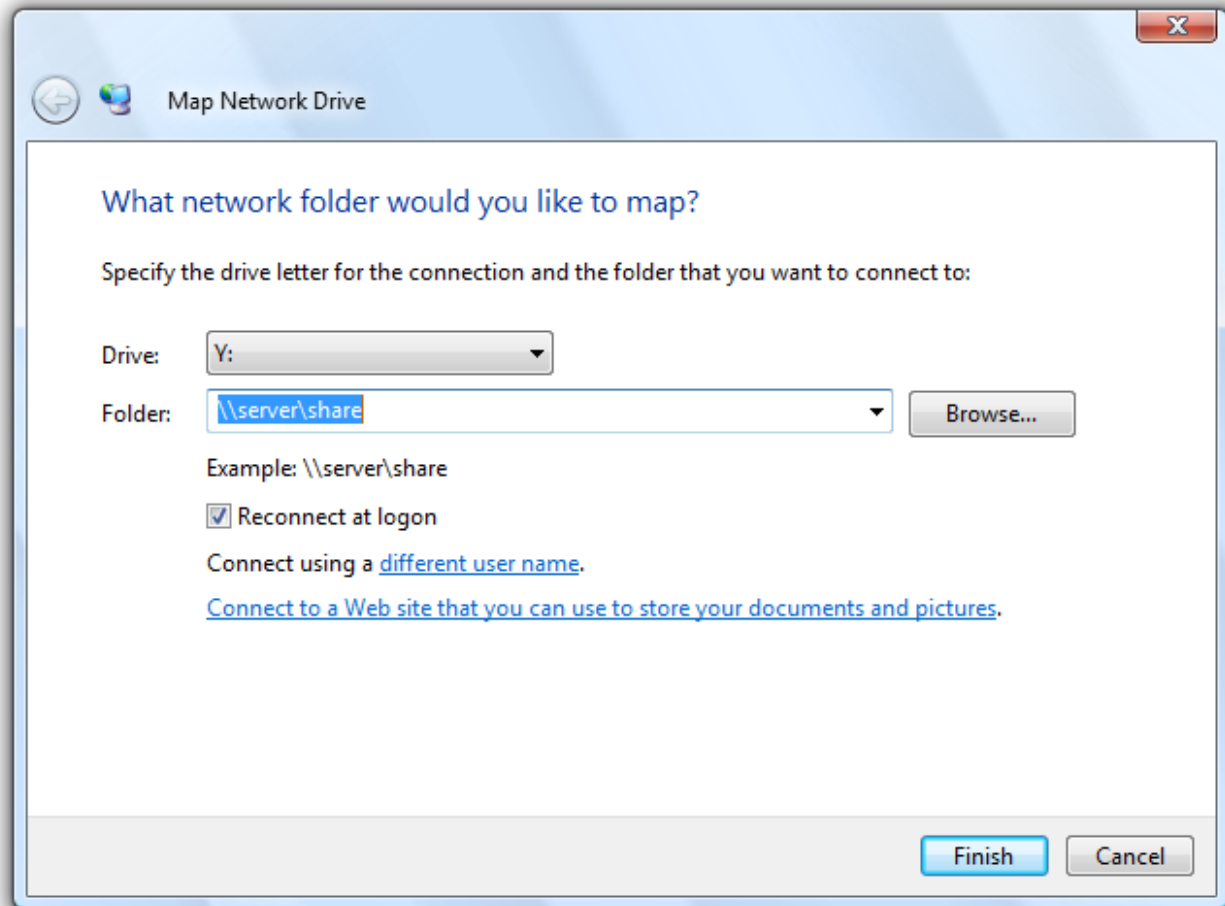
**Note:** If you change the name of individual parts of the image, it is recommended, to keep the "numerator"(the number in brackets), to be able to trace the order of the parts and avoid problems during restoration at a later time.



Burn Wizard

## Map/Disconnect Network Drive

Under Tools in the ribbon bar, you can select the setting Map Network Drive. Disconnect Network Drive allows you to disable the connection.



Map Network Drive

Note: To access network drives for storing images or to restore from them, you have to authenticate yourself in the network. Read more about it in the chapter ["Authentication within the network"](#).

## Change Computer Identity

You can change the identity of your computer to avoid authentication problems whenever there exists the same computer identity within a network. This can be helpful, whenever a system image is created on several computers within the network. The disk of a fully installed and configured Windows computer is transferred onto another computer.

Although this cloning method does save time and effort the problem that each cloned system has an identical computer SID might arise. This influences the security in working site environments. In addition, the security of transfer media might be inhibited in networks with many computer SIDs.

To avoid this problematic, O&O DiskImage offers the option to change the identity of the computer.

Note: If an error occurs while changing the current computer SID, then we recommend to reset the registration structures SECURITY and SAM.

## Tools

- In the Tool menu of O&O DiskImage click on Change computer identity.
- If you have started O&O DiskImage normally under Windows, you will select Current system as a rule. If you run O&O DiskImage from the Start CD, load the normal Windows System of the computer under Inactive system.
- Then, enter a computer name for your computer(Give new name)
- Change saves your settings and the computer identity after you have changed them.
- Close cancels the dialogue without applying any changes.

More:

[Authenticate within the network](#)

## Schedule functions

1. To edit a job, select Jobs in the file menu on the start page of O&O DiskImage. You can edit a job by making a check on your selection in the job list.
2. Then click on Edit. The Job Assistant will then appear with the settings of the job.
3. Make the desired changes in the properties and confirm the changes with OK.
4. If you decide not to apply the changes, then click on Cancel.

More:

[Create a Job](#)

[Plan a Schedule](#)

[Settings for a Job](#)

[Create job to image in increments](#)

[Run commands before and after a job](#)

[Job information](#)

[Editing jobs](#)

[Reports](#)

## Creating a Job - General Information

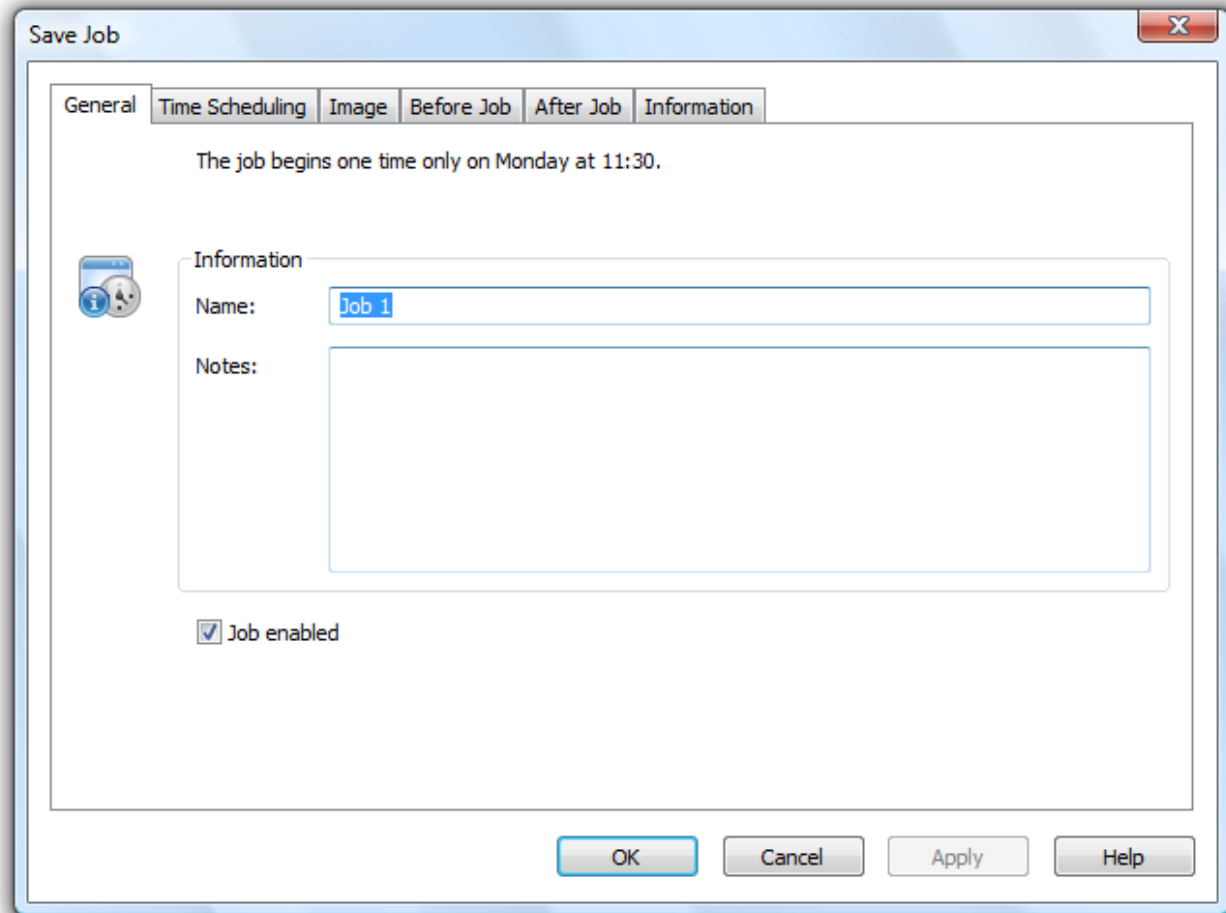
Before setting up a job, you'll have to select the corresponding activity.

1. Once the startpage is opened, click on the activity desired, for example Imaging, Clone Drive or Restoration.
2. Put in place all the settings that are necessary for the job. Select, for example, the desired drives for imaging or specify additional settings under the corresponding Options on the program page. Your settings will then be saved and applied to the subsequent job.
3. Now click on Add Job and enter a name in the Job Assistant for this particular job. This will be used later for preparing the report, and will serve as information regarding the activity this job will run. The name of the job has only symbolic meaning and can also be applied already to other jobs.

In the field Notes you may enter text that can provide a few details about the job.

### Enable Job

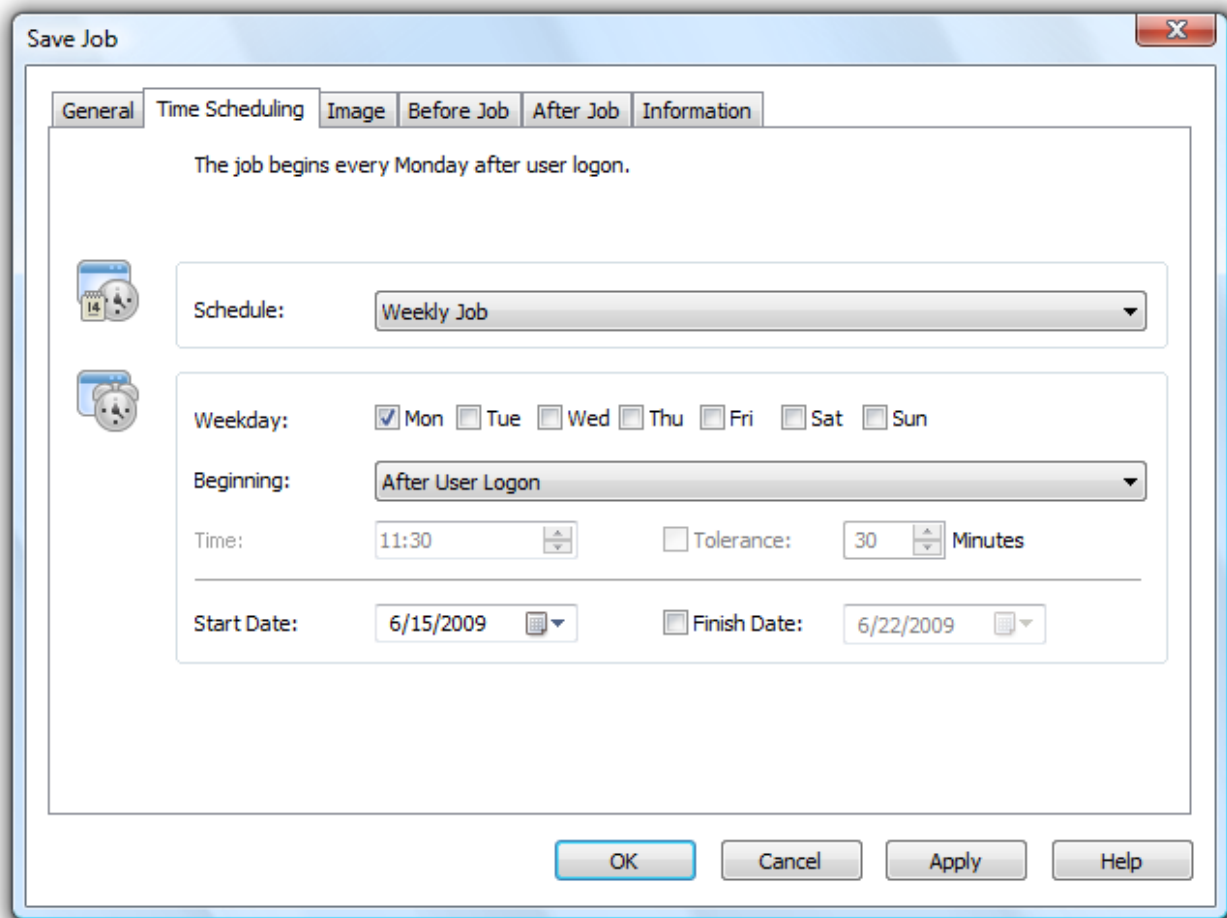
If you want to leave out a job for a short period of time, but don't wish to delete it altogether, you can disable it. The job will thereby remain dormant until it is once again activated.



Job Assistant General Information

## Plan a Schedule

Under Time Scheduling in the Job Assistant, you can determine the exact moment when the job should be run. A job can be performed one time only or repeatedly. The options for how this should be done will change according to the way you select to run the job.



Once Only:

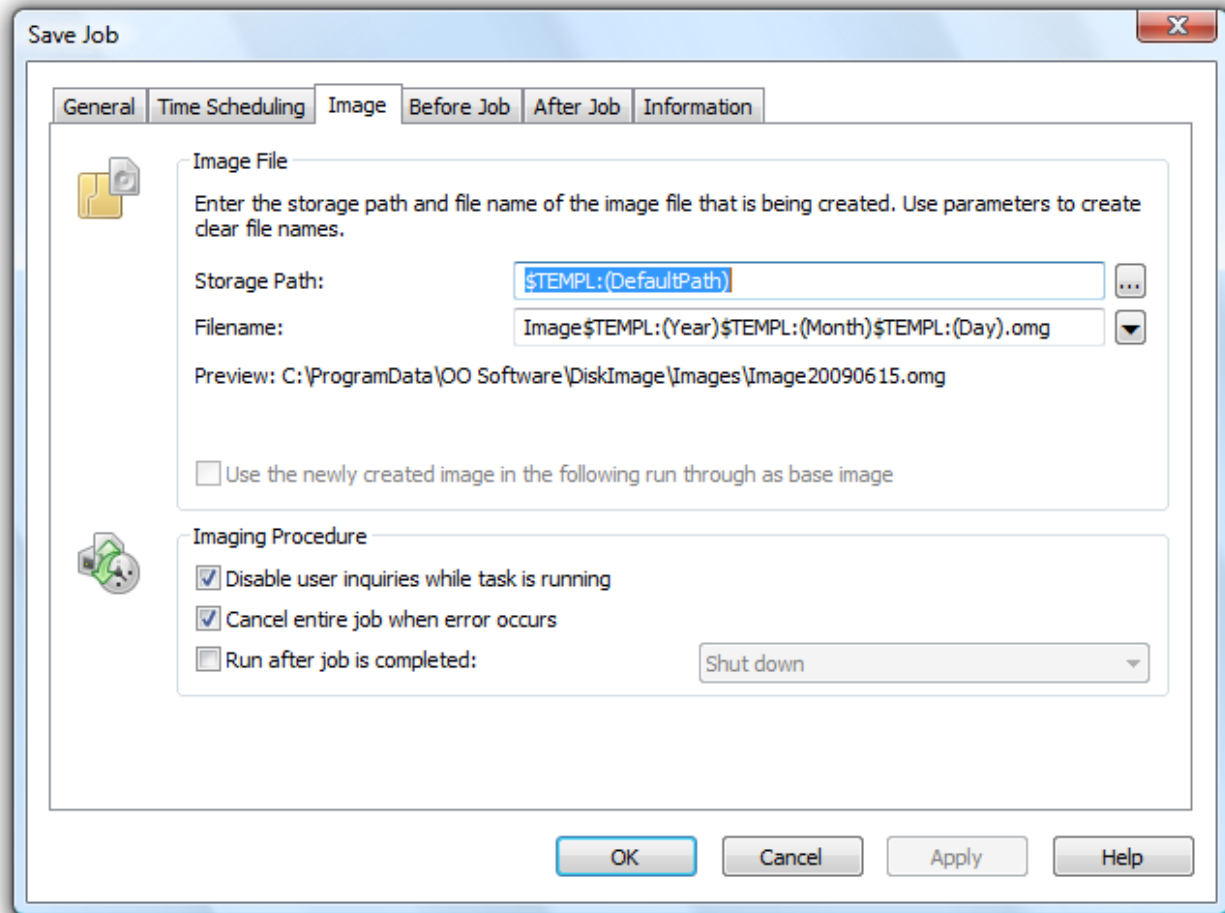
- Choose the starting event
- Time
- After User Logon

Repeated execution:

- It's possible to select the day of the week, the date and time
- It's possible to select the start and finish date for the length of the interval. The job will be performed for example, five weeks in a row, once a week.

## Settings for a Job

You can set additional options for your job in the third tab (Image) of the Job Assistant. The choice of settings is based on your selected task. For an imaging job, you could, for example, enter a storage location and a name for the image.



Job Assistant: Imaging

More:

[Disable user inquiries while job is running](#)

[Abort entire job when an error occurs](#)

[Run after job is completed](#)

[Characteristics of an Imaging Job](#)

### Disable User Inquiries while job is being run

User Inquiries are questions that can arise during the normal course of carrying out a job. The job will thereby be interrupted because the user either has to make a decision or additional information is required for continuing.

There might, for instance, be a confirmation dialogue if there's already a file name being used for the image.

Should this interactive option be turned off, in a worst case scenario there will be no confirmation dialogue while the job is being run and it will be aborted by default and logged as an error.

### Abort entire job when an error occurs

The job will be aborted whenever an error occurs.

### Run after job is completed

Here you can choose between Restart, Shut Down and Log out. If you don't select any action, the computer will return to its status prior to the imaging. As a rule, this means it remains on standby.

## Characteristics of an Imaging Job

### Storage Path

The target path to the storage location of the image will be applied to the program settings by default. You may, however, select or enter a new path manually.

### Apply dynamically generated file names

For a file name, the terms "Image" and the dynamically mounted parameters "year", "month", and "day", will be used by default. In addition, you can select from a list of alternative parameters. If you're making, for example, a number of images on a single day, it's advisable to include the "time" in the file name. Otherwise, files with the same name would emerge and that could lead to the imaging process being aborted.

Note: If you're using O&O DiskImage on a computer in a network, the data from the computer will be automatically read and file names will be dynamically generated. You could, for example, add the "Computer Name" to the image name for use in a network.

## Create jobs for incremental and differential images

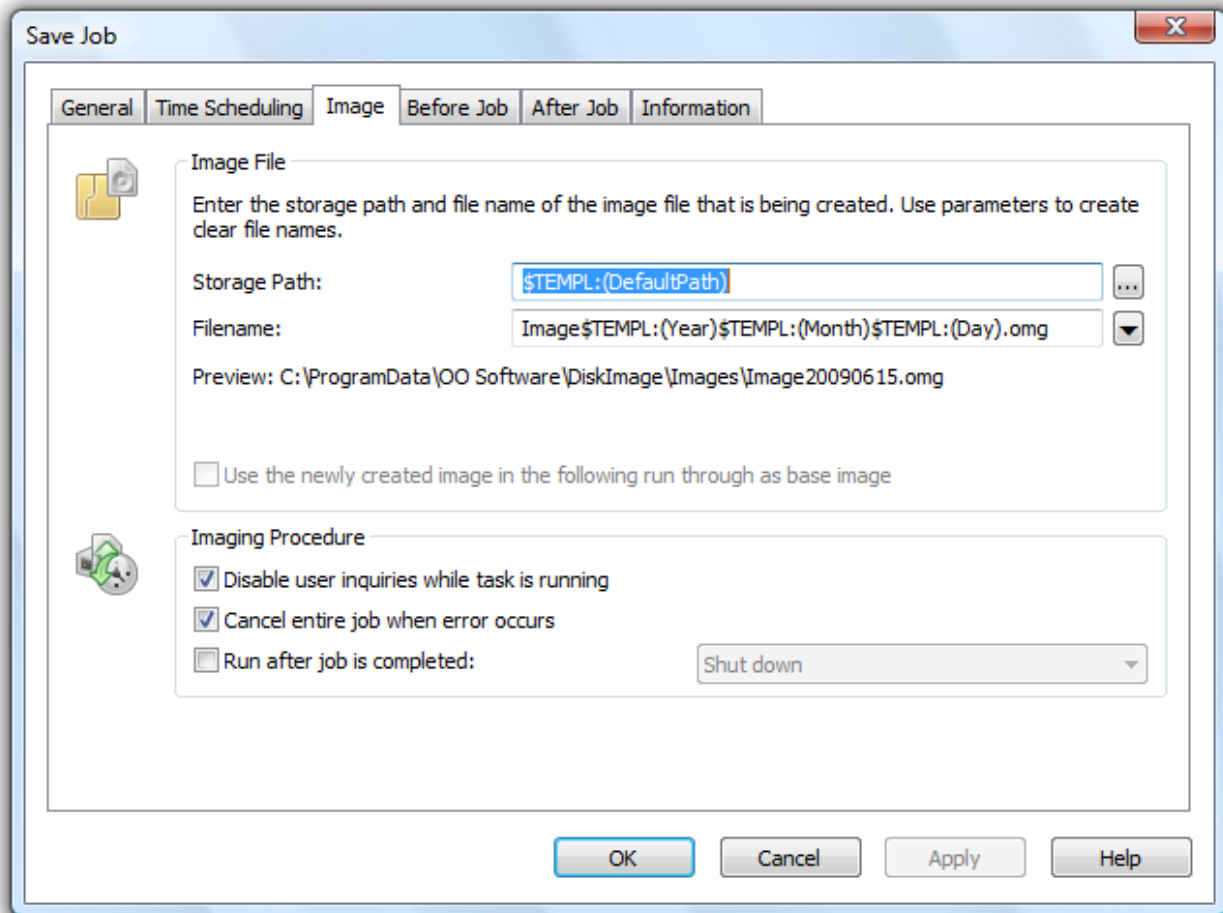
To create a differential or incremental imaging job, you need a previously created [complete image](#) or [base image](#). It will serve as a base to create differential/ incremental imaging jobs. The first "follow up" image after the complete image is always [a differential image](#). Incremental follow up images can access differential or other [incremental images](#) for the base image.

1. Select Incremental imaging from the O&O DiskImage Start page.
2. Name the base image in the dialogue window.
3. Afterwards, click on Add as job.
4. Enter the name and the schedule for the imaging session in the job dialogue.
5. Under Imaging you can either adopt the standard path or manually enter a save location for the image.

The option Use created image as base image for the following execution is activated as a standard. Incremental images will always be created based on the last [image of changes](#). As a result, the data volume of incremental images is very small. All previous cumulative images and the last complete image are needed for a restoration. We recommend, to save the complete image as well as the follow up images including subsequent changes in one folder.

If this is not possible, the normally activated check has to be removed from Disable user inquiries while task is running. Every time imaging takes place a previous image is requested and the process runs only partially automated. If these are not entered, then the job will be disrupted due to an error.

If you activate the check within the option Use created image as base image for subsequent executions, then the follow up images will always be differential images, based on the last complete image. The restoration will only need the last differential image and the complete image. Images created incrementally in the meantime can be deleted. The data volume of this differential image is larger than an image, where the check would have enabled the above referenced option.



Job dialogue: Imaging

## Run commands before and after a job

Carrying out commands before and/or after a job can allow you to stop certain Windows services and then restart them again afterwards. If you're using O&O DiskImage on a Microsoft Exchange or SQL-Server, you could stop these services beforehand, create the image and then have them automatically start again once the imaging is done. You no longer need to create a script to do this.

### Before Job

If you select this option, the commands entered in the text field will be carried out before the job begins. You can also import existing command files so that their contents will be shown in the text field. Just click on Import and replace and select the file in the dialog (.BAT, .CMD or .TXT). Confirm your selection with OK.

Note: Please make sure that all commands exist and are able to be carried out on the target computer. All commands will be carried out under the SYSTEM User and his permissions.

### After Job

If you select this option, the commands entered in the text field will be carried out when the job is completed. Entry and application is similar to the command instructions in "Before Job".

Note: Please make sure that all commands exist and are able to be carried out on the target computer. All commands will be carried out under the SYSTEM User and his permissions.

## Job information

The precise settings of a job are listed under Information in the Job Assistant. The view provides information only; you will not be able to make any changes there.

## Editing jobs

To edit a job, select Jobs on the Ribbon Bar in the Start Page of O&O DiskImage.

For selected tasks, e.g. deleting or importing/exporting of one or several jobs, you have to check the desired jobs in the list. Afterwards, you can run desired tasks on all selected jobs.

If you would like to change a job, e.g. create a time schedule, then double-click on the job in the list. Afterwards, the job dialogue in which you may make the changes appears.

More:

[Create job](#)

[Checking a job](#)

[Delete jobs](#)

[Run jobs](#)

[Export jobs](#)

[Import jobs](#)

### Checking a job

To check if the settings for a job are valid, i.e., to check if its content and syntax can be executed on a local system, select Jobs in the file menu on the start page of O&O DiskImage.

Then select the job you want to check and click Check Job.

### Delete jobs

To delete a job, select Jobs in the file menu on the startpage of O&O DiskImage.

Mark the job you wish to delete with a check and then click on Delete.

### Run jobs

To carry out a job, select Jobs in the file menu on the startpage of O&O DiskImage.

Start will begin the selected activity after a security question is answered.

### Export jobs

To export a job, select Jobs in the file menu on the startpage of O&O DiskImage. Mark the job selected in the job list and then select Export. Save the job file (\*.xml) on an external disk so that it can be applied again to another computer (see "Import jobs").

### Import jobs

To import a job, select Jobs in the file menu on the startpage of O&O DiskImage und select the function Import. Select the desired job in the dialogue window. This will then be added to the Job List.

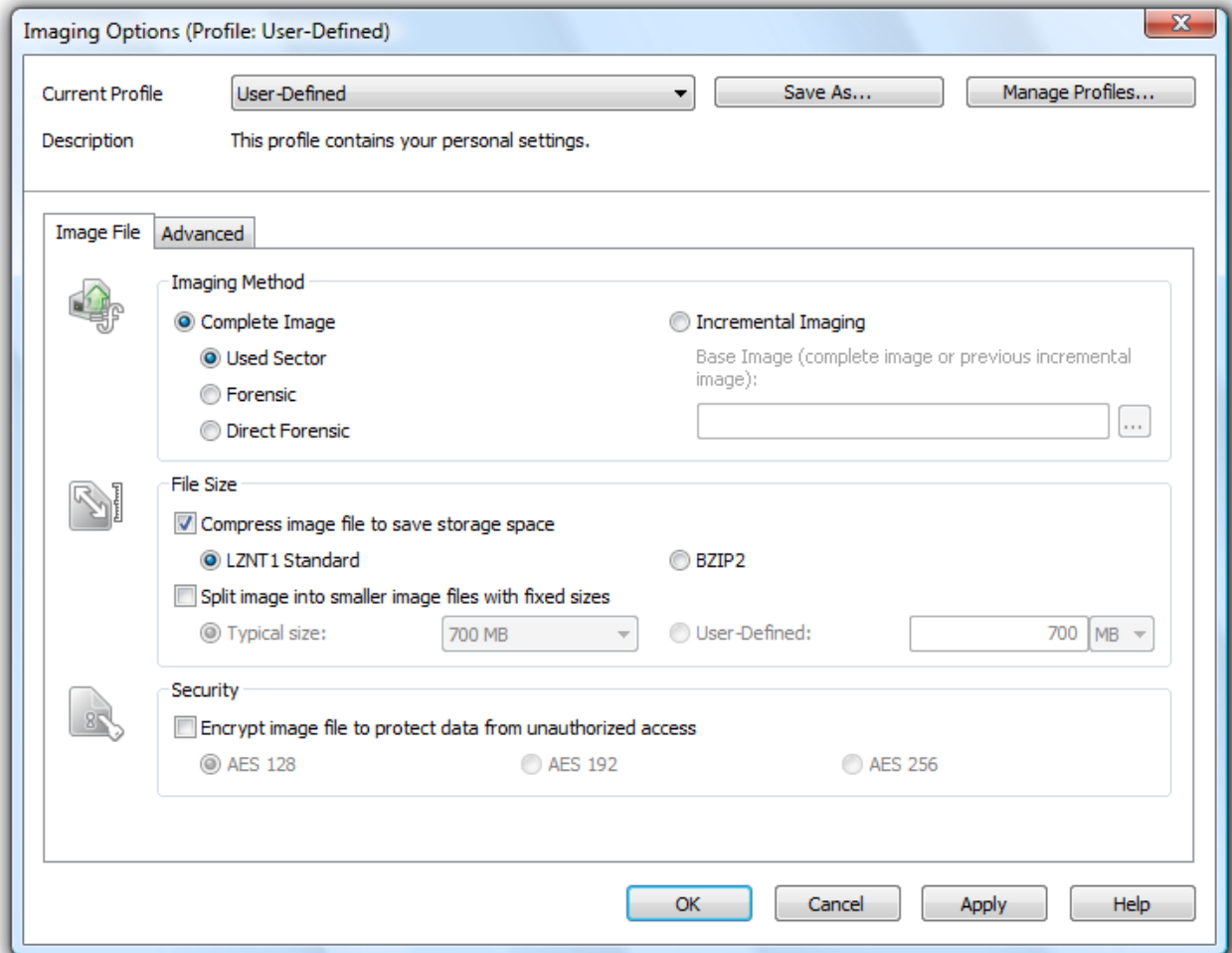
You can then transfer the created job from one computer to another, without having to make new settings for the job.

## Reports

A status report will be created for every action performed by O&O DiskImage. It can be accessed as an HTML document in the File menu on the start page via Reports. In the report you will find all information about the progress of an installation or a job.

# Imaging Options

Under the menu heading Imaging, you can implement settings for your image by clicking on Options. All image files will then be created by using these settings by default.



Imaging Options

More:

[Selecting Imaging Methods](#)

[Determine the size of an image file](#)

[Encrypting Data](#)

[Compress image](#)

[Exclude files from an Image](#)

[Exclude Data from Compression](#)

[Lock a Drive](#)

[Data Comparison with Checksums](#)

### [Creating an Image Profile](#)

## Selecting Imaging Methods

Under Options/Image File you can determine which Imaging Method should be applied as standard to every new image. In most cases, the default option Used Sector Imaging is recommended.

More:

[Used Sector Imaging](#)

[Incremental Imaging](#)

[Forsensic Imaging](#)

[Direct Forensic Imaging](#)

### Used Sector Imaging

Using this imaging method will limit the imaging process to only used sectors on a drive. Using this imaging method will limit the imaging process to only used sectors on a drive. This method is the default imaging method.

### Incremental/Differential

When creating an incremental image, only an image of the changes to the [base image](#) is made. The incremental image takes up less space than a complete image.

If you would like to create an incremental image, you must have created at least one [complete image](#) of the corresponding drive, which serves as your base image. The first incremental image after the last complete image is always a [differential image](#). An already created [incremental image](#) can also be selected as base image.

Note: The option compare data with checksums is set as standard. While creating incremental images, it is sufficient to use the last incremental image as base image. Should Compare data using checksums not be set, you will need the last complete image and all the incremental image previously created, since all of them will be accessed to create this image.

### Forsensic Imaging

The imaging method is especially useful when creating images of non-supported files system or when, for example, you would like to recover deleted data from a source drive with special data recovery software. With this method, an exact sector-level copy of the source drive is made. By saving all sectors of a partition or drive, the unoccupied and deleted portions of file systems can be imaged in their entirety.

### Direct Forensic Imaging

The direct forensic imaging method is a special case. A complete image of the original drive is created when using the regular forensic imaging method. The difference, however, is that data are read through low-level system interface. This makes it possible to create an image that includes encrypted and hidden files, when encryption software is in use on a system, for example,

## Determine the size of an image file

An image can be split into multiple image files. If a storage volume lacks the needed space to contain a full image of your selected drives, you will automatically be requested to enter another target location. It is also possible to manually set the maximum size of an image file before creating the image. If the image being created is larger than the entered file size, an additional image file will be created.

This function is especially useful when you plan to burn your image onto a CD/DVD at a later time. Sometimes a CD/DVD is not large enough to contain the entire image file. For this reason, it is recommended to limit image files to the size of the blank CD/DVD onto which you will be writing your images.

The image file can also be split at a later time using the Convert Image File function. It is, however, recommended to split images at the time they are created to avoid any confusion that may arise.

- Under Options/Image File/Split you can determine the size and limit the amount of image files.

Also, an additional splitting of the image is possible under [Convert Image](#).

## Encrypting Image

Encryption based on the AES Algorithm is possible up to 256 Bit. This provides your image with optimal protection against attacks by third parties.

- You can select the encryption grade for your files under Options/Image File/Security.
- You will then be asked to enter a password at the Create Image stage.

Also, an additional encryption of the image is possible under [Convert Image](#).

## Set Compression Level

Under Options/Image File you can find Compress image, which will let you save storage space. You can choose from the LZNT1 standard or the BZIP2 process.

LZNT1: A compression type based on the Lempel-Ziv algorithm, which is laid out on a real-time application. The speed is preferred over the rate of data compression.

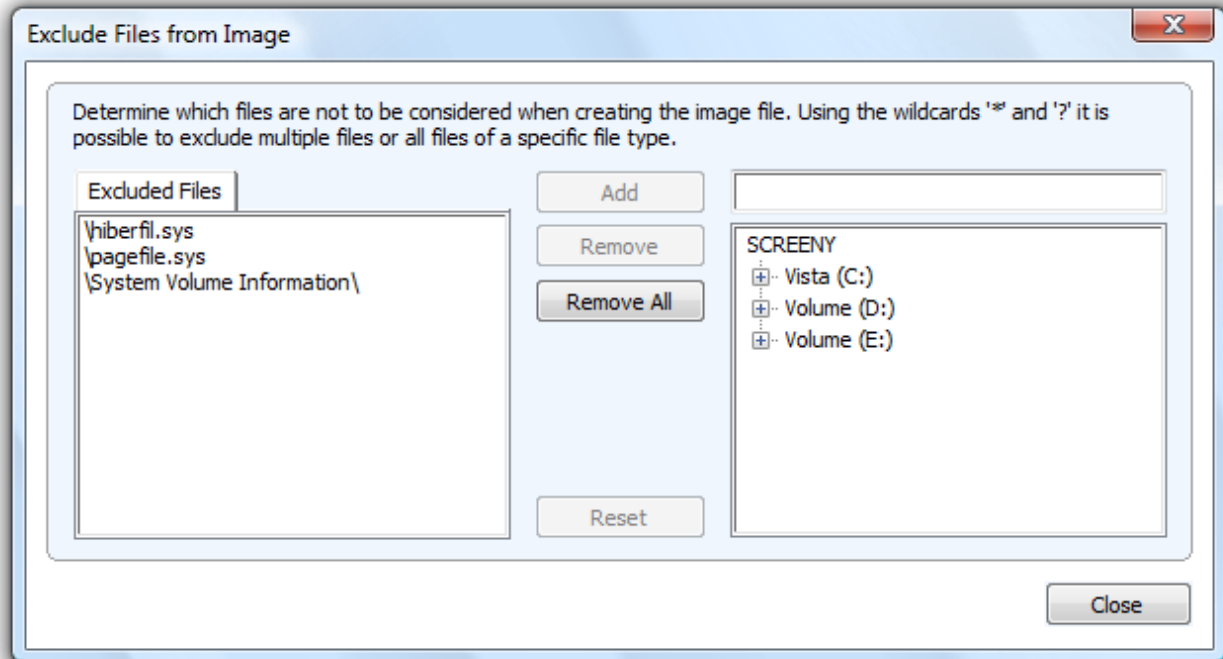
BZIP2: is a block type compression process, as a result, the compression rate is preferred over the actual velocity and time it takes.

You can also run a compression of the image under [Convert Image File](#) in the Tools menu.

**Note:** Compression increases the time required to create an image file. However, the file then requires less disk space on the disk.

## Exclude Files from an Image

**Note:** Several minutes may be needed for excluding files, depending on the amount of data on the hard disk.



Exclude files from an Image

Exclude files from an Image When using the imaging method Used Sector Imaging you have the option of excluding data from the image or compression. Please follow these instructions for excluding data:

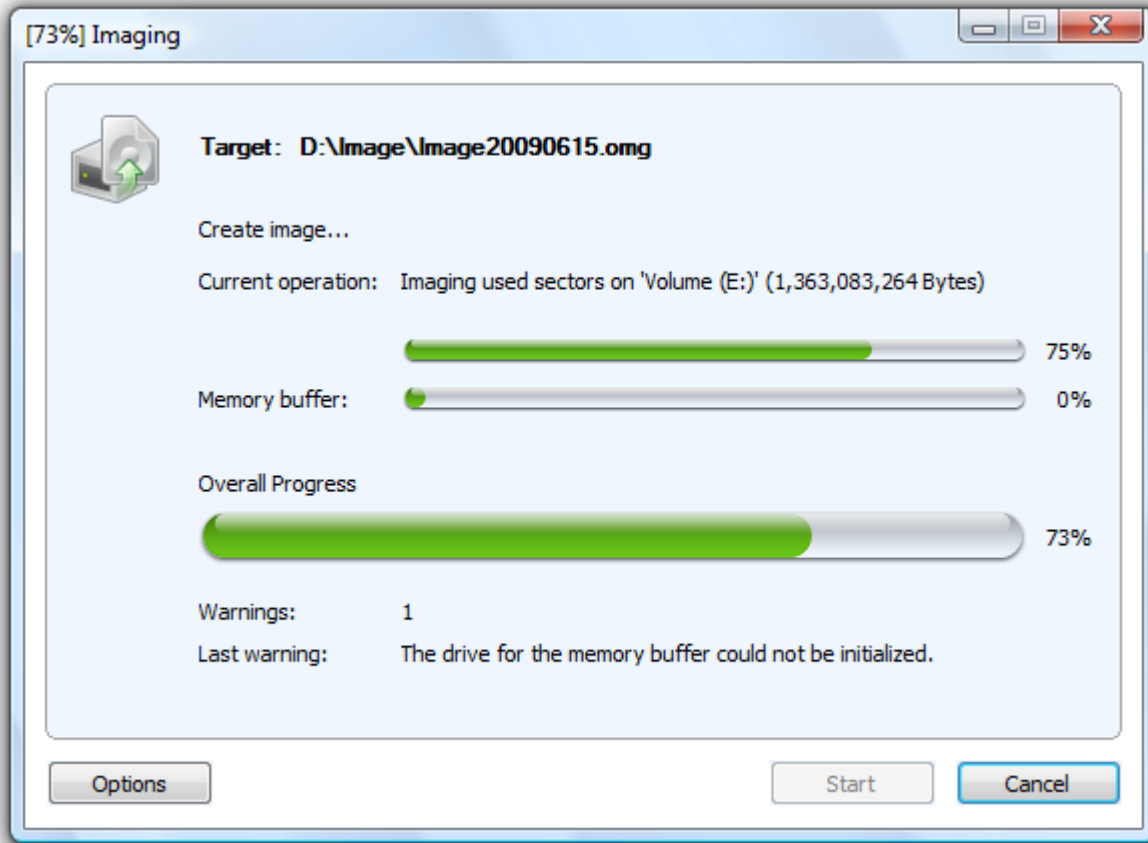
1. Mark the drive you wish to image with a tick.
2. Make sure you have selected the method Used Sector Imaging under Imaging Options.
3. In the program window Imaging Options click on Advanced and open the dialogue to Exclude Files.
4. In the right hand window select the files and directories you wish to exclude from the imaging and confirm this with Add. Only the data on your selected drives will be excluded.
5. You can close the window after your settings are made. The changes you made will then be applied.

## Exclude Data from Compression

Data that are already compressed, e.g. \*.rar or \*.zip files, will not be further compressed during the imaging process and, for this reason, may be excluded from the compression process. To exclude data from compression, please follow the procedure laid down in "Exclude Files from an Image".

## Lock a Drive

You can lock the drive you wish to image during the imaging process. This prevents any changes being made to the drive during creation of an image. The drive will also not be displayed in Explorer and all applications on it will be closed. The drive is not locked by default.



Memory buffer display (here an empty Cache)

- To lock a drive, activate it under Options/Advanced

If you leave a drive unlocked during an imaging, for instance, because you want to continue working on the drive, the original status will be “cached”, i.e. stored in the working memory buffer. The working memory buffer is however restricted. You can see how much is available in the Memory buffer display.

Note: It is not possible to lock a system partition.

Please Note: Should you exceed the available working memory, the original data sectors will no longer be saved and included in the image. This makes the image inconsistent and may render it unusable. In this case, you should, after imaging, mount the image (Mount the image as a drive) and check its accuracy.

Note: To maintain the maximum available working memory buffer, please close or stop all writing applications on the source drive before and during the procedure.

## Ignoring Bad Sectors

Should an error occur, you can determine under Cloning Options/Advanced whether the read process should be aborted or continued. If continued, the bad sector will be saved in the image as an unused sector. The remaining data that are still readable will be present in the image.

## Data Comparison with Checksums

Unaltered data resulting from incremental images is saved using checksums by default. These files are fractionally larger. It is sufficient when, at the next incremental imaging, you use a previous incremental image (with checksums) as the base image. This function is activated by default. If you save all images to a single directory, you might consider deactivating this function. Your images will then take up less space on disk.

- Make sure the setting, Use Checksums to manage unchanged data, is enabled under Imaging Options/Advanced.

## Creating an Image Profile

Under Imaging Options you can reset the current imaging setting to Default or select an existing profile.

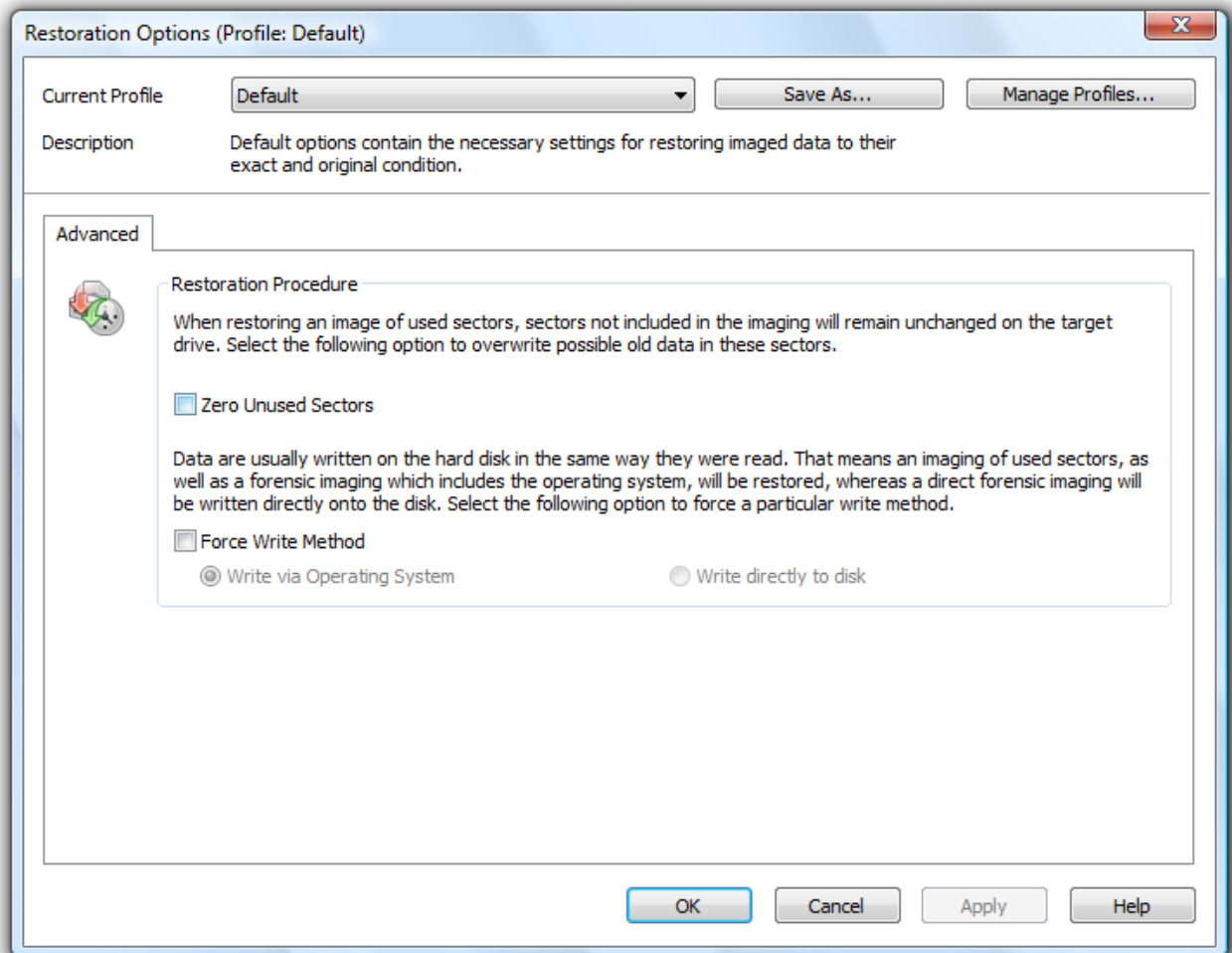
Under Current Profile you can select a preset Multimedia or Archive profile. The Multimedia profile automatically excludes already compressed music and video data (i.e. \*.avi, \*.mp3, \*.mpeg) from the compression. The Archive Profile excludes other compressed data such as \*.zip or \*.rar.

If you would like to save your user-defined settings, please follow these instructions:

1. Activate your settings under Imaging Options.
2. Select under Imaging Options Save As.
3. Give your newly created profile a name in the dialogue window and confirm.
4. Under Manage Profiles it is possible to make changes to current profiles or delete those that are no longer needed.

# Restoration Options

Under Options in the menu header Restoration, you can determine the settings for restoring data images.



Restoration Options

More:

[Write over Unused Sectors](#)

[Creating a Restoration Profile](#)

[Write directly to Storage Volume](#)

## Write over Unused Sectors

Zero Unused Sectors: Data once stored in these sectors are permanently deleted and cannot be restored with special data recovery software.

## Creating a Restoration Profile

Under Restoration Options you can return the current settings for an imaging back to their default settings or select an already created profile.

## Restoration Options

Under Current Profile you can choose between Default and User-Defined.

If you want to save your User-Defined settings, then do the following:

1. Activate your setting under Restoration Options
2. Select Save as
3. Give your newly created profile a name in the dialogue window and confirm

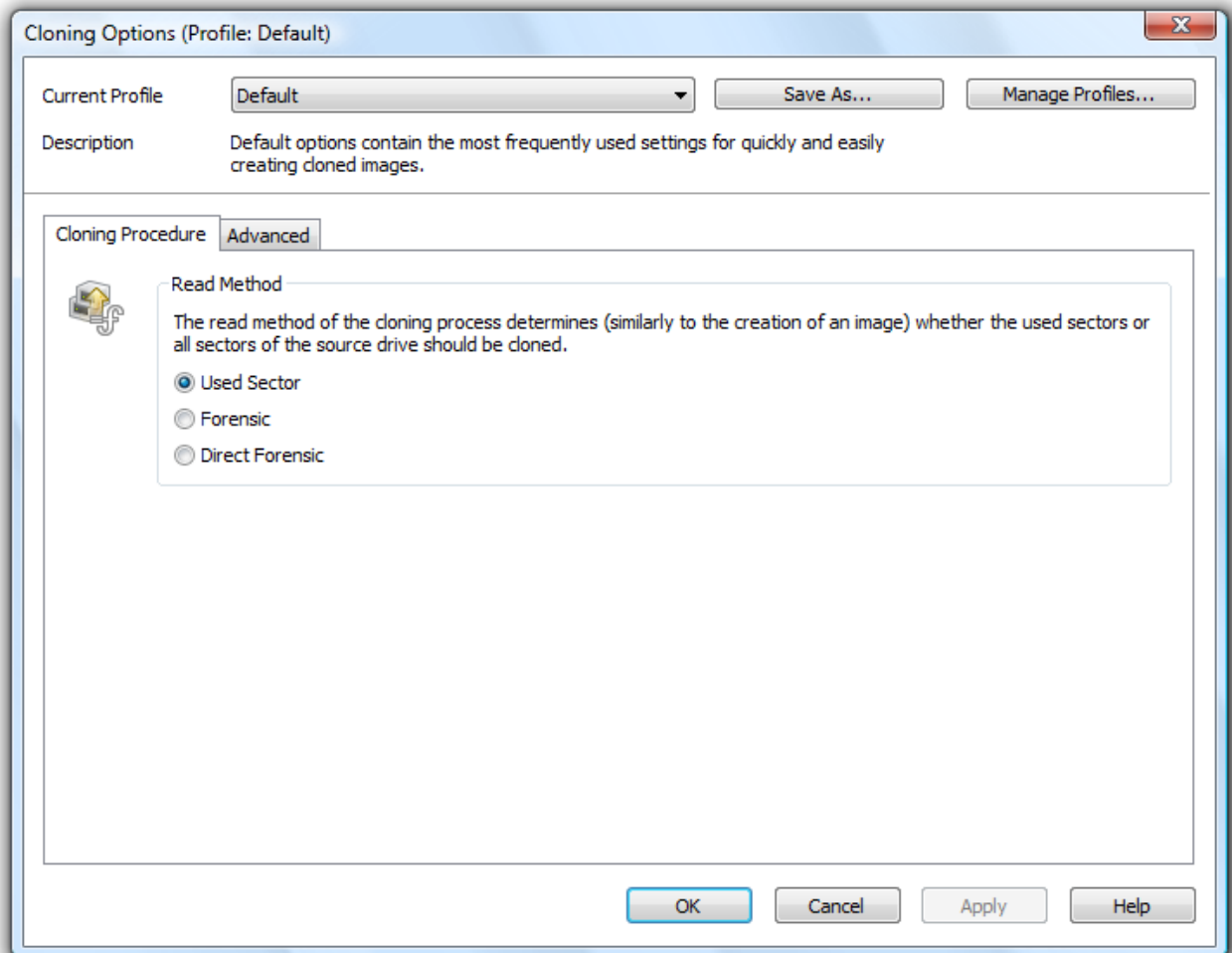
Under Manage Profiles you can change or delete an existing Profile.

## Write directly to disk

With the option Write Directly to disk, you can decide whether the restoration should run directly onto the data disk (e.g. direct forensic restoration). It is recommended to keep the setting on Default.

## Settings for Cloning Drives

Under Clone Drive/File/Options you can apply settings for the copy process.



Settings for the Cloning Process

More:

[Set a Cloning Method](#)

[Lock a Drive](#)

[Ignoring Bad Sectors](#)

[Write over Unused Sectors](#)

[Write directly to Storage Volume](#)

[Set a Copy Profile](#)

## Set a Cloning Method

As with creating an image, you can also individually set a cloning method (read method) for the cloning process. The cloning methods are constructed in a way similar to the imaging methods.

You can choose between the “Used Sector”, “Forensic” or “Direct Forensic” methods. You can read more about this topic under "[Image Options/Image Methods](#)".

## Lock a Drive

During the cloning process you can lock the drive from where you wish to clone an image. This prevents interim changes to the drive being made during creation. The drive will no longer be displayed in Explorer and all applications will be closed. The drive is not locked by default.

1. To lock a drive, activate it under Cloning Options/Advanced
2. If you leave a drive unlocked during an imaging, because, for instance, you want to continue working on the drive, the original status will be “cached”, i.e. stored in the working memory buffer. The working memory buffer is however restricted. You can see how much is available in the Memory buffer display.

Please Note: Should you exceed the available working memory, the current changes will be written directly to the target drive. This makes the image inconsistent and may render it unusable.

Note: To avoid overloading the memory buffer, close or stop all write procedures on the source drive, for example, running a defragmentation.

## Ignoring Bad Sectors

Should an error occur, you can determine under Copying Options/Advanced whether the read process should be aborted or continued. If continued, the bad sector will be saved in the copy as an unused sector. The remaining data that are still readable will be present in the image.

## Write over Unused Sectors

Under Cloning Options/Advanced, you can select Zero Unused Sectors should you wish to overwrite unused sectors with zeros. Data that were once saved there will now be permanently deleted. After overwriting, not even special data recovery software will be able to restore these deleted data.

## Write directly to disk

With the option Write Directly to Storage Volume under Cloning Options/Advanced, you can determine whether a restoration should be written directly to the storage volume, bypassing the file system driver. This function especially concerns encrypted storage volumes. When they are forensically imaged, these can only and may only be restored with this option.

## Set a Copy Profile

Under Cloning Options/Current Profile you can either reset the image settings to Default or select a previously set Profile.

Under Current Profile you can choose between Default and User-Defined. Should you wish to save your custom settings when cloning, please follow the instructions below:

1. Create your Settings under Cloning Options
2. Select "Save As" under Cloning Options
3. Give your new Profile a name in the pop-up window
4. Using Profile Management you can change or delete existing Profiles.

## Frequently Asked Questions

When and how often should I make images?

We recommend imaging on a regular basis (at least once a month). The more regularly it's performed, the more up-to-date the data contained within those images will be. As a guiding rule, you should always image an intact system.

Which drives should I image?

You should generally image all drives, meaning the system drive (Windows), primarily Drive C, and all remaining data drives where private and business data, e.g. customer data, photo collections or music are stored.

Where should I store my image?

Don't save the image on the same hard disk where the imaged drive is located. It should be ideally stored on an external hard disk or a CD/DVD.

I just bought myself a new computer. If I take a complete image of my old computer, can I restore it to my new one?

Restoring data drives is not a problem. We do not recommend a complete restoration (incl. operating system) onto another computer with different hardware, as this can lead to a system crash.

Do I have unlimited use of all functions with the trial version?

The trial version is fully functional and has no restrictions. You should note, however, that restoring a system partition is only possible with the bootable O&O DiskImage CD, included when you purchase the product.

When do I need the bootable CD from O&O DiskImage?

For restoring the system partition and when your operating system will no longer start.

How do I save an image to CD/DVD?

1. You must create an image file(s) and save it to your hard disk before you can write it to CD/DVD.
2. When creating the image, under Imaging Options/File Size/Split, you should restrict the maximum image file size to the size of the intended removable medium where it will be saved.
3. Should the image exceed the selected maximum file size, it will be split into several image files.
4. You can then burn the image files to CD/DVD.
5. Simply click on Tools on the start page, then on Burn Image File(s) to CD/DVD and follow the instructions.

What do I do when my image is too big for a CD/DVD?

1. If the Image you already saved to your hard disk is too big for the blank CD/DVD, you can, of course, still split the image file.
2. Under Tools, open up Convert Image File.
3. Select the Image you wish to change by using Add.
4. Then select Split and enter the required maximum file size of the individual parts.
5. During conversion, one copy of the Image will be made while the original remains unchanged.

I have split the image and saved it on various storage volumes (CD/DVD).

I want to:

restore this image

display drives from the image

use the image as a base image for incremental imaging purposes

Merge Incremental Images

convert the image file

Before you go ahead with any of the above named steps, we strongly advise you to save all parts of the Image in a folder on your hard disk. Please ensure the folder is not on the drive to where you wish to restore the Image. Once you have done this you can complete the steps outlined above by simply following the instructions in the corresponding chapters of the User's Guide.

Can I continue working during the imaging process?

You can continue working and making changes without any problem.

Space on the working memory buffer is, however, restricted. You can see how much is available in the Cache Status Display. See Chapter „Lock a Drive“.

Can I still change the image retrospectively?

Under Tools you can find the function Convert Image File. This enables you to change certain properties and contents of the image retrospectively.

I have created an image of several drives. Can I extract the image from just one of those drives and store it separately?

Follow the instructions below:

1. Under Tools select Convert Image File.
2. Select the image using Add and then select the drive you wish to separately image.
3. Click Open and select a drive. After confirming with OK, click Start.
4. A new image will now be created. The old image remains unaltered.

What is the difference between a clone and an image?

Using the "Clone Drive" function, you can make a 1:1 copy of a drive including all its stored data, without producing any image files. In this way, the drive will be stored directly as a "real" drive, without compression, on a given disk. The advantage of a clone as opposed to an image is that the detour through an image file is avoided. You can directly access the drive's clone without having to restore the drive itself. You do, however, require a lot more storage space for a clone than for an image.

**Important!** When cloning your Drive (Source Drive) the selected target drive will be overwritten. You should therefore save your copy on an external hard disk, either in an unused region or overwrite a previously selected drive purely for this purpose.

Why are temporary files created?

If you leave a drive unlocked during an imaging because, for instance, you want to continue working on that drive, the original status will be "cached", i.e. stored in the working memory buffer. "Temporary files" are created in the process. Space on the working memory buffer is, however, very limited. You can see how much is available in the Cache Status Display.

What is the advantage of an incremental image?

An incremental image normally has a smaller data volume as a base image. In addition, you can ascertain the differences, more precisely, the changes made since the base image was created.

My incremental image is not smaller than my base image. What is the reason for this?

This can occur if you have, for example, defragmented your computer in the meantime. The newly structured file segments will then be recognized as “changes” and imaged as new files.

What does "Drive cannot be locked" mean? Does this affect the data imaging?

Because of the constantly running system processes, your system partitions cannot normally be locked. You get this notification even when you want to image a data drive and this is directly integrated into the system processes. The notification doesn't generally have an effect on the imaging process; this is still able to be run without a problem. To be totally sure, shut down all running system applications, e.g. defragmentation or cloning processes, before imaging.

While imaging, O&O DiskImage reports that the target volume is too small although the source drive is smaller than the target volume. What is the reason for this?

Make sure you haven't selected the entire hard disk as your source. Example:

You have a hard disk with 100GB that is divided into two partitions:

- System partition (20GB)
- Data partition (80GB)
- While trying to save the system partitions on an external 40GB hard disk, O&O DiskImage reports that the target volume is too small.

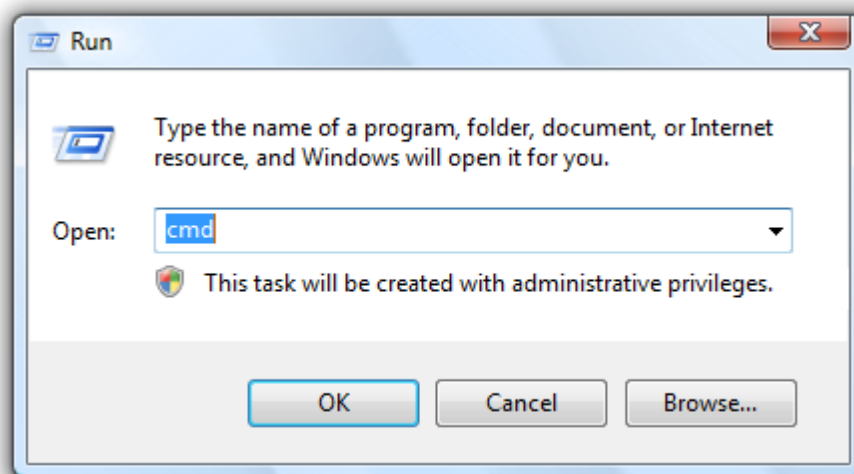
By just making a check, you can select the system partitions as your only source, and not the entire hard disk.

## Frequent Questions on Authentication

Where do I find the domain and user name, which I use to authenticate myself?

If you are not sure, please proceed as follows:

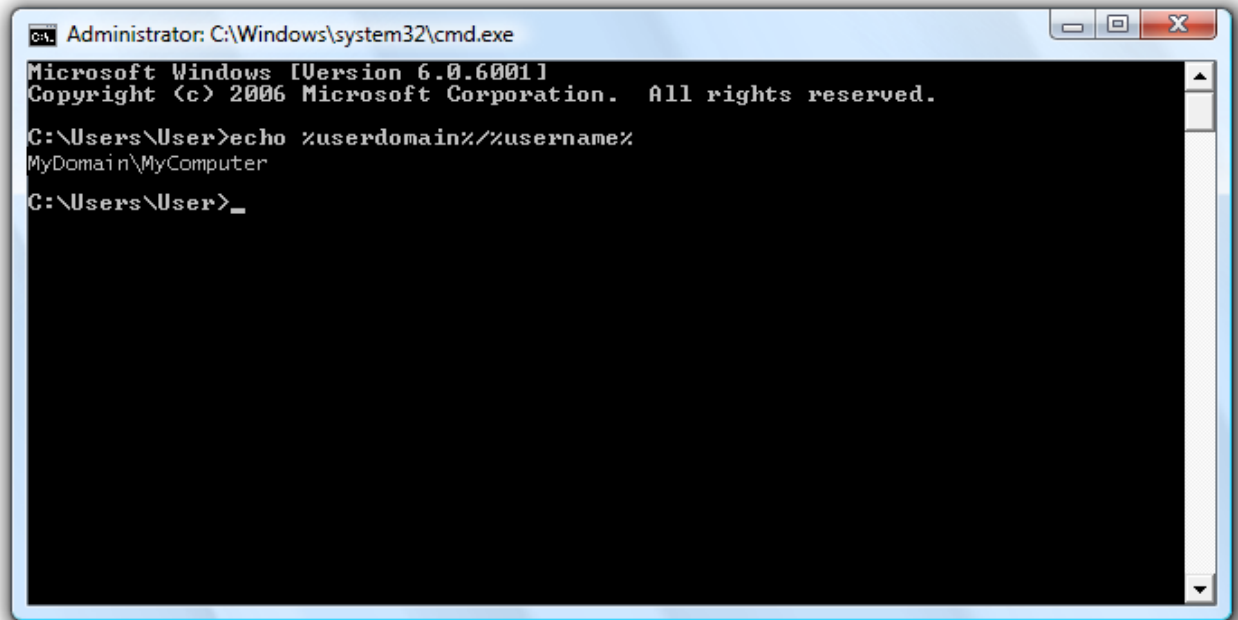
- Call the command line under Run in the Start menu. Enter the command `cmd` in the dialogue.



Call the command line

## Frequently Asked Questions

Enter the command: `echo %userdomain%\%username%` into the command line and confirm your entry with Enter. If your computer is not signed on to a domain, your computer name will appear instead of the domain name.



```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

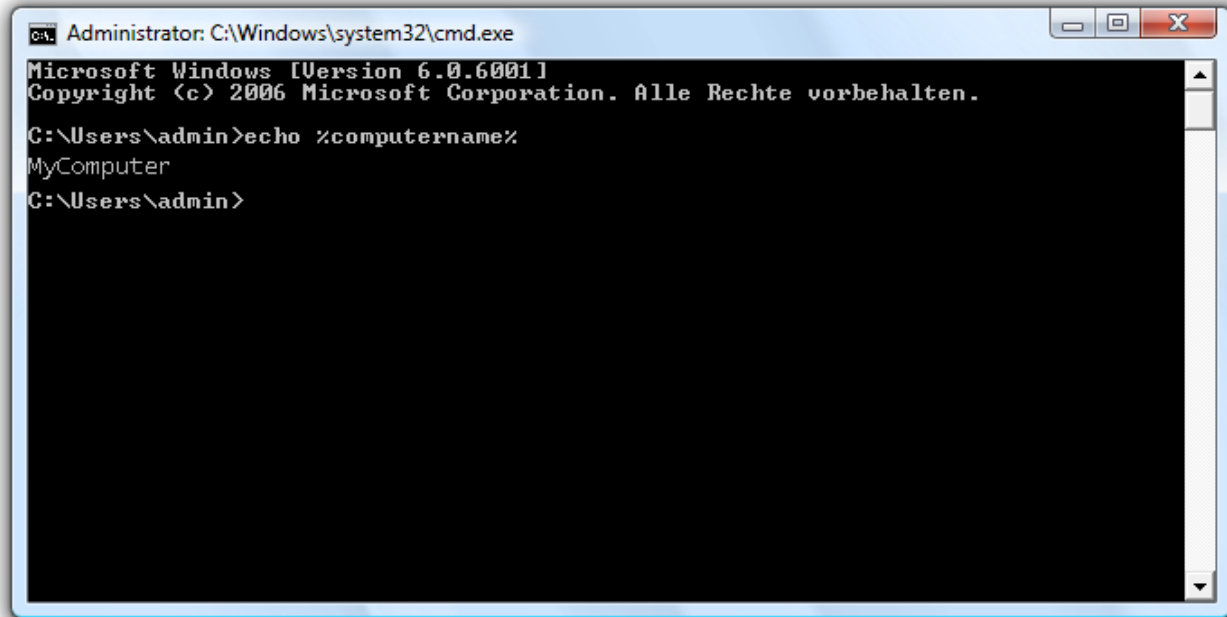
C:\Users\User>echo %userdomain%\%username%
MyDomain\MyComputer
C:\Users\User>_
```

Call the user name in the command name.

Where do I find the computer name, from which I can run activities?

If you are not sure, please proceed as follows:

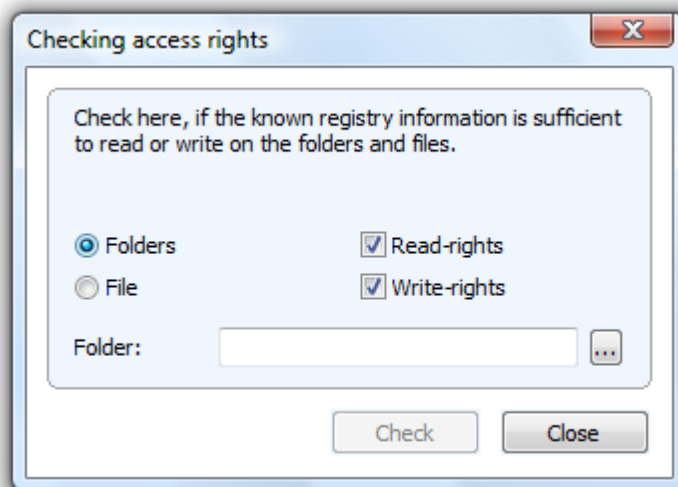
- Call the command line by typing `cmd` in the Start menu under Run.
- Enter the command: `echo %computername%` and confirm your entry with Enter.



Call the computer name in the command name.

How can I check my access rights on the target computer or the target folder?

If you are not sure if your entries are correct, you can go them in O&O DiskImage under Program settings/Security and recheck them.



Checking access rights in O&O DiskImage

Or you can your access rights on the target computer under Properties in the corresponding target folder under "Security".

- Click in the context menu of the folder on Properties and then on Security. All user will be listed that have access to the folders.

## Support and Contact

To receive more information about O&O DiskImage, please visit our website, <http://www.oo-software.com> and get the latest information about product developments and support. Also included on our website are regularly updated FAQs and Knowledge Bases that address the most common problems and questions regarding our products.

All registered customers receive installation and product support, free of charge, for the first 90 days after registration. When contacting our Support Team, please do not forget to have your registration code available.

In addition, it may be helpful to read the Frequently Asked Questions (FAQ) section of our website before contacting our Support Team. It is always possible that your specific problem may have already been addressed.

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## Authorized Resellers

Our authorized reseller partners in over 30 countries stand ready to assist you with answers to all questions regarding the licensing and purchase of our software products. Their names and addresses may be found on our website, under the heading "Partner - Find Resellers". We would also be more than happy to assist you in finding the partner closest to you.

# End user license agreement 2.1 (EULA)

O&O Software GmbH

General and Specialized Section

## General Section

### IMPORTANT - PLEASE READ CAREFULLY

This End User License Agreement (EULA) is organized into 2 sections: a general part, which is valid for all O&O products, and a specialized part, which includes the particular terms of each corresponding product. By accepting both parts of the license terms they automatically form part of your contract with O&O Software, Am Borsigturm 48, 13507 Berlin. If you have any questions regarding this contract and the license terms, our Service Team is available to help you under [info@oo-software.com](mailto:info@oo-software.com).

The software product is protected by copyright laws and international copyright contracts as well as other laws and agreements concerning intellectual property.

#### 1.Object and form of delivery

- (1) You receive the software covered by the contract in executable form (Binary code) together with the relevant documentation released by O&O according to Section (6).
- (2) The software provides the range of functions described in the given documentation. The documentation regarding functionality may be consulted prior to concluding the contract in the internet presentation on the following site <http://www.oo-software.com/>.
- (3) Delivery will be made according to the way in which you have purchased the software, either by having a disk directly handed over or sent by mail to an address you have supplied or through the forwarding of license as well as any required download information to a given E-mail address.
- (4) If you are currently receiving updates as part of a maintenance agreement, these will continue to be supplied in the same way as the initial software delivery, i.e., for a disk sent by mail, a disk containing the update will be sent to the given address: for electronically delivered keys, a key for downloading updates will be sent to the given E-mail address.
- (5) Changes to the delivery or E-mail address can only be taken into consideration when they are supplied in writing or by E-mail to the address or E-mail address indicated on <http://www.oo-software.com> at least two weeks before delivery of the update.
- (6) A printed copy of the documentation will not be included in delivery. The documentation consists primarily of electronic aids.

#### 2.Requirements for application (system requirements)

- (1) Installation of the software is not part of the agreement.
- (2) Depending on the software, there are certain system requirements that must be met in order to use the software according to the terms of this contract. These will be defined according to each product in the specialized section of this contract.

#### 3.Rights of use, including test versions, unauthorized transfer, and application

- (1) O&O grants you, upon payment of the agreed one-time fee, a permanent, spatially unlimited and non-exclusive right to use the software.

(2) Test versions - if you have installed a test version of one of our products taken from the O&O Website <http://www.oo-software.com/>, the right of use will be, according to the program, for a limited time only and/or technically restricted.

(3) One copy of the software is entitled to be used on a maximum of one (1) output device/workstation simultaneously.

(4) If you want to use the software on more than one output device/workstation, the rights of use must be extended accordingly. To find out which O&O products are also available as volume licenses, please consult (<http://www.oo-software.com/>). The separate price list concerning O&O Volume Licenses will apply to extending the rights of use without redelivery.

(5) Any use beyond that agreed upon in the contract is one in violation of the contract. In such a case, you are required to report this use that exceeds the rights of use to the supplier without any delay. The parties will then try to bring about an agreement for extending the rights of use. For the duration of the excessive usage, i.e., until the conclusion of such an agreement or the cessation of the excessive usage, you are required to pay compensation for this excessive usage according to the amount indicated in our price lists. The amount of compensation will be calculated on the basis of a four year, straight-line depreciation. If we are not informed of the excessive usage, a contract penalty in the amount three times the price of the usage indicated in the price list will be due O&O.

(6) You are entitled to create a backup copy of the software and to conduct ordinary data backups. The creation of more copies than the amount needed for the backing up of any future usage (including the backup copies and data backups) is not allowed.

(7) Copyrights and other trademarks within the software may not be altered or removed. They must be transferred onto every copy of the software.

(8) Unauthorized transfer - only when you have purchased the software with an accompanying disk are you permitted to transfer it and then, only under the following conditions: a resale of the software is only permitted when it involves an entire software copy, i.e., by surrendering your own usage of the purchased copy, you are entitled to transfer these rights of use of the disk onto a third party according to the terms of the agreement existing between you and O&O. When making such a transfer, you are required to hand over to the third party all materials related to the software that are covered in the contract and to delete the software from any storage volumes (e.g., hard disks) remaining in your possession.

(9) Unauthorized rental and service - The purchase of this contract does not entitle you to any public transfer or rental of the software. You are also not entitled to include the software as part of your providing services for and in the presence of any third parties. You may purchase an appropriate license from O&O for doing this.

#### 4.Payment

(1) The prices are given with the corresponding sales taxes included, unless otherwise indicated.

(2) Test versions - Downloads of test versions offered by O&O are provided free of charge, unless otherwise indicated.

(3) If you receive updates of your programs as part of a Maintenance Agreement, the terms of payment in these contracts will apply to these Maintenance Agreements.

(4) O&O is entitled to forward any data it has received onto third parties requiring it for purposes of collection.

(5) Until payment is made in full, O&O retains possession of all rights, particularly those concerning copyrighted rights of use, on the materials included in this contract. O&O is specifically entitled to cancel a

contract, for example, when your payment is delayed, it prohibits the further using of the software and demands the surrendering of all copies or this being impossible, to demand their deletion. Should a third party have access to the object of purchase before payment is completed for the contractual software, you are required to inform this third party about the object being the property of O&O and to inform O&O, in writing, about the third party's access.

#### 5. Material defect and defect of title

(1) The software package or download you receive is free of any material defect or defect of title.

(2) A material defect exists when the software is unable to be used as described in the documentation appearing on the website and included in delivery or available for downloading.

O&O is constantly checking to make sure that other sources are not misrepresenting the functions and properties of the software as described in the documentation. You can therefore assume that any descriptions beyond those found in the software documentation have not originated with O&O and are also unknown to it. Please inform O&O if you learn of any software descriptions that include functions and properties not mentioned in the documentation.

(3) Please inform O&O if you learn of any software descriptions that include functions and properties not mentioned in the documentation.

(4) Any claims concerning defects of material and/or title related to the software have a limitation period of two years subsequent to delivery of the program or transmission of the serial number needed for downloading. If you are not a private individual, the warranty period is shortened to one year.

If O&O has fraudulently concealed a material defect, a three year limitation period will cover claims related to this defect.

Payment for compensation that you might have been entitled to as a result of cancellation or an abatement can be refused upon expiration of the limitation period.

(5) You are required to inform O&O, in writing if possible, of any defects that arise immediately upon their discovery. While doing so you should also describe, as well as possible, how the defect is communicated, the effect it has on the program, and under which circumstances it occurs.

(6) Should defects be reported to O&O within the limitation period, it will undertake a cure free of charge.

(7) As part of the cure, the corrected software will be redelivered as agreed. An on-site analysis and correction of the error on your system will not take place.

O&O assumes the ensuing expenses for the cure, in particular the costs for transport, labor, and material. You are personally responsible for installation. O&O specifically does not assume on-site installation as part of its obligation with regard to defects of material or title.

Should a change of the program be required as part of the cure, O&O will make the necessary changes in the documentation without any charges.

(8) After the unsuccessful expiration of a deadline you set for cure, you can cancel the contract or reduce the purchase price and demand compensation instead of service or the replacement of any futile expenditures.

(9) A deadline is not required when

a) O&O refuses both kinds of cure, even if it is entitled to do so as a result of the arising expenses or

b) the cure is impossible or

c) the cure is unacceptable to you or

d) the cure is unsuccessful.

A subsequent improvement is considered a failure after the second unsuccessful attempt unless there is something particular about the type of software or the defect itself or the surrounding circumstances that would indicate otherwise.

(10) You are not entitled to cancel the contract if the defect is negligible, nor may you, in this event, demand compensation instead of full service.

(11) In the event of cancellation, compensation is due for any uses made. The compensation for use will be based on a four year, straight-line depreciation of the purchase price.

(12) As a result of the abatement, the purchase price will be reduced by the amount which is calculated for deducting the defect from the value of the software. The standard used will be its value at the time the contract was concluded. The amount, when necessary, is to be calculated by estimation. As a result of this reduction, any amount larger than that paid for the reduced purchase price will be refunded.

(13) If it turns out that a reported problem did not arise as a result of a defect in the software, O&O is entitled to invoice you, according to the amount charged in its price lists for such services, the expenses for analysis and correction of the problem if you can be accused of malice or gross negligence.

(14) The seller's warranty is canceled when changes are made on the software without expressed written consent or when the software is not used as intended or used in an improper software environment, unless you can prove that these facts had nothing to do with the problems that occurred.

#### 6. Limitation of compensation

(1) O&O is liable for compensation for every legal ground to the extent described in the following provisions.

(2) The extent of liability of O&O for damages caused by malice or gross negligence arising from O&O itself or one of its vicarious or legal agents is unlimited.

(3) There is no limit to the extent of liability of O&O or any of its legal or vicarious agents for damages involving injury to life, physical well-being or health, or for simple breach of duty.

(4) There is unlimited liability for damages caused by serious organizational fault on the part of O&O as well as for damages arising from a missing guaranteed characteristic.

(5) For the breach of an essential contractual duty, O&O is liable for damages normally foreseen in a contract when none of the instances in provisions (2) - (4) applies.

(6) Any further liability for compensation is excluded, specifically excluded is liability without fault.

(7) Liability as defined by the product liability law remains untouched.

(8) If damage can be traced to have arisen through a fault on the part of O&O as well as on the part of yourself, you must have your share of the fault evaluated.

You are responsible for making a standard backup of your data at least once a day. For data loss caused by O&O, O&O is only liable for the expense of duplicating the data on your backup copies that need to be created and for the restoration of data which would have also been lost during a standard backup procedure.

#### 7. Final provisions

(1) You may only balance claims from O&O with indisputable or legally valid claims.

(2) Changes and amendments to this contract must be made in writing. This also applies to changes to this provision.

(3) The contract is subject to German law. The uniform UN purchasing law (CISG) as well as the UNIDROIT Factoring Agreement of Ottawa do not apply.

(4) Any general terms and conditions on your part will not be applied.

In the event you are not a private individual or a resident of the Federal Republic of Germany, we agree that the district court in Berlin will be the competent court for litigation arising from this contract.

## 8. Contact

If you have any questions concerning the O&O Software License Agreement or wish to speak with O&O, please get in touch with us.

O&O Software GmbH, Am Borsigturm 48, 13507 Berlin, Germany.

Tel. +49 (0)30 4303 4303, Fax +49 (0)30 4303 4399

E-Mail [info@oo-software.com](mailto:info@oo-software.com) / [sales@oo-software.com](mailto:sales@oo-software.com), Web [www.oo-software.com](http://www.oo-software.com)

## Special section

### O&O BlueCon

#### Important note on the Windows PE Start CD

The Microsoft® Windows™ Preinstallation Environment contained in this hardware or this software may only be used for starting, diagnosing, setup, restoration, installation, configuration, testing or disaster recovery.

NOTE: THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER AFTER 72 HOURS OF CONTINUOUS USE.

#### Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

The product at hand can only be employed according to the acquired license. The following license types exist for O&O BlueCon:

#### O&O BlueCon Admin Edition

You are authorized to install and use the software product on all computers a) in the possession of the company (legal person or natural person(s) in the case of corporations) owning the license and b) all located at a single site. This license is bound to a single natural person and is non-transferable.

#### O&O BlueCon Tech Edition

You are authorized to install and use the software product on all computers. This includes computers that do not belong to the company owning the license (also known as Service Technician's License). This license is bound to a single natural person and is non-transferable.

#### O&O CleverCache

Amendment to: 2. Requirements for application (system requirements)

O&O CleverCache Professional Edition

The software requires the Windows 2000 Professional or Windows XP (all Editions) or Windows Vista (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

O&O CleverCache Server Edition

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

O&O Defrag

Amendment to: 2. Requirements for application (system requirements)

O&O Defrag Professional Edition

The software requires the Windows 2000 Professional or Windows XP (all Editions) or Windows Vista (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems. Control of the program through a network management is not possible.

O&O Defrag Workstation Edition

The software requires the operating systems Windows 2000 (all editions), Windows Server 2003 (all editions), Windows XP (all editions), Windows Vista (all editions), or Windows Server 2008 (all editions). Usage within the terms of this contract is not achieved without the application of these operating systems. The O&O Defrag Workstation Edition may be used on computers with or without the user interface. You are entitled to control this program over the separately obtainable network manager.

O&O Defrag Server Edition

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems. The O&O Defrag Server Edition may be used on computers with or without the user interface. You are entitled to control this program over the separately obtainable network manager.

O&O DiskImage

Important note on the Windows PE Start CD

This note is only valid for the O&O DiskImage Professional and the Server Edition Start CD. The Microsoft® Windows™ Preinstallation Environment (Windows PE) is not a part of O&O DiskImage Express and the Workstation Edition!

The Microsoft® Windows™ Preinstallation Environment contained in this hardware or this software may only be used for starting, diagnosing, setup, restoration, installation, configuration, testing or disaster recovery.

NOTE: THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER AFTER 72 HOURS OF CONTINUOUS USE.

Amendment to: 2. Requirements for application (system requirements)

O&O DiskImage Express Edition

The software requires the Windows 2000 Professional or Windows XP (all Editions) or Windows Vista (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems. Control of the program through a network management is not possible.

#### O&O DiskImage Professional Edition and Special Edition

The software requires the Windows 2000 Professional or Windows XP (all Editions) or Windows Vista (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems. Control of the program through a network management is not possible.

#### O&O DiskImage Workstation Edition

The software requires the operating systems Windows 2000 (all editions), Windows Server 2003 (all editions), Windows XP (all editions), Windows Vista (all editions), or Windows Server 2008 (all editions). Usage within the terms of this contract is not achieved without the application of these operating systems. The O&O DiskImage Workstation Edition may be used on computers with or without the user interface. You are entitled to control this program over the separately obtainable network manager.

#### O&O DiskImage Server Edition

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems. The O&O DiskImage Server Edition may be used on computers with or without the user interface. You are entitled to control this program over the separately obtainable network manager.

Amendment to: 3. Rights of use, including test versions, unauthorized transfer, and application

#### Creation and restoration of images

The source computer and each target computer are required to hold licenses, to create and restore images using O&O DiskImage. One license is sufficient under the previously mentioned terms, if the source and the target computer is one non-virtual workstation. Each virtual machine is seen as an independent computer; in other words, each virtual machine needs its own license.

#### O&O DiskRecovery

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

The product at hand can only be employed according to the acquired license. The following license types exist for O&O DiskRecovery:

#### O&O DiskRecovery Personal Edition

You are authorized to install and use the software product on only one computer. Other limitations may apply in the software itself. Please consult the software documentation for more information on these limitations.

#### O&O DiskRecovery Admin Edition

You are authorized to install and use the software product on all computers

a) in the possession of the company (legal person or natural person(s) in the case of corporations) owning the license and b) all located at a single site. This license is bound to a single natural person and is non-transferable.

#### O&O DiskRecovery Tech Edition

You are authorized to install and use the software product on all computers. This includes computers that do not belong to the company owning the license (also known as Service Technician's License). This license is bound to a single natural person and is non-transferable.

#### O&O DiskStat

Amendment to: 2. Requirements for application (system requirements)

#### O&O DiskStat Professional Edition

The software requires the Windows 2000 Professional or Windows XP (all Editions) or Windows Vista (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O DiskStat Workstation Edition

The software requires the operating systems Windows 2000 (all editions), Windows Server 2003 (all editions), Windows XP (all editions), Windows Vista (all editions), or Windows Server 2008 (all editions). Usage within the terms of this contract is not achieved without the application of these operating systems. The O&O DiskStat Workstation Edition may be used on computers with or without the user interface. You are entitled to control this program over the separately obtainable network manager.

#### O&O DiskStat Server Edition

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O DriveLED

Amendment to: 2. Requirements for application (system requirements)

The software requires the operating systems Windows 2000 (all editions), Windows Server 2003 (all editions), Windows XP (all editions). Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O Enterprise Management Console

##### Important note on the Microsoft SQL Server

This product uses the Microsoft SQL Server or Microsoft SQL Server Express Edition. To the extent that these programs are part of the installation of this product, the terms of their licensing related to the use of this software will also apply to the terms of this agreement.

The use of Microsoft SQL Server Express Edition is free of charge in conjunction with this product. The purchase of licenses for O&O Enterprise Management Console and related products is separate from any possible purchase of SQL Server products.

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O FormatRecovery

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

The product at hand can only be employed according to the acquired license. The following license types exist for O&O

FormatRecovery:

##### O&O FormatRecovery Personal Edition

You are authorized to install and use the software product on only one computer. Other limitations may apply in the software itself. Please consult the software documentation for more information on these limitations.

##### O&O FormatRecovery Admin Edition

You are authorized to install and use the software product on all computers a) in the possession of the company (legal person or natural person(s) in the case of corporations) owning the license and b) all located at a single site. This license is bound to a single natural person and is non-transferable.

##### O&O FormatRecovery Tech Edition

You are authorized to install and use the software product on all computers. This includes computers that do not belong to the company owning the license (also known as Service Technician's License). This license is bound to a single natural person and is non-transferable.

#### O&O MediaRecovery

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O PartitionManager

Important note on the Windows PE Start CD

The Microsoft® Windows™ Preinstallation Environment contained in this hardware or this software may only be used for starting, diagnosing, setup, restoration, installation, configuration, testing or disaster recovery.

NOTE: THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER AFTER 72 HOURS OF CONTINUOUS USE.

Amendment to: 2. Requirements for application (system requirements)

##### O&O PartitionManager Professional Edition

## End user license agreement 2.1 (EULA)

The software requires the operating systems Windows 2000 (all editions), Windows Server 2003 (all editions), Windows XP (all editions), Windows Vista (all editions), or Windows Server 2008 (all editions). Usage within the terms of this contract is not achieved without the application of these operating systems.

### O&O RegEditor

#### Important note for working with the Microsoft Windows Registry

Before making changes to the Microsoft Windows Registry (in the following Registry), you should prepare a backup copy of the Registry and ensure that you'll be able to restore the Registry if a problem should arise.

O&O formally declares that it is not responsible for damages arising from the improper use of O&O RegEdit. Changes to the Registry should only be made by experienced users who are aware of the consequences of such changes. A defective Registry can influence the entire stability of the system and lead to a crash of the computer or make it unable to start. This can further lead to loss of data.

#### Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### Amendment to: 4. Payment

O&O demands no fee for the use of this license. In addition, a fee for this license and this program may not be demanded by any Third Parties, unless this is done with the expressed approval of O&O. When in doubt, please get in touch with us.

### O&O RescueBox

#### Important note on the Windows PE Start CD

The Microsoft® Windows™ Preinstallation Environment contained in this hardware or this software may only be used for starting, diagnosing, setup, restoration, installation, configuration, testing or disaster recovery.

NOTE: THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER AFTER 72 HOURS OF CONTINUOUS USE.

#### Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

The product at hand can only be employed according to the acquired license. The following license types exist for O&O RescueBox:

#### O&O RescueBox Personal Edition

You are authorized to install and use the software product on only one computer. Other limitations may apply in the software itself. Please consult the software documentation for more information on these limitations.

#### O&O RescueBox Admin Edition

You are authorized to install and use the software product on all computers a) in the possession of the company (legal person or natural person(s) in the case of corporations) owning the license and b) all located at a single site. This license is bound to a single natural person and is non-transferable.

#### O&O RescueBox Tech Edition

You are authorized to install and use the software product on all computers. This includes computers that do not belong to the company owning the license (also known as Service Technician's License). This license is bound to a single natural person and is non-transferable.

#### O&O SafeErase

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

#### O&O UnErase

Amendment to: 2. Requirements for application (system requirements)

The software requires the Windows 2000 (all Editions), Windows Server 2003 (all Editions), Windows XP (all Editions), Windows Vista (all Editions) or Windows Server 2008 (all Editions) operating systems. Usage within the terms of this contract is not achieved without the application of these operating systems.

The product at hand can only be employed according to the acquired license. The following license types exist for O&O UnErase:

#### O&O UnErase Personal Edition

You are authorized to install and use the software product on only one computer. Other limitations may apply in the software itself. Please consult the software documentation for more information on these limitations.

#### O&O UnErase Admin Edition

You are authorized to install and use the software product on all computers a) in the possession of the company (legal person or natural person(s) in the case of corporations) owning the license and b) all located at a single site. This license is bound to a single natural person and is non-transferable.

#### O&O UnErase Tech Edition

You are authorized to install and use the software product on all computers. This includes computers that do not belong to the company owning the license (also known as Service Technician's License). This license is bound to a single natural person and is non-transferable.