



PARAGON Technologie GmbH, Systemprogrammierung

Heinrich-von-Stephan-Str. 5c ● 79100 Freiburg, Germany

Tel. +49 (0) 761 59018201 ● Fax +49 (0) 761 59018130

Internet www.paragon-software.com ● Email sales@paragon-software.com

PARAGON VIRTUALIZATION MANAGER

REVIEWER'S GUIDE

Product Concept	3
Product Key Differentiators	3
Primary Audience	3
Getting Started	3
Recommended Target Environment	3
Supported Virtual Machines	4
Installation	4
First Start	4
Possible Use Cases	6
Consumer Relevant.....	6
Corporate Relevant.....	7
Step-by-Step Scenarios	7
P2V Scenarios	7
P2P Scenarios	16
Connecting Virtual Disks	19
Extra Scenarios for WinPE CD.....	25
Conclusion	29
Known Issues	29
For P2V Scenarios	29
For P2P Scenarios	30
Participation in Beta Testing	30
Report Template.....	30

PRODUCT CONCEPT

Paragon Virtualization Manager is a powerful tool for system migration that can help you easily migrate a Windows based system to a virtual environment (P2V) of a major virtualization software vendor, no matter if it's currently online or being backed up with Paragon software. It also lets you make a crippled system transferred to virtual hardware with a 3rd party tool 100-percent bootable.

As a useful bonus, Paragon Virtualization Manager enables to successfully migrate a Windows based system to a different hardware platform (P2P) by allowing automatic injection of all required drivers and the other actions crucial for a migration of this kind.

PRODUCT KEY DIFFERENTIATORS

The key differentiators of the product are:

- ✓ One solution for P2V/P2P system migration;
- ✓ Fixing the startup ability after unsuccessful virtualization with 3rd party tools;
- ✓ Guaranteed support for any Windows operating system since Win2K;
- ✓ Zero-install accomplishment of any operation with WinPE 2.1 CD;
- ✓ Easy size setup for virtual disks with the partition auto-resize option.

PRIMARY AUDIENCE

Paragon Virtualization Manager can boast a completely wizard-driven intuitive interface, that's why not only IT pros, but also inexperienced users can find it easy and efficient. So it's not limited to a particular target market.

GETTING STARTED

RECOMMENDED TARGET ENVIRONMENT

Paragon Virtualization Manager can operate smoothly on different computer configurations. Below you can find the product minimal system requirements:

WINDOWS INSTALLATION

- ✓ Operating systems: Windows 2000 Professional and later versions
- ✓ Internet Explorer 5.0 or higher
- ✓ Intel Pentium CPU or its equivalent, with 300 MHz processor clock speed
- ✓ 128 MB of RAM (256+ recommended)
- ✓ Hard disk drive with 100 MB of available space
- ✓ SVGA video adapter and monitor
- ✓ Mouse

WINPE RECOVERY CD

- ✓ Intel Pentium III CPU or its equivalent, with 1000 MHz processor clock speed
- ✓ At least 512 MB of RAM
- ✓ SVGA video adapter and monitor
- ✓ Mouse

ADDITIONAL REQUIREMENTS

Network card is required to send/retrieve data to/from a network computer.

SUPPORTED VIRTUAL MACHINES

Paragon Virtualization Manager provides support for major virtual machines presented on the market today:

- ✓ Microsoft Virtual PC;
- ✓ Microsoft Virtual Server;
- ✓ Microsoft Hyper-V;
- ✓ VMware Workstation;
- ✓ VMware Fusion;
- ✓ VMware ESX Server.

INSTALLATION

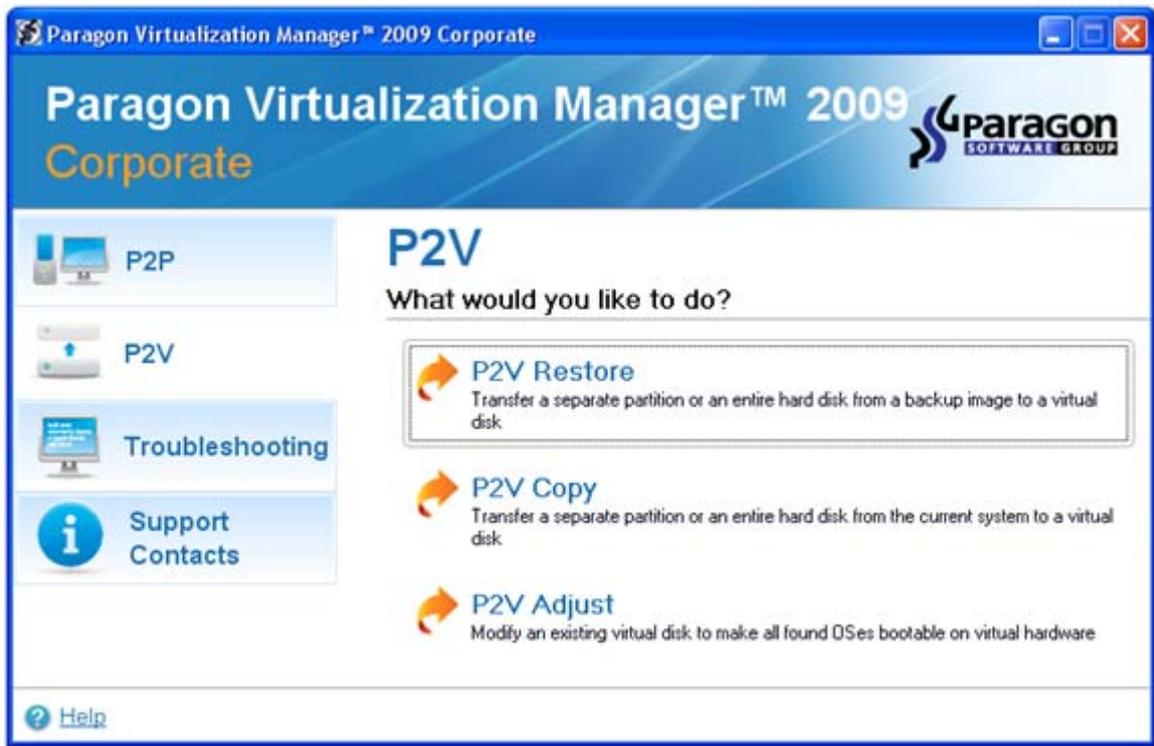
The setup utility has the standard user interface and set of installation steps. Once the installation procedure is completed you need to restart the system to activate a system driver that will enable to copy locked partitions/hard disks online (an obligatory action).

FIRST START

Work algorithm and user interface of the program under Windows and WinPE CD are just the same, which adds to the whole usability. The only difference between the two lies in the way the program is to be launched.

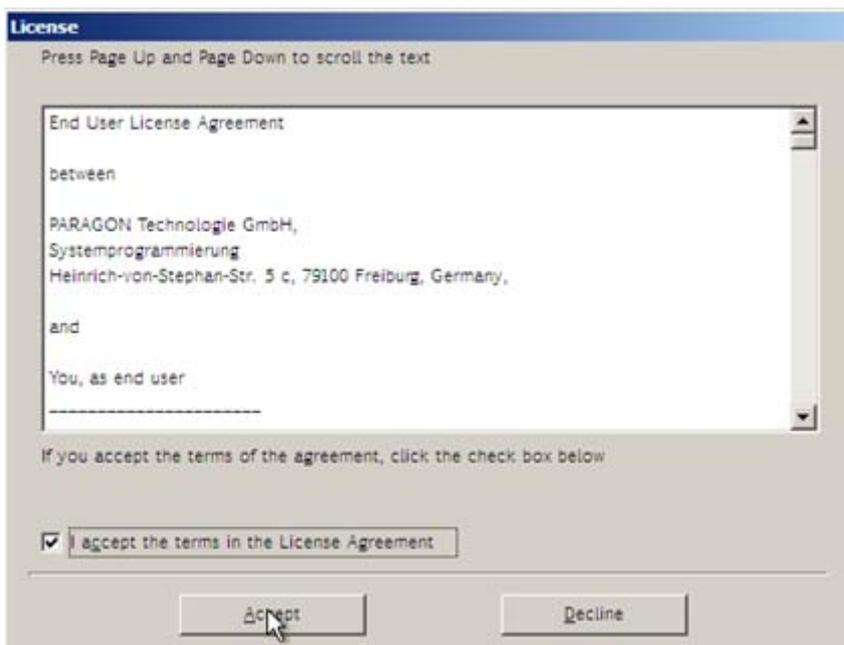
UNDER WINDOWS

1. Click the Windows Start button and then select: **Programs > Paragon Software > Paragon Virtualization Manager**.
2. The first component that will be displayed is called the Express Launcher. Thanks to a well thought-out categorization and hint system, it provides quick and easy access to the program wizards. With its help you can also start up the help system, prepare log files for Paragon Support Team, or go to the program's home page.



UNDER WINPE CD

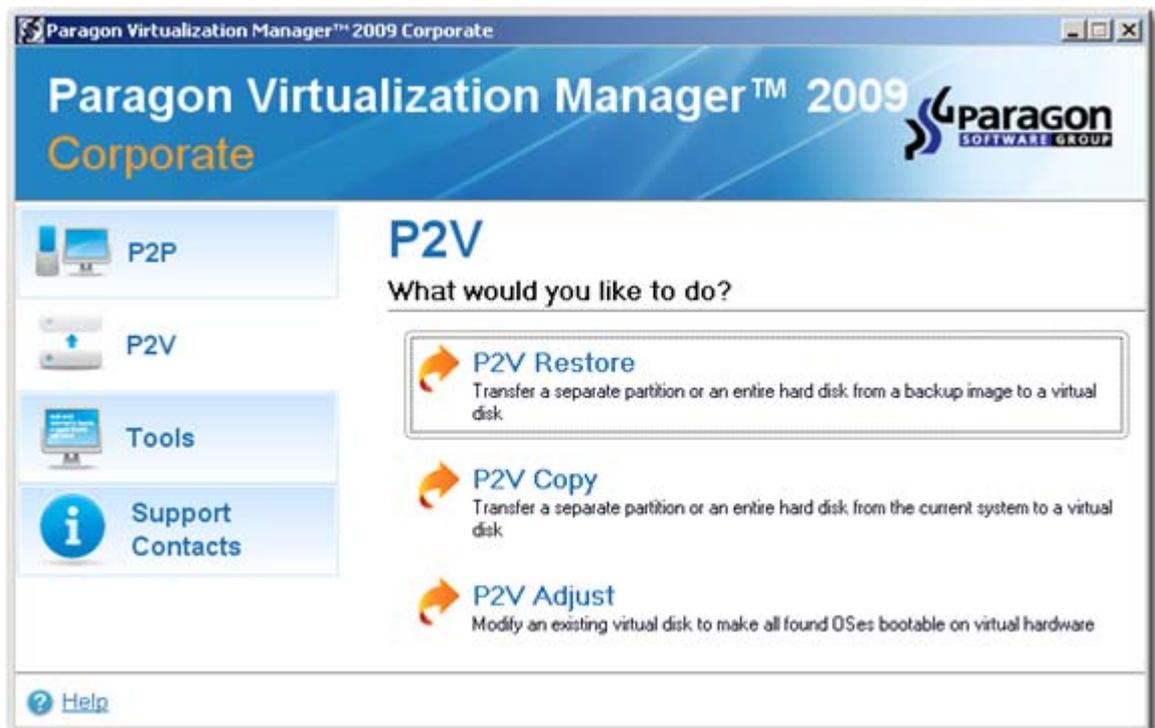
1. Insert the WinPE CD into a CD/DVD drive.
2. Reboot the computer.
3. After the disc has been loaded, you will see the License Agreement. Read the agreement and then mark the appropriate checkbox to accept. If you do not agree with any conditions stated there, you won't be able to use the program.



To automatically boot from the CD please make sure the on-board BIOS is set up to boot from CD first.



4. Once you accept the agreement, you will see just the same launcher as the Windows version does have. There are only two peculiarities you need to know:
 - o The **Troubleshooting** section is renamed to **Tools**;
 - o Where you can find two more options relevant for WinPE CD only, i.e. the **Add Drivers** dialog to make the process of adding new drivers for undefined hardware smooth and easy, and **Network Configurator** to establish a network connection.



POSSIBLE USE CASES

Paragon Virtualization Manager is good at tackling any task that has to do with the system migration, no matter which segment you're dealing with, consumer or corporate.

CONSUMER RELEVANT

- ✓ Let's assume that you're about to migrate to a brand-new hardware platform with the latest operating system available for it. Your current system is quite obsolete, but you still need access to some of its software. You don't want to waste time re-installing the old software to the new system, and you do know for sure that the bulk of it won't work anyway. The best way out is to virtualize your old system.
- ✓ Let's assume that your system has been corrupted as a result of a hardware failure. You realize it's been quite obsolete and it's next to impossible to replace the damaged hardware devices. Migration to a new hardware platform seems the best way out, if not for one thing - you still need access to your software, but you do know for sure that the bulk of it won't work on the new platform. Luckily you've got a backup image of your old system made with Paragon software - that's just enough for its virtualization.
- ✓ Let's assume you had to migrate to a new hardware platform. Willing to conserve your system, you decided to virtualize it with a 3rd party tool, but unsuccessfully - you got a virtual disk as a result of the operation, but the system was failing to start up. You had nothing to do but forget about your old system. With our program you've now got the option to make your virtualized system bootable.
- ✓ Let's assume you had to migrate to a new hardware platform. You just connected your system hard disk to the brand new PC and tried to start up the operating system - you do know for sure now that this operation had been doomed to failure from the very beginning. With our program you can easily tackle this naughty problem.

- ✓ Let's assume you need to try new software but are very much concerned about its stability. Moreover you do suspect it could damage your system. The best way out is to create a virtual clone of your physical system to try and decide whether new software is safe and exactly what you need or not.
- ✓ Let's assume you're a big fan of different operating systems. You want to run them all on your computer, though with the option to dispose of any with the minimal efforts possible. Virtualization is what you need – you can have several completely incompatible operating systems on one PC, including Windows, Linux, Mac OS X, whatever. And when you feel like getting rid of one of your systems, you can just delete the required virtual machine like an ordinary folder. That's it.

CORPORATE RELEVANT

- ✓ Let's assume you're a chief system administrator working for a mid-sized company. You've got a task to minimize capital costs for administrating the company's computer park while guaranteeing business continuity. The best way out is to migrate some of your servers to a virtual environment, thus you can considerably cut expenses on hardware and energy, squeeze IT personnel, while providing for increased availability of hardware and applications.
- ✓ Let's assume you're a chief system administrator working for a mid-sized company. You've got a task to offer and implement a reliable disaster recovery plan. The most efficient disaster recovery plan is now closely associated with system virtualization. By creating virtual clones of existing workstations and servers, you can provide for better business continuity, as in this case you don't need to wait for replacement of the failed hardware, you can just launch a virtual clone of the required system on any available computer.
- ✓ Let's assume the company's Exchange server has been damaged as a result of a power outage. You, as a diligent system administrator, have got its backup image made with Paragon software, the only thing you need is to replace the damaged hardware devices and accomplish the restore operation. But you don't have these devices at the disposal, so you need to order them - this takes time, the time you can't afford as that means lost revenue for the company. The best way out is to virtualize your server from its backup image and then unroll it on some other server in a virtual environment until you've got the spare parts to repair your Exchange server. This way you can considerably minimize the server downtime.

STEP-BY-STEP SCENARIOS

As we've already mentioned, Paragon Virtualization Manager can boast a completely wizard-driven intuitive interface. Actually there are four main migration wizards:

- ✓ [P2V Copy](#) to migrate a physical system to a virtual disk;
- ✓ [P2V Restore](#) to migrate a physical system backed up with Paragon software to a virtual disk;
- ✓ [P2V Adjust](#) to recover the startup ability after unsuccessful system virtualization accomplished with a 3rd party tool;
- ✓ [P2P Adjust](#) to migrate a physical system to a different hardware platform.

And three supplementary dialogs:

- ✓ [Log Saver](#) to prepare a log files package and send support requests to the Paragon Support Team;
- ✓ [Add Drivers](#) to make the process of adding new drivers for undefined hardware smooth and easy (only for WinPE CD);
- ✓ [Network Configurator](#) to establish a network connection (only for WinPE CD).

P2V SCENARIOS

VIRTUALIZING THE CURRENT SYSTEM

To make a virtual disk out of your current system, please do the following:

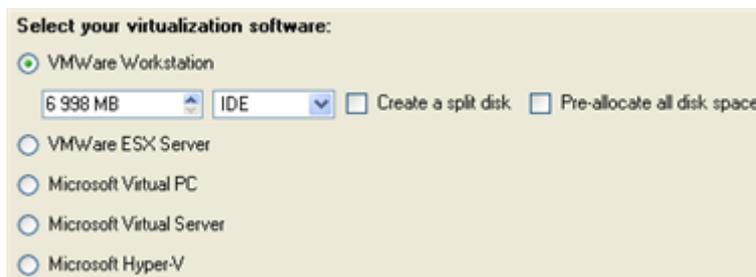
1. Launch **P2V Copy Wizard**.



2. On the Wizard's Welcome page, click the Next button.
3. Select either an entire hard disk or only the system partition you want to make a virtual disk of.



4. Choose your virtualization software vendor and a number of additional parameters, including.
 - Type of the virtual disk.** You can either create an IDE or a SCSI virtual disk (relevant for VMware only);
 - Create a split disk.** You can choose whether to automatically cut the resulted virtual image to files of 2 GBs or not (available for VMware only);
 - Pre-allocate all disk space.** You can choose whether to pre-allocate all space of the future virtual disk, or do it dynamically;



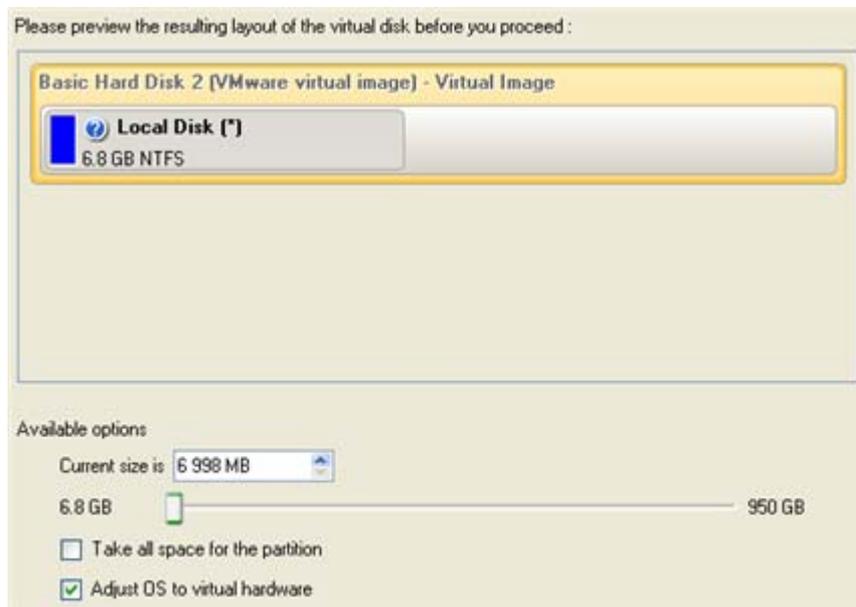
Not all vendors may be available to choose. If the capacity of the selected object exceeds the maximum capacity for a certain virtual disk, its vendor will be shadowed.

5. Depending on your choice the next page of the wizard enables to set the following parameters:

For a separate partition

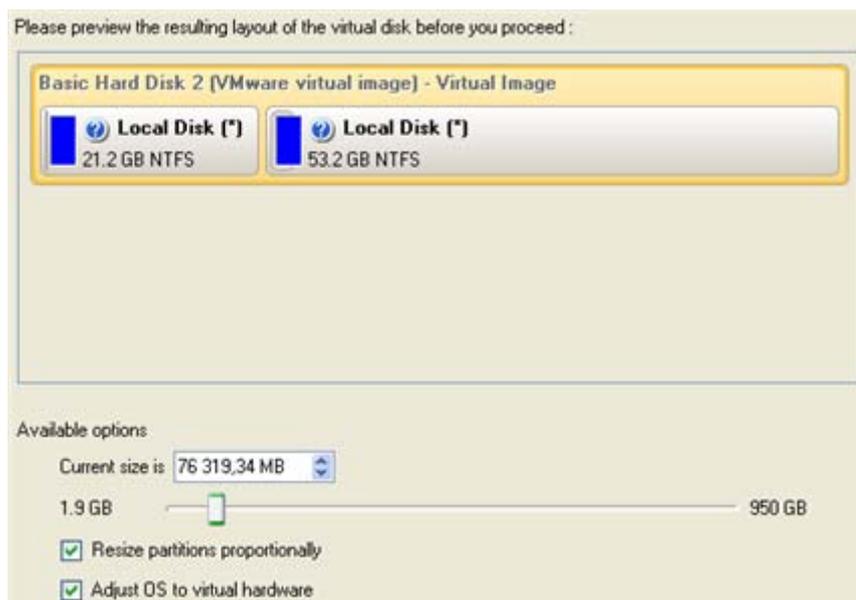
- Size of the virtual disk.** By default the program offers to create a virtual disk exactly the size of the selected object, which you can upsize however. Please note, you can only increase size of the resulted virtual disk;

- ❑ **Take all space for the partition.** If you upsize the resulted virtual disk, you can choose whether to occupy the whole disk space by that partition or not;
- ❑ **Adjust OS to virtual hardware** to make sure the operating system will be bootable after the operation.



For a hard disk

- ❑ **Size of the virtual disk.** By default the program offers to create a virtual disk exactly the size of the selected object, which you can resize however.
- ❑ **Resize partitions proportionally.** If you upsize the resulted virtual disk, you can make the program proportionally change the size of partitions keeping their relative order intact.
- ❑ **Adjust OS to virtual hardware** to make sure the operating system will be bootable after the operation.



The maximum limit you can downsize the virtual disk is the capacity of its first partition.

6. On the next page of the wizard set a file name for the resulted virtual disk and its location. Besides you can also provide a path to the integration package of your virtualization software.

File name for the virtual disk:

G:/vdisk/vmdk Browse...

The virtual disk will take about 3.1 GB on New Volume (G:). There will be still 124.2 GB of free space on the volume after creating the file.

Specify a path for additional drivers:

Enter a file name here Browse...

Please provide a path to VM Tools/Additions ISO image (e.g. 'windows.iso' for VMware Tools) to use when a virtual device driver is required. If you transfer Windows XP to a VMware SCSI disk, it should be done anyway.



It's strongly recommended to provide a path to VM Tools/Additions ISO image if you transfer Windows XP to a VMware SCSI disk, otherwise your system won't boot after the operation.

7. Apply the changes by confirming the operation.

 The Wizard has not applied your changes yet. On this page, you can either accept or reconsider the changes.

Please note that if you accept the changes, the Wizard will **physically** perform all the necessary operations and it will not be possible to **interrupt this process** or **undo the changes**.

It may take some time to apply the changes. You may also be asked to restart your computer during this process.

Would you like to apply your changes ?

Yes, apply the changes physically.

No, let me reconsider.

8. The wizard will provide a detailed report on successful accomplishment of the operation. You can save it by clicking the appropriate button.

Operations details:

6.8 GB volume 0 has been successfully transferred to a VMWare Workstation virtual disk. It is 6.8 GB in size and is placed to G:/vdisk/vmdk.

The following OSes have been successfully adjusted to the required virtual hardware:

- Microsoft Windows XP x86 on primary partition 0

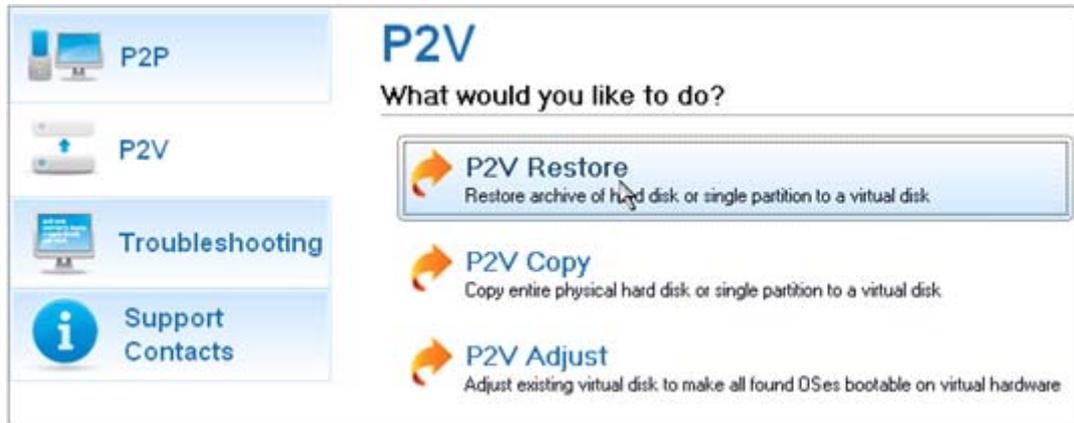
Save

[Now you can connect the resulted virtual disk to your virtual machine.](#) Your system has been virtualized.

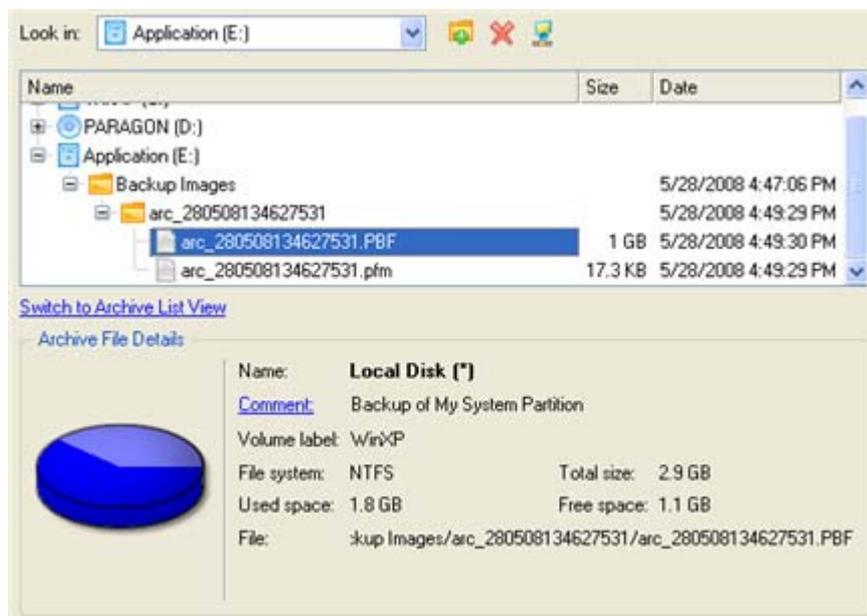
VIRTUALIZING SYSTEM FROM ITS BACKUP IMAGE

To make a virtual disk out of your old system backed up with a Paragon disaster recovery tool, please do the following:

1. Launch **P2V Restore Wizard**.



2. On the Wizard's Welcome page, click the Next button.
3. Browse for the required backup image of your old system. The section below (i.e. Archive File Details) will also display a short description of the selected image.



4. On the next page specify exactly what you need to virtualize, only the system partition or the entire hard disk (in case you have to do with a hard disk backup image).

Archive Content

Name	Type	File system	Size	Used
Basic Hard Disk 0 (Unknown Model)	Basic Hard Disk Drive		74.5 GB	
Local Disk (*)	Primary	NTFS	1.9 GB	574.7 MB
Local Disk (*)	Primary	NTFS	4.8 GB	2.5 GB

Archive Details



Name: **Basic Hard Disk 0 (Unknown Model)**
 Type: Basic Hard Disk Drive
 Total size: 74.5 GB

5. Choose your virtualization software vendor and a number of additional parameters, including.
- Type of the virtual disk.** You can either create an IDE or a SCSI virtual disk (relevant for VMware only);
 - Create a split disk.** You can choose whether to automatically cut the resulted virtual image to files of 2 GBs or not (available for VMware only);
 - Pre-allocate all disk space.** You can choose whether to pre-allocate all space of the future virtual disk, or do it dynamically;

Select your virtualization software:

VMWare Workstation

VMWare ESX Server

76 319,34 MB SCSI

Microsoft Virtual PC

Microsoft Virtual Server

Microsoft Hyper-V

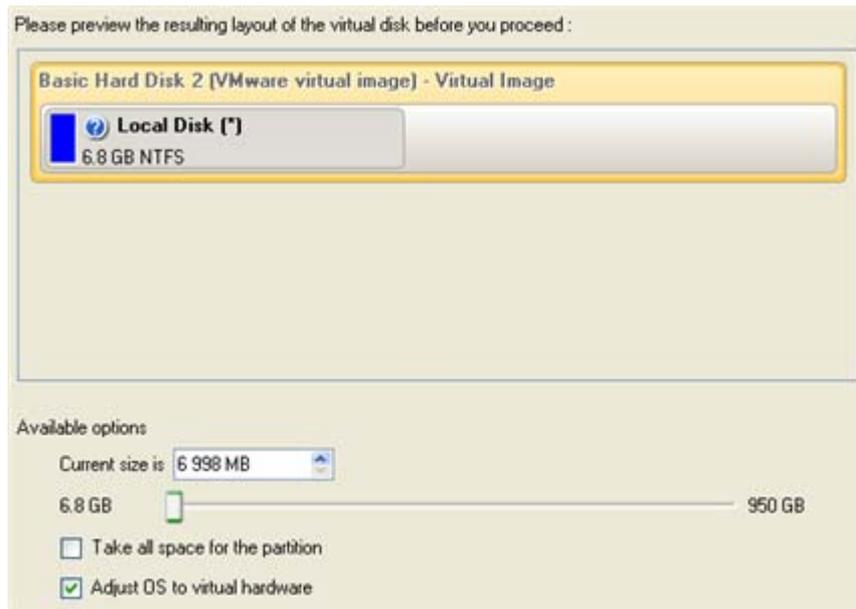


Not all vendors may be available to choose. If the capacity of the selected object exceeds the maximum capacity for a certain virtual disk, its vendor will be shadowed.

6. Depending on your choice the next page of the wizard enables to set the following parameters:

For a separate partition

- Size of the virtual disk.** By default the program offers to create a virtual disk exactly the size of the selected object, which you can upsize however. Please note, you can only increase size of the resulted virtual disk;
- Take all space for the partition.** If you upsize the resulted virtual disk, you can choose whether to occupy the whole disk space by that partition or not;
- Adjust OS to virtual hardware** to make sure the operating system will be bootable after the operation.



For a hard disk

- Size of the virtual disk.** By default the program offers to create a virtual disk exactly the size of the selected object, which you can resize however.
- Resize partitions proportionally.** If you upsize the resulted virtual disk, you can make the program proportionally change the size of partitions keeping their relative order intact.
- Adjust OS to virtual hardware** to make sure the operating system will be bootable after the operation.



The maximum limit you can downsize the virtual disk is the capacity of its first partition.

7. On the next page of the wizard set a file name for the resulted virtual disk and its location. Besides you can also provide a path to the integration package of your virtualization software.

File name for the virtual disk:

G:/vdisk2.vmdk Browse...

The virtual disk will take about 3 GB on New Volume (G:). There will be still 120.8 GB of free space on the volume after creating the file.

Specify a path for additional drivers

Enter a file name here Browse...

Please provide a path to VM Tools/Additions ISO image (e.g. 'windows.iso' for VMware Tools) to use when a virtual device driver is required. If you transfer Windows XP to a VMware SCSI disk, it should be done anyway.



It's strongly recommended to provide a path to VM Tools/Additions ISO image if you transfer Windows XP to a VMware SCSI disk, otherwise your system won't boot after the operation.

- Apply the changes by confirming the operation.

 The Wizard has not applied your changes yet. On this page, you can either accept or reconsider the changes.

Please note that if you accept the changes, the Wizard will **physically** perform all the necessary operations and it will not be possible to **interrupt this process** or **undo the changes**.

It may take some time to apply the changes. You may also be asked to restart your computer during this process.

Would you like to apply your changes ?

Yes, apply the changes physically.

No, let me reconsider.

- The wizard will provide a detailed report on successful accomplishment of the operation. You can save it by clicking the appropriate button.

Operations details:

Disk 0 from a 74.5 GB backup image located in Z:/images/Paragon/.../arc_080609213237953.PBF has been successfully transferred to VMWare ESX Server virtual disk. It is 74.5 GB in size and is placed to G:/vdisk2.vmdk.

The following OSes have been successfully adjusted to the required virtual hardware:

- Microsoft Windows 2000 x86 on primary partition 0
- Microsoft Windows XP x86 on primary partition 1

Save

[Now you can connect the resulted virtual disk to your virtual machine.](#) Your old system has been virtualized from its backup image.

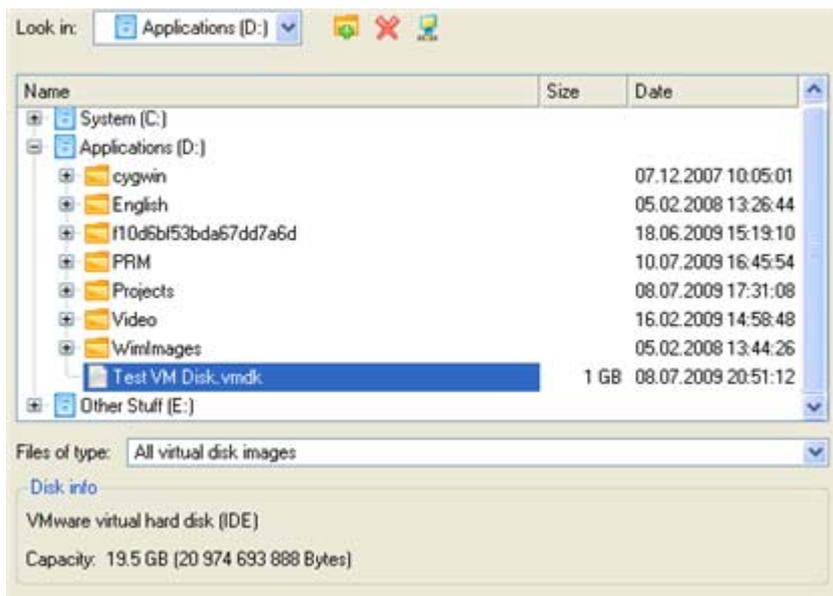
MAKING SYSTEM BOOTABLE ON VIRTUAL HARDWARE

To recover bootability after migrating your physical system to a virtual disk with a 3rd party tool, please do the following:

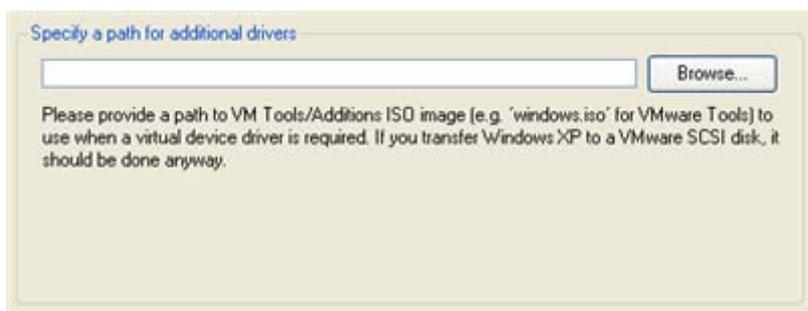
1. Launch **P2V Adjust Wizard**.



2. On the Wizard's Welcome page, click the Next button.
3. Browse for the required virtual disk.



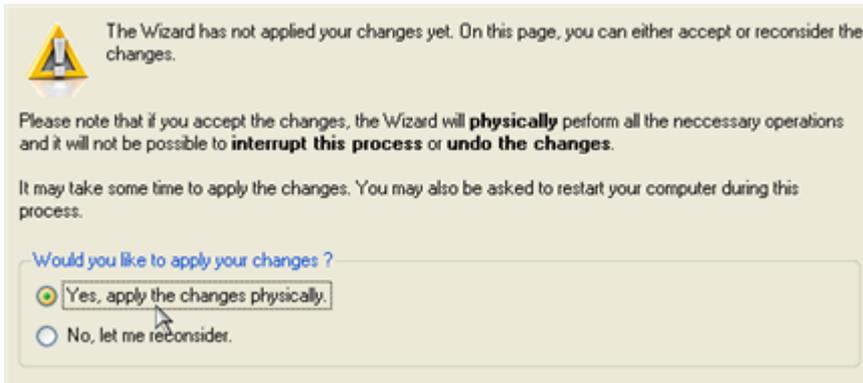
4. Provide a path to the integration package of your virtualization software.



It's strongly recommended to provide a path to VM Tools/Additions ISO image if you transfer Windows XP to a VMware SCSI disk, otherwise your system won't boot after the operation.



5. Apply the changes by confirming the operation.



6. The wizard will provide a detailed report on successful accomplishment of the operation. You can save it by clicking the appropriate button.



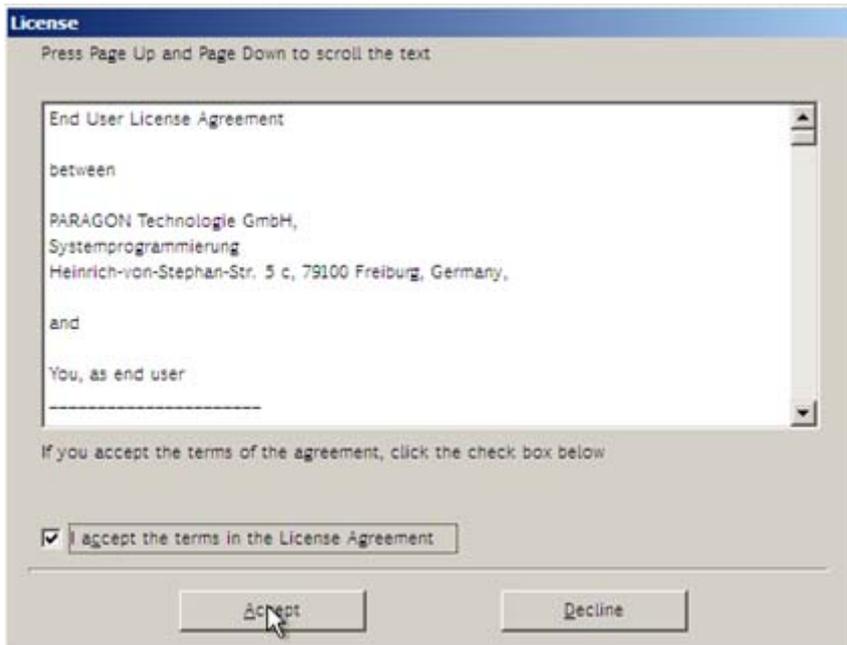
Now your virtualized system is 100-percent bootable.

P2P SCENARIOS

MAKING SYSTEM BOOTABLE ON DIFFERENT HARDWARE

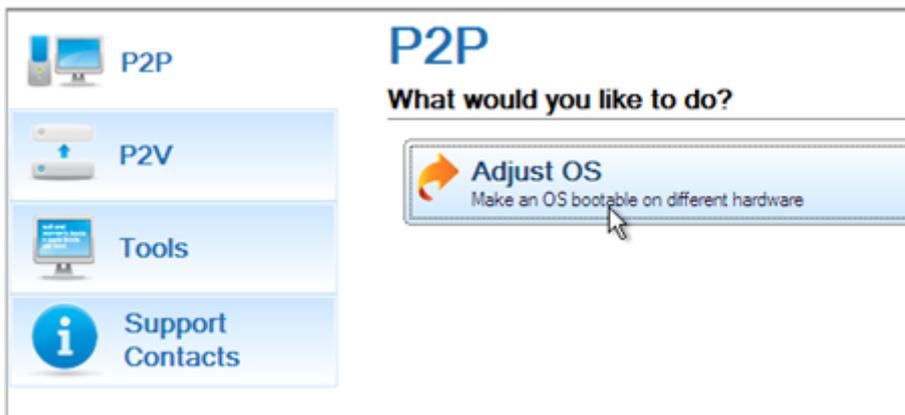
To recover bootability after migrating your physical system to different hardware, please do the following:

1. Insert WinPE CD (the BIOS must be enabled to boot the system from the CD/DVD device).
2. Restart the computer.
3. After the disc has been loaded, read the agreement and then mark the appropriate checkbox to accept.

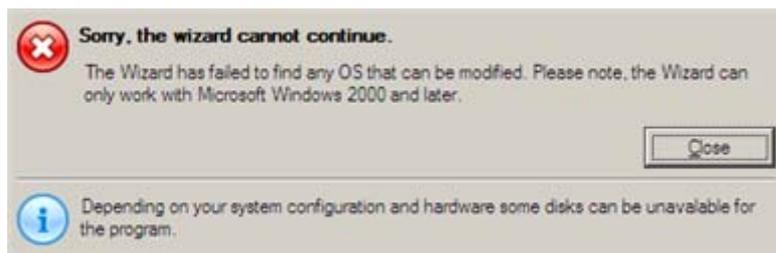


If you do not agree with any conditions stated there, you won't be able to use the program.

- Once you accept the agreement, you will see the Universal Application Launcher. Launch **P2P Adjust OS Wizard**.



Our WinPE 2.1 based CD offers excellent hardware support. However in case it doesn't have a driver for your disk controller, your hard disks will be unavailable. Please consult the [Adding specific drivers](#) scenario to know how to tackle this issue.



- On the Wizard's Welcome page, click the Next button.
- From the list of all found Windows based operating systems (if several) select one you need to adjust to your new hardware. If you're willing to adjust them all, just re-launch this wizard for each.

OS	Volume	Label	Capacity
Windows 2000	Local Disk (C:)	[No label]	1.9 GB
Windows XP	Local Disk (D:)	[No label]	4.8 GB



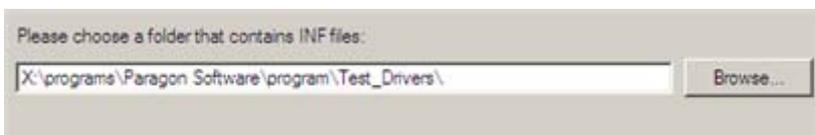
The wizard can only work with Microsoft Windows 2000 and later operating systems.

- Choose whether you're going to add drivers for the new hardware to the selected operating system or not and the way it's to be done. Actually you've got three options:
 - Upload drivers automatically from the provided driver repository.** Generally together with new hardware you get its drivers for different operating systems on removable media (mostly CD or DVD). By collecting all these drivers in one folder you can let the wizard automatically pick and install only those required for your OS (recommended);
 - Upload drivers manually.** If you know exactly what drivers your operating system is lacking to successfully start up, you can manually provide them for the wizard.
 - Do not upload drivers.** And finally you can just refuse providing 3rd party drivers.

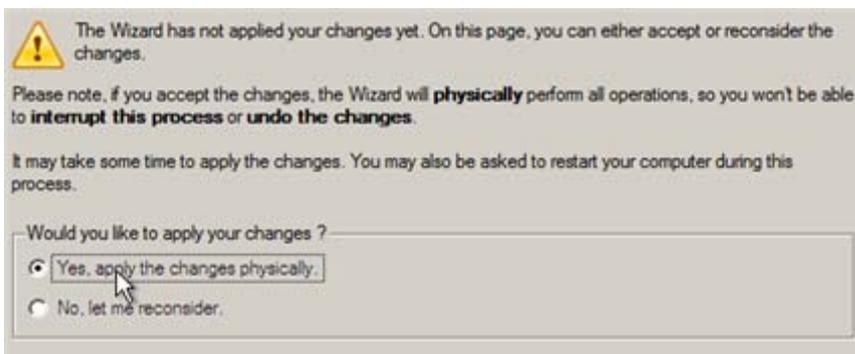


We prefer the wizard to decide what drivers are to be installed.

- Browse for a folder with drivers for the new hardware or type in a full path to it manually.



- Apply the changes by confirming the operation.



After the operation is completed your system will be bootable on the new hardware.

CONNECTING VIRTUAL DISKS

With Paragon Virtualization Manager you can only create virtual disks not virtual machines. Thus to work with your virtualized system, first you need to connect its virtual disk to a virtual machine. Actually you've got two options:

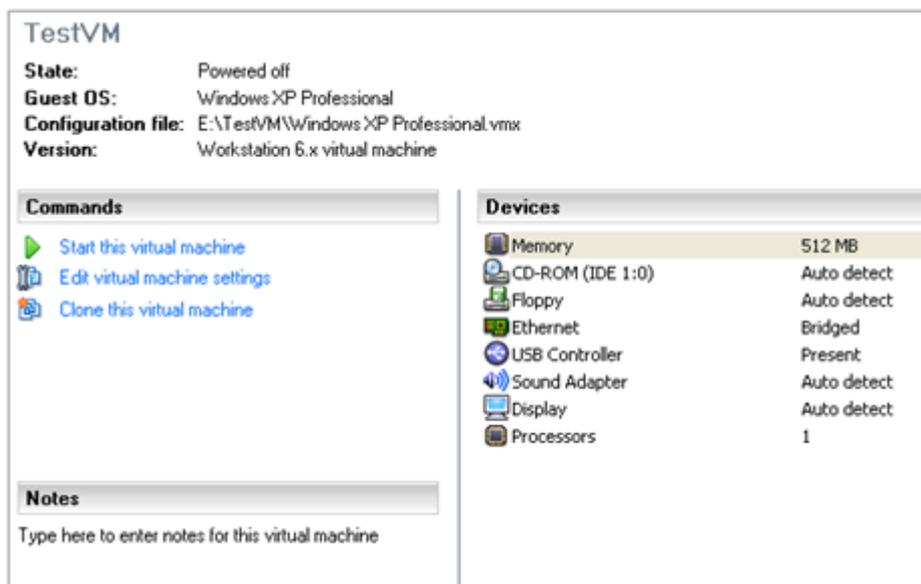
- ❑ [Connect the virtual disk to an existing virtual machine;](#)
- ❑ [Connect the virtual disk to a new virtual machine.](#)

Below you can see how to accomplish these operations with VMware Workstation. If you've got to do with another virtual machine, the work algorithm will be very much alike. Anyway, to know more on the subject, please consult documentation that comes with your virtual software.

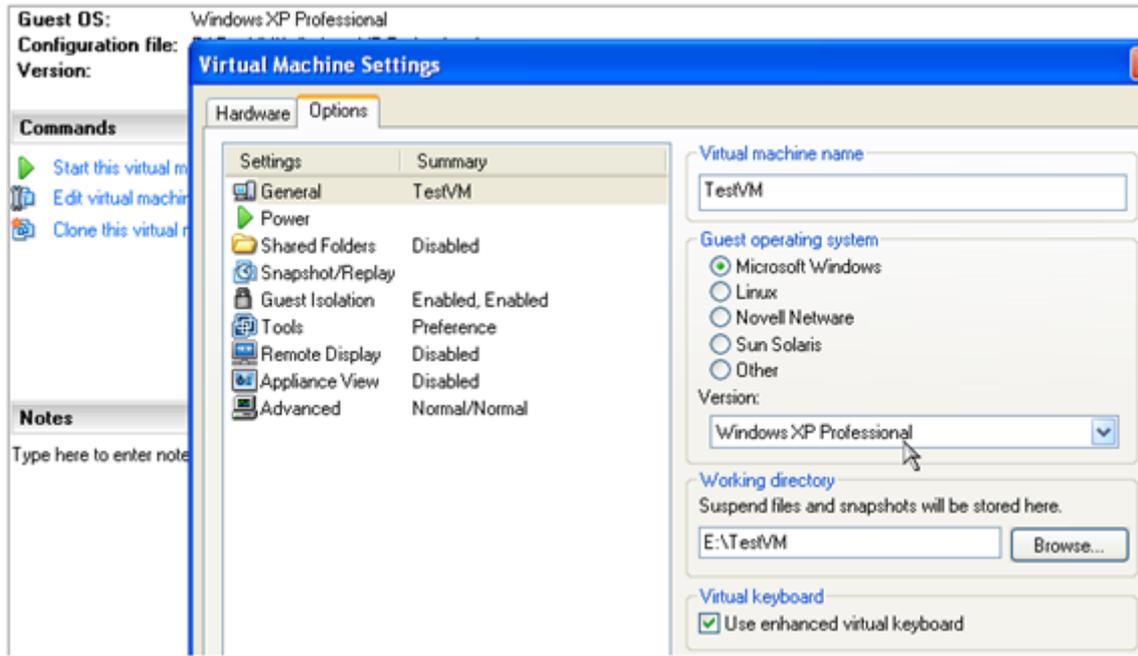
CONNECTING VIRTUAL DISKS TO AN EXISTING VIRTUAL MACHINE

To connect a VMware Workstation virtual disk to an existing virtual machine, please do the following:

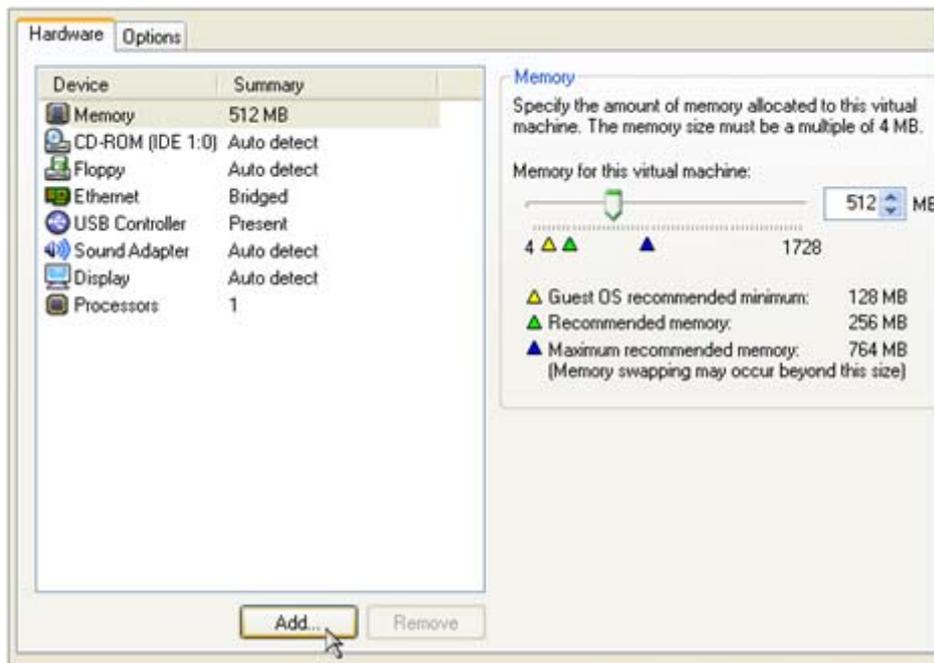
1. Open an existing VMware Workstation virtual machine.



2. Please make sure its guest OS is the same as on your virtual disk, otherwise you may face hardware incompatibility problems.



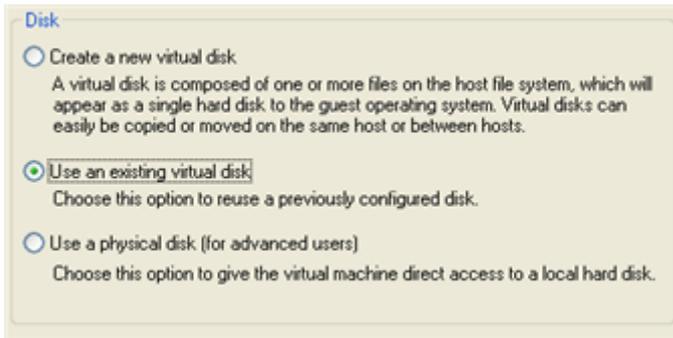
3. Click **Add...** to connect your virtual disk to the machine.



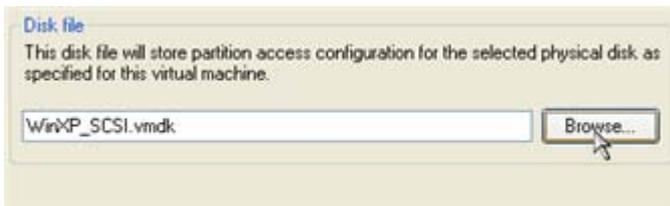
4. In the opened dialog select **Hard Disk** as the required hardware type to add.



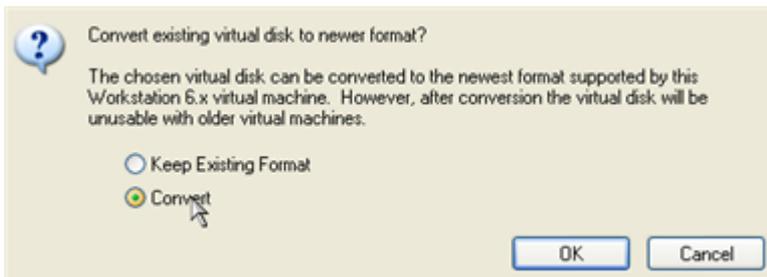
5. On the next page select **Use an existing virtual disk**.



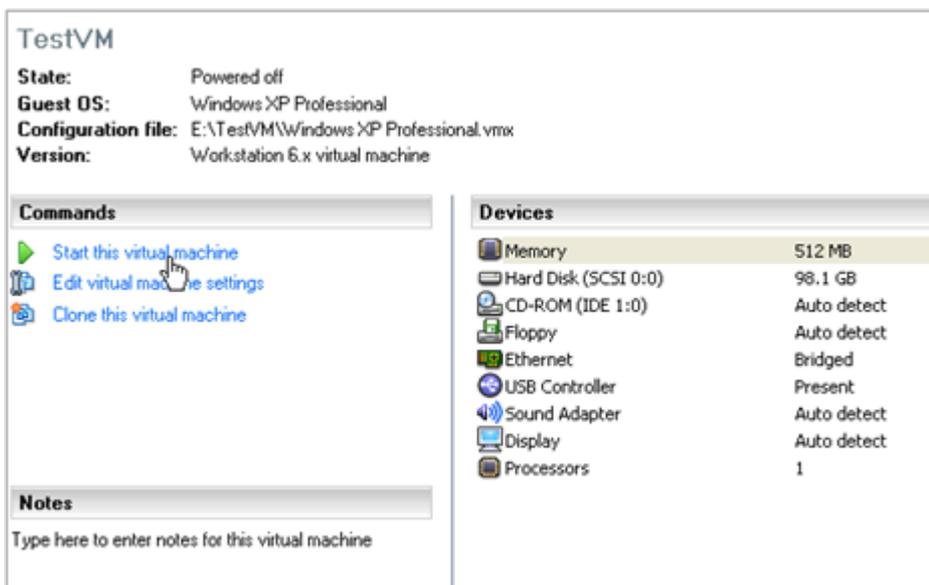
6. Browse for your virtual disk.



7. Click **Finish** to complete the operation. Most likely you will be asked to convert your virtual disk to a new format. You can update your disks, since this procedure involves change of a version only, nothing else. To know more on the subject please consult the [Known Issues](#) chapter.

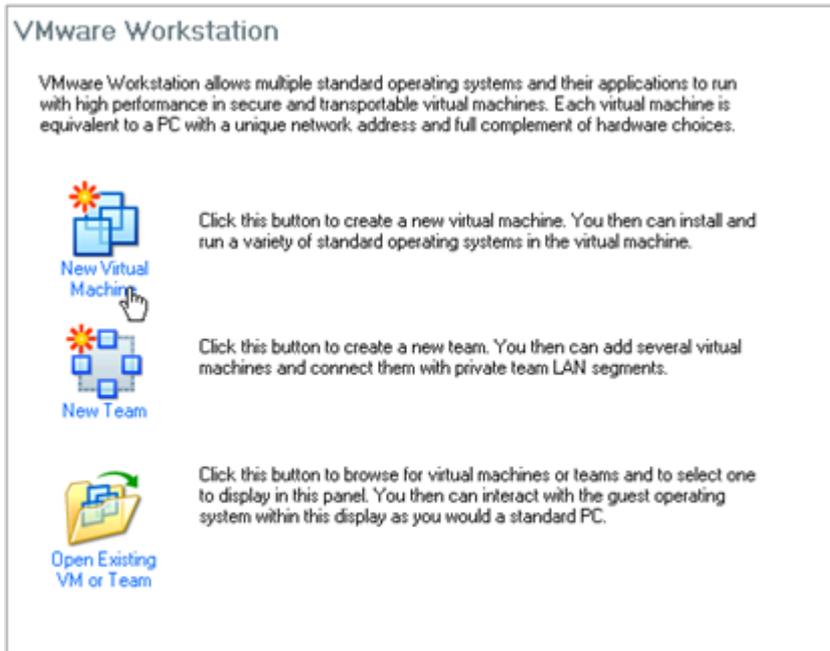


8. That's all. You can now launch the virtual machine.



To connect a VMware Workstation virtual disk to a new virtual machine, please do the following:

1. Click **New Virtual Machine**.



2. On the Wizard's Welcome page, click the Next button.
3. On the next page select **Typical**.



4. Select the required guest OS. Please make sure it's the same as on your virtual disk, otherwise you may face hardware incompatibility problems.



5. Provide a name and location for your virtual machine.

Virtual machine name
WinXP Pro (TEST)

Location
E:\My Documents\My Virtual Machines\WinXP Pro (TEST) Browse...

6. Select a network connection type. To know more on the subject, please consult documentation that comes with your virtual software.

Network connection

Use bridged networking
Give the guest operating system direct access to an external Ethernet network. The guest must have its own IP address on the external network.

Use network address translation (NAT)
Give the guest operating system access to the host computer's dial-up or external Ethernet network connection using the host's IP address.

Use host-only networking
Connect the guest operating system to a private virtual network on the host computer.

Do not use a network connection

7. As the final step the wizard will offer you to create a virtual disk. As you cannot skip it, click **Finish** to complete the operation.

Disk capacity
This virtual disk can never be larger than the maximum capacity that you set here.

Disk size (GB):

Allocate all disk space now.
By allocating the full capacity of the virtual disk, you enhance performance of your virtual machine. However, the disk will take longer to create and there must be enough space on the host's physical disk.

If you do not allocate disk space now, your virtual disk files will start small, then become larger as you add applications, files, and data to your virtual machine.

Split disk into 2 GB files.

8. Edit settings of the newly created machine.

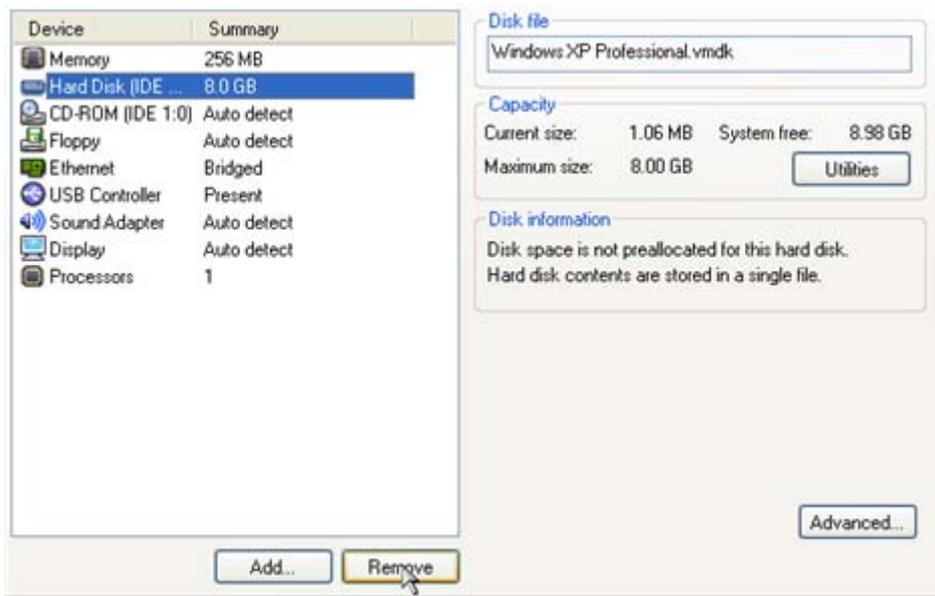
WinXP Pro (TEST)

State: Powered off
Guest OS: Windows XP Professional
Configuration file: E:\My Documents\My Virtual Machines\WinXP Pro (TEST)\Windows XP Professional.vmx
Version: Workstation 6.x virtual machine

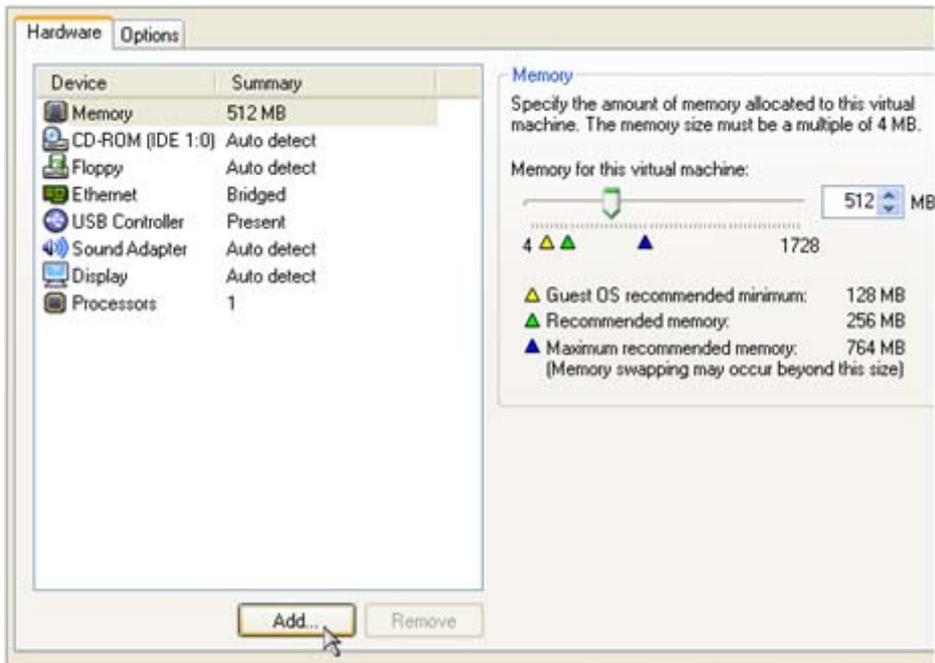
Commands	Devices
Start this virtual machine	Memory 256 MB
Edit virtual machine settings	Hard Disk (IDE 0:0) 8.0 GB
Clone this virtual machine	CD-ROM (IDE 1:0) Auto detect
	Floppy Auto detect
	Ethernet Bridged
	USB Controller Present
	Sound Adapter Auto detect
	Display Auto detect
	Processors 1

Notes
Type here to enter notes for this virtual machine

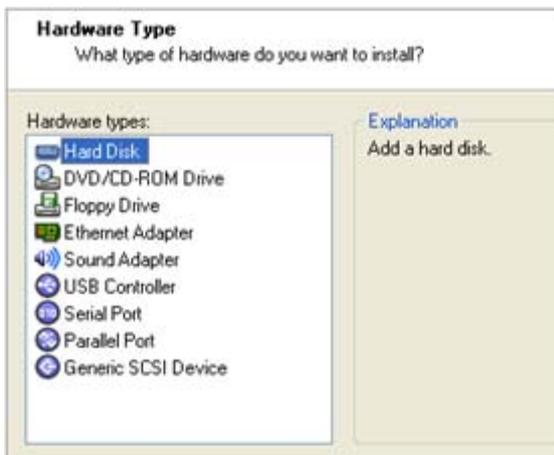
9. Select the default virtual disk and click **Remove** to delete.



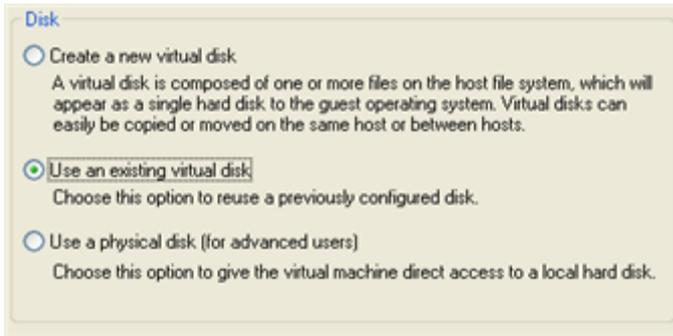
10. Click **Add...** to connect your virtual disk to the machine.



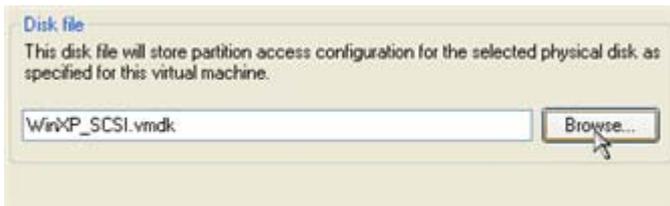
11. In the opened dialog select **Hard Disk** as the required hardware type to add.



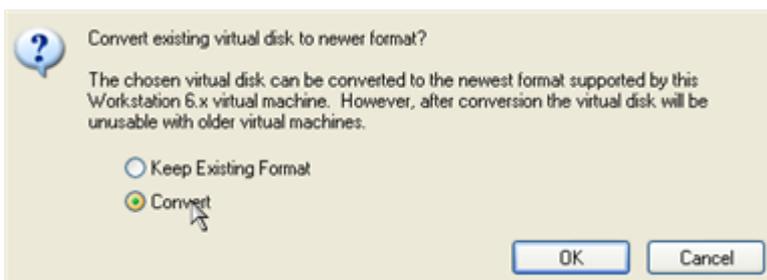
12. On the next page select **Use an existing virtual disk**.



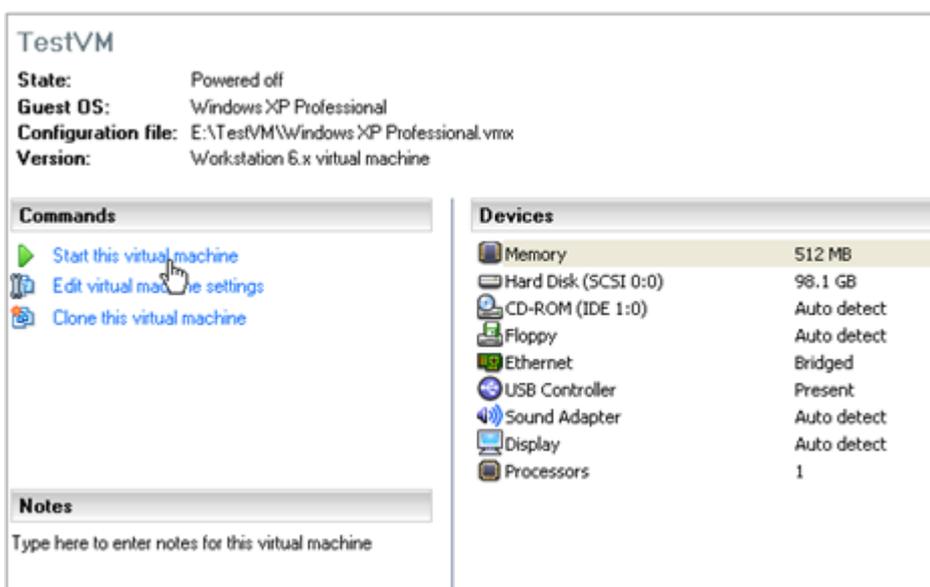
13. Browse for your virtual disk.



14. Click **Finish** to complete the operation. Most likely you will be asked to convert your virtual disk to a new format. You can update your disks, since this procedure involves change of a version only, nothing else. To know more on the subject please consult the [Known Issues](#) chapter.



15. That's all. You can now launch the virtual machine.



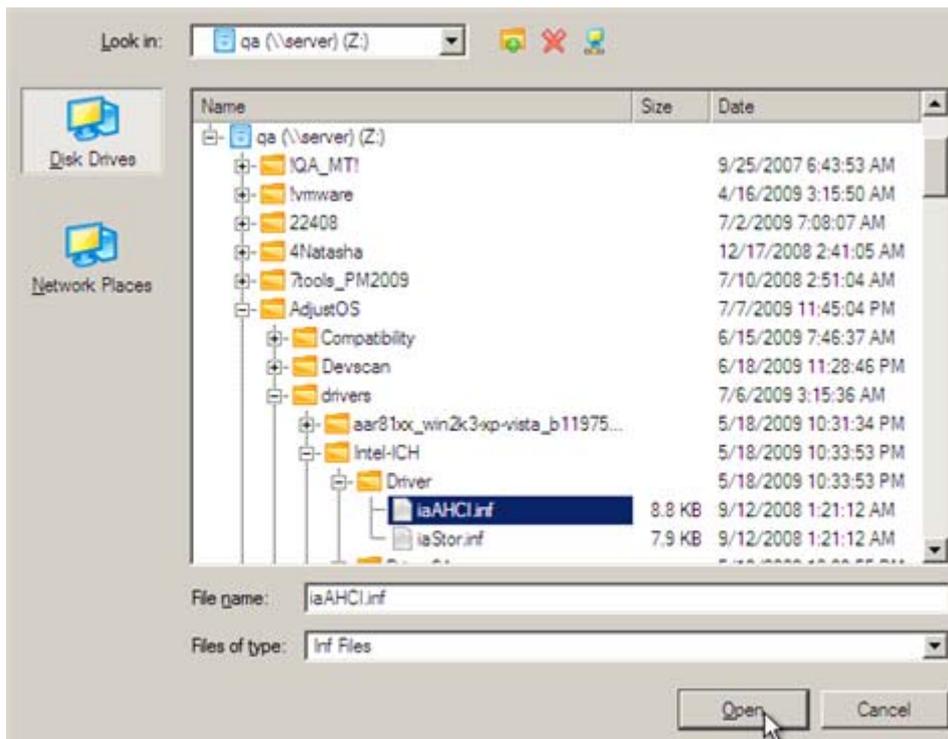
Our WinPE 2.1 based CD offers excellent hardware support. Anyway you've got the option to add drivers for specific hardware with a handy dialog.

To add drivers for specific hardware, please do the following:

1. Click **Add Drivers**.



2. In the opened dialog browse for an .INF file of the required driver package located on a floppy disk, local disk, CD/DVD or a network share. Then click the **Open** button to initiate the operation



To know how to map a network share, please consult the [Configuring network](#) scenario.

3. You will be notified on the successful accomplishment of the operation. Click **Yes** to load another driver or **No** to close the dialog.



CONFIGURING NETWORK

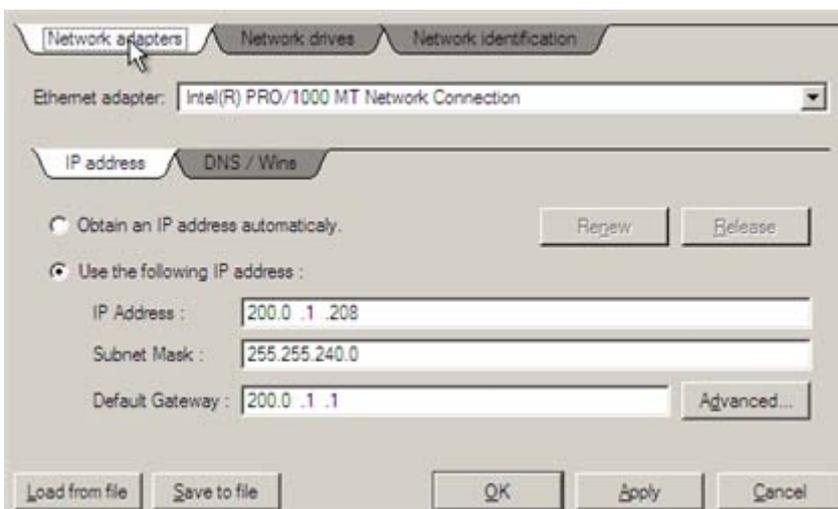
If your local network has a DHCP server, a network connection will be automatically configured once our WinPE CD has been started up. Otherwise you will need to do it manually with a handy dialog by providing an IP address, a network mask, default gateway, etc. Besides with its help you can easily map network shares.

To manually set up a network connection and map a network share, please do the following:

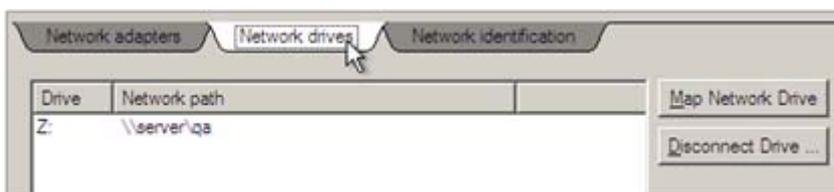
1. Click **Configure Network**.



2. In the opened dialog provide an IP address, a network mask, default gateway, etc. for your network device.



3. Click the **Network drivers** tab to map a network share.



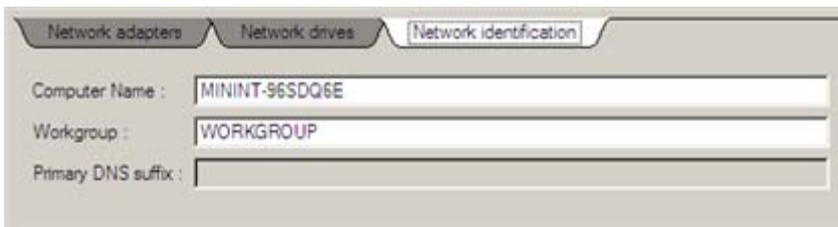
4. Click **Map Network Drive** and provide all the necessary information to map a network share in the opened dialog:



- ❑ Click the standard browse button [...] to browse for the required network share or manually enter a path to it;
- ❑ Define a letter from the pull-down list of available drive letters;
- ❑ Click the **Connect as user** button at the foot of the dialog page to specify a user name and password to access the selected network share if necessary.

By clicking **Disconnect Drive...** you can delete an existing network share if necessary.

5. Click the **Network identification** tab to change a network name of your computer (generated automatically) and a workgroup name.



6. By default, the wizard saves all network settings in the netconf.ini file located on the WinPE RAM drive, thus it will only be available until you restart the computer. However, you can just once configure your network device and then save this file to some other destination, for instance a local drive, and this way avoid constant re-configuration, just by providing a path to it. So Click **Save to file** to save the netconfig.ini file to the required destination.

SAVING LOG FILES

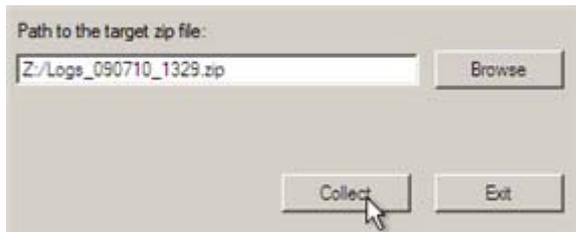
The program enables to simplify the procedure of sending support requests to the Paragon Support Team. In case of having difficulties with handling the program, you, with the help of this very function, can address the company support engineers and provide them with all the information they need such as the disk layout, performed operations, etc. in order to tackle the encountered problem. Information of that kind is stored in log files.

To prepare a log files package, please do the following:

1. Click **Log Saver**.



- In the opened dialog browse for the required location of the log files package or manually provide a full path to it. Click **Collect** to initiate the operation.



Log files do not contain any confidential information on the operating system settings or the user documents.

CONCLUSION

Paragon Virtualization Manager is a powerful tool for system migration that can satisfy the needs not only of a rank-and-file user, but a system administrator working for a small or mid-sized company. It's extremely easy to use both under Windows and WinPE thanks to a wizard-driven interface and a handy launcher. The program will certainly be appreciated by those who don't like to waste time learning an awkward complicated interface, those who need the result with the minimal efforts possible. That's where Paragon Virtualization Manager is a real pro.

KNOWN ISSUES

FOR P2V SCENARIOS

- You should install integration services (e.g. VMware Tools) on the virtual system yourself. We only guarantee its smooth startup.
- At the startup, a virtual machine (e.g. VMware Workstation) might notify you that the used virtual disks are of old format and require update. You can update your disks, since this procedure involves change of a version only, nothing else. The problem is we cannot use the latest version for the newly created virtual disks, in order not to lose compatibility with older versions of VMware.
- After transferring Microsoft Vista and later versions to a virtual disk, you will need to re-activate license of the system. It's normal behavior as these systems keep tracking any change of hardware. Re-activation is legally justified in this case, as you transfer your system to another PC.
- It's up to you to create a virtual machine or use the already created one to connect virtual disks made with our program.
- We cannot accomplish a network system transfer: remote online copying of an active server to a virtual disk and then startup of its virtual clone.
- If you prefer to create a SCSI HDD when converting to a virtual disk of VMware Workstation or VMware ESX Server, we pick a driver for the HDD controller just the way VMware does, i.e. according to the found OS:
 - Windows 2000/Windows XP – Bus Logic;
 - Windows 2003 (all editions including WinXP x64) and later versions – LSI Logic.

Thus if you will then connect the created virtual disk to a virtual machine with another type of the adapter, the system won't start up!

7. When creating an IDE virtual disk for VMware Workstation or VMware ESX Server, we do not install drivers for SCSI controllers on purpose, just not to litter the system. The necessary drivers will later be installed by VMware Tools, if the virtual machine has SCSI hardware.
8. If you convert a partition/hard disk with Windows XP to a SCSI virtual disk of VMware Workstation or VMware ESX, you need to add the VMware SCSI driver from outside, since Windows XP doesn't have it. To do that we try to find an installed version of VMware Workstation on your computer to extract the required driver. If failed to find, then we will ask you to provide a path to VMware Tools or the driver itself.
9. We can smoothly convert a hard disk with several operating systems. But according to an issue 6, when converting to a SCSI virtual disk of VMware Workstation or VMware ESX Server, for different versions of OS, different controller drivers will be installed. VMware however cannot emulate different hardware for each operating system of one virtual machine. To tackle this issue, please install the LSI Logic driver under Windows 2000/Windows XP, then select the LSI SCSI controller for your virtual machine.

FOR P2P SCENARIOS

1. If you've installed several operating systems on one partition, we can only add drivers to one. Microsoft highly recommends to install each operating system on a separate partition.
2. Drivers are not cached during selection. That's why if you select a driver to add to the system, but it's already unavailable during the operation, the program will end the operation with an error.

PARTICIPATION IN BETA TESTING

Participation in beta testing programs organized by Paragon means not only functionality testing of its products, but the opportunity to improve behavior of a certain product and its feature list by providing feedback directly to the company's development staff.

Please note that you can send the program's log files by using the Send Log Files feature or via direct e-mailing to: feedback@paragon-software.com.

We really appreciate your feedback.

REPORT TEMPLATE

1. Please attach your log files package to the feedback message. You can get logs package by running **Troubleshooting->Log Saver** after P2V or P2P operations are finished. It doesn't collect any private information about your computer.
2. What virtualization software do you use? Please name vendor, product edition and version number.
3. If you have other virtualization software, not supported by our product, please name it.
4. How did you find interface of Virtualization Manager? Did you face any problems with it?
5. Did you read product manual/help? If yes, did you find the answers for your questions/issues?
6. Did you have any experience of using similar products? If yes, then name them please.
7. If you used P2P Adjust wizard, do you have any issues or problems to inform?
8. If you used P2P Adjust wizard, what was the source and target hardware specification (CPU, chipset models, discrete SCSI/SATA adapter if any).