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# Paragon CampTune 9

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*Quick User Guide*

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## Introduction

Paragon CampTune™ 9 is a set of original utilities that stands as a more powerful, yet completely secure alternative to Apple Boot Camp. With its help you can:

- Protect your Mac by creating backup images to recover in minutes in case of emergency;
- Prepare your Mac to install Windows XP/Vista/7 as a second operating system or as a standalone OS;
- Easily redistribute unused space between Mac OS X and Windows volumes;
- Get access to a failed system to transfer data to another location (CD/DVD, USB, FireWire, or network).

Paragon CampTune 9 is simple and easy – we offer you zero-install operation in a special WinPE 3.0 environment, which you can burn to a CD/DVD disc with our wizard directly under Mac OS X.

This guide will help you use the product at full and tackle many of the technical issues that might arise in the process.



**Our company is constantly releasing new versions and updates to its software, that's why images shown in this manual may be different from what you see on your screen.**

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## Features Overview

This chapter dwells upon key benefits and technical highlights of the product.

### Key Features

- **Support for the latest Mac OS X Snow Leopard and Windows 7** (both, 32- and 64-bit).
- [WinPE 3.0 environment](#) for zero-install operation that supports the latest Mac configurations and allows adding drivers for specific hardware on-the-fly.
- [Install Windows OS Wizard](#) to get an Intel-based Mac ready to install Windows either as a sole operating system, or as a second OS, thus making a dual-boot system.
- [Express Resize Partitions Wizard](#) to increase free space on one partition by up-taking the unused space of an adjacent partition of your hard disk.
- [Backup/Restore Wizards](#) to protect your Mac against a system or hardware failure, or a human factor.
- **File Transfer Wizard** to retrieve information from a local disk of any file system, a network share, removable media (CD/DVD, USB, FireWire, Flash, etc.) or even backup images and then copy it to the required destination as easy and convenient as possible.

### Supported Media

- Large hard disks (up to 1,5 TB tested)
- IDE, SCSI and SATA hard disks
- FireWire (i.e. IEEE1394), USB 1.0, USB 2.0 hard disks, ZIP® and Jazz® disks
- PC card storage devices (all types of flash memory, etc.)

## Getting Started

In this chapter you will find all the information necessary to get the product ready to use.

### System Requirements

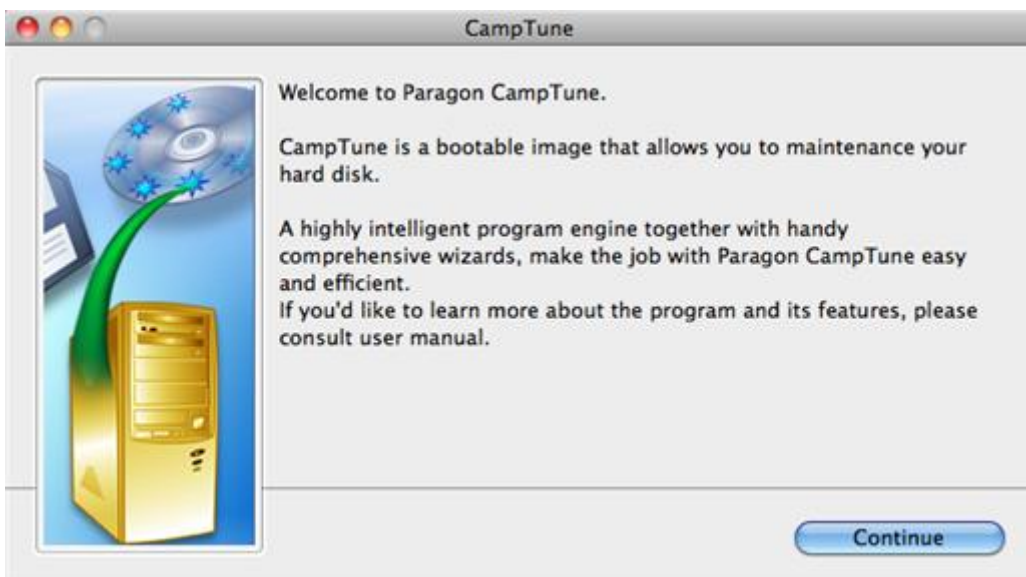
- An Intel-based Mac computer
- 512 MB of RAM
- Recordable CD/DVD drive
- Mouse (recommended)

### Preparing WinPE Environment

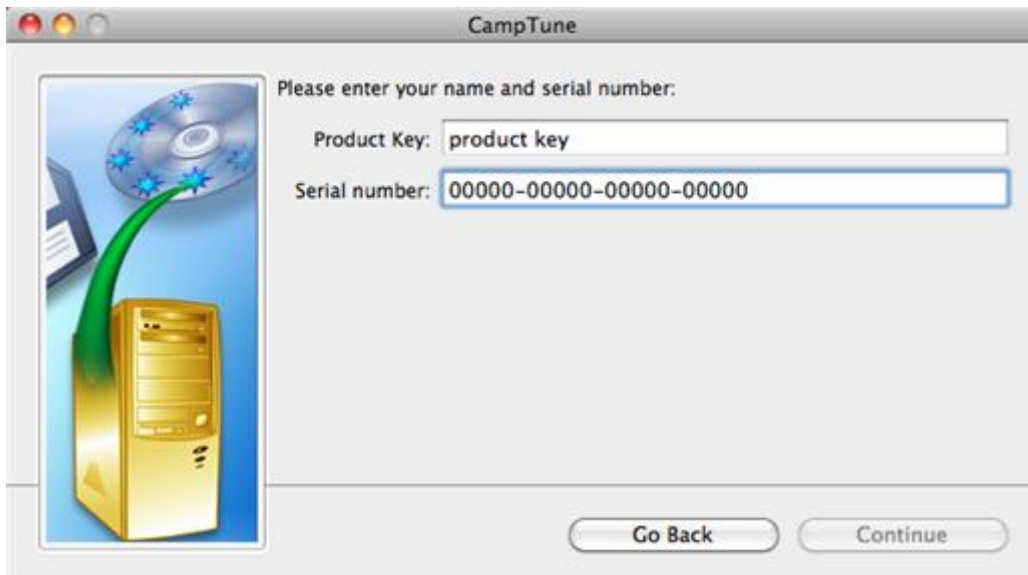
1. Start up Mac OS X.
2. Click on the supplied DMG disk image, then launch **CampTune 9**.



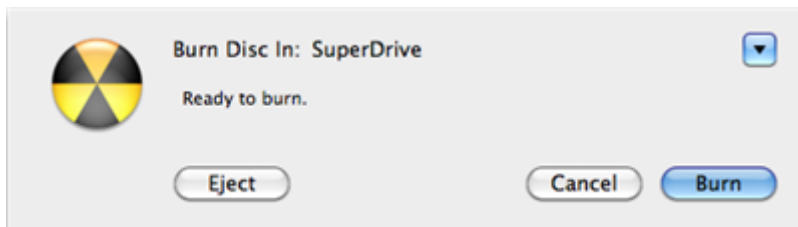
3. Insert a blank or re-writable CD/DVD disc into your drive, then click **Burn**.



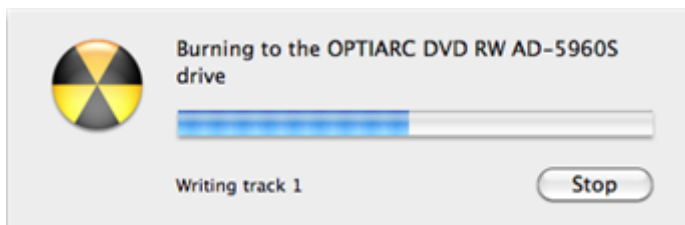
4. Provide your registration info, i.e. product key and serial number. You can get them after purchasing our driver on the company's website.



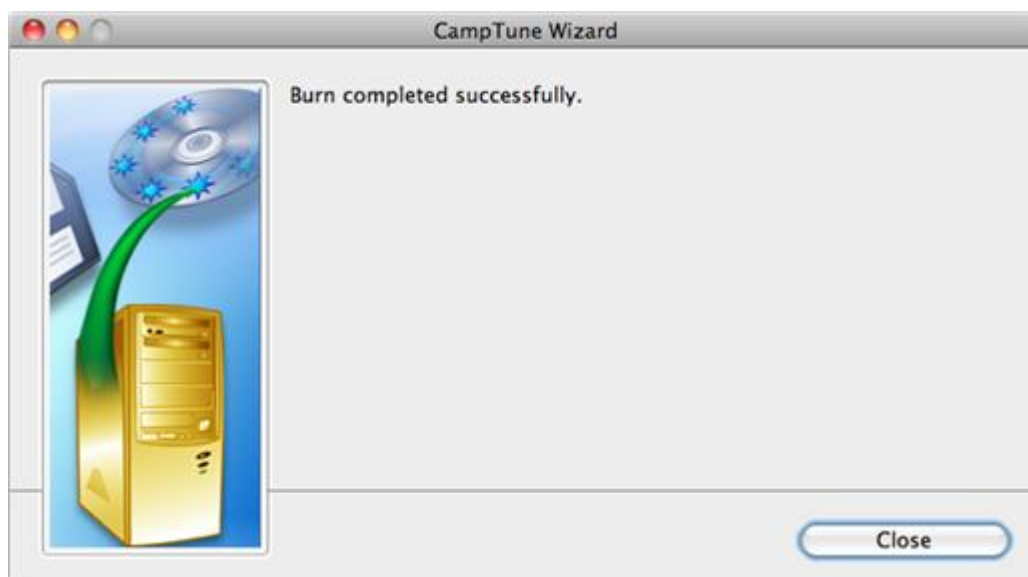
5. Confirm the operation.



6. The burning operation is in progress.

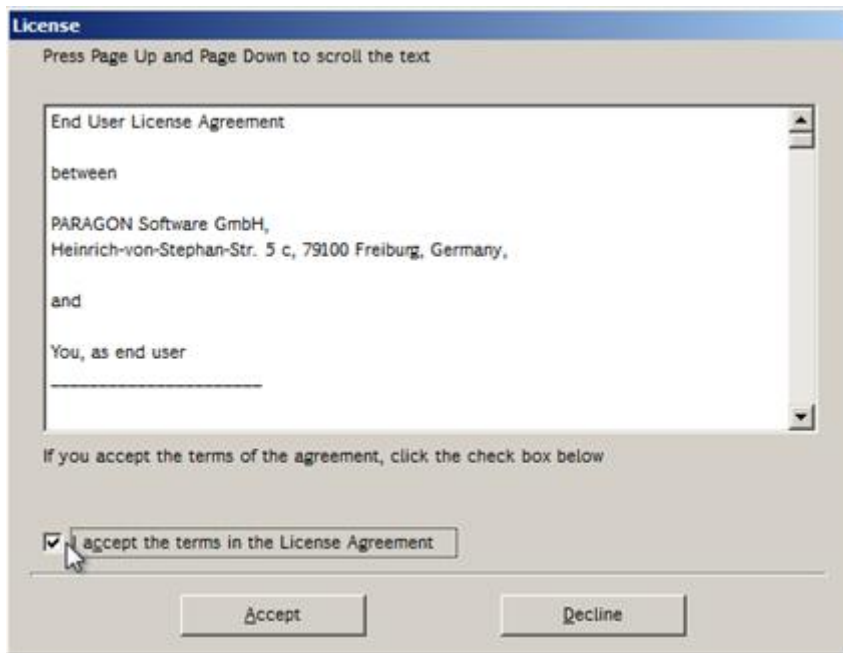


7. Click **Close** when the operation is over.



## Launching WinPE Environment

1. Insert the disc containing our bootable environment into a CD/DVD drive.
2. Reboot the computer.
3. Press and hold the **Alt** button until the Apple boot menu starts.
4. Select a CD/DVD device to boot from.
5. When loaded, please read Paragon License Agreement carefully and then select the appropriate option to accept. Otherwise you won't be able to proceed.



6. As a result of the above mentioned actions, you should see our launcher. In general it enables to run components of the product, load drivers for undefined hardware or establish a network connection.



7. Click on the required operation to start. Hints will help you make the right choice.



**Our WinPE 3.0 environment 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.**

## Contacting Paragon Technology GmbH

If you have any questions about the company products, please do not hesitate to contact Paragon Technology GmbH.

Service	Contact
Visit Paragon GmbH web site	<a href="http://www.paragon-software.com">www.paragon-software.com</a>
Registration & updates web-service	<a href="http://kb.paragon-software.com">kb.paragon-software.com</a>
Knowledge Base & Technical Support	<a href="http://kb.paragon-software.com">kb.paragon-software.com</a>
Pre-sale information	<a href="mailto:sales@paragon.software.com">sales@paragon.software.com</a>



**Unfortunately, the company can only provide technical support in the following languages at the present time: English, German, French and Russian. We are really sorry for possible inconvenience.**

## Apple Boot Camp ver. Paragon CampTune

As you know, Apple has the Boot Camp utility to tackle the problem of establishing a dual boot system (Mac OS X + Windows) on Intel-based Macs. In general, it helps to shrink an existing HFS+ volume to create a separate volume for Windows, and then launch the installation process. Though it's handy, it has a couple of naughty drawbacks:

- There's no way to later redistribute free space between Mac OS X and Windows volumes, so you've got to put up with it, or re-install Windows and all applications once again.
- Boot Camp can only create a FAT volume, so you need to additionally re-format it to NTFS during the installation of Windows (obligatory for Windows Vista and Windows 7), which takes time.

Paragon CampTune is free from those drawbacks. With its help you can allocate some space for Windows by up-taking a slice from your Mac volume, create an NTFS volume, and finally reboot the computer to launch the installation process. You can also redistribute unused space between Mac OS X and Windows volumes any time you like.

And that's not all Paragon CampTune can be used for. With our exclusive backup/restore facilities you can easily protect your Mac from a system or hardware failure or a human factor. You can even install Windows alone as a sole operating system.

## Typical Scenarios

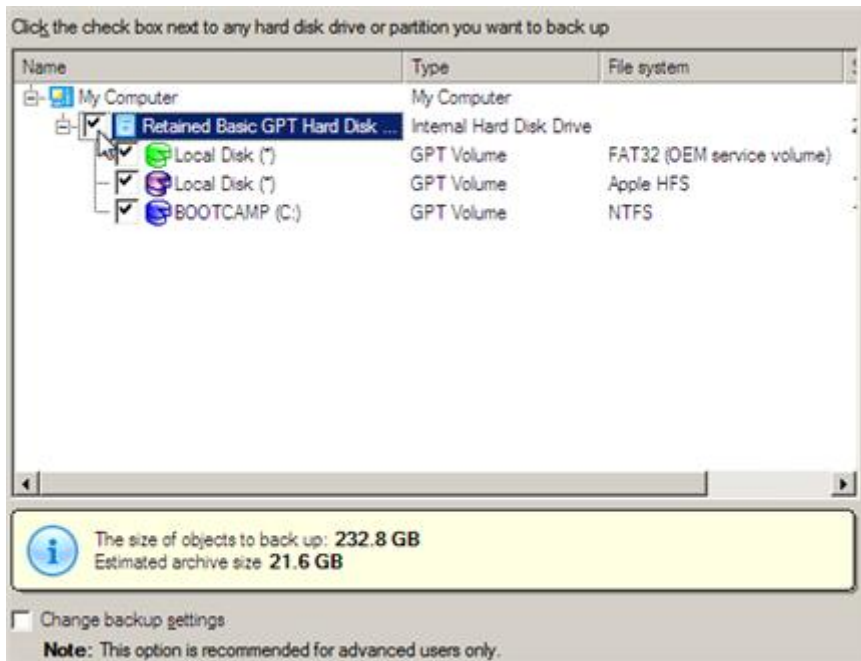
This chapter lists a number of the most frequently used scenarios that may be accomplished with the program. You can find here useful recommendations and descriptions of operations.

### Backing up to Network

To back up a dual boot Mac (Mac OS X + Windows XP/Vista/7) and then place the resulted image to a network share, please do the following:

1. [Start up the computer from our WinPE environment.](#)
2. Click on the **Backup and Restore** section, then select **Backup**.
3. On the Wizard's Welcome page, click the Next button.
4. On the next page you can see all hard disks available in the system. Mark a checkbox opposite the required disk element (the entire Mac drive in our case) to build up contents of the future backup. If you're going to back up Mac OS X or Windows volumes separately, please don't forget to additionally select the GPT service partition (called EFI), for it contains boot-critical files.





By marking a checkbox at the foot of the page you can enter the advanced mode to additionally define:

- Whether the archive integrity will be controlled.



**Checking archive integrity enables to guarantee that all backup images created with the program are 100 percent flawless. Nevertheless if you decided not to control the archive integrity, the backup operation would take about 3-5% less time.**

- Whether image file names will be set automatically in complex archives.
- Compression level for the backup image (including the No compression variant).
- Whether the archive will be split (if yes, you can set the maximum size for the archive files).



**Splitting images enables to tackle issues caused by a file size limitation of some file systems.**

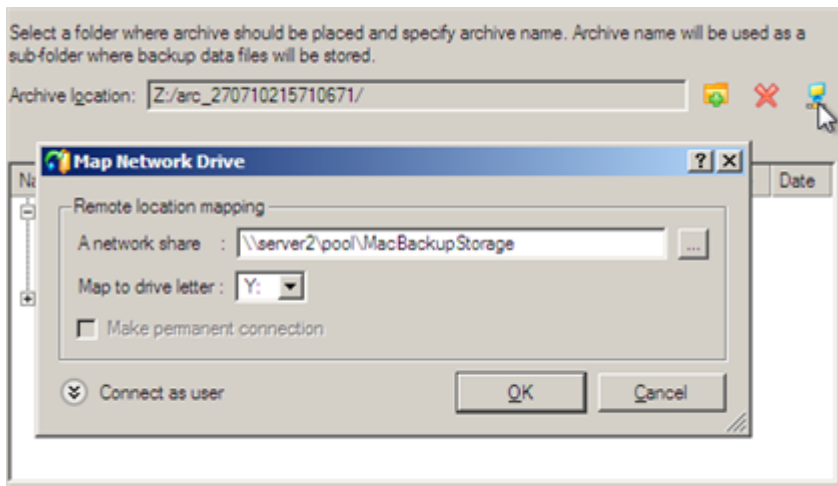
- Whether the archive will be protected by password.
- Whether partitions will be copied in the sector-to-sector mode (including unused sectors as well).
- Whether the OS auxiliary files (pagefile.sys, hyperfil.sys) will be included in the backup image.
- Whether data of certain type will be excluded from the backup image.

5. On the Backup Destination page, select the **Save data to local/network drives** option.



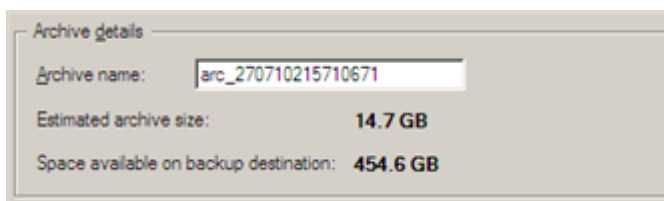
6. Map a network disk to place your backup image to:

- Call the Map Network Drive dialog by clicking the appropriate button;



- 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.


7. Edit the archive name if necessary.



**Please take into account values of the parameters Estimated archive size and Space available on backup destination - if the archive size exceeds the available space, another drive needs to be selected.**

8. Add comments to your backup describing its contents.

Please enter a short comment to describe the archive

 No comment

- On the Backup Summary page review all parameters of the operation and modify them if necessary. Click the Next button to start the backup process.

Please overview the backup options. You can return to the corresponding page and change the options by clicking on the title hyperlinks.

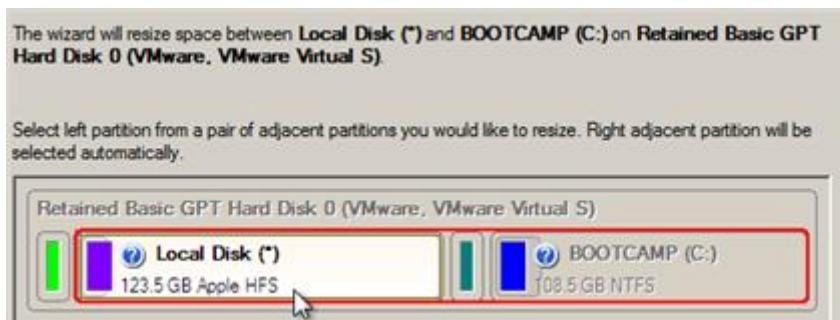
Objects to archive	
Object(s) selected:	1
Size of object(s) to backup:	232.8 GB (250,059,350,016 Bytes)
Estimated archive size:	14.7 GB (15,839,560,704 Bytes)
Archive settings	
Compression level:	Normal compression
Image split size:	3.9 GB (4,194,304,000 Bytes)
Password protection:	Archive is not protected with password
Backup mode:	Only data and logical structure
Ancillary system files:	Do not back up ancillary system files (like page file, hibernate file etc.)
Archives in archive library:	Do not back up archive files stored in archive library
Check Archive Integrity:	Archive integrity will be checked
Names assignment:	Names will be assigned automatically
Exclude masks:	No exclude masks were specified
Archive name and location	
Archive name:	arc_270710215710671
Full archive path:	Y:/arc_270710215710671/

## Resizing Partitions in Boot Camp

Let's assume you're a Boot Camp user who's got Windows XP/Vista/7 as the second operating system. Initially allocated space for the Windows partition has turned out to be insufficient for your current needs. The only way out is to take some space from your Mac partition, thus redistributing the unused space between the partitions.

To increase size of the Windows partition by taking unused space from the Mac partition, please do the following:

- [Start up the computer from our WinPE environment.](#)
- Click on the **Boot Camp Operations** section, then select **Resize Partitions**.
- The wizard will automatically select Windows (the NTFS file system) and Mac (the Apple HFS file system) partitions of your Boot Camp configuration.



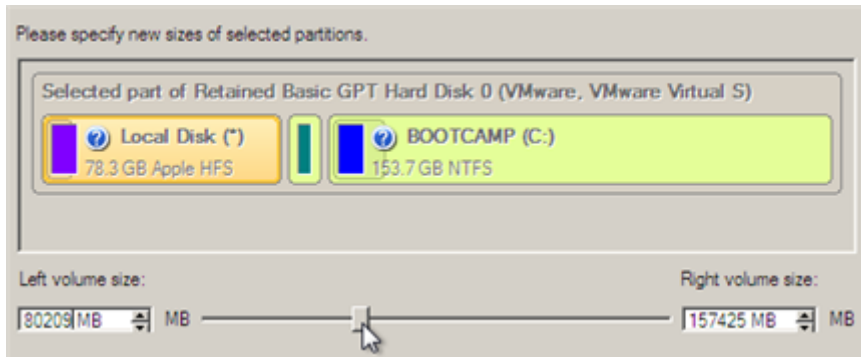
On the disk map you can also see the GPT service partition (called EFI) as well as a 128-megabyte free block between Mac and Windows partitions made with Boot Camp. It's just

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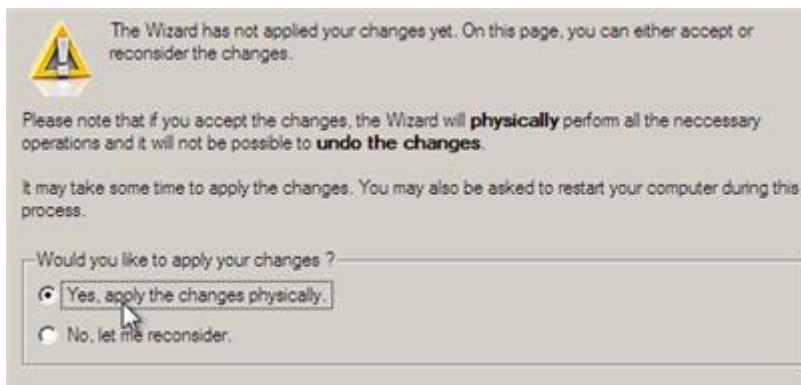
**for your information.**


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- Increase size of your Windows partition with the slider or manually by entering the required value. Please note, when you change size of one partition the size of the other will be changed as well, thus redistributing the unused space between the partitions.



- On the next page of the wizard you need to confirm the operation by selecting the appropriate option.



- That's basically it. By clicking the Next button the wizard will start modifying your disk layout.



**If your Mac has hung up during the restart, please reboot it manually by pressing the power button until it shuts down.**

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## Installing Windows on Mac

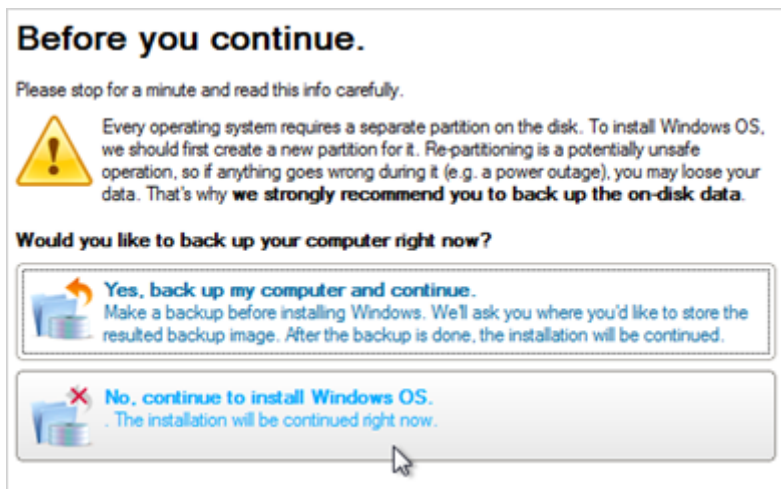
Let's assume you're going to use Windows XP/Vista/7 as a second operating system on your Intel-based Mac. With the Install Windows OS Wizard you can easily allocate some space for Windows by taking a slice from your Mac partition, create an NTFS partition, and finally reboot the computer to launch the installation procedure.

To get your Mac ready to install Windows as a second operating system, please do the following:

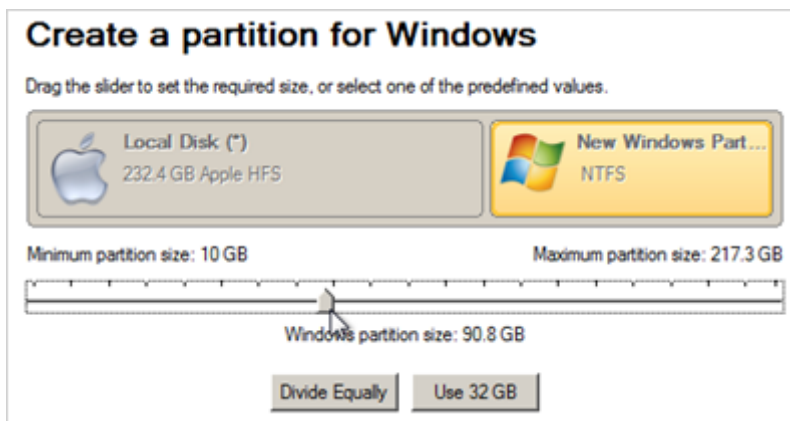
- [Start up the computer from our WinPE environment.](#)
- Click on the **Boot Camp Operations** section, then select **Install Windows OS**.
- You will be offered either to install Windows as a second operating system (just what we'd like to do) or as a sole OS, thus completely removing Mac OS X from your computer. Click on **Keep my Mac OS X and add Windows...**



4. On the next page you will be prompted to [back up your Mac](#) before proceeding. If you haven't done that yet, we strongly recommend it to you, just in case. We won't do that.



5. Set a size for the future Windows partition by moving the slider or by choosing one of the predefined values. Please note, that the minimal value is limited to 10 GB to guarantee installation and work of the latest Windows 7.



If your Mac partition has less than 5 GB of the unused space, the wizard will not continue.

6. That's basically it. After completing the operation, please insert a Windows distributive CD/DVD, then press **Finish** to reboot the computer and launch the installation procedure.

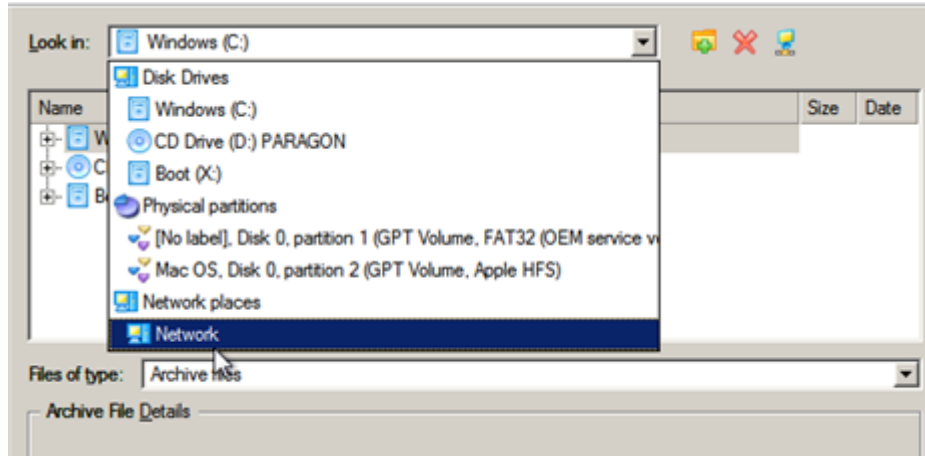


## Restoring Mac from Net

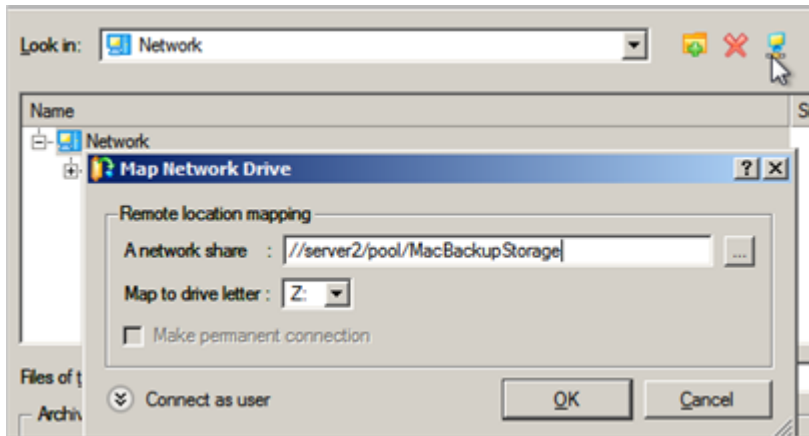
Let's assume that your Mac fails to boot because of a hard disk malfunction. But you've got a backup of your hard disk on a network share. Just replace the failed disk with a new one and carry out a bare metal restore.

To restore an Intel-based Mac from a backup image located on a network share, please do the following:

1. [Start up the computer from our WinPE environment.](#)
2. Click on the **Backup and Restore** section, then select **Restore**.
3. On the Wizard's Welcome page, click the Next button.
4. On the Browse for Archive page you need to specify the required backup image. So you should take the following steps to do that:
  - Select **Network** as a backup destination;



- Map a network disk where your archives are placed:
  - Call the Map Network Drive dialog by clicking the appropriate button;

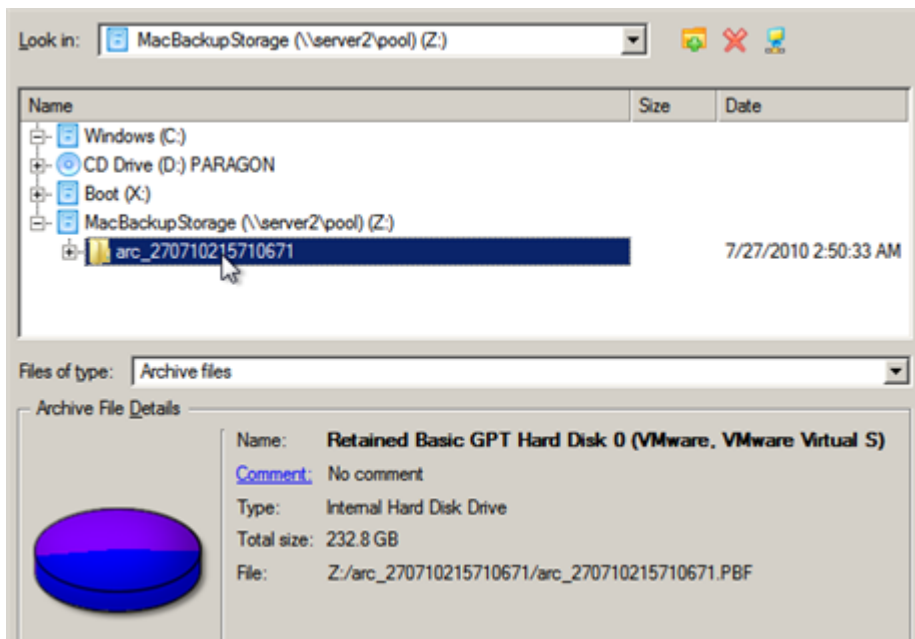


- Click the standard browse button [...] to browse for the required network share or manually enter a path to it;
- Define a letter from the pull-down list of available drive letters;

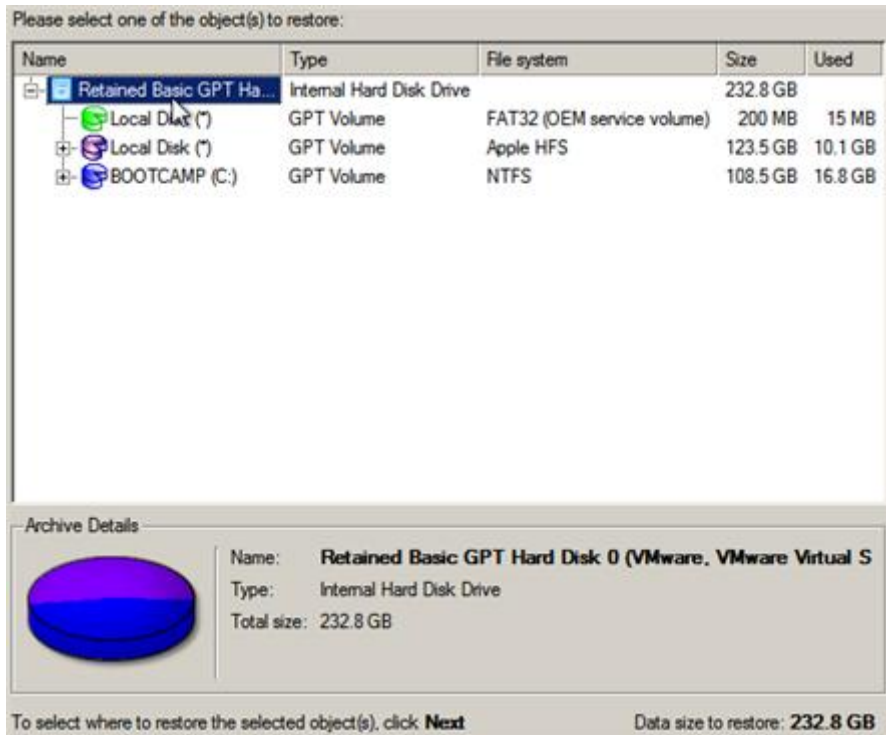


You can also map a network disk with [Network Configurator](#).

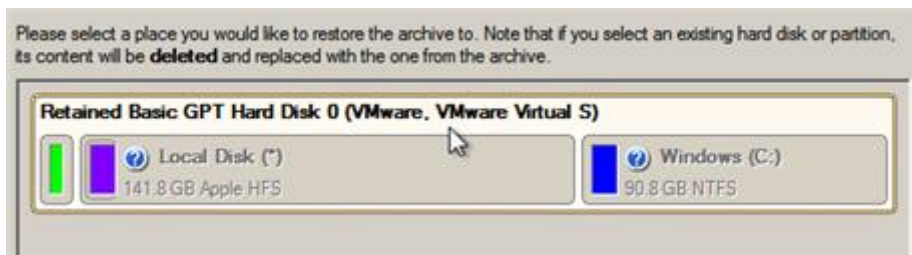
- Choose the required archive in the browser-like window. The Archive File Details section displays a short description of the selected image.



5. The What to Restore page displays detailed information about the contents of the archive. Select the required item to restore. In our case it is the entire Mac drive.

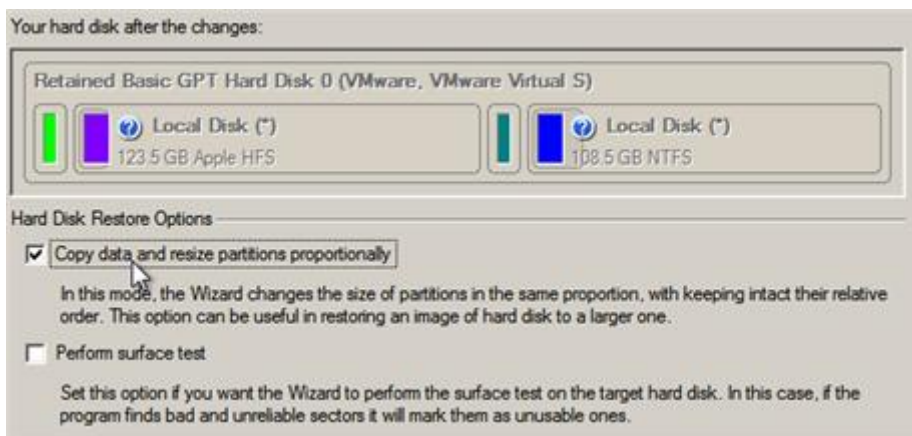


6. By default, the program offers to restore the archive exactly where it belongs. That's what we actually need.



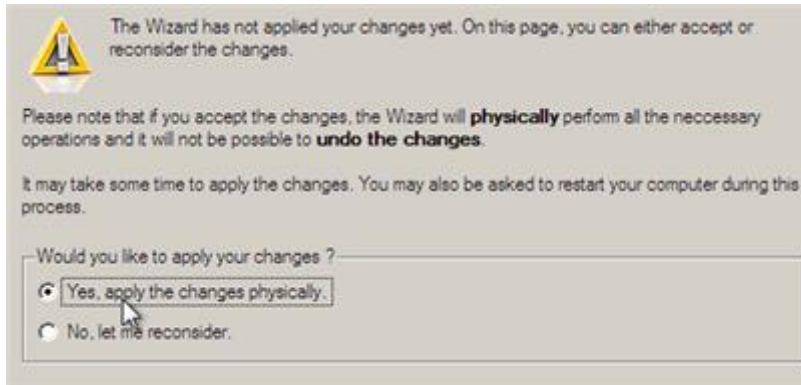
**All contents on the disk selected for restoring purposes will be deleted during the operation.**

7. On the Restore Results page you can see the resulted disk layout. If restoring to a larger disk, we recommend you to let the program resize partitions proportionally by selecting the appropriate option. Besides you can check surface on the target disk for bad sectors.

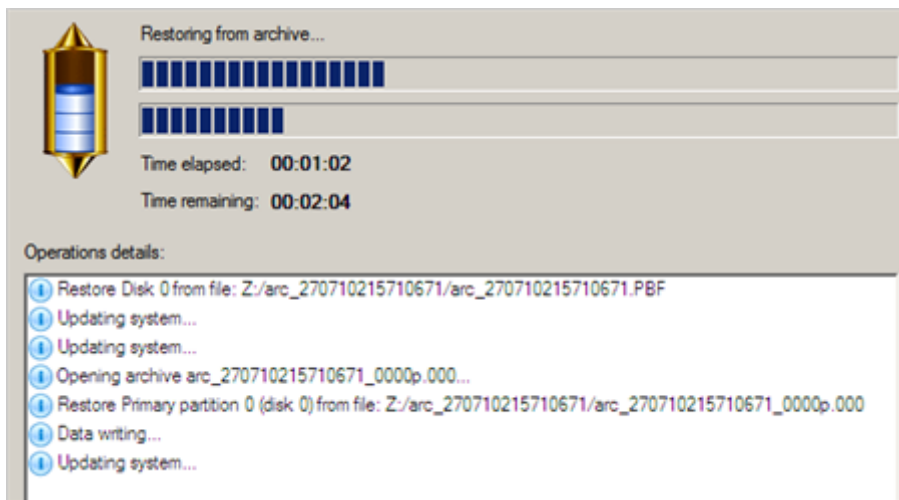


8. On the next page of the wizard confirm the operation by selecting the appropriate option.





9. In the Progress window you can see in real-time a detailed report on all actions carried out by the program.



10. After completing the operation close the wizard, and then reboot the computer.

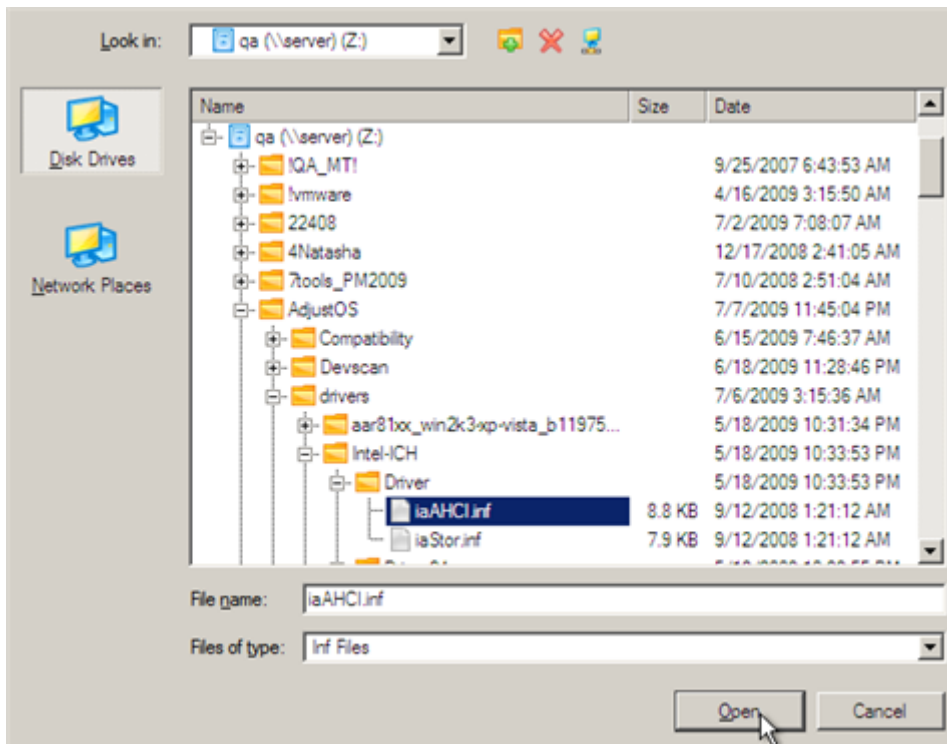
## Extra Scenarios

### Adding specific drivers

Our WinPE 3.0 environment offers excellent hardware support. Anyway you've got the option to add drivers for specific hardware with a handy dialog.

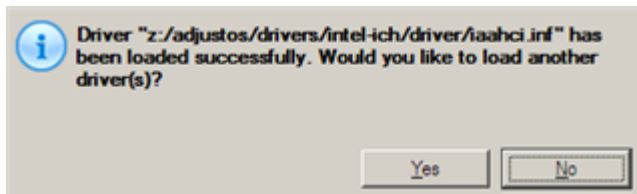
To add drivers for specific hardware, please do the following:

1. [Start up the computer from our WinPE environment.](#)
2. Click on the **Tools** section, then select **Load Drivers**.
3. 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.

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



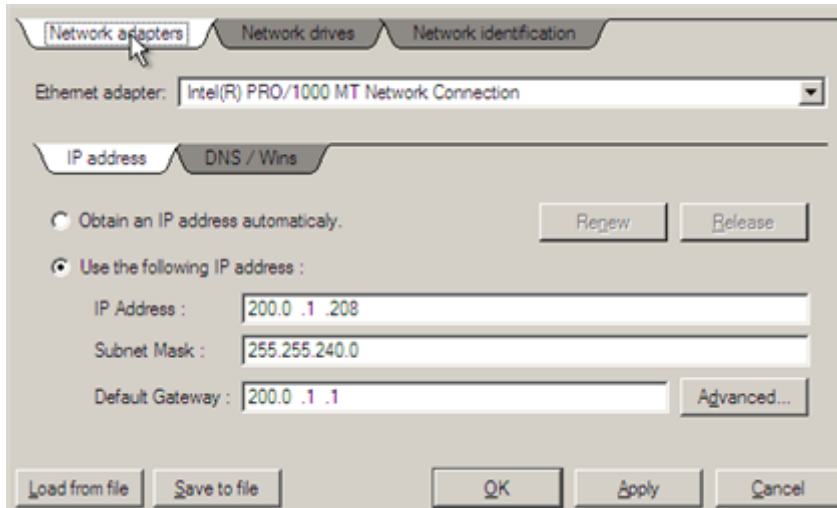
Our WinPE 3.0 environment is 32-based, thus you need to use 32-bit drivers for injection.

### Configuring network

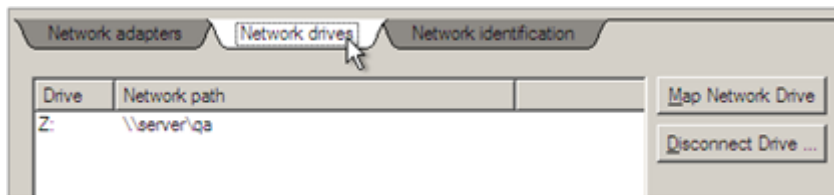
If your local network has a DHCP server, a network connection will be automatically configured once our WinPE environment has been started up. Otherwise you will need to do it manually with a handy dialog by providing an IP address, a network mask, default gateway, etc. Besides with its help you can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

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

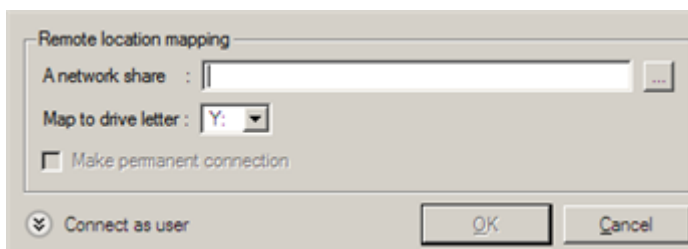
1. [Start up the computer from our WinPE environment.](#)
2. Click on the **Tools** section, then select **Configure Network**.
3. In the opened dialog provide an IP address, a network mask, default gateway, etc. for your network device.



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



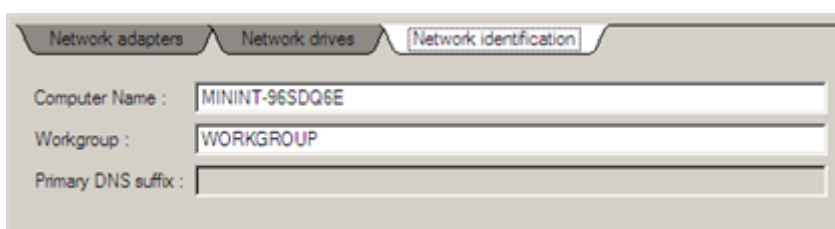
5. Click **Map Network Drive** and provide all the necessary information to map a network share in the opened dialog:



- 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.

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



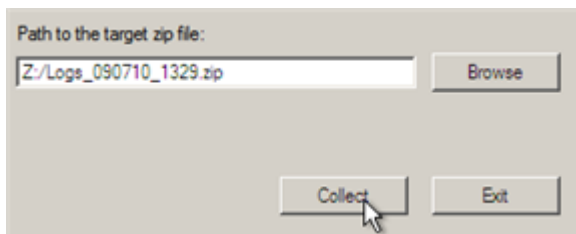
7. By default, the wizard saves all network settings in the netconf.ini file located on the WinPE RAM drive, thus it will only be available until you restart the computer. However, you can just once configure your network device and then save this file to some other destination, for instance a local 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. Once you accept the agreement, you will see the Universal Application Launcher. Click **Log Saver**.
2. 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.**

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### Troubleshooter

1. If you've got the following error "The program cannot find any suitable partitions. Press OK to exit", it means our utility has failed to detect a Boot Camp configuration on your Mac. If you're sure, you've got one and it's correct, please address Paragon Support Team at [support@paragon-software.com](mailto:support@paragon-software.com).
2. If our bootable environment doesn't start up (a flashing cursor in the upper right corner of the screen), please shut down your Mac, then try to start it up again. The problem might have to do with a known bug of the Apple startup, when Mac cannot boot from a Windows-based CD.
3. Our Resize Partitions Wizard picks the first system drive, which is not always the system hard drive. So if it shows an external USB or Fire-Wire device, please un-plug it and launch the wizard once again.