PARAGON Software GmbH

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

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

Internet www.paragon-software.com ● E-mail sales@paragon-software.com

Paragon System Backup 11

User Manual

Contents

Introduction

Paragon System Backup™ 11 is an ideal solution for those who feel strongly about the system and data protection issue, but are not willing to stuff their heads with technical peculiarities. Once installed and set up (not a big challenge even for a newbie thanks to catchy hints and a highly intelligent program engine), it will take care of your computer in such a gentle way you hardly know, until a disaster strikes. And when it does strike, System Backup will be ready to get everything back on track.

In this guide you will find the answers to many of the technical questions, which might arise while using our program.

> ⚠️ **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.**

Product Components

- **Windows installation package** for regular system and data protection. It's the main component of the product that includes all the necessary tools to help you safe yourself from a system failure, hardware malfunction or a human factor.

- **Linux bootable environment** for disaster recovery or data retrieval. You can burn it to a CD/DVD disc with the program's wizard to increase your chances of success in case of a hard disk malfunction.

- **WinPE 3.0 bootable environment** for disaster recovery or data retrieval. You can burn it to a CD/DVD disc with the program's wizard. Unlike the Linux bootable environment, it can boast an excellent hardware support and the same interface as the Windows version does. However its system requirements are much tougher.

> ⚠️ **Our WinPE bootable environment is available for registered users only.**

Features Overview

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

Key Features

Let us list some of the key features:

- **True live protection for system and data volumes**. Creating a snapshot of the whole disk system tackles the problem of backing up running applications and system locked files.

- **Reliable snapshot storage location**. Our program will find the most appropriate place to store automatic snapshots taking into account the amount of data stored on all local disks of your computer.

- **Backup strategy planning**. Our program offers a default strategy for securing a standard Windows PC, which you can modify to provide maximum security for your personal data with minimal resources and effort:

    - You can specify a backup object (all local disks or only certain volumes).

    - You can define how many snapshots are allowed in the snapshot storage location.

    - You can set what type of snapshots you'd like our program to make. Our program supports creation of full and differential snapshots.

- You can specify exclude masks to automatically ignore irrelevant data (movies, music, etc.) during creation of snapshots.

- And finally you can set a time-table for regular backup.

- **Advanced notification system** will keep you informed about the level of danger your system and data are in through the color indicators (green, yellow, red) in the system tray.

- **High efficiency**. We don't overload the system during backup and are really fast (approx. 1 gigabyte per minute).

- **Smooth system recovery**. You've got Linux and WinPE 3.0 bootable environments to help you out in case of emergency. You can burn them to CD/DVD any time you like with the program's wizard.

> ⚠ **Our WinPE bootable environment is available for registered users only.**

- **Selective data restore**. You've got the option to easily extract files and folders from a snapshot without the need to restore the whole image.

- **Wizards from our flagship disaster recovery solutions**, including Backup and Restore Wizards, Manage Backup Capsule Wizard, Synthetic Backup Wizard, File Transfer Wizard, and Recovery Media Builder, can help you set up the required operation exactly according to your demands, for they offer to specify a lot of additional parameters.

Supported Media

- Large hard disks (up to 1,5 TB tested)

- IDE, SCSI and SATA hard disks

- CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW, DVD-R, DVD+R double layer and also Blu-ray discs

- 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.)

How Does System Backup Protect My Computer?

System Backup employs a snapshot technology to protect a running Windows PC from a system failure or data loss. Snapshot is a common industry term denoting the ability to record a state of a storage device at any given moment (make a snapshot), and then preserve that snapshot as a guide for restoring this storage device in case of emergency.

So a snapshot technology opens up an opportunity to make consistent point-in-time copies of the entire disk system or separate volumes even as the data is being modified, which is actually the only option to protecting running applications and system locked files with minimal impact on your current activities.

Getting Started

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

System Requirements

For the Windows installation package

- Operating systems: Windows 2000 Professional and later, except for server editions, both 32- and 64-bit

- 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

For the Linux bootable environment

- IBM AT compatible computer with i486 or higher CPU

- 256 MB of RAM

- SVGA-compatible monitor

- Mouse (recommended)

For the WinPE bootable environment

- Intel Pentium III CPU or its equivalent, with 1000 MHz processor clock speed

- At least 512 MB of RAM

- SVGA-compatible monitor

- Mouse (recommended)

Additional requirements

- External USB hard drive to store backup data

- Recordable CD/DVD drive to prepare our bootable environments

- Network card to send/retrieve data to/from a network computer.
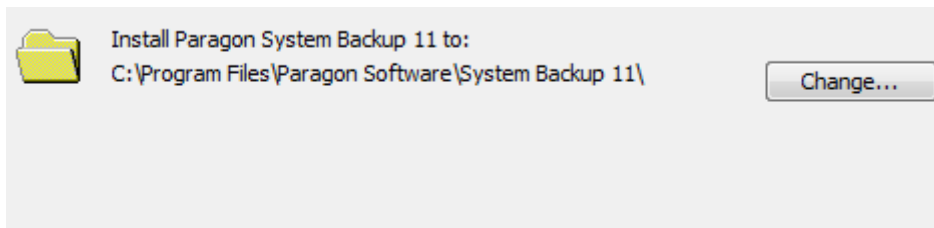
Installation

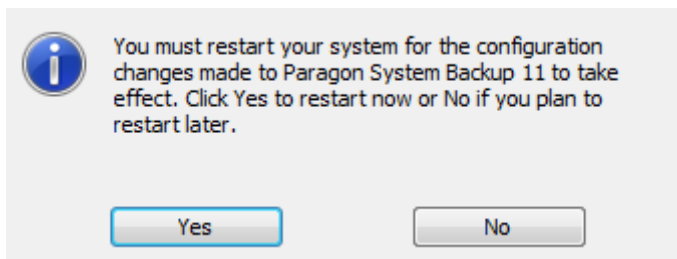To install System Backup, please do the following:

1. Click on the supplied setup file to initiate the installation

2. The Welcome page will inform that the application is being installed. Click **Next** to continue.

3. Please Read Paragon License Agreement carefully and then select the appropriate option to accept. Otherwise you won't be able to proceed with the installation. By clicking the **Print** button, the license agreement may also be printed out.

4. On the next page, click **Change** to install the program to a different location (by default **C:\Program Files\ Paragon Software\System Backup 11**). Otherwise click **Next** to continue.

Install Paragon System Backup 11 to:
C:\Program Files\Paragon Software\System Backup 11\

Change...

5. On the Ready to Install the Program page click **Install** to start the installation or **Back** to return to any of the previous pages and modify the installation settings.

6. The Final page reports the end of the setup process. Click **Finish** to complete the wizard.

7. Once the installation procedure is over you need to restart the system to activate a system driver that will enable to make hard disk snapshots in the background.

You must restart your system for the configuration changes made to Paragon System Backup 11 to take effect. Click Yes to restart now or No if you plan to restart later.
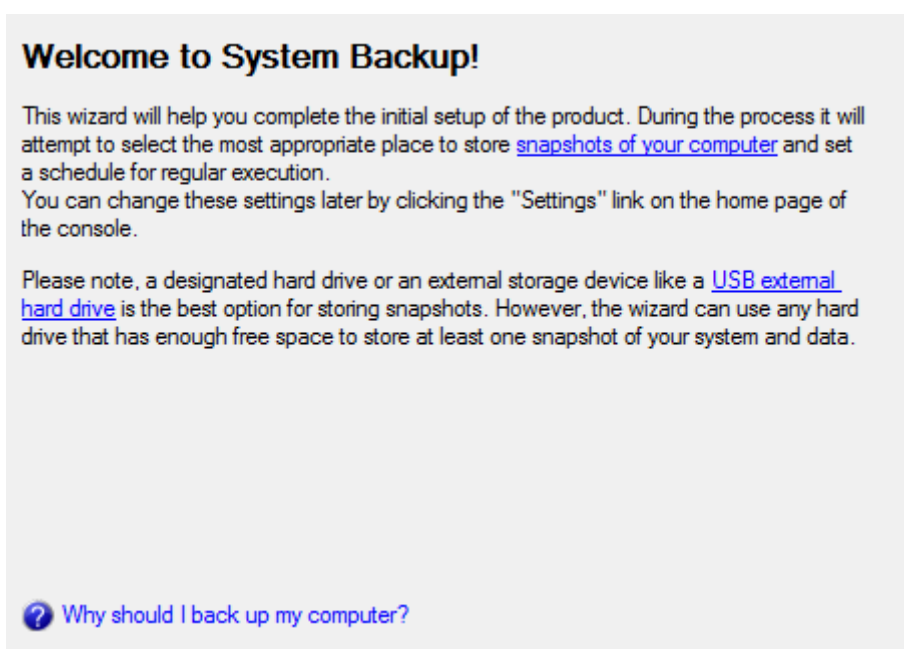
Yes   No

First Start

After the system restart, System Backup will prompt you to go through its configuration wizard. Picking only the most relevant parameters from several wizards and dialogs, it will help you initiate protection of your computer with minimal time and effort. That's why we strongly recommend you to complete it, because it's available for one time only.

The first start wizard will guide you through the following steps:

1. On the first page it will dwell on the upcoming operation. It's just for a get-to-know goal. By clicking on available hyperlinks you can get additional information on technical terms and notions used in our program.

Welcome to System Backup!

This wizard will help you complete the initial setup of the product. During the process it will attempt to select the most appropriate place to store snapshots of your computer and set a schedule for regular execution.
You can change these settings later by clicking the "Settings" link on the home page of the console.

Please note, a designated hard drive or an external storage device like a USB external hard drive is the best option for storing snapshots. However, the wizard can use any hard drive that has enough free space to store at least one snapshot of your system and data.

Why should I back up my computer?

2. Before analyzing your disk system for a purpose of establishing a reliable snapshot storage location (this is where all automatic snapshots will be placed to), it will prompt you to plug in an external storage device, if you've got one of course.

If you have a USB drive or other external storage device, please plug it now, and click **Next**, when ready.
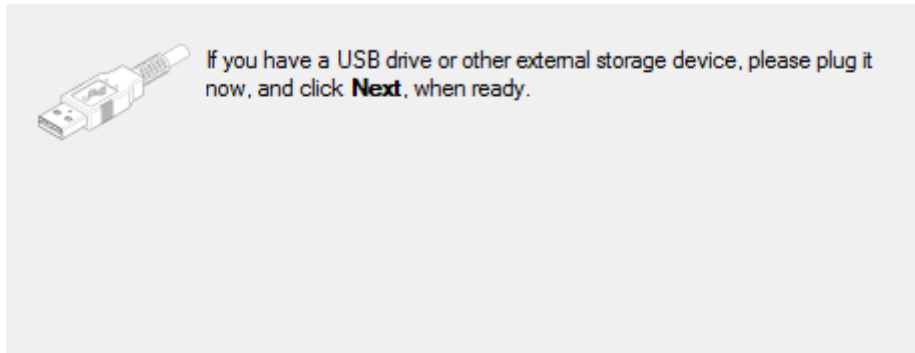
3. The wizard will sum up the amount of data stored on all local disks of your computer and then attempt to find a location enough in capacity to hold at least one snapshot of all on-disk data, giving particular preference to external storages, for they can provide a higher level of data protection. When the analysis is over, it will either suggest a place it considers the best to create the snapshot storage location or state that you don't have any, offering to purchase a storage device of certain capacity. In our case it picks our USB hard drive as the best location.

Would you like to use **Storage on removable disk (Z:), 931.3 GB** to store snapshots of your computer?

This is what we consider as the best storage location for your snapshots (recommended). However, there are other options you may choose from.

⬅ Select a new location to store snapshots

Anyway you're free to choose from all suitable locations (if several found) by clicking on the appropriate link.

The wizard found the following locations to store snapshots (please select one):

Storage on removable disk (Z:), 931.3 GB
No drawbacks found

Storage on internal hard disk, 539.9 GB
New Volume (D:) will be reduced by 89%

Storage on internal hard disk, 441.4 GB
Local Disk (C:) will be reduced by 88%

To confirm your choice, press **Next**

As you see, the wizard can even shrink partitions to release space for the snapshot storage location, which might require the computer's restart. Please take it for granted.

> **All resized partitions will be automatically checked for the file system integrity during the next computer's restart. Please don't worry, it's done on purpose.**

4. When done with the snapshot storage location, it will prompt you to plan a backup strategy by modifying our default strategy for a standard Windows PC (if you need it of course).

We'll back up your data in the following way:

Snapshots schedule:
Back up my files and data every week. I want to keep no more than two recent snapshots in the snapshots storage. Differential snapshots should be created automatically.

Volumes to back up:
All volumes on my computer.

Files to exclude:
No exclude masks set. Please specify what to exclude.

By clicking on the corresponding hyperlinks, you can:

- Specify a backup object (all local disks or only certain volumes). By default, our program will protect data on all local disks, which you can change according to your needs. Anyway we strongly recommend you to protect the system partition in any case, for it can help you in most emergency situations. Please note that Windows 7 may have MSR (Microsoft System Reserved), a special hidden partition that contains boot critical files, so to make Windows 7 start up after restore, don't forget to additionally back up this partition as well.

- Define how many snapshots are allowed in the snapshot storage location (from 1 to 4) to let our program automatically delete obsolete snapshots to release space for new ones. Keeping several snapshots however

enables to reflect different time stamps of your OS and data, which can be your only remedy when, for instance, you accidentally deleted files somewhere in the past and they had already been overwritten by the time you found it out. So we strongly recommend you to keep as many time stamps as possible just in case.

- Set what type of snapshots you'd like System Backup to make. Our program supports creation of full and differential snapshots:

  - A full snapshot includes all contents of a backup object at the moment of its creation. If you roll back your system to the initial state on a regular basis, that's exactly what you're looking for. But if you want to have several snapshots that reflect certain time stamps, unchanged data will inevitable be duplicated in all archives and take additional space on the snapshot storage location.

  - A differential snapshot tackles this problem for it only contains data changed since the time of creating a full snapshot, which forms a base (or a parental image) in this case, thus considerably saving your system resources in case of keeping several time stamps. To restore this type of snapshot a full snapshot and one of its differentials are needed.

- Specify exclude masks to automatically ignore irrelevant data (movies, music, etc.) during creation of snapshots, thus additionally saving space on the snapshot storage location.

- And finally set a time-table for regular backup. For each standard periodical value (Daily, Weekly, Monthly) you can additional define a more precise schedule. Despite the fact that you're free to disable the automatic snapshot creation at all by choosing the **Don't Back up Automatically** option, we strongly not recommend you to do that.

5. As the last step the wizard will configure the snapshot storage location. Depending on your system, it will either create a folder (for an external storage device) or a special hidden partition (for a local disk) that will stay operable should the active file system be damaged.
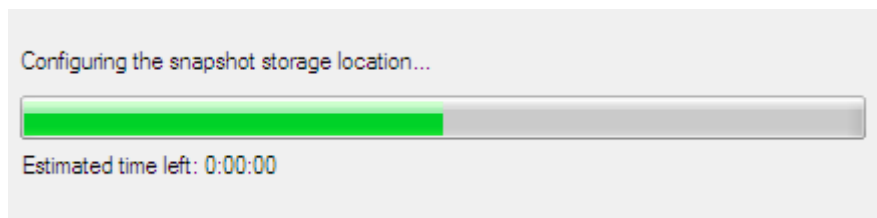
When the first start wizard is over, System Backup will inform you through the system tray that everything's ready to initiate protection of your computer, and as the first action it's about to make an initial snapshot of backup objects specified in the backup strategy.
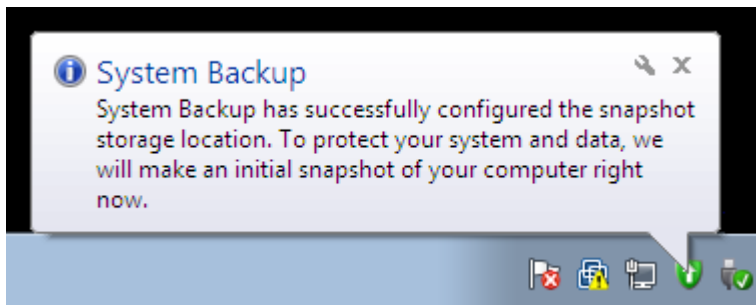
> ⚠ **No matter what your time-table for regular backup is, an initial snapshot will be automatically made once the snapshot storage location is ready to use.**

You can open the console at the moment of creating the snapshot to see the statistics or cancel the operation. By clicking on available hyperlinks you can also get additional information on the subject.
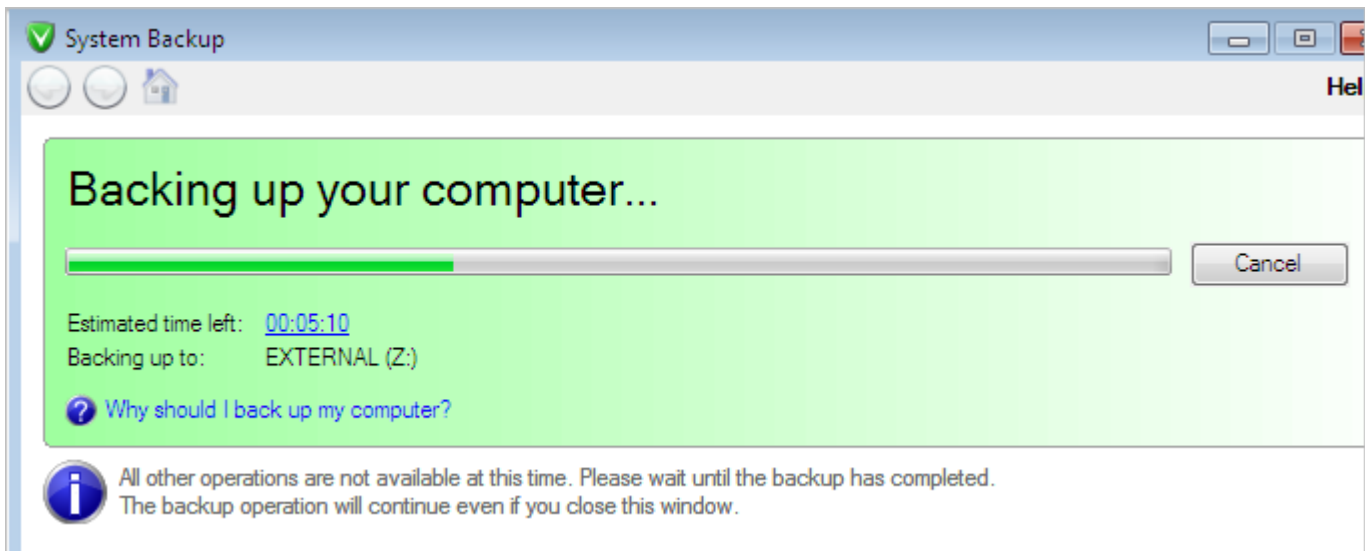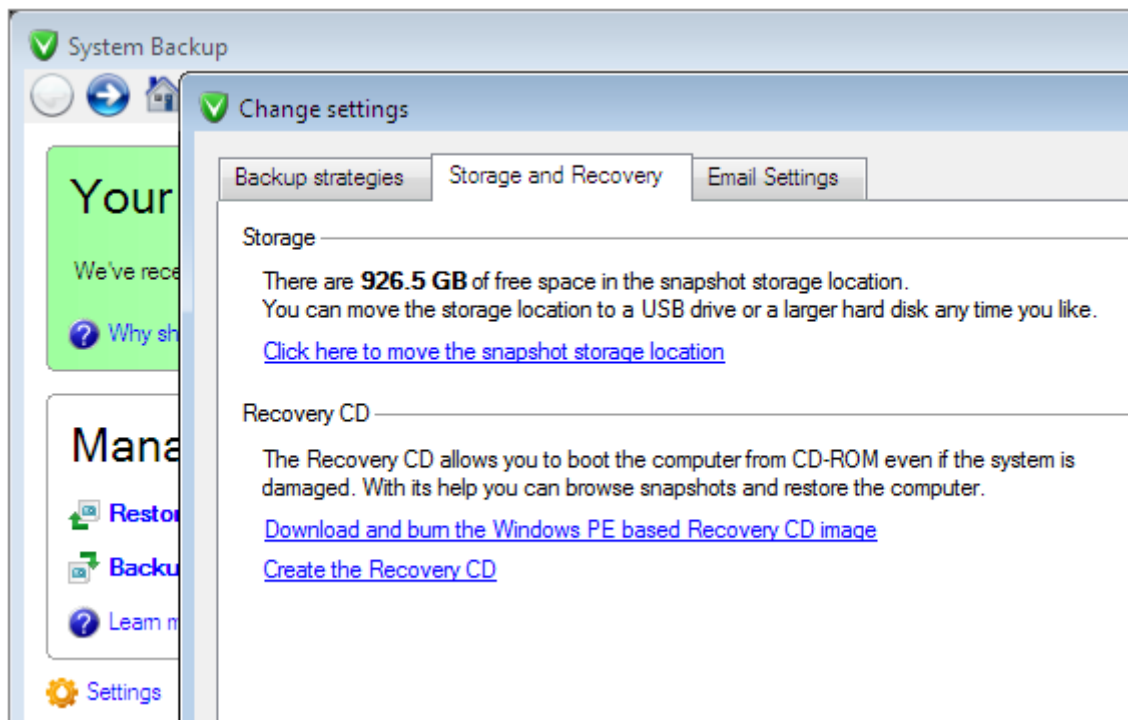
Creating Recovery CD

We highly recommend you to build our Recovery CD as soon as possible, for it can increase your chances of success in case of a hard disk malfunction. As we've already mentioned, System Backup comes with two bootable environments based on the latest Linux kernel and WinPE 3.0. Unlike the Linux environment, which is included in the installation package, the WinPE bootable environment becomes open to download only after unlocking the product. Moreover, once done, it automatically replaces the Linux environment, so only one type of Recovery CD can be available to prepare.

To burn our Recovery CD to a CD/DVD disc, please do the following:

1. Open the program's console by clicking on its icon in the system tray.

2. Click the **Settings** link and then select the **Storage and Recovery** tab.

As you can see our version of System Backup is unlocked, so we've got the option to download the WinPE image from the company's web site. If clicking the **Create the Recovery CD** link right now, we can burn the Linux image to a CD/DVD disc.

3. Click the **Create the Recovery CD** link to launch a special wizard that will help you in the process.

> The Create Recovery CD Wizard will help you create the Recovery CD, used to boot and restore the computer even if the system is damaged.
>
> If you have not downloaded the Recovery CD image yet please do so now.
>
> ❓ What is the Recovery CD and why I need it?
>
> [Next >]   [Cancel]

4. Insert an empty CD or DVD disc to accomplish the operation. If the inserted disc is not empty, the wizard will suggest erasing its contents (if possible). Once the operation has been confirmed, it will delete the re-writable disc's contents and begin the recording process.

> Creating the Recovery CD...
>
> Estimated time left: 0:00:00
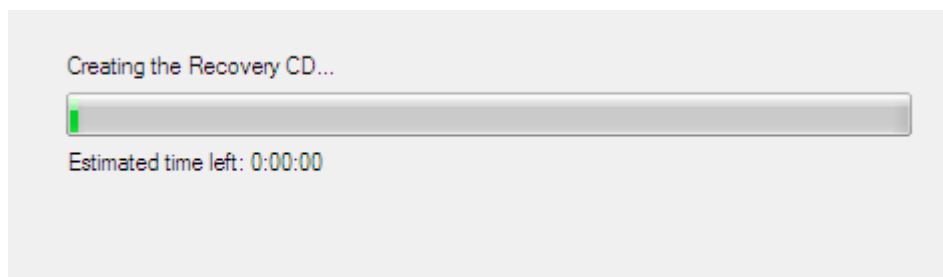
⚠️ **Our WinPE bootable environment is available [for registered users only](#).**

Contacting Paragon Software GmbH

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

Service	Contact
Visit Paragon GmbH web site	www.paragon-software.com
Registration & updates web-service	kb.paragon-software.com
Knowledge Base & Technical Support	kb.paragon-software.com
Pre-sale information	sales@paragon.software.com

Working with System Backup

Here you can find all the necessary information on how to effectively work with System Backup.

Checking Whether My Computer is Safe

System Backup interacts with the user through a web-like interface with an advanced system of font and color indication.
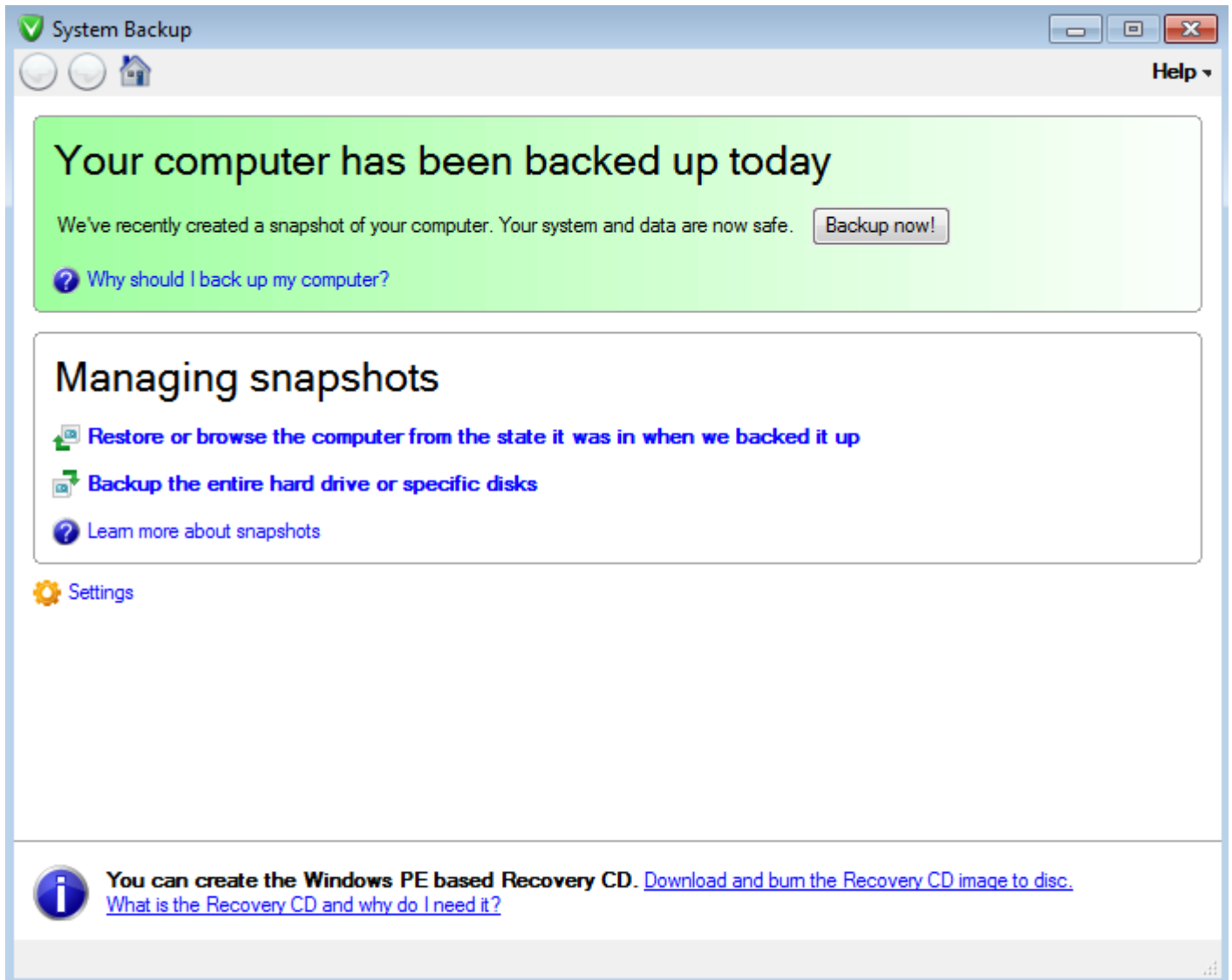
So let's see how it works:
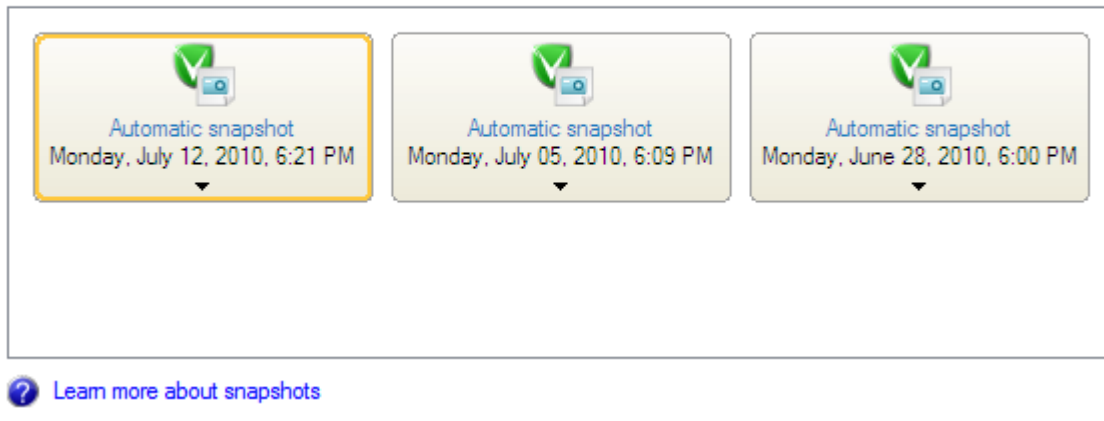
- It indicates three main operating states in color (red, yellow, and green) both in the console and in the system tray. Each obviously reflects different states your automatic snapshots are in at the moment. So even a cursory glance is enough to estimate the situation. Please note that this indicator only deals with automatic snapshots, but not those created manually.

- The most relevant information is always delivered in larger fonts to attract your attention.

- Minor settings are always hidden to focus on what is really crucial.

- Broad use of hyperlinks helps to provide better work experience.

Browsing and Using Snapshot Contents

All available snapshots, both automatic and manual, get on the snapshot list. For easy management, each snapshot has a label (creation date by default).
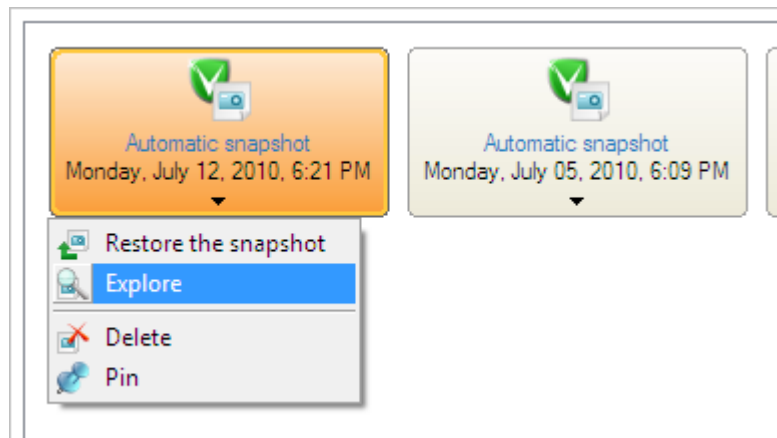
By clicking on the required snapshot, you call a popup menu with available commands:

- **Restore the snapshot** to restore the whole snapshot. Please note that all contents on the disk selected for restoring purposes will be overwritten during the operation, so make sure the snapshot you choose is up-to-date to minimize the risk of data loss.

- **Explore** to browse the snapshot contents and retrieve any files you need.

- **Delete** to delete the snapshot.

- **Pin** (available for automatic snapshots only) to suppress automatic deletion of the snapshot if you need to keep some particular time stamp for long. Please note that pinned snapshots are excluded from the backup strategy routine.
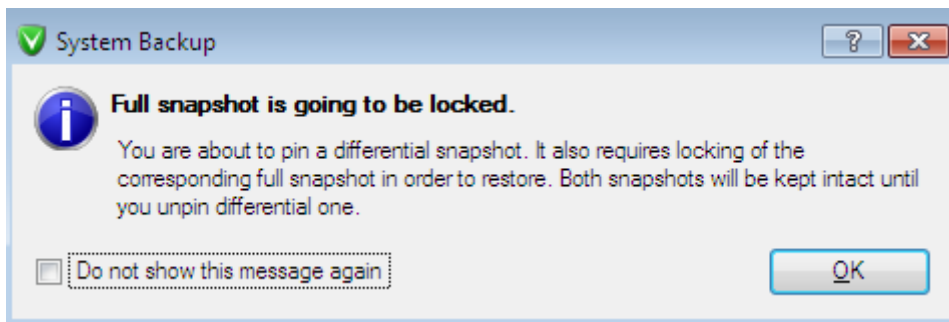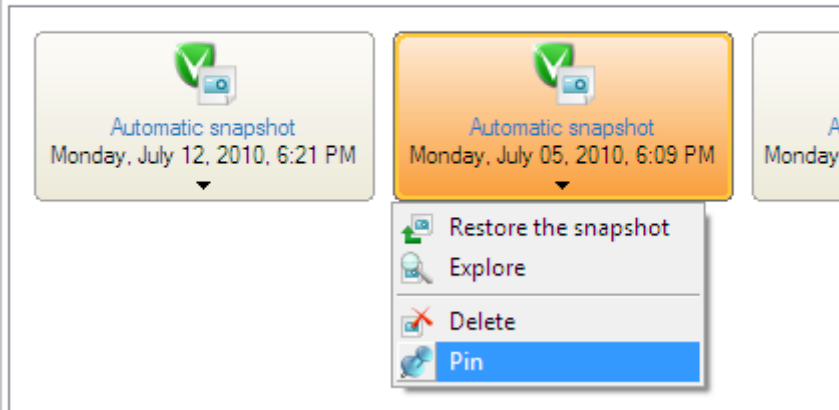
⚠ **If you pin a differential snapshot, its parental image will be pinned as well.**

Changing Settings

Despite the fact that System Backup bases its ideology on the minimal user involvement in the operation process, it still leaves the possibility to customize any parameter. In the Change Settings dialog you can find three tabs, called **Backup Strategies**, **Storage and Recovery**, and **Email Settings**, each containing a number of parameters.

Backup Strategies

- **You can create a new strategy**. Despite the fact that our program enables to create several backup strategies, only one can be used at a time.

- **You can specify an active strategy**. When you change the active strategy, you will be asked to confirm deletion of all automatically created snapshots. If you've got pinned snapshots, System Backup will offer you to delete them as well, which may be rejected. In this case all pinned snapshots will be converted to manual.

- **[You can change parameters of an already existing strategy](#)**. Please note that adding more volumes as a backup object equals to changing of the active backup strategy, so you will also be asked to confirm deletion of all automatically created snapshots. However if you've attached a new local disk and you've got all local disks as a backup object, System Backup will automatically add it to the backup strategy routine, so you don't need to change anything.

- **You can rename a strategy**.

- **You can delete a strategy**.

Storage and Recovery

- **You can move and/or resize the snapshot storage location**. As we've already mentioned, first time you start System Backup, it attempts to find a place for a reliable and effective snapshot storage location. Your system however may not offer resources to do that. So our program has to apply a roundabout way (e.g. resize the system partition). Nevertheless, after purchasing an external storage device, you can reconfigure the snapshot storage location to increase the safety level for your snapshots.

- **You can burn our Linux bootable environment to a CD/DVD disc**. If you're a registered user, you can additionally download and burn our WinPE 3.0 Recovery CD from here.

Email Settings

To send support request to Paragon Support Team, you need to set the following options:

- **Outgoing mail server (SMTP)**. To send messages by using the built-in mail client, it is necessary to have access to a computer running an SMTP (Simple Mail Transfer Protocol) server. All outgoing messages are first sent to the SMTP server, which in its turn delivers them to the required recipients. The address may be represented as a traditional Internet host name (e.g.: mail.com) or as an IP numeric address (e.g. xxx.xxx.xxx.xx).

- **User e-mail address**. Specify an e-mail address that has been assigned by the Internet Service Provider or organization's e-mail administrator.

- **My outgoing server requires authentication**. Activate the option to allow the program to make authentication on the server before sending messages.

  - User name. Enter the name that will be used to log in to the e-mail account.

  - Password. Enter the password that will be used to access the mail server.

More Control on Computer Snapshots

Besides the automatic snapshot creation to the snapshot storage location, System Backup enables to manually make a snapshot of the entire hard disk or separate volumes to one of the following locations any time you like:

- Backup to the current snapshot storage location;

- Backup to a local mounted (with drive letter assigned) partition;

- Backup to a network drive to stand a better chance of success in case of a hard disk failure.
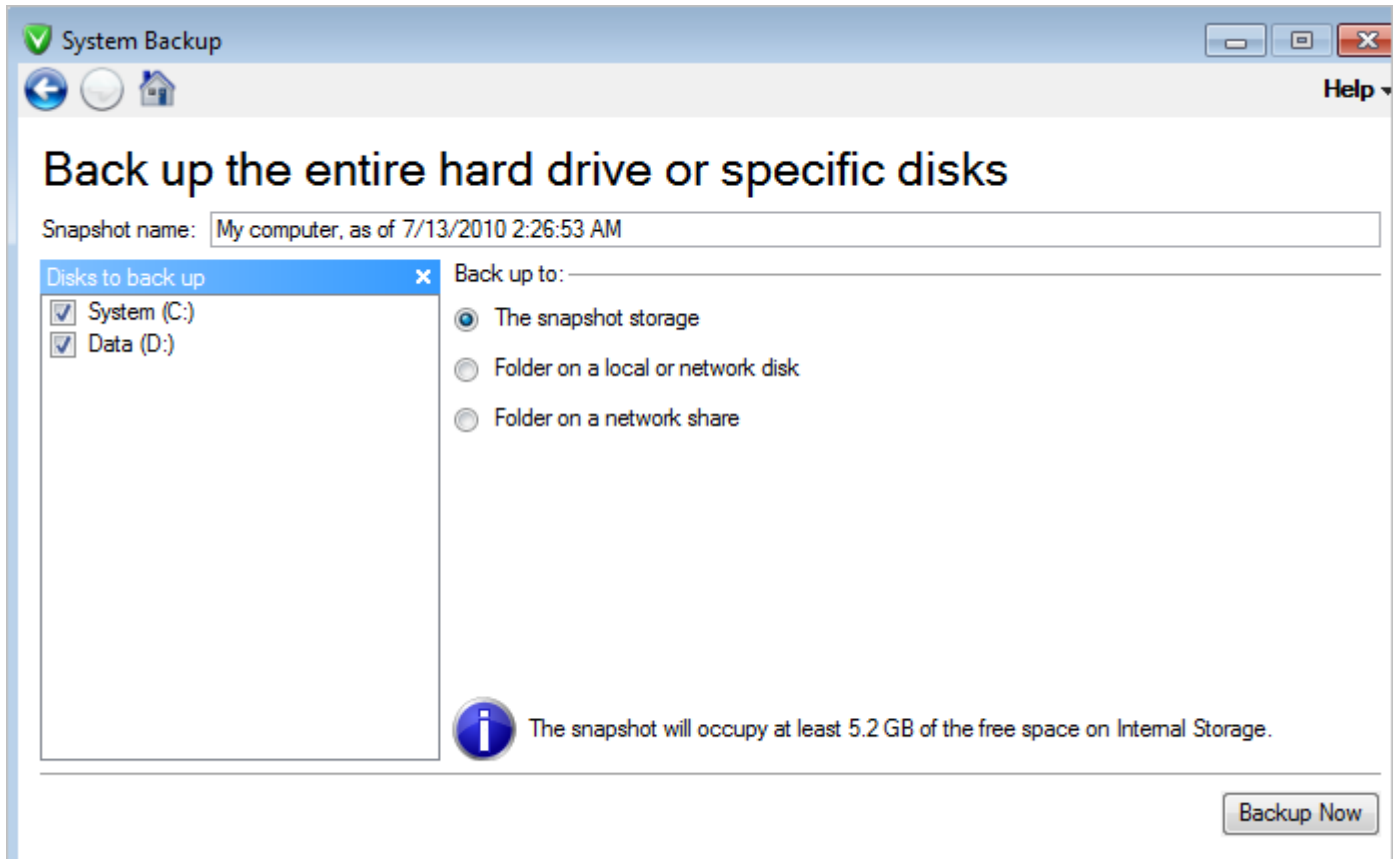
After you've chosen the required backup destination, System Backup will automatically check its available space and notify if it cannot be used. Moreover it will suggest an easy to understand snapshot name, which however can be modified.

System and Data Recovery

System Backup is exceptionally equipped for disaster recovery. You can easily restore specific data from a snapshot or the whole snapshot:

- Directly from the console under Windows;

- From our Linux Recovery CD;

- From our WinPE 3.0 Recovery CD.

### Restoring Separate Files and Folders under Windows

If some files have been lost by an accident, the most effective way is to retrieve them from an existing snapshot directly under Windows:

1. Open the program's console by clicking on its icon in the system tray.

2. Click the **Restore or browse the computer at the point it was when we saved it** link to see all available snapshots, both automatic and manual. For easy management, each snapshot has a label (creation date by default).
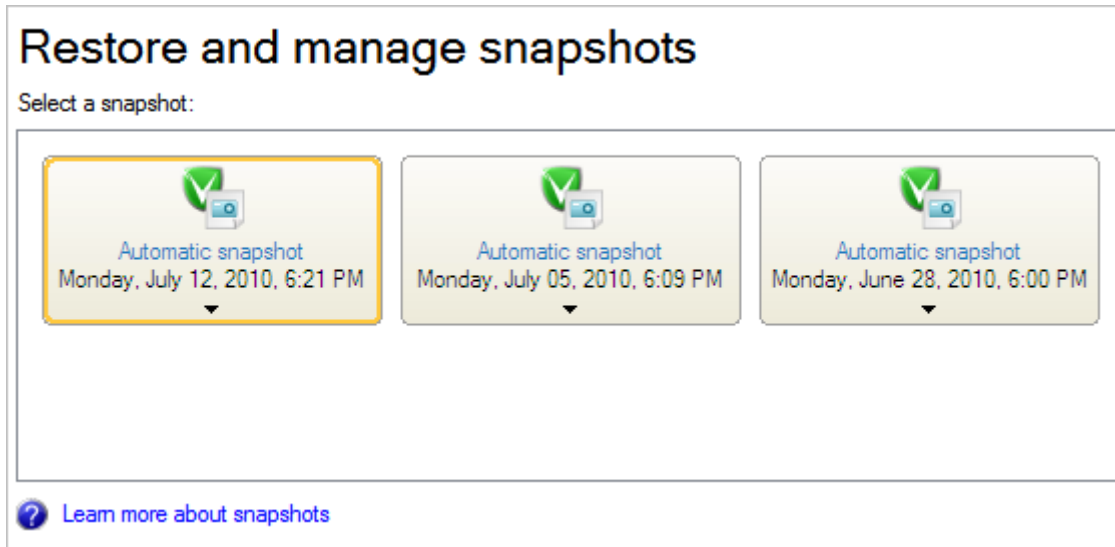

3. Click on a snapshot and then select **Explore**. To restore the whole snapshot, please use the **Restore the snapshot** option.
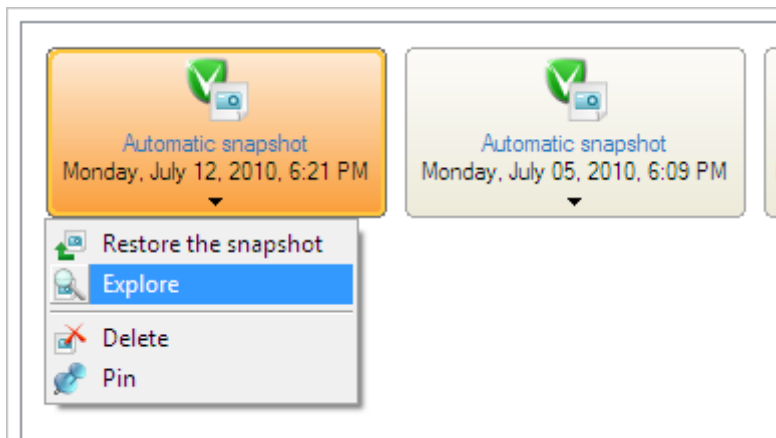

4. When having to do with a snapshot containing several volumes (just our case), please additionally select a partition, where the required data is located.
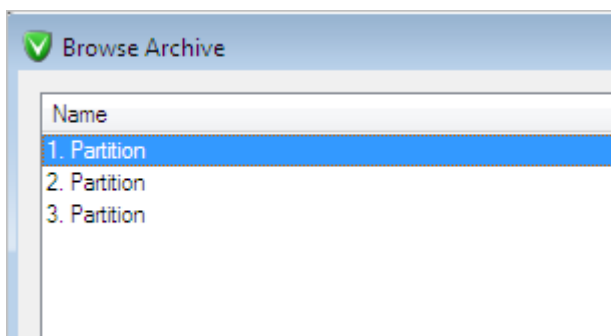
5. Browse for a file or folder you need to restore. When found, call the popup menu (right click of the mouse button) for it and then select **Export**.
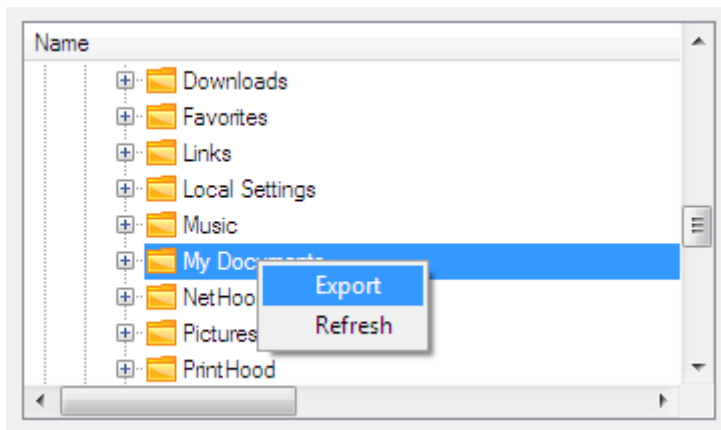
6. Specify a place where the file or folder will be extracted to. We prefer to restore the data to a new location.
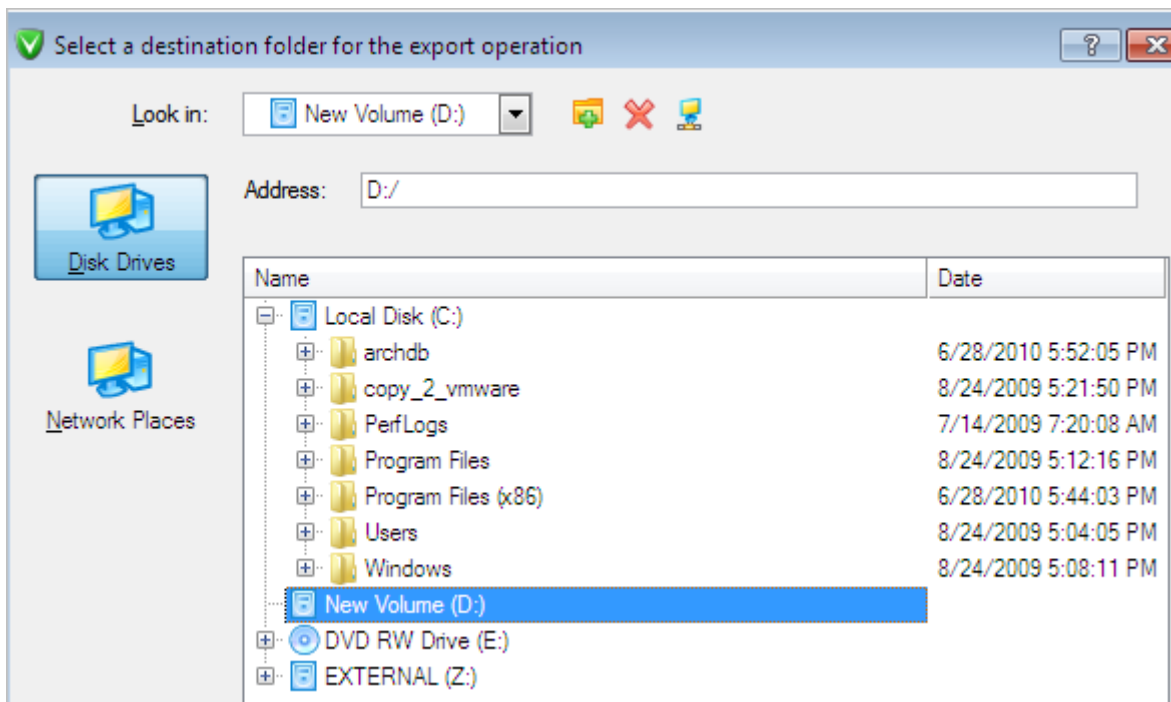

Restoring System from Linux Recovery CD

If your Windows fails to boot, start up the computer from our Linux Recovery CD to either copy all corrupted or missing system files from an existing snapshot to the system partition or restore the whole snapshot (recommended):

1. Start up the computer from our Linux Recovery CD.

2. Launch the **Simple Restore Wizard** to restore the whole snapshot. To browse contents of existing snapshots and restore separate files and folders, please use the File Transfer Wizard.
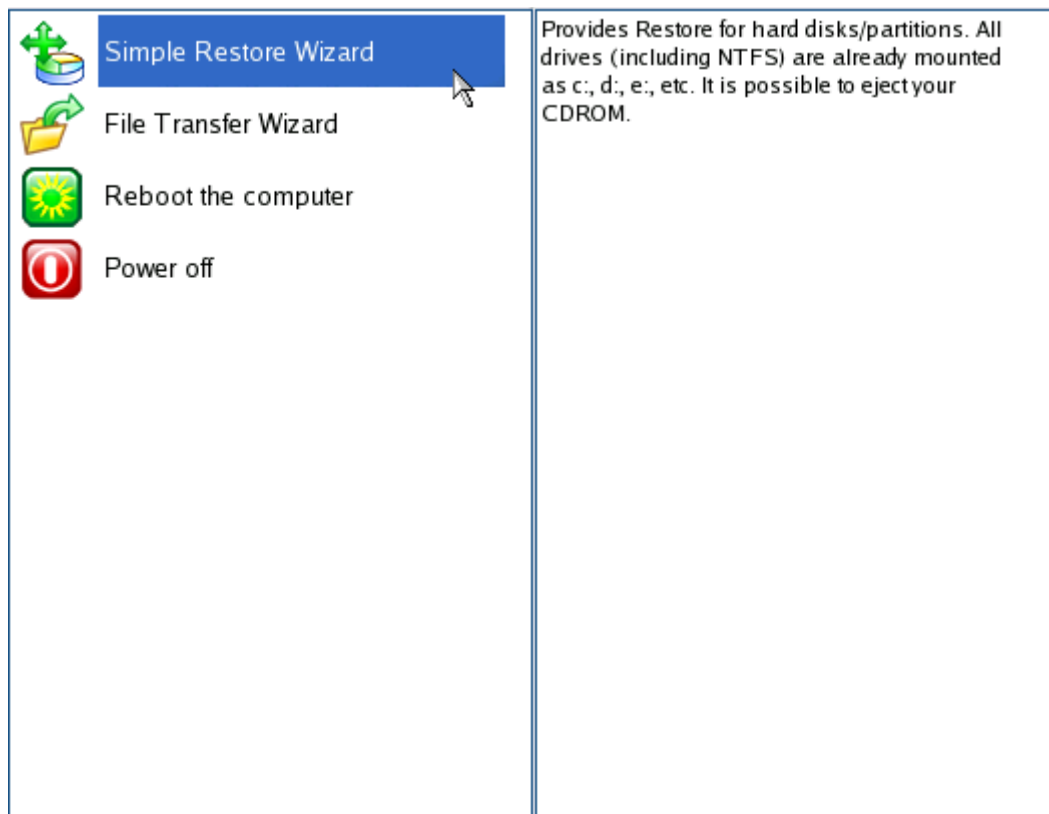
3. On the Wizard's Welcome page, click the Next button.

4. On the What to Restore page, you can see a list of available snapshots (if several). When you find your image, double click on it to proceed.
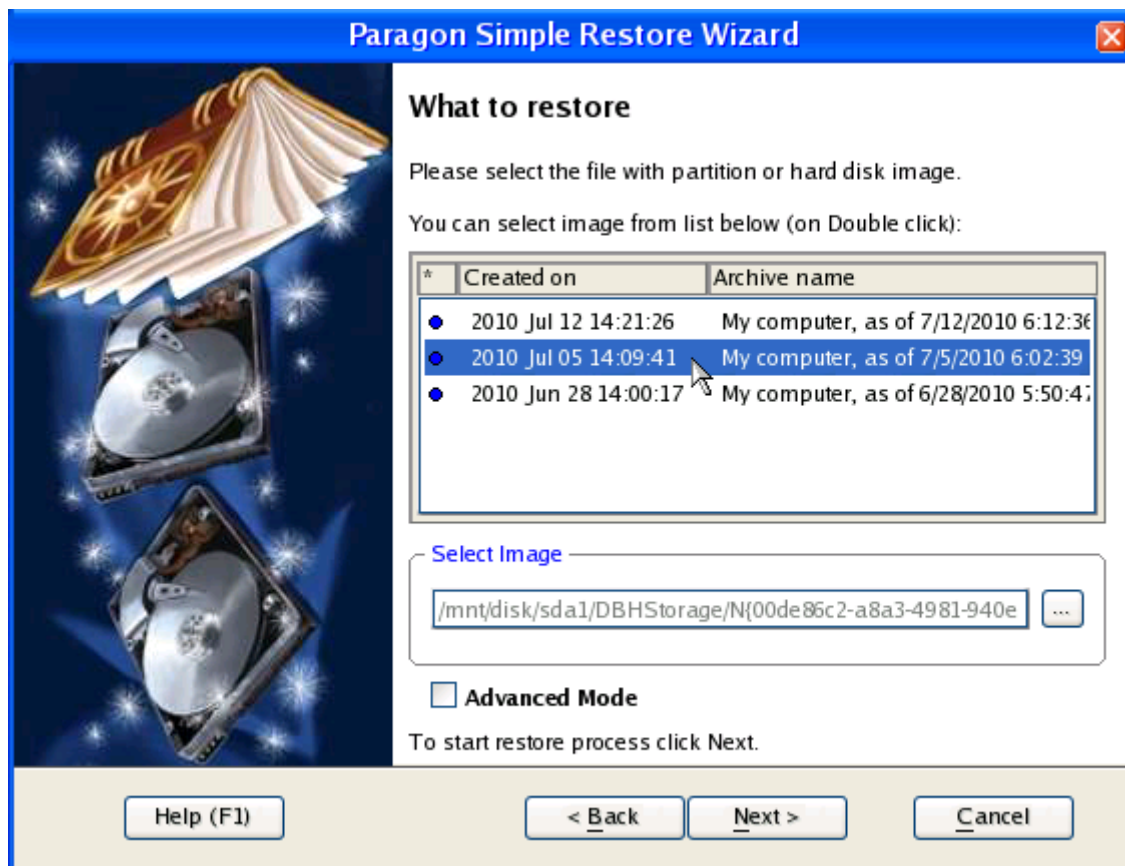
5. You will be notified that all files created after the snapshot date will be lost. So it's recommended to select the most recent snapshot to minimize the risk of data loss.

6. In the Progress window you can see in real-time a detailed report on all actions carried out by the program.
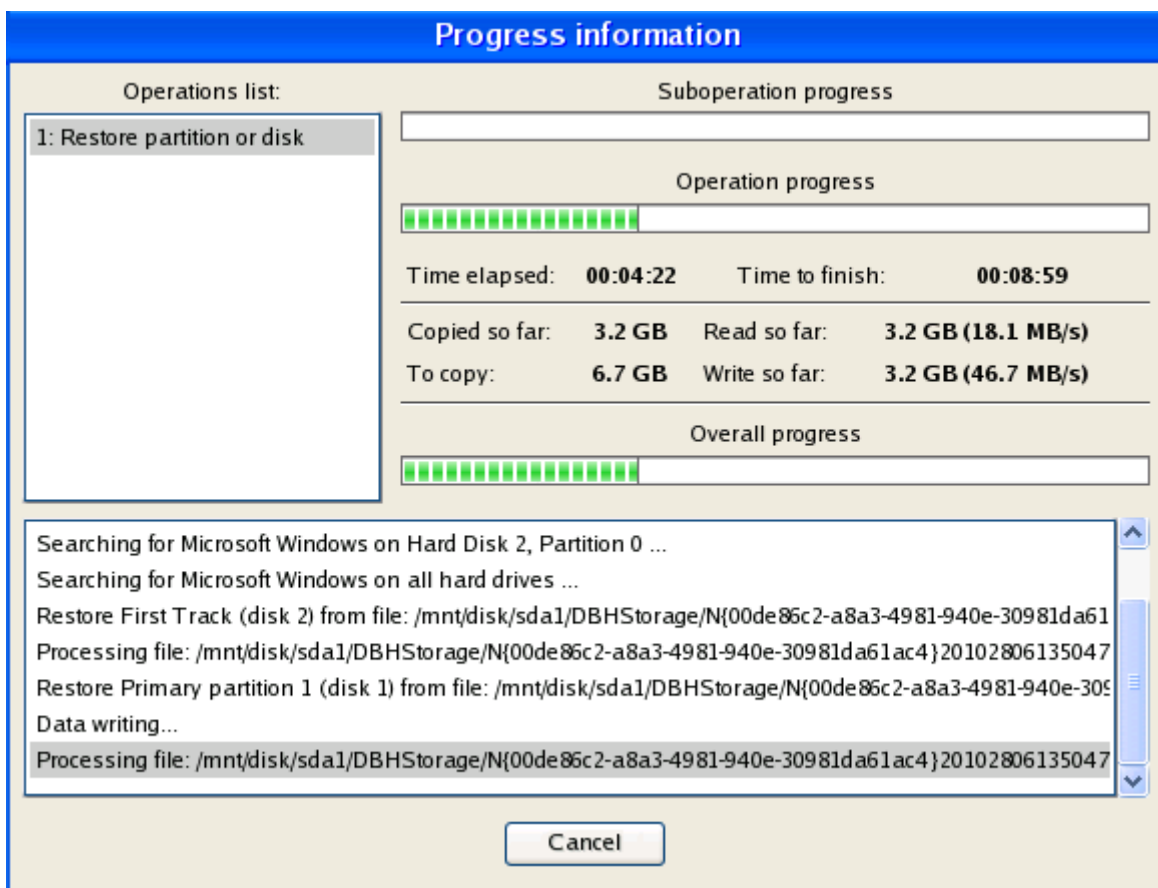
7. When done, click **Finish** and then restart the computer.

⚠️ **After the restore operation, all on-disk partitions will be automatically checked for the file system integrity during the next system restart. Please don't worry, it's done on purpose.**

This scenario can also be accomplished with the WinPE 3.0 Recovery CD.
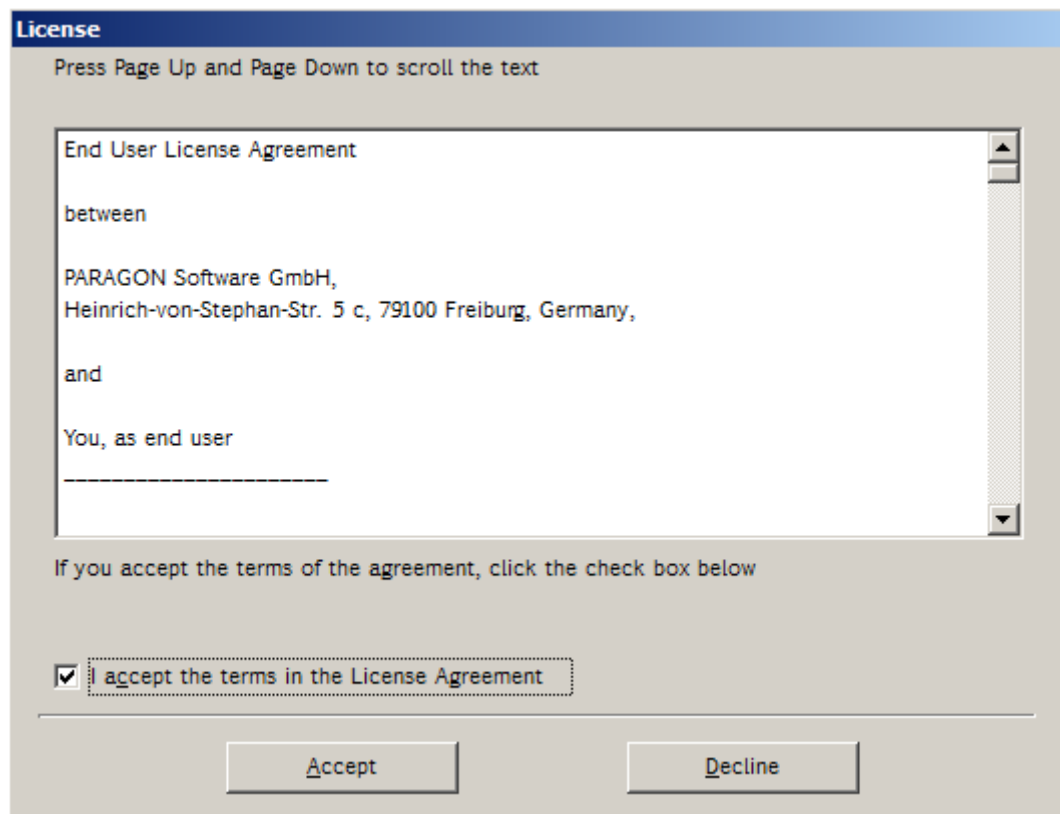
Restoring System from WinPE Recovery CD

Let's see now how to restore from our WinPE 3.0 Recovery CD:

1. Start up the computer from our WinPE Recovery CD.
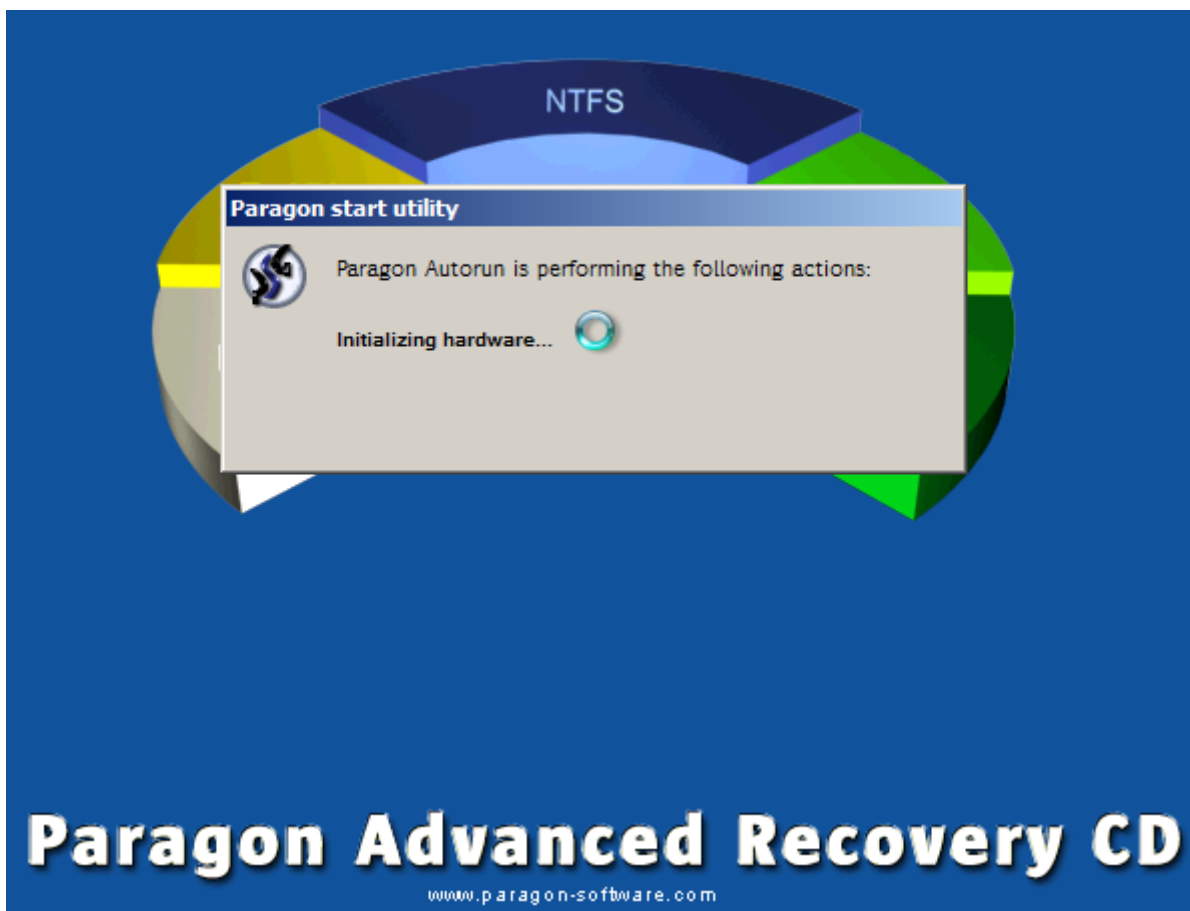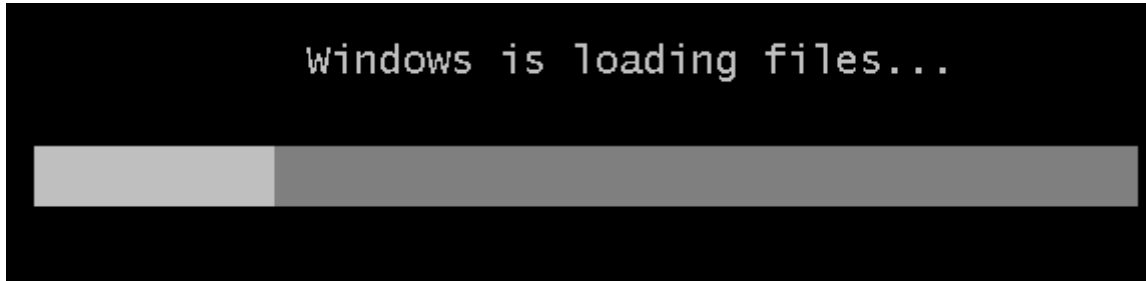
2. Once it has been loaded, you will see the License Agreement. Read the agreement and then mark the appropriate checkbox to accept. If you do not agree with any conditions stated there, you won't be able to use the program.
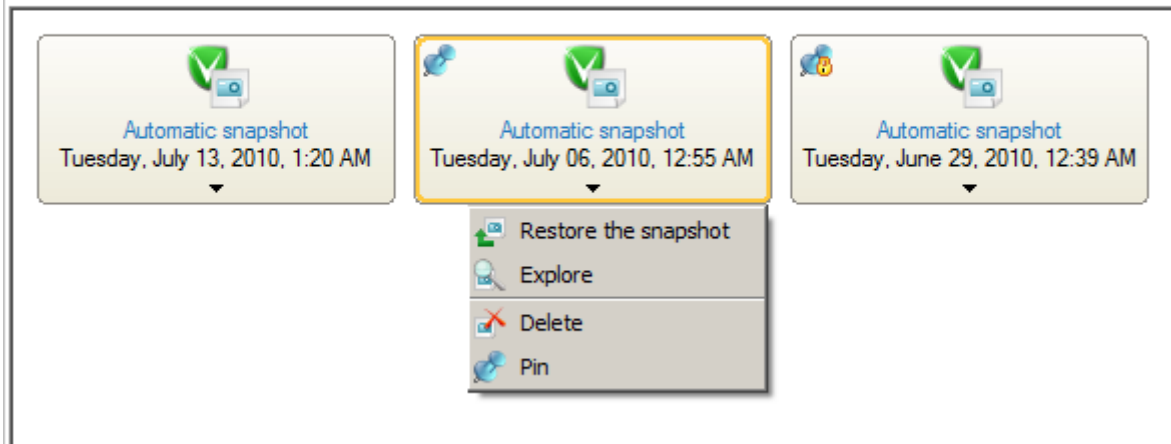
3. When accepted, the program's console will be automatically opened on the snapshot list. As you can see it shares the same interface with the Windows version.
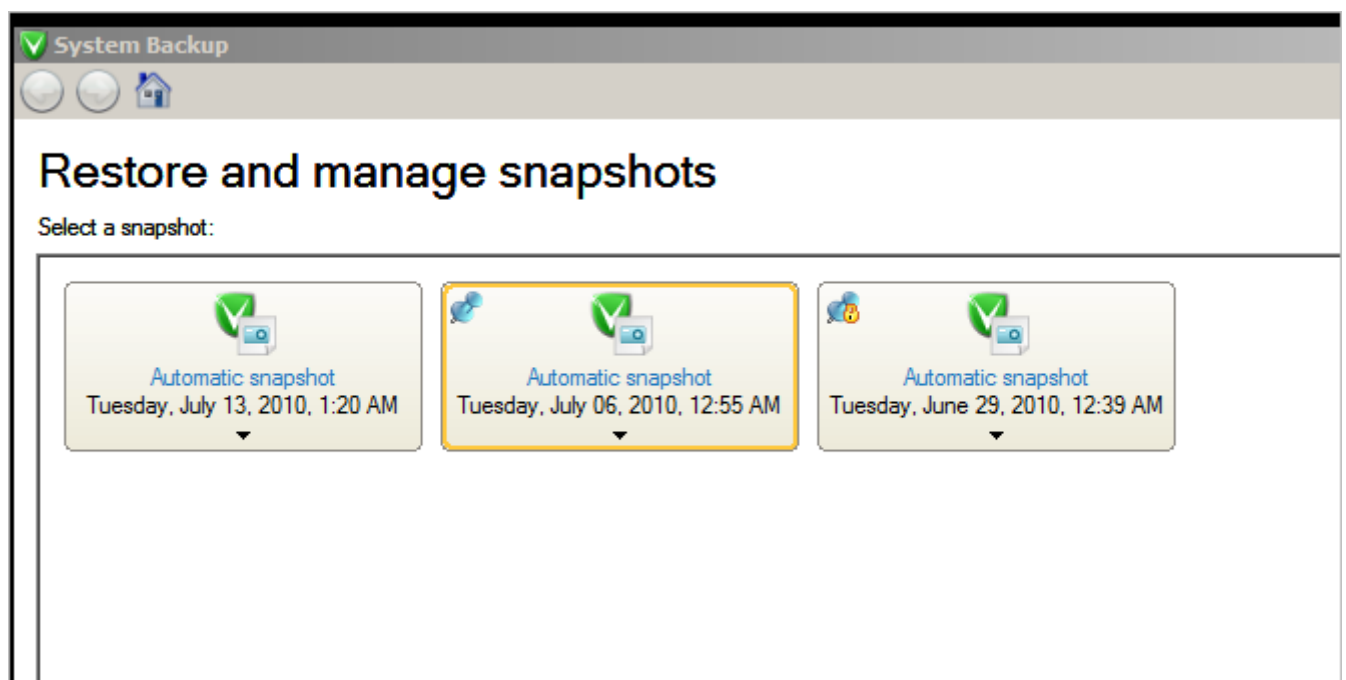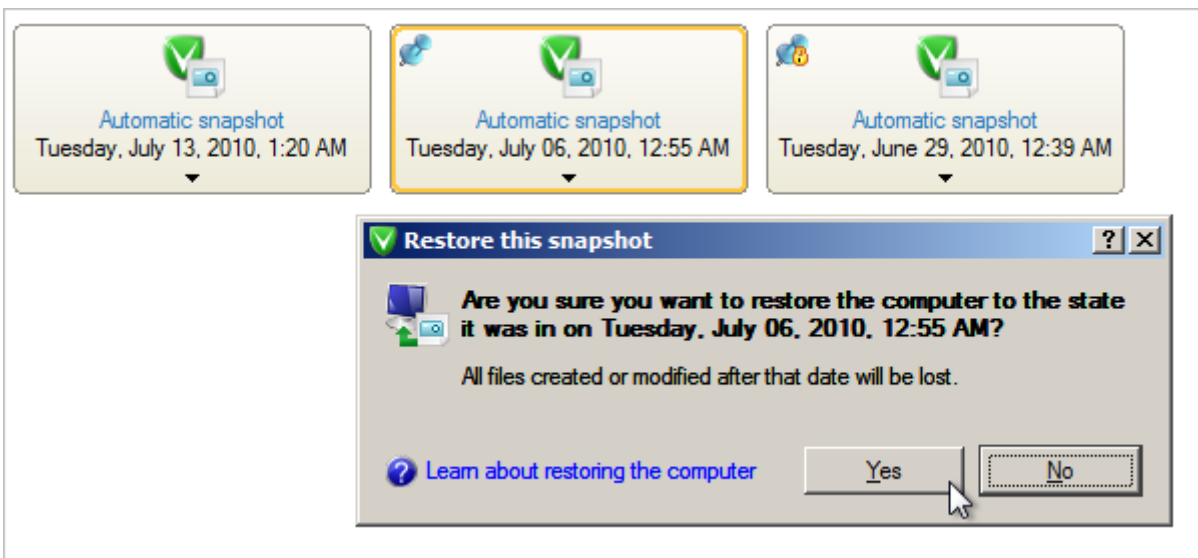

4. Click on a snapshot and then select **Restore the snapshot**. To restore specific data, please use the **Explore** option.
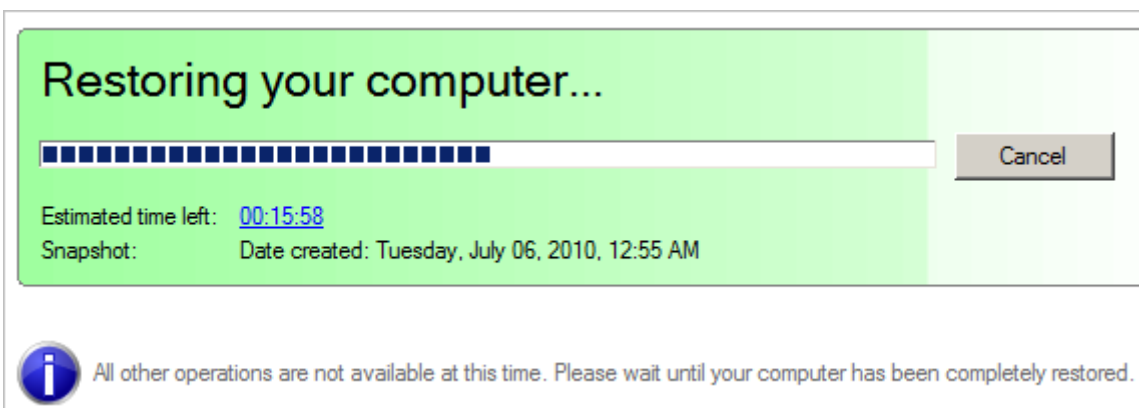
5. You will be notified that all files created after the snapshot date will be lost. So it's recommended to select the most recent snapshot to minimize the risk of data loss.

6. During the restore you can see the statistics or cancel the operation. By clicking on available hyperlinks you can also get additional information on the subject.

7. When done, click **OK** to restart the computer.
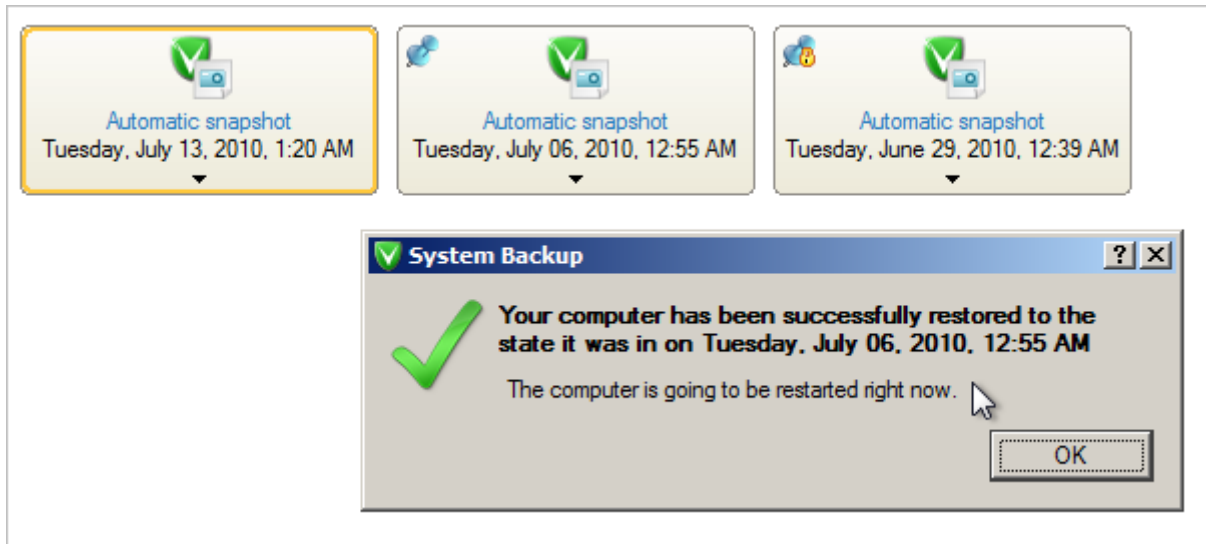
> After the restore operation, all on-disk partitions will be automatically checked for the file system integrity during the next system restart. Please don't worry, it's done on purpose.
>
> This scenario can also be accomplished with the Linux Recovery CD.

How to Buy

You can buy Paragon System Backup 11 by clicking on the corresponding link at the lower part of the console.

Below you can find that link:

https://www.cleverbridge.com/80/?scope=cart&cart=92684&x-trial=paragon

Unlocking the Product

By default, our product comes as a trial version, which has the following limitations:

- A 30-day expiry period, after which all functionality becomes unavailable;
- WinPE 3.0 bootable recovery environment is unavailable.

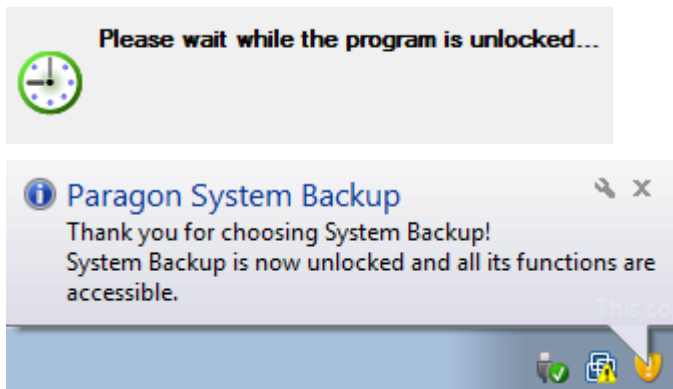Anyway you can unlock System Backup from the program's console any time you like:

1. Click on the **please unlock your copy** link.
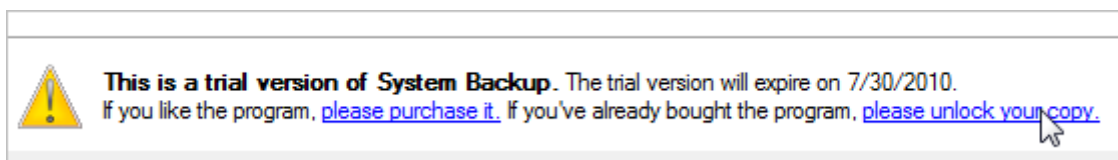
2. Provide your registration info, i.e. product key and serial number.
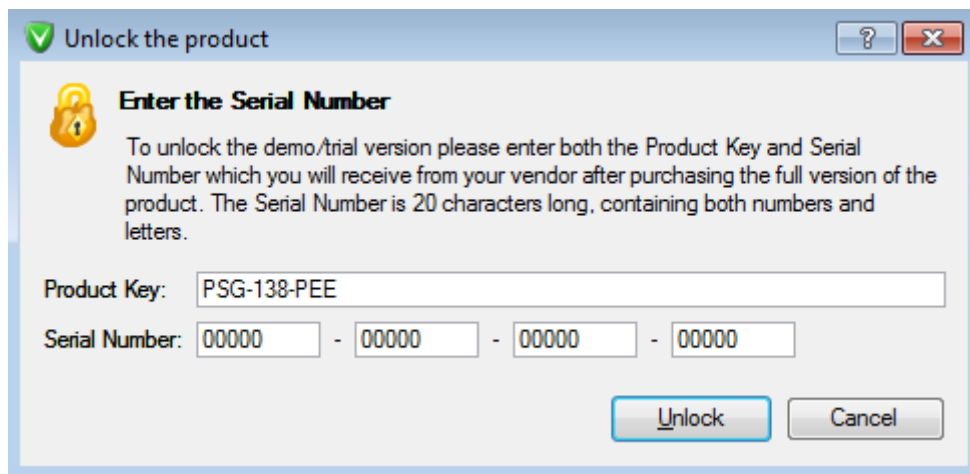
That's it. After a couple of minutes you will be notified on the successful accomplishment of the operation.

Troubleshooter

Here you can find answers to the most frequently asked questions that might arise while using System Backup:

Q: Is there any possibility to make automatic snapshots of separate partitions?

A: Certainly, you can specify volumes to back up when planning your backup strategy or at any time from the Change Settings dialog, the **Backup Strategies** tab.

Q: Could System Backup make snapshots strictly according to a set timeframe?

A: Certainly, again when planning your backup strategy or at any time from the Change Settings dialog, the **Backup Strategies** tab, just click on the current time-table, then select **Set up precise schedule…** to specify when exactly you'd like snapshots to be made.

Q: I've manually backed up all partitions of my hard disk through the **Back up the entire hard drive or specific disks** option, but the program indicator is still red. Is it a kinda bug?

A: The color indicator both in the console and in the system tray only deals with automatic snapshots, but not those created manually. If you feel like manually backing up system and data, you'd better use Paragon Backup & Recovery - it's more efficient in this.

Q: In the program group I've found a subfolder named **Advanced**. What's that?

A: In this folder you can find wizards of our flagship disaster recovery solutions, with the help of which you can set up the required operation exactly according to your demands, for they offer to specify a lot of additional parameters. Please note however that these wizards are for experienced users only, who know exactly what they need. We've put them for your friends, who do prefer traditional-like wizards. If you personally feel like using these wizards, then you'd better use Paragon Backup & Recovery.

Q: I've connected an external storage, but System Backup doesn't enable to create the snapshot storage location on it. What's the problem?

A: Most likely System Backup has just had not enough time to recognize your storage device. To tackle this issue please close the console, re-connect the device, and then try to create the snapshot storage location. If still doesn't, please additionally restart the computer.

Q: System Backup requires the system restart to create the snapshot storage location. Is that normal behavior?

A: It's only normal if our program resizes your system partition to make room for the on-disk snapshot storage location. In all other situations - it's not, so please check, whether the VSS service is active or ask your friends to do that. If VSS is active, but System Backup still requires the system restart, please address Paragon Support Team: http://www.paragon-software.com/support/index.html

Q: Could I create the snapshot storage location on a network share?

A: The current version of the program doesn't support this functionality.

Q: So where the snapshot storage location is located?

A: If you create the snapshot storage location on one of your internal hard disks, then it'll be on a special hidden partition (called the backup capsule in other products from Paragon), which can only be accessed with Paragon's products. If on an external storage device, then System Backup will create a separate folder to keep snapshots, so they will be available as any other file stored on that device.

Q: What does the gray indicator in the system tray mean?

A: It means System Backup is initializing and cannot show the console at the moment.

Q: What should I do when the program operates incorrectly, but I've not found my problem in this troubleshooter?

A: Please address Paragon Support Team: http://www.paragon-software.com/support/index.html