

EaseUS[®] Todo Backup

User guide



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Part 1 Welcome

1. Overview

Thanks for using **EaseUS Todo Backup**. As an integrated solution for data protection, it has been widely used in personal PC, business workstation and server. With its efficient and stable features, all your important data including Operating System, documents, photos, music as well as financial data will be well protected.

With the image file generated by **EaseUS Todo Backup**, you will have a reliable backup from which you can easily recover from almost all computer software problems, such as a system crash, partition/disk corruption, virus infection, data loss, etc.

2. How to use this manual

Alternatively you can obtain context-sensitive help by pressing **F1** when using our product. It's handy especially when you are confused about an option or a certain feature.

This manual consists of 4 main sections. They are briefly described, below:

1.) Welcome

This part gives you a brief introduction of EaseUS Todo Backup and new features in the latest version.

2.) Getting started

This section lists the hardware and system requirements of EaseUS Todo Backup, supported storage devices, and the method to install/uninstall.

3.) Using EaseUS Todo Backup

This part includes detailed step-by-step instructions for each function along with some operation examples. It starts with [Introduction](#), and ends with [Pre-OS](#).

4.) Other useful information

You may find possible solutions for known BUGs/software defects in [Troubleshooting](#). The explanations for some technical terms are available in the [Glossary](#).

If you still cannot find what you need, please contact our [Support](#) team for more information.

3 New in EaseUS Todo Backup 4.6

In order to help users complete backup task/plan more efficiently, we have made substantial improvements in version 4.6.

New features

EaseUS Todo Backup PXE server

Part 2 Getting started

1. Hardware requirements

The minimum requirements for EaseUS Todo Backup are an X86 or compatible CPU with a main frequency of at least 500 MHz, a standard PC system with mouse, keyboard, color monitor, and 1GB RAM, CD-R/RW, DVD-R/RW, DVD+R/RW or DVD+R DL drive for bootable media creation.

2. System requirements

EaseUS Todo Backup supports the following operating systems: Windows 2000 SP4, Windows XP, Windows Vista, Windows Server 2003/2008 Windows 7 and Windows 8 Consumer Preview, Windows Server 8 beta.

3. Supported file systems

EaseUS Todo Backup supports the following file systems: FAT12, FAT16, FAT32 and NTFS. Those partitions containing other file systems will be listed as **Other** in our product. EaseUS Todo Backup will back them up in Sector by sector mode.

4. Supported hard disk types

IDE, EIDE, SATA, ESATA, ATA, SCSI, iSCSI, USB 1.1/2.0/3.0 disk, and Firewire disk are all supported by EaseUS Todo Backup. The maximum capacity of a disk compatible with EaseUS Todo Backup can be up to **2TB**.

Backing up to CD-R/RW DVD-R/RW DVD+R/RW DVD+R DL is also supported.

5. Install and uninstall

1). Install EaseUS Todo Backup:

1. Double click EaseUS Todo Backup setup file. The setup wizard will be launched and click **Next** to start installation.
2. Confirm **License Agreement**. If you accept the terms, select **I accept the agreement** to continue.
3. Select to install **EaseUS Todo Backup**, and determine whether to create a built-in account for EaseUS Todo Backup (If the computer needs to be managed by EaseUS Todo Backup Central Management Console, the option should be chosen).
4. Choose a location to install the software. Click **Next** to install to the default folder, or click **Browse** to select a specified location.
5. Tick the related option to create a shortcut on your desktop or Windows quick launch bar. Also you can tick them both.
6. Specify the default backup storage directory for EaseUS Todo Backup.

7. Click **Next** and wait for the installation to complete.

2). Uninstall EaseUS Todo Backup:

1. From the Windows Start menu, select **Start > Settings > Control Panel** (From the Windows Start menu, select **Start > Control Panel** in Windows 7/Vista)
2. Double-click **Add/Remove Programs**, and select **Change or Remove Programs** (Double-click **Programs and Features** in Windows 7/Vista).
3. Select EaseUS Todo Backup, and click Remove to uninstall the related components (Select EaseUS Todo Backup from the list and click **Uninstall** in Windows 7/Vista).
4. Or select **Start > All Programs > EaseUS Todo Backup 4.6 > Uninstall EaseUS Todo Backup 4.6**. Then, follow the instructions in the uninstall wizard.

6. Edition comparison

There are seven editions of **EaseUS Todo Backup** in all. They have different authorization, available features and usable scopes.

Workstation Trial Edition - free of charge for 15 days' evaluation with Linux bootable disk provided. No support for Windows server operating system. Some features are limited.

Workstation Edition - commercial version for desktop and laptop end users, with more features available than the Workstation Trial Edition.

Server Trial Edition - free of charge for 15 days' evaluation with Linux bootable disk provided. Compared to the full Server Edition, some advanced features are limited.

Server Edition - commercial version for Windows server, only few a features are limited.

Advanced Server Trial Edition - free of charge for 15 days' evaluation with Linux bootable disk provided. Compared to the full Advanced Server Edition, some advanced features are limited.

Advanced Server Edition - this edition can support more Windows server components than the basic server edition, such as Exchange server, MS SQL and Tape.

Technician Edition - providing technical service with unlimited usage or for internal use up to 10 machines. Only the Snapshot is unavailable.

Feature Comparison among these editions

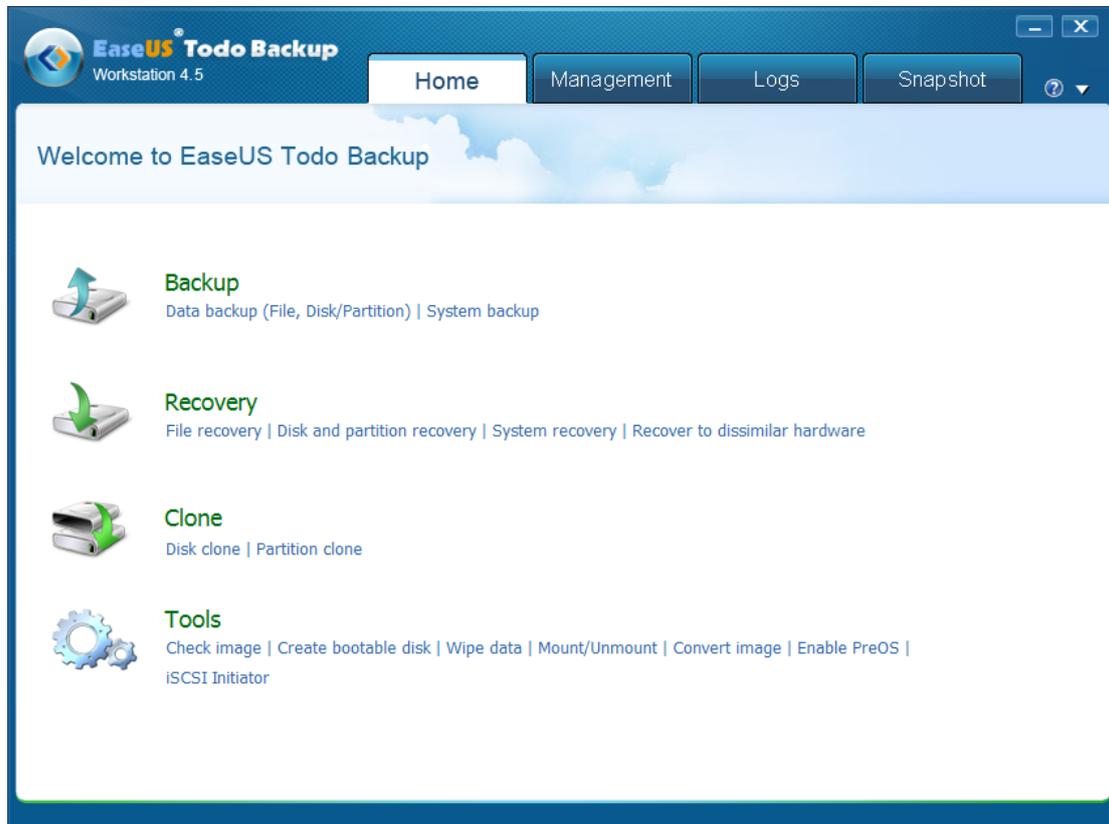
	Workstation	Server	Advanced server	Technician
Disk and partition backup	✓	✓	✓	✓
File backup	✓	✓	✓	✓
Incremental/Differen	✓	✓	✓	✓

trial backup				
Backup/clone dynamic volume	✓	✓	✓	✓
Create schedule	✓	✓	✓	✓
System backup	✓	✓	✓	✓
Delete image based on version	✓	✓	✓	✓
Snapshot	✓			
Recover to dissimilar hardware	✓	✓ *	✓ *	✓
Backup MS SQL Server			✓	✓
Backup Exchange Server			✓	✓
Back up to tape		✓	✓	✓
WinPE bootable disk	✓	✓ *	✓ *	✓
Enable Pre-OS	✓	✓	✓	✓
Convert image tool	✓	✓	✓	✓
Backup in Windows Explorer	✓	✓	✓	✓
Support VSS		✓	✓	✓
Support Microsoft server OS		✓	✓	✓
Network Direct Connection Control	✓	✓	✓	✓

- * **Recover to dissimilar hardware** and **WinPE bootable disk** is available in Trial Edition only after installing Windows Automated Installation Kit (AIK) and creating a WinPE bootable disk/exporting a WinPE ISO image file.

Part 3 Introduction

Since the available features in different editions are not exactly the same, the **Home** page may vary with the editions. For the **Workstation** edition, the **Home** page would be:



Three other editions -- **Workstation Trial**, **Server** and its trial version have the same Home page as that of **Workstation Edition**.

For an advanced server manager, more features and tools are required to back up the server. In the **Advanced Server** Edition and **Technician** Edition, 2 advanced server backup tools and some more features are available in the **Home** page.

Backup

Backup or the backup operation generally refers to creating copies of important data. With these additional copies, you can recover your data after an unexpected computer disaster. Therefore, the main purpose of backup can be summarized as an effective remedy for system failure or data loss.

Compared with Clone

Many times people confuse Clone and Backup. They are quite different. Backup will compress all selected data into one PBD image file after the backup process, while Clone copies all selected data to another location. Clone is exceptionally useful when an old smaller hard disk needs to be replaced with a new larger one. But if you just want to create some archived copies, backup will be the better choice.

In order to ensure a rapid and successful backup process, close other applications before starting the operation, and never try to save the image file to the partition/disk which you are intending to image.

1. System backup

This feature provides the easiest and quickest method to back up your operating system. EaseUS Todo Backup will help you choose the partition(s) which need to backup for a possible system recovery in the future.

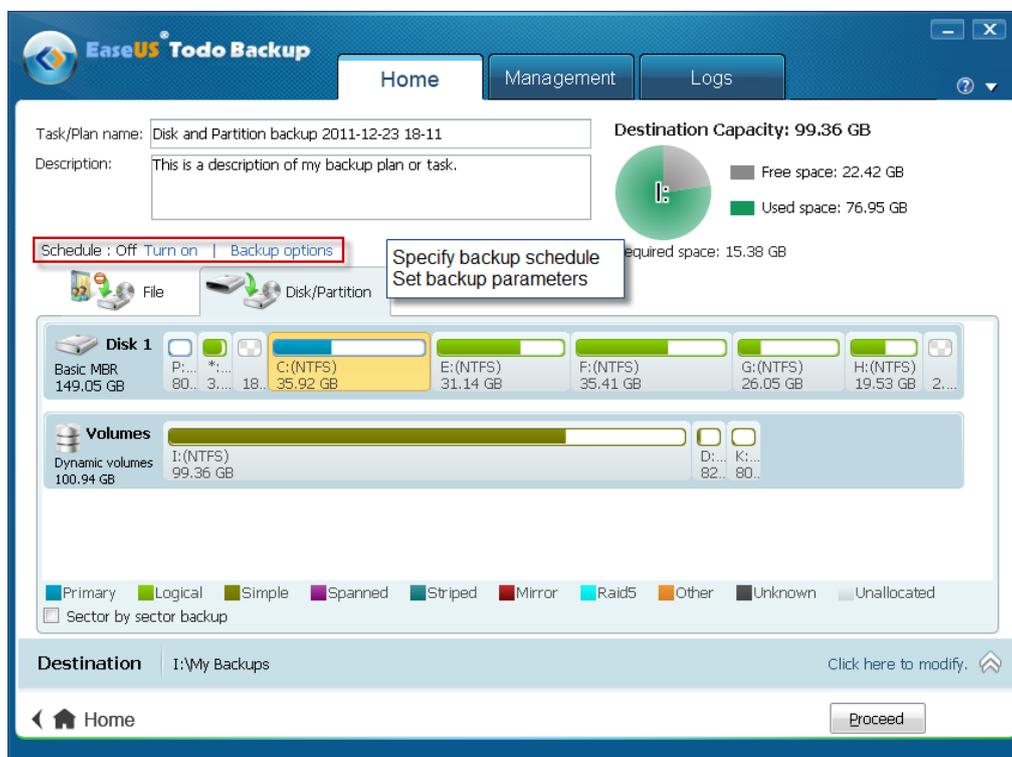
1. Click **System backup** in the **Home page**.
 2. Specify a path to save the generated system image file, then clicking **Proceed** to start backing up the system.
- ✓ Set advanced parameters for the current backup task/plan. See [Backup options](#) for detailed information.
 - ✓ To specify to run the backup in a schedule, click Turn on. See [Schedule backup](#) for detailed information.
 - ✓ Specify [Existing images cleanup rules](#) to manage image files automatically. Click the button after "I will preserve image file" to Enable/Disable this function.
 - ✓ To add NAS Device, refer to [NAS management](#).

With this feature, the task of system backup is efficiently accomplished. For a long-term backup plan like backing up system at a specific time every day, creating a system backup schedule would be a good choice.

2. Disk/Partition backup

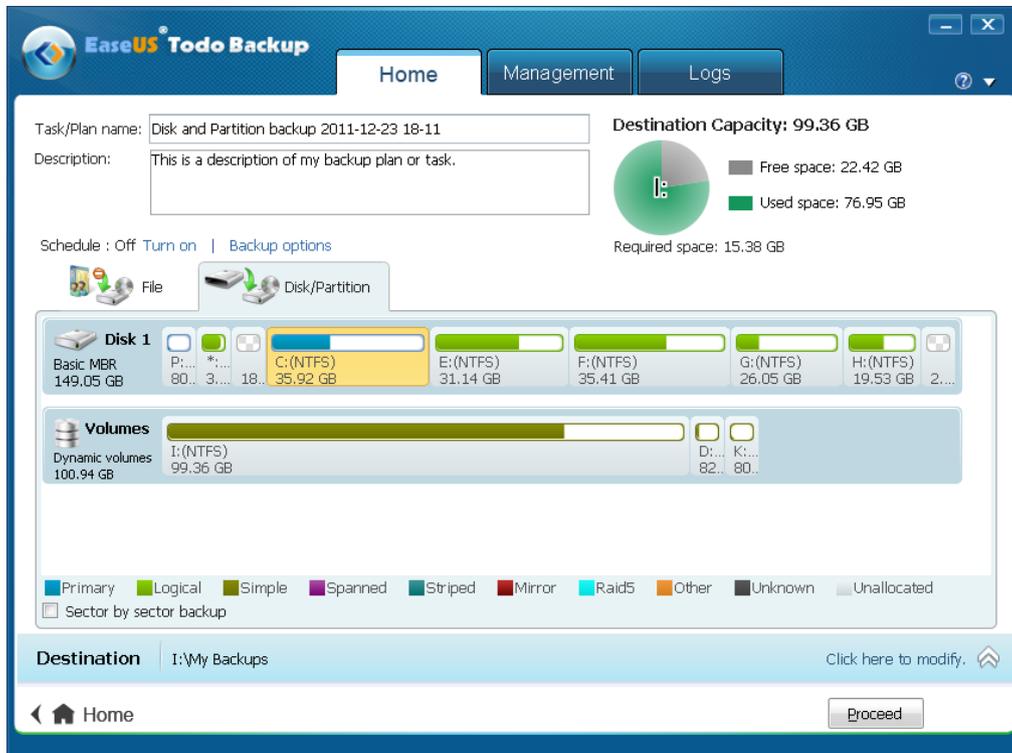
Disk backup transfers all the data on the partition/disk(s) which you selected into an image file. Click **Data backup** in the **Home** page, and then switch to Disk/Partition.

Step 1 - Specify the task/plan name and Description. An accurate task name and an appropriate description would help you to distinguish this task from others, make it much easier when you want to recover.



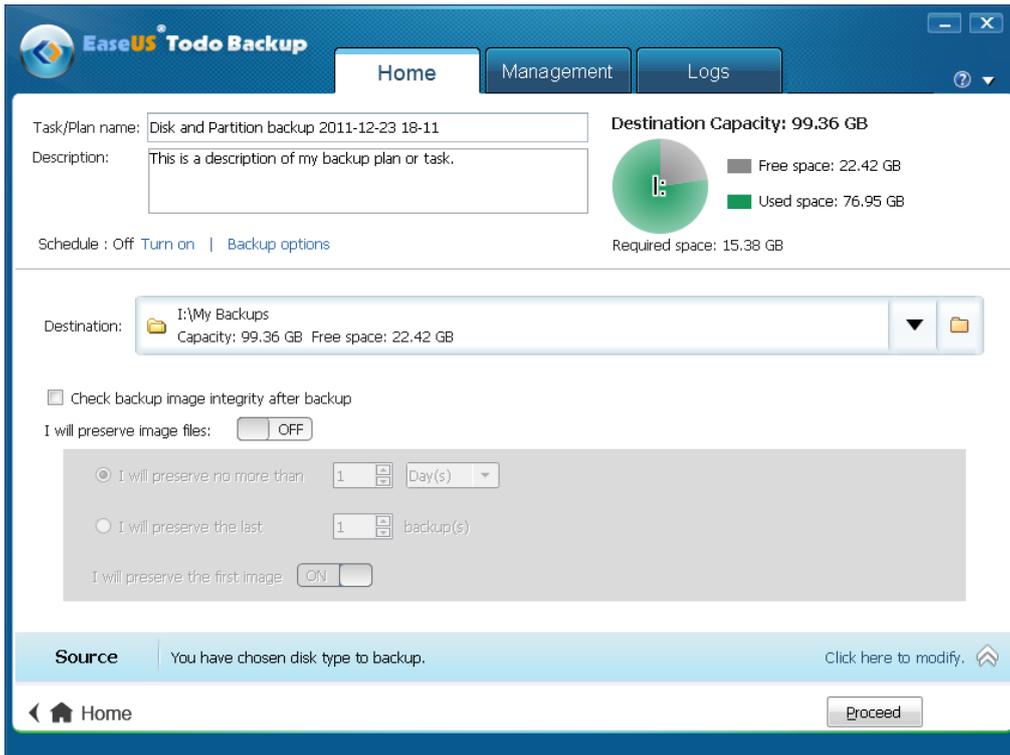
- ✓ Set advanced parameters for the current backup task/plan. See [Backup options](#) for detailed information.
- ✓ To specify to run the backup in a schedule, click Turn on. See [Schedule backup](#) for detailed information.

Step 2 - Select the disk/partition(s) to back up. The system partition would be selected by default when you use this feature at the first time. You can specify multiple partitions or hard disks as backup source.



- ✓ With *Sector by sector backup* selected, EaseUS Todo Backup will backup all the sectors on the selected partition(s)/hard disk(s). To learn more, see [Sector by sector backup](#).

Step 3 - Specify the destination to save the image file. Local disk, Network directory or Tape drive can be set as backup destination (Tape support is not available in EaseUS Todo Backup Workstation Edition). Click the Down Arrow to get the destination history.



- ✓ Specify [Existing images cleanup rules](#) to manage image files automatically. Click the button after "I will preserve image file" to Enable/Disable this function.
- ✓ To add NAS Device, refer to [NAS management](#).

Step 4 - Click **Proceed** to complete the setting. Backup will be executed immediately if the schedule is not configured.

3. Dynamic volume backup

A dynamic volume is part of a dynamic disk; this kind of hard disk manages the volumes with a LDM (short for Logical Disk Manager) database. Compared with a basic disk, a dynamic disk can be divided into multiple types of volumes. Most of volume types have advanced features in data storage, such as data redundancy in a Mirrored volume and fault-tolerant features in a RAID-5 volume.

The backup process would be the same as a common disk/partition backup task. The only difference is that all the dynamic volumes would be listed in a single disk in the Disk Map of EaseUS Todo Backup, though they may be located on different dynamic disks.

Select [Data backup](#) in the **Home** page and switch to Disk/Partition. The whole process is the same as a normal disk and partition backup task, so you may refer to [Disk/Partition backup](#) to get more details.

4. Sector by sector backup

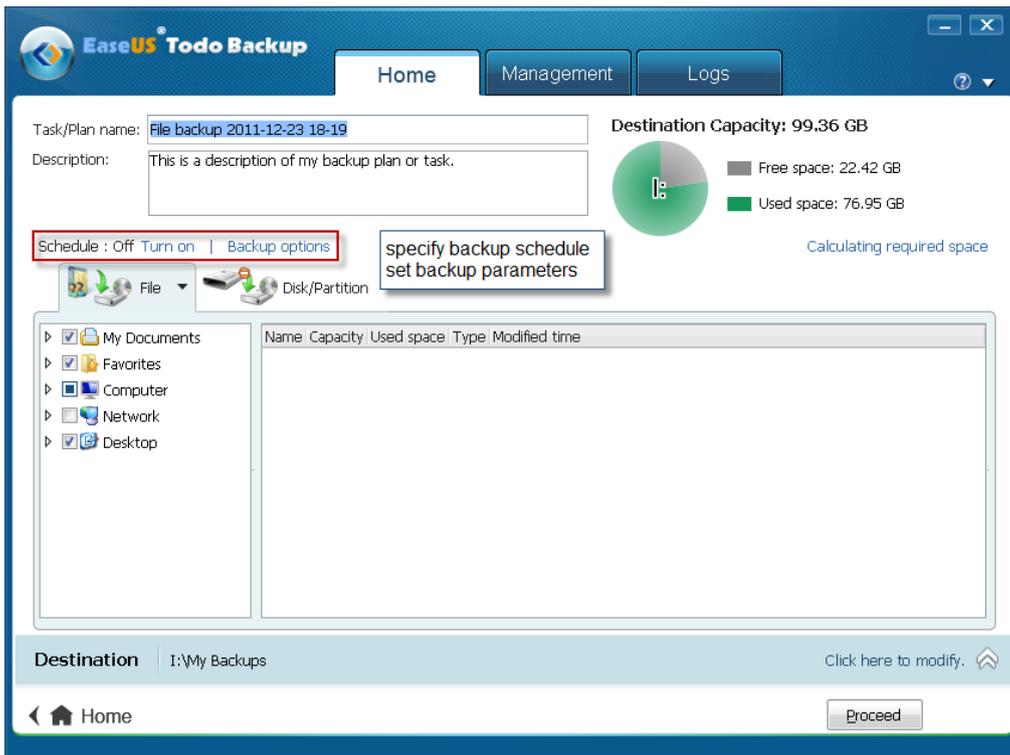
The sector-by-sector backup mode allows you to create an image of all sectors on the selected partition/hard disk, including sectors with data and the blank sectors. As a result, the image is usually larger than normal, and the whole process will take more time than that of a normal backup.

5. File backup

File backup transfers the file/folder(s) which you select into the generated image file. Click [Data backup](#) in the [Home](#) page, File tab would be shown as the default.

There are two ways to select file/folder(s) to backup. Switch between them by clicking on the tab "File".

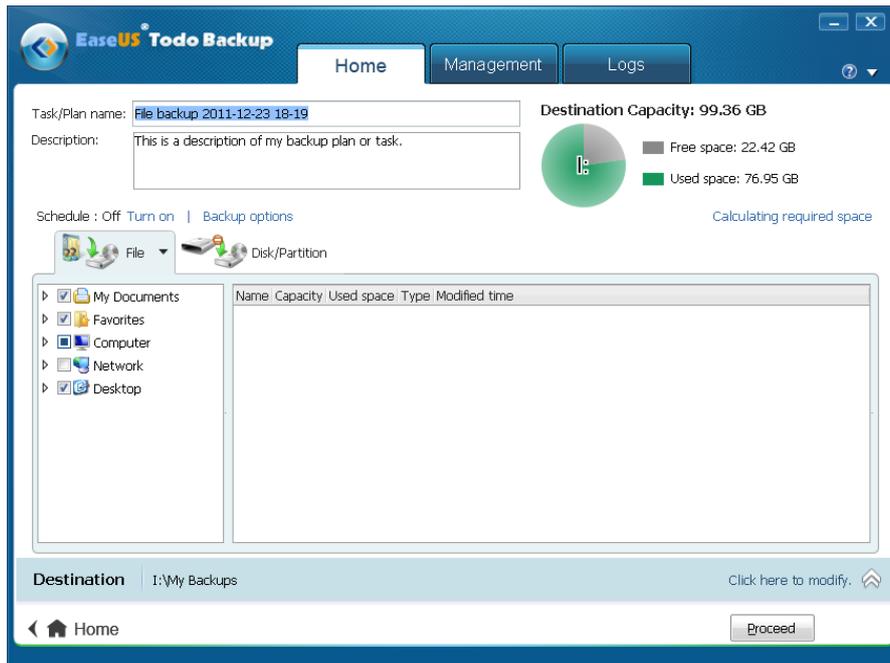
Step 1 - Specify the task/plan name and Description. An accurate task name and an appropriate description would help you to distinguish this task from others, make it much easier when you want to recover.



- ✓ Set advanced parameters for the current backup task/plan. See [Backup options](#) for detailed information.
- ✓ To specify to run the backup in a schedule, click Turn on. See [Schedule backup](#) for detailed information.
- ✓ Calculate the space requirement for the files you selected.

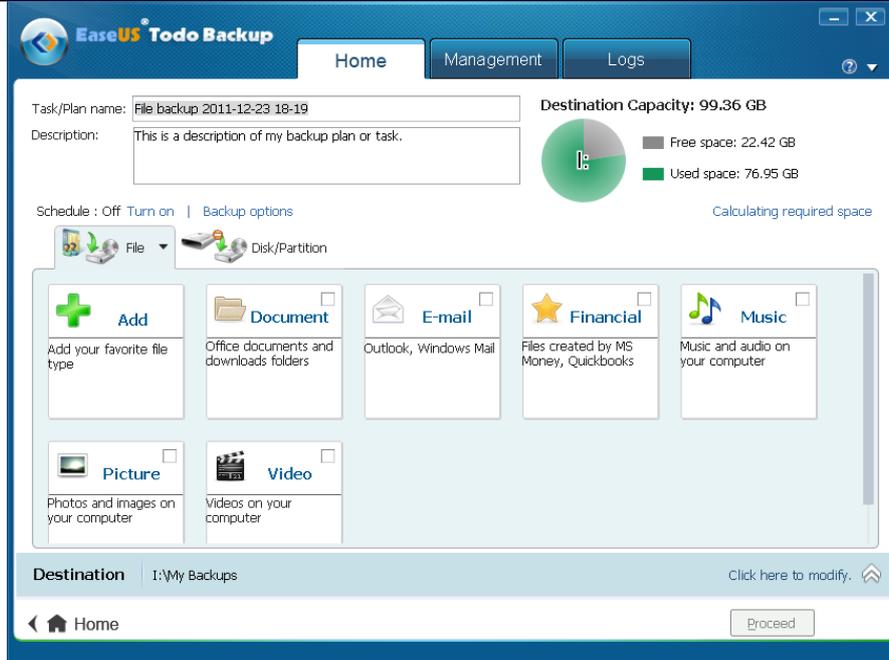
Step 2 - Specify file/folder(s) for backup.

- 1) Select file/folder(s) from the directory structure on the left. Click on a directory to expand it and search for individual files to back up, or check the checkbox in front of a directory to select the whole directory including all sub-directories to back up. The larger window on the right lists all the sub-folders and files under the directory you have selected.

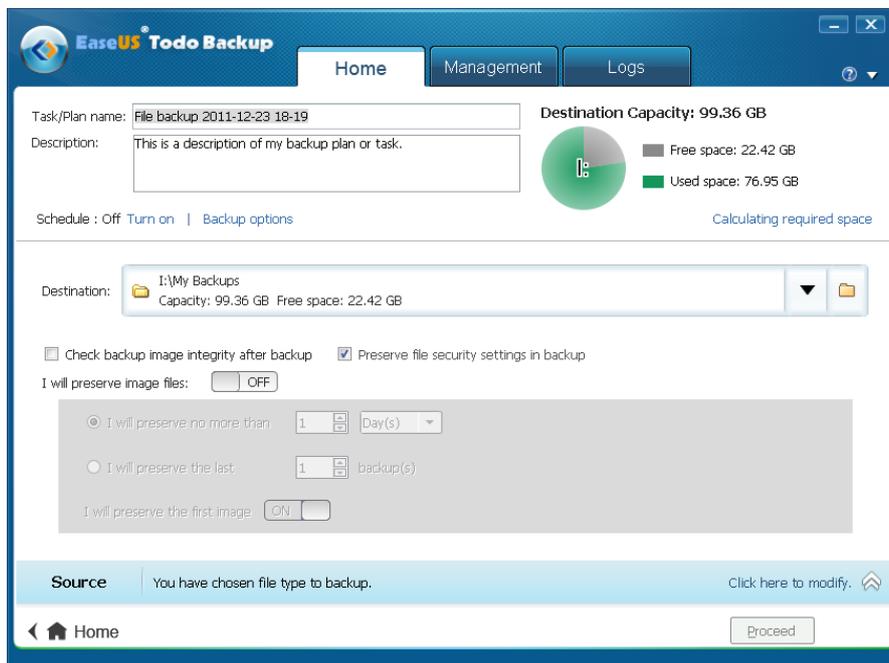


- 2) Specify backup files by file type(s). Some common used file types have been preset and divided into 6 categories. Click on the button to select the whole category, or click Edit to expand a category and select some certain file types.

If some other file types are not included in the preset categories, use the first button "Add" to add new file type(s).



Step 3 - Specify the destination to save the image file. Local disk, Network directory or Tape drive can be set as the backup destination (Tape support is not available in EaseUS Todo Backup Workstation Edition). Click the Down Arrow to get the destination history.



- ✓ Specify [Existing images cleanup rules](#) to manage image files automatically. Click the button after "I will preserve image file" to Enable/Disable this function.
- ✓ [Preserve file security settings in backup](#) - checking this option will keep the security attributes of NTFS encrypted files. Otherwise, the security attribute will be lost after the

process.

- ✓ To add NAS Device, refer to [NAS management](#)

Step 4

Click **Proceed** to complete the setting. The backup will be executed immediately if the schedule is not configured.

6. Schedule backup

Specify a task to run later or in a regular time interval. All the backups in the schedule will be executed automatically as long as the computer is powered on at the specified time.

Schedule settings

Now EaseUS Todo Backup provides 5 ways to run the schedule.

1. Later - set a specific time to execute the backup plan.

2. Daily - Create backup plan to execute every day. You may set it to run at specific time point(s) or by time interval.

- ✓ **Time** - execute the plan at specific time point(s). Click **the + mark** to add new time point, at most 5 time points can be set. Click **the X mark** to remove them.
- ✓ **Interval** - set start time, finish time and interval time for the plan. For example, if you set the start time at 6:00 am, finish time at 10:00 am, and interval time is 2 hours, then the task will be executed three times at 6:00 am, 8:00 am and 10:00 am.

3. Weekly - Run the plan at a specified time each week.

- ✓ **Weekly** - specify the day(s) of a week to run the plan. And set the time to execute backup in the selected days.

4. Monthly - Run the plan on specific days every month. The plan can be set based on date or week.

- ✓ **Start** - choose exact day(s) of a month to run backup task.
- ✓ **Every** - schedule the time by week. For example, run backup task on the first Monday of each month.

An exact time on chosen day(s) is required.

5. **Upon event** - Create backup plan triggered by some system event (This is not available in Exchange backup)

- ✓ **System startup** - If selected, the plan will run when system startup.
- ✓ **System shutdown** - If selected, the plan will run when system shutdown (Currently this option is not available for Windows Vista and later version).
- ✓ **User log on**- If selected, the plan will run when the user which you used to create the schedule logs on.
- ✓ **User log off** - If selected, the plan will run when the user which you used to create the schedule logs off.
- ✓ **Once a day only** - If selected, only the first system event will trigger the plan in one day.
- ✓ **Start date** - Set the date when the plan will be available.

If a scheduled backup is missed due to power failure, computer power off or some other reasons, our product will execute the last missed scheduled backup automatically after the computer restarts with the option *Run missed backup at system startup if computer is shutdown* checked.

Select *Appoint daily/weekly/monthly first backup as full/differential backup* option to make every first backup in a cycle as full/differential for an incremental backup, which make the whole plan more stable.

Tip:

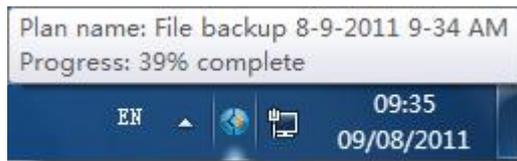
Our product requires system administrator privileges when creating the schedule to ensure the schedule can be executed when log off/sleep/hibernate. When the schedule runs, it will run as Administrator. If you have a password for the *Administrator account*, then input it in the appropriate box.

Schedule notification

When scheduled backup starts, an EaseUS Todo Backup icon will appear in the system tray, and a notification box will pop-up. See the picture below.



Position your cursor on the spinning tray icon, the *Plan name* and *Progress* of current running schedule will be displayed.



To *cancel* the backup, right-click on the tray icon and select Cancel.

7. Backup options

Some advanced parameters can be specified before starting the backup. The section below has a detailed description of each parameter. All your settings will be recorded as the default value for the next task/plan.

Tips:

- Incremental & differential backups will inherit the parameter setting of the corresponding full backup.

Compression

A backup file can be compressed. You can determine the compression level for a backup archive as follows:

- ✓ **None** - data will be imaged without any compression, which will result in a much larger image file.
- ✓ **Normal** - recommended data compression level.
- ✓ **Medium** - requires more time to create a smaller backup image file.
- ✓ **High** - the time to create a backup would be much longer, but the generated image file will be much smaller than other levels.

Please note that the size of generated image file may not significantly decrease even through the *High* compression level is selected. That is because some kinds of files are essentially compressed, such as .jpg, .pdf or .mp3.

Password

A backup file can be protected with a password. By default, there is no password for backups.

Enter the password for the backup archive into the password box. A password should consist of 1 to 15 characters. All ASCII codes can input in the box.

Retype the password into the *Confirm password* field.

The password protect uses AES256 algorithm.

Note:

If you try to recover data from a password-protected archive, the program will ask for the password in a pop-up window, allowing access only to authorized users.

Splitting

To fit the size of different storage medium, the image file can be split into several files. Select a mode to split a large image file to smaller files.

- ✓ **Automatic** - the split size depends on the file system of the destination storage medium.
- ✓ **Manual** - select an existing size or manually input the split size. Note that the minimum file size is **50MB**.

Priority

Windows is a multitasking operating system. It means that various applications are running simultaneously. The priority of an application is a parameter that tells the system which task would be executed prior to others.

- ✓ **Normal** - The operating system allocates fewer system resources for the backup process. When the backup task is not urgent and some other applications need to be run simultaneously, this will be the best choice.
- ✓ **Medium** - backup process gets more system resource than other applications.
- ✓ **High** - the backup process has the highest priority as some system processes and runs much faster than the other priority levels, but the performance of other applications may be significantly reduced.

The backup speed also depends on the system environment and hardware configuration.

Notification

With email *Notification*, EaseUS Todo Backup will send an email to specified email addresses with detailed information about the related task/plan.

- ✓ **To** - specify email addresses to receive email. (Separate addresses with commas)
- ✓ **Server name** - specify an email server to send the notification mail

- ✓ **Port** - specify a port number for the email server
- ✓ **Username/Password** - Email account info
- ✓ **Send test message** - Send a test mail to verify whether the parameters are correct and the Email address is accessible
- ✓ **SSL/TLS** - If the email server uses SSL/TLS authentication, this option is necessary

Additional notification settings

- ✓ **Send notification when operation succeeds** - EaseUS Todo Backup will send email notification when the operation succeeds
- ✓ **Send notification when operation fails** - EaseUS Todo Backup will send email notification when the operation fails

Tips:

To set the Email Notification, you may refer to the help of your Email service provider or the settings of your local mail server.

Commands

Execute command before or after the task/plan, EaseUS Todo Backup will execute the command automatically.

- ✓ **Pre-command** - execute specified command before the backup.
- ✓ **Post-command** - execute specified command after the backup.
- ✓
- ✓ Enter the command manually or click "**Edit**" to configure it.
- ✓ **Command** - input the command manually or click **Browse** to select a batch/executable file.
- ✓ **Work path** - specify a path where the batch/executable files are located, or it will be automatically displayed after a batch/executable file is selected by **Browse**.
- ✓ **Parameter** - indicate a **Parameter** for the command.
- ✓ **Abort operation if user command fails** - automatically abort the backup if the command executes incorrectly or unsuccessfully. This option is only available in "**Pre Command**".

Offsite copy

Create a copy of the backup image onto a FTP server. You need to check the checkbox to

enable this function.

Check *Enable* before setting the parameters.

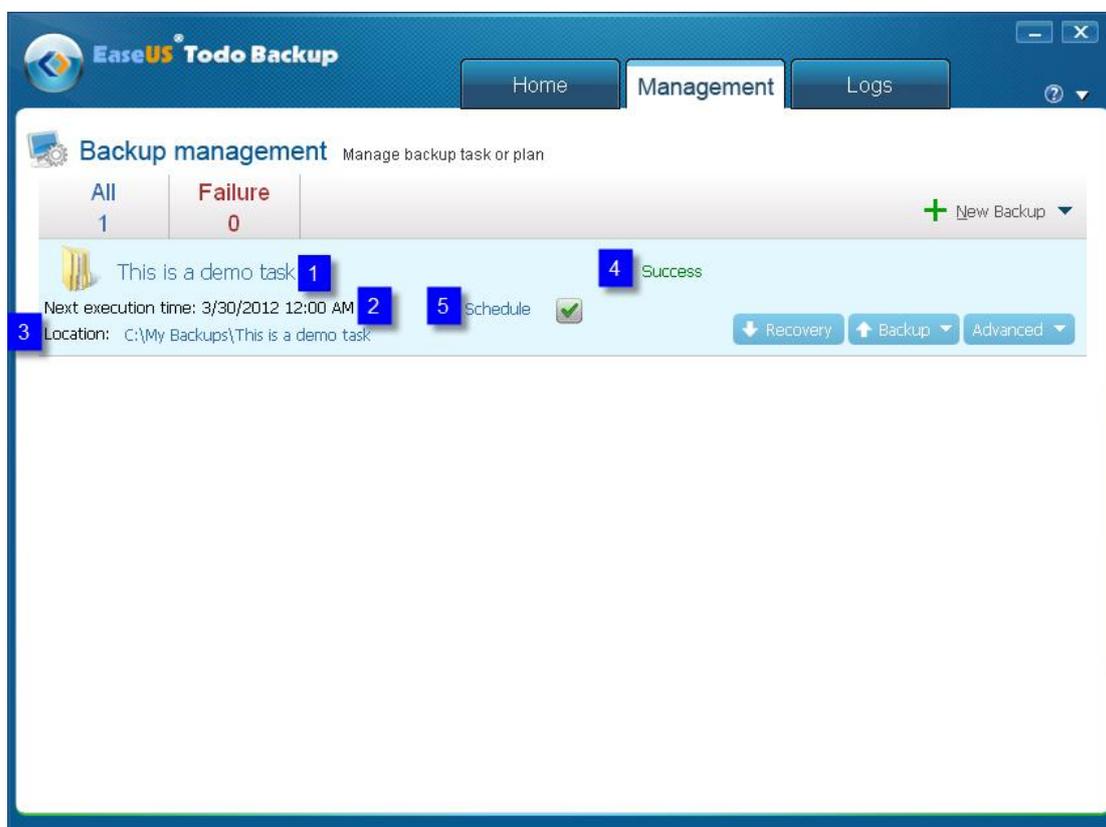
- ✓ **FTP address** - specify the FTP address for your network.
- ✓ **Port** - specify a port number for the ftp connection. In FTP networking, a port is an application-specific or process-specific software construct serving as a communications endpoint, providing a multiplexing service.
- ✓ **Username** - input the username to login to the FTP network server.
- ✓ Note: You can select **Anonymity** if the FTP network server is shared with all users in the network.
- ✓ **Password** - input the password to login to the FTP network server if it is needed.
- ✓ **Retry attempts** - set the retry times. If the program fails to connect to the network server, the program will try to connect to the server again. It will retry as many times as you specify.
- ✓ **Delay between retries** - set the interval between each retry. There will be a certain time delay after last failed connection.
- ✓ **Connect type** - FTP has two working modes; **PORT** and **PASV**. Select the suitable connection type according to your situation.
- ✓ **Test parameter** - test whether the FTP server can be connected with the parameters above.

Speed

Network transfer speed - set the network transmit speed. 0 Mbps means there is no limits for the network transmit speed and all network connection resources will be utilized by our product.

8. Backup management

All the backups created before will be listed on this management page.



1. Here you can see the task/plan name. Click and you can edit it.
2. If the schedule is turned on, the next execution time will be shown here.
3. Check and Edit the destination directory to save backup data
4. The last implementation status of a backup. Success or Failure. Click to get the detail information.
5. Click "Schedule" to edit the time settings. Check/Uncheck the option to turn on/off the schedule.

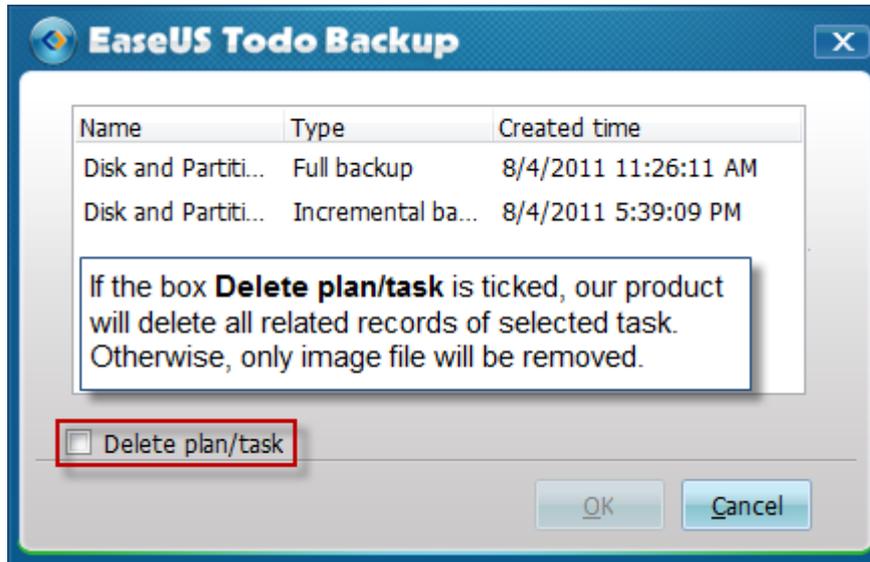
New Backup - Call the corresponding backup wizard by choosing the related backup type

Recovery - Start to recover with the image of the selected backup task/plan. To learn more about it, refer to [Recovery](#)

Backup - Choose to run Full/Incremental/Differential backup manually

Advanced - Edit task/plan - Click [here](#) for detail information

Delete backup - Select an image file to delete (if a full backup image is deleted, all the incremental image files based on it will be removed too), if the option *Delete plan/task* is checked, our product will delete the record of the current chosen task or plan first (without the record, our product will not show the related plan/task anymore), and then a pop-up box will ask whether to delete the image file. Our product will delete only the image file if the option *Delete plan/task* is unchecked



- ✓ **Check image** - Refer to [Check image](#) for more information
- ✓ **Convert image** - Convert disk or partition image file to a virtual hard disk file, make it available for VMware (.vmdk) or Virtual (.vhd). A patch file is required before converting to VMware virtual hard disk file, which can be found in official website of VMware

9. Modify the parameters of a scheduled plan

Click *Advanced* -> *Edit task/plan*.

Please note that all the changes made here only take effect for the current plan and will be available after the changes saved.

- ✓ **Details** - You can change the name and description of the task here. And you can switch *Backup mode* among *Full*, *Incremental* and *differential* schedules. To learn more about the difference between these modes, refer to [Backup policy](#). For the disk and partition schedule, there is an additional option to determine whether the backups need to be executed in [Sector by sector mode](#)
- ✓ **Contents** - Adding new files to the file backup schedule, or decreasing backup content for both the disk and partition schedule and file schedule

- ✓ **Location** - You can specify another path for the following backups. EaseUS Todo Backup will ask whether to transfer previous image files after the change is saved. The next backup will always be a full backup in the new location if you choose to not move old image files
- ✓ **Result and Image** - Information under these two pages cannot be modified. They only display some basic information about the plan
- ✓ **Schedule** - Edit the time setting of the schedule. For more about how to make the change, refer to [Schedule setting](#)
- ✓ **Options** - For an existed task/plan, all pages except [Compression](#) and [Password](#) are available and the parameters under them can be modified. For detail info, refer to [Backup Options](#).

10. Incremental & Differential backup

Click [Backup](#) in the Management, you can choose appropriate backup mode and execute it directly.

Incremental backup will only back up those files which have been changed since last backup (the "last backup" can be full backup, incremental backup or differential backup). It is most useful when you need frequent backups and the ability to roll back to a specific point in time. Incremental backup images are considerably smaller than full or differential images.

Differential backup is also a "clear" backup method which saves time and disk space by only backing up changed files. But unlike incremental backup, this method only relates to the last full backup.

Tips:

- Incremental & Differential image will inherit all the parameters and options from the base backup task.

11. Backup policy

If you don't understand the difference among the 3 backup methods, you might fail to create an appropriate plan which fits your needs. Before you decide which backup method to use, we believe you need to know more about each of the backup methods.

- ✓ **Full** - backs up all files that match your selection. A full backup forms a base for all subsequent incremental or differential backups. It always generates the biggest image files.
- ✓ **Incremental** - this method will only back up the changed files since the last backup, no

matter what kind of the last backup is. The incremental plan is just like a chain and every incremental backup is a necessary link in it. If one of the incremental images in the chain damaged, all the following images based on it will be unavailable. Backing up changed files based on the last backup creates have the smallest image file size.

- ✓ **Differential** - backups up the changed files since the latest or the specified full image. A differential backup directly associates with the original full image, so if one differential backup is removed or corrupt, the others will not be influenced. Differential backup always have a medium image size.

We suggest you choose one of the following three Backup Modes.

- ✓ **Always Full** - will always back up all files, no matter whether the target files changed or not. This method is good when the backup task includes a limited amount of data, or you don't wish to manage multiple images.
- ✓ **Full and Incremental** - This method is used more frequently than the others, because the incremental backup will only copy the changed files since last backup. If you have a certain amount of files needing to be regularly backed up, full backups will be time-consuming; therefore creating an incremental plan and inserting a full image in regular time intervals will definitely save you time and disk space. However, to recover an incremental image, EaseUS Todo Backup will recover all the related images include the full backup and following incremental backups, which means the recovery job will take longer.
- ✓ **Full and Differential** - This is an intermediate method between the first two. Differential backup only includes the files changed since last full backup, so it takes less time and space than "Always full" but more than "Full and Incremental". The advantage is that recovering differential image only requires the related full backup be recovered at first (EaseUS Todo Backup automatically finishes the task when you choose a differential image to recover), which means this method has a shorter recovery time than the second one.

You can choose the proper approach for each of your backup tasks according to the target file size, frequency of file modifications and the size of destination location.

Tips:

If almost all target files appear changed before an incremental backup starts, the incremental backup might have the same size as a full backup. If you always have most files changed, set the task be "Always Full" to simplify the recovery.

12. Existing images cleanup rules

For a long-term plan calling for frequent backups, it will be very space-consuming with all images saved. You may need to delete some previous image files at a regular time intervals to free up disk space. Deleting the image manually is troublesome and might cause some

unexpected problems, so we provide 2 kinds of automatic existing images cleanup rules to help users.

Preserve no more than X backup(s)

A backup is the result of one backup operation. Physically, it may be one single file or a set of files when you specify image splitting. A backup can be also considered as a copy of the backed up data.

After specifying how many backups you wish to preserve and scheduling the process, our product will automatically create full images at regular intervals. After the backup is created every time, our product will detect all previous images, and ensure the recent X backups can be recovered, then delete all the images which have exceeded the limitation.

This method applies to the schedules which need to be executed frequency. It will be much easier to manage the old images based on backups rather than days in this situation.

Preserve backup images of the last X day/week/month/year(s)

Specifying X day/week/month/year(s) to preserve images, our product will create full images at regular intervals, and then delete all the images which have exceeded the specified time limit.

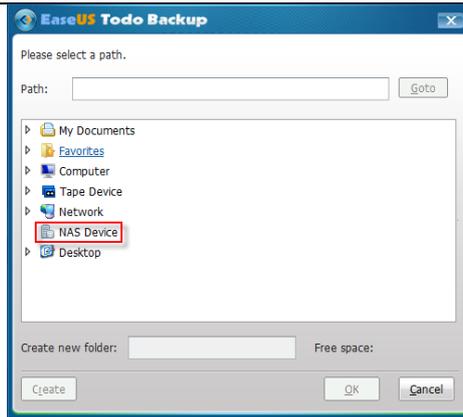
Preserve the first image

Check this option and the software will always keep the original backup, which means there would be one more backup image preserved than the number that is specified.

13. NAS management

Nowadays NAS devices are widely used for storage both at home or in business. EaseUS Todo Backup has the feature to manage NAS device for more convenient when using the software to do backup.

To get this feature, click  behind Destination when creating a new backup or edit an existed backup in Management. The following window will pop out:



Right click the NAS Device and choose Add NAS device, then input the authentication Information for the NAS device.



The device would be shown under NAS Device. Right click it to Edit or Remove the device.

Recovery

This feature is a reverse process of backup. It will expand the files compressed in the image file, and restore files back to the time point when the image file was created. With this feature, computer users can recover from a variety of computer disasters, such as virus infection, system crashes, and partition loss. As long as there is a valid image file created when the computer is running normally, then all data loss can be easily reversed with a simple recovery process.

1. System recovery

Recover the image file created by using the [System backup](#) feature. This is the most efficient way to recover a system, and takes only 2 steps.

Step 1 - Click [System recovery](#) in the [Home](#) page. Our product will automatically locate the path where the image file is stored. Choose the one you want to recover and click [Next](#).

Step 2 - Select the destination hard disk which you want to recover to, and then click [Proceed](#) to implement the operation.

If the destination disk is an SSD, check the box **Optimize for SSD**. This will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.

Generally it is not necessary to check the other option, which is described in [Sector by sector recovery](#).

Tips:

If the size or location of the original system partition has been changed since the image was created, our product will ask you to restore to another hard disk when you try to recover the image file.

2. Disk and partition recovery

This feature is used to recover disk and partition image files, including the operating system and data partitions.

1. Click [Disk and partition recovery](#) in the [Home](#) page to start the wizard.

2. Select a backup task to recover (you can find the task you need by its [Description](#)). If the task you want to recover is not in the list, manually locate it by clicking [Browse](#).
3. There might be more than one image file listed. The [Created time](#) is an obvious way to distinguish which time point needs to be recovered.
4. Choose the partition(s) or hard disk(s) you want to recover in the image file. It is unnecessary to choose the entire content if you just want to recover part of it, such as choosing only one partition in a disk image file.
5. Select a destination partition/disk to recover the partition/disk to. Checking [Sector by sector recovery](#) will perform the recovery in a sector by sector mode. In this mode, you cannot modify the size of recovered partitions. For more information, see [Sector by sector recovery](#).
In this step, the capacity of destination partition/disk should be at least equal or larger than the used space of backed up partition/disk in the image.
If the destination disk is an SSD, checking the box [Optimize for SSD](#) will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.

Note:

The destination partition/disk will be totally overwritten, and the data on it may be permanently lost.

6. Preview the partition/disk layout after recovery. The partition can be moved, resized or set active if there is enough free space. The capacity of a partition will not change if the option [Sector by sector](#) is checked.
7. Confirm all the settings for the current recovery, and then click [Proceed](#) to implement it. Or click [Back](#) to change some parameters if needed.

If there are some files opened or applications launched on the destination partition/disk, our product will require computer rebooting and will execute the recovery task in Pre-OS mode.

3. Dynamic volume recovery

To recover a dynamic volume is a process similar to that of recovering a basic partition. But if you recover to dynamic disk, you can only recover the backup to an existed dynamic volume.

Click [Disk and partition recovery](#), and then follow the wizard to finish the task. For more information about this wizard, refer to [Disk and partition recovery](#).

If there is an Operating System installed on the backed up volume, the volume will become a primary partition after recovering it to a basic disk, otherwise, it will be a logic partition.

4. Sector by sector recovery

Checking this option will recover the content from an image file **sector by sector**. It ensures that the recovery process finishes successfully even if there are some logic errors on the original partition or hard disk. If you want every file distributed to their original sectors after recovery, checking this option will meet the goal. The destination partition will not be able to be resized if this option checked.

5. File recovery

To recover file(s) and folder(s), please do as follows:

1. Click [File recovery](#) in the *Home page* to start the wizard.
2. Select a backup task to recover (you can choose the right task based on its [Description](#)). If the task you want to recover is not in the list, locate it by clicking [Browse](#).
3. There might be more than one image file listed if you created some incremental backups for the task. The [Created time](#) is an obvious way to distinguish which image to select.
4. Indicate the files to recover. You can specify the files to recover in following three modes.

[Recover specific files or folders](#) - if you specify the files or folders manually in the image file, only the selected files/folders will be recovered.

[Recover files by types](#) - select certain file type(s) to recover.

Search files to recover - search specified file by name to recover.

5. Select a destination location to recover files.

[Recover to original location](#) - the files or folders will be recovered to their original location.

[Specify a recovery location](#) - the selected files or folders will be recovered to a specified location.

[Replace existing files](#) - When you intend to recover some files to their original location, but there are files are still located in that path, check this option to ensure a smooth recovery. You can find this option in file recovery wizard when choosing the recovery path.

6. Confirm all the settings for the current recovery, and then click [Proceed](#) to implement it. Or click [Back](#) to change the parameters.

6. Recover to dissimilar hardware

This function is only available when you restore an operating system installed on a primary partition. If you want to restore a system partition to another computer with a dissimilar

hardware configuration, checking this option will ensure all hardware on the destination computer will work normally after the recovery. Our product will detect the new hardware and let you install drivers in the process if needed. There are 2 methods to complete the operation.

7. Full way

1. Click [Disk and partition Recovery](#) in the [Home](#) page.
2. Press **Browse** to locate the image file of your operating system and click [Next](#) to continue.
3. Choose the system, boot partition of the operating system you want to recovery at first, and then check [Recover to dissimilar hardware](#) box in the lower left corner, click [Next](#).
4. Specify where to restore the operating system, click [Next](#) and the computer will ask for rebooting. This feature can only be executed in Pre-OS mode or WinPE bootable disk.
5. During the operation, when new hardware is detected, you will get a pop-up box which prompts you to load the driver manually. Browse the directory to search for the driver and install it, or click [Skip](#) to ignore the box if you are sure the newly discovered hardware is not needed for booting the computer.
6. After adding all necessary drivers, you may try to boot from the destination hard disk by changing the boot sequence in BIOS.

8. Quick way

A specialized and simplified wizard for universal restore, this quick way is the [Recover to dissimilar hardware](#) feature; click it to start the simple way.

1. Select the system image which you want to recover. If you have ever created a system image through [System backup](#) feature, the generated image file will be chosen by default.
2. Select where to restore the operating system then click Proceed to implement the operation.

If the destination disk is an SSD, checking the box [Optimize for SSD](#) will ensure sector alignment in the process, and the possibility of booting from the SSD successfully after recovery will be increased.

Generally it is not necessary to check the other option, which is described in [Sector by sector recovery](#).

If you are using the Trial Edition, you need to create a WinPE bootable disk manually to get this feature.

Clone

Make a duplicate of the chosen hard disk or partition. This result in an identical hard disk or partition generated instead of having an image file after the operation. With this feature, you can use the hard disk you cloned directly.

1. Disk clone

Disk clone will transfer all data (include operating system and program) on the selected hard disk to another. It is especially useful when you want to replace hard disk with a new one. For a successful copy process, make sure the capacity of the destination hard disk is greater than or equal to the used space on the source hard disk.

1. Click *Disk clone* in the *Home* page to start the wizard.
2. Select the hard disk you want to clone and click *Next*.
3. Select the destination hard disk. To learn more about the options in this step, refer to [Sector by sector clone](#).
If the destination disk is an SSD, checking the box *Optimize for SSD* will ensure sector alignment in the process, and the possibility of booting from the SSD successfully after recovery will be increased.

Tips:

The destination hard disk will be totally overwritten after clone, and the data on it may be permanently lost.

4. Confirm the hard disk layout on the destination hard disk after cloning. You can redistribute the disk layout of the destination hard disk according to your own needs.

The partition cannot be resized if you choose to clone your disk in the Sector by sector mode.

5. Click on *Proceed* to implement the operation.

If the destination hard disk is locked by other programs or some files and applications running on it, our product will ask for a reboot and will execute the operation in Pre-OS

mode when the clone operation is preparing to start.

2. Partition clone

Select a partition to clone, the step by step wizard can help you finish the job easily. For a successful copy process, make sure the capacity of destination partition is greater than or equal to the used space on the source partition.

1. Click [Partition clone](#) in the [Home](#) page to start the wizard.
2. Select the source partition you want to clone and click [Next](#). Only one partition can be cloned at a time.
3. Select the destination partition. To learn more about the options in this step, refer to [Sector by sector clone](#).

If the destination disk is an SSD, checking the box [Optimize for SSD](#) will ensure sector alignment in the process, and the possibility of booting from the SSD successfully after recovery will be increased.

Tips:

The destination partition will be totally overwritten after clone, and the data on it may be permanently lost.

4. Determine the location and capacity of the target partition after the clone. If there is some free space adjacent to this partition, you can move it or resize it by simply dragging with your mouse.

If you want to boot from the destination partition on another hard disk, check the option [Set active](#) will simplify the operation.

The partition will not be able to be resized if the option Sector by sector is ticked.

5. Click [Proceed](#) to implement the partition clone you just set.

3. Dynamic Disk/volume clone

You can clone all dynamic volumes in your computer to another basic disk with [Disk clone](#) feature. All dynamic volumes will be listed as one single Dynamic Disk, although they may actually be located on different dynamic disks.

You can also clone a single dynamic volume to basic disk. In this case, both the used space and unallocated space on basic disk could be specified as the destination. The task can be

finished with [Partition clone](#).

4. Sector by sector clone

A sector by sector clone ensures that the destination hard disk/partition is exactly the same as the source hard disk/partition. It will clone all the sectors if the option is checked, even if the sector is blank. As a result, the target will be equal in size to the disk being cloned after the process. This option is found in the step where you to choose the destination hard disk/partition both in the Disk clone and Partition clone wizard.

Advanced server tools

Nowadays, server administrators are supposed to utilize different tools to perform better business data management, such as MS exchange for email management, MS SQL for relational data query and update. The data is very important for the daily work of a company. The server administrator may have the responsibility to keep physical security, integrity, and safety of the data. A regular backup is really a good habit, which not only helps you face the unexpected system failure, but also saves the data status in some specified time point.

With EaseUS Todo Backup **Advanced Server Edition** and **Technician Edition**, you can backup Exchange server and MS SQL server easily. You can also back up the data to a Tape device for better management and storage.

1. Backing up Exchange Server

Exchange Server is the physical/virtual server with Microsoft Exchange installed. It is a server product from Microsoft. Its main features include electronic mail, calendaring, contacts and tasks; support for mobile and web-based access to information; and support for data storage. With the current version of EaseUS Todo Backup, you may select the storage group as the basic backup unit.

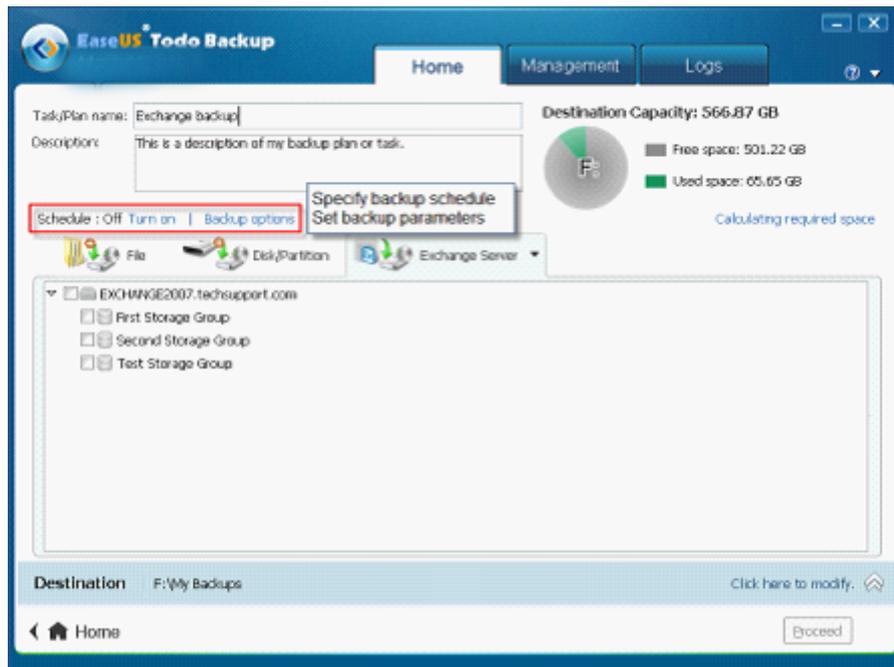
The Exchange versions EaseUS Todo Backup can support are Exchange 2003, Exchange 2007 and Exchange 2010.

All tasks and schedules you created in Exchange backup will be listed under [Backup management](#), which means you can edit or upgrade an Exchange backup task here.

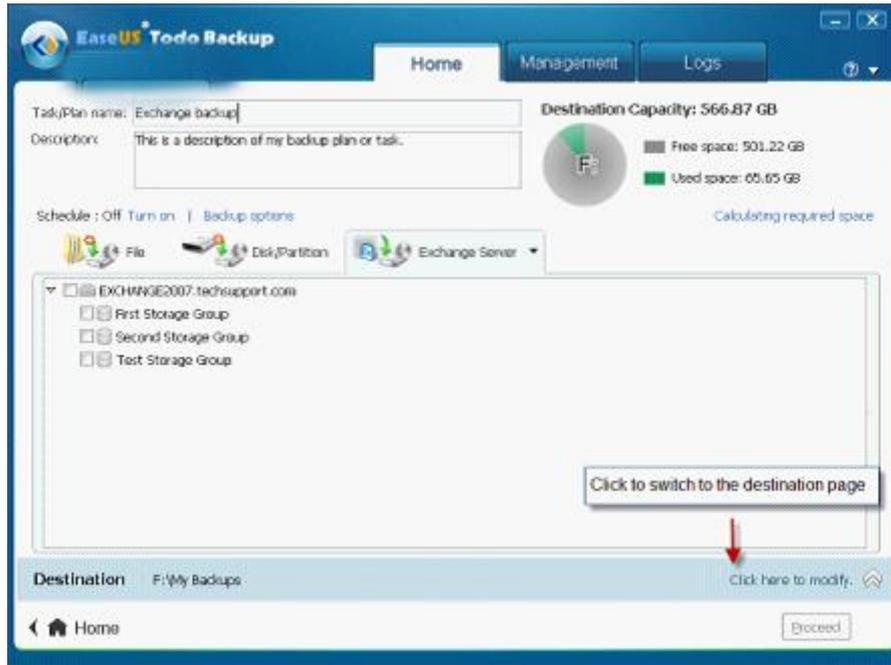
1). Exchange backup

Click [Data backup](#) in the [Home](#) page, and then switch to [Exchange Server](#). Please ensure the Exchange server is mounted before executing the backup task.

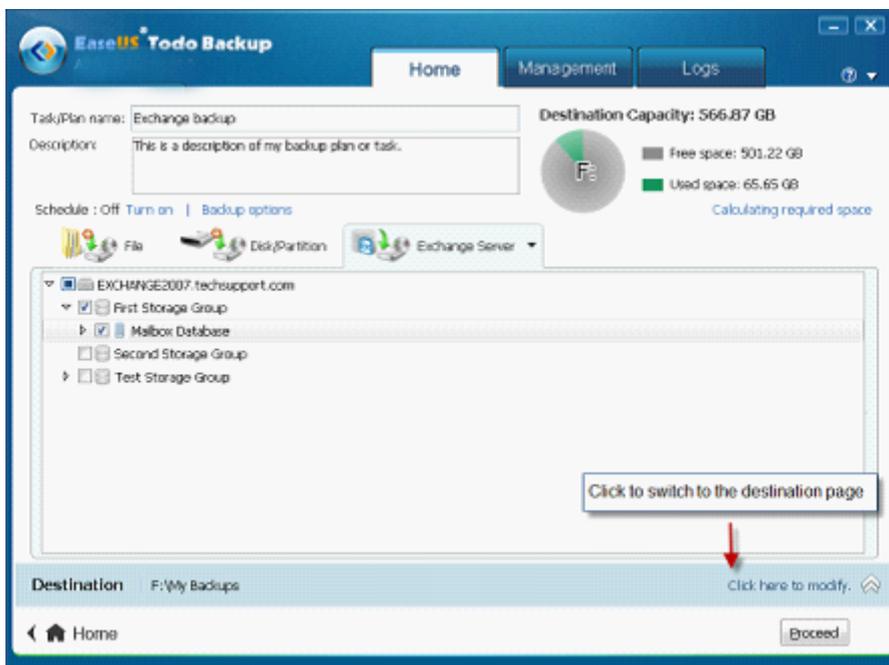
1. Specify the task/plan name and Description. An accurate task name and some appropriate descriptions would help you to distinguish desired task from others, make it much easier when you want to do recovery.



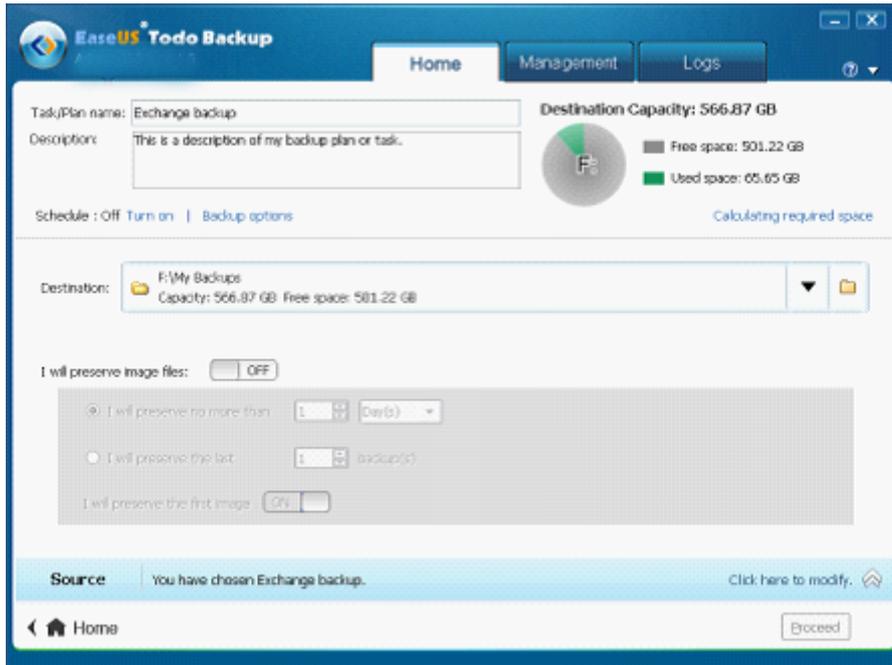
- ✓ Set advanced parameters for the current backup task/plan. See [Backup options](#) for detailed information.
 - ✓ To specify to run the backup in a schedule, click Turn on. See [Schedule backup](#) for detailed information.
2. Select the backup source. Now there are two ways to backup Exchange.
- (1) Storage group mode



(2) Mailbox Mode



3. Specify where to save the image file. A Local disk, Network directory and Tape drive can be set as the backup destination. Click the Down Arrow to get the destination history.



- ✓ Specify [Existing images cleanup rules](#) to manage image files automatically. Click the button after "I will preserve image file" to Enable/Disable this function.

- ✓ To add NAS Device, refer to [NAS management](#)

4. Click [Proceed](#) to finish the setting. The backup will be executed immediately if the schedule is not configured.

2). Exchange recovery

This is a reverse process of Exchange backup. You can restore Exchange storage groups with this feature.

- ✓ Click [Exchange recovery](#) in the [Home](#) page to start the wizard.
- ✓ Select a backup task to recover (you can confirm which task you need by its [Description](#)). If the task you want to recover is not in the list, locate it manually by clicking [Browse](#).
- ✓ More than one image files will be listed if the task has been updated, or the task is an Exchange schedule backup. The [Created time](#) will enable you to choose which backup needs to be recovered.
- ✓ Specify which storage group/mailbox to recover. It is unnecessary to choose the entire content if you just want to recover part of it, such as only choosing one storage group in an image file which includes multiple storage groups.

- ✓ Confirm every detail about the current recovery, click *Proceed* to implement it, click *Cancel* to exit the recovery or click *Back* to change the parameters if needed.

Our product will automatically recover the storage group to its original location, so you don't need to specify the destination.

2. Backing up MS SQL Server

SQL is an acronym of Structured Query Language which is designed for managing data in relational database management systems. Produced by Microsoft, the main function of *Microsoft SQL Server* includes insert data, query updates/deletes, create/modify schema, and data control access, etc. And MS SQL 2000/2005/2008 are supported by EaseUS Todo Backup.

The extension of MS SQL backup image file is *.bak*.

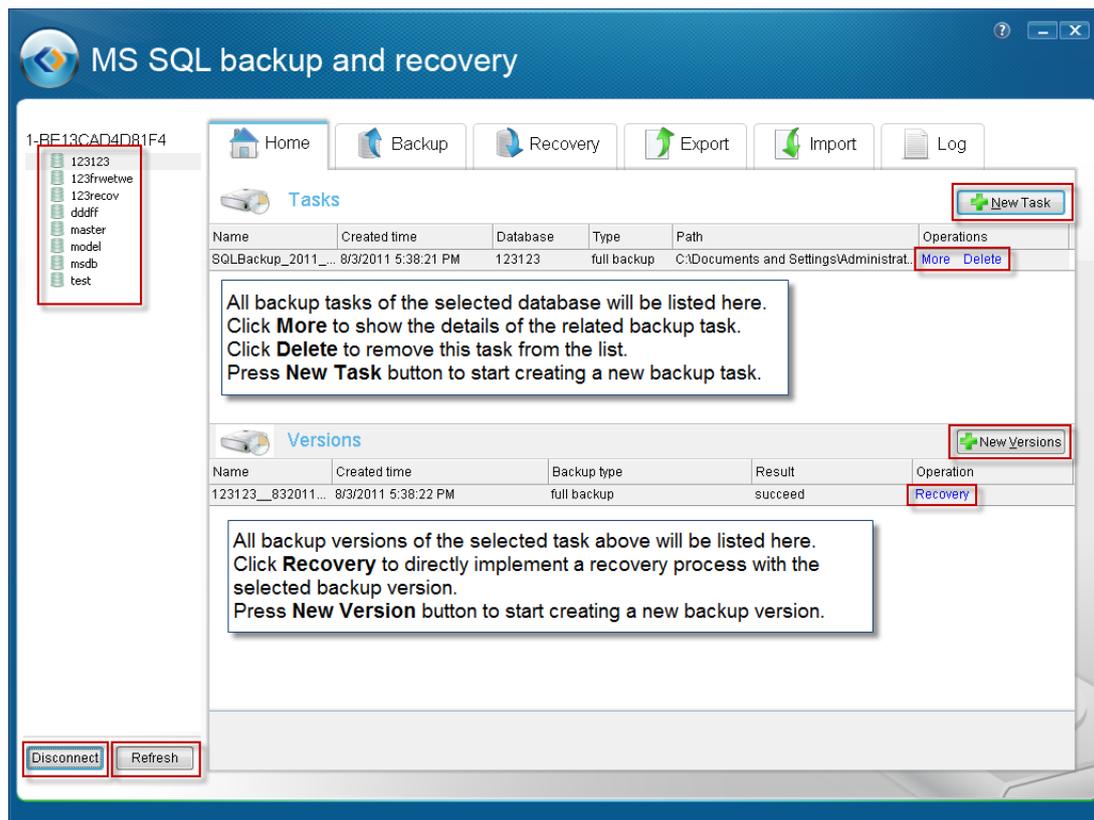
1). User login

Click *MS SQL backup* in the *Home* page to call the SQL backup tool in our product. An authentication box will pop up. Input a valid Windows administrator or a SQL server account to get through the authentication. Don't forget to select the instance you want to login to in this step.

2). Home

This page will be displayed by default once the MS SQL backup tool is launched. It can be considered as a [Backup management](#) for SQL backups. In this page, you can verify and manage all backups of the instance you logged in.

The following is a description of the available button/options in this page.



All the databases will be listed in the left panel. You can perform the operation you need after selecting one or more of them. Pressing the *Disconnect* button in the lower left corner will cut off the connection to the instance and take you back to the login window. Clicking *Refresh* will update the latest changes in the instance.

3). Backup

Unlike backing up normal and Exchange data, you can set all related parameters in one step under Backup page to back up SQL database. If you need to create a new task or plan, please select the database from the database list on the left side of the screen, then the items you can set under this page include:

Basic information

- ✓ **Task name** - specify a name for the current task.
- ✓ **Destination** - specify the destination to save the image file. You can select a normal hard disk as the backup destination or you can back up SQL server to tape (our product will ask for a certain amount of free space for temp data transfers on the local hard disk when you decide to back up to tape).
- ✓ **Continue if error** - decide whether to ignore media errors or not in the process.

Plan

All options under this section will be available when the Schedule is turned "On", otherwise, all settings will be grayed out and not able to be changed. For the current version, you can specify time in daily, weekly or monthly units.

Next you need to decide which type of plan to use.

- ✓ **Full** - always backup all databases and the transaction log.
- ✓ **Differential** - only backup changed files since last full backup. The transaction log will be included.
- ✓ **Transaction log** - backup transaction logs only.

Options

- ✓ **Compression** - decide whether or not to compress the image file (this option only available for MS SQL 2008 Enterprise and the more advanced versions).
- ✓ **Notification** - decide whether or not to send the result of this plan to a specified email address. For more information about this setting, you may refer to [Email notification](#).

Recovery mode - Specify a recovery mode for the current task.

- ✓ **Simple** - No log backups. Clear the log space automatically to keep space requirements small, essentially eliminating the need to manage the transaction log space. Putting a database into simple mode means that you don't want to make log backups and all you intend to do is rely on full backups for your recovery.
 - ✓ **Full** - Requires log backups. No work is lost due to a lost or damaged data file. In this mode everything is fully logged so you can always recover individual transactions.
- Bulk log** - Requires log backups. An adjunct of the full recovery model is that it permits high-performance bulk copy operations. It reduces log space usage by using minimal logging for most bulk operations.

4). Recovery

To recover a MS SQL image file, please follow these steps.

1. Switch to Recovery page.
2. Select the original database for which you created the image in the list panel on the left hand side of the screen.
3. Specify an image to recover. If the image file is located on a tape, you just need to check the radio button for *Tape drive*, and select the tape in the drop-down list.
4. In the *Select recovery mode* section, you can recover the database in the image file to an existing database, which will cause the target database to be overwritten. You can recover to a new database by specifying a database name and location.
5. Check the option Continue if error and our product will automatically skip all media errors in the process.

6. Click *Proceed* to implement the operation.

5). Export/Import

Export

Select a database and export it to be a MDF file for further use. You can transfer it to another instance or SQL server. Our product will also export the transaction log as a LDF file in the process. Following are the detailed steps.

1. Select a database from the database list panel on the left hand.
2. Specify a location where to save exported MDF file.
3. Click Proceed to implement the operation.

Import

Click Browse behind the data file to choose a MDF file to import. Importing the transaction log file is optional. If you don't need the operation record of the database in the original instance, just ignore the Browse behind the log file.

You can specify to import to an existing database and overwrite it, or you can create a new database for importing the MDF file.

Log

All operations in this tool will be recorded in a log file and listed on this page. With the log, you can see whether the task is completed, when it was created, and the specific type of the backup, etc.

If you want to view the details of a specified task in the log file, you can search it by *Keyword* or time frame. All task(s) which apply to the search condition will be listed in this page.

Be careful when pressing the *Clear* button, because it will remove all information in log file.

Backing up to Tape Drive

A tape drive consists of a tape driver and physical magnetic tape. An administrator can read and write data on the magnetic tape through the tape driver. This kind of storage device is typically used for offline, archival data storage. Generally speaking, tape media is competitive with many other data storage devices in price and archival stability. This feature is available in Server Edition and Advanced Server Edition.

1. Save PBD image file to tape

The default extension of the generated image file of our product is PBD, the image file of a normal backup task and Exchange backup task both has this extension. When you decide to save an image file to a tape, select Tape Device in the step where you specify the destination for the current backup. For a PBD image file, our product needs at least 2GB free space on local hard disk for temp data transfers.



2. Save BAK image file to tape

BAK is the extension of the image file generated by MS SQL backup tool. For a BAK file, you can move the switch to Destination to Tape drive under Backup page of our MS SQL backup tool, and then the image file will write to the selected tape. Since a different algorithm is used in SQL backup, our product will ask for a certain amount of free space on local hard disk, nearly equal to the size of the generated BAK file for transferring temp data in the process.

When recovering a BAK file from tape drive, you just need to select the radio button Tape drive behind Backup file under [Recovery](#) page.

Tips:

- Differential images cannot be saved to tape.
- If you select a tape which already has existing data, our product will ask you whether to overwrite these data or not in the process. You can choose to insert another blank tape for saving the image file rather than clicking yes.
- For a plan, our product will automatically create a full image on a new tape.
- EaseUS Todo Backup doesn't support automatic tape changing for an auto-loading tape drive.

Snapshot

A **snapshot** is the state of a system at a particular time point. This feature allows you to test a new deployment. If things go wrong, you can 'Roll-Back' the computer to the Time the Snapshot was taken. Snapshot has been designed to simplify the backup, recovery and disaster recovery processes.

Note that this feature is only available in Workstation Edition.

1. Advantages of snapshot

Snapshot is an alternate solution to system backup. It needs less storage space and the restoration speed will be greatly increased. In addition, the disk which contains snapshot files will be protected.

Despite the superiority of snapshot in efficiency, for a long-term data protection backup is preferred, as it is more stable. It is a better choice because snapshot is only a "quick method" which might be unavailable after the system has been changed too much.

Tips:

This feature is only available in **Workstation** Edition.

2. Create snapshot

To create a system snapshot, click [Snapshot](#) on the main window. The snapshot management window will be shown on the interface.

1. Click [Enable](#), and decide how much space to allow to store Snapshot data. This depends on how much space is available on the hard disk (which contains current running operating system) and the frequency of using snapshot.
2. Click [Next](#) to create the system snapshot.
3. Reboot the computer to activate the snapshot. The first snapshot will be generated after computer restarts.

You may not be able to see the snapshot files in your computer, as they are hidden files. They are hidden to protect the snapshot files from damage or virus infection or other problems.

Once the first snapshot has been enabled, you can create new snapshots just by clicking [Create](#) in the snapshot management window. Unlike the backup feature, you don't need to select a location to store the snapshot files. Snapshots will be written to the file previously created, and there is no need to reboot the computer if you just create a new snapshot.

The partition or the hard disk which contains the snapshot Virtual protection file will be labeled with [Protected](#) in certain steps of some wizards in our product. In order to protect the Virtual protected file, you will not be able to write to the marked partition or hard disk, which means you can back up or clone the protected partition or hard disk, but you cannot recover or clone other partition/disk to it until the snapshot is disabled.

3. Delete a system snapshot

Switch to the [Snapshot](#) page. Find the snapshot needing to be deleted in the list by [title](#) or [created time](#) and Click [Delete](#).

Due to our special algorithm, if there is more than one snapshot, all the previous ones will disappear once a specific snapshot is deleted. And only snapshots newer than the deleted one are retained.

In addition, EaseUS Todo Backup will generate a new snapshot automatically if all the snapshots are deleted, which means there will be at least one active snapshot available in our product.

4. Restore system from snapshot

To restore the system from a snapshot, click [Snapshot](#) in the main window. Select the snapshot from the snapshot list by the title and created time. Click [Restore](#).

Please notice that if you restore to an earlier snapshot, then all other snapshots after that time will be lost. It is strongly recommended to back up your system partition before you do the operation if you have many snapshots.

5. Disable snapshot

If you don't want to use this feature anymore, switch to the [Snapshot](#) page and click [Disable](#) to close it. This setting will take effect only with a computer reboots.

Tools

Some useful and distinctive tools are provided to manage backup efficiently.

1. Check image

Check image can verify the validity of the image file after backup, and confirm that the image file can be recovered successfully, even if it has been some time since it was created. If our product finds errors during checking process, this image file might be damaged and cannot be used for recovery.

1. Click [Check image](#).
2. Find the backup image to be checked
3. Click [Proceed](#) to run check process.

2. Create bootable disk

EaseUS Todo Backup bootable media builder allows you to create an emergency disk. This disk is indispensable when your system fails to boot. As for the bootable CD, WinPE bootable disk is provided for users of EaseUS Todo Backup commercial editions, while Linux ISO is for users of EaseUS Todo Backup Trial Editions (However, we also provide a WinPE builder to help users of EaseUS Todo Backup Trial Edition to create a powerful WinPE bootable disk). Before creating a bootable disk, a blank CD/DVD-R/RW or a USB flash disk/USB external hard disk is required.

1. Click [Create bootable disk](#).
2. Select a USB device to create the emergency disk on it, or choose a CD/DVD device to burn the emergency CD/DVD.
3. Click [Proceed](#) to create the emergency disk.

Tips:

- If you fail to create bootable disk with built-in wizard, click [Export ISO](#) > [Browse](#) to export the image.*.iso* file and burn this file directly using third party burning software.
- Click the link at the bottom in the Trial Edition to call WinPE builder tool. With this tool you can create a powerful WinPE bootable disk with the Trial Edition.
- To create a bootable disk on a USB device, you need to first create an active partition on it.

3. Linux bootable Disk

A Linux based bootable disk is provided in **Trial** Editions by default. Please note that only [Disk and partition recovery](#) and [Clone](#) features are available with this kind of bootable disk. But the users of these editions are also allowed to create a WinPE bootable disk by installing Windows Automated Installation Kit (AIK) first, then using the WinPE builder we provided to create a WinPE bootable disk or export a WinPE ISO file and burn it with a third party software.

If you still need a Linux bootable disk after Windows AIK is installed, we have a spare copy in the installation path. You can find it by accessing the path *X:\EaseUS\Todo Backup\bin\LinuxISO* (X is the partition where our product is installed). Using this image file you will be able to create a Linux bootable.

4. WinPE bootable Disk

This kind of bootable disk is included in the commercial version. The bootable disk is based on a simple Windows 7 environment, and features that can be used in this environment are exactly the same as Pre-OS. For details, refer [Difference between WinPE and Windows.](#)

5. Wipe data

Permanently erase data from chosen disk(s) or partition(s). You can set the times to wipe in **Erase Times**. Use care, as once you perform this operation, it cannot be undone and the data will be permanently lost.

6. Mount/Unmount image

Mount

In order to browse the files in the disk/partition image and confirm the data in it, we provide the [Mount](#) function to make sure you can restore the correct partition(s) image. Users can copy files directly from the mounted drive.

- ✓ Click [Mount/Unmount](#) > [Mount](#).
- ✓ Select an image file by clicking the directory tree or manually input the File Path. Click [Next](#).
- ✓ Select the image file time point, click [Next](#).
- ✓ Click "[Click here to change drive letter](#)" under the [Operation](#) item to assign a new letter for the mounted drive.

- ✓ Click [Proceed](#) to start [Mount](#).

Tips:

- If the selected archive is encrypted, you need to type in the password to continue the process when you click **Next** in step 3.
- We suggest you mount the image file with the same Windows administrator/user which you used to create the image file. This will ensure you have full access permission.
- Only a partition image or partition(s) in the disk image can be mounted.

2). Unmount

Because of the system resources needed to keep an image mounted, it is advisable to [Unmount](#) the virtual drive after all necessary operations have been completed. You may click [Mount/Unmount](#), check the mounted drive you want to cancel, and then click [Unmount](#) to do the operation.

If you do not [Unmount](#) the virtual drive, the virtual drive will automatically disappear after the computer restarts.

7. Convert image

Besides converting image files in backup management, you can also convert your image file to virtual disk file with this separate tool. Follow these steps to perform a conversion task.

1. Click [Convert image](#) to run the tool.
2. Locate the image file you want to convert by choosing [Browse](#) behind the Backup image.
3. Specify the destination by directly inputting the path or Browsing the whole directory to find one.
4. Select the type of the virtual disk file you want to convert to. The 2 available file types for now are VMDK for VMWare and VHD for Virtual PC.
5. Click [Proceed](#) to implement the operation.

8. Tape management

If you always save images to tapes for long term storage, it may be difficult to figure out what a tape contains without a physical label. We provide this feature to help you manage all the tapes.

By clicking this feature, our product will list all detected tapes in a pop-up box. You can get an idea of the content in each of the connected tapes from the list, or select an image file and click [Wipe](#) to remove it.

9. Enable/Disable Pre-OS

Switch the status of [Pre-OS](#) between Enable and Disable by clicking Enable/Disable Pre-OS under the tool page. The name of the button depends on the current status of Pre-OS. If Pre-OS is enabled now, the button will be Disable Pre-OS. If Pre-OS is currently disabled, the button will display as Enable Pre-OS.

Once the Pre-OS enabled, you will get a boot menu which has our product listed. Select it and you can use our product before Windows starts to load.

10. Pre-OS

Pre-OS can be considered as a simple OS environment, in which you can use our product without system login or a system bootable disk. It is useful in various cases, especially when the operating system fails to boot. Logging into the Pre-OS environment and recovering from a previous image will resolve the problem easily.

There are 2 kind of Pre-OS environment for different editions.

Linux Pre-OS for all Trial editions, which is based on Linux environment, and only enables [Disk/Partition backup](#) and [Clone](#) features.

In Windows Pre-OS (which is also known as WinPE) for all paid editions, the version of WinPE that our product uses is 3.0 which is a simple Windows 7 environment. Nearly all features are available in this environment. For Trial editions, you can also use this kind of Pre-OS after installing Windows AIK and creating a WinPE bootable disk or exporting a WinPE ISO file.

Tips:

When you intend to recover under Pre-OS or bootable CD/USB environment, make sure the entire path containing the image file complies with ASCII standards.

11. Difference between WinPE and Windows

In the WinPE environment, you can use most of the features of EaseUS Todo Backup that work under Windows. However, as the running environment is different, we have replaced some features with other useful ones to make your job easier.

In addition to the restrictions previously listed, you can only view a task/plan with WinPE environment in [Backup management](#).

12. Windows shell command

Invoke MS-DOS command box to input different user commands to make backup task more efficient and safe. Examples are checking errors before backing up a partition with CHKDSK command, or add hardware driver with drvload command.

1. Click [Windows shell command](#) under [WinPE](#) or [Pre-OS](#) environment.
2. Input the command in the pop-up window and press Enter key to run it.
3. Type exit and press Enter key to return to main window of our product.

13. Device management

You can map a network drive, configure IP and add drivers with this feature.

1). Network manager

Click [Device management](#), select [Network manager](#) and click [Next](#).

- ✓ **Map network drive** - map a network drive as a local drive, and then you can back up to or recover from it.
- ✓ **Edit network drive** - change parameters of a mapped drive.
- ✓ **Disconnect network drive** - unplug the drive after the operation has finished.
- ✓ **IP settings** - configure the IP parameter.

2). Driver manager

Since hardware RAID, SCSI or some other kinds of storage and network cards cannot be directly recognized without drivers installed in Pre-OS, this feature can help you install the driver and make sure the operation can be completed.

1. Click [Device management](#).
2. Select [Driver manager](#) and click [Next](#). Specify the path where the drivers of your hardware RAID or network card are located and install them.

Note: The WinPE version of our product is based on Windows 7 32bit, which means you need to use the corresponding driver version.

14. Fix MBR and Check partition

- ✓ [Fix MBR](#) can help you get rid of some boot problems which are caused by a corrupt MBR. This operation will write fresh boot information to the MBR sector to repair the boot

problem. You can locate this feature in *Tools* in WinPE Pre-OS or WinPE bootable environment, click *Fix MBR*, choose the disk you want to repair and then press *Proceed*.

- ✓ *Check partition* can help you check for errors on a specified partition and fix them. Partitions with logic errors may fail to back up with our product, so it is necessary to check and fix errors before backup. This feature is available in WinPE Pre-OS or WinPE bootable environment, click *Check partition*. Choose the partition you want to test, and the errors will be fixed after the process runs. If the option *Automatically fix file system errors* is checked, and then click *Next* to start the operation.

15. iSCSI initiator

Connect to and configure the iSCSI device.

There are two methods connecting to an iSCSI target device:

1). Quick connect

1. On the *Targets* tab, type the name or the IP address of the target device in the *Quick Connect* text box, and then click *Quick Connect*. The Quick Connect dialog box is displayed.
2. If there are several targets at the specified target portal, these would be displayed in a list. Click the desired target, and then click *Connect*.
3. Click Done.

2). Advanced connection

1. Click the *Discovery* tab.
2. To add the target portal, click *Discover Portal*, and then in the *Discover Portal* dialog box, type the *IP address* or *name* of the target portal to connect to. If desired, you can also type an alternate *TCP* port for the connection.
3. Click OK.

Once connected, you can operate the connected iSCSI hard drive as your physical hard drive on your system with EaseUS Todo Backup, running operations such as backup and restore.

16. EaseUS Todo Backup PXE server

The Preboot Execution Environment is an environment to boot computers using a network interface independently of data storage devices or installed operating systems.

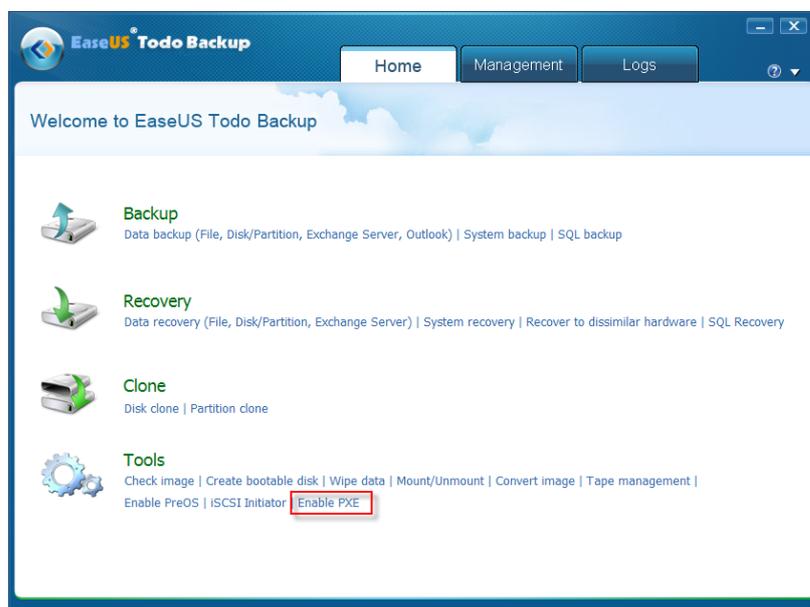
EaseUS Todo Backup PXE server allows network booting of EaseUS Todo Backup Recovery Environment on target machines. It is especially useful for bare metal recovery or network

deployment.

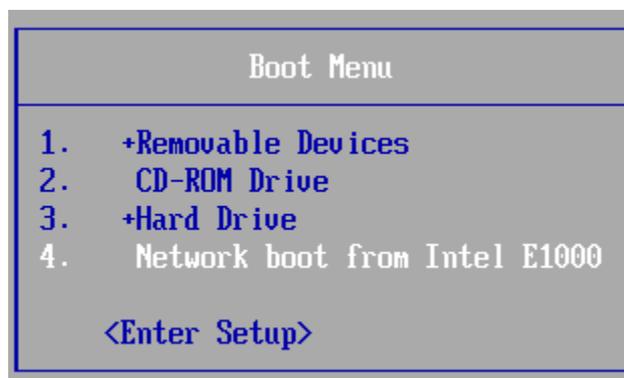
This feature is available in EaseUS Todo Backup Server Edition, EaseUS Todo Backup Advanced Server Edition and EaseUS Todo Backup Technician Edition and their trial edition.

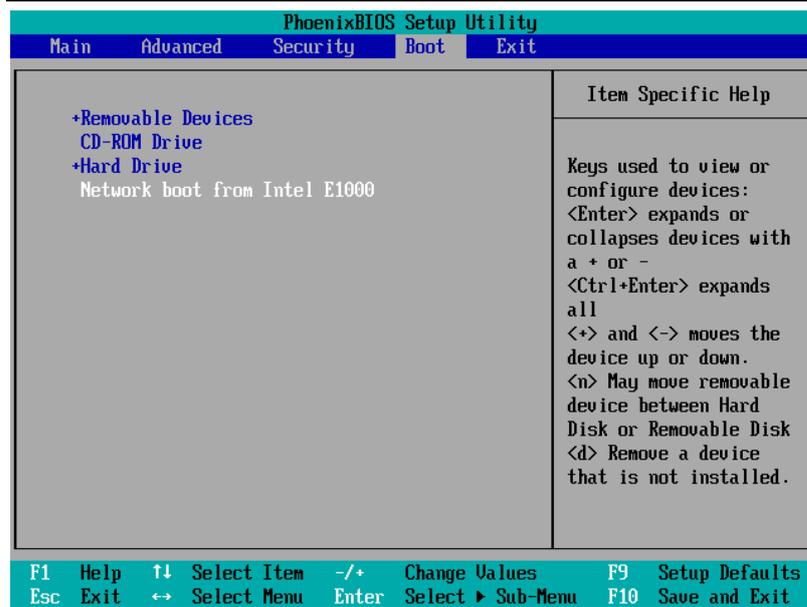
To install EaseUS Todo Backup PXE server, click "**Enable PXE**" in Tools in the Home page. EaseUS Todo Backup will configure boot image directory automatically.

Note: Make sure there is a working DHCP(Dynamic Host Control Protocol) in your network, so that the booting computers can automatically get IP addresses and boot into EaseUS Todo Backup Recovery Environment.



Confirm the Network Interface Card of client machine supports PXE boot, then you can choose "**Network boot**" in BIOS or boot menu. If the network connection to PXE server is available, the client machine will boot from the network.





17. Logs

The log file records not only what operations our product has done, but also lists the results of each operation, so you may check whether the task completed successfully. Switch to **Logs** page to view.

These operations can be performed on the log files:

- ✓ **Refresh** - refresh the list to load the new generated log file.
- ✓ **Clear** - delete all existing log files in the window.
- ✓ **Export all** - output all log file records to a TXT or XLS file.
- ✓ **View** - see details in a log file. For a failed task, you may find some characters in error codes; send the log file to us. With this information we can analyze the case and seek the root cause of task failure.

You can input *Start Time*, *End Time* or *Keyword* to search desired logs.

Other operations

1. Shut down the computer when the operation completed

With this option, you don't need to stay in front of the computer all the time when the operation is running. If you need the computer shut down after the operation finished, just check the option in the process and leave it alone.

This option is available for all backup, recovery and clone operations. You will find the option under the detailed box in the step where the option is executed.

2. Access image in Windows Explorer

Image files can be directly accessed after a backup. Besides ensuring what is included in the image file, you can [open, copy and recovery](#) specified files in the image with this new feature. Recovering selected files to their original location or specifying a new location to save the files are both allowed.

You can double click on the PBD image file or right click it and choose open to browse it. Find the target file, right click it to display the menu, and then perform the operation you want.

Tips:

This feature is unavailable under Windows 2000.

3. Starting backup from Windows Explorer

You can directly start a backup task in Windows explorer by right clicking the target and choosing [Include in EaseUS Todo Backup](#) in the menu. It provides a more efficient and easier backup mode.

After selecting a target file in EaseUS Todo Backup, there will be a pop-up box where you can set the parameters, including:

1. The name and description for the image file.
2. The destination location where the image files will be saved, you can change the default path by clicking Browse.
3. If you always upgrade the image file, you may need to specify an [Existing image cleanup rule](#) to remove previous image file.
4. Click [Options](#) to change the advanced parameters.

Tips:

- The current version of our product does not support creating a schedule in this way.
- Close EaseUS Todo Backup if it is open before starting backup in Windows explorer.
- This feature is not available in Windows 2000.

Support

For more information about EaseUS Todo Backup, please visit our website:

<http://www.todo-backup.com>

If you still cannot find what you are looking for and need further assistance, we encourage you to contact EaseUS Technical Support by support@todo-backup.com.

Please attach the *easeus.log* file which you can find in bin folder under the installation path of our product when you encounter functional issues, and add a *screenshot* of the error in your attachment. With these files we can locate the problem faster and easier.

Troubleshooting

1. If you encounter the error message "The image file is incomplete or not found", check the following details.

- Does the image path exist?
- Do you have full permission to access this path?
- If the problem persists after confirming the previous two tips, we suggest you transfer the image file to a local hard disk, and then try to recover it.

2. Why does the system prompt me for more than one image file to be deleted when I just delete one?

If you have some incremental image files based on the one which you want to delete, then all the incremental image files will be deleted too.

3. Can I execute an incremental backup without having a full backup?

Sorry, incremental backups are based on full backups. You need a correct full backup before you do the incremental backup.

4. Can I clone a hidden partition or a partition without driver letter, or clone the hard disk with these two kinds of partitions?

Yes, our product supports cloning these two kinds of partitions.

5. Why is the NTFS partition displayed as RAW after a clone, but I cannot access it?

We think your original NTFS partition is write protected, please remove this attribute and then try again.

6. Can I back up my operating system to a CD?

Yes, our product supports this operation. However, for a smooth recovery process, you'd be better off choosing a local or external hard disk as the target to save images.

7. Can I use the feature "Snapshot" in a dual-boot or multiple-boot environment?

Sorry, this feature is designed for single boot computers. It may fail to work in other complex operating system environments.

8. Why is there always a parent directory generated with same name as the image file has after backup?

We believe image files will be easier to identify and manage in their individual folder when you have a significant amount of image files.

9. Why do I could not copy the required files out of the image when browsing it?

There is a limitation in Windows that the entire file path and the file name cannot be composed of more than 255 bytes in total. If you have a file with a very long path/file name,

you may need to copy it to a shorter path.

10. Where are my files after a smooth recovery process? I mean there are no errors in the process but the files don't appear to be there.

You may try to display Windows hidden files and search again. Some files may just be hidden, since they originally have this attribute.

11. Can I modify an image name or move the image path under Windows explorer or with other tools?

Please do not try to do this. In order to avoid unexpected problems, make these changes in [Backup management](#). This allows our program to keep track of the images.

12. Why are my RAID/SCSI hard disks not recognized under WinPE or Pre-OS?

We could not add all kinds of hardware drivers in our product, so you need to add the driver manually. You can add the drivers for those types of disks through [Windows shell command](#) under Home page or [Device management](#) in the special environment.

13. Why does the product get stuck and the icon keeps spinning for a long time when I want to view my disk or expand a directory?

There may be some other device connected when you do the operations. Our product will try to list all of them which may slow down the performance. Unplug these devices and eject your CD/DVD before you do the operation to make it faster.

14. There is always a pagefile.sys in my system image. Why? It is said that your product would exclude this file automatically.

Yes, our product actually includes this file when creating a system image, but it is just listed to display the attribute of the file. Its size is actually OKB.

15. I backed up a partition in Sector by sector mode. Why doesn't it allow me to recover to the original place?

Sometimes EaseUS Todo Backup needs to re-align the start sector of the partition ensure it working properly after recovery. However, the partition cannot be resized when using Sector by sector recovery, so the space may not be enough for recovery. We suggest you to resize the partition first to make more free space for recovery or recover to a larger disk.

16. After clone a dynamic volume to a larger one, why is the volume size shown in Windows Explorer different than that in Windows Disk Management?

When clone a dynamic volume, the volume info of the destination volume in operating system would not change so the volume size in Windows Disk Management would be the same as that before clone. But with Sector by sector clone, all the data includes volume parameters would be kept in the volume after clone. So the available space would be the same as the original volume.

Generally we don't suggest you use Sector by sector mode to clone dynamic volume.

17. Why did it prompt "Target partition space too small" when I clone/recover to a partition of which the size is the same as the original partition?

This may happen when there's no free space in the original partition. Try to clone/recover again with Sector by sector mode.

Glossary

Backup

Backup refers to copying the data into one or several files so that the file(s) may be used to *restore* the original after a data loss event. Backup files created by EaseUS Todo Backup have a PBD extension.

Mirror image

A Mirror image is a single file containing the complete contents and structure or the selective files folders of a data storage medium or device. With this image, you can transfer the contents of a hard disk/ partitions or your important files/folders to other hard disks/partitions, for later restoration.

Emergency disk

An emergency disk is a CD, DVD, USB flash drive or USB external hard disk drive containing a standalone version of EaseUS Todo Backup which can be booted. It can be used to restore the users' system or partitions. Once the system is booted up from the disk, users can restore the computer by EaseUS Todo Backup in this emergency disk.

Incremental backup

Incremental backup involves only those files that have changed since the last backup. It is much smaller and quicker than a full backup. It preserves multiple versions of backups so the users can restore their data to any time that they have created a backup.

Recovery

Recovery is a process of returning the system, partition or files to a previous state in the event of system malfunction, disk failure, data lost or virus infection.

Recover to dissimilar hardware

The term "clone" refers to duplicating the contents of the source partitions/disk to the destination partitions/disk in file by file mode or in sector by sector mode, resulting in a disk/partition which is exactly the same as the original one. Note that the clone process will erase all the data on the destination partition/disk.

Disk/Partition clone

The term "clone" refers to duplicating the contents of the source partitions/disk to the destination partitions/disk in file by file mode or in sector by sector mode, resulting in a disk/partition which is exactly the same as the original one. Note that the clone process will erase all the data on the destination partition/disk.

System snapshot

A system **snapshot** is the state of a system at a particular point in time. The term is

analogous to its use in photography; that is, a picture of the system at a point in time. EaseUS Todo Backup monitors all the changes from the last Snapshot point had been created. This snapshot usually takes only seconds to be created. Snapshots offer the quickest way to restore a damaged Windows system to a working state.

System partition and Boot partition

Whenever a computer system is started, either from a cold boot using the power switch or a warm boot such as restarting the system from within Windows, there are certain files (for example: Ntldr) needed to boot (start) the computer. These boot files reside on the System partition. On dynamic disks, this is known as the system volume.

Once the boot files have been accessed and performed their function, the system files (the files that comprise the operating system) are accessed to complete the system start. The system files reside on the Boot partition. The boot partition can, but is not required, to be the same partition as the system partition.

Sector

Every track on hard disks can be subdivided into a number of sections. Each section is called a sector. Sectors are the smallest storage units on a hard drive. Each sector stores a fixed amount of user data. Typically a sector will hold 512 bytes of information.

The End