

# EaseUS<sup>®</sup> Partition Master

## User guide



## Table of content

|                                     |        |
|-------------------------------------|--------|
| Table of content.....               | - 2 -  |
| Overview.....                       | - 1 -  |
| Welcome.....                        | - 1 -  |
| Edition comparison.....             | - 1 -  |
| Basic knowledge.....                | - 2 -  |
| Hard disk/Partition.....            | - 2 -  |
| Disk formatting.....                | - 3 -  |
| File system.....                    | - 3 -  |
| Partition management.....           | - 3 -  |
| Dynamic disk/volume.....            | - 3 -  |
| GPT and MBR disk.....               | - 4 -  |
| Getting started.....                | - 5 -  |
| Hardware requirements.....          | - 5 -  |
| Supported file systems.....         | - 5 -  |
| Supported storage devices.....      | - 5 -  |
| Install and uninstall.....          | - 5 -  |
| Activation.....                     | - 6 -  |
| Main interface.....                 | - 6 -  |
| General.....                        | - 7 -  |
| View.....                           | - 8 -  |
| Disk/partitions.....                | - 9 -  |
| Tool.....                           | - 9 -  |
| Wizard.....                         | - 10 - |
| Help.....                           | - 11 - |
| Feature introduction.....           | - 12 - |
| Create partition/volume.....        | - 12 - |
| Resize operations.....              | - 12 - |
| Resize basic partition.....         | - 12 - |
| Resize storage space partition..... | - 14 - |
| Resize dynamic volume.....          | - 14 - |
| Merge operation.....                | - 15 - |
| Copy operations.....                | - 16 - |
| Clone disk wizard.....              | - 16 - |
| Disk copy.....                      | - 16 - |
| Upgrade disk.....                   | - 17 - |
| Partition copy.....                 | - 17 - |
| Dynamic volume copy.....            | - 18 - |
| Migrate OS.....                     | - 18 - |
| Conversion operations.....          | - 19 - |
| Convert FAT to NTFS.....            | - 19 - |
| Convert primary to logical.....     | - 19 - |
| Convert logical to primary.....     | - 20 - |
| Convert dynamic disk to basic.....  | - 20 - |

|  |        |
|--|--------|
| Convert MBR to GPT.....                          | - 21 - |
| Convert GPT to MBR.....                          | - 21 - |
| Remove operations.....                           | - 22 - |
| Delete (all) partition(s).....                   | - 22 - |
| Wipe.....  | - 22 - |
| Format.....                                      | - 23 - |
| Cleanup and Optimization.....                    | - 23 - |
| Junk File Cleanup.....                           | - 24 - |
| Large File Cleanup.....                          | - 24 - |
| Disk Optimization.....                           | - 25 - |
| Advanced operations.....                         | - 26 - |
| Repair RAID 5 dynamic volume.....                | - 26 - |
| Rebuild MBR.....                                 | - 26 - |
| Partition recovery wizard.....                   | - 26 - |
| Set active.....                                  | - 28 - |
| Partition scheme.....                            | - 28 - |
| Initialize to MBR disk.....                      | - 29 - |
| Initialize to GPT disk.....                      | - 29 - |
| Command line.....                                | - 29 - |
| 4K alignment.....                                | - 31 - |
| Other operations.....                            | - 32 - |
| Change Label/drive letter.....                   | - 32 - |
| Check partition.....                             | - 32 - |
| Hide partition.....                              | - 33 - |
| Explore partition.....                           | - 33 - |
| View properties.....                             | - 33 - |
| Surface test.....                                | - 34 - |
| Bootable disk.....                               | - 34 - |
| WinPE bootable disk.....                         | - 34 - |
| Feature comparison in different environment..... | - 34 - |
| Native mode.....                                 | - 35 - |
| Typical case.....                                | - 36 - |
| Extend system partition.....                     | - 36 - |
| Extend dynamic system volume.....                | - 37 - |
| Cannot create new partitions.....                | - 39 - |
| Remote management.....                           | - 40 - |
| Technical support.....                           | - 41 - |
| Troubleshooting.....                             | - 41 - |

# Overview

## Welcome

Thanks for using **EaseUS Partition Master**. As a comprehensive partition manager software, EaseUS Partition Master provides convenient user-interface and efficient features, greatly simplifying your tasks to manage your partitions on your hard disk.

With **EaseUS Partition Master**, you can create or delete partitions on your hard disk quickly and easily. The most attractive feature is that it can resize/move your partitions or volumes by taking advantage of the free spaces.

## Edition comparison

There are 5 available editions of **EaseUS Partition Master** in all. Each edition has different authorization, usable scope and features.

**Free edition** - free for home users and doesn't support Windows server operating system. Some features are limited.

**Professional edition** - commercial version for desktops and laptops end users.

**Server edition** - commercial version for Windows server users.

**Unlimited Edition** - commercial version for large enterprise users. It allows unlimited usage within one company.

**Technician edition** - providing technical service with unlimited usage.

Detailed comparisons among different editions is in the table below.

| EaseUS Partition Master            |      |              |        |           |            |
|------------------------------------|------|--------------|--------|-----------|------------|
|                                    | Free | Professional | Server | Unlimited | Technician |
| Resize/move partition              | √    | √            | √      | √         | √          |
| Resize/move dynamic volume         | ×    | √            | √      | √         | √          |
| Resize Storage space partition     | ×    | √            | √      | √         | √          |
| Resize BitLocker partition         | √    | √            | √      | √         | √          |
| Merge partitions                   | √    | √            | √      | √         | √          |
| Wipe partition & disk              | √    | √            | √      | √         | √          |
| Wipe unallocated space             | √    | √            | √      | √         | √          |
| Hide/unhide partition              | √    | √            | √      | √         | √          |
| Set an active partition            | √    | √            | √      | √         | √          |
| Defrag disk                        | √    | √            | √      | √         | √          |
| Rebuild MBR                        | √    | √            | √      | √         | √          |
| Convert dynamic disk to basic disk | ×    | √            | √      | √         | √          |
| Repair RAID 5 dynamic volume       | ×    | ×            | √      | √         | √          |

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| Convert between primary and logical partitions       | ✓ | ✓ | ✓ | ✓ | ✓ |
| Disk surface test                                    | ✓ | ✓ | ✓ | ✓ | ✓ |
| Command line   | × | ✓ | ✓ | ✓ | ✓ |
| Delete, Create, Format, Recovery EXT2/EXT3 partition | ✓ | ✓ | ✓ | ✓ | ✓ |
| Resize/move EXT2/EXT3 partition                      | × | ✓ | ✓ | ✓ | ✓ |
| Initialize to GPT disk/MBR disk                      | ✓ | ✓ | ✓ | ✓ | ✓ |
| Convert MBR to GPT                                   | ✓ | ✓ | ✓ | ✓ | ✓ |
| Convert GPT to MBR                                   | ✓ | ✓ | ✓ | ✓ | ✓ |
| WinPE bootable disk                                  | × | ✓ | ✓ | ✓ | ✓ |
| 4K alignment   | ✓ | ✓ | ✓ | ✓ | ✓ |
| Resize EFI partition                                 | ✓ | ✓ | ✓ | ✓ | ✓ |
| <b>Disk clone &amp; Partition copy wizard</b>        |   |   |   |   |   |
| Disk clone & Partition copy                          | ✓ | ✓ | ✓ | ✓ | ✓ |
| Copy dynamic volume                                  | × | ✓ | ✓ | ✓ | ✓ |
| GPT disk & partition copy                            | ✓ | ✓ | ✓ | ✓ | ✓ |
| Upgrade disk   | ✓ | ✓ | ✓ | ✓ | ✓ |
| Migrate OS   | × | ✓ | ✓ | ✓ | ✓ |
| <b>Partition recovery wizard</b>                     |   |   |   |   |   |
| Recover deleted or lost partition                    | ✓ | ✓ | ✓ | ✓ | ✓ |
| <b>Operating system</b>                              |   |   |   |   |   |
| Windows XP, Vista, 7, 8/8.1, 10                      | ✓ | ✓ | ✓ | ✓ | ✓ |
| Windows Server 2003/2008/2012/2016                   | × | × | ✓ | ✓ | ✓ |
| Windows Home Server 2011                             | × | × | ✓ | ✓ | ✓ |
| Windows Small Business Server 2003/2008/2011         | × | × | ✓ | ✓ | ✓ |

## Basic knowledge

### Hard disk/Partition

A hard disk/drive is one indispensable part of your computer responsible for long-term storage of information. Unlike volatile memory (often refers to RAM) which lost its storage information once its power supply is shut off, a hard disk stores information permanently, allowing you to save programs, files or any other data. Hard disks also have much more powerful storage capabilities than RAM.

After a disk has been physically formatted, it can be divided into separate physical sections or partitions. Each

partition functions as an individual unit, and can be logically formatted as any desired file system. Once a disk partition has been logically formatted, it is referred to as a volume. During the process of formatting operation, you are required to name the partition. And the name is called the "volume label" which would help you easily identify the volume.

## Disk formatting

Computer must be able to access needed information on command. However, even the smallest hard disk can store millions of bits. How can the computer know where to look for the information it needs? To solve this problem, hard disks are organized into discrete, identifiable divisions, thus allowing the computer to find any particular sequence of bits easily. The most basic form of disk organization called formatting. Formatting prepares the hard disk so that files can be written to the platter and then quickly retrieved when needed. Hard disk can be formatted in two modes: physically and logically.

## File system

All file systems consist of structures necessary for storing and managing data. These structures typically include an operating system boot record, directories, and files. A file system also performs three main functions:

1. tracking allocated and unused space,
2. maintaining directories and filenames.
3. tracking where each file is physically stored on the disk.

Different file systems are used by different operating systems. Some operating systems can recognize only one file system, while others can recognize several ones. Some of the most common file systems are: FAT (File allocation table), FAT32 (File allocation table 32), NTFS (New technology file system), Linux ext2, ext3 and Linux swap.

## Partition management

The following concepts and activities can help you manage your disk partitions.

Set an active primary (boot) partition. When you create multiple primary partitions with different operating systems, you must tell the computer which primary partition is to boot from. The primary partition from which the computer boots is called the active partition. If there is no active primary partition on the first physical hard disk, your computer will not be able to boot from your hard disk.

Before you set a primary partition active, make sure that it is a bootable partition. Bootable partitions are logically formatted and with the necessary OS files installed. Partitions without an OS cannot be booted.

By creating an extended partition and then dividing it into logical partitions, you can:

Access the Same Files from Multiple Operating Systems

Make Efficient Use of Disk Space

Simplify File Access and Enhance File Security

## Dynamic disk/volume

Actually, Microsoft Windows XP/Vista/7/8/8.1/10 and Windows Server 2003/2008/2012 support four primary partitions

per physical hard disk at most, one of which can be extended except system partition. Certainly, it is possible to create logical drives within the extended partition which is a partition type you create only on a basic MBR (Master Boot Record) disk. Extended partition is used to create more than four partitions on a hard disk, because an extended partition can contain multiple logical drives. Such types of disks are called basic disk.

A Dynamic disk is a physical disk with features that basic disks do not have, such as support for volumes spanning multiple disks. Dynamic disks use a hidden database to track information about dynamic volumes on the disk and other dynamic disks in the computer. Dynamic disk management is a data/hard disk management method on the Microsoft Windows platform, first introduced with Windows 2000 operating system. There are five types of dynamic volumes: simple (uses free space from a single disk), spanned (created from free disk space that is linked together from multiple disks), striped (a volume the data of which is interleaved across two or more physical disks), mirrored (a fault-tolerant volume the data of which is duplicated on two physical disks), and RAID-5 volumes (a fault-tolerant volume the data of which is striped across an array of three or more disks).

Dynamic disks can co-exist on a system with basic disks. The only limitation is that you cannot mix Basic and Dynamic disks on the same hard drive.

Limitations:

1. Dynamic disks are not supported on portable computers.
2. Dynamic disks are not supported on Windows XP Home Edition-based computers.
3. Mirrored volumes or RAID-5 volumes cannot be created on Windows XP Home Edition or Windows XP 64-Bit Edition-based computers.

## GPT and MBR disk

MBR is the standard partitioning scheme that's been used on hard disks since the PC first came out.

The GPT disk itself can support a volume up to  $2^{64}$  blocks in length. (For 512-byte blocks, this is 9.44 ZB - zettabytes. 1 ZB is 1 billion terabytes). It can also support theoretically unlimited partitions.

Windows restricts these limits further to 256 TB for a single partition (NTFS limit), and 128 partitions.

Being a part of the Extensible Firmware Interface (EFI) standard proposed by Intel to replace the outdated PC BIOS, it offers a number of crucial benefits:

1. Up to 128 primary partitions for the Windows implementation (only 4 in MBR)
2. The maximum allowed partition size is 18 exabytes (only 2 terabytes in MBR)
3. More reliable thanks to replication and cyclic redundancy check (CRC) protection of the partition table
4. A well defined and fully self-identifying partition format (data critical to the platform operation is located in partitions, but not in un-partitioned or hidden sectors as this is the case with MBR).

# Getting started

## Hardware requirements

**EaseUS Partition Master** requires the computer at least with X86 or compatible CPU with main frequency 500 MHz, a standard PC system with mouse, keyboard and color monitor, and the capability of the RAM memory equal or larger than 1.5GB.

## Supported file systems

**EaseUS Partition Master** could support the following file systems: FAT12, FAT16, FAT32, NTFS, ReFS and EXT2/EXT3

## Supported storage devices

IDE, SATA, SCSI, USB removable hard disk, and Firewire hard disk are all supported by EaseUS Partition Master. The minimum capability is 2 GB and the maximum is 16 TB. EaseUS Partition Master can support more than 32 disks. EaseUS Partition Master can support USB Flash Drive, Memory Card, etc too.

## Install and uninstall

To install **EaseUS Partition Master**:

1. Double click **EaseUS Partition Master** 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. Choose a location where to install the software, install to the default folder by clicking **NEXT**, or click **Browse** to select a specified location.
4. Set a location for the **shortcut** in Windows start menu.
5. Tick the corresponding option to create a shortcut on your desktop or Windows quick launch bar. Also you can tick them both.
6. Setup wizard complete the installation after you click **Install**.

To Uninstall **EaseUS Partition Master**:

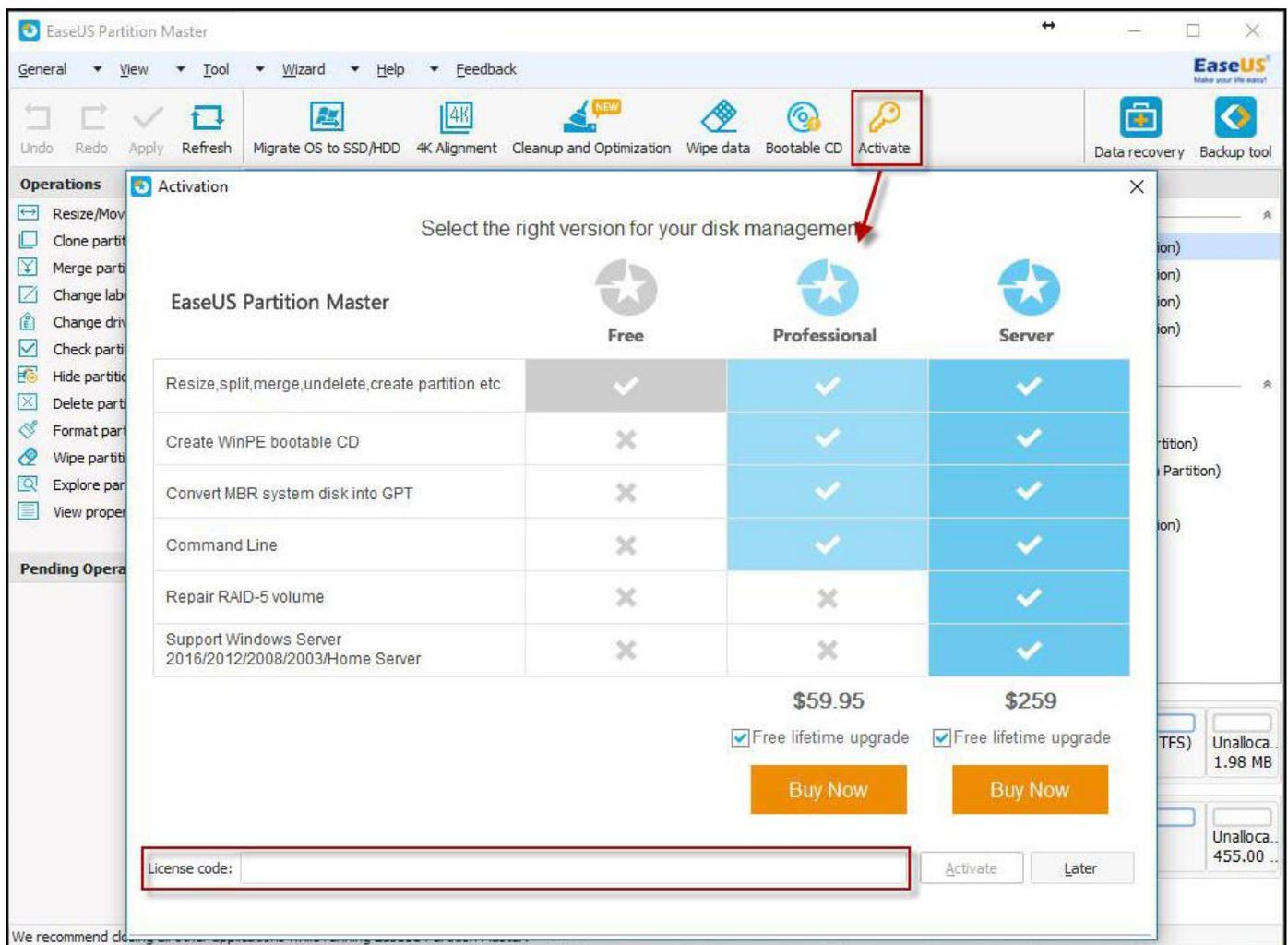
1. From the Windows Start menu, select **Start > Settings > Control Panel** (From the Windows Start menu, select **Start > Control Panel** in Windows 7/Vista)
2. Double-click **Add/Remove Programs**, and select **Change or Remove Programs** (Double-click **Programs and Features** in Windows 7/Vista).
3. Select EaseUS Partition Master, and click Remove to uninstall the related components (Select EaseUS Partition

Master from the list and click **Uninstall** in Windows 7/Vista).

4. Or select **Start > All Programs > EaseUS Partition Master > Uninstall EaseUS Partition Master**. Then, follow the instructions of the uninstall wizard.

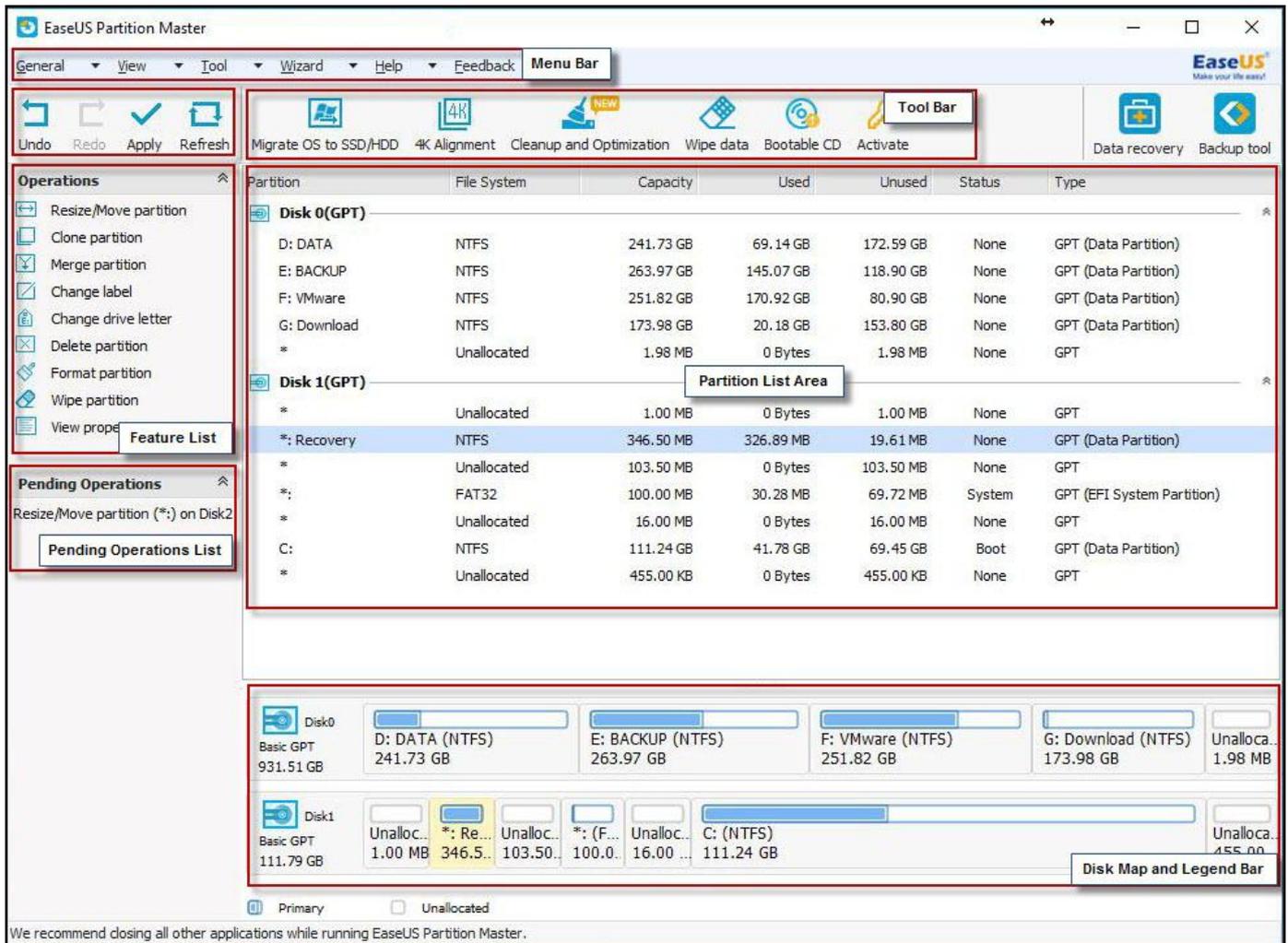
## Activation

1. To activate **Free** or **Trial** edition, please click **Activate** at the top-right corner.
2. Input your serial number. We suggest you copying and pasting it in case you mistype it.
3. If you can't click **Activate** after inputting a serial number, please verify it's a correct number.
4. Every time you reinstall **EaseUS Partition Master**, you need activate it.



## Main interface

After launching our product, you will get the main interface in a short while of splash screen.



The screenshot shows the EaseUS Partition Master interface. At the top is the menu bar with options: General, View, Tool, Wizard, Help, Feedback, and Menu Bar. Below the menu bar is the toolbar with icons for Undo, Redo, Apply, Refresh, and various partitioning tools like Migrate OS to SSD/HDD, 4K Alignment, Cleanup and Optimization, Wipe data, Bootable CD, and Activate. On the left side, there are two panels: 'Operations' with a list of actions like Resize/Move partition, Clone partition, Merge partition, Change label, Change drive letter, Delete partition, Format partition, Wipe partition, and View properties; and 'Pending Operations' showing a pending operation 'Resize/Move partition (\*.) on Disk2' with a yellow exclamation mark and a 'Pending Operations List' button. The main area is the 'Partition List Area' table:

| Partition          | File System | Capacity  | Used      | Unused    | Status | Type                       |
|--------------------|-------------|-----------|-----------|-----------|--------|----------------------------|
| <b>Disk 0(GPT)</b> |             |           |           |           |        |                            |
| D: DATA            | NTFS        | 241.73 GB | 69.14 GB  | 172.59 GB | None   | GPT (Data Partition)       |
| E: BACKUP          | NTFS        | 263.97 GB | 145.07 GB | 118.90 GB | None   | GPT (Data Partition)       |
| F: VMware          | NTFS        | 251.82 GB | 170.92 GB | 80.90 GB  | None   | GPT (Data Partition)       |
| G: Download        | NTFS        | 173.98 GB | 20.18 GB  | 153.80 GB | None   | GPT (Data Partition)       |
| *                  | Unallocated | 1.98 MB   | 0 Bytes   | 1.98 MB   | None   | GPT                        |
| <b>Disk 1(GPT)</b> |             |           |           |           |        |                            |
| *                  | Unallocated | 1.00 MB   | 0 Bytes   | 1.00 MB   | None   | GPT                        |
| *: Recovery        | NTFS        | 346.50 MB | 326.89 MB | 19.61 MB  | None   | GPT (Data Partition)       |
| *                  | Unallocated | 103.50 MB | 0 Bytes   | 103.50 MB | None   | GPT                        |
| *:                 | FAT32       | 100.00 MB | 30.28 MB  | 69.72 MB  | System | GPT (EFI System Partition) |
| *                  | Unallocated | 16.00 MB  | 0 Bytes   | 16.00 MB  | None   | GPT                        |
| C:                 | NTFS        | 111.24 GB | 41.78 GB  | 69.45 GB  | Boot   | GPT (Data Partition)       |
| *                  | Unallocated | 455.00 KB | 0 Bytes   | 455.00 KB | None   | GPT                        |

At the bottom, the 'Disk Map and Legend Bar' shows graphical progress bars for each partition on Disk 0 and Disk 1. A legend at the bottom indicates Primary (blue) and Unallocated (white) space.

We recommend closing all other applications while running EaseUS Partition Master.

**Menu bar** - some advanced settings can be found here. The specific instruction for each menu would be available in latter paragraphs.

**Tool bar** - This bar consists of 4 resident features on the left (in red box on the graphic above) and several main features which are available for the operation target you select.

**Feature list** - All operations you can do to the selected operation as the targets are listed here.

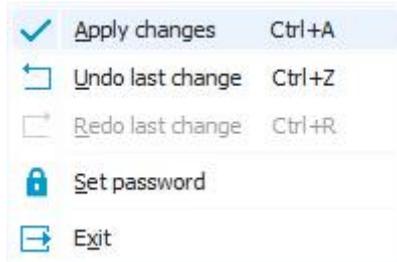
**Pending operation list** - All "have made", but "not execute" operations are shown in this area, you can click Undo to cancel the operation or click Apply to proceed it. The yellow triangular exclamation mark means the related operation requires reboot to complete, and execute under native mode after you apply it.

**Partition list** - The biggest area in our product, it will list all recognized disk(s) and partition (s).

**Disk map and legend bar** - Displaying all recognized disk(s) and partition(s) in graphic map, and some changes can be directly made from here, such as resize or move a partition by dragging it on this map.

## General

There are some basic operations under this menu. You can use it to execute or cancel the pending operations. You can also click the symbols in the toolbar to execute the operations.



**Apply changes** - execute all of the pending operations. You can view the list of pending changes before you apply them by clicking **View > Pending operations**,

**Undo last change** - cancel the last change from the pending operations.

**Redo last change** - relist the original changes which are canceled by clicking "**Undo last change**" in pending operations.

**Set password** - you should always be aware of possible unauthorized access to your data. To protect your hard disk, partitions, application and data, **EaseUS Partition Master** provides password protection in Windows especially. If you need to protect your **EaseUS Partition Master** with a password.

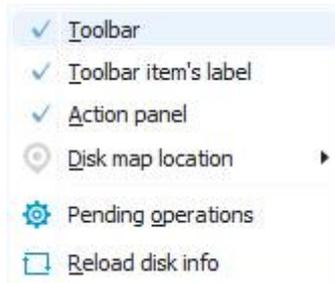
**Exit** - to exit EaseUS Partition Master.

### Tips:

- If you forget the password, please contact our Technical Support.
- When you exit EaseUS Partition Master, you may be prompted to apply or discard any pending changes to your system.

## View

Display/Hide parts of the interface in our program.



**Toolbar** - the toolbar gives you quick access to frequently used commands in **EaseUS Partition Master**. Move the mouse pointer over a toolbar button (or a pull-down menu item) to read a brief description of what the option does in the status bar located at the bottom of the window. Also, when the mouse pointer is over a toolbar button, a pop-up description is displayed next to the button.

**Toolbar item's label** - the Toolbar item's label can display the name of toolbar items. You can also hide the Toolbar item's label.

**Action panel** - click Action Panel to view a list of tasks and operations you can perform on partitions, and view the operations pending on these partitions.

**Disk map location** - click Disk Map Location, then click the location on the main screen you want the Disk Map to display in.

**Pending operations** - use View Operations pending to view a description of what changes you have specified on

your system, but have not yet come into effect.

**Reload disk info** - reload the current disk information if there is any change of the hard disk after running our program.

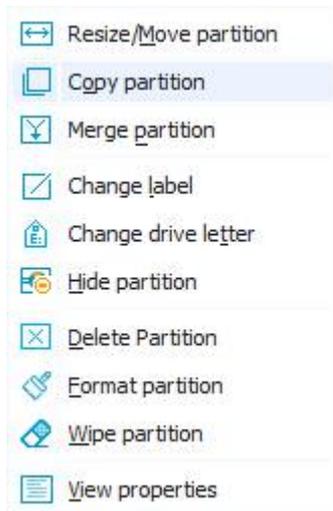
### Tips:

- You may also look at the operations pending window located in the bottom of the left pane.
- Operations that must be run at boot time are marked with a small yellow triangular exclamation mark in front of the operation under the 'Pending Operations' panel. If any operation requires going into boot mode, it will be run at boot time.

## Disk/partitions

The main features you can do for operating the current target. The features will be different when you choose different target, such as partition, disk, unallocated space or dynamic volume.

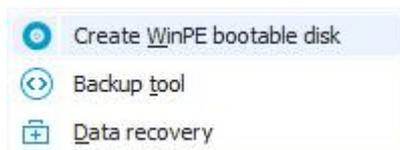
The following screenshot shows the operations you can do with the disk.



There are different features for different types of disk/partitions. More detailed information for how to operate it, please refer to **Feature introduction**.

## Tool

Wizard of creating bootable disc of our **EaseUS Partition Master** and the corresponding introduction of another powerful software EaseUS Todo Backup.



### Create WinPE bootable disk

Please make sure that you have a blank CD/DVD or a USB disk before you continue to create bootable disk.

- Click **Tool > Create WinPE bootable disk** from the main windows of EaseUS Partition Master. Then you can see **Create bootable disk of EaseUS Partition Master** Window. There are three radio buttons of **USB**, **CD/DVD**, and

### Export ISO on the window.

- Click **USB** radio button, you can select proper USB disk to create WinPE bootable USB disk.
- Click **CD/DVD** radio button, you can create WinPE bootable CD/DVD.
- Click **Export ISO** to export the WinPE bootable disk ISO file, and save it on your local machine. Then, please use the third-party burning software to burn the ISO file in CD/DVD to create WinPE bootable disk.

There are two characteristic options: **Add driver**, **Windows shell command** under **Tool** menu in WinPE bootable disk:

**Add driver** - to add RAID driver in WinPE bootable disk. For example, if you need to support hardware RAID in WinPE bootable disk, this feature can help you add RAID driver.

**Windows shell command** - invoke Windows MS-DOS command box. For example, if there are some errors on the file system of partition, you can input command to check the partition directly.

**Backup tool** - when you click it, it will pop-up the website of our another product EaseUS Todo Backup which can help you backup and restore file and partition/disk easily.

### Tips:

- The WinPE bootable disk are available in all commercial Editions.

## Wizard

Features of backup and partition recovery. You can copy a single partition or the entire hard disk. And also you can copy a dynamic volume.



**Clone disk wizard** - clone the entire hard disk to another one. If you want to replace the old hard disk with another larger one, you can use this feature to meet your need.

- Select a source disk.
- Check partitions of the disk.
- Select a destination disk.
- Confirm to delete the partitions and data on the destination disk.
- Edit the destination disk.

**Copy partition wizard** - copy single partition to an unallocated space.

- Select a source partition.
- Check partition.
- Select a destination.
- Edit the destination partition.

**Copy dynamic volume** - this feature can copy dynamic volume to unallocated space on basic disk.

- Select a FAT12/16/32, ReFS or NTFS volume in the dialog box.
- Check the file system of the volume.
- Select an unallocated space on destination disk which must be a basic one.
- Edit the properties of destination partition.

**Migrate OS wizard** - Transfer Windows partitions from one hard disk to another.

- Check partition.
- Select a destination.
- Edit the destination partition.

**Partition recovery wizard** - Partition Recovery Wizard is an easy-to-use tool that allows you recover volumes on a basic MBR/GPT disk that were accidentally deleted or damaged due a hardware or software failure.

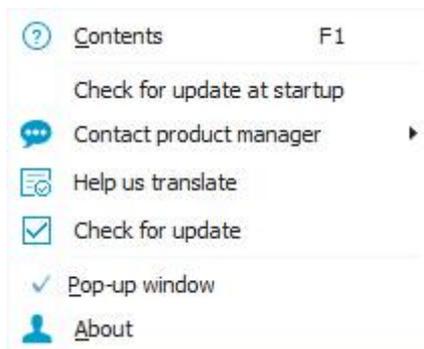
The Partition Recovery Wizard first attempts to recover volumes "as is", i.e. logical volumes will be recovered as logical and primary as primary respectively. If the primary volume cannot be recovered as is, it will be recovered as logical. Also, if the logical volume cannot be recovered as is, it will be recovered as primary.

### Tips:

If the source volume is the system boot volume, please make sure there is no boot partition on the destination disk, otherwise the system on destination partition may fail to boot after copy.

## Help

Preview user guide and update of our product. It will help you to operate our program easier.



**Contents** - export the "Help" document of our program to view how to operate our product. You can also press "F1" to export it.

**User guide(PDF)** - export the user guide of our program which is saved as .pdf file.

**Check for update at startup** - tick this option to help you check whether it is the latest version when it starts every time.

**Check for update** - check whether there is a newer version of our product manually.

**About** - to view the version information of the current product.

# Feature introduction

## Create partition/volume

If there is some unallocated space on the basic disk or dynamic disk, you can create a partition or volume by manual disk operations.

Select the unallocated space, the **Create partition** or **Create volume** will be available on the toolbar, the **Create partition** or **Create volume** on the Operation menu.

To create volume, you need to select a volume type first and then add disk(s), after that, the process will be similar as creating partition.

In the Create Partition window, enter a partition label, select a drive letter, cluster size, partition size, partition type (Primary-Logical) and file system from the list.

Regularly, if the partition is used for containing an operating system, Primary should be selected for it. Or if the partition is meant for data storage, then Logical should be selected.

Click **OK**, you will add the pending operation of new partition operation.

## Resize operations

Our product supports resizing basic partitions and dynamic volumes. When you want to extend one partition or shrink one partition to create new partitions, you can use this feature to meet your need. It always runs smoothly and quickly. It's a useful feature to help you manage your disk and partitions easily.

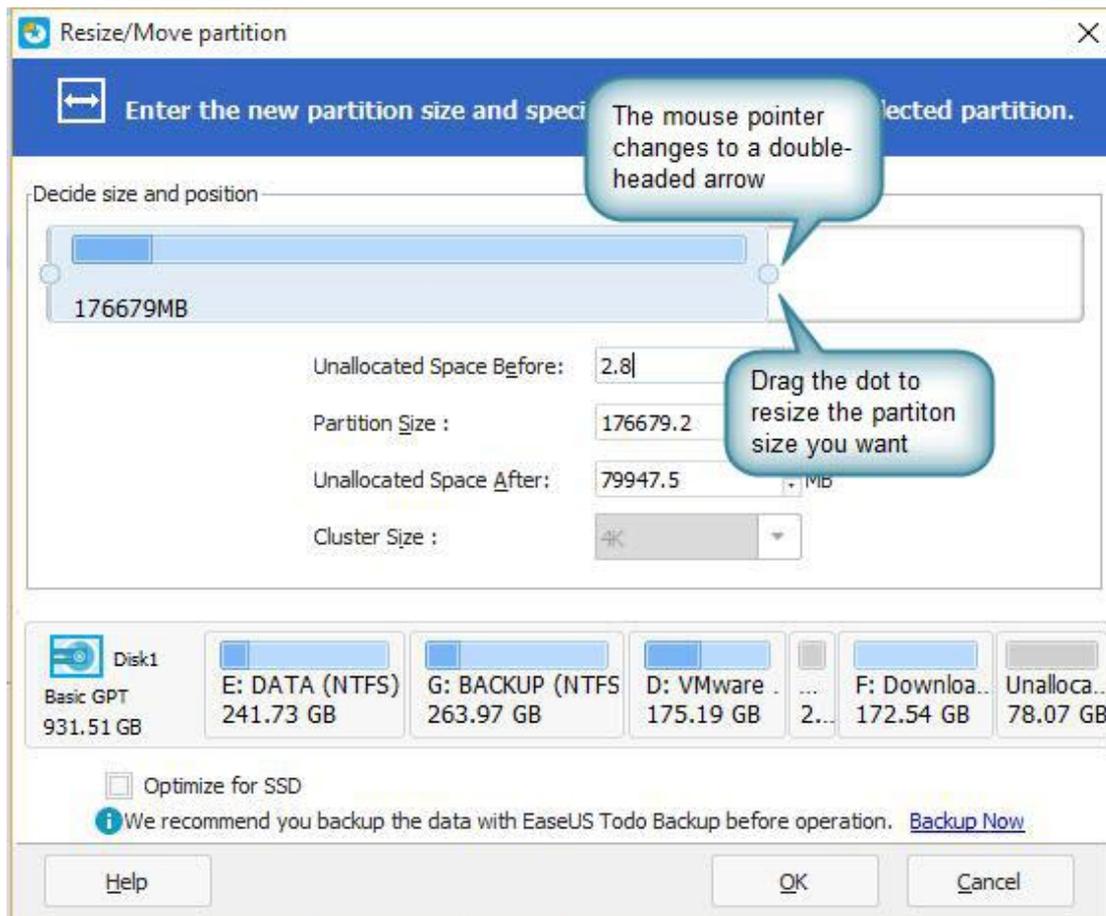
### Resize basic partition

You may find that there is not enough free space on a certain partition. For example, maybe it is almost filled with MP3 files. **EaseUS Partition Master** lets you enlarge a partition easily.

To resize/move a partition:

1. Select the hard disk and a partition to be resized.
2. Click **Partitions > Resize/Move partition**.
3. On a disk map, current size of the partition is displayed on the top of the dialog box. The map also depicts the used and unused space within the partition and the free space surrounding the partition (if any exists). The minimum and maximum sizes that you can resize a partition appear below the map.
4. Position the mouse pointer on the left or right partition handle.
5. The mouse pointer changes to a double-headed arrow.

6. Drag the dot to the partition size you want. And then click OK.



### Tips:

- Check the **Optimize for SSD** option when you do this job on SSD.
- In step 6, you can also resize the partition by specifying new values in the Unallocated Space Before, Partition Size, and Unallocated Space After text boxes. The values you type may change slightly to values supported by your drive's geometry.
- To make a partition smaller, the partition must contain unused space. To enlarge a partition, there must be free space adjacent to it.
- If desired, click the Cluster Size drop-down list and select a new size or use the recommended cluster size that is already selected. This option is only active in FAT, FAT32, but inactive in NTFS.
- **EaseUS Partition Master** automatically considers the limitations of file systems and parameters provided. In particular, it won't let you enlarge a FAT16 partition over the maximum 4GB value.
- By clicking **OK** in the Resize Partition window, you'll create a pending operation for partition resizing and moving (your actions may only undo or modify an existing operation.)
- Take special care when moving an operating system partition and its boot code location. The OS might stop booting. For example, Windows NT 4.0 and earlier versions limit boot code location to the first 2016MB.
- After Moving/Resizing the partition with restore point, you may lose the restore point created by "System Restore" before.
- For Windows 7, if the partition you want to Move/Resize has backup image files create by the backup utility built-in windows 7 (Control Panel - System and Security - Backup and Restore), after the operation, to restore

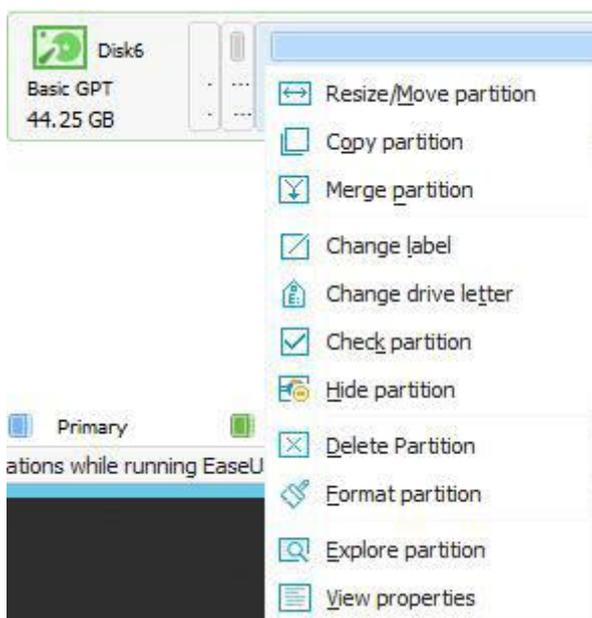
image in the partition is available. However, if the partition is the backup location specified by the users through Control Panel - System and Security - Backup and Restore, the location will not be available and will show a red cross in Control Panel- System and Security - Backup and Restore. Reallocating the backup location is the solution for this issue.

- **EaseUS Partition Master** is able to resize the BitLocker encrypted partition, but it can only resize the partition from its tail.

## Resize storage space partition

Storage Spaces is provided by Microsoft, and it help to protect your data from drive failures and extend storage over time as you add drives to your PC. You can use Storage Spaces to group two or more drives together in a storage pool and then use capacity from that pool to create virtual drives called storage spaces. These storage spaces typically store two copies of your data so if one of your drives fails, you still have an intact copy of your data. If you run low on capacity, just add more drives to the storage pool.

In order to manage the volume on storage space easily, EaseUS Partition Master provides more useful functions, such as Resize/Move partition, Copy partition, Merge partition and so on.



## Resize dynamic volume

**EaseUS Partition Master** helps you resize a dynamic volume, including simple volume, mirrored volume, spanned volume, striped volume and RAID 5 volume from the tail easily. Especially, **EaseUS Partition Master** can resize dynamic **system** volume without problem.

However, if the volume which has been set the **Quota**, it cannot be shrink. And you can only extend it using our program. In order to shrink it, you need to disable the **Quota** of the volume. Please right click the volume in Windows explorer, and then choose "Properties". Now you can choose and set the "**Quota**" here.

To resize a dynamic volume:

1. Select the volume to be resized.
2. Click **Partitions > Resize volume**.
3. On a disk map, the current size of the partition is displayed on the top of the dialog box. It also displays the used and unused space of the volume, and the free space surrounding the volume (if any exists). The minimum and maximum sizes that you can resize a partition appear below the map.
4. Position the mouse pointer on the right volume handle.
5. The mouse pointer turns to a double-headed arrow.
6. Drag the dot to the volume size you want.
7. Click **OK** to add the pending operation.

### Tips:

- **EaseUS Partition Master** can resize the volume that belongs to the current computer only. You cannot connect dynamic disks from another computer to the current computer to resize.
- If you increase the simple volume space to multiple dynamic disks, it will change into spanned volume.
- The spanned volume will change into a simple volume after shrinking it to single dynamic disk. However, it is not available for a striped volume.
- **EaseUS Partition Master** only supports resizing dynamic volume of NTFS, ReFS and FAT (FAT16/FAT32) file system.
- The dynamic volume cannot be extended unless there is at least 100MB of unallocated space.
- If the free space (unused space) of the system volume is less than 2GB, you cannot shrink it any more.
- The system volume which is FAT32 file system cannot be extended to discontinuous unallocated space on the same hard disk. Only NTFS volume can be done.

## Merge operation

When a partition is out of use, you would want to merge two adjacent partitions as single larger one. Then there will be more free space to use. And this feature can help you achieve your goal.

The program only support to merge NTFS, ReFS, FAT12, FAT16 or FAT32 partitions. And the maximum size of the merged partition is less than 4TB (1TB=1024GB). To merge the partition with more data to the one with less data is advisable, but not to merge the partition with less data to the one with more data, because, comparatively speaking, the latter one would be time-consuming.

To merge partitions:

1. Select the partition to be merged.
2. Click **Partitions > Merge partition**.
3. Select a partition, the size of which you need to increase by up-taking contents of an adjacent partition.
4. Choose the second partition for the merge operation, the contents of which will be placed in a folder on the merged partition. By default, the program offers an easy-to-understand folder name to store files of the second partition.
5. Click **OK** to add the pending operation.

**Tips:**

- **EaseUS Partition Master** support merging partitions on basic disk only. It cannot merge dynamic volumes.
- You can merge the NTFS partitions of different cluster size.
- The two partitions which will be merged must be adjacent. It means that there are no other partitions except unallocated space between the two partitions which will be merged.
- After merging completed, the size of the merged partition will be the total size of the original two partitions. If there is unallocated space between the two operating partitions, it also will be merged into new partition.
- The operating partitions should not be a hidden partition. However, it can be the partition which has no driver letter.
- In order to ensure a bootable system, the boot partition and system partition cannot be merged as the second partition. In other words, you cannot merge boot partition and system partition to another partition, only other partitions can be merged to them. This rule also applies to the partition where EaseUS Partition Master installed.
- The unused space of the operating partitions should be more than 5% of the total partition space.
- After merging a FAT 16 partition and a FAT 32 partition or both of the partitions are FAT16 file system, the file system of the merged partition will be changed into FAT32 automatically.
- NTFS partition cannot be merged into FAT partition.

## Copy operations

### Clone disk wizard

There are two features for you to clone hard disk, **Copy disk** and **Upgrade disk**.

**Copy disk** - enable to successfully transfer all on-disk information including standard bootstrap code and other system service structures, thus maintaining the operating system's working capability.

**Upgrade disk** - copy system disk to a new larger hard disk only. It will choose the system disk as the source disk automatically.

The features can be found as follows:

Click **Wizard** > **Clone disk wizard**

### Disk copy

Nowadays, hard drive duplication is becoming highly popular among PC users. That is due to some definite advantages it offers. First of all, many people clone hard disk just to back up data for security reasons. The present day copy utilities enable to successfully transfer all on-disk information including standard bootstrap code and other system service structures, thus maintaining the operating system's working capability. In case of a system malfunction, the user can get the system back on track in minutes.

To copy Disk:

1. Select a source disk.
2. Check partitions of the disk.
3. Select a destination disk.
4. Confirm to delete the partitions and data on the destination disk.

## 5. Edit the destination disk.

### Tips:

- **If you clone a MBR disk to a GPT disk, or clone a GPT disk to a MBR disk, it will fail to boot from the destination disk.**
- Once you confirm to delete the partitions on the disk, the data on the disk will forever get lost, even though the copy failed!
- In order to make the Windows Operating System bootable on destination disk, make sure that:
  1. Shut down the computer after disk copy and unload the source drive.
  2. If the Operating System is not bootable on destination disk, please try to connect the destination disk to the socket of the source disk.
- If the Operating System is not bootable on source disk, please shut down the computer and try to unload the destination disk.
- Please do not start the computer directly from the destination disk once the disk copy is finished.

## Upgrade disk

As a result programs become more and more complicated and require considerable free space. One day the user realizes that there is no more free space left on the hard disk and the only solution is to upgrade. But after purchasing a new hard disk, the user is to face a large re-installation procedure spanning several days of tedious work. But all of this can be avoided just by upgrading the old hard disk to a new one and then resizing the partitions.

To upgrade disk:

1. Check partitions of the disk.
2. Select a destination disk.
3. Confirm to delete the partitions and data on the destination disk.
4. Edit the destination disk.

### Tips:

- The size of the destination hard disk cannot be less than the source disk.
- Once you confirm to delete the partitions on the disk, the data on the disk will forever get lost, even though the upgrade failed!
- In order to make the Windows Operating System bootable on destination disk, make sure that:
  1. Shut down the computer after disk copy and unload the source drive.
  2. If the Operating System is not bootable on destination disk, please try to connect the destination disk to the socket of the source disk.
- If the Operating System is not bootable on source disk, please shut down the computer and try to unload the destination disk.
- Please do not start the computer directly from the destination disk once the disk copy is finished.

## Partition copy

Copying single partition to an unallocated space, it is often used to back up data for security reasons.

Copy partition can be found as follows:

Click **Partitions > Copy partition**

Click **Wizard > Copy partition wizard**

Click **Copy partition** in the left panel

To copy partition:

1. Select a source partition.
2. Check partition.
3. Select a destination.
4. Edit the destination partition.

#### **Tips:**

- If EaseUS Partition Master fails to recognize the source partition, the Copy Wizard will not check the partition.
- It is forbidden to copy partitions which contain Operating System on GPT disks.

## **Dynamic volume copy**

This feature copies dynamic volume to unallocated space on basic disk. After copying is completed, the dynamic volume will be changed into basic disk. You may use this feature before you resize the dynamic volume. It is for data safety.

Following the steps as bellow to copy dynamic volume:

1. **Wizard > Copy dynamic volume**
2. Click **Copy dynamic volume** in the left panel

To copy dynamic volume:

1. Select a FAT12/16/32, ReFS or NTFS volume in the dialog box.
2. Check the file system of the volume.
3. Select an unallocated space on destination disk which must be a basic one.
4. Edit the properties of destination partition

#### **Tips:**

- This feature works under Windows only.
- If the source volume is the system boot volume, please make sure there is no boot partition on the destination disk, otherwise the system on destination partition may fail to boot after copy.

## **Migrate OS**

This feature transfers Windows partitions from one hard disk to another.

Following the steps as bellow to migrate OS:

1. **Wizard > Migrate OS Wizard.**

2. Select a system/boot partition or the drive where they are on, and click **Migrate OS**.

To migrate OS:

1. Check partition.
2. Select a destination.
3. Edit the destination partition.

#### Tips:

- This feature only works under Windows, rather than WinPE.
- The option is not available unless the system and boot partition must be on the same hard disk.
- All partitions on the destination drive will be overwritten.

## Conversion operations

### Convert FAT to NTFS

NTFS supersedes the FAT file system as the preferred file system for Microsoft's Windows operating systems. NTFS has several improvements over FAT and HPFS (High Performance File System) such as improved support for metadata and the use of advanced data structures to improve performance, reliability, and disk space utilization, plus additional extensions such as security access control lists (ACL) and file system journaling.

This feature converts FAT partition in good condition to NTFS partition.

File system conversion steps:

1. Select a **FAT12/16/32** partition
2. Click **Partitions > Convert to NTFS**
3. The pop-up dialog box will show the original and target file system, click OK to go. You may also do it by right click the mouse.

#### Tips:

- Partition conversion can only be realized under Windows while this feature is unavailable with Linux OS.
- Source file system must be **FAT12**, **FAT16** or **FAT32** and the partition is unhidden.
- Make sure 3% free space at least on partitions.
- Conversion would fail if there is an error on the partition.

#### Reasons and Solutions:

1. Scant free space. Remove some files to make free space and try again.
2. Error partition. Use Windows built-in CHKDSK/F to repair. If failed again, the partition might have severe error and the conversion could not be completed.

### Convert primary to logical

This operation is for converting a primary volume to a logical volume and applies to basic disks with MBR partition scheme.

A basic MBR disk can have either up to four primary volumes, or up to three primary volumes plus an unlimited number of logical volumes. You need to convert a primary volume to logical if you want to create a fifth volume on a disk that currently has four primary volumes.

To convert a primary volume to logical:

1. Right-click the primary volume that you want to convert and then click **Convert to logical**.
2. Click **OK** to add the pending operation of converting volume to logical.
3. The pending operation will be performed by clicking **Apply**. Exiting the program without applying the operation will discard it.

#### Tips:

- Converting the boot volume or the system volume to logical volume is not available. Otherwise, the machine will likely become unbootable.
- The size of the converted volume might be slightly different from that of the original primary volume, as some space might be required to store supplementary information.

## Convert logical to primary

This operation is for converting a Logical volume to a primary volume and applies to basic MBR disks.

Each basic MBR disk can have either up to four primary volumes, or up to three primary volumes plus an unlimited number of logical volumes. To prepare a volume for system or boot volume, you need to convert it to primary volume.

To convert a logical volume to primary:

1. Right-click the logical volume that you want to convert to primary and then click **Convert to primary**.
2. Click **OK** to add the pending operation of converting volume to primary.
3. The pending operation will be performed by clicking **Apply**. Exiting the program without applying the operation will discard it.

#### Tips:

- A basic MBR disk can only have up to four primary volumes, or up to three primary volumes plus successive logical volumes.
- If the disk contains more than one logical volume, you can convert a logical volume to primary only when there are two or less primary volumes on the disk.

## Convert dynamic disk to basic

This feature allows you to convert a dynamic disk containing simple volumes or mirrored volumes into a basic one while keeping its content intact:

1. Select the dynamic disk.
2. Right-click the disk and select **Convert to basic disk**, or select in the main menu **Disk > Convert to basic disk**. You will add a pending operation of converting dynamic disk to basic disk.

Generally, after converting the dynamic disk, all of the dynamic volumes will be converted to logic partitions except the following situations:

1. If there is not enough space for exchanging temporary data on the volume (less than 5% unused space in the volume and no adjacent unallocated space), this volume will be converted to primary partition. However, the MBR basic disk has the limitation that there can be 4 primary partitions at most, if the number of the volumes on a disk with less than 5% unused space and no adjacent unallocated space is over 4, the conversion operation cannot be implemented.
2. If the file system of the volume is **NOT** FAT or NTFS, and there is no unallocated space next to the volume, it will be converted to primary partition. If the volumes which fit this situation are more than 4 volumes, the dynamic disk cannot be converted to basic disk.

#### Tips:

- This feature can only process dynamic disk with simple and mirrored volumes. The other types of dynamic disk like spanned volume, striped volume are not supported.
- To convert a dynamic disk containing mirrored volumes to a basic disk, please break the mirrored volumes before converting.
- We recommend you back up the disk before any operation!

## Convert MBR to GPT

This feature allows you to convert a MBR disk to GPT disk without data loss. MBR can only use the most 2TB space on a hard disk. If you want to use more space on more than 2TB hard disk, Convert MBR to GPT can convert the disk directly to use more space.

1. Select a MBR disk.
2. Right-click the disk and select Convert MBR to GPT or select in the main menu Disk > Convert MBR to GPT. You will add a pending operation of MBR to GPT.

#### Tips:

1. The feature is not valid for dynamic disk, but you could convert dynamic disk to basic disk first and then convert it.
2. For system disk, please make sure your system and motherboard is supported to boot from UEFI mode.

## Convert GPT to MBR

This feature allows you to convert a GPT disk to MBR disk without data loss.

1. Select a GPT disk.
2. Right-click the disk and select Convert GPT to MBR or select in the main menu Disk > Convert GPT to MBR. You will add a pending operation of GPT to MBR.

#### Tips:

1. The feature is not valid for dynamic disk, but you could convert dynamic disk to basic disk first and then convert it.
2. For system disk, please make sure your motherboard is supported to boot from BIOS mode.

## Remove operations

### Delete (all) partition(s)

**Delete partition** - once the partition has been deleted, its space is added to the unallocated disk space.

To delete partition:

1. Select a partition.
2. Right-click the partition and select **Delete Partition**, or select in main menu **Partitions > Delete Partition**.
3. Click **OK** to confirm partition deletion in Delete Partition window.
4. By clicking OK, you will add a pending operation of partition deletion.

**Delete all partitions** - delete all partitions on one hard disk. This feature can also delete the system partition.

To delete all partitions:

1. Select a disk.
2. You can choose **Delete all partitions** from the **Disk** menu or in the sidebar.
3. By clicking **OK** you will add a pending operation of all-partitions deletion.

#### Tips:

- To delete an extended partition, you must first delete all logical partitions in the extended partition.
- After deleting a partition, the data on the deleted partition cannot be accessed!

## Wipe

Wipe partition/disk can erase all the data on the partition/disk. Comparing to deleting partition, after wiping partition/disk, the data cannot be recovered any longer. Please do it as the following steps:

To wipe partition:

1. Select the partition to wipe.
2. Right-click the partition and Select **Wipe partition**, or select in the main menu **Partitions > Wipe partition**
3. Set the number of times to wipe the partition in Wipe Partition window (The wipe algorithm is to alternately overwrite the disk by 0x00 and 0xFF according to the wipe times)
4. By Clicking **OK**, you will add a pending operation of wiping partition.

To wipe disk:

1. Select the disk to wipe.
2. Right-click the disk and Select **Wipe disk**, or select in the main menu **Disk > Wipe disk**
3. Set the number of times to wipe the disk in Wipe Disk window (The wipe algorithm is to alternately overwrite the disk by 0x00 and 0xFF according to the wipe times)
4. By Clicking **OK**, you will add a pending operation of wiping disk.

To wipe data:

1. Select the unallocated space to wipe.
2. Right-click the unallocated space and Select **Wipe data**, or select in the main menu **Partitions > Wipe data**
3. Set the number of times to wipe the unallocated space in Wipe Disk window (The wipe algorithm is to alternately overwrite the disk by 0x00 and 0xFF according to the wipe times)
4. By Clicking **OK**, you will add a pending operation of wiping unallocated space.

## Format

Any partition should contain one or more specific kinds of file systems to be used for keeping data. The process of installing a file system is commonly known as formatting. Presently, there is a great variety of file systems can be formatted.

The program provides the ability to format partitions into the following file systems:

FAT12  
FAT16  
FAT32  
NTFS  
ReFS  
Ext2  
Ext3

To format a partition:

Select a hard disk and a partition.

Click **Partitions > Format partition**.

Type the label you want in the Partition Label text box.

Select the file system type to be created on a partition after formatting from the Partition Type drop-down list. (FAT/FAT32, NTFS, ReFS and EXT2/EXT3)

Some specific type of partition would be unavailable neither the space of the partition is too small nor too large.

Choose the Cluster Size (512 byte,1,2,4...64KB) from drop-down list.

### Tips:

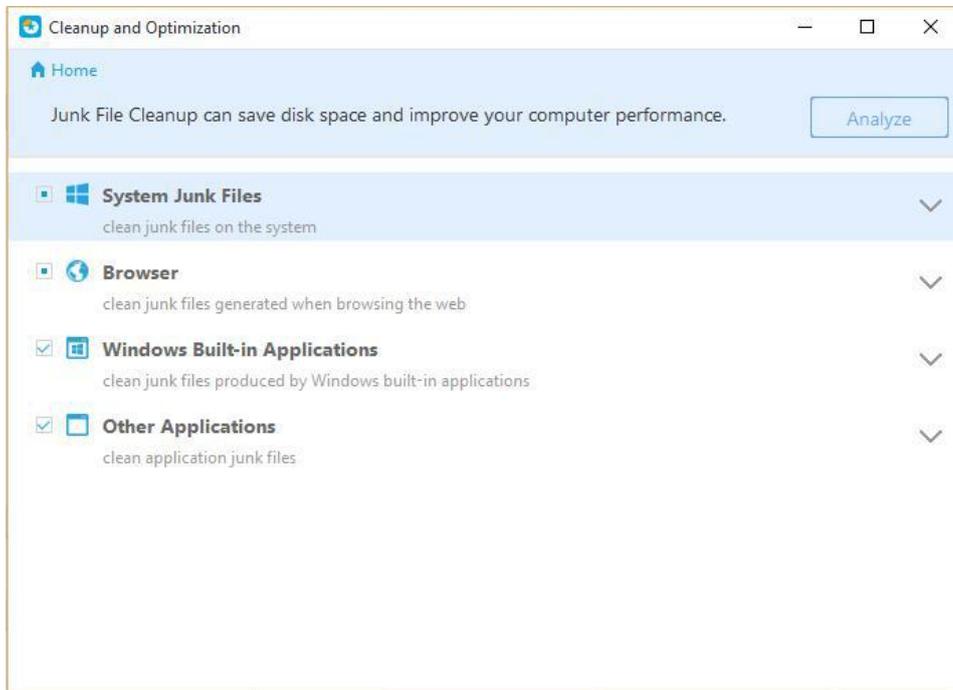
- Smaller cluster size makes less wasting of disk space.
- The smaller cluster size is, the bigger file allocation table (FAT) will be. The bigger the FAT is, the slower the operation system works with the disk.
- Partition formatting operation destroys all the data on this partition, including files and folders! Take special care when performing this operation.

## Cleanup and Optimization

Cleanup and Optimization is a tool to keep your system clean and fast. It helps you remove unused files from your system and clean your internet history.

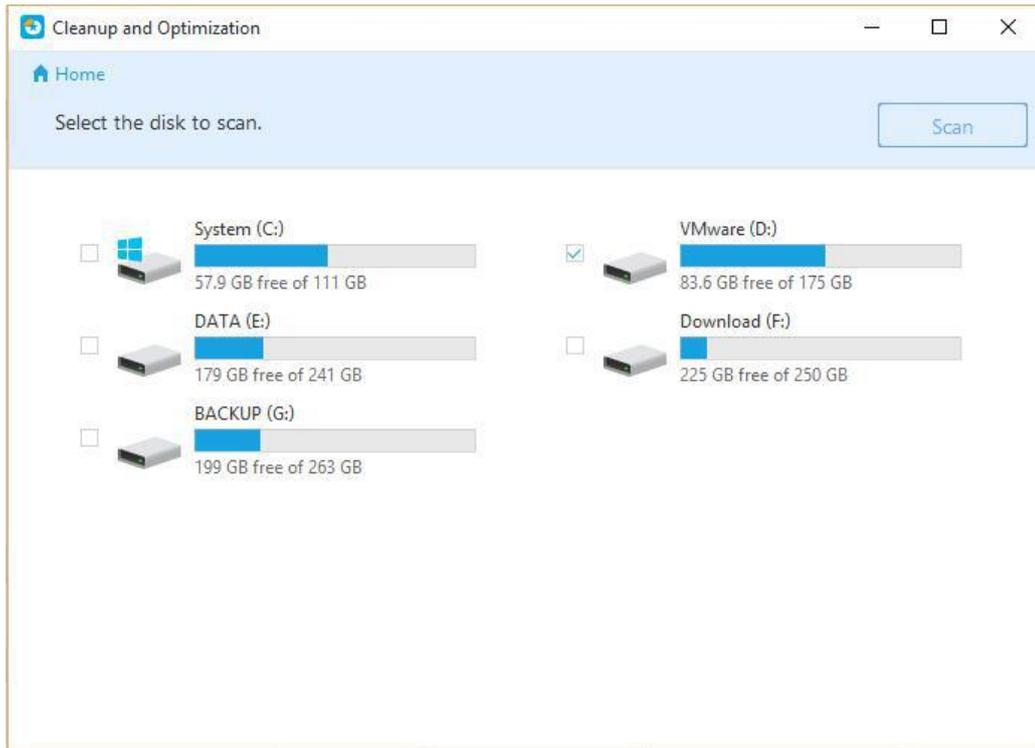
## Junk File Cleanup

Junk File Cleanup cleans junk files from System, Browser, Windows Built-in Applications and other Applications, it will save disk space and improve your computer performance.



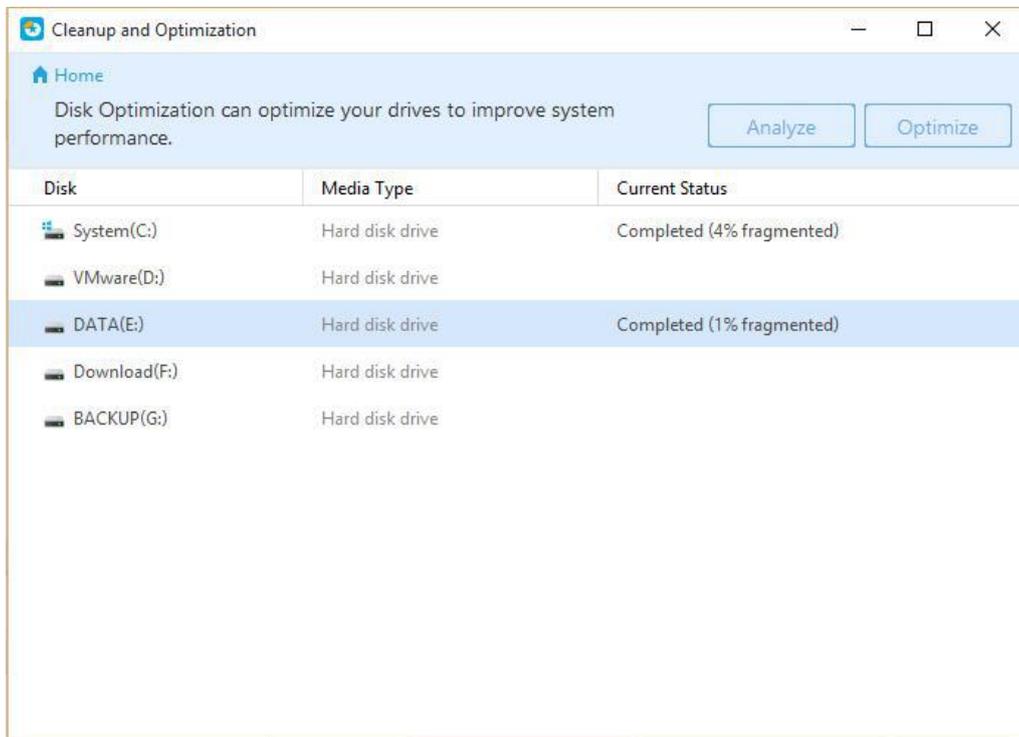
## Large File Cleanup

If the capacity of your hard drive is running low, it is time to clean off some files. A good place to start is by locating the largest files on your hard drive. Large File Cleanup can locate these files and then clean easily.



## Disk Optimization

Disk optimization improves the performance of a storage device affected by fragmentation.



## Advanced operations

### Repair RAID 5 dynamic volume

When the hard disk of RAID 5 dynamic volume goes wrong or if you want to replace the old hard disk with a larger one, you need to repair the RAID 5 volume.

To repair RAID 5 dynamic volume:

1. Select a RAID 5 dynamic volume
2. Right-click the volume and Select **Repair RAID-5 volume**, or select in the main menu **Partitions > Repair RAID-5 volume**
3. By clicking OK, you will add a pending operation of repairing RAID 5 dynamic volume.

### Rebuild MBR

Once MBR (Master Boot Record) of disk is damaged, system cannot be booted. This feature will rewrite the Master Boot Record of the selected disk without destroying the disk partition table.

To Rebuild MBR:

1. Select a disk to rebuild MBR
2. Right-click the disk and Select **Rebuild MBR**, or select in the main menu **Disk > Rebuild MBR**
3. Set up the type of MBR to rebuild in Rebuild MBR window
4. By clicking OK, you will add a pending operation of rebuilding MBR.

### Partition recovery wizard

Partition Recovery Wizard is an easy-to-use tool, with which you can recover volumes from the unallocated space on a basic MBR/GPT disk that were accidentally deleted or damaged due a hardware or software failure.

The Partition Recovery Wizard first attempts to recover volumes to the original pattern, i.e. logical volumes will be recovered as logical and primary as primary respectively. If the primary volume could not be recovered, on the contrary, it would be recovered to logical drive. Also, if the logical volume cannot be recovered to the original pattern, it will be recovered as primary.

To run Partition Recovery Wizard

Select **Wizard > Partition recovery wizard** from the top menu.

### Recovering volumes in automatic mode

The automatic mode is easy to use and requires minimal effort. The program will try to find and recover all the deleted volumes on all basic disks.

1. In the Recovery mode window, choose Automatic.
2. In the Searching for Deleted Partitions window, Partition Recovery Wizard scans all the basic disks for deleted volumes. First, Partition Recovery Wizard checks your disks for unallocated space. If there is no unallocated space, you will be unable to move to the next step. If unallocated space is found, then the Partition Recovery Wizard starts searching for traces of deleted volumes.

The Partition Recovery Wizard checks the beginning of each side of every cylinder of every disk for boot sectors. A boot sector is the first sector of a volume that contains information about this volume, even after its deletion. Once a deleted volume is found, it will be displayed in the volume list (You can double click the volume to explore the content to see whether it is the one you need to recover). The search will, however, continue until all the remaining disks are scanned. Then you can select volumes to recover. Only after the search is completed, the Next button becomes enabled, and you can proceed to the next window.

The program may find and display intersected volumes, you can choose either of them to recover, but only one of the intersected volumes can be recovered.

If the search is completed without result, you will be asked to close the Partition Recovery Wizard. If so, you can try to perform the search using the **Complete** method in **Manual** mode.

3. Click **Next**, the Recovered Volumes window displays the volumes to recover as a part of the hard disk volume structure.
4. Make sure that all the required volumes are properly placed in the hard disk structure, and then click Proceed to start recovering the volumes.

## Recovering volumes in manual mode

The manual recovery mode lets you take full advantage of the volume recovery. You will be able to specify the searching method, disks to search on, and volumes to recover.

1. In the Recovery mode window, choose **Manual**.
2. In the Unallocated Space Selection window, select unallocated space on basic disks where the deleted volumes used to be located. You can select one of the unallocated spaces to search at a time.
3. In the Searching Method window, choose:  
**Fast** – (recommended) checks the beginning of each side of every cylinder of the selected disks. It takes less time, and should find all deleted volumes in most cases. If no volumes are found in this method, you will be asked to either perform the search using Complete method or to finish search and close the Partition Recovery Wizard.  
**Complete** – checks every sector on the selected disks for file system. It is more thorough and requires much more time to perform than the Fast method.
4. In the Searching for deleted volumes window, Partition Recovery Wizard scans all the selected unallocated space for deleted volumes. Once a deleted volume is found, it will be displayed in the volume list (You can double click the volume to explore the content to see whether it is the one you need to recover). The search will, however, continue until all the remaining selected unallocated space is scanned. If no volumes are found, you will be asked to close the Partition Recovery Wizard.

The program can even find and display intersected volumes, that is, volumes that were created and deleted on the disk at different times. Moreover, every successive volume allocates space from the previously deleted

volume, but not at the beginning of it. Only one of the intersected volumes can be recovered.

**Unlike the automatic recovery mode, you do not need to wait until the whole search is finished as the manual mode. As soon as a located volume or multiple volumes are added to the list, you can select them for immediate recovery. The Search window displays the volumes to recover as a part of the hard disk volume structure, marking them with an icon in the upper right corner of its rectangle. Make certain that all the selected volumes are properly placed in the hard disk structure. Selecting a volume changes its status to Undeleted and enables the Next button.**

5. Click **Proceed** to start recovering the volumes.

## Set active

If you have several primary partitions, you must specify one to be the boot partition. For this, one partition can be set as active. As a rule, a disk can have only one active partition.

To set an active partition:

1. Select a primary partition to set as active from the list in the main window of **EaseUS Partition Master**.
2. Select **Partitions > Set active**.
3. By clicking **OK**, you will add the pending operation of setting active partition.

### Tips:

- Before you make a partition active, you must make sure it is formatted and contains an operating system. Otherwise your PC cannot boot from this partition!
- If you set a partition as active and there was another active partition on the disk, it will be unset automatically. This might also prevent your PC from booting.

## Partition scheme

The partition scheme provides you efficient, smart and convenient partition instruction. You can partition your new hard drive or that without partition rapidly in term of the scheme available.

The operating steps are as follows:

Choose the blank hard disk that to be partitioned, then click "**Partition scheme**" on the "**Disk**" menu or right click the blank hard drive, choose "**Partition scheme**".

There are three default partition schemes identified in the procedure (They are respectively used for data back up, game player and common family user). Users can keep the initiative to choose according to their own requirements. After applying the scheme, the procedure will partition and format the hard drive automatically in accordance with the proportion of each partition in the scheme.

On the basis of the existing partition scheme, the user can also create his own partition scheme and transfer it by modifying the size and type of partition. The partition scheme created personally can be stored in the procedure and put into future use.

### Tips:

- All operations can be done only on the hard disk without partition. Make sure that you have saved your data on the hard disk to be partitioned before operation. Once the hard drive has been partitioned, all the initial data on it will be destroyed!
- The Partitions scheme function can only be used in Windows.

## Initialize to MBR disk

This feature allows you to initialize a disk into MBR mode:

Select the unused/blank disk.

Right-click the disk and select "**Initialize to MBR**", or select "**Disk > Initialize to MBR**" in the main menu. A pending operation of initializing disk to MBR disk will be added.

### Tips:

This feature can process disk without any partitions only. MBR partition mode supports a disk with a maximum size of 2 TB.

## Initialize to GPT disk

This feature allows you to initialize a disk into GPT partition mode:

Select the unused/blank disk.

Right-click the disk and select "**Initialize to GPT**", or select "**Disk > Initialize to GPT**" in the main menu. A pending operation of initializing disk to GPT disk will be added.

### Tips:

This feature can process disk without any partitions only. GPT partition mode can be applied to all 64-bit Windows OS. The partition mode of GPT supports disks over 2TB.

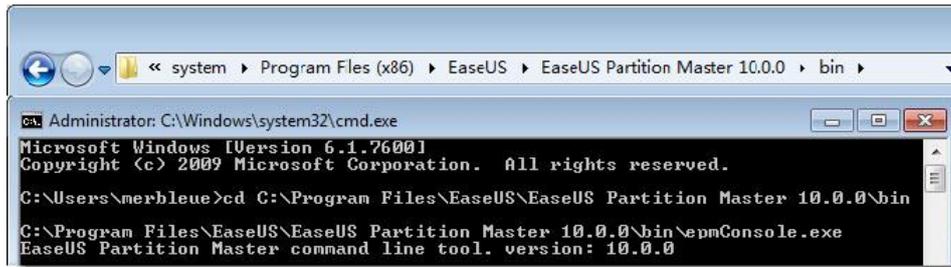
## Command line

Windows CMD is a special environment with which our product can work in command line (perform task by inputting commands) instead of graphic interface. With this feature, you can manage your hard disk without launching our product or add specific partition/disk operations when creating a batch file, to simplify repetitive operations.

### How to start

To use our product in command line, you need to run Windows CMD using the **Administrator account** at first which can be invoked by inputting CMD in Windows Run dialog (press "Win" + "R" at same time to call Run dialog box). And then you can directly drag the icon of "epmConsole.exe" into CMD window or login the installation path of our product "cd ...bin" (... means the installation path of our product), and then run "epmConsole.exe -command -parameter" to start using our product in command line.

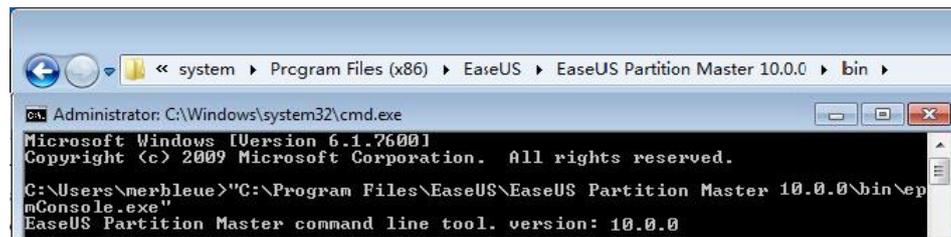
Method 1:



Open the command line window then input "cd" and the installation directory of our product

Click "Enter" button to run the command

## Method 2:



Find "epmConsole.exe" in the installation directory of our product, directly drag it into the CMD window and then click "Enter" to run.

## How to use

When successfully starting our product in CMD, all the available command and parameters for each command will be listed automatically (or you can input -h to get this guide information at any time). The commands can be written in full mode or abbreviation mode, for example.

In abbreviation mode, the command can be:

```

C:\Program Files\EaseUS\EaseUS Partition Master 10.0.0\bin>epmConsole.exe list -d1
DiskID:(MBR Basic), Sector count: 266334240, C: 16578, H: 255, S: 63
ID Letter Type Capacity Used Unused Status Primary Start(NB)
0 D: NEW VOLUME FAT32 3.91 GB 96.86 MB 3.82 GB None Logical 1
1 * Unallocated 15.52 GB 0 Bytes 15.52 GB None Logical 4008
2 E: NTFS 19.53 GB 609.00 MB 18.93 GB None Logical 20001
3 F: NEW VOLUME NTFS 188.23 MB 107.10 MB 81.13 MB None Logical 39997
4 J: NTFS 87.75 GB 92.50 MB 87.66 GB None Logical 40186

Operation completed successfully.
C:\Program Files\EaseUS\EaseUS Partition Master 10.0.0\bin>epmConsole.exe create -d1 -s4008 -z100 -fntfs -t=logical
Operation completed successfully.
  
```

### list disk 1 and create a 100MB logical partition

Input "epmconsole.exe list -d1" to list the information of Disk 1. And the following command is to create a new logical partition. You need to input "epmconsole.exe" at the front every time when you want to do any operation using the command line. "-d1"=select Disk 1, "-s4008"=create a partition from 4008MB space of the hard disk (you can also omit this arguments, and it will create a partition from the first unallocated space acquiescently), "-z100"=partition size is 100MB, "-fntfs"=file system is NTFS, "-t=logical"=create a logical partition.

In full mode, the command also can be:

```

C:\Program Files\EaseUS\EaseUS Partition Master 10.0.0\bin>epmConsole.exe list --disk=1
DiskID:1(MBR Basic), Sector count: 266334240, C: 16570, H: 255, S: 63
ID Letter Type Capacity Used Unused Status Primary Start(MB)
0 D: NEW VOLUME FAT32 3.91 GB 96.86 MB 3.82 GB None Logical 1
1 * Unallocated 15.62 GB 0 Bytes 15.62 GB None Logical 4008
2 E: NTFS 19.53 GB 609.00 MB 18.93 GB None Logical 20001
3 F: NEW VOLUME NTFS 188.23 MB 107.10 MB 81.13 MB None Logical 39997
4 J: NTFS 87.75 GB 92.50 MB 87.66 GB None Logical 40186

Operation completed successfully.
C:\Program Files\EaseUS\EaseUS Partition Master 10.0.0\bin>epmConsole.exe create --disk=1 --start=4008 --size=
100 --fs=ntfs --type=logical
Operation completed successfully.
C:\Program Files\EaseUS\EaseUS Partition Master 10.0.0\bin>
  
```

### list disk 1 and create a 100MB logical partition in full mode

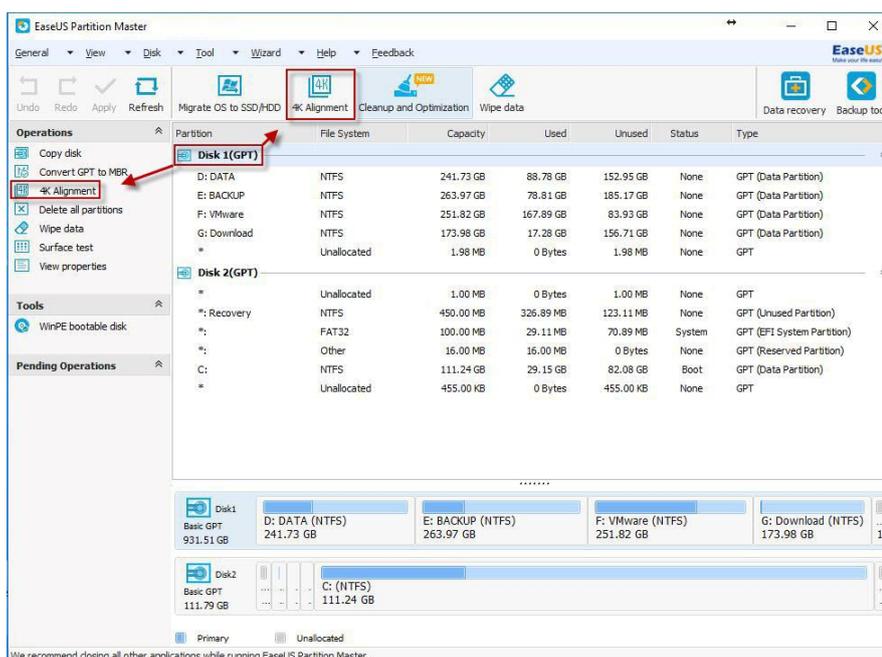
The difference between the full mode and abbreviation mode is that you need to input the full name of each command. And also the "-" should be "--" instead. Besides, there need to be "=" between command and arguments, such as "-d1" should be "--disk=1".

What's more, here is a command to resize partition: "epmconsole.exe resize --disk=0 --volume=0 --start=0 --size=200". It means that our program will resize the first partition on Disk 0 to 200MB. "--start=0" means our program will not resize the partition from its left. If you set it as "--start=100", our program will shrink the selected partition 100MB from its left. And "--size=200" means the total partition size of the target partition after resizing.

## 4K alignment

Comparing to the traditional hard drive, SSD has its brilliant advantages, such as higher read and write speed than mechanical hard disk, low-power dissipation, portability and wide temperature range of working environment, etc. In order to make the SSD run in the best status, EaseUS provide the 4K alignment function to align the 4K sectors on your SSD.

The function can be run after you select a hard disk in EaseUS Partition Master main interface:



## Other operations

### Change Label/Drive letter

**Change label** - Partition label is an optional attribute. It's a name assigned to a partition for easier recognition of your partitions. For example: the partition for important backup files can be called Backup, whereas an application partition can be named as Program and etc.

**Change drive letter** - some operating systems assign letters (C: D:) to hard disk partitions at startup. They are used by application and operating system to locate files on partitions.

Connecting an additional disk, as well as creating or deleting a partition on exist disks, might change your system configuration. As a result, some applications might stop working or user files cannot be opened. To avoid this, you can change partition letters assigned by an operation system.

To change partition label:

1. Select a partition whose label need to be changed. Click **Partitions > Change label**.
2. Enter a new label in the Partition label window.
3. By clicking **OK**, you will add a pending operation.

To change drive letter:

1. Select a disk and a partition.
2. Click **Partitions > Change drive letter**.
3. Specify the drive letter you want to assign to the partition, in the new drive letter-drop down list.
4. Click **OK** to add the pending operation.

#### Tips:

The new partition structure will be graphically displayed in the main window of **EaseUS Partition Master**.

The Change drive letter function is available only with Windows environment.

### Check partition

**EaseUS Partition Master** enables you to check hard disk partitions for file system errors.

1. Select a disk and a partition.
2. Choose **Partitions > Check partition**.
3. In the Check partition window, there are three options for you to choose:
  - Check Partition Properties: for checking file system errors.
  - Call Windows CHKDSK to fix errors if there is any error: 'Call windows Scan-disk application to fix these found errors'.
  - (Only for windows version)
  - Surface Test: Make detection of a disk or partition for sector errors. There would be a report after the test.Click **OK** to check errors on your partition.

## Hide partition

**EaseUS Partition Master** allows you to hide a partition. It can be useful for protecting important information from unauthorized or casual access.

To hide a partition:

1. Select a disk and a partition.
2. Click **Partitions > Hide partition**
3. By clicking **OK** in the Hide Partition window, you will add a pending operation for partition hiding.

### Tips:

To unhide a partition, repeat the steps above but click **Unhide partition** in step 2.

## Explore partition

This feature is used to browse a partition of FAT/NTFS/ReFS/EXT2/EXT3 file system. With this feature, you can check the following information:

- Total and free space of the entire partition.
- The File directory of all folders and files. There is Created/Modified/Accessed time information for each folder/file. Besides, the size information of a specific file is also available with this feature.

Explore partition as following steps:

1. Choose a FAT/NTFS/EXT2/EXT3 partition.
2. Click **Partitions > Explore partition**.

## View properties

To view partition property:

1. Select a partition.
2. Click **Partitions > View properties** or select **View properties** in the left panel.

Choose a specific tab to view the information you seek for.

To view disk properties:

1. Select a disk.
2. Click **Disk>View properties** or select **View properties** in the left panel.
3. Then important information of this disk will be listed, such as Serial Number, Model, Cylinder, Head, Total Size and so forth.

### Tips:

Based on the file system that the partition uses, different pages will appear.

## Surface test

This function is used for checking bad sectors on one disk. EaseUS Partition Master will check every sector and display when it finds a bad sector.

To run Surface Test:

1. Right-click the disk that you want to check, and then click **Surface test** or select in the main menu **Disk > Surface test**.
2. The operation will be immediately performed.

## Bootable disk

Bootable disk is useful, especially when the computer rejects to boot. With the bootable disk of EaseUS Partition Master, you can Rebuild MBR if the system failure is caused by corrupted or damaged MBR. In addition, you can partition hard disks before installing OS.

To use bootable disk, please ensure you have assigned the first priority to the CD-ROM drives in BIOS.

## WinPE bootable disk

With any paid edition, you can create a WinPE bootable disk. Here are the step procedures.

1. Click **Tool > Create WinPE bootable disk**.
2. Then there will pop up a window **Create bootable disk of EaseUS Partition Master**. Three radio buttons including **USB**, **CD/DVD**, and **Export ISO** are available in this window.
3. Select any of the three options, and move to the next step to download Microsoft WinPE component.
4. It will take some time before the job is done. So wait patiently here please.
5. If it fails to create bootable disk with the built-in burning components, you can **Export ISO** file and then try to burn it with a third-party burning tool, such as Nero.

## Feature comparison in different environment

The detailed comparison between WinPE bootable disk and Windows environment:

|                       | WinPE bootable disk | Windows environment |
|-----------------------|---------------------|---------------------|
| Resize/move partition | √                   | √                   |
| Resize dynamic volume | ×                   | √                   |
| Create partition      | √                   | √                   |
| Format partition      | √                   | √                   |
| Delete partition      | √                   | √                   |

|                              |   |   |
|------------------------------|---|---|
| Merge partitions             | √ | √ |
| Wipe partition & disk        | √ | √ |
| Wipe unallocated space       | √ | √ |
| Delete system partition      | × | × |
| Format system partition      | × | × |
| Resize/move system partition | √ | √ |
| Copy partition               | √ | √ |
| Copy hard disk               | √ | √ |
| Upgrade disk                 | √ | √ |
| Migrate OS                   | × | √ |
| Copy dynamic volume          | √ | √ |
| Delete all partitions        | √ | √ |
| Convert dynamic to basic     | √ | √ |
| Support GPT disk             | √ | √ |
| Support RAID                 | √ | √ |
| Defragment                   | × | √ |
| Surface test                 | √ | √ |
| Partition recovery           | √ | √ |
| Display drive letter         | √ | √ |
| Change drive letter          | × | √ |
| Convert logical to primary   | √ | √ |
| Convert primary to logical   | √ | √ |
| Set password                 | × | √ |
| Convert FAT to NTFS          | × | √ |
| Command line                 | √ | √ |
| Repair Raid 5 dynamic volume | × | √ |
| Convert MBR to GPT           | √ | √ |
| Convert GPT to MBR           | √ | √ |
| Resize EFI partition         | √ | √ |
| 4K alignment                 | √ | √ |

## Native mode

If the involved partition/volume is locked or occupied by other applications when you try to operate it, our product will ask for the computer to reboot and execute the operation under **Native mode** (**Native mode** is the environment used to describe applications and programming languages compiled straight to machine code, which can be executed directly). Under this environment, our product will get full permission to execute your operation.

# Typical case

## Extend system partition

By default, the files on Windows desktop are all located in a user folder under system partition (usually it is C), and most applications (including IE and Windows itself) will generate some temp files while they are running, these files also locate on system partition. Besides, the page file which is dedicated to swap space on a Windows based on systems may also occupy some space on system partition.

In view of the facts above, you may get an message stating insufficient space on system partition after a period of time, after that, the computer performance might be significantly reduced. To get rid of this trouble, you need a partition management tool to extend your system partition to make more available space for system running. According to some user survey, extending system partition is also the most frequently-used feature in partition management tools. Following are the detailed graphical instructions about how to do the operation with our product.

### Scenario 1

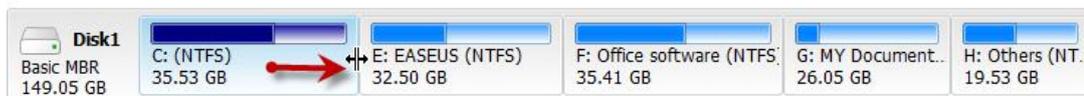
No unallocated space on the hard disk where system partition need to be extended.



The C drive is nearly full, less free space influence the performance of the computer. To enhance computer performance by extending C drive is badly needed.



Shrink E drive from its head to make some unallocated space adjent to C drive.



Extend C drive from the tail to occupy the unallocate space next to it, and now you will get more free space on C drive, we believe you will feel more smoothly when using this computer now.

### Scenario 2

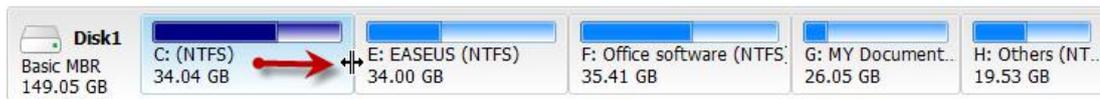
There has some unallocated space on the hard disk, but it may not next to system partition.



The unallocate space is not adjent to system partition which has insufficient space to perform Windows task and need to be extended.



Moving the whole E drive to right hand, then the unallocated space will be next to system partition.



Extending C drive from the tail to occupy the unallocated space.

## Extend dynamic system volume

As applications continue to be installed into the Windows system partition, one day, suddenly you will find that the system partition do not have enough free disk space. In this case, we have to delete the unwanted file to get more free space in order to ensure the normal operation of Windows. However, deleting files is not the best way, and now the best approach is to extend the system partition, so that you can permanently solve the problem.

As we know, the dynamic system volume cannot be extended by Windows. But please don't worry. Our **EaseUS Partition Master** can achieve your goal without any problem. However, our product can only resize dynamic volume from its tail. So if there is no unallocated space behind dynamic system volume, you can refer to the following method do.

### Scenario 1

Convert the dynamic system disk to basic disk at first. And then you can resize the system volume referring to the method above.

EaseUS Partition Master user guide



there is no unallocated space behind the system volume which will be extended



you can right click the dynamic disk to convert it to basic disk



then you can shrink partition J to extend partition C

**Scenario 2**

Delete the dynamic volume which is behind system volume (you need to back up the data at first). And then you can extend the system volume using the unallocated space.



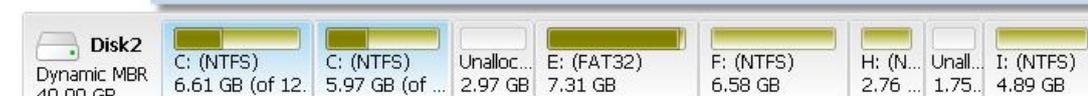
there is no unallocated space behind the system volume which will be extended



delete volume J to make unallocated space

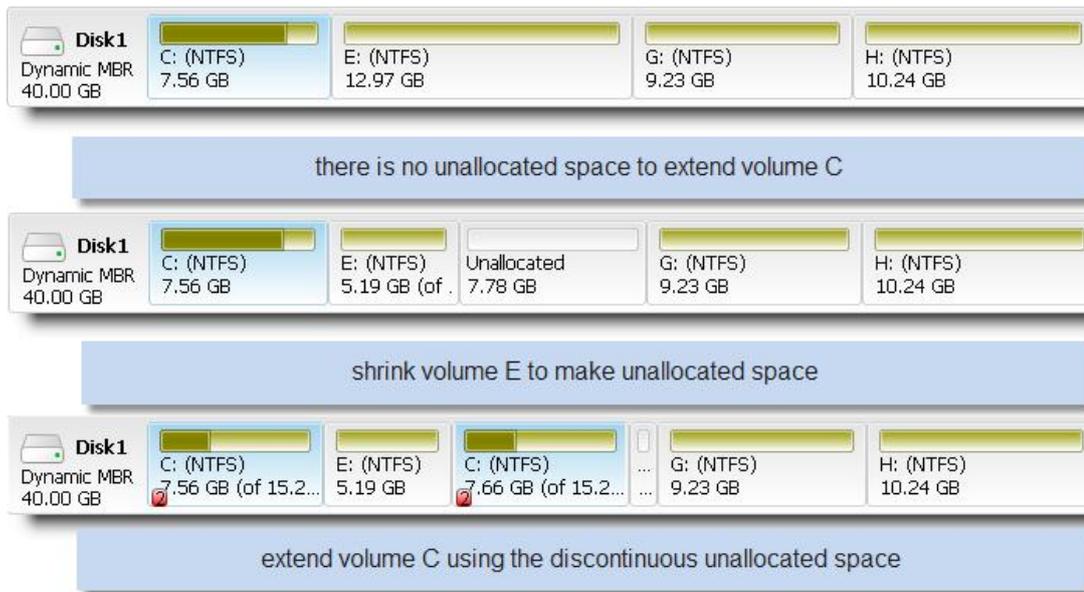


then you can right click volume C and choose "Resize volume" to extend it



**Scenario 3**

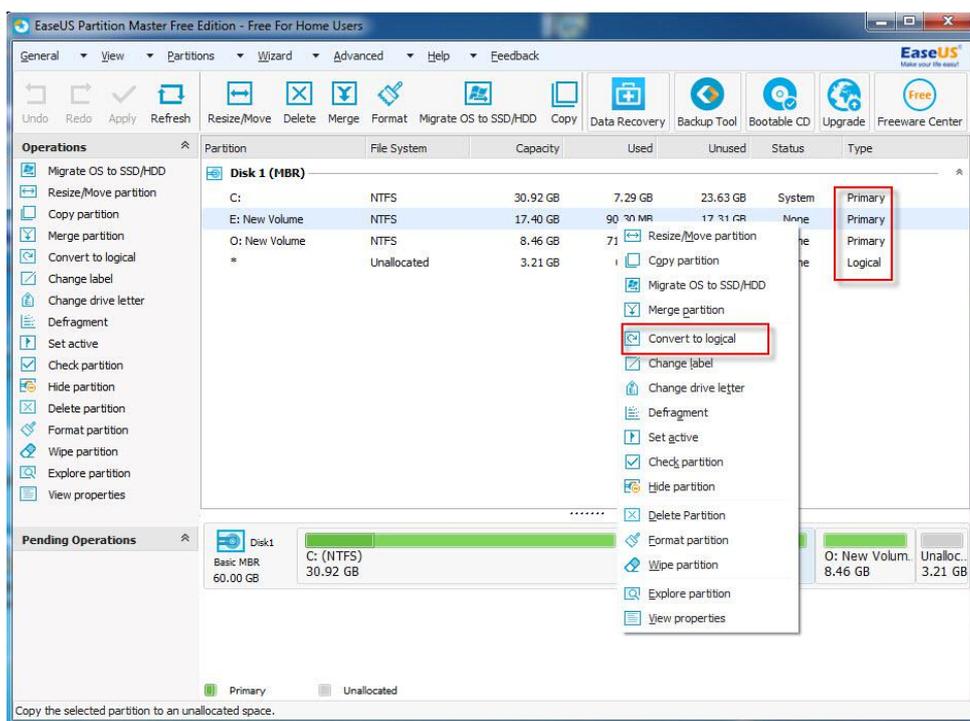
If the file system of the system volume is NTFS, you can extend it with the discontinuous unallocated space on the same disk.



## Cannot create new partitions

Sometimes, you may encounter the error "cannot create new partitions" even if you have some unallocated space on your hard disk. According to our experience, this error always caused by the limitation of MBR based on hard disk. For a basic MBR hard disk, there can be 4 primary partitions at most, or 3 primary partitions and 1 extended partitions (extended partition must be divided into logical partitions for using it). If your hard disk has reached the limitation, you will get the error when trying to create a new partition.

To get rid of the trouble, you can convert one of the primary partitions to logical. In this case, we convert D drive to logical.

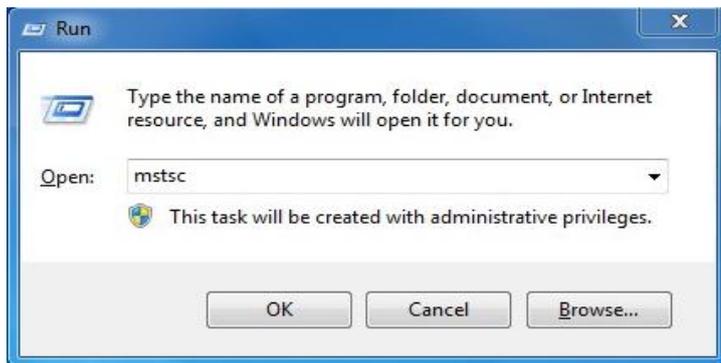


Then you can create new logical partitions to utilize the unallocated space.

## Remote management

You can manage your hard disk/partition on remote computer using our program by the third party software or Windows remote desktop connection. For example, the following method is to use Windows remote desktop connection to manage the hard disk/partition on remote computer. (You need to install our product to the remote computer which will be operated at first)

1. Press "win" + "R" buttons at the same to open the 'Run' window. Type "mstsc" and click "OK" to execute the operation.



2. Input the IP address of the remote computer which you want to operate and click "Connect" to access the remote desktop. And then you can manage the remote computer using **EaseUS Partition Master** from the command window.



### Tips:

- If our product cannot recognize the hard disk correctly after installing it, we suggest you reinstall it to have a try.
- Some of the operations need to be executed under native mode. Once it changes into native mode, the remote connection will be disconnected. In this case, you should wait until completing the process. And then you can connect the remote computer again.

# Feedback and Technical support

We invite your comments on how well **EaseUS Partition Master** performed, and we are also enthusiastic in replying all your questions about using it. Please feel free to contact us at:

**support@todo-backup.com**

We also provide online chat service and the Live Chat option can be located on EaseUS official website [www.easeus.com](http://www.easeus.com).

To know more about this product, see [Basic Technical FAQ For Using Partition Master](#).

## Troubleshooting

### FAQ

**1. Both Linux and windows are installed; I established primary partition in front of the system partition. After that, I can enter neither of the two operating systems. Why?**

**Cause:**

It is caused by the mechanism to leading procedure of Linux operating system itself. It may destroy the leading order and cause the unavailability of both Linux and window if you establish a new partition on condition that both Linux and windows are installed.

**Advice:**

Do not establish new partitions when both Linux and Window operating systems exist. If you insist, please contact us in advance.

**2. Both Windows XP and Windows Vista are installed, the partition that Windows XP lies is in the cylinder 1024 of the front area of hard disk. While if I only resize/move the partition of Windows XP that is beyond cylinder 1024(about 7G), after that, I cannot enter Windows XP, the system prompts that "ntldr lost". Why?**

**Cause:**

Since Boot Manager of Windows VISTA doesn't agree with Interrupt 13. Thus, to resize or move the system partition beyond cylinder 1024 will cause the operating system cannot be found by Boot Manager of Windows VISTA.

**Advice:**

If the old version of Windows (Windows 2000 or newer version) and VISTA are both installed, please do not resize or move the system partition that lies inside cylinder 1024(about 7G) out of cylinder 1024(about 7G).

**3. Sometimes, after I establish, resize or move the partition, but the partition hasn't drive letter, the procedure prompts "Update system information failed".**

**Cause:**

The operating system cannot update information in time accidentally.

**Advice:**

We suggest you restarting the computer. The system will distribute drive letters for these partitions automatically.

**4. Both Windows XP and Windows 98 are installed, after resize/move the partition of Windows 98 under Windows XP, and restarting the computer, I cannot enter Windows 98 normally. Why?**

**Cause:**

Moving or resizing the partition of the system cannot be allowed by leading ways of Windows 9X.

**Advice:**

1. Please do not move or resize the partitions of Windows 9X, ME.
2. Please do not create or delete the partition in front of the system partition of Windows 9X , ME.

**5. Update system information failed in Windows 2008.Why?**

**Cause:**

Operations succeeded, but update system information failed.

**Advice:**

Please make sure the disk status is online.

**6. If I install the Operating System on virtual hard disk (VHD), what if I delete the partition/volume containing the VHD files?**

**Advice:**

The Operating System installed on VHD will be lost. Please do not delete the partition/volume containing the VHD files.

**7. There is an EISA volume on my disk after converting dynamic disk to basic and the program marked it as "Other", why?**

**Cause:**

Because your dynamic disk contains an invisible EISA volume before converting, it will become visible after the dynamic disk has been converted to basic. The program will mark it as "Other".

**8. Why does my former inaccessible EISA volume become an accessible NTFS volume after converting the dynamic disk to basic?**

**Cause:**

The EISA volume is a system reserved hidden volume on dynamic disk, but it will lose its properties to be visible and accessible once the dynamic disk has been converted to basic.

**9. Why does my disk show as "EaseUS Todo Backup Protected Disk"? I cannot partition the disk.**

**Cause:**

The disk is protected by EaseUS Todo Backup Snapshot.

**Advice:**

To repartition the disk, please disable the Snapshot.

**10. Why can't I boot from it after I create bootable disk on a larger USB hard drive (such as: 1TB)?**

**Cause:**

Your problem may be caused by the limitation of BIOS. Since the limitation, computer can't boot from the partition which is larger than 128GB.

**Advice:**

Please check whether the size of partition (you select to create bootable disk) is larger than 128GB. If yes, please create one partition which is smaller than 128GB on the USB hard drive, and then select it to create boot disk.

Meanwhile, in order to create bootable USB hard drive successfully, please create bootable disk on the FAT/NTFS partition which cluster size is smaller than 64KB.

**11. Why there is an "EXT" partition after converted GPT dynamic disk to GPT basic disk:**

**Cause:**

If the operating system is Windows XP 64bit, after converting GPT dynamic disk to GPT basic disk, windows will assign a drive letter to the "EXT" partition. So there appears an "EXT" partition on Windows explorer.

**Advice:**

Please don't worry. It will not affect anything to your hard disk. It is normal.

**12. Why the partition is changed into "unformatted" partition after converted dynamic disk to basic disk:**

**Cause:**

If the file system of the partition is "ReiserFS", after converting the dynamic disk to basic disk, it will be changed into unformatted.

**Advice:**

Please **DO NOT** format it. It can be used in another operating system normally.