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Paragon® Migrate OS to SSD™ 5.0

User Guide

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Product Overview

What is Migrate OS to SSD?

Paragon Migrate OS to SSD helps to perform fast and safe Windows migrations to new storage devices (HDD or SSD) and even downsizes to smaller capacity drives, thanks to advanced data exclusion capabilities. You can transfer a live system with no impact to your work, and have your partitions automatically aligned in the process if needed.

Product Components

- **Windows-based utility** – the primary tool for copying your software environment to another hard disk or solid state drive.
- **WinPE bootable media** to do migrations without installing the product. You can prepare it on a USB thumb drive or in an ISO file with the program's wizard. This media also contains Boot Corrector to help you fix most of the system boot problems that can be a result of a human factor, program error or a boot virus activity.

Key Features

- Transfers Windows OS, applications and user data to a larger or smaller storage device in a single operation
- Supports any Windows OS since 7 SP1, including 64-bit versions configured to the uEFI-based boot mode
- Automatically aligns partitions on the destination disk if necessary
- Automatically detects and copies MSR
- Allows the user to exclude data during the setup in order to fit in to the destination disk
- Processes locked (in-use) disks with MS VSS to do migrations without rebooting Windows
- Includes Paragon's time-proven move/resize functionality
- Guarantees safety for the system and data



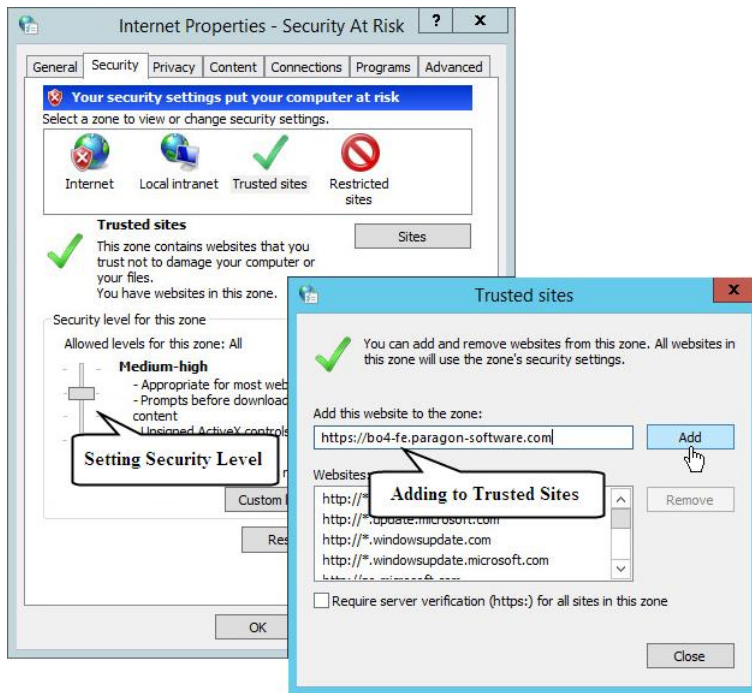
Our company is constantly releasing new versions and updates to its software, that's why images shown in this manual may be different from what you see on your screen.

Getting Started

System Requirements

For the Windows installation package

- Windows 7 SP1 and later
- Internet Explorer 10 and later
- Opened ports in Firewall: inbound and outbound 80, 443
- <https://bo4-fe.paragon-software.com> should be added to the list of trusted sites, besides the security level for the trusted zone should not be higher than **Medium-high**. Go to **Control Panel > Network and Internet > Internet Options > Security** to configure the necessary parameters.



During the installation additional free space (up to 1GB) will be required.

For the WinPE bootable environment

- Intel Pentium III CPU or its equivalent, with 1000 MHz processor clock speed
- At least 1 GB of RAM
- SVGA video adapter and monitor
- Keyboard
- Mouse

Additional requirements

- Network card to send/retrieve data to/from a network computer
- Recordable CD/DVD drive to burn data to compact discs
- External USB hard drive to store data

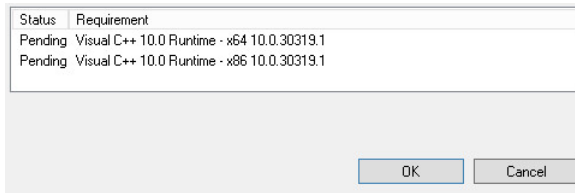
Installation

Before the installation, please make sure the [systems requirements](#) are met. If everything is OK, please do the following to install the product:

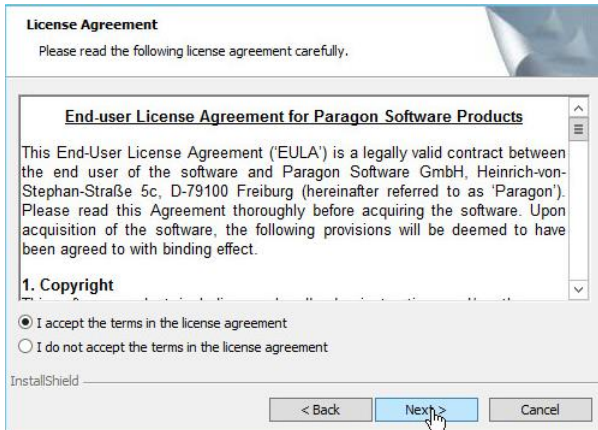


In case there is some previous version of the program installed on the computer, the program will offer the user to uninstall it first.

1. Click on the supplied setup file to initiate the installation. First your system will be checked for the presence of Visual Studio C++ 2010 Runtime Library and if not found, you will be prompted to install it (comes with the installation package).



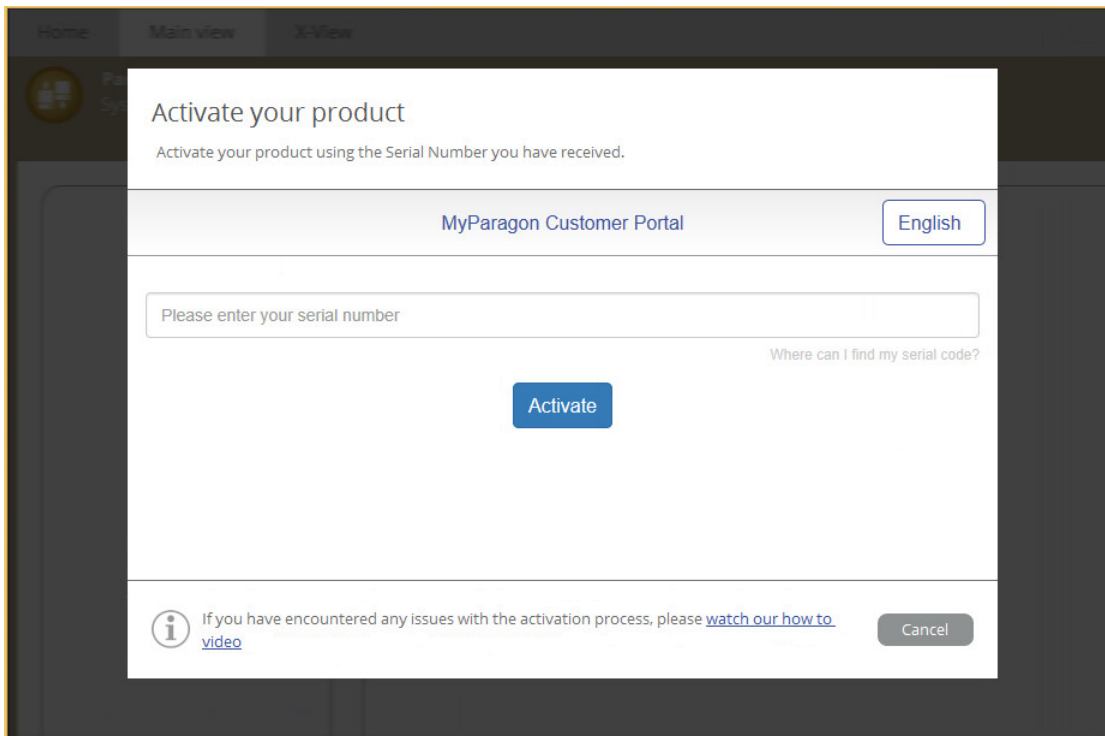
2. The Welcome page will inform that the application is being installed. Click **Next** to continue.
3. Please Read Paragon License Agreement carefully and then select the appropriate option to accept. Otherwise you won't be able to proceed with the installation.



4. Provide the standard customer information, i.e. a user name and an organization. Besides you need to decide whether to make the program available for all users of this computer (if several) or only for the current one.
5. If necessary, click **Change** to install the utility to a different location (by default **C:\Program Files\Paragon Software\Migrate OS to SSD 5.0**).
6. On the Ready to Install the Program page click **Install** to start the installation or **Back** to return to any of the previous pages and modify the installation settings.
7. The final page reports the end of the setup process. Click **Finish** to complete the wizard.

First Start

After the installation you can see an icon of Migrate OS to SSD on the Windows desktop. Double click it to launch the utility.

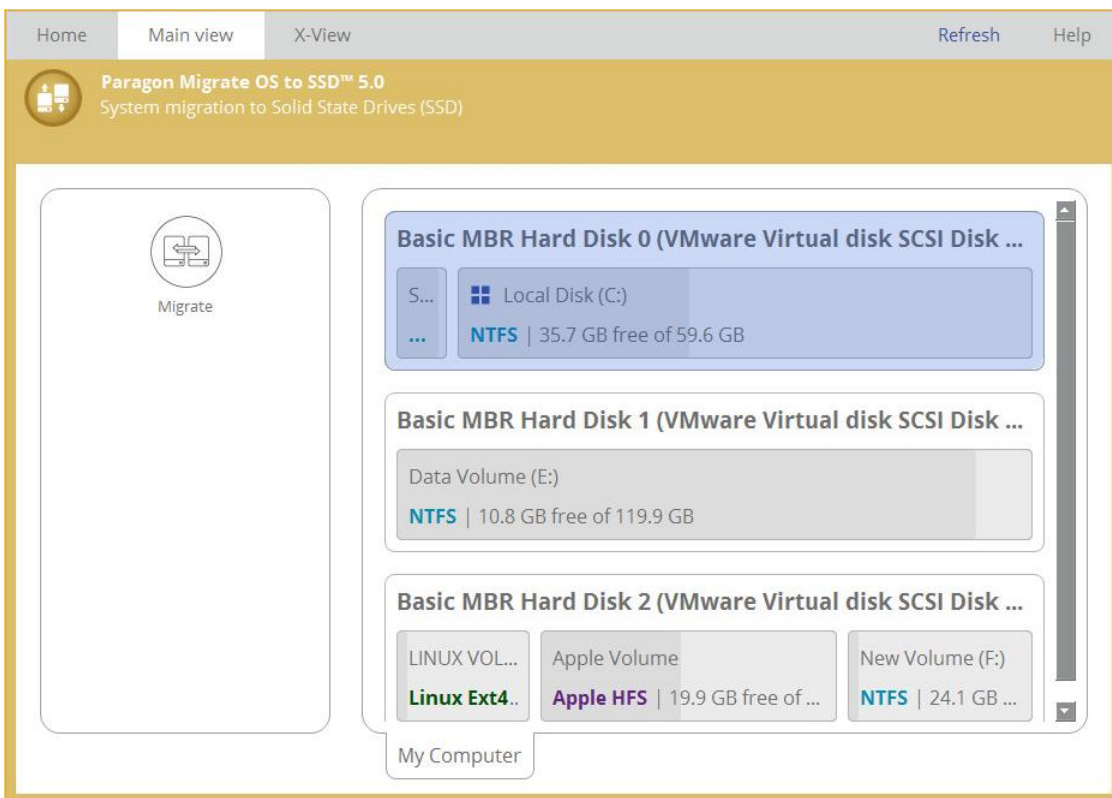


Once started, you will see an activation dialog. Migrate OS to SSD is a commercially distributed product, which needs activation over the Internet. Enter your serial number, then click **Activate**.



If you see a blank window instead of the Activation dialog, please make sure the [system requirements](#) are met.

After the activation, you will get access to the program interface.



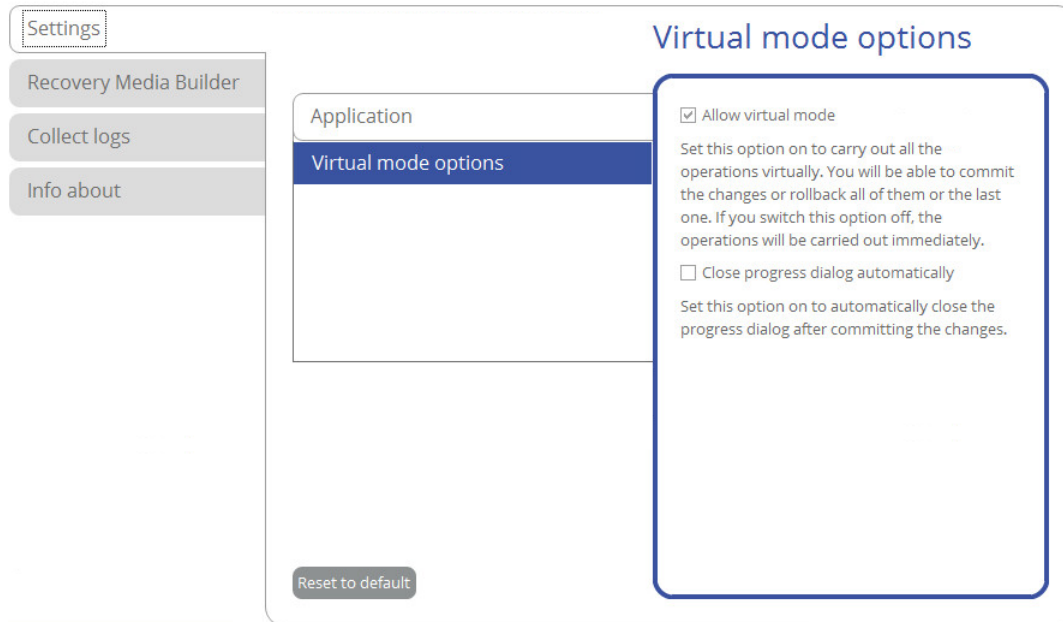
The upper area of the main window contains several tabs: [Home](#), [Main View](#) and [X-View](#). Besides you can see two buttons in the right corner:

- **Refresh** to bring the displayed information up-to-date after connecting an external storage device,
- **Help** to open the User Guide, visit Paragon's Knowledge Base or Community Forum.

Home

Use this tab to change the program settings, build bootable recovery media or collect program logs.

Home

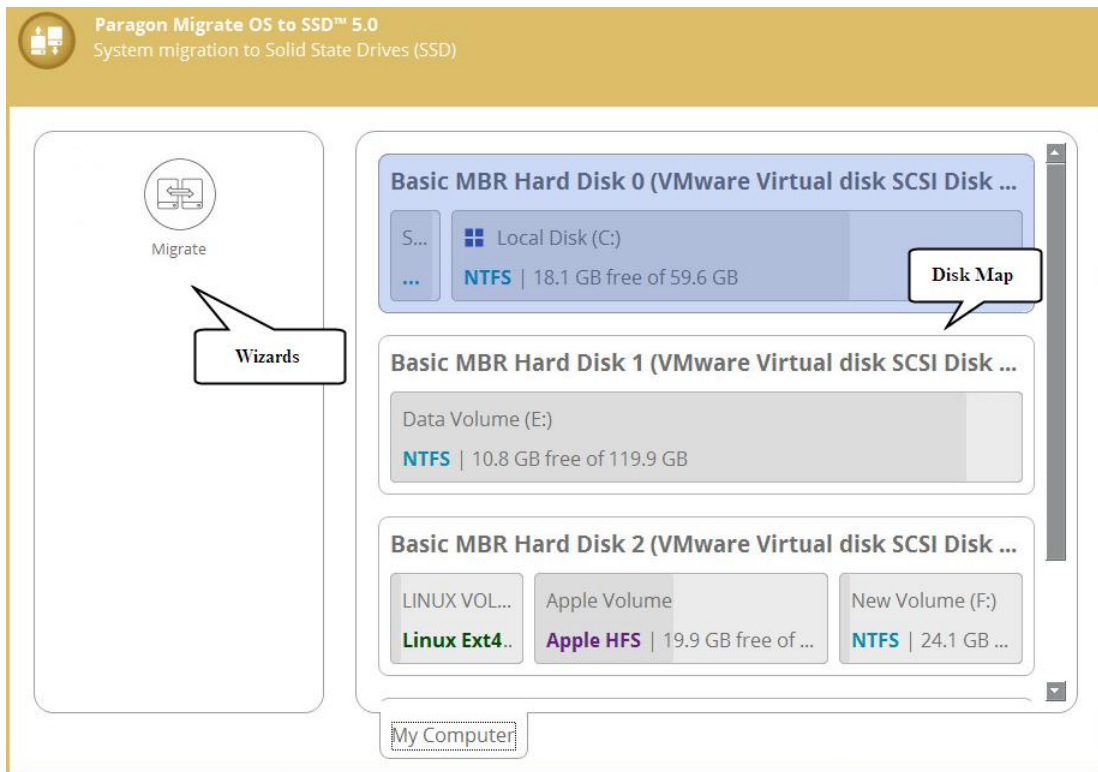


For more details, please consult the following chapters:

- [Changing Program Settings](#)
- [Building Recovery Media](#)
- [Troubleshooting](#)

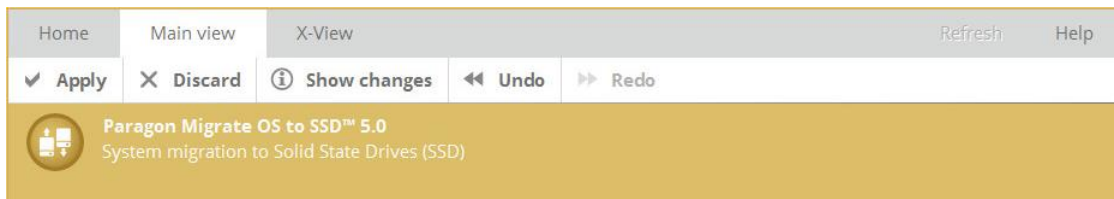
Main View

It is displayed [each time you launch the program](#). Use this tab to see the layout of system storage devices, open program wizards and dialogs, monitor activities and some other actions.

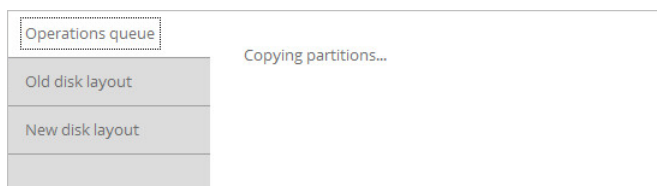


By default, the program does not accomplish operations that may destroy the on-disk data immediately, but places them on a special list (the so-called virtual mode). First it helps to avoid possible mistakes as you should confirm all provided changes. Second it saves your time and effort when executing several operations, as you don't need to wait for each operation to physically complete before proceeding to the next operation.

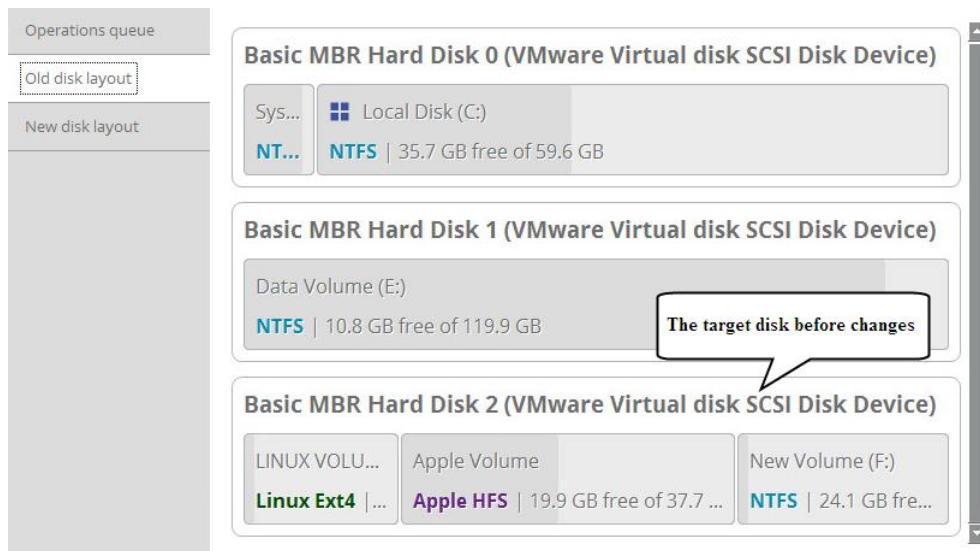
A corresponding bar appears in the upper area after you accomplish a potentially dangerous operation.



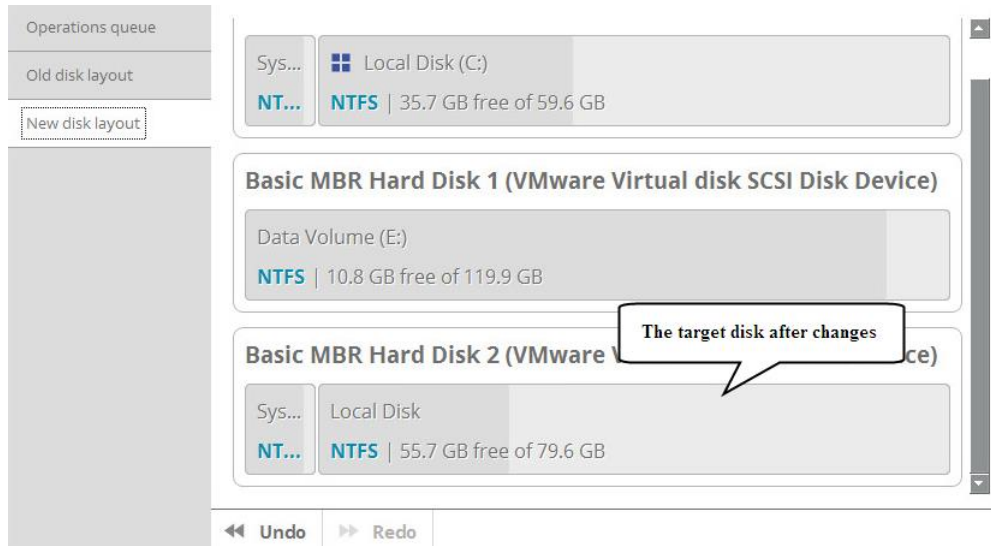
- **Apply.** Click to physically execute pending changes.
- **Discard.** Click to cancel all pending changes.
- **Show changes.** Click to see and manage pending changes.



Select **Old disk layout** to see your disks before accomplishing pending changes.



Select **New disk layout** to see your disks after accomplishing pending changes. Use the arrow buttons below to see how the target disk layout changes after each operation.



- **Undo.** Click to cancel the last pending operation.
- **Redo.** Click to cancel the last undo pending operation.



The Virtual operations bar is also displayed in the [X-View](#) mode.

Disk Map

The Disk Map displays the layout of storage devices. Each device is represented with a rectangle bar that contains small-sized bars, which represent partitions or logical disks. By looking at the size of the bar's shaded area it is possible to estimate the used disk space.

Large-sized bars display the following information about storage devices:

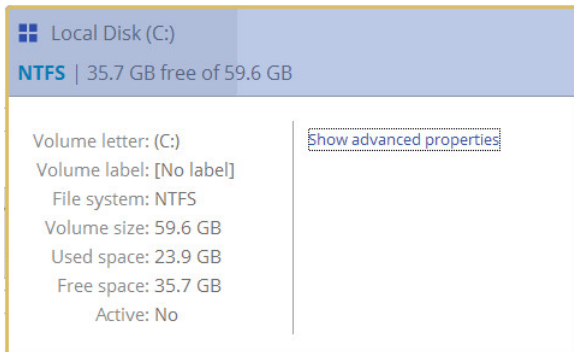
- Type (physical, virtual),
- Used partitioning scheme (MBR or GPT),
- Total capacity.

Small-sized bars display the following information about logical disks and blocks of free space:

- Volume label (if exists),

- Total size,
- File system.

Left click a disk, volume, or block of free space to call a context-sensitive menu with detailed information on the selected object and a list of available operations.

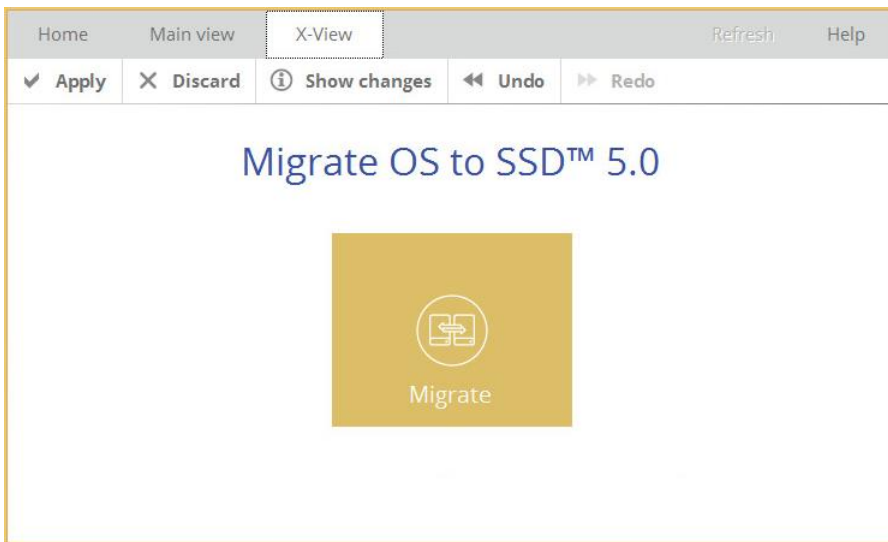


Wizards

Select **Migrate** to transfer Windows OS, applications and used data to another HDD or SSD. If a destination disk is not enough in capacity to hold your software environment, you will be able to remove redundant data during the setup.

X-View

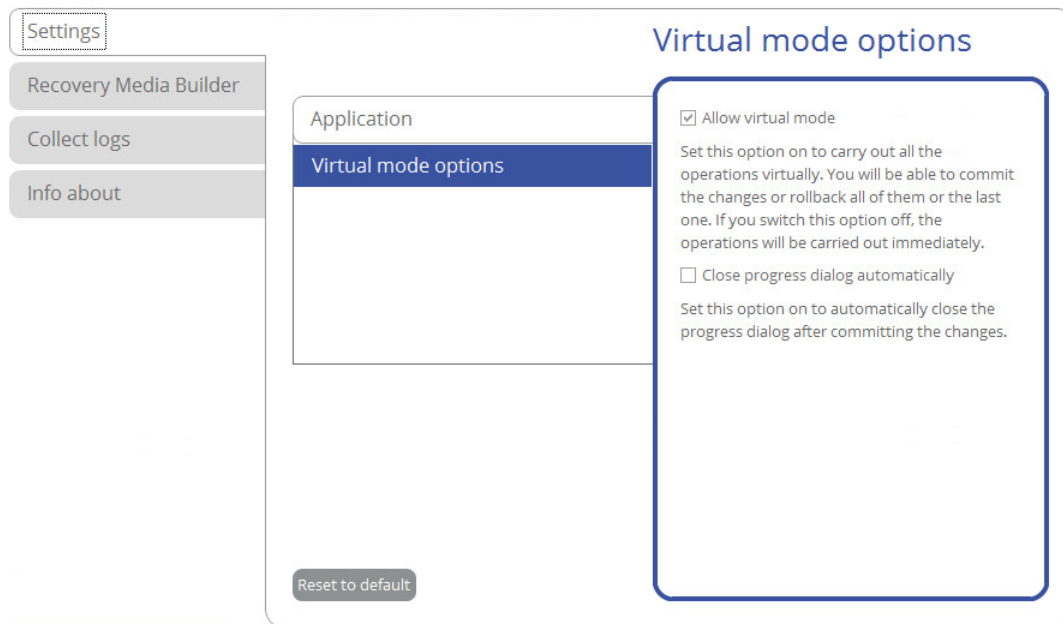
Use this tab to simplify the working environment and only see the main program wizards.



Changing Program Settings

Select **Home** > **Settings** to access the program settings.

Home



- **Allow virtual mode** (enabled by default). The virtual mode is an effective way of protection from any troubles, since no potentially dangerous operation is executed until confirmation, thus giving you a second chance to weigh all pros and cons of this or that particular operation. For more details, please consult [Main View](#).
- **Close progress dialog automatically**. Mark the checkbox to automatically close the progress dialog after accomplishing operations.

Building Recovery Media

The program includes a user-friendly wizard that will guide you through the process of creating a WinPE-based recovery media on a USB thumb drive or in an ISO file to later burn it to CD/DVD. For advanced users, there are capabilities to add drivers for specific hardware devices, configure network settings, and map network shares in the process.

1. Select **Home > Recovery Media Builder**.
2. The welcome page introduces the wizard's functionality. Besides you can see two options here:

Home

Settings
Recovery Media Builder
Collect logs
Info about

Recovery Media Builder

Welcome to the Recovery Media Builder wizard

WinPE Recovery Media Builder helps you prepare a WinPE-based bootable environment on a USB thumb drive or in an ISO file. Recovery environment contains a set of utilities that corresponds to the purchased product, and allows startup of your computer for maintenance or recovery purposes when OS is corrupted or cannot be used.

☐ **Advanced mode**
Select this option if you'd like to change network, network shares and drivers settings.

☐ **Use ADK/WAIK**
The wizard will use WIM image of the current operation system when creating the Recovery Environment on Windows PE platform. Select this option if you'd like to use ADK or WAIK for building Windows PE image.

< Back
Next >
Cancel

- **Advanced mode.** Please mark this option if you'd like the future bootable media to have pre-configured network settings, mapped network resources, or injected drivers for specific storage controllers or network cards.
- **Use ADK/WAIK.** Recovery Media Builder doesn't require Windows Assessment and Deployment Kit (ADK) or Automated Installation Kit (WAIK) to be installed in the system to build a WinPE-based environment, as it can directly use WIM image inside the operating system. However, some system builders remove this image from preinstalled Windows OS. If this is your case, mark the option to use **ADK/WAIK**. You will also need it to create an ISO image of the WinPE environment.



WAIK/ADK is a Microsoft's proprietary tool and can be obtained from its [Download Center](#) for free. Please note that you need a genuine Windows installation to be able to download this tool. Moreover you will need to download a version, which is suitable for your Windows OS – Recovery Media Builder automatically detects your system and offers [the required download link](#).

3. Click on **Removable flash media**, then select a thumb drive of at least 512MB in size from the list of flash memory devices available in the system at the moment (if several). If you'd like to create an ISO image of the WinPE environment, please use the corresponding option.


Recovery media format

☐ ISO image

Please specify image file location:

☒ Removable flash media

Please select USB-flash drive:

 USB Drive 4, JetFlash Transcend 4GB (3.7 GB)

- If selecting a thumb drive, the wizard will warn you that all data on it will be deleted.

Additional steps of the advanced mode

- Inject additional drivers for specific storage controllers, network cards, or other devices. First click on the required link.

Select device drivers for the recovery environment

Please select INF files for device drivers:





Storage device drivers (0)

[Add storage device drivers](#)

Network device drivers (0)

[Add network device drivers](#)

In the opened dialog browse for an .INF file of the required driver package located on a floppy disk, local disk, CD/DVD or a network share.

Look in:    

Name	Size	Date
Local Disk (C:)		
HyperV		12/24/2015 8:43:10 AM
PerfLogs		8/22/2013 8:52:33 AM
Program Files		3/17/2016 5:54:29 AM
Program Files (x86)		8/22/2013 8:39:32 AM
Temp		12/21/2015 5:50:49 AM
Users		11/20/2013 7:51:52 AM
Windows		3/22/2016 5:06:01 AM
DVD Drive (D:)		
Data Volume (E:)		
Data Volume (F:)		

File name:

Files of type:

If successfully injected, you can see the specified driver on the list. If you'd like to add another driver, please repeat the procedure.

Select device drivers for the recovery environment

Please select INF files for device drivers:

Storage device drivers (1)	
Add storage device drivers	
F:\Drivers*.inf	Remove
Network device drivers (0)	
Add network device drivers	

Recovery Media Builder can build 32-bit WinPE media configured to the uEFI mode, which is the only type compatible with Windows pads running on Intel Atom.



By default, WinPE environment doesn't support touch screens, thus Windows pads can only be managed by mouse and/or keyboard. You can add required drivers however through our driver injector.

- Set up a network connection if needed. You've got several options to choose from:

Select device drivers for the recovery environment

Please select INF files for device drivers:

Storage device drivers (1)	
Add storage device drivers	
F:\Drivers*.inf	Remove
Network device drivers (0)	
Add network device drivers	

- Connect to network automatically...** Specify the following parameters if you'd like to have an active network connection once the bootable environment has been started up:
 - **A network adapter to use.** Select a network adapter (if several in the system) to be used for the network connection.
 - **IP address settings.** Choose whether to get an IP address automatically from a DHCP server or set it manually.
 - Connect to network manually...** If selecting this option you will be prompted to configure network properties each time the computer has been started up from the bootable media.
 - Skip network adjustment.** Please use this option if you don't need network support on the bootable media.
- Map a network share if needed (not be available if selecting **Skip network adjustment** on the previous step). You've got several options to choose from:

- **Mount a network share automatically...** Mark this option if you'd like to have a mapped network resource once the computer has been started up from the bootable media. Manually type in a path to the required network share or click **Browse** to find it, then provide user credentials if necessary.



With no pre-defined user credentials your network share will be attempted to map under the Guest account.

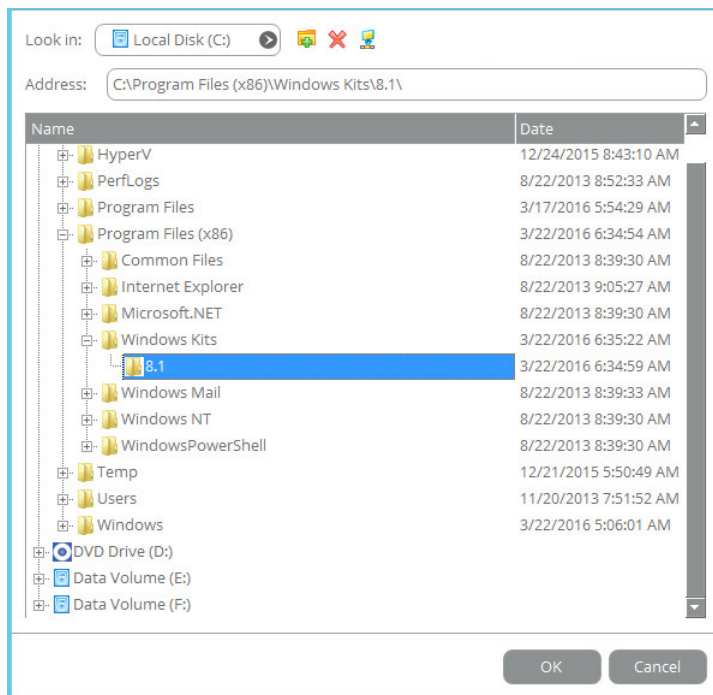
Please use back slashes for WinPE-based media, like \\server\share, while for Linux – forward slashes, like //server/share.

- **Mount a network share manually...** If selecting this option you will be prompted to map a network resource each time the computer has been started up from the bootable media.
- **Don't mount a network share.** Please use this option if you don't need to map network resources.

Additional steps if using WAIK/ADK

8. If you install WAIK or ADK by their default locations, the wizard automatically detects it. Otherwise, you will need to browse for the required folder. If you haven't installed one of these tools yet, click **Download WAIK/ADK** to get them directly from the Microsoft website.

Manually browsing for Windows OS kits:

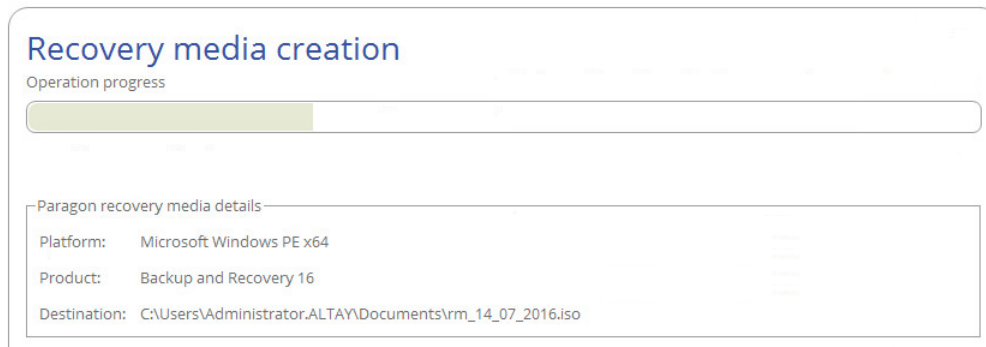


The wizard won't continue until you install WAIK or ADK.



If running RMB under Windows 7, 8, 8.1, Server 2008 R2, Server 2012 R1/R2, please use ADK 8.1.

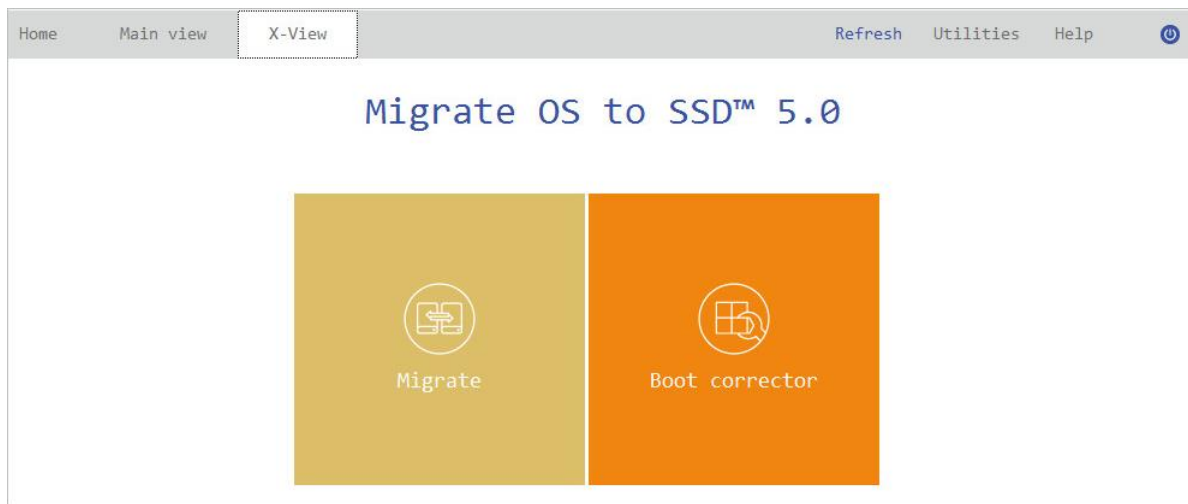
9. When done with all parameters, please confirm the operation to proceed.



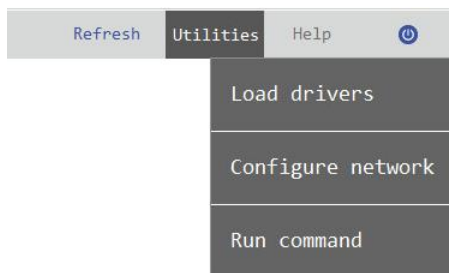
Booting from Recovery Media

The recovery media helps to copy your software environment to another storage device without installing the product or to rectify booting errors when Windows OS fails to start up.

1. Start up the computer from the prepared recovery media. To automatically boot from it you should configure the on-board BIOS to start up from CD/USB first.
2. Once loaded, you will see the already familiar [X-View](#) menu. The recovery environment shares the same interface with the Windows version, so please consult [First Start](#) for more details.



3. Additionally to the Windows wizards and dialogs, the recovery media includes several more utilities.



For more details, please consult the following chapters:

- [Fixing Boot Problems](#)
- [Adding Specific Drivers](#)
- [Configuring Network](#)

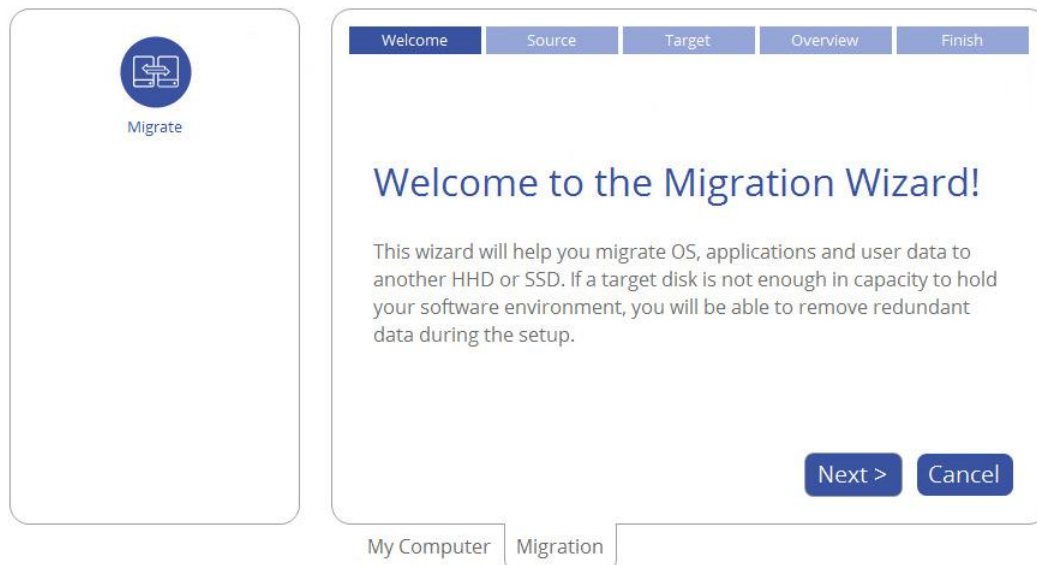
4. Select an operation to start. If you have questions on how to use the program, please refer to the embedded help system, you can find in the right top corner of the window.

Migrating Windows OS to SSD

The latest SSDs do not boast high capacity, but rather smaller size and faster processing speeds over regular hard drives. Plus, they are completely indifferent to mechanical impact, a feature crucial for mobile computers. These benefits are leading more and more users to consider migrating at least OS to SSDs to get the most out of their systems.

So, how do you migrate a Windows OS and hundreds of gigabytes of data on one huge volume to an SSD drive of 128-256GB? Our Migration Wizard can help you do that with minimal effort.

1. Connect an SSD drive to the computer.
2. Turn on the computer.
3. [Launch Migrate OS to SSD.](#)
4. Select **Main View > Migrate**, then click **Next** on the Welcome page of the wizard.

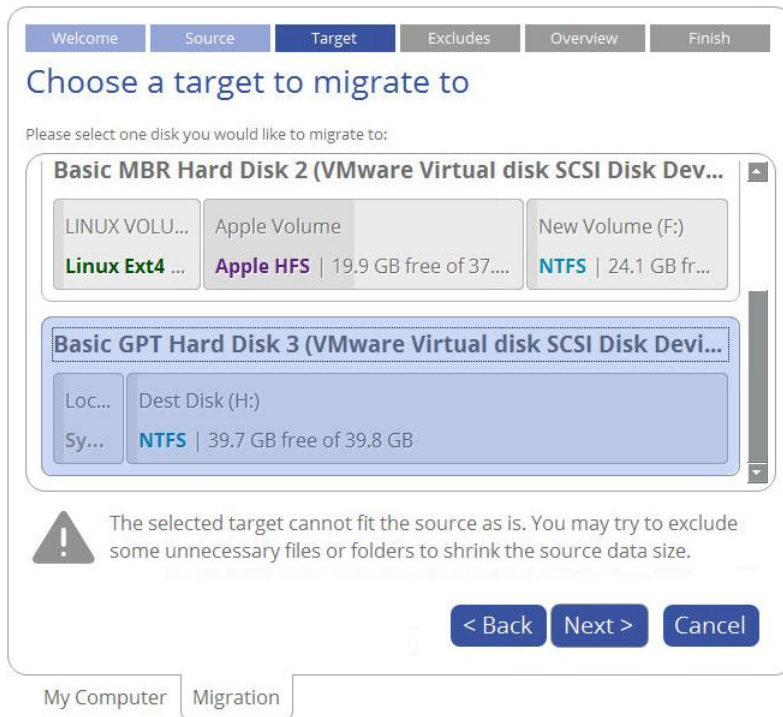


5. First the wizard will search your system for supported operating systems. If several OSes have been found, you will need to choose the one you'd like to migrate.



6. Depending on your choice, it will then automatically pick one or two on-disk partitions (Windows may have System Reserved, a special hidden partition that contains boot critical files, while in the uEFI+GPT mode there will be another hidden partition, called EFI System Partition) and prompt you to select a destination disk, if there are more than two storage devices besides the source.

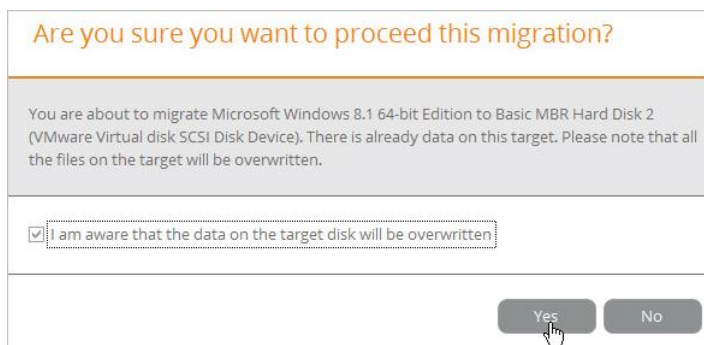
If the selected disk is not enough in capacity to hold your OS you will be prompted to exclude files from the main system partition at the next step to try to fit in to the destination.



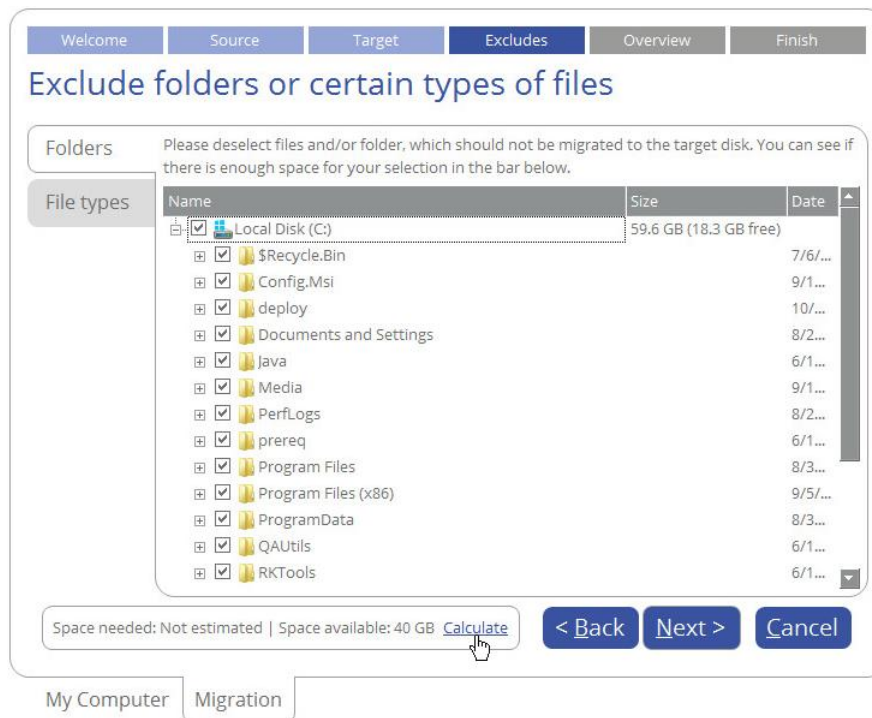
If the selected disk is the same size or larger than the source, but you're still willing to remove redundant data from the migration process, mark the corresponding option to do it later.



7. The destination disk will be checked for the presence of files. If found, you will be warned that all data stored on this disk will be lost during the upcoming operation. Use Windows Explorer or any file manager to save all important data to another location, then confirm you agree to proceed.

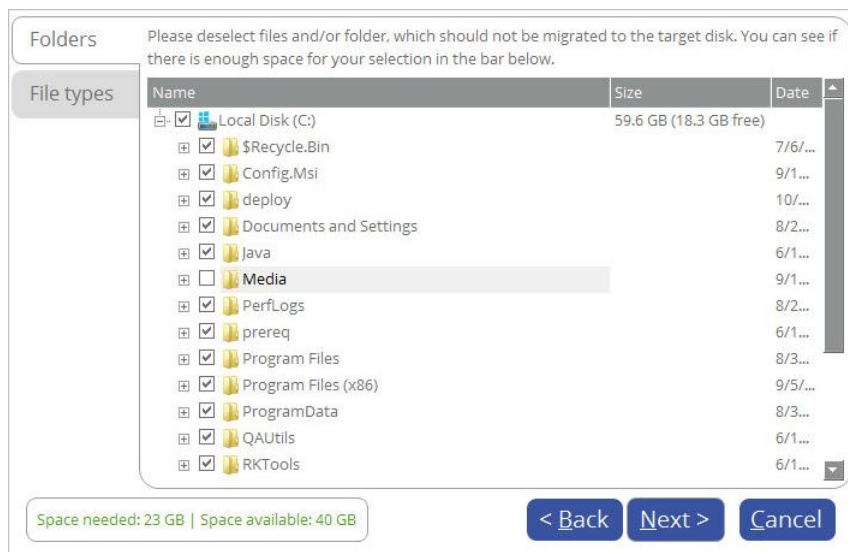


8. If the destination disk is not enough in capacity to hold your OS, first click **Calculate** to know exactly how much data you need to exclude. The calculation takes a while, so please be patient.



The wizard includes two data exclusion modes, available under the corresponding tabs:

- **Folders** (default). Double click the system partition to see its contents, then unmark checkboxes opposite unnecessary files and folders to try to fit in to the destination disk. We do not recommend you to exclude system files, but those that could take plenty of disk space, like video, music, photos, etc. When ready, click **Calculate** to make sure you get a success.



- **File types**. By clicking on this tab, you can see three predefined categories containing file masks for popular document, music, and picture formats. Either select an entire category(ies) or use the arrow icon to expand it and choose a certain file mask(s). If you don't find the required mask, add your own through the **My type filters** option. When done, click **Calculate** to make sure you get a success.

Folders

File types

Please select file types, that you would like to exclude from the migration to the target disk. You can see if there is enough space for your selection in the bar below.

Please note that file type excludes estimation can take really long time.

☐ Documents

☒ Music

☒ WAV

☒ FLAC

☒ APE

☒ MP3

☒ WMA

☒ OGG

☒ Pictures

☐ My type filters

Add

Type in your filter (e.g. "txt" or "doc")

Space needed: Not estimated | Space available: 40 GB Calculate

< Back Next > Cancel



If the destination disk is the same or larger than the source, then the data space calculation won't be available in the program's interface.

- Review all parameters of the operation and modify them if necessary by going back to any of the required steps.

Welcome Source Target Excludes Overview Finish

Please review the changes in the summary

Migrate: Microsoft Windows 8.1 64-bit Edition To: Basic GPT Hard Disk 3 (VMware Virtual disk SCSI Disk Device)

Local Disk (C:) View changes in disk-layout >>>

☒ Use all space for operating system partition

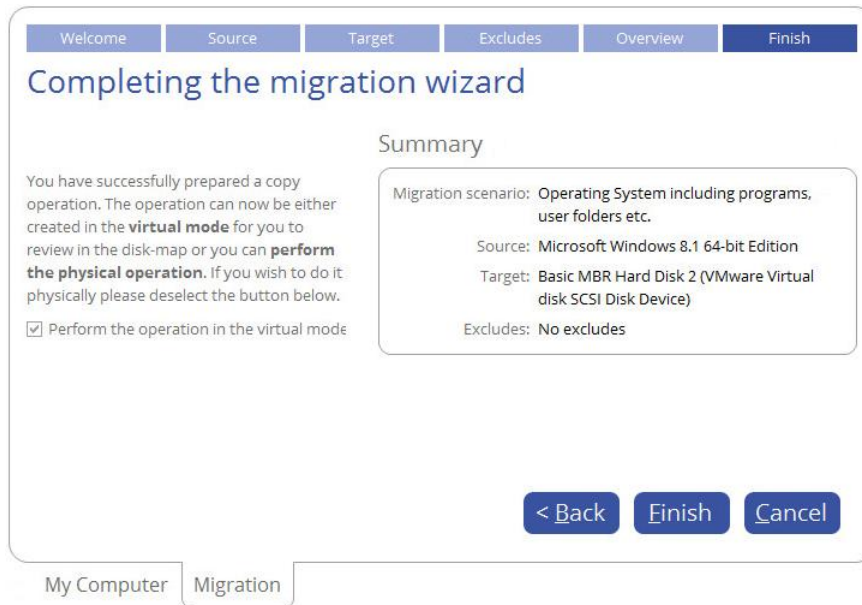
To fit the source to selected target some folders or files were excluded.

Edit exclude files/folders <<<

< Back Next > Cancel

My Computer Migration

- If the destination disk is larger than the source, then the wizard will prompt you to expand the resulted partition across all on-disk space. Unmark the corresponding option if you don't need that.
 - If the destination disk becomes Bootable GPT as a result of the migration process, you'll see one more option that will allow you to make OS bootable on this disk. Please note that you can specify a bootable device at any time through Boot Corrector.
- Click **Finish** when ready. By default, all introduced changes to the disk layout will be [pending until confirmed](#).



11. When the migration is over, first check up Windows OS starts up from the SSD. If yes, delete the Windows OS partition from the source disk, then re-partition the disk according to your needs.



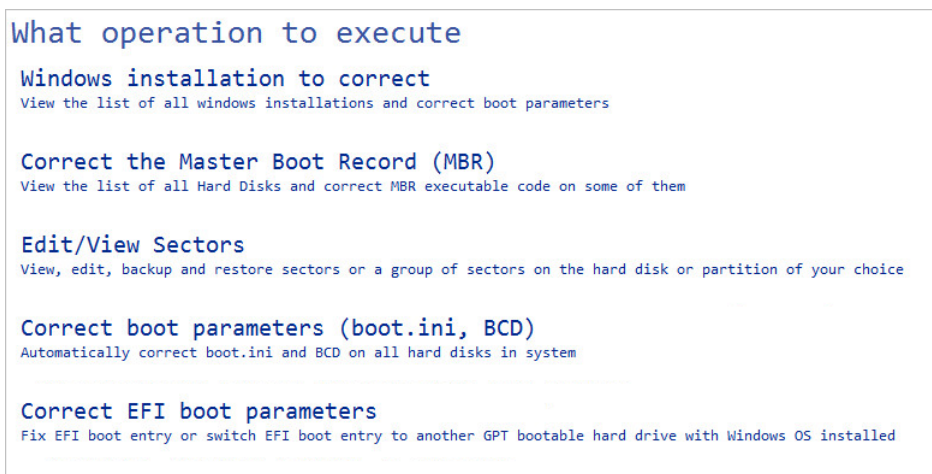
The same action can be accomplished with the WinPE recovery media.

WinPE Scenarios

Fixing Boot Problems

If Windows OS doesn't boot after replacing a failed hardware device or you have any other boot issue resulting from a human or program error, or a boot virus activity, first try our boot repair tools before taking more radical actions.

1. [Start up the computer from the WinPE recovery media.](#)
2. Select **Boot Corrector**.
3. The welcome page introduces the wizard's functionality. Click **Next** to continue.
4. Click on the required operation to select.



- **Windows installation to correct.** Fix your Windows startup ability, if it fails to complete the startup procedure due to an unknown reason.

Choose a failed Windows installation from the list of found installations (if several). If necessary, click on the plus icon to get more info on the selected item.

What operating system to correct

The wizard has searched your computer for valid Windows installations. You can see results of the operation below. Note: The status "System" stays for a system partition, "Bootable" - for a boot partition.


Microsoft Windows 8.1 64-bit Edition (Destination: Disk 0, Partition 1)

[Correct boot parameters](#)

Partition 0: System Reserved (C:)
Current values: Partition ID 8; Active

Partition 1: Local Disk (F:) Status: Bootable
Current values: Registry volume letter: C; Partition ID 7;

If you want to manually correct the chosen installation, click **Correct boot parameters**, then edit the required parameters. Otherwise, click **Next** to let the wizard fix the installation automatically.


 **This editor allow you to correct partition parameters**

Please correct some parameters if you want


Disk 0 Partition 0: System Reserved (C:)

☒ Active ☐ Hidden

Disk 0 Partition 1: Local Disk (F:)

Please choose new registry volume letter: C: 

Partition ID

☒ Please select predefined ID from the list: 0x07 NTFS, ExFAT, ReFS 

☐ Please enter ID manually: < 07 >

OK Cancel

- **Correct the Master Boot Record.** Use this option to overwrite the current bootable code in the MBR (Master Boot Record) by the standard bootstrap code, thus repairing a corrupted bootable code after a boot virus attack or a malfunction of boot management software.

Correct the Master Boot Record (MBR)

You can see the list of all hard disks in your system. All disks, where MBR correcting is available, can be choosed.

Please choose hard disks to correct their Master Boot Records:

Name	Type	Size
<input checked="" type="checkbox"/> Basic MBR Hard Disk 0 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	60 GB
<input type="checkbox"/> Basic MBR Hard Disk 1 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	120 GB
<input type="checkbox"/> Basic MBR Hard Disk 2 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	80 GB

- **Edit/View Sectors.** You can directly access and modify sectors of an entire disk drive or individual partition, save and restore sectors from specified files as well as navigate through the system metadata.

Edit/View Sectors

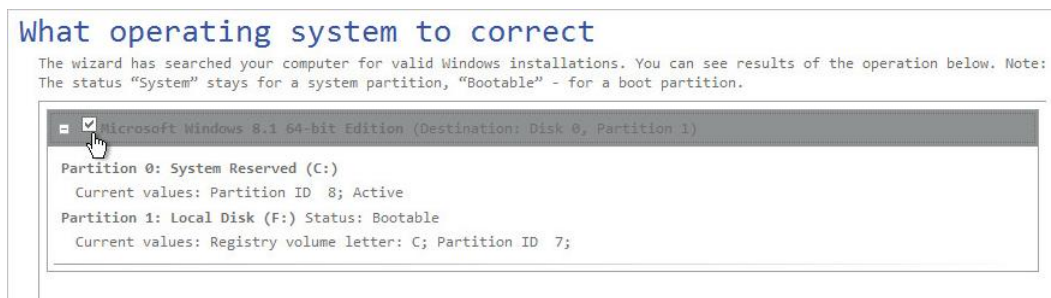
You can see the list of all hard disks and partitions in your system.

Please choose the object to correct its Sectors:

Name	Type	Size
My Computer	My Computer	
Basic MBR Hard Disk 0 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	60 GB
Local Disk (F:)	Primary	59.6 GB
System Reserved (C:)	Primary	350 MB
Basic MBR Hard Disk 1 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	120 GB
Data Volume (D:)	Primary	119.9 GB
Basic MBR Hard Disk 2 (VMware Virtual disk SCSI Disk Device)	Internal Hard Disk Drive	80 GB
New Volume (E:)	Primary	37.7 GB
New Volume (G:)	Primary	24.2 GB



- **Correct boot parameters (boot.ini, BCD).** If you have several operating systems on your disk (Windows Vista and later) after copying a system partition for instance, update their BCD (Boot Configuration Data) files to be able to choose an OS to start up.
- **Correct EFI boot parameters.** The wizard will detect and list all available GPT partitions that accommodate 64-bit Windows OS. Choose the one you need to boot from, to let the wizard modify the EFI boot entry correspondingly. Please note that this option is available on the 64-bit WinPE media only.

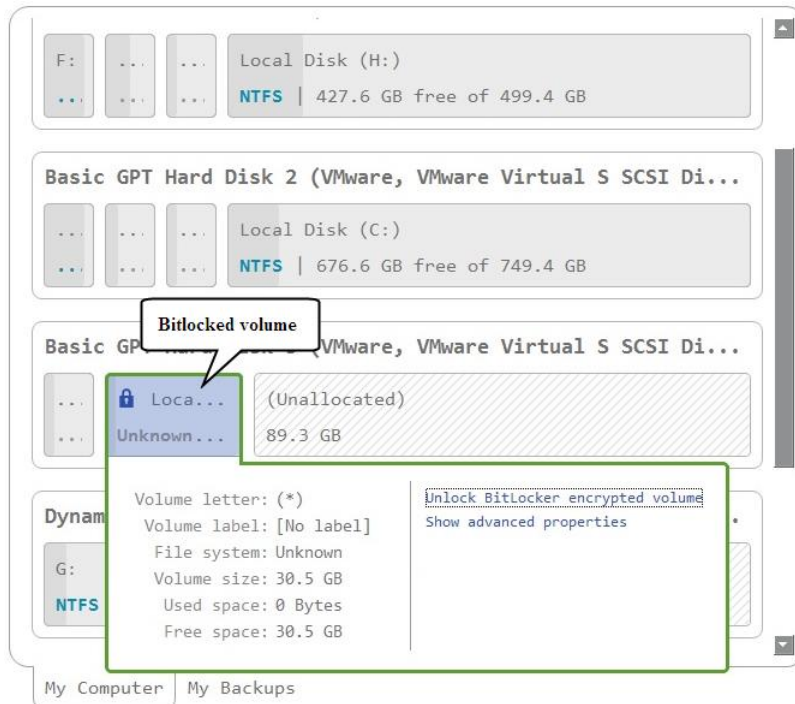


5. When done with all parameters, please confirm the operation to proceed.
6. After completing the operation, please reboot the computer.

Unlocking Bitlocked Volumes

The program allows you to migrate Windows BitLocker encrypted volumes, but only when they are unlocked. Until that the locked volumes will be recognized in the program's interface as "Unknown".

1. [Start up the computer from the WinPE recovery media.](#)
2. Open **Main View > My Computer**. Left click a volume detected as "Unknown", then select **Unlock Bitlocker encrypted volume** in the opened menu.



3. Either enter a password or provide a path to a recovery key (**recoverykey.bek**). For more details, please consult documentation provided by Microsoft.

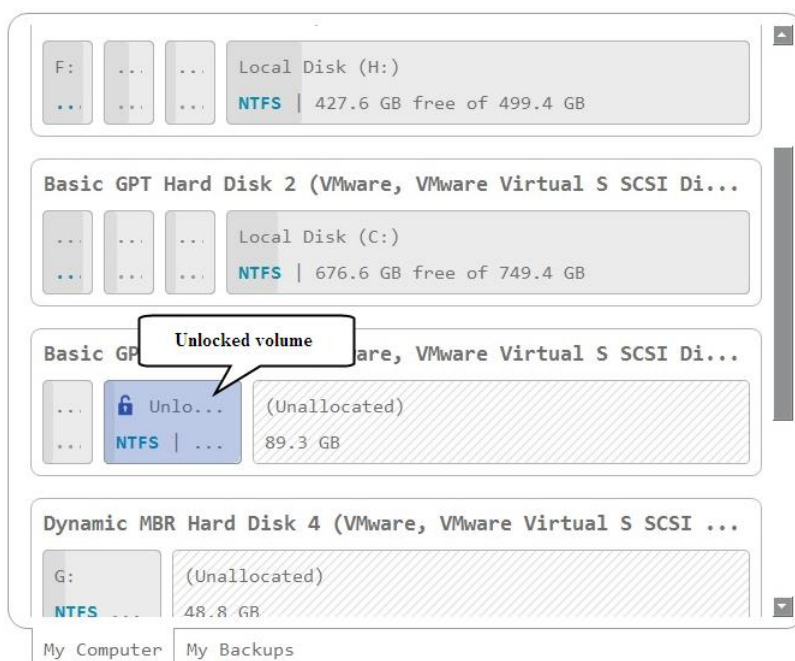
Unlock BitLocker encrypted volume (D:)?

Unlock by:

☒ Password

☐ Recovery key file

4. Click **Unlock** when ready. All introduced changes to the disk layout will be [pending until confirmed](#).
5. As a result of the operation the volume gets correctly recognized and is available to work with.





The same action can be accomplished in the Windows version of the program.

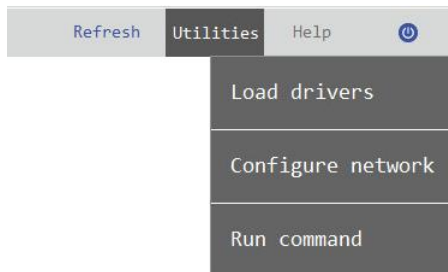
Adding Specific Drivers

The WinPE recovery media offers excellent hardware support. However, in case of not having a driver for your disk controller, for example, your hard disks will be unavailable to work with. Please use this scenario to inject drivers for unknown storage controllers, network cards, or other devices.



To avoid this action every time you start up the recovery media, we recommend you to inject additional drivers during its creation. For more details, please consult [Building Recovery Media](#).

1. [Start up the computer from the WinPE recovery media](#).
2. Select **Utilities > Load drivers**.



3. Use the corresponding link to browse for an .INF file of the required driver package on a floppy disk, local disk, CD/DVD or a network share. To learn how to map a network share, please consult [Configuring Network](#).



The chosen package gets on the list. Repeat this action to inject more drivers. Click **Load drivers** to accomplish the operation.



The WinPE environment can either be 32- or 64-bit, so are to be drivers for injection.

Configuring Network

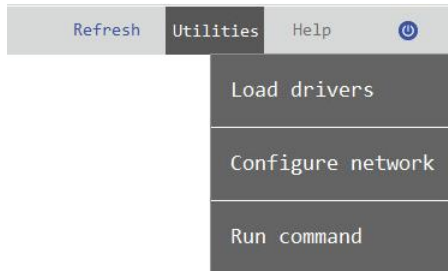
If your local network has a DHCP server, a network connection will be automatically configured once the WinPE recovery media has loaded. Otherwise, you will need to do it manually by providing an IP address, a network mask, default gateway, etc. in Network Configurator. Additionally, this wizard will help you map a network share,

ping a network resource, or measure transit delays of packets across an Internet Protocol (IP) network to track down problematic nodes.



To avoid this action every time you start up the recovery media, we recommend you to pre-configure network settings and map network resources during its creation. For more details, please consult [Building Recovery Media](#).

1. [Start up the computer from the WinPE recovery media](#).
2. Select **Utilities > Configure network**.



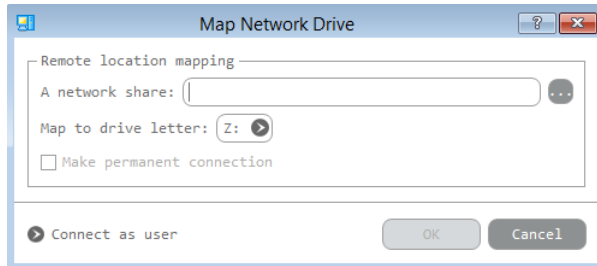
3. Provide an IP address, a network mask, default gateway, etc. to configure your network device according to network environment.

 A screenshot of a 'Network configuration' window. It has four tabs: 'Network adapters', 'Network drives', 'Network identification', and 'Network utilities'. The 'Network adapters' tab is active, showing 'Ethernet adapter: Intel(R) 82574L Gigabit Network Connection'. Below this is the 'IP address configuration' section with two radio buttons: 'Obtain an IP address automatically.' (selected) and 'Use the following IP address :'. The first has 'Renew address' and 'Release address' buttons. The second has input fields for 'IP Address', 'Subnet Mask', and 'Default Gateway', each with a placeholder '0 .0 .0 .0'. Below is the 'DNS/WINS configuration' section with two checked checkboxes: 'Obtain DNS server address automatically' and 'Obtain WINS server address automatically'. Each has input fields for 'DNS server', 'Primary WINS server', and 'Secondary WINS server', all with placeholder '0 .0 .0 .0'. At the bottom are buttons for 'Load from file', 'Save to file', 'OK', 'Apply', and 'Cancel'.

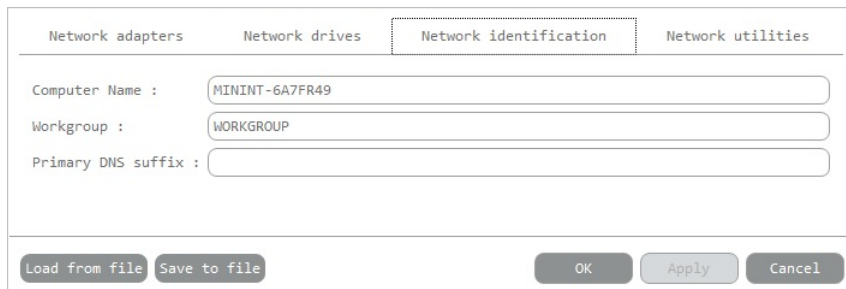
4. Use the **Network drivers** tab to manage network shares.

 A screenshot of the same 'Network configuration' window, but with the 'Network drives' tab selected. It shows a table with two columns: 'Drive' and 'Network path'. To the right of the table are buttons for 'Map Network Drive' and 'Disconnect Drive ...'. At the bottom are buttons for 'Load from file', 'Save to file', 'OK', 'Apply', and 'Cancel'.

- Click **Map Network Drive** to map a network share.



- Click the standard browse button [...] to browse for the required network share or manually enter a path to it;
 - Define a letter from the pull-down list of available drive letters;
 - If you'd like to make this connection permanent, mark the corresponding checkbox. Otherwise it will only be available for the current session;
 - Click the **Connect as user** button at the foot of the dialog page to specify a user name and password to access the selected network share, if necessary.
- Use the **Network identification** tab to change a network name of your computer (generated automatically) and a workgroup name.



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

Network Troubleshooter

Network Configurator includes a traceroute/ping utility that enables to get detailed information on particular routes and measure transit delays of packets across an Internet Protocol (IP) network. So with its help you can easily track down problematic nodes.

- [Start up the computer from the WinPE recovery media.](#)
- Select **Utilities > Configure network**.
- Click on the **Network identification** tab, then select **Ping** to ping a network host. Click **Start** when you're ready with all parameters.

The screenshot shows the 'Network utilities' tab of a software interface. At the top, there are four tabs: 'Network adapters', 'Network drives', 'Network identification', and 'Network utilities'. The 'Utility' dropdown menu is set to 'Ping'. Below it is a 'Target' text input field. There are three checkboxes: 'Ping the specified host until stopped' (unchecked), 'Resolve addresses to hostnames' (unchecked), and 'Number of echo requests to send:' followed by a spinner box set to '1'. To the right of these are 'Clear output' and 'Start' buttons. At the bottom, there is a large text area for output, and a row of buttons: 'Load from file', 'Save to file', 'OK', 'Apply', and 'Cancel'.

- **Target.** Type in the required IP address or its DNS name.
- **Ping the specified host until stopped.** Mark the option to ping the chosen host for indefinite time.
- **Resolve addresses to hostnames.** Mark the option to display hostnames instead of IP addresses.
- **Number of echo requests to send.** By default, the utility sends 1 echo request, which you can modify however.

4. Select **Trace route** to trace a route to a network host. Click **Start** when you're ready with all parameters.

The screenshot shows the 'Network utilities' tab with the 'Utility' dropdown menu set to 'Trace route'. The 'Target' text input field is empty. There are three checkboxes: 'Do not resolve addresses to hostnames' (unchecked), 'Maximum number of hops to search for target:' followed by a spinner box set to '1', and 'Wait timeout milliseconds for each reply:' followed by a spinner box set to '1'. To the right of these are 'Clear output' and 'Start' buttons. At the bottom, there is a large text area for output, and a row of buttons: 'Load from file', 'Save to file', 'OK', 'Apply', and 'Cancel'.

- **Do not resolve addresses to hostnames.** Mark the option to display IP addresses instead of hostnames.
- **Maximum number of hops to search for target.** By default the utility goes through maximum 30 hops when searching for the target host, which you can modify however.
- **Wait timeout milliseconds for each reply.** By default the utility waits 4 seconds for each echo reply message. If not received within the timeout, an asterisk (*) is displayed.

Troubleshooting

In case of having difficulties with handling the product you can address our support engineers for assistance. To help you solve your problem with minimal time, our engineers need operation logs and your brief description.

1. Select **Home > Collect logs**. Provide an e-mail address used for registering the product, then describe the encountered problem in the corresponding fields. Please don't worry - we respect your privacy, so none of your confidential data will be exposed.

Home

Settings

Recovery Media Builder

Collect logs

Info about

Collect software logs

Please specify issue details

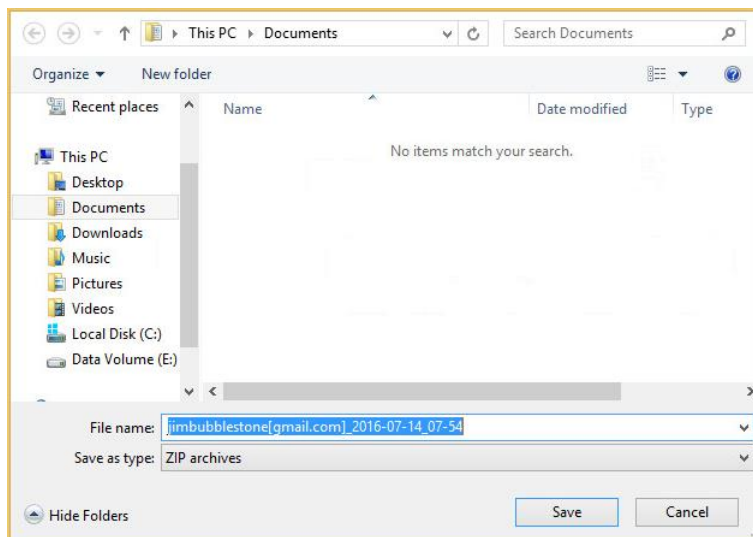
Please enter e-mail address which was used while registering this product. With its help Paragon Support Department will be able to associate your log files with your request through [on-line request system](#).

Please enter description of encountered issue:

Next >

Cancel

2. Browse for the required location of the log files package and edit the default file name, if necessary. Click **Save** when ready.

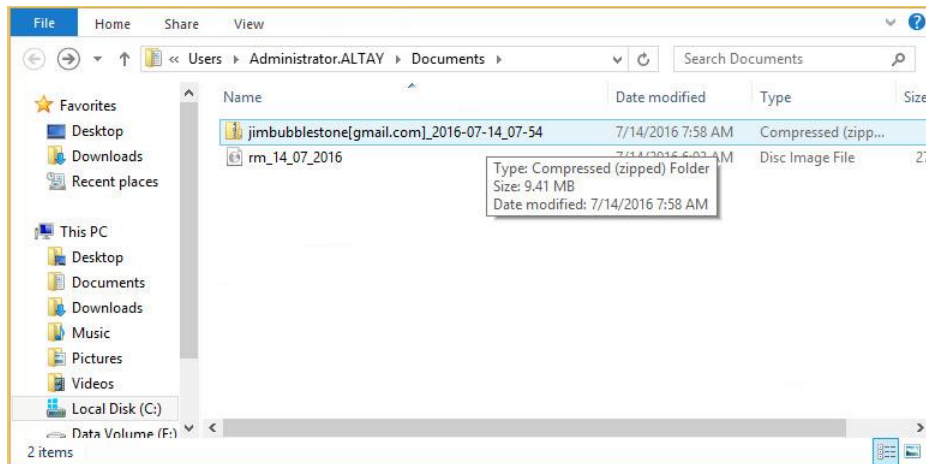


3. Once the operation is over, click **Open folder with logs...** to check the prepared package doesn't contain anything confidential, but layouts of your disks, performed operations, etc.

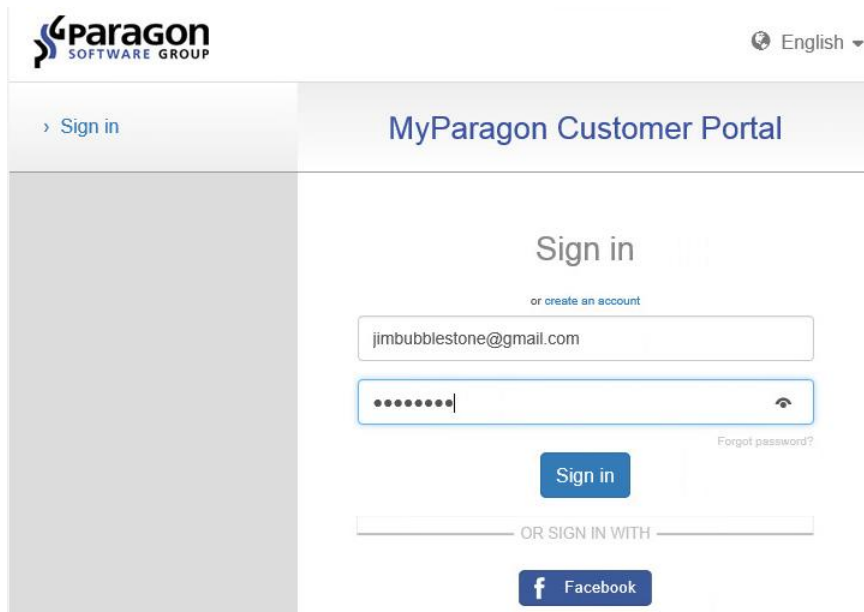
Collect software logs

Log files have been successfully collected!

Open folder with logs in Windows Explorer



4. Use the link on the first page of the wizard to sign in to MyParagon Customer Portal.



5. Fill out the ticket request form, attach the prepared logs package, then click **Post request**. That's all. Our support engineers will get in touch with you in a little while.

New Support Request

Ask a question, report a problem or give feedback by creating a request. Please fill in all the required fields for better support.

*** Subject**

*** Product**
If your purchased product is not shown in the list, please register it via the "Register New Product" section.

*** Brief description**

*** Details of the request**

Attach a file jimbubblestone@gmail.com]_2016-07-14_07-54.zip ✕

no file selected

Maximum attachment size: 50 Mb.

Build number

This software product contains components, which are partly or partly as free software subject to the license terms of the GNU General Public License or GNU Lesser General Public License ("LGPL").

You can request the modified source code of this software via a contact request: <https://www.paragon-software.com/contact.html>

*The offer is valid for at least 3 years from the date of the publication of the corresponding software product.
We deliver the software on CD/DVD or USB stick, whose production costs we claim in return.*