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Paragon Recovery Media Builder

Quick User Guide

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Introduction

Paragon Recovery Media Builder™ (RMB) is a wizard that helps you prepare either Linux or WinPE-based bootable environment on a USB thumb drive or in an ISO file. Containing a set of utilities corresponded to the purchased product, it will allow startup of your computer for maintenance or recovery purposes when OS is corrupted or cannot be used.



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.

Key Features

- An intuitive wizard enables to build either Linux or WinPE environment on flash memory or in an ISO image in several minutes;
- Doesn't obligatory require Windows Assessment and Deployment Kit (ADK) or Automated Installation Kit (WAIK) on Windows 7 and later platforms;
- Can build WinPE-based media on Windows XP, Vista, Server 2003 if there's WAIK installed in the system;
- Allows injecting additional drivers for storage devices, network controllers, USB controllers, or system during setup;
- Enables to set up a network connection with a pre-mounted network share during setup;
- Prepares either uEFI or BIOS compatible recovery environment;
- Simple and advanced operation modes;
- Separate installation packages for building 32-bit or 64-bit media.

System Prerequisites

Please note that depending on the host system the product functionality can be restricted:

- You can specify whether to create a 32-bit (BIOS mode) or 64-bit (uEFI mode) Linux environment only in the 64-bit Recovery Media Builder. The 32-bit Recovery Media Builder can only prepare 32-bit Linux media.
- There's no option to choose whether to build a 32-bit (BIOS mode) or 64-bit (uEFI mode) WinPE environment. For 64-bit systems there will be built 64-bit WinPE, while for 32-bit systems – 32-bit.
- Creation of WinPE-based ISO images is not available on Windows 8.1, Server 2012 R1/R2 if there's no ADK installed in the system.

Building WinPE Environment on Flash

1. Plug in a thumb drive of at least 512 MBs in size. Please note all data on that drive will be deleted.
2. Select: **Start > Programs > Paragon Recovery Media Builder**, or double click on its desktop icon.
3. The welcome page introduces the wizard's functionality. Besides you can see two options here:

Welcome to the Recovery Media Builder Wizard

Recovery Media Builder helps you to prepare a Linux- or WinPE-based bootable environment on a USB thumb drive or in an ISO file. This 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 operating 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.

- **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.** When running under Windows 7 or later OS, 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. So if having to do with Windows XP, Vista, or Server 2003 please mark this option and make sure one of the mentioned above kits is present in your system. You should also use this option, if Windows OS has been modified by the system builder as a result of which WIM image is missing. As you can see this option is relevant for Windows PE images only.



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](#).

4. Select **Microsoft Windows PE**. As you can see on the screenshot there's no option to choose whether to build a 32-bit (BIOS mode) or 64-bit (UEFI mode) WinPE environment. For 64-bit systems there will be built 64-bit WinPE, while for 32-bit systems – 32-bit.

Recovery media platform

Microsoft Windows PE

Linux

Please select firmware interface:

EFI

BIOS

5. Click on **Removable flash media**, then select a thumb drive 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:

C:\Users\Administrator\Documents\rm_27_05_2014.iso

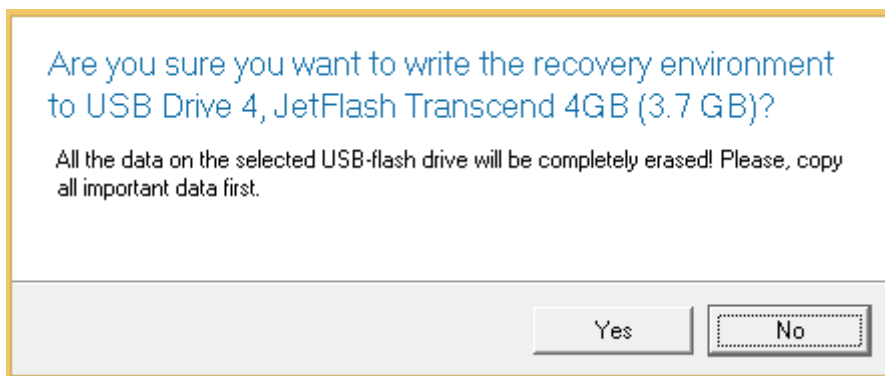
Browse...

Removable flash media

Please select USB-flash drive:

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

6. The wizard will warn you that all data on the selected drive will be deleted. Please confirm the operation to proceed.



Additional steps of the advanced mode

7. 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: Local Disk (C:)   

Name	Size	Date
Program Files		5/27/2014 6:05:27 AM
Program Files (x86)		11/12/2013 4:06:08 AM
Users		9/3/2013 1:57:44 PM
Administrator		9/3/2013 1:58:00 PM
Contacts		9/3/2013 1:58:00 PM
Desktop		5/27/2014 11:56:04 PM
ADK		9/19/2013 4:41:28 AM
oemsetup.inf	22.3 KB	10/15/2008 7:04:43 PM
vmaudio.inf	4.2 KB	10/15/2008 7:04:43 PM
vmmouse.inf	1.2 KB	10/15/2008 7:04:43 PM
vm SCSI.inf	1.5 KB	10/15/2008 7:04:43 PM
vmxnet.inf	3.2 KB	10/15/2008 7:04:43 PM
Documents		5/27/2014 6:11:20 AM
Downloads		9/3/2013 1:58:00 PM
Favorites		9/3/2013 1:58:00 PM
Links		9/3/2013 1:58:01 PM
Music		9/3/2013 1:58:00 PM
Pictures		9/3/2013 1:58:00 PM
Saved Games		9/3/2013 1:58:00 PM
Searches		9/3/2013 1:58:17 PM

File name:

Files of type: INF files

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](#)

C:\Users\Administrator\Desktop\vm SCSI.inf [Remove](#)

Network device drivers (1)

[Add network device drivers](#)

C:\Users\Administrator\Desktop\vmxnet.inf [Remove](#)

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.

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

Network configuration

Connect to network automatically after the startup:

Network adapter to use:

Obtain an IP address from a DHCP server

Specify an address

IP address:

Subnet mask:

DNS address:

Connect to network manually after the startup

Skip network adjustment

- **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.
9. 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

Mount a network share automatically after boot

Share:

Login:

Password:

Mount a network share manually after boot

Don't mount a network share

- **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

10. 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.




Please specify where to find WAIK/ADK

Path to installed WAIK/ADK:

WAIK/ADK path does not seem to be valid.
Please specify valid WAIK/ADK path.

[Download WAIK/ADK](#)

Manually browsing for Windows OS kits:

Look in: Local Disk (C:)   

Address: C:\Program Files (x86)\Windows Kits\8.1\

Name	Date
Local Disk (C:)	
PerfLogs	8/22/2013 8:22:35 AM
Program Files	5/27/2014 6:05:27 AM
Program Files (x86)	11/12/2013 4:06:08 AM
Common Files	8/22/2013 8:36:30 AM
Internet Explorer	8/22/2013 12:09:07 PM
Microsoft.NET	8/22/2013 8:36:30 AM
Notepad++	9/3/2013 2:04:21 PM
Windows Defender	8/22/2013 12:09:07 PM
Windows Kits	11/12/2013 4:06:08 AM
8.1	11/12/2013 4:06:08 AM
Windows Mail	8/22/2013 12:09:07 PM
Windows Media Player	8/22/2013 12:09:07 PM
Windows Multimedia Platform	8/22/2013 8:36:33 AM
Windows NT	8/22/2013 8:36:30 AM
Windows Photo Viewer	8/22/2013 12:09:07 PM
Windows Portable Devices	8/22/2013 8:36:33 AM
WindowsPowerShell	8/22/2013 8:36:30 AM
Users	9/3/2013 1:57:44 PM
Windows	5/27/2014 6:05:46 AM
DVD Drive (D:)	

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



Please take the following information into account:

- **If running RMB under Windows 7, 8, 8.1, Server 2008 R2, Server 2012 R1/R2, please use ADK 8.1;**
 - **If running RMB under Windows XP, Server 2003, please use WAIK of Windows Vista;**
 - **If running RMB under Windows Vista, Server 2008 R1, please use WAIK of Windows 7**
-

11. When done with all parameters, click **OK** to initiate creation of the specified bootable media, which takes a couple of minutes.

Recovery media creation

Operation progress



Paragon recovery media details

Platform:	Microsoft Windows PE x64
Product:	Hard Disk Manager 14 Premium Edition
Destination:	C:\Users\Administrator\Documents\rm_28_05_2014.iso

Building Linux Environment in an ISO image

1. Select: **Start > Programs > Paragon Recovery Media Builder**, or double click on its desktop icon.
2. The welcome page introduces the wizard's functionality. Besides you can see two options here:

Welcome to the Recovery Media Builder Wizard

Recovery Media Builder helps you to prepare a Linux- or WinPE-based bootable environment on a USB thumb drive or in an ISO file. This 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

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Use ADK/WAIK

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3. Select **Linux**, then the required boot mode. If you specify 'EFI' there will be created a 64-bit environment, while 'BIOS' corresponds to 32-bit.

Recovery media platform


- Microsoft Windows PE
 Linux
 Please select firmware interface:
 EFI
 BIOS

4. Click on **ISO image**. If you'd like to create a thumb drive with the Linux environment on-board, 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)
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5. If you have enabled the advanced mode on the welcome page of the wizard, you will be able to set a number of additional parameters. [Click here to learn more on the subject.](#)
6. When done with all parameters, click **OK** to initiate creation of the specified bootable media, which takes a couple of minutes.

Recovery media creation

Operation progress



Customizing...

Paragon recovery media details

Platform:	Linux x64
Product:	Hard Disk Manager 14 Premium Edition
Destination:	USB Drive 4, JetFlash Transcend 4GB (3.7 GB)