

Acronis®
Small Office: Server Cloud Backup™

RTM

User's Guide

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1 Getting started

1.1 Introduction

In this section

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1.1.1 What is Acronis Small Office: Server Cloud Backup?

Acronis Small Office Server Cloud Backup (the short name is Small Office Backup) is a subscription-based integrated software suite that ensures the security of all of the information on your PC. It can back up the operating system, applications, settings and all of your data by using two main utilities:

■ Disk and partition backup

With the unique technology developed by Acronis and implemented in Small Office Backup you can perform exact, sector-by-sector disk backups. Such backups include all operating systems, applications and configuration files, personal settings, and data.

This means that in case of disaster you will be able to recover your computer system and data should a disaster occur, such as losing data, accidentally deleting critical files or folders, or suffering a complete hard disk crash.

You can store backups on almost any PC storage device.

■ Acronis Online Backup

This utility allows you to store your most important files on Acronis Cloud, a special secure remote storage. Your data will be protected even if your computer is lost, stolen or destroyed.

Windows-style interface and wizards will make your work easier. Just perform a few simple steps and let Small Office Backup take care of everything else! When a system problem occurs, the software will get you up and running in no time.

Online and offline modes

Acronis Small Office Backup works correctly only on computers with an Internet connection.

- First of all, the connection is required for the product activation. Without activation, the fully functional product works for a limited time. See details in Small Office Backup activation (p. 12).
- To get access to the program console, you must sign in by providing the credentials of your Acronis account. Therefore, the console cannot work without Internet. This means that you will not be able to create new backups.
- Without Internet you cannot purchase, update and change subscriptions.

In any event, some functions are available to you without Internet (offline mode).

- All the program functions that can be run from the Windows **Start** menu are available in the offline mode. For example, you can create a bootable rescue media and mount images.
- If you have scheduled backups, the new versions of the backups will be created according to the schedule even in the offline mode.

Compatibility with Acronis Backup & Recovery

- Acronis Small Office Backup can be upgraded to Acronis Backup & Recovery.
- Users of Acronis Backup & Recovery can recover data from disk and partition backups created with Acronis Small Office Backup.
- If you upgrade your Small Office Backup to Acronis Backup & Recovery, you will not have to recreate your backups from scratch. All you need to continue your existing backups is to reconfigure the corresponding backup settings.

1.1.2 Acronis Small Office Backup basic concepts

This section provides general information about basic concepts which could be useful for understanding how the program works.

Backup and recovery

Backup refers to the making copies of data so that these additional copies may be used to **recover** the original after a data loss event.

Backups are useful primarily for two purposes. The first is to restore a state following a disaster (called disaster recovery). The second is to recover small numbers of files after they have been accidentally deleted or corrupted.

Acronis Small Office Backup does both by creating disk (or partition) images.

Backup versions

Backup versions are the file or files created during each backup operation. If you do not use consolidation feature, the amount of versions created is always equal to the amount of times the backup is executed or to the amount of stored points in time.

So, a version represents a point in time to which the system or data can be restored. To put it another way, backup versions represent full, incremental and differential backups - see Full, incremental and differential backups (p. 28).

The backup versions are similar to file versions. This feature allows you to restore a file as it existed on a particular date and time. A backup version allows you to recover your data in a similar way.

This could be useful when trying to find damaged or deleted files. Simply browse through the backup versions in the Acronis Backup Explorer until you find the backup version containing the required files. Additionally, you can recover different saved versions of the found files.

There is one more type of incremental backup version. If you mount a partition in the read-write mode, the program assumes that the mounted image will be modified and creates an incremental version to capture the changes. This type of incremental version has somewhat different properties. For example, it cannot be consolidated.

Backup file format

Acronis Small Office Backup usually saves backup data in the proprietary tib format using compression. This reduces the amount of needed storage space.

When creating a tib file, the program calculates checksum values for data blocks and adds these values to the data being backed up. These checksum values allow for the verification of data integrity.

The data from tib file backups can be recovered only through the Acronis Small Office Backup program. This may be done in Windows or in the recovery environment.

Backup validation

The backup validation feature allows you to confirm that your data can be recovered. As mentioned above, the program adds checksum values to the data blocks being backed up. During backup validation, Acronis Small Office Backup opens the backup file, recalculates the checksum values and compares those values with the stored ones. If all compared values match, the backup file is not corrupted and there is a high probability that the backup can be successfully used for data recovery.

Consolidation

Consolidation allows you to delete backups which you no longer need from a backup chain.

A chain to be consolidated can consist of a full backup and one or more incremental backups.

If necessary, you can delete the base full backup from the chain. The program will create a new full backup in place of the oldest remaining backup. Consolidation keeps whichever backups you choose and deletes any backups that are not selected.

Because consolidation may require significant time and system resources (including disk space), we recommend using it sparingly. In many cases, starting a new backup chain and then deleting the old one will be a better choice.

Disaster recovery

Recovering from a disaster usually requires a rescue media and a backup of the system partition.

Acronis Small Office Backup provides for recovery from a disaster caused by system data corruption, viruses, malware, or other causes.

If the operating system fails to boot, Acronis Small Office Backup will recover the system partition. The boxed product comes with a rescue CD. Other legal owners of the program can create a rescue media by using the Media Builder tool.

Scheduling

For your backups to be really helpful, they must be as "up-to-date" as possible. This means that you should run backups on a regular basis, say once a day. Although creating an Acronis Small Office Backup backup is quite easy, on occasion, you may forget to do a backup.

With the scheduler, you do not have to remember. You can schedule automatic backups ahead of time. Your data will be backed up as long as there is sufficient storage space.

Understanding these terms and concepts will be helpful when using the program's features.

1.1.3 FAQ about backup and recovery

- **I have a 150GB system partition, but the occupied space on that partition is only 80GB. What will Small Office Backup include in a backup?** - By default, Small Office Backup copies only the hard disk sectors that contain data, so it will include only 80GB in a backup. You can also choose the sector-by-sector mode. Note that such a backup mode is required only in special cases. For more information see Image creation mode (p. 39). While creating a sector-by-sector backup, the program copies both used and unused hard disk sectors and the backup file will usually be significantly larger.
- **Will my system disk backup include drivers, documents, pictures, etc.?** - Yes, such a backup will contain the drivers, as well as the contents of the My documents folder and its subfolders, if you kept the default location of the My documents folder. If you have just a single hard disk in your PC, such a backup will contain all of the operating system, applications and data.
- **I have an old hard disk drive which is almost full in my notebook. I purchased a new bigger HDD. How can I transfer Windows, programs and data to the new disk?** - You can back up the old hard disk and then recover the backup to a new one.
- **I have replaced my failed motherboard with a different one and now Windows does not start. I have backups of my system disk. Is it possible to use them for restoring my computer back to life?** - Yes, this is possible, but only with use of Acronis Universal Restore. You will need to select the **Use Acronis Universal Restore** check box when configuring recovery. For more information, see Recovering to different hardware (p. 69). You may need to download the chipset and the hard disk controller drivers from the Web site of your motherboard manufacturer to add them during recovery.
- **I want to replace my old desktop PC with a notebook. Will Small Office Backup be able to transfer Windows, programs and data to the notebook?** - Yes, this can be done. First back up your old PC and then recover the backup to the notebook with use of Acronis Universal Restore. You will need to select the **Use Acronis Universal Restore** check box when configuring recovery. During recovery with Universal Restore you may need to provide drivers for the chipset, hard disk controllers, etc. of your new computer. For more information, see Recovering to different hardware (p. 69).
- **I want to migrate my old system hard disk to an SSD. Can this be done with Small Office Backup?** - Yes, Small Office Backup provides such a function. For procedure details, see Migrating your system from an HDD to an SSD (p. 123)
- **What should I back up: a partition or the whole disk?** - In most cases, it is better to back up the whole disk. However, there may be some cases when a partition backup is advisable. For example, your notebook has a single hard disk with two partitions: system (disk letter C) and the data (disk letter D). The system partition stores your working documents in the My documents folder with subfolders. The data partition stores your videos, pictures, and music files. Such files are already compressed and backing them up using Small Office Backup would not give you significant reduction of the backup file size. In this case, it may be better to use a local sync for the data partition files and a separate backup for the system partition. However, we also recommend creating at least one whole disk backup if your backup storage has enough space.
- **Can I back up and recover a dual boot machine?** Yes, this is possible in most cases. If your systems are installed in separate partitions of the same physical hard disk drive, recovery usually proceeds without any problems. If the systems are on different physical hard disk drives, there may be some problems with bootability after recovery. Please note that activating Acronis Startup Recovery Manager on dual- and multiboot systems with Linux loaders requires special preparation. For more information, see How to use Acronis Startup Recovery Manager (p. 109).

Furthermore, recovering a backup of a dual boot machine to different hardware requires using Acronis Universal Restore.

- **Does Small Office Backup support RAID?** - Small Office Backup supports hardware RAID arrays of all popular types. It also supports all software RAID configurations except RAID 1 (mirrored) and RAID 5. Acronis Bootable Rescue Media supports most of the popular hardware RAID controllers. If the standard Acronis rescue media does not "see" the RAID as a single volume, the media does not have the appropriate drivers. You can try to create WinPE-based rescue media. This media may provide the necessary drivers.
- **Can I use Acronis Small Office Backup to migrate from a single disk to RAID?** This is possible in many cases. If you recover a backup of a single disk to RAID, you will usually need to use the Universal Restore feature to add the RAID drivers during recovery. The drivers must have the .inf filename extension.

1.1.4 System requirements and supported media

1.1.4.1 Minimum system requirements

Small Office Backup has minimum hardware requirements corresponding to that of the operating system installed on the computer to be used for running Small Office Backup. In addition Small Office Backup requires the following hardware:

- CD-RW/DVD-RW drive for bootable media creation
- Mouse or other pointing device (recommended)

Small Office Backup rescue media has the following hardware requirements:

- 512 MB RAM
- Processor Pentium 1 GHz or faster
- 1.5 GB of free space on a hard disk

The recommended screen resolution is 1280 x 1024.

The minimum screen resolution is 1024 x 768.

1.1.4.2 Supported operating systems

Small Office Backup has been tested on the following operating systems (both 32 and 64 bit, if applicable):

- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2008
- Windows Small Business Server 2011
- Windows Server 2003 R2
- Windows Server 2003
- Windows Small Business Server 2008
- Windows Small Business Server 2003 R2
- Windows Small Business Server 2003

Supported virtual machines:

- VMware vSphere / ESX / ESXi and Workstation
- Microsoft Hyper-V and Virtual PC
- Red Hat Enterprise Virtualization (RHEV) and KVM
- Citrix XenServer
- Parallels Workstation and Server Bare Metal

Small Office Backup also lets you create a bootable CD-R/DVD-R that can back up and recover a disk/partition on a computer running any Intel- or AMD- based PC operating system, including Linux®. (Note that the Intel-based Apple Macintosh is not supported.)

1.1.4.3 Supported file systems

- FAT16/32
- NTFS
- Ext2/Ext3/Ext4 *
- ReiserFS *
- JFX *
- Linux SWAP *

If a file system is not supported or is corrupted, Acronis Small Office Backup can copy data using a sector-by-sector approach.

** The Ext2/Ext3/Ext4, ReiserFS, JFX, and Linux SWAP file systems are supported only for disk or partition backup/recovery operations. You also cannot perform backups to disks or partitions with these file systems.*

1.1.4.4 Supported storage media

- Hard disk drives*
- Solid State Drives (SSD)
- FTP servers**
- CD-R/RW, DVD-R/RW, DVD+R (including double-layer DVD+R), DVD+RW, DVD-RAM, BD-R, BD-RE***
- USB 1.1 / 2.0 / 3.0, FireWire (IEEE-1394) and PC card storage devices

* Acronis Small Office Backup does not support the following dynamic volume types: Mirrored and RAID-5.

Recovery of a dynamic volume as a dynamic volume with manual resizing is not supported

** An FTP server must allow passive mode file transfers. For data to be recovered directly from an FTP server, the backup must consist of files no greater than 2GB each.

The firewall settings of the source computer should have Ports 20 and 21 opened for the TPC and UDP protocols to function. The **Routing and Remote Access** Windows service should be disabled.

*** Burned rewritable discs cannot be read in Linux without a kernel patch.

1.1.4.5 SSD support

The recommended offset for Solid State Drives (SSD) is a multiple of 64 KB (most commonly, 1024KB or 2048 sectors).

Small Office Backup provides full support of SSDs. It keeps the proper offset of SSD during such operations as image recovery and cloning. Specifically, full support means that:

- If you recover a disk backup to an SSD or clone a disk to an SSD, the offset will be automatically set to the default 1024 KB (2048 sectors).
- If you recover a partition backup to a target empty non-partitioned (unallocated) SSD, the offset will be automatically set to the default 1024 KB (2048 sectors).
- If you recover a partition backup to a target empty partitioned SSD, the target SSD will keep its original offset.

1.1.5 Small Office Backup installation

Installing Small Office Backup

To install Small Office Backup:

1. Run the setup file. Before starting the setup process, Small Office Backup will check for a newer build on the website. If there is one, the newer version will be offered for installation.
2. In the install menu, click **Install** to start the installation procedure.
3. Read and accept the terms of the license agreement in the **License Agreement** window.
4. Read the participation terms and decide whether you want to participate in the Acronis Customer Experience Program.
5. In the **Setup options** window, change the installation folder, if necessary.
6. Click **Proceed** to begin installation.

Recovering from an Small Office Backup error

If Small Office Backup ceased running or produced errors, its files might be corrupted. To repair this problem, you first have to recover the program. To do this, run Small Office Backup installer again. It will detect Small Office Backup on your computer and will ask you if you want to repair or remove it.

Removing Small Office Backup

Depending on your operating system perform one of the following:

Click **Start** -> **Settings** -> **Control Panel** -> **Add or remove programs** -> **Acronis Small Office Backup** -> **Remove**.

or

Click **Start** -> **Control Panel** -> **Programs and Features** (or **Uninstall a program**) -> **Acronis Small Office Backup** -> **Remove** (or **Uninstall**).

Then follow the instructions on the screen. You may have to reboot your computer afterwards to complete the task.

1.1.6 Small Office Backup activation

To use Acronis Small Office Backup, you need to activate it via the Internet. Without activation, the fully functional product works for 30 days. If you do not activate it during that period, all program functions will become unavailable except recovery.

Note that only Small Office Backup with a full subscription must be activated. You do not need to activate the product with a trial subscription.

Activation will be performed automatically if the following conditions are met:

- Your computer has an Internet connection.
- You have an Acronis account.
- You purchased a full subscription or serial number.
- You installed the product only on 1 computer.

Acronis Small Office Backup is activated when you sign in for the first time after purchasing the full subscription.

Moving license between computers

If you have one Acronis account, you can activate Acronis Small Office Backup on 1 computer only. If you install the product on a second computer, you will see a corresponding error message at the bottom of the console window. In such an event, you can move the license to your new computer from the one where the product is already activated. If you want to move the license, perform the following steps.

To move the license from a computer that has an installed activated product:

1. Install Acronis Small Office Backup on another computer.
2. Sign in using the same Acronis account.
3. Find the error message at the bottom of the window and click **Move license**.
4. On the opened webpage, follow the on-screen instructions.

From the list, choose a computer you want to move the license from. Note that the product will be deactivated on the chosen computer.

1.1.7 Trial subscription information

After you install Small Office Backup and sign in to your Acronis account, you will automatically get a trial subscription.

The trial subscription allows you to use Small Office Backup only during the trial period of 30 days. After the trial period expires, you will only be able to recover your data and add new disks.

Please note that the Acronis Universal Restore utility is not available in the trial subscription.

For details about purchasing a full subscription, see *How to get a subscription* (p. 13).

Acronis Cloud trial subscription

When you activate your trial subscription, you get fully functional Online Backup and 50 GB of storage space on Acronis Cloud for 30 days. After that, Online Backup will work for 30 days in recovery-only mode.

After the period of 60 days, all the versions of backed up files will be permanently deleted from Acronis Cloud.

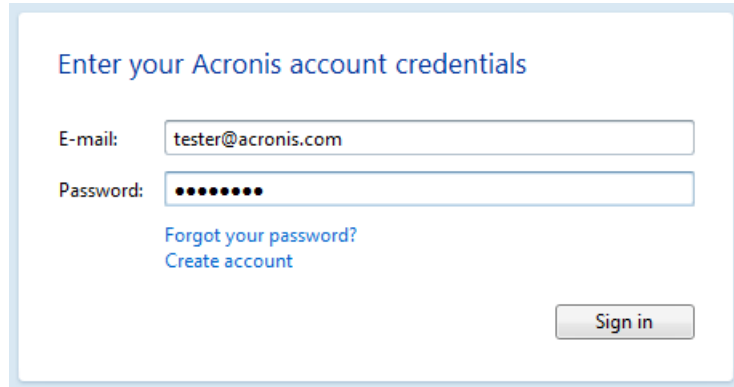
1.1.8 How to get a subscription

Acronis Small Office Backup is a subscription-based product. First you will automatically get a 30-day free trial subscription (see details in *Trial version information* (p. 13)). After that you will be able to buy a full subscription.

To get a full subscription:

1. Start Small Office Backup.
2. In the login window, enter the email address and password of your Acronis account, and then click **Sign in**.

If you do not have the account yet, click **Create account**. See details below.



3. On the toolbar, click the **Manage subscription** button.
4. In the opened webpage, choose a tariff plan, click **Upgrade** and provide your payment information.
If you have a serial number, click the corresponding link, enter the serial number in the box, and click **Submit**.

How to create an Acronis account

Start Small Office Backup, click **Sign in** on the toolbar, and then click **Create account**. Fill in the appropriate fields of the registration form, and the account will be created for you.

Provide your first and last names and e-mail address. You will be offered a country selected on the basis of the IP address of your computer, though you can select another country, if you wish.

Then provide a password for your new account and confirm the password by retyping it once more in the appropriate field. When you have performed all actions necessary for account registration, please wait for an e-mail message that will confirm opening of the account.

To keep your personal data secure, choose a strong password for your Acronis account, guard it from getting into the wrong hands, and change it from time to time.

1.1.9 Installing Acronis Hotfixes

What is an Acronis Hotfix?

Acronis Hotfix is a small update for Acronis products. It makes changes to one or more application files or registry keys but does not change an application version. A hotfix targets only a specific Acronis Small Office Backup build, and cannot be applied to any other build.

Acronis Hotfixes are distributed through Acronis Knowledge Base articles, which describe the problem to be fixed in detail. Each article can be accessed through SER or directly by searching Acronis Knowledge Base.

Advantages of installing Acronis Hotfixes:

- Hotfix installation does not require much time and resources. You do not need to wait until the next product update to fix a particular issue.
- A hotfix package is much smaller than the product installation package, though it may include files from previous hotfixes for consistency.
- You can install only necessary hotfixes, if several hotfixes are available.

All changes from hotfixes released between updates will be included in the new product versions (updates or upgrades).

How to install Acronis Hotfixes?

To check whether new Acronis Hotfixes are available, click **Check for updates** from the Help menu. A list of available hotfixes for the current build will be displayed in a table, where you can select those you want to install. When you select an Acronis Hotfix, its release notes (changes and enhancements to be applied to the product) will be displayed below.

Note, if a new Acronis Small Office Backup update is available, Acronis Hotfixes will not be displayed since each update contains all hotfixes released before.

After selecting Acronis Hotfixes you want to install, click **Download and Install** button. Also, if you select **Do not notify me about the unselected hotfixes in the future** option, a hotfix window will not appear at the program startup until a new hotfix is available. Though, if you check for updates manually (**Help -> Check for updates**), the window will appear even when this option is selected.

After all selected Acronis Hotfixes are installed, click **Close and run** button to start the product.

1.1.10 Technical Support

Maintenance and Support Program

If you need assistance with your Acronis product, please go to <http://www.acronis.com/support/>

Product Updates

You can download the latest updates for all your registered Acronis software products from our website at any time after logging into your **Account** (<https://www.acronis.com/my>) and registering the product. See **Registering Acronis Products at the Website** (<http://kb.acronis.com/content/4834>) and **Acronis Website User Guide** (<http://kb.acronis.com/content/8128>).

1.2 Program workspace

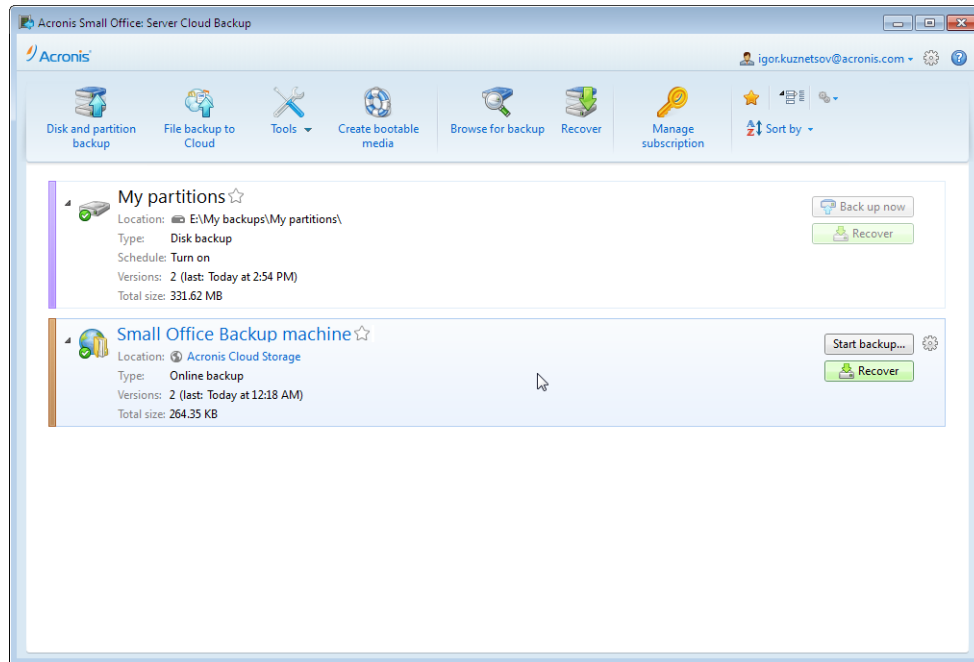
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1.2.1 Main window

The main window provides quick access to all of the program functionality.

If you have not created any backups yet, the program will offer to create a new backup or add an existing backup. If you have at least one backup, the screen will display the list of your backups.



The toolbar

See the toolbar commands description in Toolbar (p. 18).

The backups area

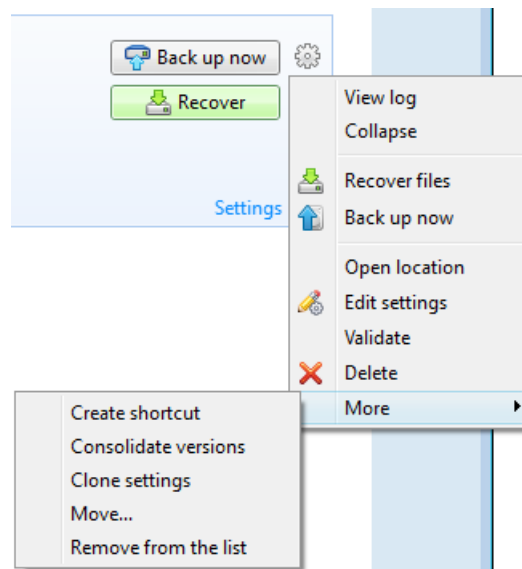
The area shows the backups you already have. It provides access to all operations with the existing backups and allows you to start recovery of your data.

- **Back up now** - adds a new backup version to the existing backup or replaces the existing backup version, depending on the backup scheme being used.
- **Recover** - click to recover data.

When a backup box is collapsed, the backup and recovery operations can be started by clicking the appropriate icons. These icons, along with the Operations menu icon (a gear), appear when you move the pointer over a box area.

You can collapse and expand the backup box by clicking the triangle near a backup name.

Operations menu



Clicking the gear icon in the box of a selected backup or right-clicking in the free area of the box opens an Operations menu containing the following items:

- **View log** - click to open the log for the current backup.
- **Expand** - expands the selected backup box (available for collapsed boxes).
- **Collapse** - collapses the selected backup box into a narrow stripe (available for expanded boxes).
- **Recover files** (available only for disk backups) - opens the **Backup Explorer** window, where you can select any version of the backup.
- **Back up now** - adds a new backup version to the existing backup or replaces the existing backup version, depending on the backup scheme being used.
- **Open location** - opens the folder containing the backup files.
- **Edit settings** - allows editing of the current backup settings.
- **Recover** (available for Online Backup only) - opens the Acronis Cloud application.
- **Clean up** (available for Online Backup only) - opens a dialog box where you can choose whether you want to delete the backup files only or both the backup files and settings. Note that the backup box will remain in the backup list in both cases.
- **Recreate backup settings** - allows configuring the settings for backups that were manually added to the backup list. For example, this item may appear for backups created on another computer. Without backup settings, you will be unable to perform certain operations. Specifically, you cannot refresh the backup by clicking **Back up now**. Also, you cannot edit and clone the backup settings and schedule.
- **Validate** - starts backup validation.
- **Delete** - opens a dialog box where you can choose whether you want to delete the backup completely or the backup box only. In the last case, the backup files will remain in the location, and you will be able to add the backup to the list later. Note that if you delete a backup completely, the deletion cannot be undone.
- **More** - opens the following additional items:
 - **Create shortcut** - creates a shortcut on the Desktop. With the shortcut you can run a backup without starting Small Office Backup.

- **Consolidate versions** - you can delete the backup versions you no longer need while maintaining the consistency of the backup.
- **Clone settings** - clones the current backup settings when you need to create several similar backups. Clone the backup settings and then introduce the required changes.
- **Move...** - click to move all the backup files to another location. The subsequent backup versions will be saved to the new location.

If you change the backup destination by editing the backup settings, only new backup versions will be saved to the new location. The earlier backup versions will remain in the old location.





- **Remove from the list** - removes the current backup from the backup list shown in the My backups area. This operation also turns off the scheduling of the removed backup (if a schedule was set), but it does not delete the backup files.
- **Recover** (available for Online Backup only) - opens the Acronis Cloud application.

In case of online backup, the Operations menu will have less items. The Operations menu of backups created on another computer and added to the backup list without importing the backup settings will also have less items.

1.2.1.1 Toolbar

The toolbar at the top of the window contains the most frequently used commands for creating new backups, managing the backup list, validating backups, etc.

Command		Description
Disk and partition backup		This feature allows you to protect your computer by creating backups of your partitions (including the system one) and whole disks.
File backup to Cloud		This feature allows you to store your data in the secure Acronis Cloud which is accessible via the Internet.
Manage subscription		Clicking this button opens a webpage that allows you to view your cloud storage state, update your subscription, change tariff, etc.
Tools	Mount/Unmount image	With this tool you can explore a previously created image.
	Add new disk	This feature allows you to add a new hard disk drive to your computer.
	Acronis Startup Recovery Manager	This feature allows you to start Acronis Small Office Backup without loading the operating system by pressing F11 at boot time before the operating system starts.
Create bootable media		If your computer cannot start, use bootable rescue media to run the standalone version of Small Office Backup, and recover your system from a previously created system partition backup.

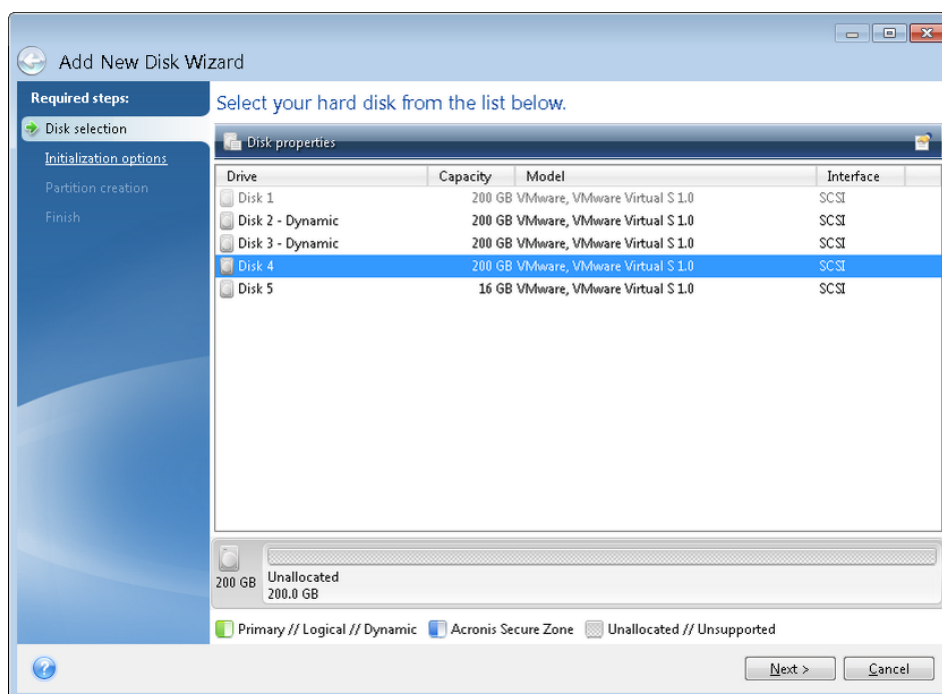
Browse for backup			Click this item to browse for backups on your computer and add them to the backup list. This may be useful when you have backups created on another computer.
Recover			Click this item to recover data from your backups and then select the backup that contains the required data.
Show only my favorite backups 			This icon filters the backups which you have marked as favorite.
Expand all backup boxes 			This icon expands all collapsed backup boxes.
Collapse all backup boxes 			This icon collapses all expanded backup boxes into narrow stripes.
Sort by	Type		This command sorts all backups by types.
	Name		This command sorts all backups in alphabetical order.
	Date created		This command sorts all backups starting from the newest down to the oldest.
	Date updated		This command sorts all backups by date of the last version. The newer the last backup version, the higher the backup will be placed in the list.
	Total size		This command sorts all backups by size, starting from the biggest down to the smallest.
	Scheduling type		This command sorts all backups into two groups - backups with a schedule and backups without a schedule, which can be started only manually.
	Execution result		This command sorts all backups
 More features	Explore all backups		This command allows you to explore all your backups in the Acronis Backup Explorer using the time line.
	Validate all backups		This command checks the integrity of all your backups.
	Update backup list		Click to search for lost backups.
	Remove from the list	All backups	This command removes all backup boxes from the backup list. The removed backups can be returned to the list by using the Browse for backup tool.

		Not-backe d-up-yet boxes	This command removes all "empty" backup boxes from the backup list. Be careful because, after removal, such backup boxes cannot be returned to the list.
--	--	---	--

1.2.2 Wizards and notification area icons

When you use the available Acronis Small Office Backup tools and utilities, the program will in many cases employ wizards to guide you through the operations.

Wizards have a sidebar listing all the steps (both required and optional) needed for completing the operation. For example, see the screen shot below.



The completed steps are marked with green checkmarks. The green arrow shows the current step. After you complete all the required steps and come to the **Finish** step, the program displays the Summary screen. Check the summary of the operation to be performed and then click **Proceed** to start the operation.

Taskbar notification area icons

During most of the operations, special indicator icons appear in the Windows taskbar notification area (the right portion of the status bar with the clock). If you mouse over the icon, you will see a tool tip indicating the operation's progress or state. Right-clicking on the icon opens a shortcut menu where you can change the operation's status or cancel the operation if necessary. This icon doesn't depend on the main program window being open. It is present for background execution of scheduled backups as well.

1.2.3 Acronis Backup Explorer

The Acronis Backup Explorer provides you with a wealth of information on your backups: backup types, backup versions number, dates, contents, backup results, etc. In addition, the Backup Explorer

allows you to explore and recover backed up data (both partitions and individual files and even file versions). It also allows for operations with backups - you can validate them, mount images as disks, and delete backup versions you no longer need.

Let's have a closer look on the Acronis Backup Explorer. It has two tabs for viewing backups and their content: **Disks and partitions** and **Files and folders**.

1.2.3.1 Disks and partitions tab

The **Disks and partitions** tab shows the backed up disks and partitions that the selected backup version contains.

The tab shows the disks and partitions state of when the current backup version was created.

You can switch between the backup versions by using the time line at the bottom of the screen. For more information see Time line (p. 23).

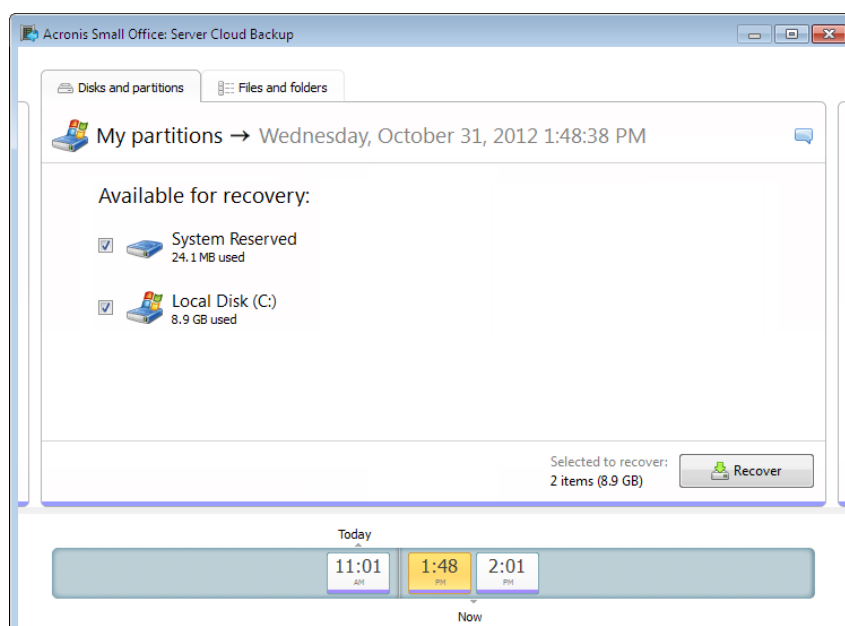
To recover disks and/or partitions:

1. On the time line, select the backup version from which you want to recover your disks/partitions.
The version's exact date and time will be displayed near the backup name. Your data will be recovered to the state it was at that point in time.
2. Select the corresponding check boxes of the disks or partitions you want to recover.
3. Click the **Recover** button.

To recover specific files and folders from the disk/partition backups:

1. Click the **Files and folders** tab.
2. Select files and folders you want to recover.
3. Click the **Recover** button.

For more information on recovering files and folders see Files and folders tab (p. 22).



Right-clicking on a backup version opens the shortcut menu with other available operations:

- **Recover** - select to recover the current backup version.
- **Validate** - select to check the integrity of the backup version data.
- **Mount** - select to mount the backup version as a disk.
- **Delete version** - select to delete the backup version (the backup chain will not be corrupted).
- **View** - select to set up the time line to show some additional information.

To find a file or folder you need to recover, type the file or folder name in the search field.

Both tabs also show backup comments, and allow for adding, editing and deleting comments to the selected backup version. If a backup version does not have comments, click the **Add comment** icon, then type your comments in the comments area and click the **Save** icon. If there is already a comment, you can edit it after clicking the **Edit** icon. Having finished editing, click the **Save** icon to save the changed comment or the **Cancel** icon to cancel the changes.

1.2.3.2 Files and folders tab

The **Files and folders** tab shows the backed up files and folders contained in the selected backup version. The left-hand area of the tab shows a directory tree and the right-hand area - the contents of a selected directory tree item.

The tab shows the files and folders states of when the current backup version was created. You can switch between the backup versions by using the time line at the bottom of the screen. For more information on using the time line see Time line (p. 23).

To recover files and/or folders:

1. On the time line, select the backup version, from which you want to recover your files/folders. The version's exact date and time will be displayed near the backup name. Your data will be recovered to the state it was at this point in time.
2. Select the corresponding check boxes of the files and folders you want to recover (see selection rules below). Short information about the selected items (their number and total size) will be displayed near the **Recover** button.
3. Click the **Recover** button.

You can also recover files and folders by dragging them to your Desktop or into a selected folder in Windows Explorer.

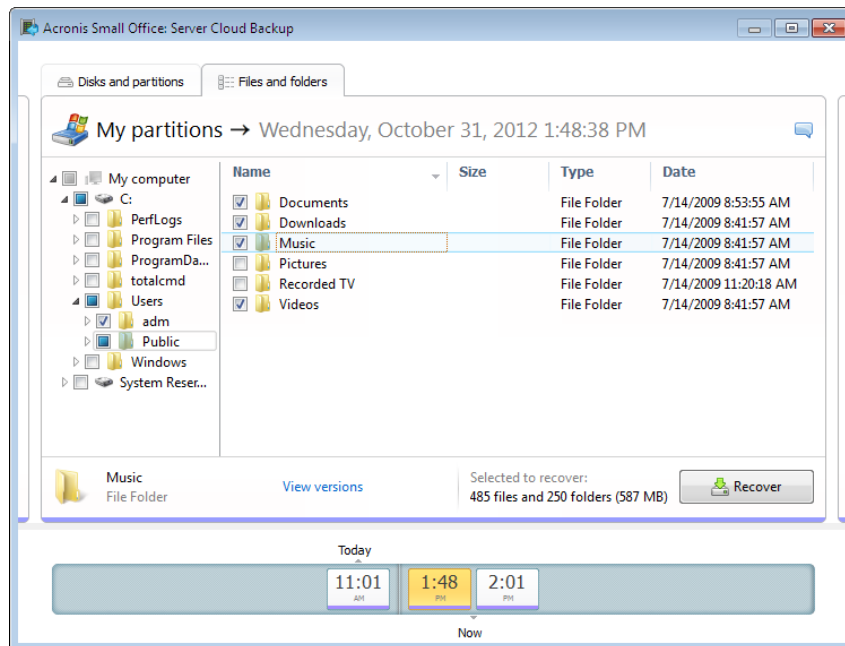
You cannot recover files by dragging them to an FTP, recordable CD/DVD or other optical media, as well as mounted ISO files.

Selection rules

Check boxes that correspond to the items may be in the following states:

- **Selected** (check mark in square) - this state indicates that the item is selected for recovery. A selected folder means that all items in the folder are selected.
- **Cleared** (clear square) - this state indicates that the item is not selected.
- **Mixed** (filled square) - this state is available for folders only and indicates that some items in the folder are selected and the others are not. Note that you cannot set the state by clicking the check box, but you can change it to a cleared or selected state.

Selecting a disk, partition, file or folder to make it the current item in a list does not mean selecting it for recovery!



The majority of user interface elements located on this tab are described in the Disks and partitions tab (p. 21) section. Here we describe the items specific for the tab.

When you click an item, short information on this item is displayed under the browser area. The set of displayed parameters depends on the item's type. Clicking the **View versions** link opens the View Versions window with a list of all versions of the file in the backup. You can recover a desired version by its backup time.

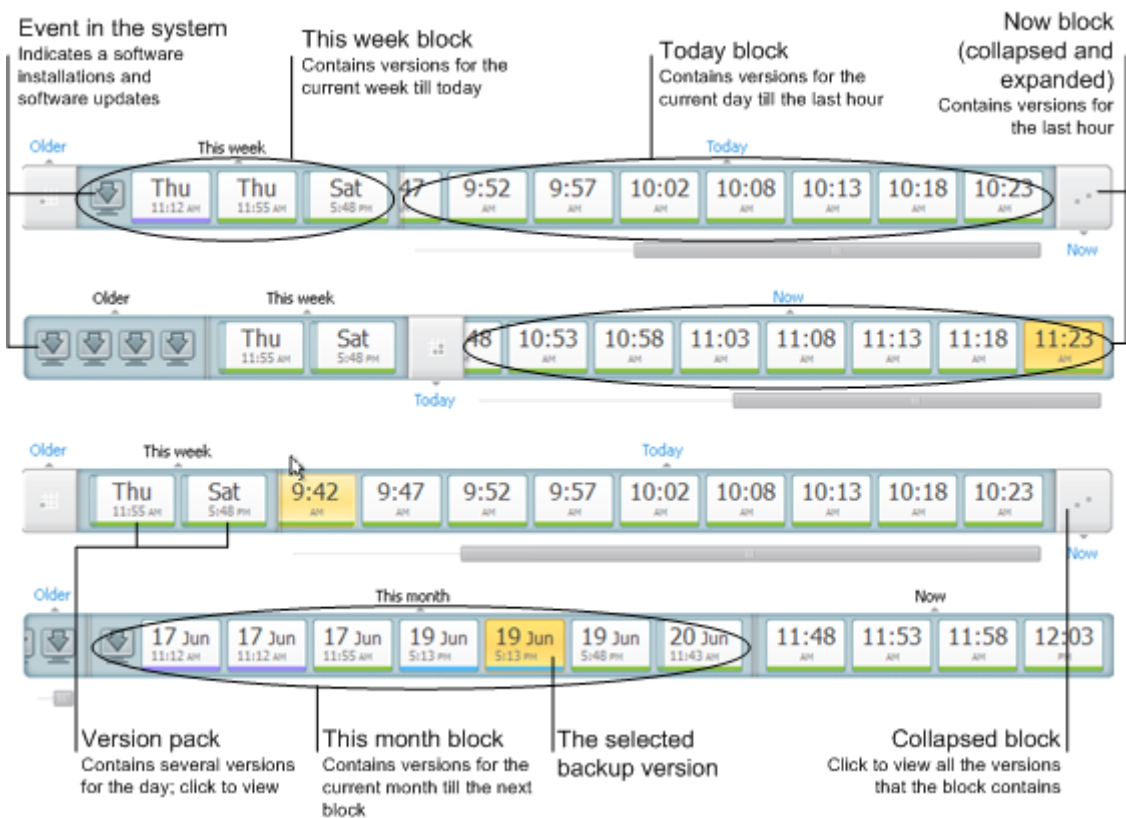
By double-clicking on a file in the right-hand area, you will recover the file to a temporary folder. Then Acronis Small Office Backup will open the file using the associated application.

1.2.3.3 Time line

Usually the time line at the bottom of Acronis Backup Explorer screen shows information on the backup versions stored in the selected backup. The time line provides easy navigation through backup versions and allows you to recover your data to the state it was in at a certain date and time.

The squares that represent backup versions have colored stripes at the bottom. The color of the stripes depends on the backup types (violet for disk backups, and brown for other backups).

The picture below shows various states of a time line. The states vary depending on the number of backups and the time interval through which you are navigating.



The "Now" interval shows backup versions created during the last hour.

The "Today" interval shows backup versions created from the beginning of the current day to the last hour.

The "week" interval can be named either "Week ago" or "This week".

When today is Monday, Tuesday or Wednesday, the "week" interval is named "Week ago". In such cases, the time line shows backup versions created during the previous week and from the beginning of the current week to the beginning of today.

When today is Thursday, Friday, Saturday or Sunday, the "week" interval is named "This week". In such cases the time line shows backup versions created from the beginning of the current week to the beginning of today.

The "month" interval can be named either "Month ago" or "This month".

When today is any date from the 1st to 15th day of the month, the "month" interval is named "Month ago". In that case the time line shows backup versions created during the previous month and from the beginning of the current month to the "week" interval.

When today is any date from the 16th to 31st day of the month, the "month" interval is named "This month". In that case the time line shows backup versions created from the beginning of the current month to the "week" interval.

The "This year" interval shows backup versions created from the beginning of the current year to the "month" interval.

The "Older" interval shows backup versions created from earlier than the beginning of the current year.

Working with time intervals and backup versions

Time intervals may be expanded (when the number of backup versions fits onto the time line) or folded into a square "block". When a time interval is expanded, the squares representing backup versions may contain a "warning" or "error" icon. Such an icon indicates that warning(s) or error(s) have been written into the Log during version creation.

If more than one backup version has been created during a day within "week", "month", "year", or "older" time interval, such a date is shown on the time line using a special "version pack" icon.

If you hover over a folded block for more than half a second, a balloon will show the information about the time interval start, its end, and the number of backup versions it contains.

If you hover over a backup version within an expanded time interval, a balloon will show more detailed information about the backup version.

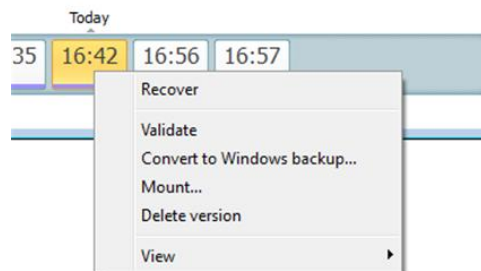
Clicking on a folded block or its name above or below the time line expands the corresponding time interval. If the number of backup versions within the time interval is too big to fit onto the time line, the horizontal scroll line allows you to navigate through the backup versions within the time interval.

If you select another folded block and there is no room for displaying all backup versions of the newly expanded block, then the current expanded block will collapse.

By clicking on a backup version, you select it in the Backup Explorer.

Shortcut menus

Right-clicking on the time line opens the shortcut menu. The menu contents will change depending on the selected item.



Backup version:

- Recover
- Validate
- Mount...
- Delete version

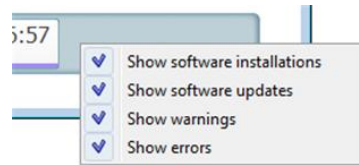
Backup version packs and time blocks:

Right-clicking on a folded version pack or time interval's block opens the shortcut menu with a single item:

- Expand

Viewing additional information on the time line

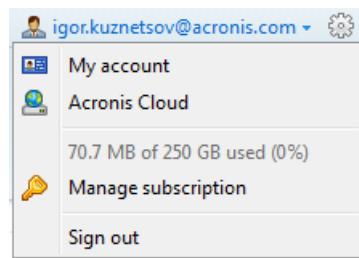
You can also set up the time line to show additional information. The appropriate commands are available in the **View** submenu. The **View** submenu is opened by right-clicking on a backup version or by right-clicking on time line's free space.



- **Show software installations** - if this item is selected, the time line shows icons that indicate moments when new programs have been installed on your computer.
- **Show software updates** - if this item is selected, the time line shows icons that indicate updates of Windows and programs installed on your computer.
- **Show warnings** - if this item is selected, the time line shows all the backup versions that have been suspended or completed with warning messages (selected by default).
- **Show errors** - if this item is selected, the time line shows failed backup versions and backup versions that have completed with errors.

1.2.4 Sign-in menu

Clicking **Sign in** opens a window for signing in to your Acronis account. After you sign in, the **Sign in** item is replaced by the e-mail address of your account.



Clicking the e-mail address of your account opens a menu with the following items:

- **My account** – click to go to the screen where you can view and change your account information.
- **Acronis Cloud** – click to go to your account page on the Acronis website.
The line below shows the percentage of your used space on Acronis Cloud.
- **Manage subscription** – click to open a webpage where you can view the subscription state, change tariff plan and renew your current subscription.
- **Sign out** – click to sign out from the current account. This may be useful if you have more than one account.

1.2.5 Settings menu

With the Settings menu you can make or change some settings of Small Office Backup. To open the menu, click the gear icon at the upper-right corner of the program screen. The Settings menu contains the following items:

- **View log** - opens the log of Small Office Backup operations.

- **Customer Experience Program** - allows joining or leaving Acronis Customer Experience Program. For more information on the program click the **Learn more** link in the opened window.
- **Timeout settings** - allows you to specify the time interval the program should wait for your response. For more information see Timeout settings (p. 131).

1.2.6 Help menu

The Help menu allows you to open the program's Help, perform certain operations, view product's build number, etc. To open the menu, click the question mark icon at the upper-right corner of the program screen. The Help menu contains the following items:

- **Help** - opens the program's Help.
- **Generate system report** - click to generate an Acronis system report for sending to Acronis Customer support.
- **Customer support** - takes you to Acronis Customer support Web page.
- **Check for updates** - click to check for Small Office Backup updates (you can also disable or enable automatic checking for updates by selecting or clearing the **Automatically check for updates at startup** check box).
- **Activate** - click to activate the product.
- **Upgrade to full version** - click to buy the full version of the product if you are using the trial version.
- **Acronis Web site** - takes you to the Acronis Web site.
- **About Acronis Small Office Backup** - shows information about Small Office Backup including the product's serial number and build number.

2 Backing up data

In this section

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2.1 What is a disk/partition image?

When Small Office Backup backs up a disk or partition, it stores a sector-by-sector snapshot of the disk or partition. This includes the operating system, registry, drivers, software applications, data files, and system areas hidden from the user. This procedure is called "creating a disk image," and the resulting backup is often called a disk/partition image.

By default Acronis Small Office Backup stores only the hard disk sectors that contain data.

Furthermore, Acronis Small Office Backup does not back up pagefile.sys and hiberfil.sys (a file that keeps RAM contents when the computer goes into hibernation). This reduces image size and speeds up image creation and recovery.

A partition image includes all files and folders (including hidden and system files), boot record, and FAT (file allocation table). It also includes files in the root directory and the zero track of the hard disk with the master boot record (MBR).

A disk image includes images of all disk partitions and the zero track with the MBR.

2.2 Full, incremental and differential backups

Acronis Small Office Backup offers you three backup methods:

- 1) **Full**: contains all of the data at the moment of the backup creation. It forms a base for further incremental or differential backups. It can also be used as a standalone backup.
- 2) **Incremental**: Only those files will be included which have been changed since the LAST backup.
- 3) **Differential**: Only those files will be included which have been changed since the last FULL backup.

We suggest you to choose one of the following three approaches of using the backup methods:

"Full" - A standalone full backup might be an optimal solution if you often roll back the system to its initial state or if you do not like to manage multiple files.

"Incremental" - These are most useful when you need frequent backups and the ability to roll back to a specific point in time. Having created a full backup once, if you then create an incremental backup each day of a month, you will get the same result as if you created full backups every day of the month. As a rule, incremental backups are considerably smaller than full or differential backups.

Such a backup scenario may consist of a weekly full system backup with intermediate, daily backups that cover data that was changed since the LAST backup.

This scenario, while requiring less storage space and time for the daily backups, will require more work for the program to provide recovery after a system crash. In the event of a Thursday crash, the program would have to recover the Wednesday, Tuesday, and Monday incremental backups and the last FULL backup.

"Differential" – is an intermediate between the first two approaches. Each differential backup includes all the files changed since the last full backup. It takes less time and space than "Full", but more than "Incremental". The good thing is that recovering is simpler than for (2) - the program will have to recover the last differential backup and the last full backup.

To choose a desired backup method, you usually need to configure a custom backup scheme. For more information see Custom schemes (p. 36).

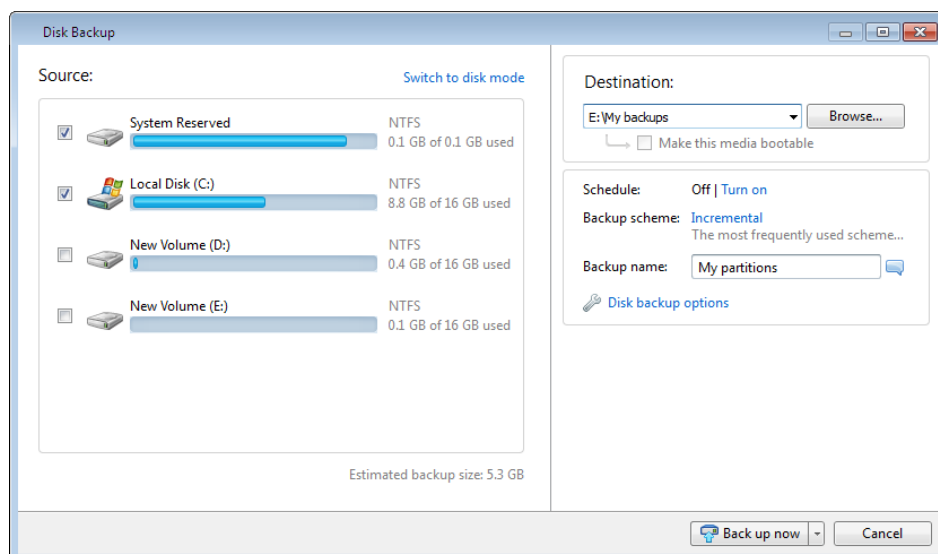
An incremental or differential backup created after a disk is defragmented might be considerably larger than usual. This is because the defragmentation program changes file locations on the disk and the backups reflect these changes. Therefore, it is recommended that you re-create a full backup after disk defragmentation.

If you lose an incremental backup or it becomes corrupted, all later incremental backups will be unusable.

2.3 Backing up partitions and disks

To back up partitions or disks:

1. Start Small Office Backup and click **Disk and partition backup**. This opens the **Disk Backup** window.



2. Select a partition to back up by selecting the corresponding check box. If you want to back up more than one partition, select all their check boxes in the list. If the disk has several partitions and you want to back up the whole disk, click **Switch to disk mode** in the upper-right corner and

then select the disk's check box. To return to the partition selection, click **Switch to partition mode**.

3. Select a destination for backup (you can leave the default destination when it suits you or browse for a destination after clicking the **Browse** button).

You will not be able to change the selected destination after creating the first backup version.

When the backup destination is any removable media (USB stick, BD, DVD...), the **Make this media bootable** check box becomes selectable. Selecting the check box results in creating a bootable recovery environment on the removable media and adding a standalone Small Office Backup version. You will be able to run Small Office Backup from the removable media on a bare-metal system or the crashed computer that cannot boot.

If possible, avoid storing your system partition backups on dynamic disks, because the system partition is recovered in the Linux environment. Linux and Windows work with dynamic disks differently. This may result in problems during recovery.

4. [optional step] If you need the backup to run on a schedule, click the link to the right of **Schedule**, turn on scheduling and set the required schedule. For more information see Scheduling (p. 82).
5. [optional step] You can also change the default backup scheme by clicking on the appropriate link. For more information see Backup schemes (p. 35).

You cannot change the backup scheme when backing up to optical media such as a DVD/BD. In this case, Small Office Backup by default uses a custom scheme with only full backups. This is because the program cannot consolidate backups stored on optical media.

6. [optional step] You can exclude hidden or system files and folders from backup, as well as files matching the criteria you specify. For more information see Excluding items from backup (p. 47).
7. [optional step] If you would like to assign a specific name to the backup, type the name in the **Backup name** field instead of the default one.

You can also add useful information to the backup name. To do so, click the **Browse** button and select the items you want to add in the right field of the File name line:

- add date - the backup creation date will be added
- add time - the backup creation time will be added
- add user name - the current user name will be added
- add machine name - the computer name will be added
- add task name - the name of the task that includes the backup will be added
- add task run number - the sequence number of the task run will be added

8. [optional step] Click **Disk backup options** to set the options for the backup being configured. For example, when your data disk contains sensitive information, you may want to protect the information by encryption. You can also choose to validate the backup immediately after its creation, though it can be done later. For more information see Backup options (p. 33).
9. When you set up the backup as needed, you can run it immediately by clicking the **Back up now** button. If you want to run the backup later or on a schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list to save the settings you have made.

2.4 Making reserve copies of your backups

You can create reserve copies of your backups and save them on the file system, a network drive, or a USB flash drive. A reserve copy may help you if the main backup becomes corrupted or if the storage of the main backup fails.

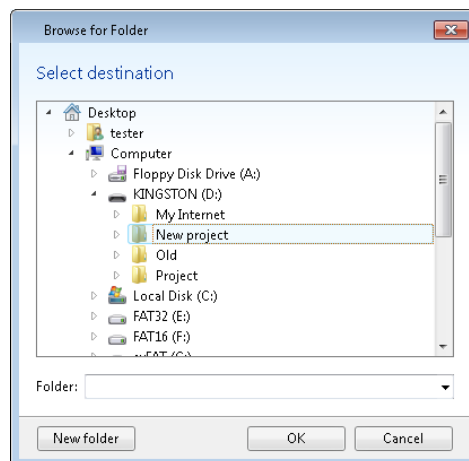
In addition to enhancing the backed up data security with replication, this feature allows you to copy a set of documents, for example, to a USB stick for working on them at home. So now you can perform a normal backup and copy the same files to a USB stick or any local hard drive.

A reserve copy always contains all the files selected for backup, that is, when creating a reserve copy the program always makes a full backup of the source data. You cannot make a reserve copy in the form of an incremental or differential backup.

Also remember that the operation will take more time, because normal backup and reserve copying are performed one after another and not simultaneously. Furthermore, you will need more storage space or an additional storage device.

For example, to make a reserve copy of some files on a USB stick:

1. While configuring a backup, click the **Disk backup options** link, expand the **Backup reserve copy** item and then select the **Create a reserve copy of my backups** box. This opens the **Browse for folder** window.
2. Select the destination and create a folder for a reserve copy by clicking the **New folder** button.



3. Finish configuring your backup as usual.
4. Click **Back up now**.

Please be aware that CD/DVDs are not supported as locations for reserve copies.

2.5 How to make bootable removable media with a backup

While configuring a disk or partition backup on removable media, you can make the media bootable. Small Office Backup can make the following media bootable:

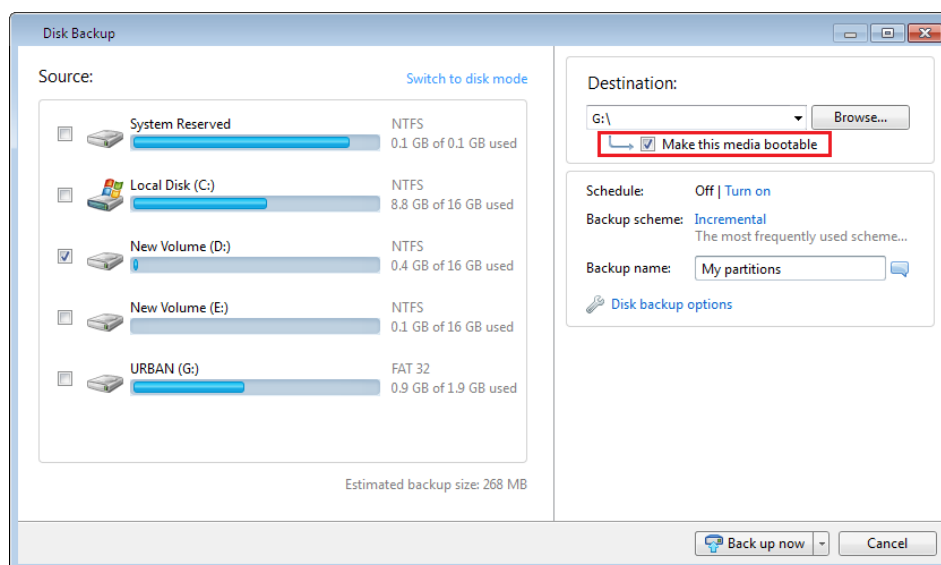
- DVD/BD
- USB flash drive formatted in FAT32

This may be a viable option if your backup is not very large. For example, we strongly recommend not to back up to DVDs if the number of discs used will be more than three. If your backup takes several DVDs, recovery will require a lot of disc swapping.

Here is the procedure to use:

1. Start Small Office Backup and click **Disk and partition backup**.
2. Select a partition or the whole disk to back up.
3. As a backup destination, select the removable media (DVD/BD/Flash drive)
4. Select the **Make this media bootable** check box:

If you select an internal or external hard disk as the destination, this option will be disabled.



5. Click **Back up now**.

If the backup does not fit one disc (for example, DVD), the file will be split into several volumes. The first disc will be the bootable one.

If you plan to perform this backup regularly, you can make the appropriate settings in the **Disk backup options**. See Removable media settings (p. 43).

Bootable media with a backup file can only be created when using Small Office Backup in Windows. It is impossible to create such media in a bootable environment.

Additional information

Sometimes Small Office Backup may not recognize a USB flash drive as suitable for making it bootable. In such a case, you can try to prepare the drive. See How to prepare a USB flash drive for Acronis Media Builder (p. 103).

Though Small Office Backup cannot make a bootable USB hard disk, you may try using third-party tools. For example, see the procedure suggested by MudCrab, an Acronis Forum MVP at http://www.themudcrab.com/acronis_grub4dos.php.

2.6 Adding an existing backup to the list

If you have backups that are not shown in the backups list (for example, backups created on another computer), you can add them manually.

To add a backup to the backup list:

1. Click **Browse for backup**.
2. In the opened window, select the backup you want to add.
3. Click the **Add to backup list** button.

2.7 Deleting backups and backup versions

You may want to delete backups and backup versions you no longer need. Acronis Small Office Backup stores information on the backups in a metadata information database.

Therefore, deleting unneeded backup files in Windows Explorer will not delete information about these backups from the database, and Acronis Small Office Backup will consider that they still exist.

This will result in errors when the program tries to perform operations on the backups that no longer exist. So you must only remove obsolete backups and backup versions by using the tools provided by Acronis Small Office Backup.

To delete an entire backup:

1. Start Small Office Backup.
2. On the corresponding backup box, click the gear icon to open the Operations menu and then click **Delete**.

When you delete an entire backup, all its versions will be deleted as well.

To delete a specific backup version:

1. Start Small Office Backup.
2. On the corresponding backup box, click the gear icon and then click **Recover files**.
3. In Backup explorer, right-click on the time line the version you want to delete, and then click **Delete version**.

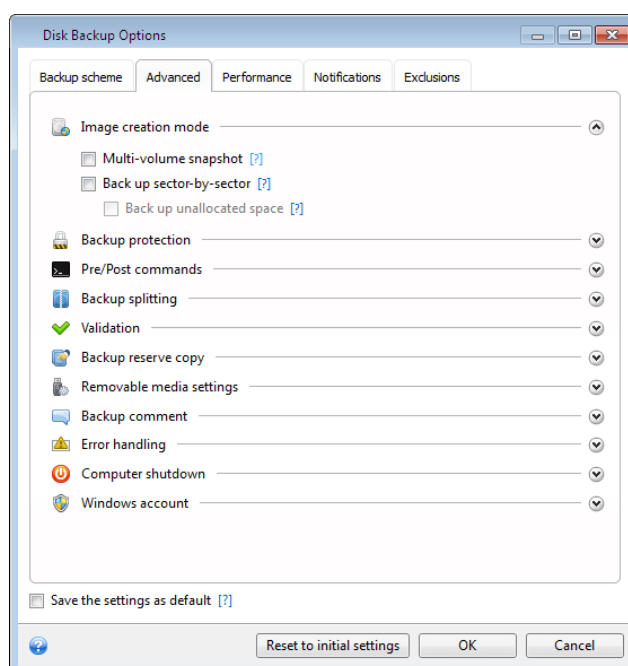
When you delete a backup version, please remember that this version may have dependent versions. In this case the dependent versions will be deleted as well, because data recovery from such versions becomes impossible.

- **If you delete a full backup version** - the program will also delete all subsequent incremental and differential versions till the next full version.
- **If you delete an incremental backup version or a differential backup version** - the program will also delete all subsequent incremental versions till the next full or differential version.

2.8 Backup options

In the **Disk Backup Options** and **Online Backup Options** windows you can configure options for a disk/partition and online backup processes respectively. To open the options window, click the appropriate link.

After you have installed the application, all options are set to the initial values. You can change them for your current backup operation only or for all backups that will be created in future. Select the **Save the settings as default** check box to apply the modified settings to all further backup operations by default.



Note that options of each backup type are fully independent, and you should configure them separately.

If you want to reset all the modified options to the values that were set after the product installation initially, click the **Reset to initial settings** button.

In this section

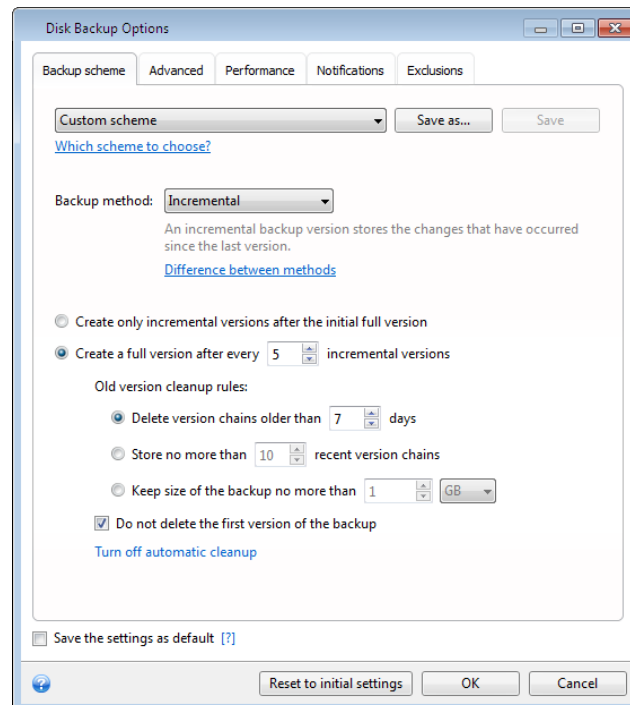
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2.8.1 Backup schemes

Backup schemes along with the scheduler help you to set up your backup strategy. The schemes allow you to optimize backup storage space usage, improve data storage reliability, and automatically delete the obsolete backup versions.

Backup scheme defines the following parameters:

- Backup methods that will be used to create backup versions (full, differential or incremental)
- Sequence of the backup versions created using different methods
- Version cleanup rules



Acronis Small Office Backup allows you to choose the following backup schemes:

- **Single version** (p. 35) - select this scheme if you want to use the smallest backup storage.
- **Version chain** (p. 36) - this may be the optimal scheme in many cases.
- **Incremental** - select this scheme if you want to create only incremental backups after an initial full backup (this is the default scheme).
- **Differential** - select this scheme if you want to create only differential backups after an initial full backup.
- **Custom** (p. 36) - select this item if you want to set up a backup scheme manually.

2.8.2 Single version scheme

The program creates a full backup version and overwrites it every time according to the specified schedule or when you run backup manually.

Backup scheduler setting: monthly.

Result: you have a single up-to-date full backup version.

Required storage space: minimal.

2.8.3 Version chain scheme

At first the program creates the 1st full backup version. The version will be kept until you delete it manually. After that, according to the specified schedule (or when you run backup manually) the program creates: 1 full and 5 differential backup versions, then again 1 full and 5 differential backup versions and so on. The versions will be stored for 6 months. After the period the program analyzes if the oldest backup versions (except the 1st full version) may be deleted. It depends on the minimum number of versions (eight) and version chains consistency. The program deletes the oldest versions one by one after creating new versions with the same backup method (for example, the oldest differential version will be deleted after creation of the newest differential version). First of all the oldest differential versions will be deleted, then - the oldest full version.

Backup scheduler setting: monthly.

Result: you have monthly backup versions for the last 6 months plus the initial full backup version that may be kept for a longer period.

Required storage space: depends on the number of versions and their sizes.

2.8.4 Custom schemes

With Acronis Small Office Backup you also can create your own backup schemes. Schemes can be based on the pre-defined backup schemes. You can make changes in a selected pre-defined scheme to suit your needs and then save the changed scheme as a new one.

You cannot overwrite existing pre-defined backup schemes.

In addition, you can create custom schemes from scratch based on full, differential or incremental backup versions.

So first of all select one of the backup methods in the appropriate box.

- **Full (p. 28)**
Select this method if you want to create only full backup versions.
- **Differential (p. 28)**
Select this method if you want to create backup chains containing only full and differential backup versions.
You can configure the scheme by using one of the following options:
 - **Create only differential versions after the initial full version** - select this item to create only one backup version chain. Automatic cleanup is not available for this option.
 - **Create a full version after every [n] differential versions** - select this item to create several backup version chains. This is a more reliable but more space-consuming backup scheme.
- **Incremental (p. 28)**
Select this method if you want to create backup chains containing only full and incremental backup versions.
You can configure the scheme by using one of the following options:
 - **Create only incremental versions after the initial full version** - select this item to create only one backup version chain. Automatic cleanup is not available for this option.

- **Create a full version after every [n] incremental versions** - select this item to create several backup version chains. This is a more reliable but more space-consuming backup scheme.

Automatic cleanup rules

To delete obsolete backup versions automatically, you can set one of the following cleanup rules:

- **Delete versions older than [defined period]** (available for full method only) - Select this option to limit the age of backup versions. All versions that are older than the specified period will be automatically deleted.
- **Delete version chains older than [defined period]** (available for incremental and differential methods only) - Select this option to limit the age of backup version chains. The oldest version chain will be deleted only if, after deletion, the age of the oldest version exceeds the specified period.
- **Store no more than [n] recent versions** (available for full method only) - Select this option to limit the maximum number of backup versions. When the number of versions exceeds the specified value, the oldest backup version will be automatically deleted.
- **Store no more than [n] recent version chains** (available for incremental and differential methods only) - Select this option to limit the maximum number of backup version chains. When the number of version chains exceeds the specified value, the oldest backup version chain will be automatically deleted.
- **Keep size of the backup no more than [defined size]** - Select this option to limit maximum size of the backup. After creating a new backup version, the program checks whether the total backup size exceeds the specified value. If it's true, the oldest backup version will be deleted.

The first backup version option

Often the first version of any backup is one of the most valuable versions. This is true because it stores the initial data state (for example, your system partition with recently installed Windows) or some other stable data state (for example, data after a successful virus check).

Do not delete the first version of the backup - Select this check box to keep the initial data state. The program will create two initial full backup versions. The first version will be excluded from the automatic cleanup, and will be stored until you delete it manually.

If you select incremental or differential method, the first backup chain will start from the second full backup version. And only the third version of the backup will be incremental or differential one.

Note that when the check box is selected, the **Store no more than [n] recent versions** check box will change to **Store no more than 1+[n] recent versions**.

2.8.4.1 Managing custom backup schemes

If you change anything in an existing backup scheme, you can save the changed scheme as a new one. In this case you need to specify a new name for that backup scheme.

- You can overwrite existing custom schemes.
- You cannot overwrite existing pre-defined backup schemes.
- In a scheme name, you can use any symbols allowed by OS for naming files. The maximum length of a backup scheme name is 255 symbols.
- You can create not more than 16 custom backup schemes.

After creating a custom backup scheme, you can use it as any other existing backup scheme while configuring a backup.

You can also use a custom backup scheme without saving it. In this case, it will be available only for the backup where it was created and you will be unable to use it for other backups.

If you do not need a custom backup scheme anymore, you can delete it. To delete the scheme, select it in the backup schemes list, click **Delete**, and then click **Delete scheme** in the confirmation window.

The pre-defined backup schemes cannot be deleted.

2.8.4.2 Automatic version consolidation

Automatic consolidation of a backup is enabled by setting the overall limitations for the backup. These limitations include:

- a maximum number of backup versions
- a maximum storage period for the backup files
- a maximum backup size

Automatic backup version consolidation is available only for the incremental and differential methods of the custom backup version scheme.

By default there are no limits set and automatic consolidation is not performed. To enable automatic consolidation, you must select at least one of the limits and either leave its default value or change it according to your needs.

If limits are set, then after creating a backup version the program checks the backup for quota violations, such as exceeding a pre-set maximum number of gigabytes set aside for backup versions and, if any limitation is exceeded, consolidates the oldest backup versions. For example, if you've pre-set your backup to store 50GB of backup files and your backup versions reach 55GB, you have exceeded a quota and the system will respond automatically based on rules that you've already set. This operation creates a temporary file and thus requires disk space. Consider also that the quota must be violated so that the program can detect the violation. Therefore, to be able to consolidate the files, the program needs some space on the disk in excess of the backup quota. The extra amount of space can be estimated as the size of the largest backup version in the backup.

In case of setting a limit on the number of backup versions, the actual number of versions can exceed the maximum number of versions by one. This enables the program to detect quota violation and start consolidation. Similarly, if you pre-set a backup version storage period, for example, 30 days, the program will start consolidation when the oldest backup version is stored for 31 days.

2.8.4.3 Examples of custom schemes

Disk backup “Full version every 2 months + differential version twice a month”

Case: You need to back up your system partition twice a month and create a new full backup version every two months. In addition, you want to use no more than 100 GB of disk space to store the backup versions. Let's see how you can do it using a custom backup scheme.

1. Start Small Office Backup and click **Disk and partition backup**.
2. In the **Disk Backup** window, select your system partition (usually C:), and specify the backup destination. For more information see Backing up partitions and disks (p. 29).

3. Click **Turn on** for the **Schedule** item. In the **Scheduler** window click **Monthly**, and specify, for example, the 1st and 15th days of the month. This will result in a backup version in about every 2 weeks. Then specify a start time for the backup operation.
4. Click **Incremental** next to the **Backup scheme** item (**Incremental** is the default backup scheme).
5. In the **Disk Backup Options** window, make sure that the **Backup scheme** tab is selected.
6. Choose **Custom scheme** instead of **Incremental scheme**.
7. In the **Backup method** box, select **Differential** from the drop down list.
8. Click **Create a full version after every [n] differential versions**, and type or select "3".
In that case the program will first create the initial full backup version (no matter how you set up a backup process, the first backup version will always be the full one), and then 3 differential versions, each one in about two weeks. Then again a full version and 3 differential versions and so on. So every new full version will be created in two months.
9. To limit storage space for the versions, click **Turn on automatic cleanup**.
10. Click **Keep size of the backup no more than [defined size]**, type or select "100" "GB", and click **OK**.

When the total backup size exceeds 100 GB, Acronis Small Office Backup will clean up the existing backup versions to make the remaining versions satisfy the size limit. The program will delete the oldest backup chain consisting of a full backup version and 3 differential backup versions.

11. In the **Disk Backup** window, check that all settings are correct and click **Back up now**. If you want your first backup to be run only at the time you specified in the Scheduler, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list.

2.8.5 Image creation mode

Small Office Backup usually backs up partitions and disk one by one and includes in the backup only those sectors that contain data. In some cases, it can be useful to change this way of image creating. For example you may need to back up a disk containing a non-Windows operating system or data that spans across multiple partitions or disks.

■ Multi-volume snapshot

The option determines whether to take snapshots of multiple volumes at the same time or one by one.

When this option is set to Enable, snapshots of all volumes being backed up will be created simultaneously. Use this option to create a time-consistent backup of data that spans across multiple volumes, for instance for an Oracle database.

When this option is set to Disable, the volumes' snapshots will be taken one after the other. As a result, if the data spans across several volumes, the resulting backup may be not consistent.

■ Back up sector-by-sector

Select this check box to make a sector-by-sector backup.

By default the program copies only the hard disk sectors that contain data. However, sometimes it might be useful to make a full sector-by-sector backup. For example, you have deleted some files by mistake and want to make a disk image before trying to undelete them, because sometimes undeleting may create problems in the file system. Please note that this mode increases processing time and usually results in a larger image file because it copies used and unused hard disk sectors.

■ Back up unallocated space

This option becomes available if you have selected the previous parameter, **Back up sector-by-sector**. By default, while performing sector-by-sector backup, unallocated space is not included into the backup file. Enabling this option will include all unallocated disk space into the backup.

2.8.6 Backup protection

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

To protect the backup:

- Enter the password for the backup into the **Password** field. A password should consist of at least eight symbols and contain both letters (in upper and lower cases preferably) and numbers to make it more difficult to guess.
- Retype the previously entered password into the **Confirm** field.
- To increase the security of your confidential data, you can encrypt the backup with strong industry-standard AES (Advanced Encryption Standard) cryptographic algorithm. AES is available with three key lengths – 128, 192 and 256 bits to balance performance and protection as desired. The 128-bit encryption key is sufficient for most applications. The longer the key, the more secure your data. However, the 192 and 256-bit long keys significantly slow down the backup process.

If you want to use AES encryption, choose one of the following keys:

- **AES 128** - to use 128-bit encryption key
- **AES 192** - to use 192-bit encryption key
- **AES 256** - to use 256-bit encryption key

If you do not want to encrypt the backup and only want to protect a backup with a password, select **None**.

Having specified the backup protection settings, click **OK**.

Note that you cannot change the password of a password-protected backup after the backup was created.

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

2.8.7 Pre/Post commands for backup

You can specify commands (or even batch files) that will be automatically executed before and after the backup procedure.

For example, you may want to start/stop certain Windows processes, or check your data before starting backup.

To specify commands (batch files):

- Select a command to be executed before the backup process starts in the **Pre-command** field. To create a new command or select a new batch file, click the **Edit** button.
- Select a command to be executed after the backup process ends in the **Post-command** field. To create a new command or select a new batch file, click the **Edit** button.

Please do not try to execute interactive commands, i.e. commands that require user input (for example, "pause"). These are not supported.

2.8.7.1 Edit user command for backup

You can specify user commands to be executed before or after the backup procedure:

- In the **Command** field, type-in a command or select it from the list. Click ... to select a batch file.
- In the **Working directory** field, type-in a path for command execution or select it from the list of previously entered paths.
- In the **Arguments** field enter or select command execution arguments from the list.

Disabling the **Do not perform operations until the command's execution is complete** parameter (enabled for Pre commands by default), will permit the backup process to run concurrently with your command execution.

The **Abort the operation if the user command fails** (enabled by default) parameter will abort the operation if any errors occur in command execution.

You can test a command you entered by clicking the **Test command** button.

2.8.8 Backup splitting

Acronis Small Office Backup cannot split already existing backups. Backups can be split only when being created.

Large backups can be split into several files that together make up the original backup. A backup can also be split for burning to removable media.

The default setting - **Automatic**. With this setting, Acronis Small Office Backup will act as follows.

When backing up to a hard disk:

- If the selected disk has enough space and its file system allows the estimated file size, the program will create a single backup file.
- If the storage disk has enough space, but its file system does not allow the estimated file size, the program will automatically split the image into several files.
- If you do not have enough space to store the image on your hard disk, the program will warn you and wait for your decision as to how you plan to fix the problem. You can try to free some additional space and continue or select another disk.

When backing up to a CD-R/RW, DVD-R/RW, DVD+R/RW, BD-R/RE:

- Acronis Small Office Backup will ask you to insert a new disk when the previous one is full.

Alternatively, you may select the desired file size from the drop-down list. The backup will then be split into multiple files of the specified size. That comes in handy when backing up to a hard disk with the view to burning the backup to CD-R/RW, DVD-R/RW, DVD+R/RW or BD-R/RE later on.

Creating images directly on CD-R/RW, DVD-R/RW, DVD+R/RW, BD-R/RE might take considerably more time than it would on a hard disk.

2.8.9 Backup validation option

You can specify the additional validation setting: **Validate backup when it is created**.

When this option is enabled, the program will check the integrity of the recently created or supplemented backup version immediately after backup. When setting up a backup of critical data or a disk/partition backup, we strongly recommend that you enable this option in order to ensure that the backup can be used to recover the lost data.

Regular validation

You can also schedule validation of your backups to ensure that they remain "healthy". By default regular validation is turned on with the following settings:

- Frequency: once a month
- Day: the date when the backup was started
- Time: the moment of backup start plus 15 minutes
- Advanced settings: the **Run the validation only when the computer is idle** check box is selected

Example: You start a backup operation on July 15, at 12.00. The backup version is created at 12.05. Its validation will run at 12.15 if your computer is in the "screen saver" state at the moment. If not, then the validation will not run. In a month, August 15, at 12.15, the validation will start again. As before, your computer must be in the "screen saver" state. The same will occur on September 15, and so on.

You can change the default settings and specify your own schedule. This may be useful if you set a custom backup scheme with incremental backups. For example, you may want to schedule validation of all backup versions (the initial full backup version and subsequent incremental backup versions) once a week.

For more information see Scheduling (p. 82).

2.8.10 Backup reserve copy

Backup reserve copy is an independent full backup version created immediately after a normal backup and containing the same data. You can save reserve copies of your backups on the file system, a network drive, or a USB flash drive.

To make a reserve copy:

1. Select the **Create a reserve copy of my backups** check box.
2. Specify a location for the backup copies.

All options of reserve copies (such as backup compression, backup splitting, etc.) are inherited from the source backup.

A reserve copy always contains all the files selected for backup, that is, when creating a reserve copy the program always makes a full backup of the source data. You cannot make a reserve copy in the form of an incremental or differential backup.

Also remember that you will pay for the enhanced convenience and increased security of your data by the time required for performing the backup because normal backup and reserve copying are performed one at a time and not simultaneously.

Please, be aware that CD/DVDs are not supported as locations for reserve copies.

2.8.11 Removable media settings

When backing up to removable media, you can make this media bootable by writing additional components to it. Thus, you will not need a separate bootable disk.

The following settings are available:

- **Place Acronis Small Office Backup on media**

Acronis Small Office Backup - includes support of USB, PC Card (formerly PCMCIA) and SCSI interfaces along with the storage devices connected via them, and therefore is strongly recommended.

- **Place Acronis System Report on media**

Acronis System Report - the component allows you to generate system report that is used for collecting information about your system in case of any program problem. Report generation will be available before you start Small Office Backup from the bootable media. The generated system report can be saved to a USB flash drive.

- **Place Acronis One-Click Restore on media**

Acronis One-Click Restore is a minimal addition to your bootable media, allowing one-click data recovery from an image backup stored on this media. This means that when booting from the media and after clicking **Recover**, all data will be silently recovered to its original place. No options or selections such as resizing partitions will be possible.

Acronis One-Click Restore can be added to the media only when creating a full backup of an entire hard disk. It cannot be added when creating an incremental or differential backup, as well as backup of a partition. In such case the Place Acronis One-Click Restore on media check box will not be present on the General tab of the current backup options, even if the box is selected in the default Removable media settings.

- **Ask for first media while creating backups on removable media**

You can choose whether to display the Insert First Media prompt when backing up to removable media. With the default setting, backing up to removable media may not be possible if the user is away, because the program will wait for someone to press OK in the prompt box. Therefore, you should disable the prompt when scheduling a backup to removable media. Then, if the removable media is available (for example, CD-R/RW inserted) the backup can run unattended.

If you have other Acronis products installed on your computer, the bootable versions of these programs' components will be offered as well.

Small Office Backup does not support creating bootable media if a flash drive is formatted in NTFS.

2.8.12 Backup comment

This option allows you to add comments to the backup. Backup comments may help you to find the necessary backup later.

If a backup does not have comments, type your comment in the comments area. When a comment already exists, you can edit it after clicking **Edit**.

Note that by default the comment will be assigned to all versions of the backup. You can edit the comment of a specific backup version in Backup Explorer.

2.8.13 Error handling

When the program encountered an error while performing backup, it stops the backup process and displays a message, waiting for a response on how to handle the error. If you set an error handling policy, the program will not stop the backup process and warn you about an error with a message, but will simply handle the error according to the set rules and continue working.

You can set the following error handling policy:

- **Do not show messages and dialogs while processing (silent mode)** (the preset is disabled) - You can enable this setting to ignore errors during backup operations. This feature was mainly designed for unattended backups when you cannot control the backup process. In this mode no notifications will be displayed to you if errors occur during backup. Instead you can view the detailed log of all operations after the backup process finishes.
- **Ignore bad sectors** (the preset is disabled) - This option is present only for disk and partition backups. It lets you run a backup even if there are bad sectors on the hard disk. Although most disks do not have bad sectors, the possibility that they might occur increases during the course of the hard disk's lifetime. If your hard drive has started making strange noises (for example, it starts making quite loud clicking or grinding noises during operation), such noises may mean that the hard drive is failing. When the hard drive completely fails, you can lose important data, so it is high time to back up the drive as soon as possible. There may be a problem though – the failing hard drive might already have bad sectors. If the **Ignore bad sectors** check box is left unselected, a backup is aborted in case of read and/or write errors that could occur on the bad sectors. Selecting this box lets you run a backup even if there are bad sectors on the hard disk ensuring that you save as much information from the hard drive as possible.
- **Repeat attempt if a backup fails** - This option allows you to automatically repeat a backup attempt if the backup fails for some reason. You can configure this option by specifying two settings - number of attempts and time interval between attempts. According to these settings, Acronis Small Office Backup will try to back up your data until the backup is successfully created. But if the error interrupting the backup persists, then the backup will not be created.

This option is not available, when you back up your data to a USB flash drive or USB hard drive.

2.8.14 Computer shutdown

If you know that the backup process you are configuring may take a long time, you may select the **Shut down the computer after the backup is complete** check box. In this case, you will not have to wait until the operation completion. The program will perform the backup and turn off your computer automatically.

This option is also useful when you schedule your backups. For example, you may want to perform backups every weekday in the evening to save all your work. Schedule the backup and select the check box. After that you may leave your computer when you finish your work knowing that the critical data will be backed up and the computer will be turned off.

2.8.15 Windows account

When you create a backup, you can specify a Windows account under which this backup should be performed. This may be useful if your computer is used not only by you, but also by your relatives. In such a case each user often has personal documents, e-mail accounts, settings, and other personal data. By default Acronis Small Office Backup backs up data of the current user. We recommend that you change this setting if the Windows account under which you are currently working is not yours. The program will back up only the data related to the specified account. Data of all other accounts will not be backed up.

To change the current Windows account:

1. Select the **Run backup as different Windows account** check box.
2. Type the account name and password in the appropriate fields.

2.8.16 Performance of backup operation

On the **Performance** tab you can configure the following settings:

Compression level

You can choose the compression level for a backup:

- **None** - the data will be copied without any compression, which may significantly increase the backup file size.
- **Normal** - the recommended data compression level (set by default).
- **High** - higher backup file compression level, takes more time to create a backup.
- **Maximum** - maximum backup compression, but takes a long time to create a backup.

The optimal data compression level depends on the type of files stored in the backup. For example, even maximum compression will not significantly reduce the backup size, if the backup contains essentially compressed files, like .jpg, .pdf or .mp3.

Operation priority

Changing the priority of a backup or recovery process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system, determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free more resources for other CPU tasks. Increasing backup or recovery priority may speed up the process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.

You can set up the operation priority:

- **Low** (enabled by default) - the backup or recovery process will run slower, but the performance of other programs will be increased.
- **Normal** - the backup or recovery process will have the equal priority with other processes.
- **High** - the backup or recovery process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by Acronis Small Office Backup.

Network connection speed limit

If you frequently back up data to network drives or FTP, think of limiting the network bandwidth used by Acronis Small Office Backup.

You can specify the network backup data transfer speed by choosing the following:

- **Limit transfer rate to** - enter the bandwidth limit for transferring backup data in kilobytes per second.

2.8.17 Notifications for backup operation

Sometimes a backup or recovery procedure can last an hour or longer. Acronis Small Office Backup can notify you when it is finished via e-mail. The program can also duplicate messages issued during the operation or send you the full operation log after operation completion.

By default all notifications are disabled.

Free disk space threshold

You may want to be notified when the free space on the backup storage becomes less than the specified threshold value. If after starting a backup Acronis Small Office Backup finds out that the free space in the selected backup location is already less than the specified value, the program will not begin the actual backup process and will immediately inform you by displaying an appropriate message. If the free space becomes less than the specified value while the backup is being run, the program will display the same message.

To set the free disk space threshold:

- Select the **Show notification message on insufficient free disk space** check box
- In the **Size** box, type or select a threshold value and select a unit of measure

Acronis Small Office Backup can monitor free space on the following storage devices:

- Local hard drives
- USB cards and drives

E-mail notification

You can specify an e-mail account that will be used to send you e-mail notifications.

First of all, choose which notifications you want to receive:

- **Send e-mail notifications about the operation state** - select this check box to receive messages about the backup process state.
- **Send disaster recovery plan (DRP) after creating a backup** - select this check box to receive messages containing a detailed list of steps you need to perform to recover your data from each backup.

To specify the e-mail settings:

- Enter the e-mail recipient address in the **To** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the e-mail sender address in the **From** field.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.

- Set the port of the outgoing mail server. By default the port is set to 25.
- If the mail server requires your credentials, select the **Server requires authentication** check box.
 - Enter the user name in the **User name** field.
 - Enter the password in the **Password** field.
- To check whether your settings are correct, click the **Send test message** button.

Additional notification settings:

- To send a notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send a notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send a notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send a notification with full log of operations, select the **Add full log to the notification** check box.

2.8.17.1 Disaster recovery plan

Disaster recovery plan (DRP) is an email message that contains a list of backed up data items and detailed instructions that guide a user through a process of recovering these items from a backup.

If the Disaster recovery plan option is enabled, a DRP is created and sent by e-mail to the specified list of users after the first successful backup. The DRP will be created and sent again after the first successful backup in the following cases:

- The backup settings have been edited so that the DRP parameters changed.
- The backup contains new data items or does not contain items previously backed up.

To set up sending DRPs:

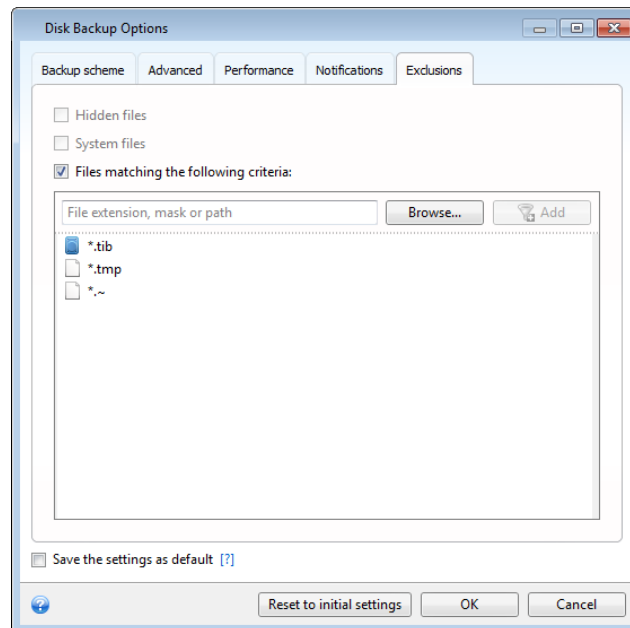
1. In a backup options window, click the **Notifications** tab and then select the **Send disaster recovery plan (DRP) after creating a backup** check box.
2. Configure email settings. See details in Notifications for backup operation (p. 46).

2.8.18 Excluding items from backup

If you want to exclude unnecessary files from a backup, specify the appropriate file types on the **Exclusions** tab of the backup options. You can specify exclusions both for **Disk and partitions backup** and for **Online Backup**.

How to use the default exclusion settings

After you have installed the application, all the exclusion settings are set to the initial values. You can change them for your current backup operation only or for all backups that will be created in future. Select the **Save as default** check box to apply the modified settings to all further backup operations by default. If you want to reset all the modified settings to the values that they were originally set to when the product was installed, click the **Reset to initial settings** button.



What you can exclude and how

1. You can exclude hidden and system files from a backup by selecting the corresponding check boxes.

We do not recommend excluding hidden and system files from the backups of your system partition.

2. You can exclude files meeting the criteria you specify. To do this, select the **Files matching the following criteria** check box, enter the exclusion criterion, and then click **Add**.

By default, the program excludes from backups files with the following extensions: ***.~, *.tmp, and *.tib**.

How to add an exclusion criterion:

- You can enter explicit file names for exclusion from the backup:
 - *file.ext* - all such files will be excluded from the backup.
 - *C:\file.ext* - the file.ext file on the C: disk will be excluded.
- You can use wildcard characters (* and ?):
 - **.ext* - all files with a .ext extension will be excluded.
 - *??name.ext* - all files with a .ext extension, having six letters in their names (starting with any two symbols (??) and ending with *name*), will be excluded.
- To exclude a folder, click **Browse**, select the folder you want to exclude on the directory tree, click **OK**, and then click **Add**.

To delete a criterion, for example, added by mistake, click the Delete icon to the right of the criterion.

2.9 Validating backups

The validation procedure checks whether you will be able to recover data from a particular backup version, so when you select for validation on the time line...

- a full backup version, the program validates the full backup version only.
- a differential backup version, the program validates the initial full backup version and the selected differential backup version.
- an incremental backup version, the program validates the initial full backup, the selected incremental backup version, and the whole chain (if any) of backup versions to the selected incremental backup version. If the chain contains one or more differential backup versions, the program validates (in addition to the initial full backup version and the selected incremental backup version) only the most recent differential backup version in the chain and all subsequent incremental backup versions (if any) between the differential backup version and the selected incremental backup version.

This information can be helpful, for example, when you find out that a backup comprising a full backup version and a chain of incremental ones is corrupted. To troubleshoot the backup, do as follows. First of all validate the full backup version by selecting it on the time line, right-clicking and choosing **Validate** in the shortcut menu. If it is damaged, all the backup chain will be useless. When it is not damaged, proceed to validating incremental backup versions starting from the oldest, until you find the culprit. All incremental backup versions made after the corrupted one will be unusable, but you will be able to recover the data at least from the previous backup versions.

To validate an entire backup:

1. Select the backup to validate, click the gear icon to open the Operations menu and select **Validate**. If the selected backup is password-protected, Acronis Small Office Backup will ask for the password in a dialog box.
2. After you enter the correct password the program will start the validation procedure.
3. When the validation is complete, you will see the result in the line below the backup's box. You can cancel validation by clicking **Cancel**.

2.10 Consolidating backup versions

Using consolidation of backup versions, you can create a consistent copy of backup while deleting selected backup versions. This allows you to delete the backup versions you no longer need from any backup without harming that backup.

Consolidation creates a consistent copy of the backup that does not contain deleted backup versions. If you select a new location for the consolidated backup, the source backup stays as is unless you delete it. This requires more disk space but ensures security of the backup in case the consolidation fails because of power failure or a lack of disk space.

Acronis Small Office Backup cannot consolidate backup versions created when "editing" partition images mounted in the Read/Write mode.

To consolidate backup versions in a backup:

- Start Small Office Backup.

- On the box of the backup you want to consolidate, click the gear icon, point to **More** and then click **Consolidate versions**.
- Follow the wizard's steps.

2.10.1 Archive to consolidate protection

The archive you chose is password-protected in order to prevent it from unauthorized access. You need to specify the previously entered password to obtain access to the archive.

To specify the password:

- Type-in the password in the **Password** field. If you enter the wrong password, the consolidate archive procedure will not be able to continue.
- Click **OK** to continue.

2.10.2 Backup selection

The **Backup selection** window displays a list of backups belonging to the selected archive with the backup creation date and time (like in the Recovery wizard). The top backup is the full backup; the rest are incremental backups.




To select the backups you want to keep:

- Select the backups you want to keep. The other backups will not be included into the consolidated archive. Information on the selected backup (its name, date of creation, type and comments) is displayed on the right pane of the window.
- Click **Next** to continue.

2.10.3 Result location

Specify the place where you want to save the archive copy and its name. By default, the program suggests the same location and the source archive name. Your original archive will be overwritten.

To specify another location for the consolidated archive:

- Select the **New location** item and click the **Browse** button. Specify the location where you want the consolidated archive to be stored to from the drives tree.
If required, you can create a new folder in the selected location (by clicking the  **Create new folder** button), or delete the unnecessary folder (by clicking the  **Delete** button).
- In the **File name** field enter a name for the consolidated archive, or click the  **Generate name** button to generate the name automatically.
- If you don't need the original archive, you may delete it by selecting the **Delete original archive** check box.
- Click **Proceed** to continue.

2.10.4 Consolidation summary

The summary window contains a list of briefly described operations that Acronis Small Office Backup will perform after clicking **Proceed**. If some parameters need to be changed, choose the necessary step in the left part of the window and correct the parameter.

Click the **Proceed** button to start the listed operations.

Click the **Options** button to perform the optional steps.

Click the **Cancel** button to exit the wizard without performing any operations.

2.11 Cloning backup settings

When you already have a backup and you need to create a new backup of the same type, there is no need to configure the backup process from scratch. The program allows you to copy all settings from an existing backup. After that, you only have to slightly correct the copied settings for your new backup and click **Back up now**.

To create a new backup based on an existing backup:

1. Find the corresponding backup box, click the gear icon to open the Operations menu, point to **More**, and then click **Clone settings**.
A new backup box named **(1) [the initial backup name]** will be created. It will contain the same settings as the "parental" backup.
2. On the cloned backup box, click the gear icon to open the Operations menu, and then click **Edit settings**.
3. Change selection of items to back up. You may modify backup name, destination, and other settings if needed.
4. Click the **Save** button.
5. To create the first backup version, click **Back up now** on the backup box.

3 Recovering data

The purpose of data backup is to recover backed up data when the original is lost due to hardware failure, fire, theft or accidental deletion of files.

We hope that you backed up your system and data using the backup features provided by Acronis Small Office Backup. If so, nothing will have been lost.

The following sections describe how to recover disks, partitions, files and folders. In most cases, you will use Acronis Backup Explorer to recover files and folders. For more information, see Acronis Backup Explorer (p. 20).

In this section

Recovering your system after a crash	52
Recovering partitions and disks	56
How to recover more than one partition at once.....	58
Recovering a disk backup to a different disk under rescue media	61
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Backup protection dialog box	74
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3.1 Recovering your system after a crash

When your computer fails to boot, it is advisable to at first try to find the cause using the suggestions given in Trying to determine the crash cause (p. 52). If the crash is caused by corruption of the operating system, use a backup to recover your system. Make the preparations described in Preparing for recovery (p. 53) and then proceed with recovering your system (p. 53).

3.1.1 Trying to determine the crash cause

A system crash can be due to two basic factors. One reason is that your computer will not boot due to a hardware failure. The second reason is that the operating system is corrupted and Windows will not start up.

In the first scenario, it is better to let your service center handle the repairs. However, you may want to perform some routine tests. Check the cables, connectors, power of external devices, etc. Then, restart the computer. The POST (power-on self test) that starts immediately after you turn on your computer, checks your system hardware. If the POST has found a failure, you will need to send the PC for repairs.

If the POST does not reveal a hardware failure, enter BIOS and check whether it recognizes your system hard disk drive. To enter BIOS, press the required key combination (**Del**, **F1**, **Ctrl+Alt+Esc**, **Ctrl+Esc**, or some other, depending on your BIOS) during the POST sequence. Usually the message with the required key combination is displayed during the startup test. Pressing this combination takes you to the setup menu. Go to the hard disk autodetection utility which usually comes under "Standard CMOS Setup" or "Advanced CMOS setup". If the utility does not detect the system drive, it has failed and you need to replace the drive.

If the utility correctly detects your system hard disk drive, then the cause of the crash is probably a virus, malware or corruption of a system file required for booting.

If the system drive is healthy, try to recover the system using a backup of your system disk or system partition. Because Windows does not boot, you will have to use Acronis bootable rescue media.

You will also need to use a system disk backup when recovering the system after replacing the damaged hard disk drive.

3.1.2 Preparing for recovery

- a) Scan the computer for viruses if you suspect that the crash occurred due to a virus or malware attack.
- b) Boot from the rescue media and validate the backup you want to use for recovery. This is necessary because, when a backup is validated in the recovery environment, the program sometimes declares it corrupted though it has been successfully validated in Windows. This may be due to the fact that Acronis Small Office Backup uses different device drivers in Windows and in the recovery environment. If Acronis Small Office Backup considers the backup corrupted, it will not proceed with recovery.

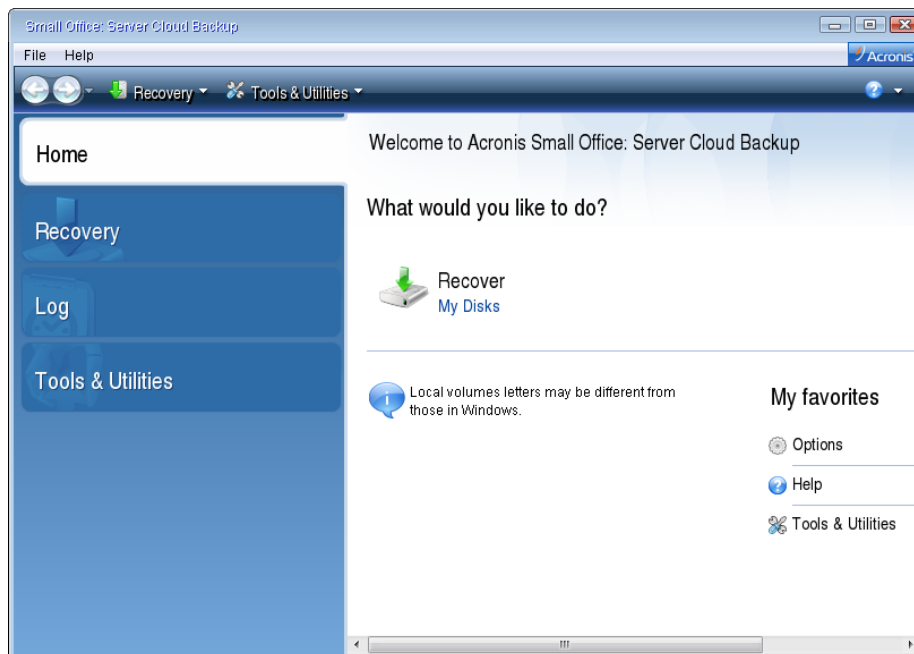
3.1.3 Recovering your system

After you have performed the steps described in Preparing for recovery (p. 53), begin the system recovery procedure. Here we will explain how to recover a corrupted system to the same hard disk. System recovery to a replaced hard disk drive will be similar with some minor differences. You do not need to format the new disk, as this will be done in the process of recovery.

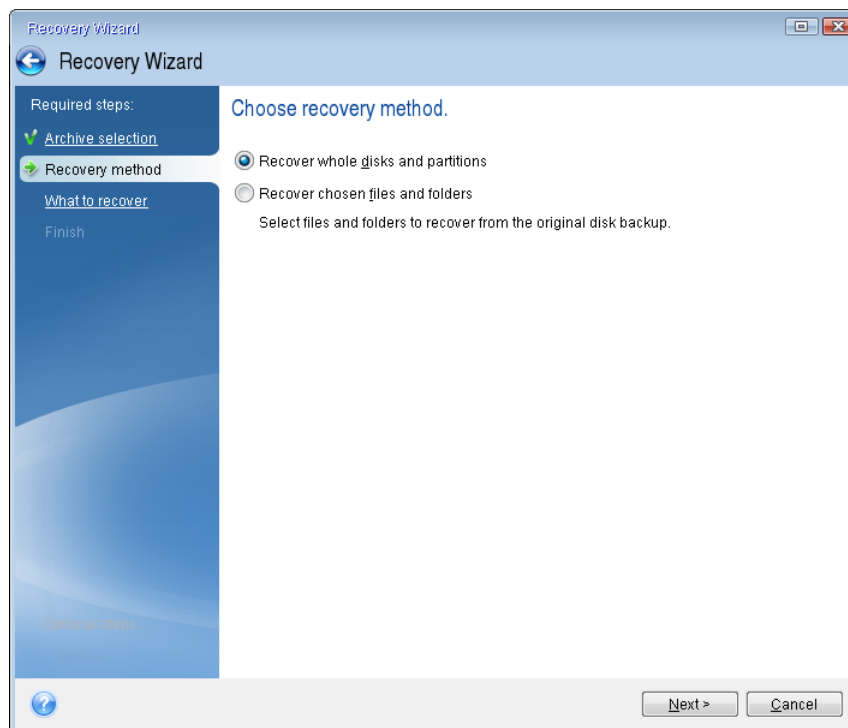
Attach the external drive if it contains the backup to be used for recovery and make sure that the drive is powered on. This must be done before booting from Acronis rescue media.

1. Arrange the boot order in BIOS so as to make your rescue media device (CD, DVD or USB stick) the first boot device. See Arranging boot order in BIOS (p. 74).
2. Boot from the rescue media and select **Acronis Small Office: Server Cloud Backup**.

3. Select **My disks** below **Recover** on the Welcome screen.

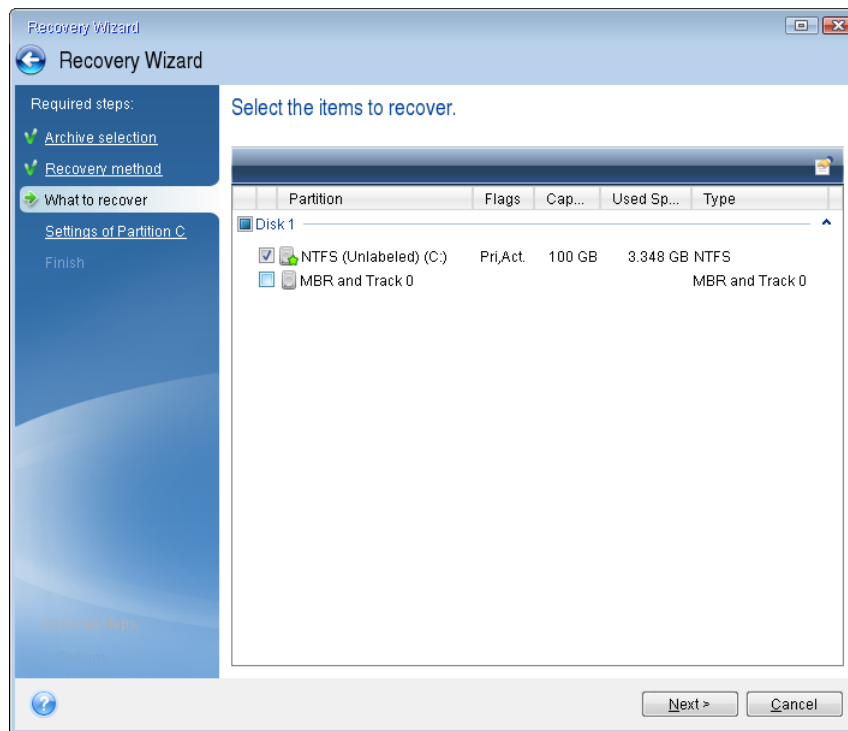


4. Select the system disk or partition backup to be used for recovery.
Right-click on the backup and choose **Recover** in the shortcut menu.
5. Select **Recover whole disks and partitions** at the Recovery method step.



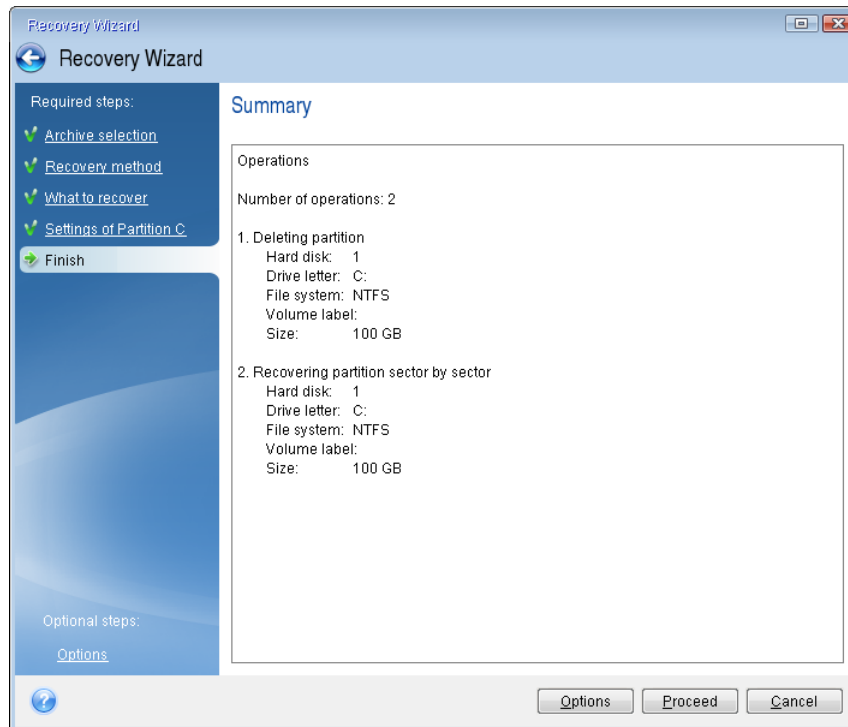
6. Select the system partition (usually C) on the **What to recover** screen. If the system partition has a different letter, select the partition using the **Flags** column. It must have the **Pri, Act** flags.

*In case of Windows Server 2008, Windows Server 2008 R2 and Windows Server 2012 the System Reserved partition will have the **Pri, Act** flags . You will need to select for recovery both the System Reserved partition and the System partition.*



7. At the "Settings of partition C" (or the letter of the system partition, if it is different) step check the default settings and click **Next** if they are correct. Otherwise, change the settings as required before clicking **Next**. Changing the settings will be needed when recovering to the new hard disk of a different capacity.

8. Carefully read the summary of operations at the **Finish** step. If you have not resized the partition, the sizes in the **Deleting partition** and **Recovering partition** items must match. Having checked the summary click **Proceed**.

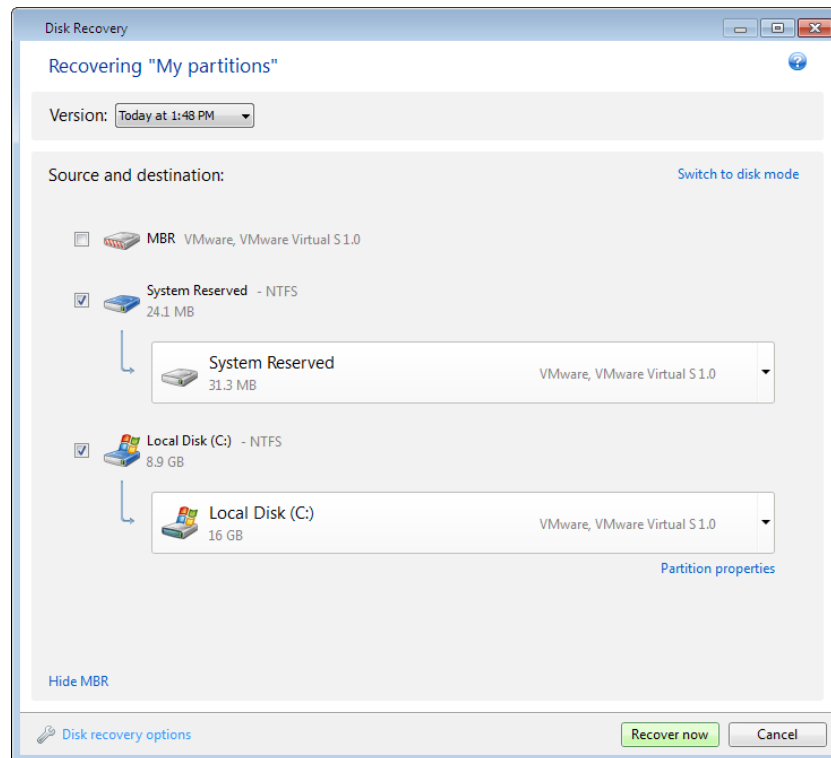


9. When the operation finishes, exit the standalone version of Small Office Backup, remove the rescue media and boot from the recovered system partition. After making sure that you have recovered Windows to the state you need, restore the original boot order.

3.2 Recovering partitions and disks

You can start recovering a partition or disk from an image backup both on the main window and in Acronis Backup Explorer. To start recovery from the main window, select the box of a backup containing the partition image you need to recover. Click the **Recover** button (or the Recover icon if the backup box is collapsed). This opens the Disk Recovery window.

To start the recovery in Acronis Backup Explorer, click the gear icon and select **Recover files**. On the time line, select the required version, click the **Disks and partitions** tab, select the partitions you want to recover and click the **Recover** button.



1. Select the corresponding check box of the partition to recover.

*If you backed up an entire disk, you can choose to recover the entire disk at once by clicking **Switch to disk mode**. To be able to select partitions again, click **Switch to partition mode**.*

2. In the recovery destination field below the partition name, select the destination partition. Those partitions where the partition to be recovered can fit are marked by black lettering. Unsuitable partitions are marked by red lettering. Note that all data on the destination partition will be lost because it is replaced by the recovered data and file system.

*To recover an image to the source partition without resizing, at least 5% of free space is required on the partition. Otherwise, the **Recover now** button will be unavailable.*

3. After you finish with your selections, click **Recover now** to start recovery.

Sometimes you need to recover the MBR (Master Boot Record). For instance, it may be necessary when Windows does not boot after recovery. To recover the MBR (either together with the partition or individually), click **Show MBR** and then select the MBR check box.

If you recover the entire disk, the **Recover disk signature** check box appears. Disk signature is a part of a hard disk MBR. It is used for uniquely identifying the disk media.

We recommend that you select the **Recover disk signature** check box due to the following reasons:

- Small Office Backup creates scheduled backups using the signature of the source hard disk. If you recover the same disk signature, you don't need to re-create or edit the backups created previously.
- Some installed applications use a disk signature for licensing and other purposes.

We recommend that you clear the **Recover disk signature** check box when:

- You use an image backup not for disaster recovery but for cloning your Windows hard drive to another one.

In this case, Small Office Backup generates a new disk signature for the recovered hard drive, even if you recover to the same drive.

Disk recovery options - click to set up additional parameters for the disk recovery process.

Use Acronis Universal Restore - click to use Acronis Universal Restore technology during recovery.

Acronis Universal Restore will help you create a bootable system clone on different hardware (for more information see Acronis Universal Restore (p. 68)).

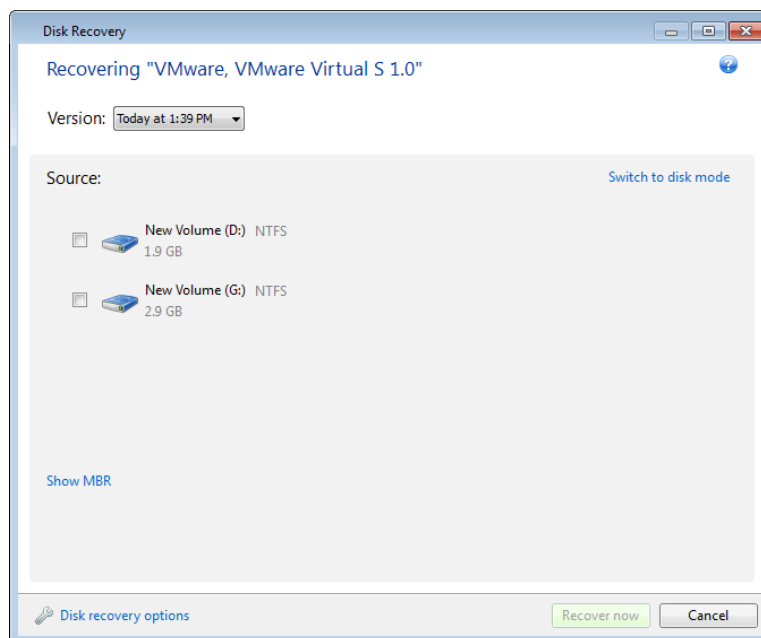
Choose this option when recovering your system disk to a computer with a processor, motherboard or mass storage device that is different from the one in place when the system was originally backed up.

3.3 How to recover more than one partition at once

Here we describe recovery of two partitions. If an image of a hard disk has more than two partitions, the procedure is similar.

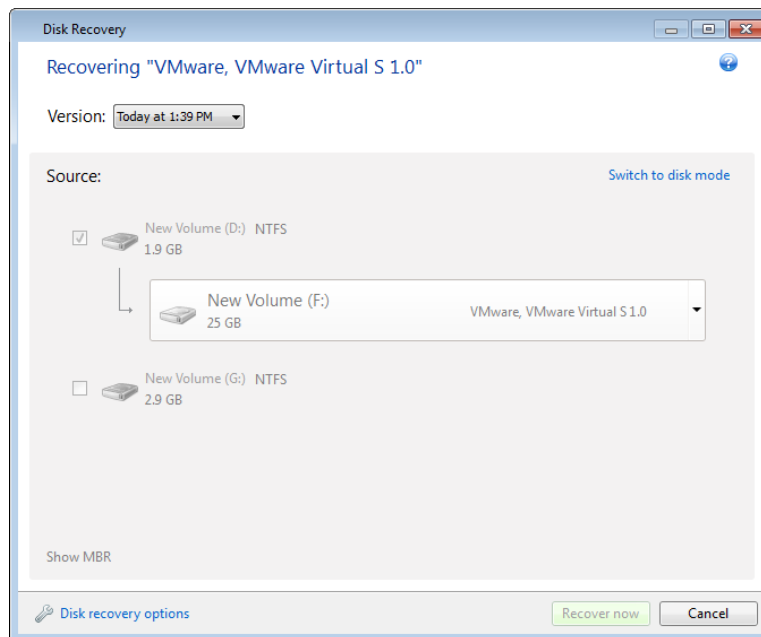
The following procedure is valid only for recovery to a basic disk. Recovery to a dynamic disk with partition resizing is impossible.

1. Click **Recover** on the backup box of a disk containing several partitions. The **Disk Recovery** window appears.

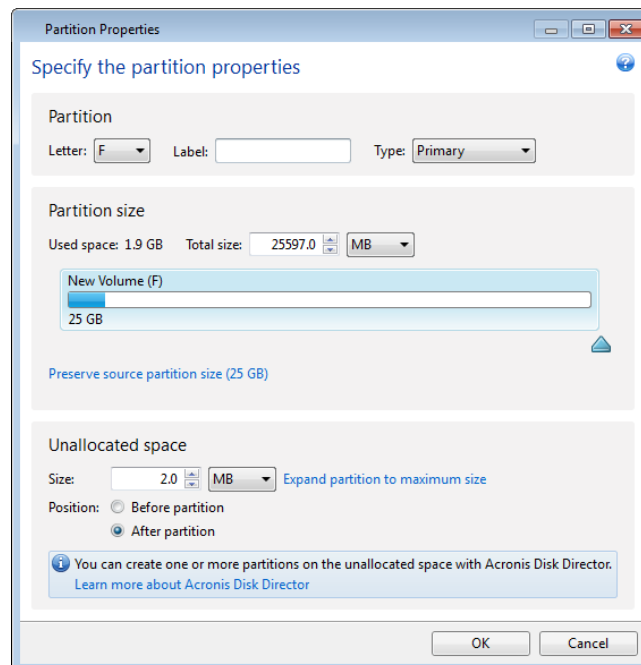


2. Click the down arrow next to **Version:** and then select the backup version you want to recover by its backup date and time.

3. Select a partition to recover. This opens the recovery destination field below the partition name (label).



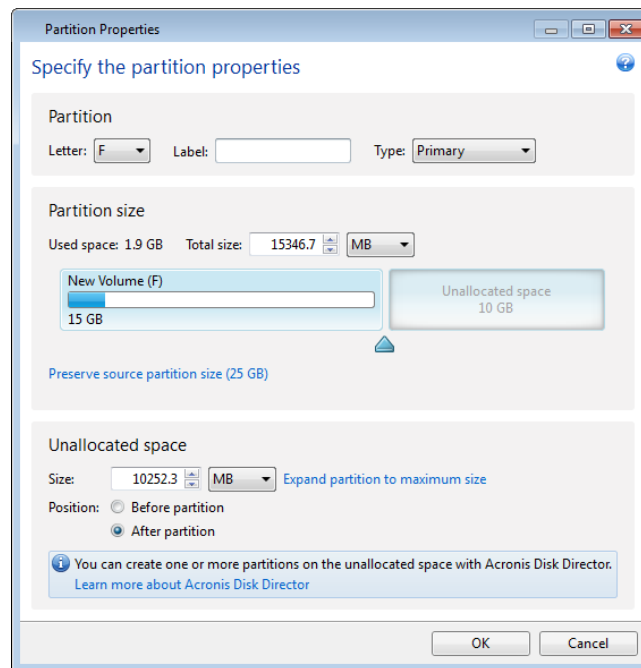
4. Click the down arrow to the right of the field and select the destination hard disk. The partition to be recovered is then placed on the selected hard disk. It occupies all the available disk space. To reduce the partition size so as to leave enough disk space for the remaining partition, click the **Partition properties** link below the recovery destination field. The **Partition Properties** window appears.



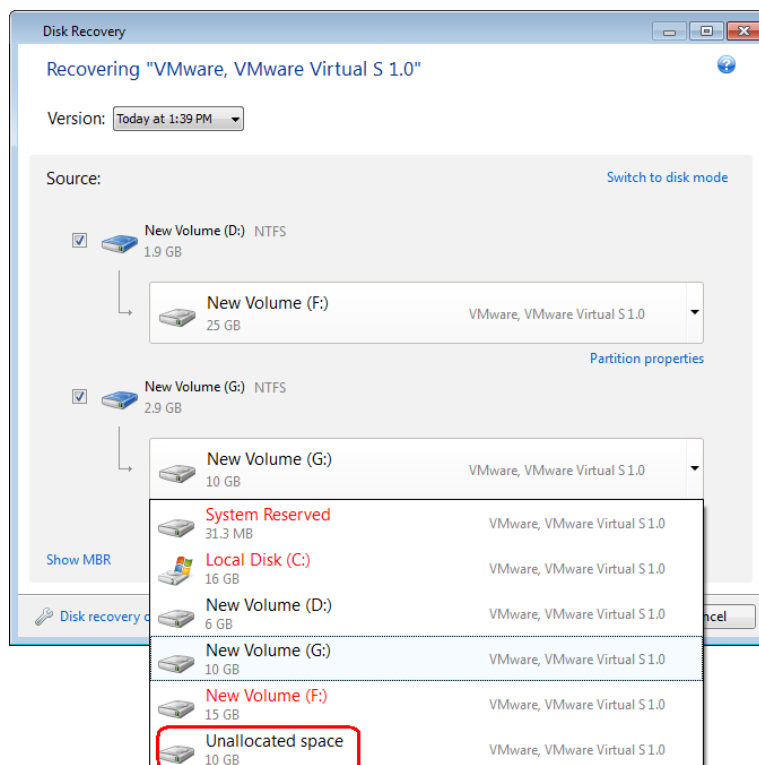
5. You can resize the partition by dragging its right border with a mouse on the horizontal bar on the screen.

*To assign the partition a specific size, enter the appropriate number into the **Total size** field.*

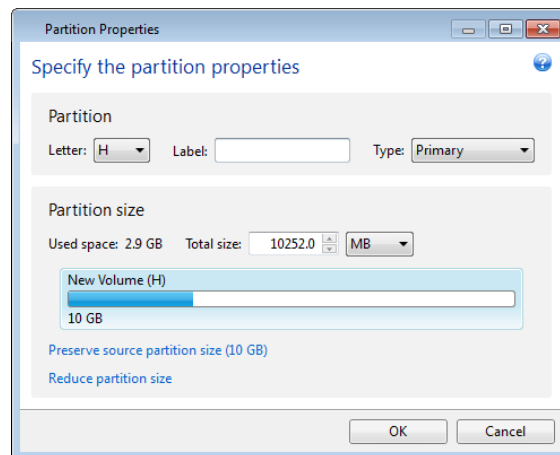
Remember that you need to leave as much unallocated (free) space after having resized the partition as will be needed for the remaining partition. Select a disk letter and partition type. When you finish the settings, click **OK** to confirm them and return to the main Disk Recovery window.



6. Select the next partition's check box.
7. Select the unallocated space on the destination hard disk. The program creates a partition occupying the entire unallocated space.

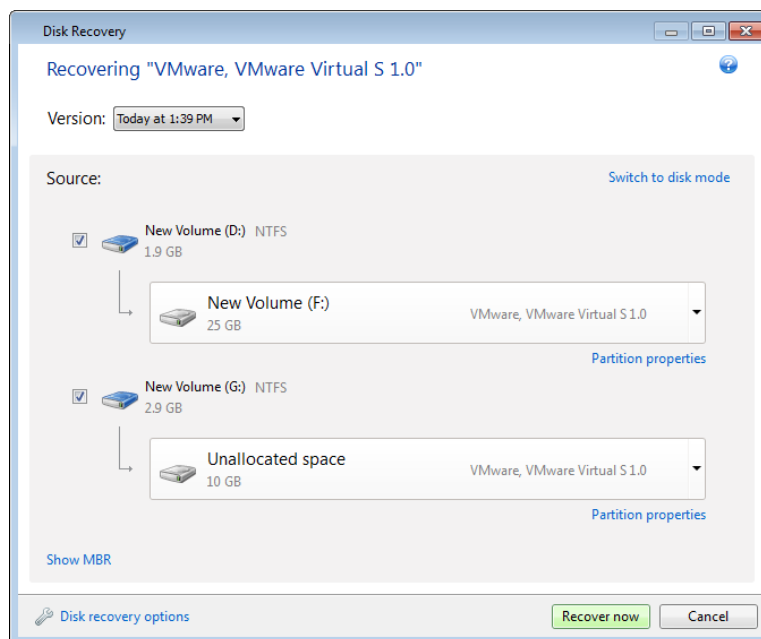


- Click the **Partition properties** link and make the settings for the partition. Select a disk letter and partition type. When you finish the settings, click **OK** to confirm them and return to the main Disk Recovery window.



If the image contains more than two partitions, leave enough unallocated space for other partitions to be recovered and repeat steps 5-7 until you make the settings for all partitions.

- Click **Recover now** to recover the partitions to the destination hard disk.



3.4 Recovering a disk backup to a different disk under rescue media

Recovery of a disk backup containing several partitions to a hard disk that has a different capacity is one of the most complicated operations. This is especially true when the original hard disk you have backed up has a hidden diagnostic or recovery partition.

Complete the preparations described in Preparing for recovery (p. 53).

If you have not already done so, assign unique names (labels) to the partitions of your computer's disks. This will allow for identification of the partitions by their names and not by the disk letters.

Disk letters may differ when booting from the rescue media. The names will help you find the drive containing your backups, as well as the target (new) drive.

Information on partition sizes, drive capacities, their manufacturers, and model numbers can also help to correctly identify the drives.

It is highly recommended to install the new hard drive to the same position in the computer and to use the same cable and connector that was used for the original drive. This is not always possible, e.g. the old drive may be an IDE and the new drive may be a SATA. In any case, install the new drive to where it will be used.

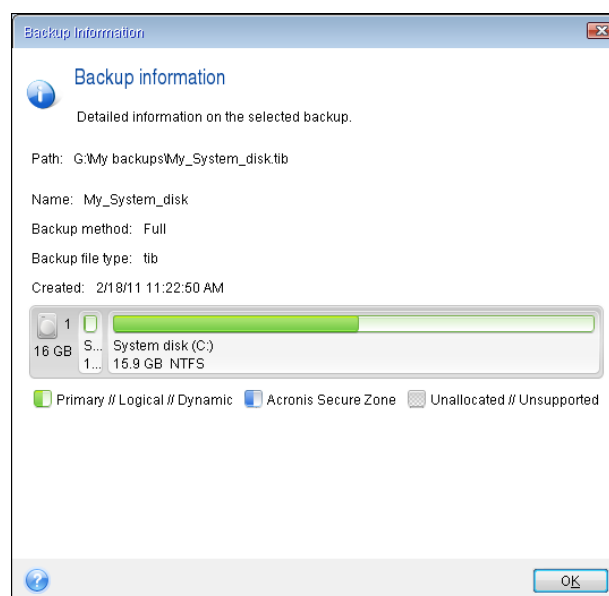
3.4.1 Recovering a disk with a hidden partition

A hidden partition may be created by the PC manufacturer for diagnostics or system recovery. Users of Windows Server 2008, Windows Server 2008 R2 and Windows Server 2012 usually have the hidden System Reserved partition. Recovering a backup of a system disk with a hidden partition requires that you take into account some additional factors. First of all, it is necessary for the new drive to keep the physical order of the partitions that existed on the old drive. In addition, you should place the hidden partition in the same location - usually at the start or the end of the disk space. To minimize the risk of possible problems, it is better to recover the hidden partition without resizing. Here we describe recovery of a system disk with Windows and the hidden System Reserved partition.

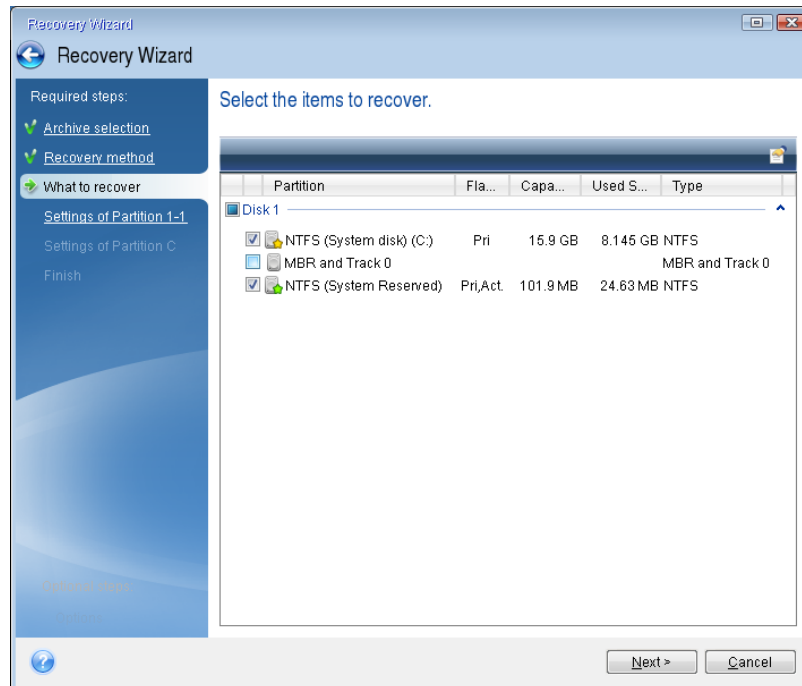
Attach the external drive if it contains the backup to be used for recovery and make sure that the drive is powered on. This must be done before booting from Acronis rescue media.

1. Arrange the boot order in BIOS so as to make your rescue media device (CD, DVD or USB stick) the first boot device. See Arranging boot order in BIOS (p. 74).
2. Boot from the rescue media and select **Acronis Small Office: Server Cloud Backup**.
3. Select **Recovery** → **Disk and Partition Recovery** in the main menu. Choose the image backup of your system disk that you want to use for recovery.

Before continuing with the recovery, you need to know the sizes and physical order of all existing partitions. To see this information, click **Details** on the wizard's toolbar. Small Office Backup displays information about the backup. This includes a graphical view of all partitions the disk contains and their physical order on the disk.

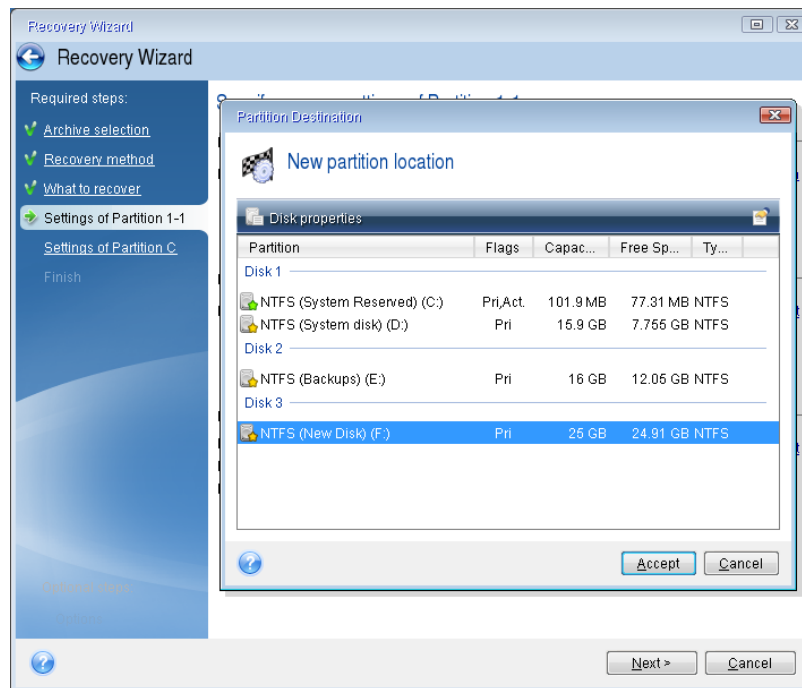


4. Select **Recover whole disks and partitions** at the Recovery method step.
5. At the **What to recover** step, select the boxes of the partitions to be recovered. Do not select the **MBR and Track 0** box, because this will result in selecting the entire disk for recovery. Recovering the entire disk does not allow you to resize partitions manually. You will be able to recover the MBR later. Select the partitions and click **Next**.



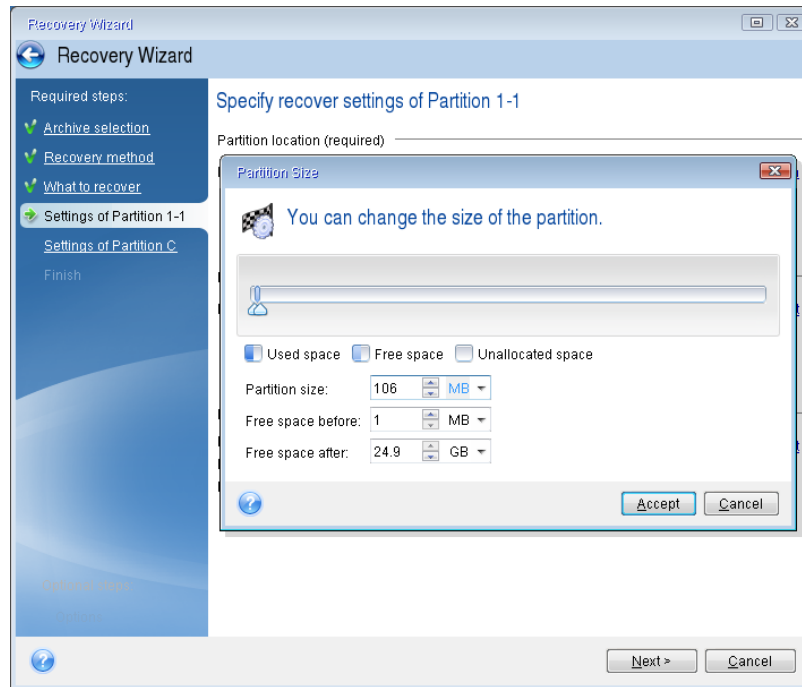
Selecting partitions leads to appearance of the relevant steps "Settings of partition ...". Note that these steps start with partitions which do not have an assigned disk letter (as usually is the case with hidden partitions). The partitions then take an ascending order of partition disk letters. This order cannot be changed. The order may differ from the physical order of the partitions on the hard disk.

6. You can specify the following partition settings: location, type, and size. You first need to specify the settings of the hidden partition (System Reserved partition in our case) as it usually does not have a disk letter. Because you are recovering to the new disk, click **New location**. Select the destination disk by either its assigned name or capacity.

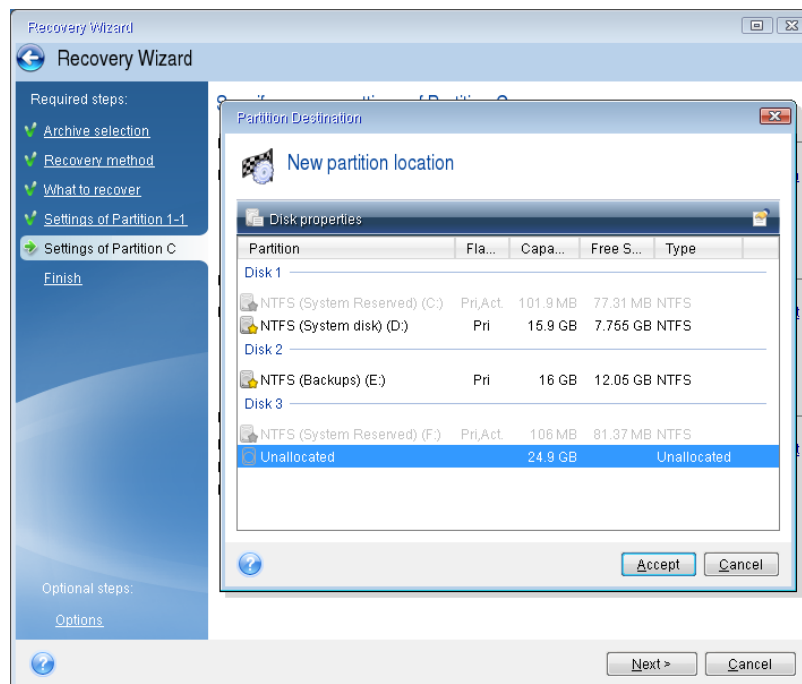


7. Clicking **Accept** returns you to the "Settings of partition 1-1" screen. Check the partition type and change it, if necessary. You should remember that the System Reserved partition must be primary and marked as active.

8. Proceed to specifying the partition size by clicking **Change default** in the Partition size area. By default the partition occupies the entire new disk. You need to keep the hidden partition size unchanged and place it in the same location on the disk (at the start or the end of disk space). To do this, resize and relocate the partition by dragging it or its borders with a mouse on the horizontal bar on the screen. Or you can enter corresponding values into the appropriate fields (Partition size, Free space before, Free space after). Click **Accept** when the partition has the required size and location and then click **Next**.

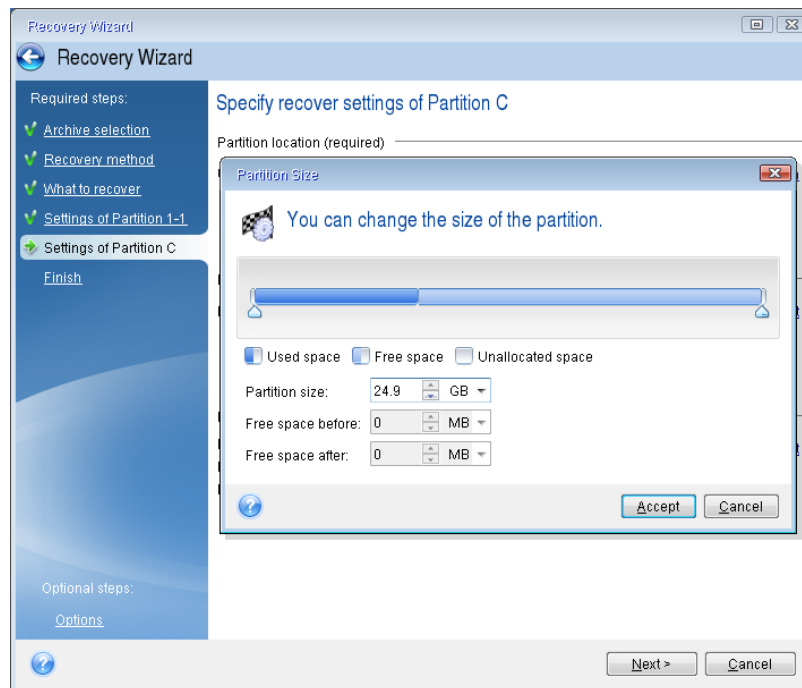


Specify the settings for the second partition which in this case is your system partition. Click **New location**, and then select unallocated space on the destination disk that will receive the partition.



Click **Accept**, check the partition type (change, if necessary). The system partition must be primary.

Specify the partition size which by default equals the original size. Usually there is no free space after the partition, so allocate all the unallocated space on the new disk to the second partition. Click **Accept** and then click **Next**.



9. Carefully read the summary of operations to be performed and then click **Proceed**.

In the case being described (recovery of the System Reserved partition) steps 10-12 are optional. You need to perform them when recovering a hidden partition created by the PC manufacturer.

10. When the operation finishes, proceed to MBR recovery. You need to recover the MBR because the PC manufacturer could change the generic Windows MBR or a sector on track 0 to provide access to the hidden partition.
11. Select the same backup again. Right-click and select **Recover** in the shortcut menu. Choose **Recover whole disks and partitions** at the Recovery method step and then select the **MBR and Track 0** box.
12. At the next step, select the destination disk as the target for MBR recovery, click **Next** and then **Proceed**. After MBR recovery is complete, exit the standalone version of Small Office Backup.

Windows should not "see" both the new and old drive during the first boot after recovery because this could result in problems booting Windows. If you upgrade the old drive to a larger capacity new one, disconnect the old drive before the first boot.

Switch off the computer, if you need to disconnect the old drive. Otherwise, just reboot the computer after removing the rescue media.

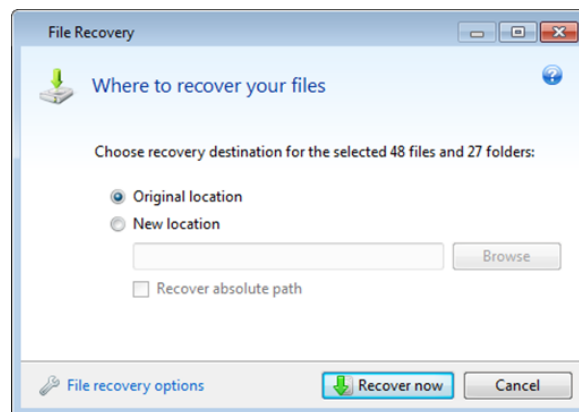
Boot the computer to Windows. It may report that new hardware (hard drive) is found and Windows needs to reboot. After making sure that the system operates normally, restore the original boot order.

3.5 Recovering specific files and folders

You will usually start recovering files and folders from Acronis Backup Explorer. When recovering a specific file version, you will start recovery from the **View Versions** window. In either case, starting recovery opens the **File Recovery** window.

Let's consider recovery of files and folders from the Backup Explorer.

1. Start Small Office Backup.
2. Find the disk backup which contains the files and folders you want to recover. On the corresponding box click the gear icon and select **Recover files**.
3. In the Backup Explorer, select the files and folders you want to recover. For more information on selection in the Backup Explorer see Files and folders tab (p. 22). Click **Recover** to start recovery. This will open the **File Recovery** window.

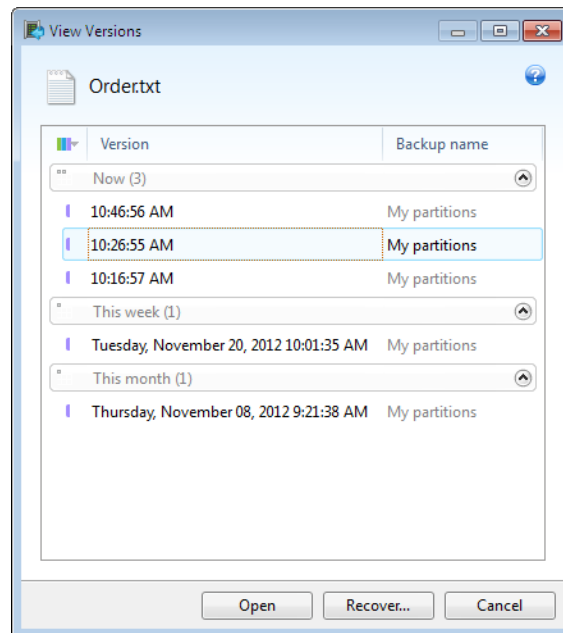


4. Select a destination on your computer to where you want to recover selected files/folders. You can recover data to its original location or choose a new one, if necessary. To choose a new location, click the **Browse...** button.
5. When you choose a new location, the selected items will be recovered by default without recovering the original, absolute path. You may also wish to recover the items with their entire folder hierarchy. In this case select the **Recover absolute path** check box.
6. When needed, set the options for the recovery process (recovery process priority, file-level security settings, etc.). To set the options, click the **File recovery options** link. The options you set here will be applied only to the current recovery operation.
7. To start the recovery process, click the **Recover now** button.
8. The recovery progress will be shown in a special window. You can stop the recovery by clicking **Cancel**. Please keep in mind that the aborted recovery may still cause changes in the destination folder.

3.5.1 Recovering file versions

If you need to recover a specific version of a file, select the file in the Backup Explorer. When you select the file, the **View versions** link appears below the file size information. Clicking the link opens the **View Versions** window with a list of all versions of the file in the backup.

Until you select a file version, the **Open** and **Recover...** buttons remain disabled. Selecting a file version enables the buttons:



Select the required version by its backup time and click the **Recover...** button. This will open the **File Recovery** window. Select the destination and recover the file version to the folder of your choice. For more information see Recovering specific files and folders (p. 67).

To choose the correct version, you can open the version in the associated application and view the file contents. Choose the version by its backup time, and then click the **Open** button. Acronis Small Office Backup will recover the file version to a temporary folder. Then it will open the file using the associated application.

3.6 Acronis Universal Restore

3.6.1 Purpose of Acronis Universal Restore

A system disk image can be restored easily on the hardware where it was created or to identical hardware. However, if you change the motherboard or use another processor version, a likely possibility in case of hardware failure, the recovered system could fail to boot.

Trying to move the system to a new more powerful computer will usually produce the same result. This is because the new hardware is incompatible with critical drivers included in the image.

Microsoft System Preparation Tool (Sysprep) will not resolve this problem. Sysprep allows you to replace only Plug-and-Play device drivers (sound cards, network adapters, video cards etc.).

However, System Hardware Abstraction Layer (HAL) and mass storage device drivers must be identical on both the source and the target computers (see Microsoft Knowledge Base, articles 302577 and 216915).

Acronis Universal Restore technology provides an efficient solution for hardware-independent system restoration by replacing the crucial Hardware Abstraction Layer (HAL) and mass storage device drivers.

Acronis Universal Restore is applicable for:

- Instant recovery of a failed system on different hardware
- Hardware-independent cloning of operating systems

3.6.1.1 General principles of Acronis Universal Restore

1. Automatic selection of HAL and mass storage drivers

Acronis Universal Restore searches the Windows default driver storage folders (in the image being restored) for HAL and mass storage device drivers and installs drivers that best fit the target hardware.

You can specify a custom driver repository (a folder or folders on a network drive or CD) which will also be used to search for drivers. In addition, Acronis Universal Restore can search drivers on removable media.

The Windows default driver storage folder is determined in the registry value "DevicePath", which can be found in the registry key

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\DevicePath. This storage folder is usually WINDOWS/inf.

2. Installing drivers for Plug-and-Play devices Acronis Universal Restore relies on the built-in Plug-and-Play discovery and configuration process to handle hardware differences in devices that are not critical for the system start. This includes video, audio and USB. Windows takes control over this process during the logon phase. If some of the new hardware is not detected, you will have a chance to install the drivers for it later manually.

3.6.2 Recovering to different hardware

Using Acronis Universal Restore will help you create a bootable system clone on different hardware. For more information see Acronis Universal Restore (p. 68). Choose this option when recovering your system disk to a computer with a dissimilar processor, different motherboard or a different mass storage device than in the system you originally backed up. This may be useful, for example, after replacing a failed motherboard or when deciding to migrate the system from a desktop to a laptop. You can use Acronis Universal Restore for recovering your system disk both from tib and vhd files.

Before proceeding with recovery, make sure you have drivers for the hard disk drive controller or chipset drivers for the new motherboard. These drivers are critical for booting the operating system. You can download the drivers for your motherboard on the Vendor's web-site. Please note that if you downloaded the drivers in *.exe, *.cab, *.zip format, you should extract them first. The driver files should have *.inf, *.sys or *.oem extensions.

3.6.2.1 Recovering your system with the help of Acronis Universal Restore

1. Start Small Office Backup and select a backup containing your system partition.
2. Click the **Recover** button on the backup's box if the backup consists of a single version. When there are several backup versions, click **Explore and recover**. Select the backup version you want to recover on the **Disks and partitions** tab, and then click **Recover**.
3. When the **Disk Recovery** window opens, select the system partition's check box and choose the recovery destination.

4. Select the **Use Universal Restore** check box. Then click **Settings** to open the Drivers manager window.
5. If the target hardware has a specific mass storage controller (such as an SCSI, RAID, or Fibre Channel adapter) for the hard disks, specify where to find the driver or drivers for the specific hardware. If the driver is stored on a diskette or CD, select the **Search removable media for device drivers** box. If some drivers are stored on a local hard disk or a network share, click **Add custom driver locations...** Then, browse to the driver or drivers location. After you finish specifying the drivers locations, click **OK**.

Acronis Universal Restore does not support search for drivers on FTP servers.

In most cases, Acronis Universal Restore will use three sources for drivers:

- the removable media;
- the drivers storage location or locations specified at this step; and
- the Windows default driver storage folders (in the image being recovered).

The program will find the most suitable of all available drivers and install them into the recovered system.

6. To start recovery, click the **Recover now** button.
7. When a warning appears that you need to reboot the computer to continue the operation, click **Reboot** to continue.

During recovery, the program may be unable to find some driver in the specified sources and will display an error message. In this case, you can click **Ignore** to continue recovery or click **Cancel** to cancel the process and then try to find the required driver. You can then continue with the recovery process.

Acronis Universal Restore patches the registry and installs the new drivers after the system is recovered. Therefore, make sure that the driver location will still be available. For example, do not specify the search path for the drivers on the same disk to which you are recovering the backup. We recommend that you place the drivers on a separate USB hard disk, USB flash stick or on a network share.

After successfully recovering the system partition boot to the recovered Windows.

During the first booting, Windows will display numerous "Found new hardware" pop-up messages and will then ask you to reboot the computer.

If you use Acronis Universal Restore for recovering a backup of multiboot configuration with two or more editions of Windows, the most critical drivers will be replaced for all Windows installations.

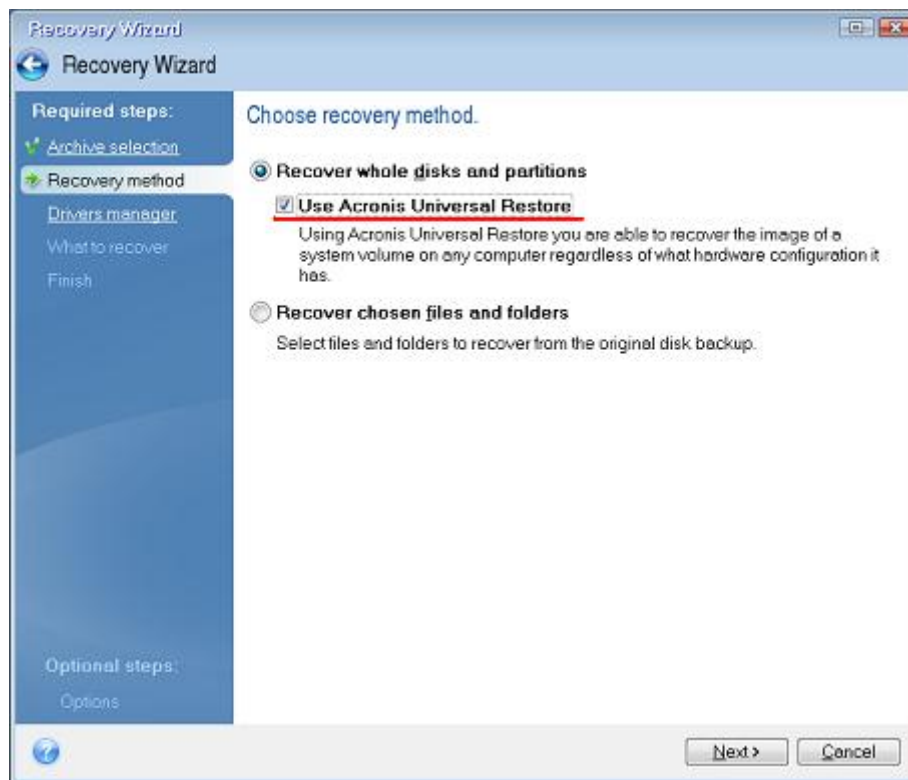
3.6.2.2 Recovering your system with the help of Acronis Universal Restore under rescue media

In most cases it is preferable to use your bootable rescue media for system recovery. The rescue media must include Acronis Universal Restore add-on. Therefore, you need to re-create the rescue media after activating the add-on.

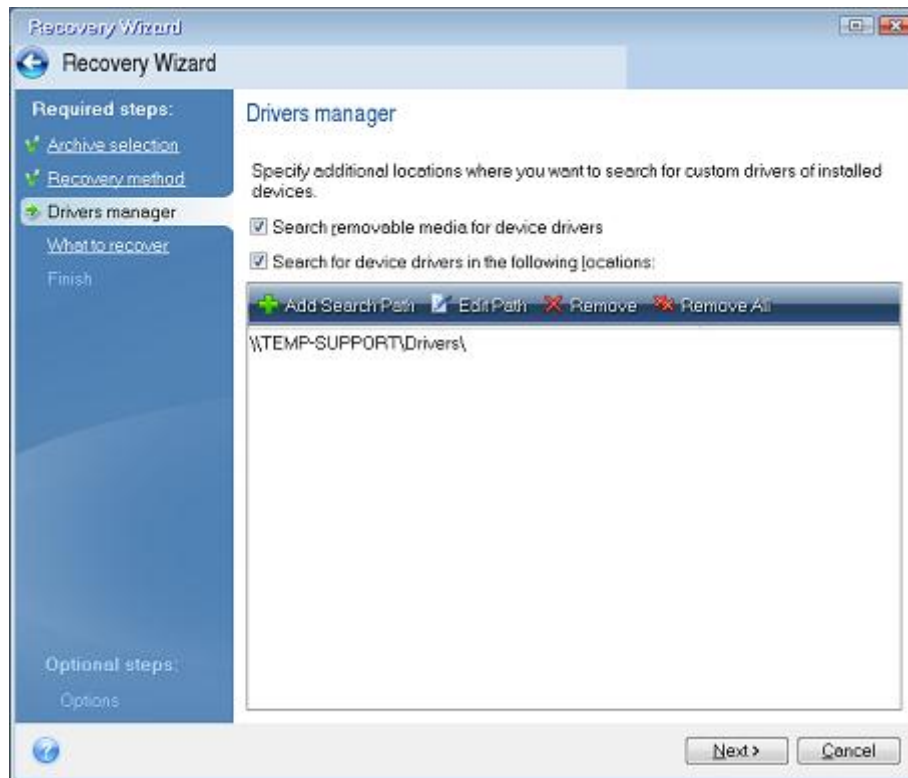
1. Make your rescue media the first boot device in BIOS. See Arranging boot order in BIOS (p. 74).
2. Boot from the rescue media and select **Acronis Small Office: Server Cloud Backup**.
3. Click the **My Disks** link below **Recover** on the Welcome screen to start the Recovery Wizard. Then, choose the backup of the system disk for recovery. Because drive letters in the standalone Small Office Backup may differ from the way Windows identifies drives, you may need to specify

the path to the backup file. In such a case click **Browse** and select the disk and folder that stores the backup.

4. Choose **Recover whole disks and partitions** and select the **Use Acronis Universal Restore** check box.



5. If the target hardware has a specific mass storage controller (such as an SCSI, RAID, or Fibre Channel adapter) for the hard disks, specify where to find the driver or drivers for the specific hardware at the **Drivers manager** step. If the driver is stored on a diskette or CD, select the **Search removable media for device drivers** box. If some drivers are stored on a local hard disk or a network share, select the **Search for device drivers in the following locations** box (when it is not selected by default). Specify the path to the driver or drivers after clicking **Add Search Path**.



When both boxes are selected at this step, Acronis Universal Restore will use three sources for drivers:

- the removable media;
- the drivers storage folder or folders specified at this step; and
- the Windows default driver storage folders (in the image being recovered).

The program will find the most suitable of all available drivers and install them into the recovered system.

6. Select the system disk at the **What to recover** step. Then, specify the destination of the disk being recovered (new system disk). At this point the program checks whether the destination disk is free. If not, you will be prompted by the Confirmation window stating that the destination disk contains partitions, perhaps with useful data. To confirm deletion of the partitions, click **OK**.
7. Carefully read the summary of operations at the **Finish** step and then click **Proceed**.

If the capacities of the source (backed up) disk and the destination disk are different, the new disk space will be proportionally distributed between the recovered partitions.

After successfully recovering the system partition, exit Small Office Backup. Enter the BIOS, make the system hard disk the first boot device, and boot to the recovered Windows.

3.6.3 Limitations in using Acronis Universal Restore

1. The system recovered by Acronis Universal Restore might not start, if the partition structure in the image or the target disk partitioning does not coincide with that of the source disk. The loader restored from the image will point to the wrong partition and the system will not boot or will malfunction.

This may occur if you:

- back up only selected partitions but not the entire source disk
- restore only selected partitions and not the entire source disk. In some cases, especially if your system resides on a partition other than the original one, this can confuse the loader and prevent the restored system from rebooting.

To avoid this problem, we recommend that you back up and recover the entire system disk.

2. The Acronis Universal Restore option does not work if a computer is booted with Acronis Startup Recovery Manager (using F11). This is because Acronis Startup Recovery Manager is primarily meant for data recovery on the same computer.

3.7 About recovery of dynamic/GPT disks and volumes

1. Small Office Backup supports recovery of dynamic volumes to the following locations on the local hard drives:

- To the original location (to the same dynamic volume).
- To another dynamic disk or volume.
- To unallocated space of the dynamic group.
- To a basic disk.

If a dynamic volume is recovered to an unallocated space of the dynamic group, the recovered volume type will be the same as it was in the backup.

Manual resizing of dynamic volumes during recovery to dynamic disks is not supported. If you need to resize a dynamic volume during recovery, it should be recovered to a basic disk.

When performing a so called "bare-metal recovery" of dynamic volume(s) to a new unformatted disk, the recovered volumes become basic. If you want the recovered volumes to remain dynamic, the target disk(s) should be prepared as dynamic (partitioned and formatted). This can be done using third-party tools, for example, Windows Disk Management snap-in.

2. The target disk's partition style after recovery. It depends on whether your computer supports UEFI and on whether your system is BIOS-booted or UEFI-booted. See the following table:

	My system is BIOS-booted (Windows or Acronis Bootable Media)	My system is UEFI-booted (Windows or Acronis Bootable Media)
My source disk is MBR and my OS does not support UEFI	The operation will not affect neither partition layout nor bootability of the disk: partition style will remain MBR, the destination disk will be bootable in BIOS.	After operation completion, the partition style will remain MBR, but the operating system will fail booting from UEFI, since your operating system does not support it.

My source disk is MBR and my OS supports UEFI	The operation will not affect neither partition layout nor bootability of the disk: partition style will remain MBR, the destination disk will be bootable in BIOS.	The destination partition will be converted to GPT style that will make the destination disk bootable in UEFI.
My source disk is GPT and my OS supports UEFI	After operation completion, the partition style will remain GPT, the system will fail booting on BIOS, because your operating system cannot support booting from GPT on BIOS.	After operation completion, the partition style will remain GPT, the operating system will be bootable on UEFI.

To ensure Windows bootability after recovery, you must recover an image of your source disk in the disk mode.

3. The target volume type does not change when recovering over an existing volume. Examples:

- When recovering a dynamic volume over a basic volume the target volume remains basic.
- When recovering a dynamic striped volume over a dynamic spanned volume the target volume remains spanned.

4. Recovering a basic volume or disk to the dynamic group:

- When recovering a basic volume to an unallocated space of the dynamic group, the recovered volume becomes dynamic.
- When recovering a basic disk to a dynamic disk of a dynamic group consisting of two disks, the recovered disk remains basic. The dynamic disk to which the recovery is performed becomes "missing" and a spanned/striped dynamic volume on the second disk becomes "failed".

3.8 Backup protection dialog box

A backup file can be protected with a password. You can set password protection in backup options while creating a backup.

If you try to recover data from a password-protected backup, mount it or append an incremental backup to such a backup, the program will ask for the password in a special window, allowing access only to authorized users. In this case, you must specify the correct password for the selected backup file. Only then will you be able to proceed with the selected operation.

3.9 Arranging boot order in BIOS

BIOS has a built-in setup utility for initial computer configuration. To enter it, you have to press a certain key combination (**Del**, **F1**, **Ctrl+Alt+Esc**, **Ctrl+Esc**, or some other, depending on your BIOS) during the POST (power-on self test) sequence that starts immediately after you turn your computer on. Usually the message with the required key combination is displayed during the startup test. Pressing this combination takes you to the menu of the setup utility that is included in your BIOS.

The menu can differ in appearance, sets of items and their names, depending on the BIOS manufacturer. The most widely known BIOS makers for PC motherboards are Award/Phoenix and AMI. Moreover, while items in the standard setup menu are mostly the same for various BIOSes, items of the extended (or advanced) setup heavily depend on the computer and BIOS version.

Among other things, the BIOS menu allows you to adjust the **boot order**.

Computer BIOS allows booting operating systems not only from hard disks, but also from CD-ROMs, DVD-ROMs, and other devices. Changing the boot order may be required, for example, to make your rescue media (CD, DVD or USB stick) device the first booting device.

If there are several hard disks installed in your computer labeled as C:, D:, E:, and F:, you can change the boot order so that an operating system is booted from, for example, disk E:. In this case, you have to set the boot order to look like E:, CD-ROM:, A:, C:, D:.

*This does not mean that booting is done from the first device in this list; it only means that the **first attempt** to boot an operating system will be from this device. There may be no operating system on disk E:, or it may be inactive. In this case, BIOS queries the next device in the list.*

The BIOS numbers disks according to the order in which they are connected to IDE controllers (primary master, primary slave, secondary master, secondary slave); next go the SCSI hard disks.

This order is broken if you change the boot order in BIOS setup. If, for example, you specify that booting has to be done from hard disk E:, numbering starts with the hard disk that would be the third in usual circumstances (it is usually the secondary master for IDE hard drives).

*Some motherboards have a so called boot menu opened by pressing a certain key or key combination, for instance, **F12**. The boot menu allows selecting the boot device from a list of bootable devices without changing the BIOS setup.*

3.10 Recovery options

In the **Disk Recovery Options** and **File Recovery Options** windows you can configure options for a disk/partition and file recovery processes respectively. After you installed the application, all options are set to the initial values. You can change them for your current recovery operation only or for all further recovery operations as well. Select the **Save the settings as default** check box to apply the modified settings to all further recovery operations by default.

Note, that disk recovery options and file recovery options are fully independent, and you should configure them separately.

If you want to reset all the modified options to their initial values that were set after the product installation, click the **Reset to initial settings** button.

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3.10.1 Disk recovery mode

With this option you can select the disk recovery mode for image backups.

- **Recover sector-by-sector** - select this check box if you want to recover both used and unused sectors of disks or partitions. This option will be effective only when you choose to recover a sector-by-sector backup.

3.10.2 Pre/Post commands for recovery

You can specify commands (or even batch files) that will be automatically executed before and after the recovery procedure.

For example, you may want to start/stop certain Windows processes, or check your data for viruses before recovery.

To specify commands (batch files):

- Select a command to be executed before the recovery process starts in the **Pre-command** field. To create a new command or select a new batch file, click the **Edit** button.
- Select a command to be executed after the recovery process ends in the **Post-command** field. To create a new command or select a new batch file, click the **Edit** button.

Please do not try to execute interactive commands, i.e. commands that require user input (for example, "pause"). These are not supported.

3.10.2.1 Edit user command for recovery

You can specify user commands to be executed before or after recovery:

- In the **Command** field type-in a command or select it from the list. Click ... to select a batch file.
- In the **Working directory** field type-in a path for command execution or select it from the list of previously entered paths.
- In the **Arguments** field enter or select command execution arguments from the list.

Disabling the **Do not perform operations until the command execution is complete** parameter (enabled by default), will permit the recovery process to run concurrently with your command execution.

The **Abort the operation if the user command fails** (enabled by default) parameter will abort the operation if any errors occur in command execution.

You can test the command you entered by clicking the **Test command** button.

3.10.3 Validation option

- **Validate backup before recovery**

The preset is **disabled**.

Before data is recovered from the backup, Acronis Small Office Backup can check its integrity. If you suspect that the backup might have been corrupted, enable this option.

- **Check the file system after recovery**

The preset is **disabled**.

Having recovered a partition from an image, Acronis Small Office Backup can check the integrity of the file system. To do so, enable this option.

Limitations on use of this option:

- Check of the file system is available only when recovering partitions using FAT16/32 and NTFS file systems.
- The file system will not be checked if a reboot is required during recovery, for example, when recovering the system partition to its original place.

3.10.4 Computer restart

The preset is **Disabled**.

If you want the computer to reboot automatically when it is required for recovery, select the **Restart the computer automatically if needed for the recovery** check box. This may be used when a partition locked by the operating system has to be recovered. Enabling the option allows rebooting the computer without user interaction during recovery.

3.10.5 File recovery options

You can select the following file recovery option:

- **Set current date and time for recovered files** - you can choose whether to recover the file date and time from the backup or assign the files the current date and time. By default the file date and time from the backup will be assigned.

3.10.6 Overwrite file options

Choose what to do if the program finds a file in the target folder with the same name as in the backup.

This option is available only while restoring data from file-level backups.

Selecting the **Overwrite existing files** check box will give the files from the backup unconditional priority over the files on the hard disk, though, by default, the more recent files and folders are protected against overwriting. If you want to overwrite those files and folders too, clear the appropriate check box.

If you do not need to overwrite some files:

- Select/clear the **Hidden files and folders** check box to enable/disable overwriting of all hidden files and folders.
- Select/clear the **System files and folders** check box to enable/disable overwriting of all system files and folders.
- Select/clear the **More recent files and folders** check box to enable/disable overwriting of new files and folders.
- Click **Add specific files and folders** to manage the list of custom files and folders that you do not want to overwrite.
 - To disable overwriting of specific files, click the **Add...** button to create an exclusion criterion.
 - While specifying the criteria, you can use the common Windows wildcard characters. For example, to preserve all files with extension **.exe**, you can add ***.exe**. Adding **My???.exe** will preserve all .exe files with names consisting of five symbols and starting with "my".

To delete a criterion, for example, added by mistake, click the Delete icon to the right of the criterion.

3.10.7 Performance of recovery operation

On the **Performance** tab you can configure the following settings:

Operation priority

Changing the priority of a backup or recovery process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system, determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free more resources for other CPU tasks. Increasing backup or recovery priority may speed up the process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.

You can set up the operation priority:

- **Low** (enabled by default) - the backup or recovery process will run slower, but the performance of other programs will be increased.
- **Normal** - the backup or recovery process will have the equal priority with other processes.
- **High** - the backup or recovery process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by Acronis Small Office Backup.

3.10.8 Notifications for recovery operation

Sometimes a backup or recovery procedure can last an hour or longer. Acronis Small Office Backup can notify you when it is finished via e-mail. The program can also duplicate messages issued during the operation or send you the full operation log after operation completion.

By default all notifications are disabled.

Free disk space threshold

You may want to be notified when the free space on the backup storage becomes less than the specified threshold value. If after starting a backup Acronis Small Office Backup finds out that the free space in the selected backup location is already less than the specified value, the program will not begin the actual backup process and will immediately inform you by displaying an appropriate message. The message offers you three choices - to ignore it and proceed with the backup, to browse for another location for the backup or to cancel the backup.

If the free space becomes less than the specified value while the backup is being run, the program will display the same message and you will have to make the same decisions.

To set the free disk space threshold:

- Select the **Show notification message on insufficient free disk space** check box
- In the **Size** box, type or select a threshold value and select a unit of measure

Acronis Small Office Backup can monitor free space on the following storage devices:

- Local hard drives
- USB cards and drives
- Network shares (SMB/NFS)

*The message will not be displayed if the **Do not show messages and dialogs while processing (silent mode)** check box is selected in the **Error handling** settings.*

This option cannot be enabled for FTP servers and CD/DVD drives.

E-mail notification

You can specify an e-mail account that will be used for notifying you of the recovery process.

To specify the e-mail settings:

- Select the **Send e-mail notifications about the operation state** check box.
- Enter the e-mail recipient address in the **To** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the e-mail sender address in the **From** field.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.
- Set the port of the outgoing mail server. By default the port is set to 25.
- If the mail server requires your credentials, select the **Server requires authentication** check box.
 - Enter the user name in the **User name** field.
 - Enter the password in the **Password** field.
- To check whether your settings are correct, click the **Send test message** button.

Additional notification settings:

- To send a notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send a notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send a notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send a notification with full log of operations, select the **Add full log to the notification** check box.

4 Using online backup

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4.1 What is Acronis Cloud?

Acronis Cloud might be unavailable in your region. To find more information, click here:
<http://kb.acronis.com/content/15117>

On the one hand, Acronis Cloud is a remote storage which you may use for storing your data. All you need for using this storage is an Acronis account.

You can save important files to a secure remote location and recover them when the need arises. Because files are stored on a remote storage, they are protected even if your computer gets stolen or your house burns down. So the risk of data loss as a result of fire, theft, or other natural disasters is practically eliminated. If something happens to your backup image, PC, or external storage device, you can get your most important files back. If your computer crashes, you can recover your files back to your PC or another system that has Small Office Backup installed on it.

On the other hand, Acronis Cloud is a Web application that allows you to recover and manage the data you store on Acronis Cloud. You can use any computer with a Web browser without the necessity of installing Small Office Backup or other Acronis application that operates with Acronis Cloud.

Simply go to the Acronis Web site using this link

<http://www.acronis.com/my/backup-recovery-online/> and log in to your account. When your subscription information page opens, click **Recover my data now**. After the Acronis Cloud page opens, select the backup or sync that contains the files you need to recover and then download the files to your current computer.

You can save documents, photos, music, and more from one PC on one account. If a computer crashes, no problem... Just log in from another computer and retrieve your files.

4.2 How it works

Acronis Small Office Backup allows you to have only one online backup for one Acronis account. Therefore, if you want to create one more online backup, you must first create another Acronis account.

When you get a trial or full product subscription, Small Office Backup automatically creates an empty backup box for you. You can find it in the backup list. To create your first online backup, click **Start backup** on the box, configure the backup settings and click **Back up now**. The program will

immediately start uploading your data to Acronis Cloud. See details in Backing up to Acronis Cloud (p. 81).

An online backup created by using Acronis Small Office Backup is compatible with the Acronis Backup & Recovery product. It means that if you upgrade your Small Office Backup to Acronis Backup & Recovery, you will not need to recreate your online backup from scratch. You will be able to change settings and continue your existing online backup.

4.3 Backing up to Acronis Cloud

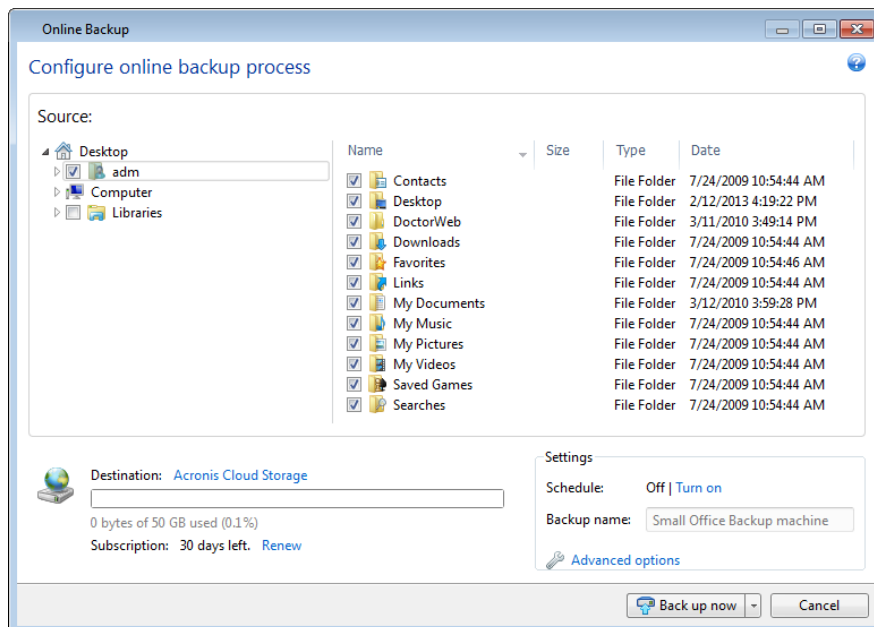
You can have only one active online backup on the current computer. Let's consider how to configure an online backup if you have not used Acronis Cloud yet.

To create an online backup:

1. Start Small Office Backup. If you are not signed in yet, click **Sign in** on the toolbar, enter the email address and password of your Acronis account, and then click **Sign in**.
2. In the backup list, find the online backup box and click the **Start backup** button.

Small Office Backup creates the online backup box automatically, when you get a subscription.

3. In the opened window, specify items to include by selecting the corresponding check boxes.



4. [optional step] You can exclude from online backups hidden or system files, folders and files matching the criteria you specify For more information see Exclusions (p. 47).
5. [optional step] The destination for the backup will be Acronis Cloud. The destination field shows your quota of the storage space on Acronis Cloud and the approximate amount of data to be backed up.
6. [optional step] To set an online backup schedule, click the **Turn on** link next to **Schedule**. For more information on scheduling your online backup see Scheduling (p. 82). To run the backup on

the schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list. The backup with the settings you have made will run according to the schedule.

The backup will run even after you sign out of Acronis Cloud.

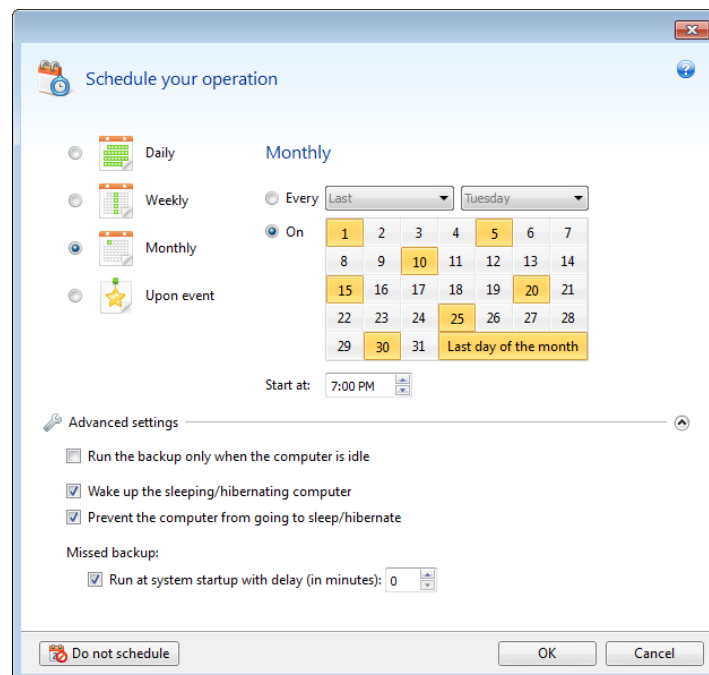
7. Click the **Back up now** button if you want to run backup immediately. You can also delay the backup start for up to six hours by clicking the down arrow to the right of this button and selecting a delay interval from the dropdown list.

The first online backup may take a considerable amount of time to complete. Further backup processes will likely be much faster, because only changes to files will be transferred over the Internet.

4.4 Scheduling

To open the **Scheduler** window, click the **Turn on** link to the right of **Schedule** while configuring a backup.

Here you can specify the backup and validation schedule settings.



You can choose and set up one of the following backup or validation frequencies:

- **Daily** (p. 83) - the operation will be executed once a day or more frequently.
- **Weekly** (p. 84) - the operation will be executed once a week or several times a week on the selected days.
- **Monthly** (p. 83) - the operation will be executed once a month or several times a month on the selected dates.
- **Upon event** (p. 84) - the operation will be executed upon an event.

Clicking the **Do not schedule** button turns off the scheduler for the current operation. In this case the backup will run only when you click **Back up now** in the main window.

Advanced settings

Clicking **Advanced settings** allows you to specify the following additional settings for backup and validation:

- To postpone a scheduled operation until the next time the computer is not in use (a screen saver is displayed or computer is locked), select the **Run the backup only when the computer is idle** check box. If you schedule validation, the check box will change to **Run the validation only when the computer is idle**.
- If you want to wake up the sleeping/hibernating computer to perform the scheduled operation, select the **Wake up the sleeping/hibernating computer** check box.
- If you do not want your computer to go to sleep or hibernate while performing the scheduled backup operation, select the **Prevent the computer from going to sleep/hibernate** check box.
- If the computer is switched off when the scheduled time comes, the operation won't be performed. You can force the missed operation to run at the next system startup. To do so, select the **Run at system startup with delay (in minutes)** check box and set a time delay to start operation after the system startup.
- If you want to regularly back up data located on a removable media (for example USB flash drive) or remote storage (for example network folder or NAS), we recommend that you select the **Run when the current source device is attached** check box. This is useful because an external storage device may be often unavailable at the scheduled moment of backup. In that case, if the check box is selected, the missed backup operation will start when the device is connected or attached.

Having finished scheduling, click **OK**.

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Monthly execution parameters	83
Weekly execution parameters	84
Upon event execution parameters	84

4.4.1 Daily execution parameters

You can set up the following parameters for daily operation execution:

- **Start time or periodicity**
 - If you select **At**, set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons. You can specify several start times by clicking **Add**.
 - If you select **Every**, choose daily operation periodicity from the dropdown list (for example, every 2 hours).

Description of the **Advanced settings** see in Scheduling (p. 82).

4.4.2 Monthly execution parameters

You can set up the following parameters for monthly operation execution:

- **Periodicity or dates**

- If you select **Every**, choose a numeral and the day of the week from the dropdown lists (example: First Monday - the operation will be performed on the first Monday of every month)
- If you select **On**, choose the date(s) for operation execution (example: you may want the operation to be run on the 10th, 20th, and last day of the month)
- **Start time**
Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 82).

4.4.3 Weekly execution parameters

You can set up the following parameters for weekly operation execution:

- **Week days**
Select the days on which to execute the operation by clicking on their names.
- **Start time**
Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 82).

4.4.4 Upon event execution parameters

You can set up the following parameters for the Upon event operation execution:

- **Event**
 - **User logon** – the operation will be executed each time the current user logs on to the OS.
 - **User logoff** – the operation will be executed each time the current user logs off the OS.
 - **System startup** – the operation will be executed at every OS startup.
Additionally, you can set a time delay to start backup after the system startup. For example, to start backup 20 minutes after system startup, type **20** in the appropriate box.
 - **System shutdown or restart** – the operation will be executed at every computer shutdown or reboot.
- **Additional condition**
 - If you want to run an operation only at the first occurrence of the event on the current day, select the **Once a day only** check box.

Description of the **Advanced settings** see in Scheduling (p. 82).

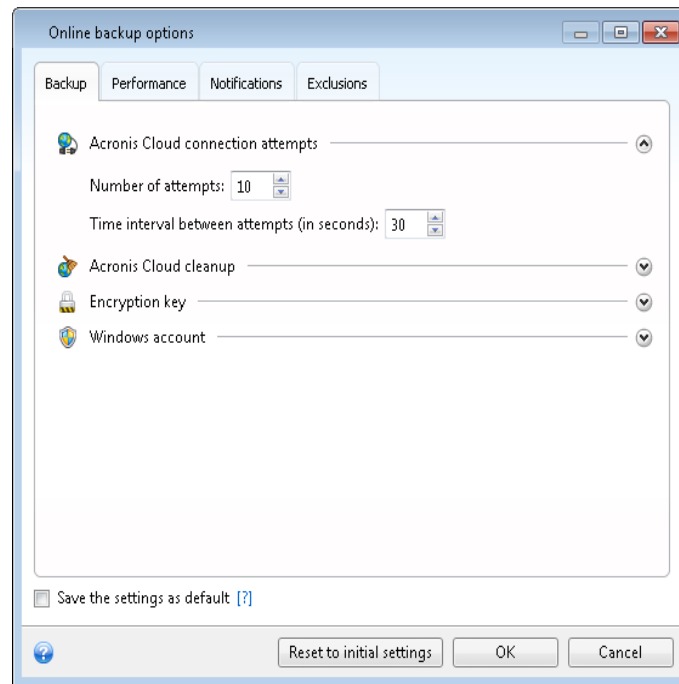
4.5 Online backup options

If you want to reset all the modified options to their initial values that were set after the product installation, click the **Reset to initial settings** button.

4.5.1 Acronis Cloud connection attempts

You can specify the number of connection attempts and the time interval between the attempts.

In case of any network problems, if the first connection attempt fails, the program will repeat the attempts until a connection is successfully established. You can set the number of connection attempts and the time interval between the attempts in seconds. To do so, type or select the values in the appropriate boxes.



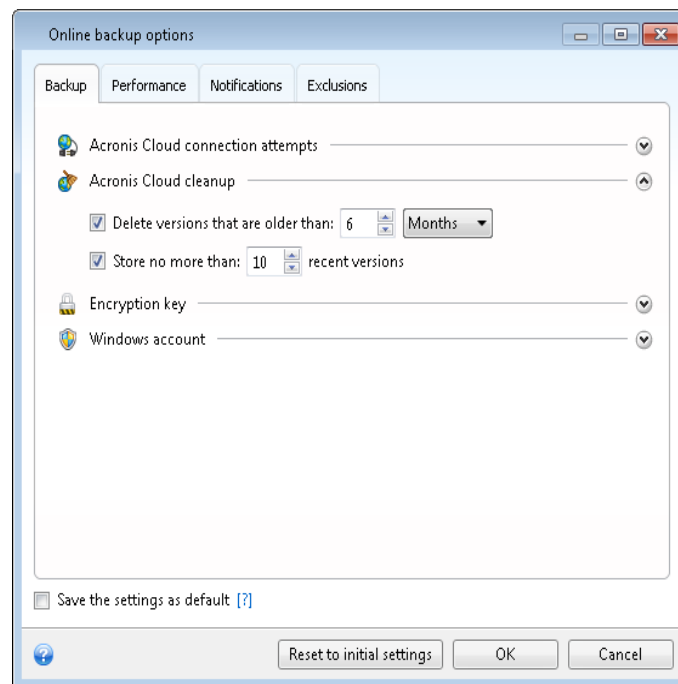
4.5.2 Acronis Cloud cleanup

You can configure the cleanup settings for Acronis Cloud to optimize usage of its space.

To set the limits for the amount of versions on Acronis Cloud:

- Select the **Delete versions that are older than** check box and enter a value that limits the maximum age of the older versions. All other versions will be automatically deleted except the most recent versions.

- Select the **Store no more than ... recent versions** check box and enter a value that limits the maximum number of all versions in the storage.



4.5.3 Encryption key

To protect your data on Acronis Cloud from unauthorized access, you can use encryption. In this case your data will be stored on Acronis Cloud in encrypted form. To encrypt and decrypt your data, the program needs the encryption key, that you should specify when you register your computer. An encryption key is a unique alphanumeric code, like a password. You can specify any set of characters you like. Note that the key is case-sensitive.

An encryption key cannot be retrieved. Please memorize the key that you specify during your computer registration.

While attempting to access the encrypted data, the program asks you to enter the encryption key.

Note that you cannot set or change the encryption key for an already existing online backup.

4.5.4 Windows account for Online backup

When you create a backup, you can specify a Windows account under which this backup should be performed. This may be useful if your computer is used not only by you, but also by your relatives. In such a case each user often has personal documents, e-mail accounts, settings, and other personal data. By default Small Office Backup backs up data of the current user. We recommend that you change this setting if the Windows account under which you are currently working is not yours. The program will back up only the data related to the specified account. Data of all other accounts will not be backed up.

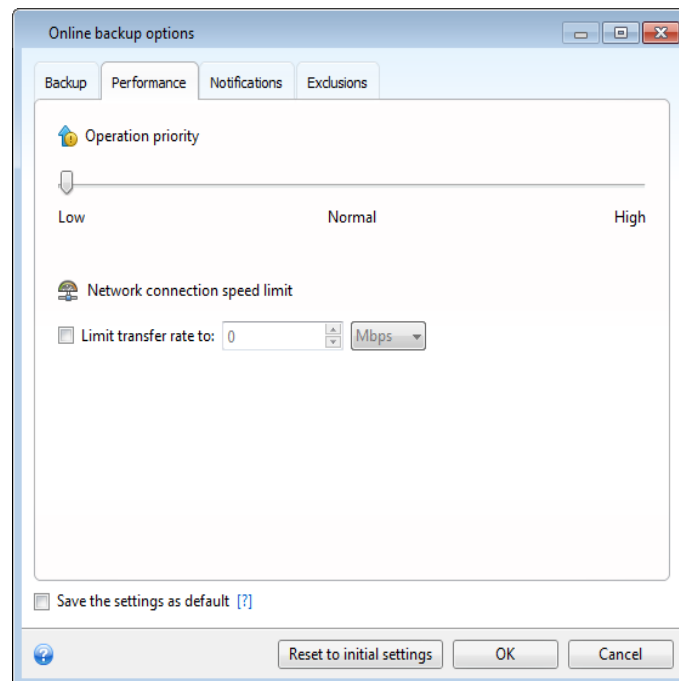
To change the current Windows account:

1. Select the **Run backup as different Windows user** check box.

2. Type the account name and password in the appropriate fields.

4.5.5 Operation priority

Changing the priority of an operation process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free up more resources for other CPU tasks. Increasing operation priority may speed up the backup process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.



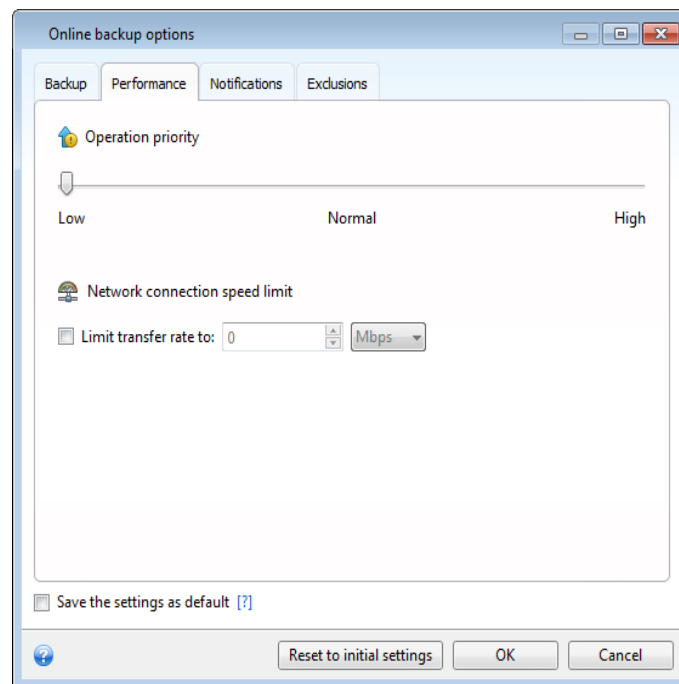
You can set up the backup process priority:

- **Low** (enabled by default) - the backup process will run slower, but the performance of other programs will be increased
- **Normal** - the backup process will have equal priority with other processes
- **High** - the backup process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by Small Office Backup

4.5.6 Network connection speed limit

You can reduce the influence of Acronis Cloud connection on other network connections of your computer. Set the connection speed that will allow you to send e-mail or surf the Web without annoying slowdowns while online backup is running. To do so:

- Select the **Limit transfer rate to** check box and specify an optimal value and an appropriate measurement unit (kilobits or megabits per second)



4.5.7 Notifications

You can specify an e-mail account that will be used to send you e-mail notifications.

First of all, choose which notifications you want to receive:

- **Send e-mail notifications about the operation state** - select this check box to receive messages about the backup process state.
- **Send disaster recovery plan (DRP) after creating a backup** - select this check box to receive messages containing a detailed list of steps you need to perform to recover your data from each backup.

To specify the e-mail settings:

- Enter the e-mail recipient address in the **To** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the e-mail sender address in the **From** field.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.
- Set the port of the outgoing mail server. By default the port is set to 25.
- If the mail server requires your credentials, select the **Server requires authentication** check box.
 - Enter the user name in the **User name** field.
 - Enter the password in the **Password** field.
- If you would like to use encryption, select the required encryption protocol from the dropdown list in the **Encryption** field.

- To check whether your settings are correct, click the **Send test message** button.

The screenshot shows the 'Online backup options' dialog box with the 'Notifications' tab selected. The 'Advanced' tab is also visible. The 'Send e-mail notifications about the operation state' and 'Send disaster recovery plan (DRP) after creating a backup' checkboxes are checked. Below these, a text box explains that a DRP will be sent after the first backup and updated when main backup settings change. The 'To:' field is set to 'tester@acronis.com' and the 'From:' field is set to 'tester123@test.com'. The 'Server settings:' field is 'smtp.test.com' and the 'Port:' is '25'. The 'Server requires authentication' checkbox is checked, with the username 'tester' and a masked password field. The 'Additional notification settings' section shows 'Encryption' set to 'None'. A 'Send test message' button is at the bottom. At the very bottom of the dialog, there are buttons for 'Reset to initial settings', 'OK', and 'Cancel', and a checkbox for 'Save the settings as default'.

Additional notification settings:

- To send notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send notification with full log of operations, select the **Add full log to the notification** check box.

4.5.7.1 Disaster recovery plan

Disaster recovery plan (DRP) is an email message that contains a list of backed up data items and detailed instructions that guide a user through a process of recovering these items from a backup.

If the Disaster recovery plan option is enabled, a DRP is created and sent by e-mail to the specified list of users after the first successful backup. The DRP will be created and sent again after the first successful backup in the following cases:

- The backup settings have been edited so that the DRP parameters changed.
- The backup contains new data items or does not contain items previously backed up.

To set up sending DRPs:

1. In a backup options window, click the **Notifications** tab and then select the **Send disaster recovery plan (DRP) after creating a backup** check box.
2. Configure email settings. See details in Notifications for backup operation (p. 46).

4.5.8 Exclusions

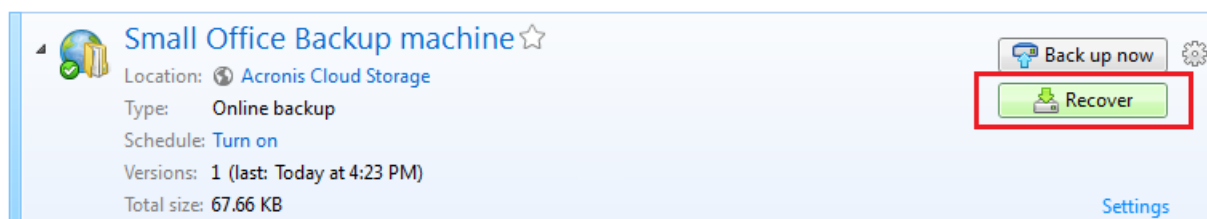
You can exclude from online backup hidden or system files and folders, as well as files matching the criteria you specify. For more information see [Excluding items from backup](#) (p. 47).

4.6 Recovery from Acronis Cloud

4.6.1 Recovering data from online backups

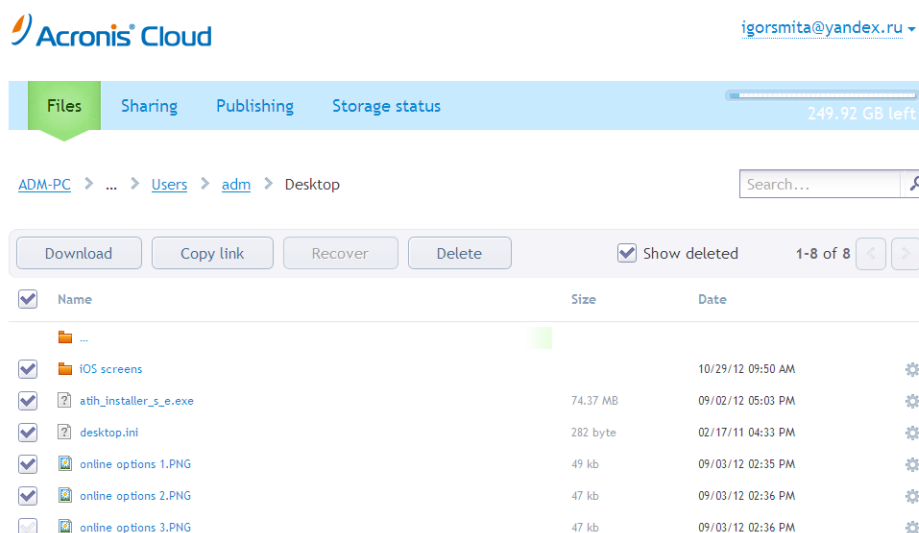
With Small Office Backup you can browse and recover data that was backed up on Acronis Cloud.

1. Start Small Office Backup and click the **Recover** button on the box of the online backup from which you want to recover data. You will be taken to Acronis Cloud web application.



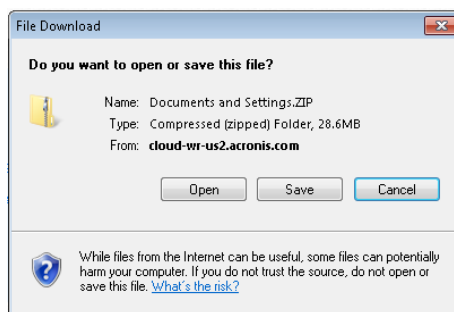
If the data from the selected computer is stored on the Cloud in encrypted form, you will be asked to enter the encryption key which has been used for encryption. You will not be able to access the data until you enter the correct encryption key.

2. On the **Files** tab, select the files and folders you want to recover. Click the **Download** button to start recovery.



If you selected several files and folders, they will be placed into a zip archive.

3. After the **File Download** window opens, click **Save** to start download.



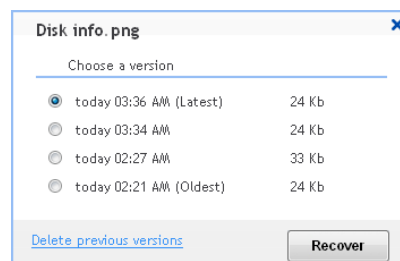
4. By default the data will be downloaded to the **Downloads** folder. You may change the download path.
5. After the download finishes, you may click **Open folder** to open the **Downloads** folder.

4.6.2 Selecting a version to recover

By default Small Office Backup selects the latest versions with respect to the date you specified. However, for any file you can select a specific version of the file to recover.

To recover a specific file version:

1. In the backup contents, select the file which version you want to recover, then click the gear icon at the right-hand side. Select **View versions** in the opened menu.



2. Select the version to which you want to rollback. The version's exact date and time will be displayed. Your current version will be reverted to the state it was at that point in time.
3. Click **Recover** to proceed. The selected version will become the latest version on Acronis Cloud.
4. After the process finishes, refresh the **Files** page in your Web browser.
5. Select the file once more and then click **Download** to download the selected version to your Downloads folder.

4.7 Removing data from Acronis Cloud

Because the available space on Acronis Cloud is limited, you need to manage your Cloud space by cleaning up the obsolete data or the data you do not need anymore. Cleanup can be done in a variety of ways.

Deleting all versions of a backup

The most "drastic" one is deleting the entire backup from a computer on Acronis Cloud. To remove the backup, click the gear icon in the box of the online backup to open the Operations menu and select **Clean up**.

Note, that this command deletes all the backup versions from Acronis Cloud. The backup box will remain in the backup list, and the backup settings will not be changed.

Cleanup settings

The Online backup options provide for automatic cleanup of Acronis Cloud. You can specify deletion of files that have been kept longer than the specified number of months or days. In addition, you can set the maximum number of file versions to be kept on Acronis Cloud. You can accept the default settings for those options or set the values you need. For more information see Acronis Cloud cleanup (p. 85).

One-time cleanup

When your Acronis Cloud is full or is running out of space, we recommend that you use the cleanup tool in Acronis Cloud web application. This tool allows you to free up considerable amount of space on the cloud fast and easy.

To clean up Acronis Cloud:

1. Start Small Office Backup and click **Recover** on an online backup box. You will be taken to the Acronis Cloud web application.
2. On the **Storage status** tab, click the **Clean up space** link in the center of the screen.
3. In the opened window, configure the cleanup settings and click **Clean up now**.

Deleting specific files and folders

You can also manage Acronis Cloud by deleting individual files and folders.

1. Start Small Office Backup and click **Recover** on an online backup box. You will be taken to the Acronis Cloud web application.
2. Select files and folders you want to delete by selecting their check boxes. Having finished selection, click the **Delete** button.

5 Tools

Acronis Tools include protection tools, image mounting tools, and the Add new disk utility.

Protection tools

- **Acronis Startup Recovery Manager**
Allows you to start Acronis Small Office Backup without loading the operating system by pressing F11 at boot time before the operating system starts.
- **Rescue Media Builder**
Allows you to create a bootable rescue media with Acronis products (or their specified components) installed on your computer.

Disk management

- **Add new disk**
Add new disk wizard helps you to add a new hard disk drive to your computer. You will be able to prepare the new hard disk drive by creating and formatting new partitions on this hard disk.

Image mounting

- **Mount image**
With this tool you can explore a previously created image. You will be able to assign temporary drive letters to the partition images and easily access these images as ordinary, logical drives.
- **Unmount image**
With this tool you can unmount the temporary logical drives you have created to explore an image.

5.1 Creating bootable rescue media

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5.1.1 Acronis Media Builder

You can run Acronis Small Office Backup from an emergency boot media on a bare-metal system or a crashed computer that cannot boot. You can even back up disks on a non-Windows computer, copying all its data into the backup by imaging the disk in the sector-by-sector mode. To do so, you will need bootable media that has a copy of the standalone Acronis Small Office Backup version installed on it.

If you purchased the boxed product, you already have a bootable CD, because the installation CD itself is bootable.

If you purchased Acronis Small Office Backup on the Web or as a download from a retailer, you can create bootable media using the Bootable Media Builder. For this, you will need a blank CD-R/RW, a blank DVD+R/RW or any other media from which your computer can boot, such as a USB flash drive.

Please note, you cannot boot Windows operating system from a bootable media created on a USB flash drive.

Acronis Small Office Backup also provides the ability to create an ISO image of a bootable disc on the hard disk.

If you have other Acronis products, such as Acronis Disk Director Home installed on your computer, you can include standalone versions of these programs on the same bootable media as well.

Notes

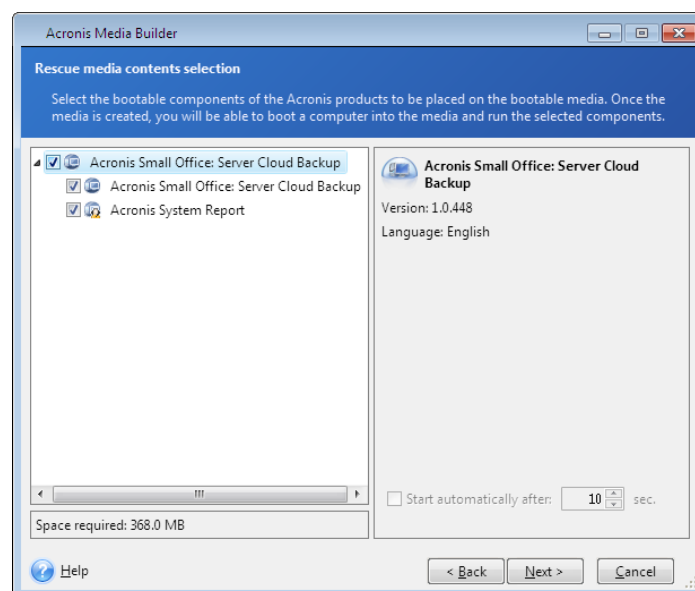
- If you have chosen not to install the Bootable Media Builder during Acronis Small Office Backup installation, you will not be able to use this feature.
- When booting from the Rescue Media, you cannot perform backups to disks or partitions with Ext2/Ext3/Ext4, ReiserFS, JFX, and Linux SWAP file systems.
- Please keep in mind that the backups created by the later program version may be incompatible with the previous program versions. Due to this reason, we strongly recommend that you create a new bootable media after each Acronis Small Office Backup upgrade.

5.1.1.1 Rescue media contents selection

You can select which components of Acronis programs you want to place on the bootable media. If you have other Acronis products installed on your computer, such as Acronis Disk Director Home, the bootable versions of these programs' components will be offered as well.

Small Office Backup offers the following components:

- **Acronis Small Office: Server Cloud Backup** - includes support of USB, PC Card (formerly PCMCIA) and SCSI interfaces along with the storage devices connected via them, and therefore is strongly recommended.
- **Acronis System Report** - the component allows you to generate a system report that is used for collecting information about your system in case of any program problem. Report generation will be available before you start Small Office Backup from the bootable media. The generated system report can be saved to a USB flash drive.



To select a component:

- Select the check box of the program you want to include into the bootable media. The bottom field displays the space required for the selected components. If you have other Acronis products installed on your computer, you can also include standalone versions of these programs into the same bootable media.
- If automatic start of the program is necessary, select the **Starts automatically after** check box. The **Start automatically after** parameter specifies the timeout interval for the boot menu. If this parameter is not specified, the program will display the boot menu and wait for you to select whether to boot the OS or the Acronis component. If you set, for example, **10 sec** for Acronis rescue media, the standalone Small Office Backup will launch 10 seconds after the menu is displayed.
- Click **Next** to continue.

5.1.1.2 Bootable media startup parameters

Here, you can set bootable media startup parameters in order to configure rescue media boot options for better compatibility with different hardware. Several options are available (nousb, nomouse, noapic, etc.). These parameters are provided for advanced users. If you encounter any hardware compatibility problems while testing boot from the rescue media, it may be best to contact Acronis Technical Support.

To add a startup parameter

- Enter a command into the **Parameters** field.
- Having specified the startup parameters, click **Next** to continue.

Additional parameters that can be applied prior to booting Linux kernel

Description

The following parameters can be used to load Linux kernel in a special mode:

- **acpi=off**

Disables ACPI and may help with a particular hardware configuration.

- **noapic**

Disables APIC (Advanced Programmable Interrupt Controller) and may help with a particular hardware configuration.

- **nousb**

Disables loading of USB modules.

- **nousb2**

Disables USB 2.0 support. USB 1.1 devices still work with this option. This option allows using some USB drives in USB 1.1 mode, if they do not work in USB 2.0 mode.

- **quiet**

This parameter is enabled by default and the startup messages are not displayed. Deleting it will result in the startup messages being displayed as the Linux kernel is loaded and the command shell being offered prior to running the Acronis program.

- **nodma**

Disables DMA for all IDE disk drives. Prevents kernel from freezing on some hardware.

- **nofw**

Disables FireWire (IEEE1394) support.

- **nopcmcia**

Disables PCMCIA hardware detection.

- **nomouse**

Disables mouse support.

- **[module name]=off**

Disables the module (e.g. **sata_sis=off**).

- **pci=bios**

Forces to use PCI BIOS, and not to access the hardware device directly. For instance, this parameter may be used if the machine has a non-standard PCI host bridge.

- **pci=nobios**

Disallows use of PCI BIOS; only direct hardware access methods are allowed. For instance, this parameter may be used if you experience crashes upon boot-up, probably caused by the BIOS.

- **pci=biosirq**

Uses PCI BIOS calls to get the interrupt routing table. These calls are known to be buggy on several machines and they hang the machine when used, but on other computers it is the only way to get the interrupt routing table. Try this option, if the kernel is unable to allocate IRQs or discover secondary PCI buses on your motherboard.

- **vga=ask**

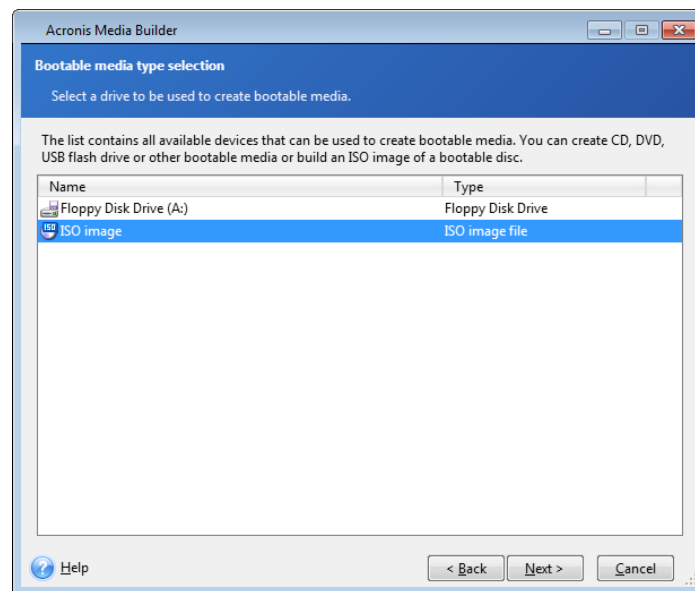
Gets the list of the video modes available for your video card and allows selecting a video mode most suitable for the video card and monitor. Try this option, if the automatically selected video mode is unsuitable for your hardware.

5.1.1.3 Bootable media selection

Select a destination for bootable media creation:

- **CD-R/RW** - if you are creating CD, insert a blank disc so that the program can determine its capacity.
- **ISO image** - having created an ISO disk image, you will be able to burn it onto any kind of recordable DVD, using DVD recording software. Creating a bootable DVD directly from Bootable Media Builder is impossible.
- any other media your PC can boot from, such as USB flash drives, etc.

If you use non-optical media, the media must have a FAT file system. This limitation is not applicable for an ISO image.



5.1.1.4 Destination file selection

If you chose to create a bootable disk ISO image, specify the ISO file name and the folder where to place it:

- Select the destination folder from the folder tree
- Enter a name for the .iso file in the **File name** field
- Click **Next** to continue

5.1.1.5 Bootable media creation summary

This page displays operations to be performed.

Click **Proceed** to start the bootable media creation process.

Use the sidebar on the left to navigate through the wizard's steps for revision.

To cancel operation and quit Acronis Media Builder, click **Cancel**.

After you create a boot disc, mark it and keep it in a safe place.

Please keep in mind that the backups created by the later program version may be incompatible with the previous program versions. Due to this reason, we strongly recommend that you create a new bootable media after each Acronis Small Office Backup upgrade. One more thing you should remember – when booting from the rescue media and using a standalone version of Acronis Small Office Backup you cannot recover files and folders encrypted with use of the encryption feature available in Windows operating systems. On the other hand, backups encrypted using the Acronis Small Office Backup encryption feature can be recovered.

5.1.1.6 How to create a bootable USB flash drive

You can create a bootable USB flash drive containing a standalone Acronis Small Office Backup. This may be handy, for example, if your notebook does not have an internal CD/DVD-drive.

You will need a USB flash drive with a capacity of 256 MB or more. The drive must be formatted in FAT16 or FAT32 file system.

To create a bootable USB flash drive, attach the drive to a USB port. Start Acronis Media Builder and then select the drive as the destination for the rescue media creation. Then follow the Media Builder wizard steps.

If Acronis Media Builder does not recognize your USB flash drive, you can try using the procedure described in an Acronis Knowledge Base article at <http://kb.acronis.com/content/1526>.

5.1.2 Creating WinPE-based rescue media

Acronis Plug-in for WinPE can be added to WinPE distributions based on any of the following kernels:

- Windows Vista family of operating systems (PE 2.0):
 - Windows Server 2003 SP1
 - Windows Server 2003 SP1 with KB926044
 - Windows Server 2003 SP2
- Windows Server 2008 family of operating systems (PE 2.1):
 - Windows Server 2008
 - Windows Server 2003 SP1 with KB926044
 - Windows Server 2003 SP2
- Windows Server 2008 R2 family of operating systems (PE 3.0):
 - Windows Server 2003 SP2
 - Windows Server 2008 family
 - Windows Server 2008 R2 family
- Windows 8 family of operating systems (PE 4.0):
 - Windows Server 2008
 - Windows Server 2008 R2
 - Windows Server 2012

To be able to create or modify PE 2.x and 3.0 images, you must have Windows Automated Installation Kit (AIK) installed. To create PE 4.0, you should install Windows Assessment and Deployment Kit (ADK).

If you do not have none of these kits installed, prepare as follows:

1. Depending on your operating system, download and install one of these packs:

AIK for Windows Vista family of operating systems (PE 2.0):

<http://www.microsoft.com/Downloads/details.aspx?familyid=C7D4BC6D-15F3-4284-9123-679830D629F2&displaylang=en>

AIK for Windows Server 2008 family of operating systems (PE 2.1):

<http://www.microsoft.com/downloads/details.aspx?FamilyID=94bb6e34-d890-4932-81a5-5b50c657de08&DisplayLang=en>

AIK for Windows Server 2008 R2 family of operating systems (PE 3.0):

<http://www.microsoft.com/DOWNLOADS/details.aspx?familyid=696DD665-9F76-4177-A811-39C26D3B3B34&displaylang=en>

ADK for Windows 8 family of operating systems (PE 4.0):

<http://www.microsoft.com/en-us/download/details.aspx?id=30652>

2. [optional] Burn the Windows AIK to DVD or copy to a flash drive.
3. Install the Microsoft .NET Framework v.2.0 from this kit (NETFXx86 or NETFXx64, depending on your hardware).
4. Install Microsoft Core XML (MSXML) 6.0 Parser from this kit.
5. Install Windows AIK from this kit.

It is recommended that you familiarize yourself with the help documentation supplied with Windows AIK or Windows ADK. A good starting point is the "Create an image" section of "Getting Started for IT Professionals" white paper. To access the document, select **Microsoft Windows AIK -> Documentation -> Getting Started for IT Professionals** from the **Start** menu.

For more information on customizing Windows PE, see the Windows Preinstallation Environment User's Guide (Winpe.chm).

Integrating Small Office Backup with WinPE 2.x, 3.0 or 4.0 ISO

Acronis WinPE ISO Builder provides three methods of integrating Small Office Backup with WinPE 2.x, WinPE 3.0 and WinPE 4.0:

- Creating the PE 2, PE 3 or PE 4 ISO with the plug-in from scratch.
- Adding the Acronis Plug-in to the existing PE 2, PE 3 or PE 4 ISO. This comes in handy when you have to add the plug-in to the previously configured PE 2, PE 3 or PE 4 ISO that is already in use.
- Adding the Acronis Plug-in to a WIM file for any future purpose (manual ISO building, adding other tools to the image and so on).

To be able to perform any of the above operations, Windows Automated Installation Kit (WAIK) must be installed on your PC. If you have not installed WAIK, install it as described earlier in this section.

Acronis WinPE ISO Builder supports only x86 WinPE 2.x and WinPE 3.0. This WinPE distribution can also work on x64 hardware.

A PE image based on Win PE 2.x or 3.0 requires at least 256MB RAM to work. The recommended memory size for PE 2.x or 3.0 is 512MB.

5.1.2.1 Creating a new WinPE ISO with the Acronis Plug-in

Creating a new Win PE 2.x, PE 3.0 or PE 4.0 ISO with the Acronis Plug-in begins from creating a Windows PE build directory:

1. Select **Microsoft Windows AIK -> Windows PE Tools Command Prompt** from the **Start** menu. Users of Windows Server 2008 R2 should select **Microsoft Windows AIK -> Deployment Tools Command Prompt** from the **Start** menu.

If you installed WinPE 4.0, select **Windows Kits -> Windows ADK -> Deployment and Imaging Tools Environment** from the **Start** menu.

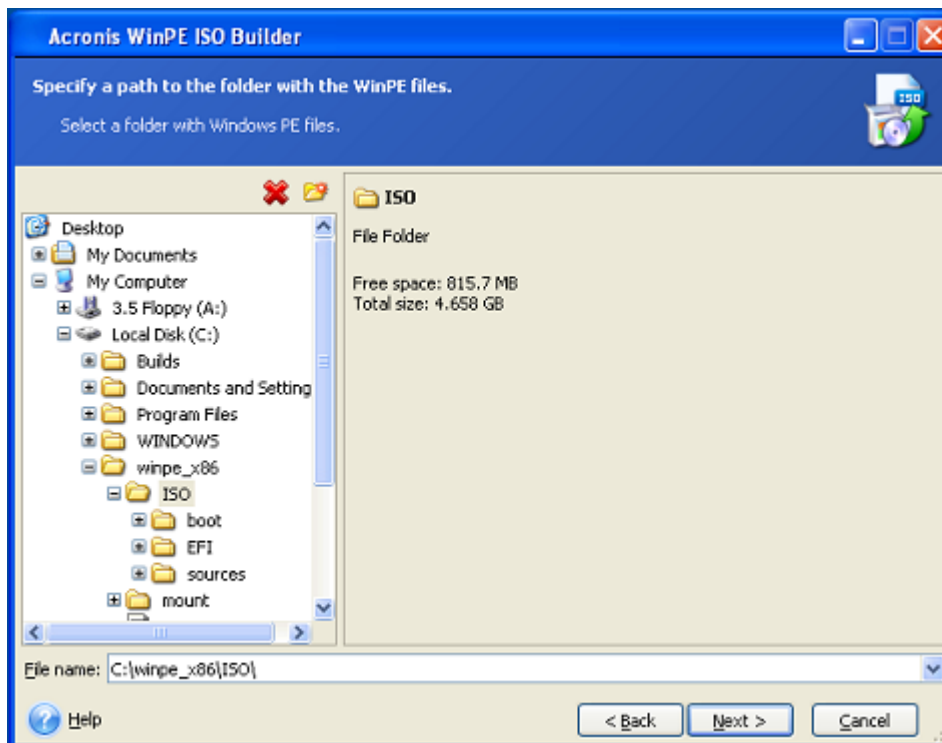
2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

```
copype x86 c:\winpe_x86
```

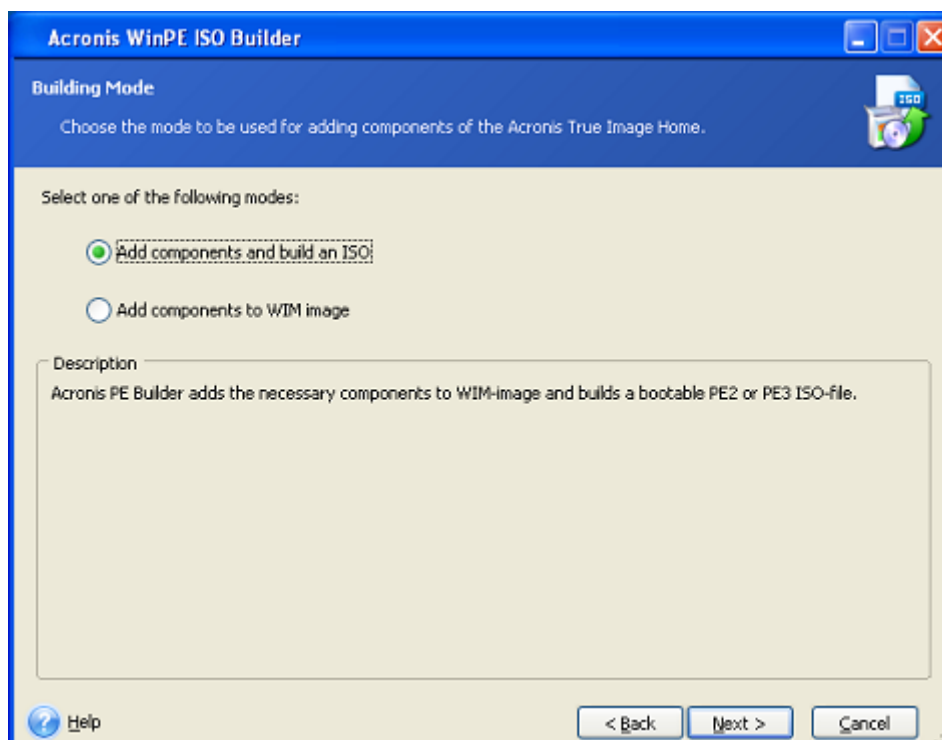
When the operation finishes, create an ISO:

3. Select **Acronis -> Acronis Small Office Server Cloud Backup -> Acronis WinPE ISO Builder** from the **Start** menu.
4. Specify the path to the folder WinPE\ISO (for example c:\winpe_x86\ISO).

In case you create Win PE 4.0 ISO, specify the path to the folder WinPE\media (for example c:\winpe_x86\media).

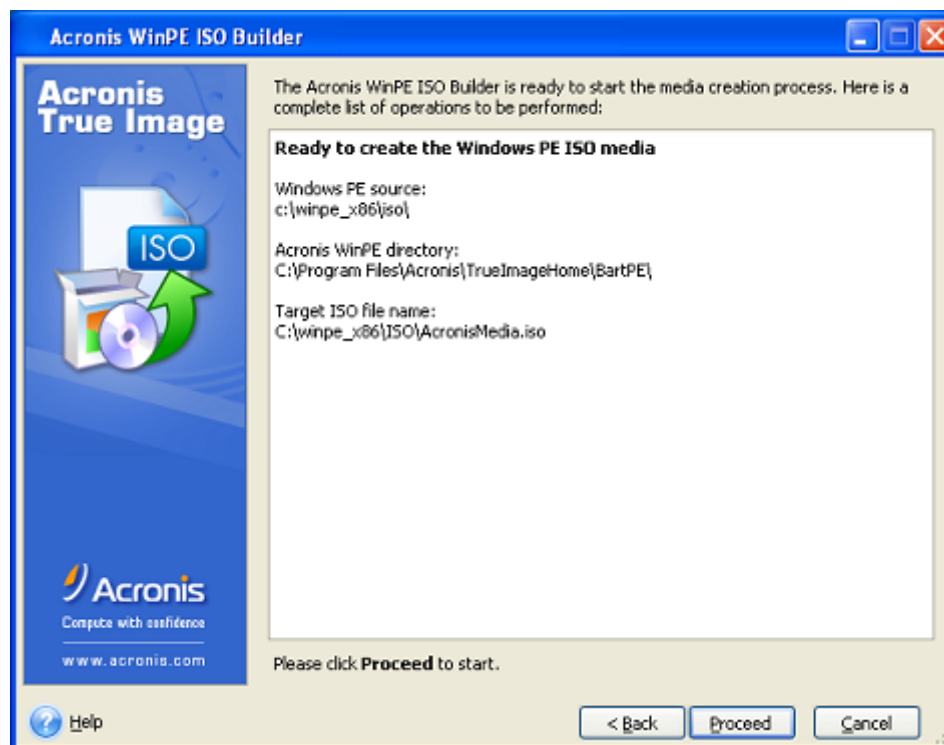


5. On the next screen choose the **Add components and build an ISO** option and click **Next**.



6. Specify the full path to the resulting image file including the filename or leave the default path and filename (AcronisMedia.iso).

7. Check your settings in the summary screen and click **Proceed**.



8. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with Small Office Backup.

Once a machine boots into WinPE, Small Office Backup starts automatically. Be aware that startup may take a considerable amount of time.

5.1.2.2 Adding the Acronis Plug-in to the existing WinPE 2.x or 3.0 ISO

To add the Acronis Plug-in to the existing WinPE 2.x, WinPE 3.0 or WinPE 4.0 ISO:

1. Unpack all files of your Win PE 2, WinPE 3 or WinPE 4 ISO to a separate folder on the hard disk.
2. Select **Acronis** -> **Acronis Small Office Server Cloud Backup** -> **Acronis WinPE ISO Builder** from the **Start** menu.
3. Specify the path to the folder with the WinPE files.
4. Specify the full path to the resulting ISO file including the filename or leave the default path and filename (AcronisMedia.iso).
5. Check your settings in the summary screen and click **Proceed**.
6. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with Small Office Backup.

Once the machine boots into WinPE, Small Office Backup starts automatically. Be aware that startup may take a considerable amount of time.

5.1.2.3 Adding the Acronis Plug-in to WinPE WIM

To add the Acronis Plug-in to WinPE 2.x or 3.0 WIM:

1. Select **Acronis** → **Acronis Small Office Server Cloud Backup** → **Acronis WinPE ISO Builder** from the **Start** menu.

2. Specify the path to the source WINPE.WIM file. The standard path to this file for x86 hardware is `\Program Files\Windows AIK\Tools\PETools\X86\winpe.wim`.
In case of WinPE 4.0 the path is the following: `\Program Files (x86)\Windows Kits\8.0\Assessment and Deployment Kit\Windows Preinstallation Environment\x86\en-us\winpe.wim`.
3. Specify the full path to the resulting WIM file, including the filename or leave the default path and filename (AcronisMedia.wim).
4. Check your settings in the summary screen and click **Proceed**.

To create a PE image (ISO file) from the resulting WIM file:

1. Select **Microsoft Windows AIK** → **Windows PE Tools Command Prompt** from the **Start** menu.
Users of Windows Server 2008 R2 should select **Microsoft Windows AIK** → **Deployment Tools Command Prompt** from the **Start** menu.
If you installed WinPE 4.0, select **Windows Kits** → **Windows ADK** → **Deployment and Imaging Tools Environment** from the **Start** menu.
2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

```
copype x86 c:\winpe_x86
```
3. Replace the default boot.wim file in your Windows PE folder with the newly created WIM file. For the above WIM file creation example with the default path to the newly created WIM file, type:

```
copy c:\Program Files\Windows AIK\Tools\PETools\x86\AcronisMedia.wim  
c:\winpe_x86\ISO\sources\boot.wim
```


Users of Windows Server 2008 R2 should type the following command:

```
move "c:\Program Files\Windows AIK\Tools\PETools\x86\AcronisMedia.wim"  
c:\winpe_x86\ISO\sources\boot.wim
```


In case of WinPE 4.0 type the following command:

```
copy "c:\Program Files (x86)\Windows Kits\8.0\Assessment and Deployment Kit\Windows  
Preinstallation Environment\x86\en-us\AcronisMedia.wim"  
c:\winpe_x86\media\sources\boot.wim
```
4. Use the **Oscdimg** tool. To create an ISO file, type:

```
oscdimg -n -bc:\winpe_x86\etfsboot.com c:\winpe_x86\ISO  
c:\winpe_x86\winpe_x86.iso
```
5. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with Small Office Backup.

5.1.2.4 Creating a custom WinPE 3.0 ISO with your drivers

Sometimes a basic WinPE disk with Acronis Plug-in does not have drivers for your specific hardware, for example, for storage device controllers. Users of Windows Server 2008 R2 can add such drivers to the basic WinPE 3.0 image (WIM) before creating an ISO file with Acronis Plug-in.

Attention! You can only add drivers which have the .inf filename extension.

The following procedure is based on an MSDN article that can be found at [http://technet.microsoft.com/en-us/library/dd799244\(Ws.10\).aspx](http://technet.microsoft.com/en-us/library/dd799244(Ws.10).aspx)

To create a custom Windows PE image, proceed as follows:

1. In the **Start** menu, click **Microsoft Windows AIK**, then right-click **Deployment Tools Command Prompt** and select **Run as administrator**.
 2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

```
copype x86 C:\winpe_x86
```
 3. Mount the base image by using the DISM tool to a local directory. For example,

```
Dism /Mount-Wim /WimFile:C:\winpe_x86\winpe.wim /index:1 /MountDir:C:\winpe_x86\mount
```
 4. Add your hardware driver by using the Dism command with the /Add-Driver option. For example:

```
Dism /image:C:\winpe_x86\mount /Add-Driver /driver:C:\drivers\mydriver.inf
```
 5. Repeat Step 4 for all other drivers you need to add.
 6. Commit the changes using the Dism command with the /Unmount-Wim /Commit option.

```
Dism /Unmount-Wim /MountDir:C:\winpe_x86\mount /Commit
```
-
- Do not exit the command prompt.*
-

After the custom WIM is created, proceed to adding Acronis Plug-in:

1. Select **Acronis** → **Acronis Small Office Server Cloud Backup** → **Acronis WinPE ISO Builder** from the **Start** menu.
2. Specify the path to the created winpe.wim file. In our example the path is C:\winpe_x86\winpe.wim
3. Specify the full path to the resulting WIM file, including the filename or leave the default path and filename (C:\winpe_x86\AcronisMedia.wim).
4. Check your settings in the summary screen and then click **Proceed**.

To create a PE image (ISO file) from the resulting WIM file:

1. Replace the default boot.wim file in your Windows PE folder with the newly created WIM file. For the above WIM file creation example, type:

```
copy C:\winpe_x86\AcronisMedia.wim C:\winpe_x86\ISO\sources\boot.wim
```
2. Use the **Oscdimg** tool. To create an ISO file, type:

```
oscdimg -n -bC:\winpe_x86\etfsboot.com C:\winpe_x86\ISO C:\winpe_x86\winpe_x86.iso
```
3. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with Acronis Small Office Backup and your hardware driver or drivers.

5.1.3 How to prepare a USB flash drive for Acronis Media Builder

If Acronis Media Builder does not recognize the USB flash drive you want to make bootable, prepare the drive as follows:

1. Insert your flash drive into a USB port.
2. Press **Win+R** (or select **Start** -> **Run**) and type **cmd** to open the command line prompt.
3. Type **diskpart** to start Windows DiskPart utility.
4. Type **list disk** to list all disks attached to the machine:

```
DISKPART> list disk
```

Disk ###	Status	Size	Free	Dyn	Gpt
Disk 0	Online	75 GB	45 GB		
Disk 1	Online	149 GB	1400 MB		
* Disk 2	Online	3936 MB	0 B		

Based on the size, we can assume that in the above example the USB memory stick is disk 2.

Take extreme care to get the disk number right. You don't want to wipe the wrong drive!

5. Type **select disk [number]** to select your flash drive.
6. Type **clean** to remove any formatting from the selected disk.
7. Type **create partition primary**.
8. Type **select partition 1** to select the only partition now on the flash drive.
9. Type **active** to mark the partition as active.
10. Type **format quick fs=fat32** to format the disk in FAT32 (otherwise the drive will not be bootable).
11. Type **assign** to assign a drive letter.
12. Type **exit** to exit Windows DiskPart utility.

5.2 Adding a new hard disk

If you do not have enough space for your data (e.g. family photos and videos), you can either replace the old disk with a new higher-capacity one (data transfers to new disks are described in the previous chapter), or add a new disk only to store data, leaving the system on the old disk. If the computer has a bay for another disk, it would be easier to add a disk drive than to clone one.

To add a new disk, you must first install it in your PC.

To add a new hard disk:

1. Start Small Office Backup.
2. On the toolbar, click **Tools** and then click **Add new disk**.
3. Follow the Add New Disk Wizard steps.

*If your operating system does not support GPT disks, the wizard will not have the **Initialization options** step.*

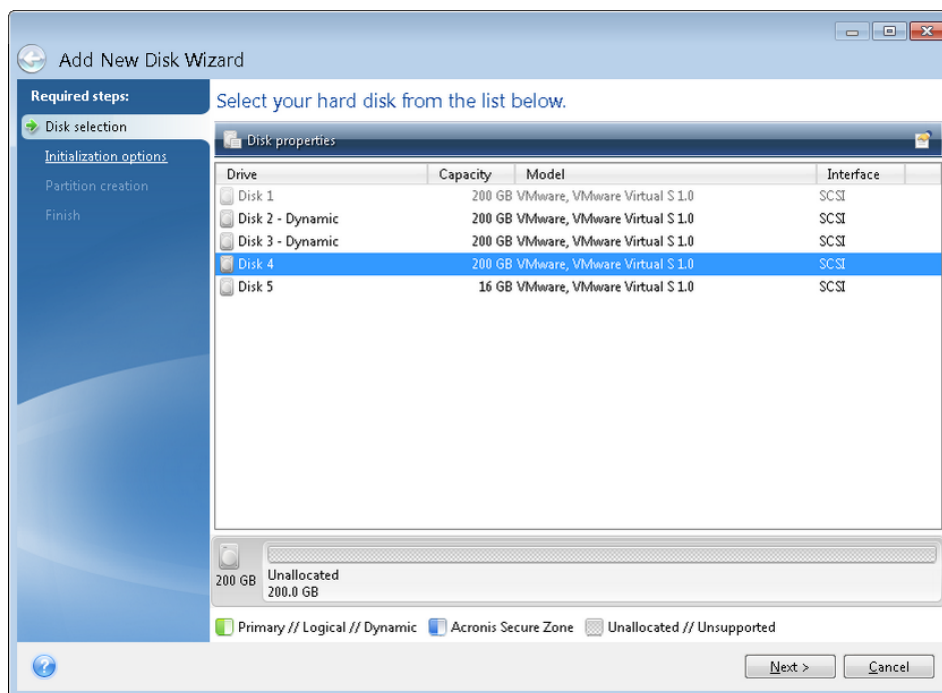
In this section

Selecting a hard disk	104
Selecting initialization method	106
Creating new partitions.....	106
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5.2.1 Selecting a hard disk

Select the disk that you have added to the computer. If you have added several disks, select one of them and click **Next** to continue. You can add the other disks later by restarting the Add New Disk Wizard.

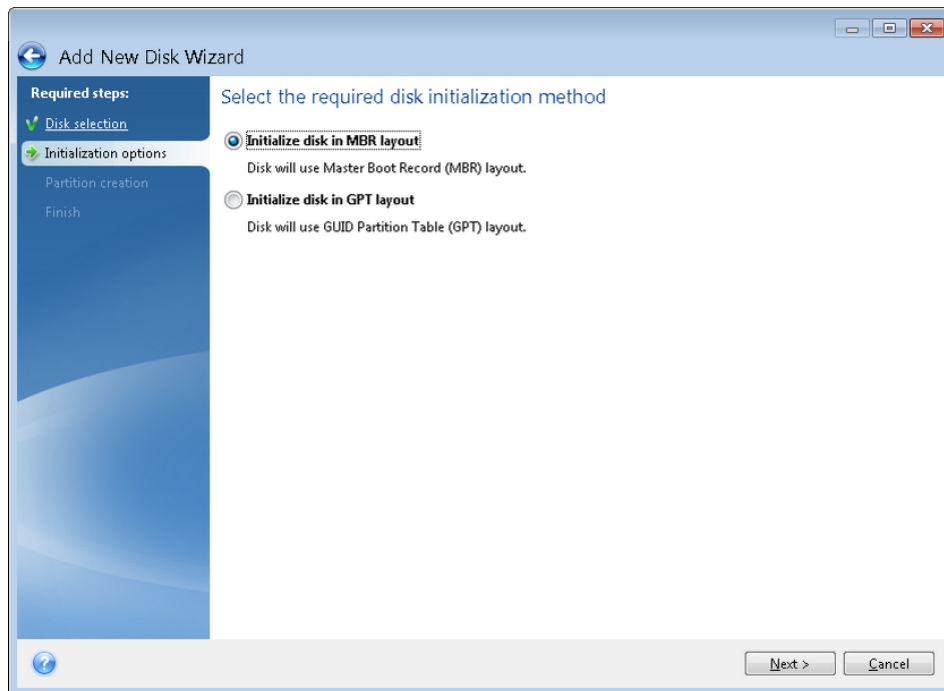
*If there are any partitions on the new disk, they must be deleted first. If the added disk contains partitions, Acronis Small Office Backup will warn you by displaying the warning message. Click **OK** to delete the existing partitions on the added disk.*



You can also see the properties of all the hard disks installed in your system, for example, the name and the model of the selected disk drive, its capacity, file system and its interface.

5.2.2 Selecting initialization method

Acronis Small Office Backup supports both MBR and GPT partitioning. GUID Partition Table (GPT) is a new hard disk partitioning method providing advantages over the old MBR partitioning method. If your operating system supports GPT disks, you can select the new disk to be initialized as a GPT disk.



- To add a GPT disk, click **Initialize disk in GPT layout**.
- To add an MBR disk, click **Initialize disk in MBR layout**.

After selecting the required initialization method click **Next**.

5.2.3 Creating new partitions

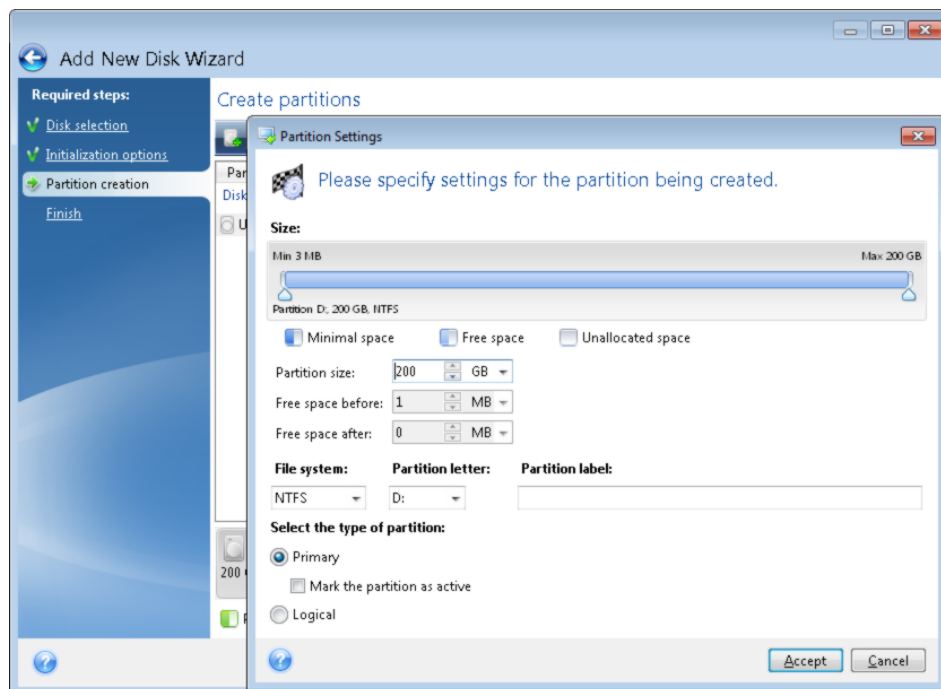
To use the space on a hard disk, it must be partitioned. Partitioning is the process of dividing the hard disk's space into logical divisions. Each logical division may function as a separate disk with an assigned drive letter, its own file system, etc. Even if you do not intend to divide your hard disk into logical divisions it must be partitioned so that the operating system knows that it is intended to be left in one piece.

Initially, all disk space will be unallocated. This will change after you add new partitions.

To create a new partition:

- Select the unallocated space and click **Create new partition** in the upper part of the window, or right click on the unallocated space, and select **Create new partition** in the shortcut menu.
- Specify the following settings for the partition being created:
 - the size of the new partition,
 - file system of the new partition,
 - partition type (available only for MBR disks),

- partition letter and label.



If you allocate all unallocated space on the disk to the new partition, the **Create new partition** button disappears.

5.2.3.1 Partition settings

Specify the settings for the partition being created.

Size

You can resize and relocate the partition being created.

If you want to resize the partition:

- Point the cursor at the partition border. If the cursor is pointed exactly at the partition border, it will change into two vertical lines with arrows on each side.
- Hold down the left mouse button and drag the selected partition border to enlarge or reduce the partition size.

You can also set the size of the partition manually, by typing-in the desired partition size in the **Partition Size** field.

If you want to relocate the partition:

- Point the cursor at the partition. The cursor will change into a crosshair.
- Hold down the left mouse button and drag the partition until you get the necessary size of the **Free space before** and/or **Free space after** fields. You can also set the amount of unallocated space before or after the selected partition by manually typing-in the necessary value in the respective fields.

If you create one or more logical drives, the program will reserve some unallocated space for system needs in front of the created partition(s). If you create a primary partition or a primary partition together with a logical one then no unallocated space will be reserved for system needs.

File System

Choose the file system type for the partition being created. Different partitions may have different type of file system.

You can either leave the partition unformatted, or choose between the following file system types:

- **NTFS** is a native file system of the Windows NT family of operating systems. Choose it if you use these operating systems.
- **FAT 32** is an improved 32-bit version of the FAT file system that supports volumes up to 2 TB.
- **FAT 16** is a DOS native file system. Most operating systems recognize it. However, if your disk drive is more than 4 GB, it is not possible to format it in FAT16.
- **Ext2** is a Linux native file system. It is fast enough, but it is not a journaling file system.
- **Ext3** – officially introduced with Red hat Linux version 7.2, Ext3 is a Linux journaling file system. It is forwards and backwards compatible with Linux Ext2. It has multiple journaling modes, as well as broad, cross platform compatibility in both 32-bit and 64-bit architectures.
- **Ext4** is a new Linux file system. It has improvements in comparison to ext3. It is fully backward compatible with ext2 and ext 3. However, ext3 has only partial forward compatibility with ext4.
- **ReiserFS** is a journaling file system for Linux. Generally it is more reliable and faster than Ext2. Choose it for your Linux data partition.
- **JFS** is a 64-bit journaling file system. It is fast, reliable and provides good performance under wide range of load levels.
- **Linux Swap** is a swap partition for Linux. Choose it if you want to add more swap space using Linux

Partition letter

Select a letter to be assigned to the partition being created from the drop-down list. If you select **Auto**, the program assigns the first unused drive letter in alphabetical order.

Partition label

Partition label is a name, assigned to a partition so that you can easily recognize it. For example, one could be called System — a partition with an operating system, Program — an application partition, Data — a data partition, etc. Partition label is an optional attribute.

Partition type (these settings are available only for MBR disks)

Choose the type of partition to be created. You can define the new partition as primary or logical.

- **Primary** - choose this parameter if you are planning to boot from this partition. Otherwise, it is better to create a new partition as a logical drive. You can have only four primary partitions per drive, or three primary partitions and one extended partition.

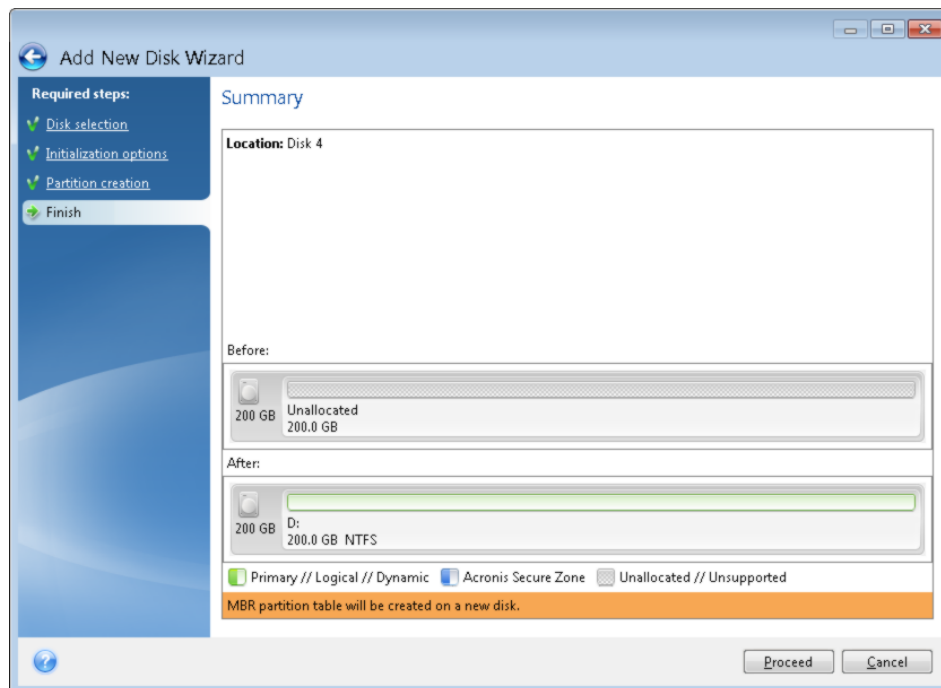
Note: If you have several primary partitions, only one will be active at a time, the other primary partitions will be hidden and won't be seen by the OS.

- **Mark the partition as active** - an active partition is used for loading an operating system. Selecting Active for a partition without an installed operating system could prevent your computer from booting.
- **Logical** - choose this parameter if you don't intend to install and start an operating system from the partition. A logical drive is part of a physical disk drive that has been partitioned and allocated as an independent unit, but functions as a separate drive.

When you finish to specify the settings for the partition being created, click **Accept** to continue.

5.2.4 Add new disk summary

The Add new disk summary graphically (as rectangles) illustrates information about the new disk layout before and after partitioning.



- Click **Proceed** to start creating new partition(s).
- Click **Cancel** to cancel the procedure and quit to the main program window.

After you click **Proceed**, Acronis Small Office Backup starts creating new partition or partitions, indicating the progress in a special window. If you stop this procedure by clicking **Cancel**, you will have to repartition and format the new disk or repeat the disk add procedure.

*Before clicking the **Proceed** button you can use the sidebar to navigate through the **Add New Disk Wizard** steps and make changes.*

5.3 How to use Acronis Startup Recovery Manager

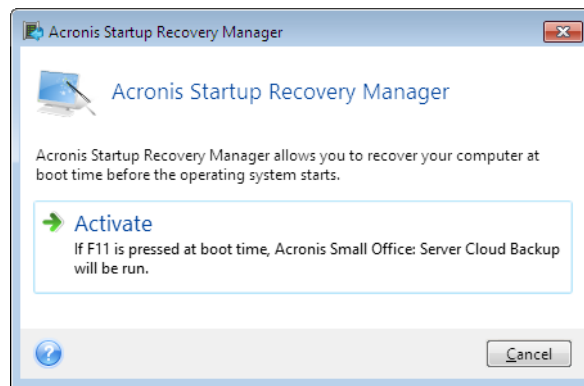
The Acronis Startup Recovery Manager enables you to start Acronis Small Office Backup on a local computer without loading the operating system.

If Windows won't load, this feature allows you to use Acronis Small Office Backup by itself to recover damaged partitions.

To be able to use Acronis Startup Recovery Manager at boot time:

1. On the toolbar, click **Tools** and then select **Acronis Startup Recovery Manager**.

2. Click the **Activate** button.



Attention

When Acronis Startup Recovery Manager is activated, it overwrites the master boot record (MBR) with its own boot code. If you have any third-party boot managers installed, you will have to reactivate them after activating the Startup Recovery Manager. For Linux loaders (e.g. LiLo and GRUB), you might consider installing them to a Linux root (or boot) partition boot record instead of an MBR before activating Acronis Startup Recovery Manager.

If a failure occurs, turn on the computer and press F11 when you see the "Press F11 for Acronis Startup Recovery Manager" message. This will start a standalone version of Acronis Small Office Backup that differs only slightly from the complete version. Browse for a backup containing an image of your system partition and recover your system.

Disk letters in standalone Acronis Small Office Backup might sometimes differ from the way Windows identifies drives. For example, the D: disk identified in the standalone Acronis Small Office Backup might correspond to the E: disk in Windows. The disk labels and information on partition sizes, file systems, drive capacities, their manufacturers, and model numbers can help in correctly identifying the disks and partitions.

5.4 Mounting an image

Acronis Small Office Backup offers mounting and exploring for images.

Exploring images lets you view their contents and copy the selected files to a hard disk. To explore a backup in Windows Explorer, double-click on the corresponding tib file.

When you copy files from a backup being explored, the copied files lose the "Compressed" and "Encrypted" attribute. If you need to keep these attributes, it is recommended to recover the backup.

Mounting images as virtual drives lets you access them as though they were physical drives. Such ability means that:

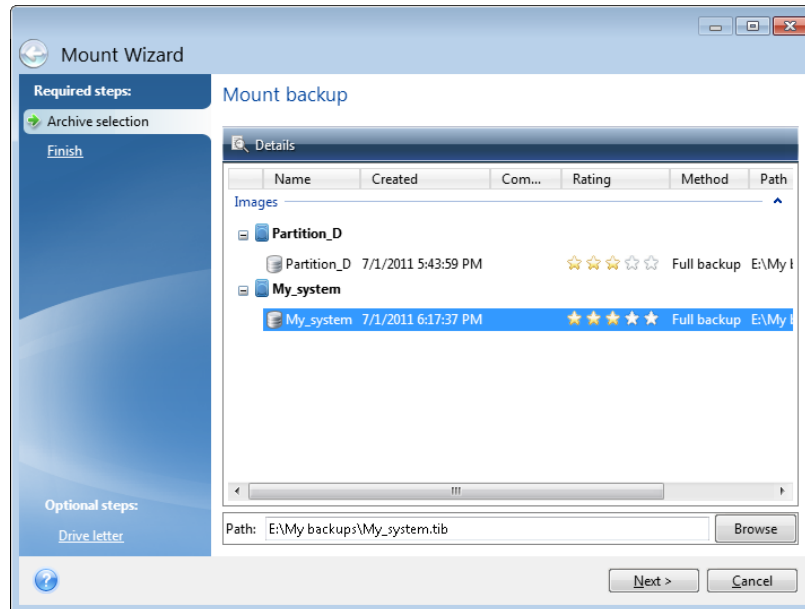
- a new disk with its own letter will appear in the drives list
- using Windows Explorer and other file managers, you can view the image contents as if they were located on a physical disk or partition
- you will be able to use the virtual disk in the same way as the real one: open, save, copy, move, create, delete files or folders. If necessary, the image can be mounted in read-only mode.

The operations described in this section are supported only for the FAT and NTFS file systems.

Please keep in mind that, though both file backups and disk/partition images have a default ".tib" extension, only **images** can be mounted. If you want to view file backup contents, use the Explore operation.

How to mount an image

1. Start Small Office Backup.
2. On the toolbar, click **Tools** and then click **Mount image**. The Mount wizard opens.
3. Select the backup for mounting.

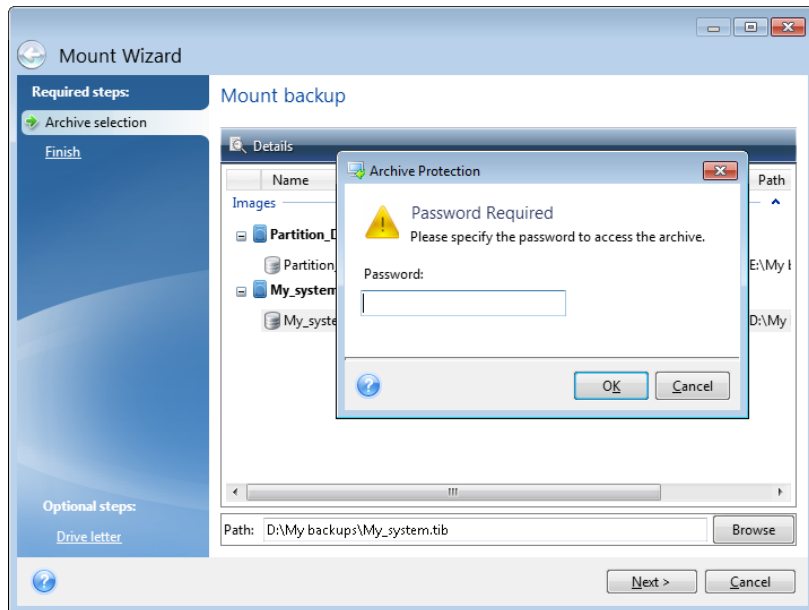


If you selected a backup containing incremental images, you can select one of the successive incremental images (also called "backup versions") by its creation date/time. Thus, you can explore the data state at a certain moment.

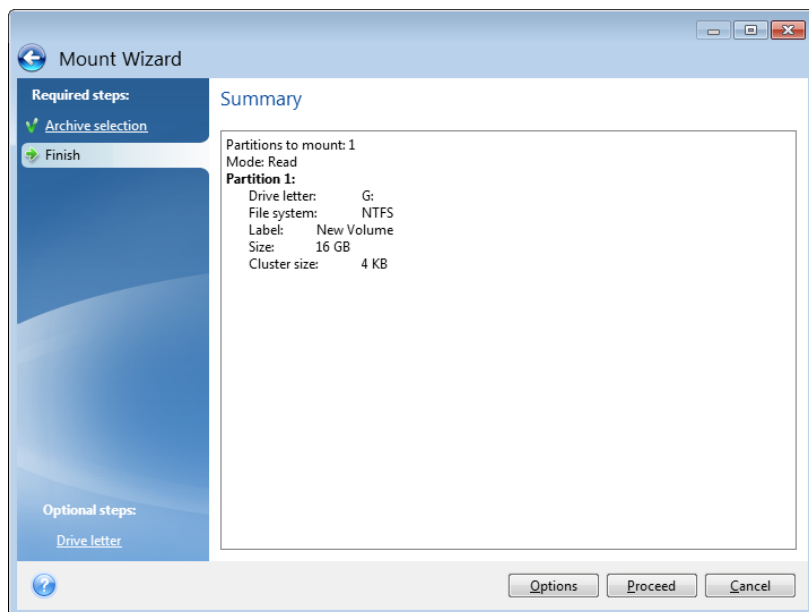
To mount an incremental image, you must have all previous backup versions and the initial full backup. If any of the successive backups are missing, mounting is not possible.

To mount a differential image, you must have the initial full image as well.

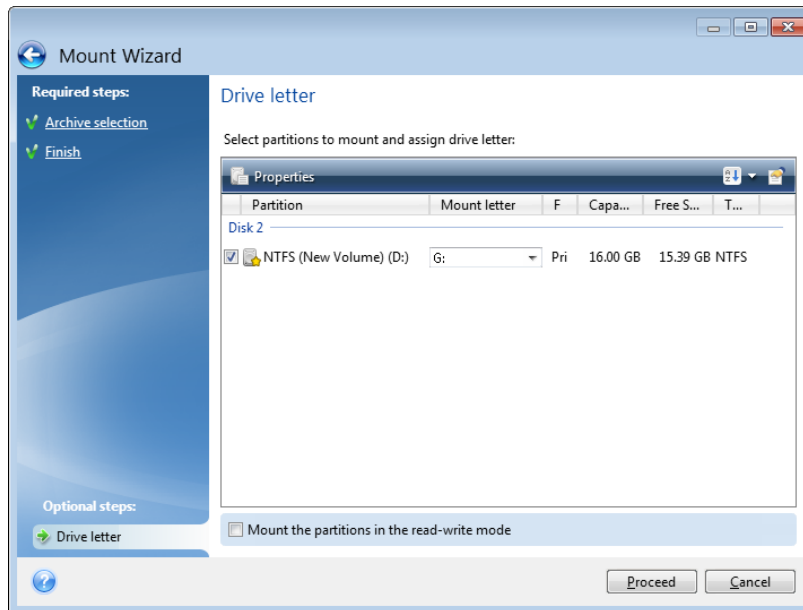
If the backup was password-protected, Acronis Small Office Backup will ask for the password in a dialog box. Neither the partitions layout will be shown, nor will the **Next** button be enabled until you enter the correct password.



4. Select a partition to mount as a virtual disk. (Note that you cannot mount an image of the entire disk except in the case when the disk consists of one partition). If the image contains several partitions, by default all of them will be selected for mounting with automatically assigned drive letters. If you would like to assign different drive letters to the partitions to be mounted, click **Options**.



You can also select a letter to be assigned to the virtual disk from the **Mount letter** drop-down list. If you do not want to mount a partition, select **Do not mount** in the list or clear the partition's check box.



5. If you select the **Mount the partitions in the read-write mode** box, the program assumes that the mounted image will be modified and creates an incremental backup file to capture the changes. It is strongly recommended that you list the forthcoming changes in the Comments section to this file. For you to be able to make comments, the optional **Comments** step appears in the wizard.
6. Having finished the settings, click **Proceed** to connect the selected partition images as virtual disks.
7. After the image is connected, the program will run Windows Explorer, showing its contents. Now you can work with files or folders as if they were located on a real disk.

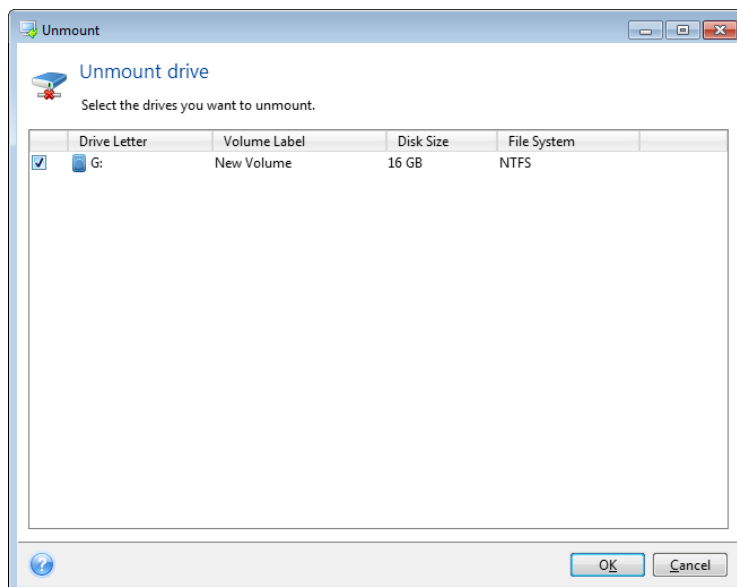
5.5 Unmounting an image

We recommend that you unmount the virtual disk after all necessary operations are finished, as maintaining virtual disks takes considerable system resources. If you do not unmount the disk, it will disappear after your computer is turned off.

To disconnect a virtual disk:

1. Start Small Office Backup.
2. On the toolbar, click **Tools** and then click **Unmount image**.
3. In the opened window, select the disk to unmount and click **OK**.

If you have mounted several partitions, by default all of them will be selected for unmounting. You can disconnect all mounted drives together or disconnect only those you do not need mounted anymore.



You can also do this in Windows Explorer by right-clicking on the disk icon and choosing **Unmount**.

6 Useful information

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6.1 Protecting your system

To protect your system, please take the necessary precautionary measures:

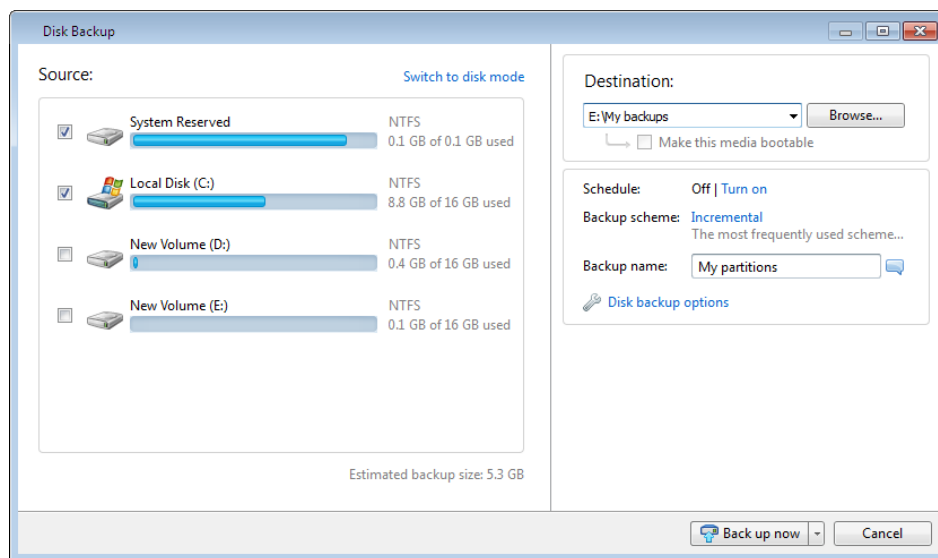
- 1) To protect your system from a disaster, you need to make a full backup of your system. We strongly advise you to create a system backup as soon as possible.
- 2) Whenever possible, you should store your system backup on a hard drive other than your primary disk C:, preferably on an external one. This gives an additional guarantee that you will be able to recover your system if your primary hard disk drive fails.
- 3) Because recovery of your system after a failure in most cases will be done after booting from the rescue media, you **must** create the rescue media (see Creating bootable rescue media (p. 93)) and then test it as described in Making sure that your rescue media can be used when needed (p. 118).
- 4) It is recommended to scan your system partition for viruses before backing it up.

Backing up your system partition

If you want to use your external drive for storing the backup, attach and power it on before starting Acronis Small Office Backup.

1. Start Acronis Small Office Backup, and then click **Disk and partition backup**.

2. This opens the **Disk Backup** window with your system partition (usually C:) selected by default.



3. Select a destination for backup (you can leave the default destination or browse for a destination after clicking the down arrow to the right of the current destination and selecting **Browse...**).
4. Click **Back up now**.

Additional recommendations

Many IT professionals recommend that you have at least two copies of your system backup (three are even better). It is further recommended to keep one copy of a backup in a different location from the other (preferably on other premises – for example, at work or at a friend's home, if you use the backed up computer at home).

One more argument in favor of several backups: when starting recovery, Acronis Small Office Backup deletes the target partition (or disk). If you have just a single backup, you are at great risk. The moment the system partition is deleted on the computer being recovered the only thing you have is the image being recovered. If the image is corrupted, you will not be able to recover the system.

6.2 Deciding where to store your backups

Small Office Backup supports quite a few of storage devices. For more information see Supported storage media (p. 11). Some of the supported storage locations are discussed below.

Hard disk drives

Since hard disk drives are now quite inexpensive, in most cases purchasing an external hard drive for storing your backups will be an optimal solution. An external drive enhances the security of your data because you can keep it off-site (for example, at home if you back up your office computer and vice versa). You can choose various interfaces – USB, FireWire, eSATA depending on the configuration of your computer ports and the required data transfer rate. In many cases the best choice will be an external USB hard drive, especially if your computer supports USB 3.0.

If you plan to use an external USB hard drive with your desktop PC, connecting the drive to a rear connector using a short cable will usually provide the most reliable operation. This reduces the chance of data transfer errors during backup/recovery.

Home file server

If you have a Gigabit Ethernet home network and a dedicated file server, you can store backups on the file server practically like on an internal drive.

If you decide to use an external hard drive, file server, etc., you will need to check whether Small Office Backup detects the selected backup storage. You need to check this both in Windows and when booted from the rescue media.

Optical discs

Blank optical discs such as DVD-R, DVD+R are very cheap, so they will be the lowest cost solution for backing up your data, though the slowest one. This is especially true when backing up directly to DVDs. Furthermore, if your backup consists of several DVDs, data recovery from DVDs will require a lot of disc swapping. On the other hand, using Blu-ray discs may be a viable option.

Due to the necessity of swapping discs, we strongly recommend to avoid backing up to DVDs if the number of discs is more than three. When there is no alternative to backing up to DVDs, we recommend to copy all DVDs to a folder on a hard disk and then to recover from that folder.

Acronis Cloud

Small Office Backup allows you to use the Acronis Cloud service for safeguarding your most important files by saving them to a secure remote location. Because files are stored on a remote storage, they are protected even if your computer gets stolen. So the risk of data loss as a result of fire, theft, or other natural disasters is practically eliminated. If something happens to your backup image, PC, or external storage device, you can get your most important files back.

6.2.1 FTP connection

Small Office Backup allows you to store your backups on FTP servers.

To create a new FTP connection, when selecting a backup storage click **New FTP connection**, and in the opened window provide:

- Path to the FTP server, for example: *my.server.com*
- Port
- User name
- Password

To check your settings, click the **Test connection** button. The computer will try to connect to the specified FTP server. If the test connection has been established, click the **Connect** button to add the FTP connection.

The created FTP connection will appear in the folder tree. Select the connection and browse for the backup storage that you want to use.

Please, be aware that the mere opening of an FTP server's root folder does not bring you to your home directory.

For data to be recovered directly from an FTP server, the backup must consist of files no greater than 2GB each.

Because of this, Small Office Backup splits a backup into files with a size of 2GB when backing up directly to an FTP server. If you back up to a hard disk with the aim of transferring the backup to an FTP later, you may split the backup into files of 2GB each by setting the desired file size in the backup options.

An FTP server must allow passive mode file transfers.

*The firewall settings of the source computer should have Ports 20 and 21 opened for the TPC and UDP protocols to function. The **Routing and Remote Access** Windows service should be disabled.*

6.2.2 Authentication settings

If you are connecting to a networked computer, in most cases you will need to provide the necessary credentials for accessing the network share. For example, this is possible when you select a backup storage in the **Browse for destination** window. The **Authentication Settings** window appears automatically when you click a networked computer name. To open it manually, click **Specify credentials for this locations** on the toolbar.

If you need to specify the user name and password:

- **User name** - enter a user name
- **Password** - enter the user's password

When you click the **Test connection** button, the computer will try to connect to the selected network share. If you receive an error message, check if the credentials are correct and provide the correct user name and password for the selected network share. To repeat the connection attempt, click the **Test again** button.

Having provided the required information, click **Connect**.

6.3 Making sure that your rescue media can be used when needed

To maximize the chances of your computer's recovery, you must test that your computer can boot from the rescue media. In addition, you must check that the rescue media recognizes all your computer's devices, such as the hard drives, the mouse, the keyboard and network adapter.

If you purchased a boxed version of the product that has a bootable CD, please test this CD.

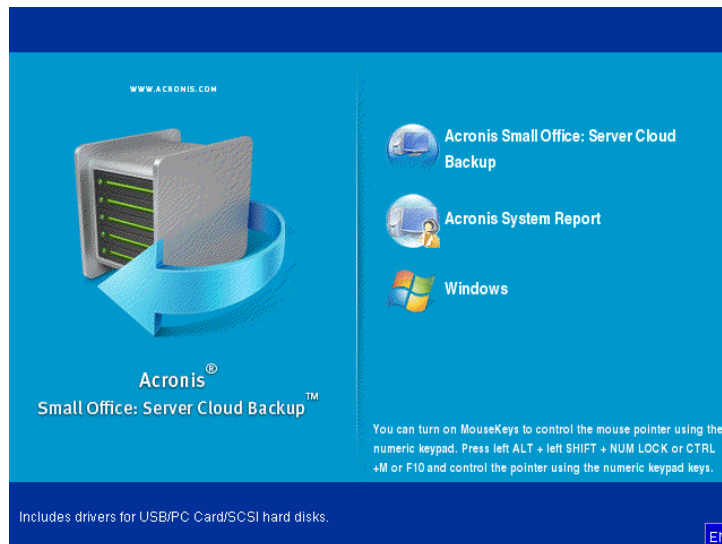
To test the rescue media

If you use external drives for storing your backups, you must attach the drives before booting from the rescue CD. Otherwise, the program might not detect them.

1. Configure your computer to enable booting from the rescue media. Then, make your rescue media device (CD-ROM/DVD-ROM drive or USB stick) the first boot device. See Arranging boot order in BIOS.
2. If you have a rescue CD, press any key to start booting from the CD, when you see the prompt "Press any key to boot from CD". If you do not press a key within five seconds, you will need to restart the computer.
3. After the boot menu appears, choose **Acronis Small Office: Server Cloud Backup**.

If your wireless mouse does not work, try to replace it with a wired one. The same recommendation applies to the keyboard.

If you do not have a spare mouse or keyboard, contact Acronis Support. They will build a custom rescue CD that will have drivers for your models of the mouse and keyboard. Please be aware that finding the appropriate drivers and making the custom rescue CD may take some time. Furthermore, this may be impossible for some models.

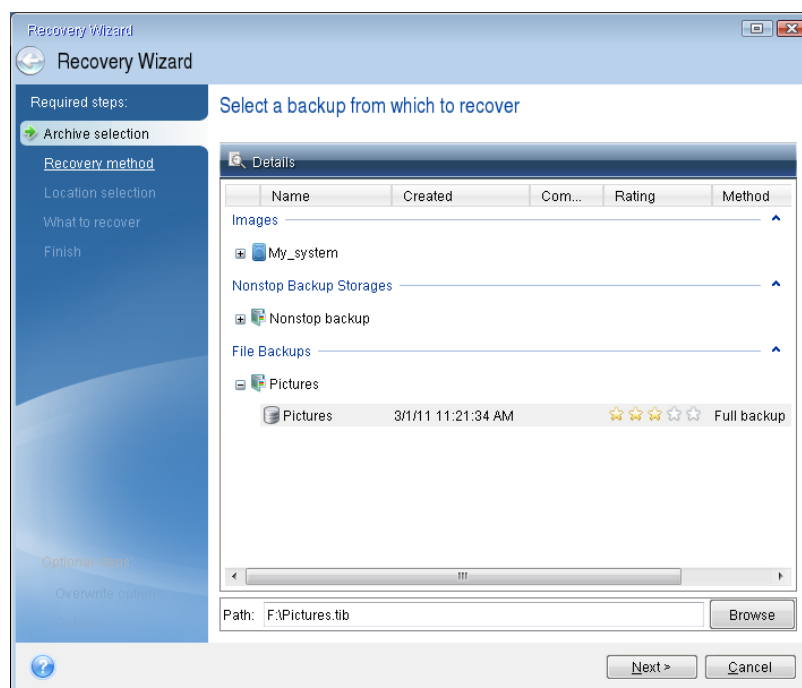


4. When the program starts, we recommend you try recovering some files from your backup. A test recovery allows you to make sure that your rescue CD can be used for recovery. In addition, you will check that the program detects all the hard drives you have in your system.

If you have a spare hard drive, we strongly recommend you to try a test recovery of your system partition to this hard drive.

How to test recovery, as well as check the drives and network adapter

1. Start Recovery Wizard by clicking **Recovery -> Disk and Partition Recovery** on the toolbar.
2. Select a backup at the **Archive selection** step and then click **Next**.

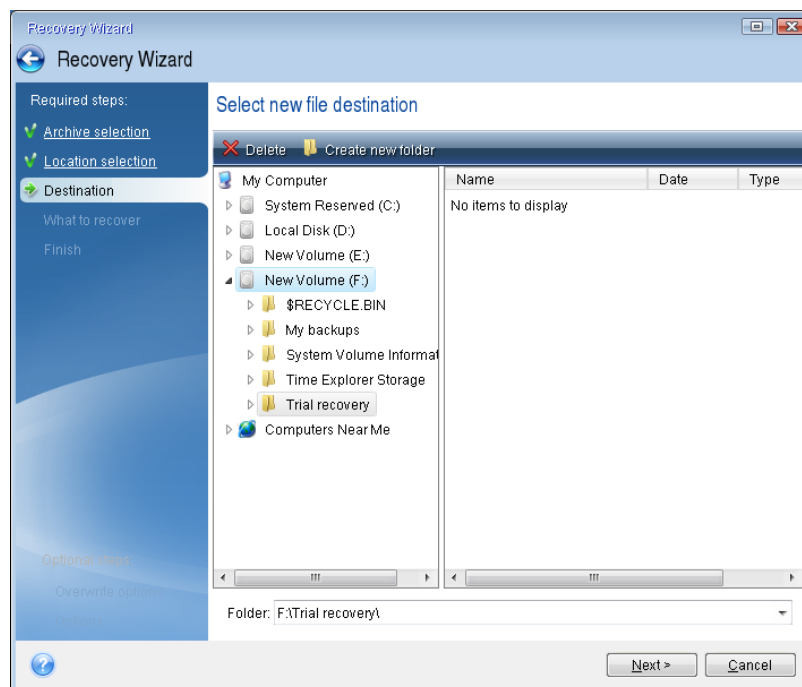


3. At the **Recovery Method** step, select **Recover chosen files and folders**.
4. When recovering files with the rescue CD you are able to select only a new location for the files to be recovered. Therefore just click **Next** at the **Location selection** step.
5. After the **Destination** window opens, check that all your drives are shown under **My Computer**.

If you store your backups on the network, you should also check that you can access the network.

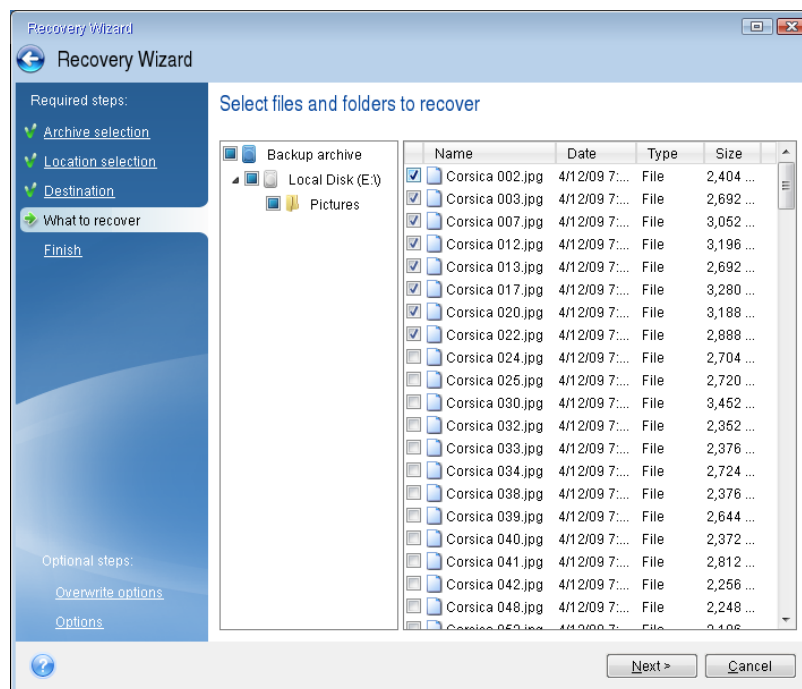
*If no computers are visible on the network, but the **Computers Near Me** icon is found under **My Computer**, specify network settings manually. To do this, open the window available at **Tools & Utilities** → **Options** → **Network adapters**.*

*If the **Computers Near Me** icon is not available under **My Computer**, there may be problems either with your network card or with the card driver provided with Small Office Backup.*



6. Select the destination for the files and then click Next.

7. Select several files for recovery by selecting their check boxes and then click **Next**.



8. Click **Proceed** on the Summary window to start recovery.
9. After the recovery finishes, exit the standalone Small Office Backup.

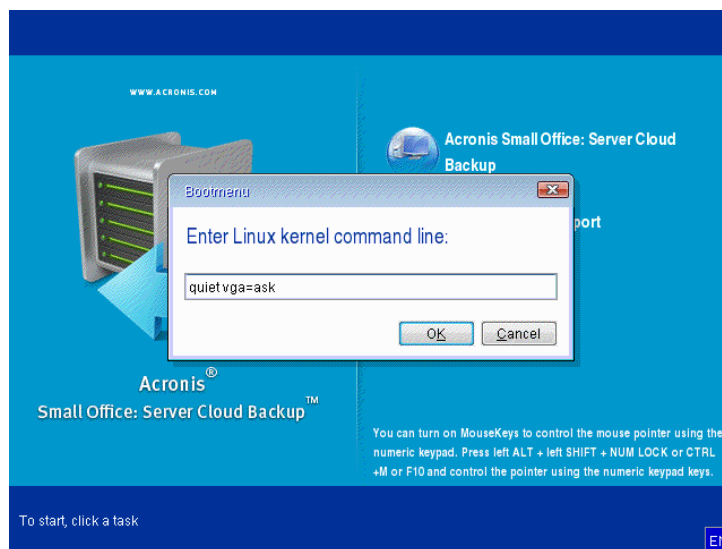
Now you can be reasonably sure that your rescue CD will help you when needed.

6.3.1 Selecting video mode when booting from the rescue media

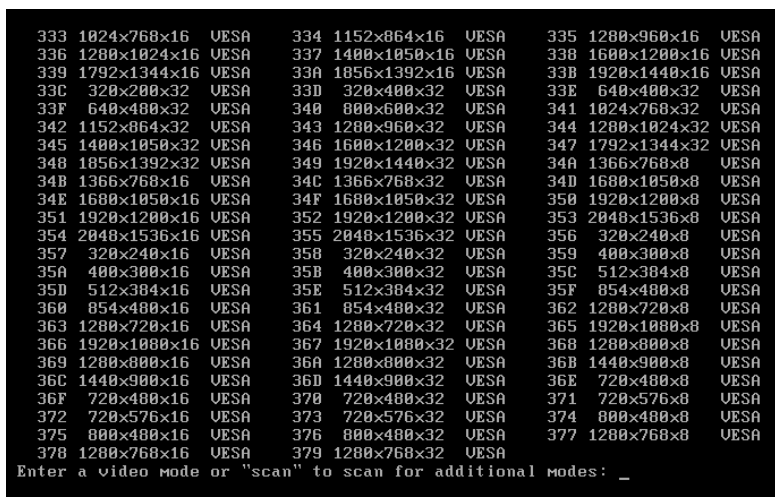
When booting from the rescue media the optimal video mode is selected automatically depending on the specifications of your video card and monitor. However, sometimes the program can select the wrong video mode, which is unsuitable for your hardware. In such case you can select a suitable video mode as follows:

1. Start booting from the rescue media. When the boot menu appears, hover the mouse over **Acronis Small Office: Server Cloud Backup** item and press the F11 key.

- When the command line appears, type "vga=ask" (without quotes) and click **OK**.



- Select **Acronis Small Office: Server Cloud Backup** in the boot menu to continue booting from the rescue media. To see the available video modes, press the Enter key when the appropriate message appears.
- Choose a video mode you think best suitable for your monitor and type its number in the command line. For instance, typing 338 selects video mode 1600x1200x16 (see the below figure).



- Wait until Small Office Backup starts and make sure that the quality of the Welcome screen display on your monitor suits you.

To test another video mode, close Small Office Backup and repeat the above procedure.

After you find the optimal video mode for your hardware, you can create a new bootable rescue media that will automatically select that video mode.

To do this, start Acronis Media Builder, select the required media components, and type the mode number with the "0x" prefix (0x338 in our instance) in the command line at the "Bootable media startup parameters" step, then create the media as usual.

6.4 Testing that your backups can be used for recovery

Here are some recommendations:

Even if you start recovery of the active partition in Windows, the program will reboot into the Linux environment after the recovery process starts. This is because Windows cannot be left running during the recovery of its own partition. So you will recover your active partition under the recovery environment in all cases.

If you have a spare hard drive, we strongly recommend you to try a test recovery to this hard drive. It should be done after booting from the rescue media which uses Linux.

If you do not have a spare drive, please, at least validate the image in the recovery environment. A backup that can be read during validation in Windows, **may not always be readable under Linux environment**.

When you use the Acronis Small Office Backup rescue media, it creates disk drive letters that might differ from the way Windows identifies drives. For example, the D: disk identified in the standalone Acronis Small Office Backup might correspond to the E: disk in Windows. It is advisable to assign unique names (labels) to all partitions on your hard drives. This will make finding the disk containing your backups easier.

6.5 Migrating your system from an HDD to an SSD

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6.5.1 Preparing for migration

Solid state disks have become quite common. Many users decide to replace their system hard disk with an SSD to enhance the disk system performance. Such a replacement may raise a number of questions.

First of all, make sure that Small Office Backup detects your new SSD both in Windows and under the Acronis rescue media. If there is a problem, see What to do if Small Office Backup does not recognize your SSD (p. 124).

SSD size

Because SSDs are still somewhat expensive, the size of your new SSD will usually be less than that of your old hard disk. This may cause a problem if your hard disk contains the operating system, programs and data.

We presuppose that before purchasing the SSD you estimated the approximate space occupied by your operating system and applications and that you selected an SSD that has a reasonable reserve capacity.

If the occupied space on your old hard disk exceeds the size of your SSD, you will need to free up space on the system disk to make migration possible. See What to do if your SSD does not have enough space for all HDD content (p. 125).

SSD alignment

Another question concerns the alignment of SSDs. To get the optimum performance from an SSD and to prolong its life, the partition offset must meet certain criteria. In most cases you do not need to check or manually fix the alignment, the program will do it automatically.

In any event, we recommend that you perform one of the following:

- Create the backup you are going to use for migration in disk mode. In other words, back up the source disk entirely, not just the system partition.
- Make sure the destination SSD does not contain partitions (the disk space is unallocated). Note that if your SSD is new and has never been used before, it does not contain partitions.

For more information see SSD support (p. 11).

6.5.1.1 What to do if Small Office Backup does not recognize your SSD

Sometimes Small Office Backup may not recognize an SSD.

In such a case, check whether the SSD is recognized in BIOS.

If the BIOS of your computer does not show the SSD, verify that the power and data cables are properly connected. You may also try to update the BIOS and SATA drivers. If these suggestions do not help, contact the Support of your SSD manufacturer.

If the BIOS of your computer does show the SSD, you can try the following procedure:

In the Search field or in the Run field (depending on your operating system), type **cmd** and press **Enter**.

At the command line prompt type:

diskpart

list disk The screen will show the disks connected to your computer. Find out the disk number for your SSD. Use its size as the reference.

select disk N Here N is the disk number of your SSD.

clean This operation removes all information from the SSD and overwrites the MBR with the default one.

exit

exit

Start Small Office Backup and check whether it detects the SSD. If it detects the SSD, use the Add new disk tool to create a single partition on the disk occupying the entire disk space. When creating a partition, check that the free space before partition is 1 MB. For more information, see Adding a new hard disk (p. 104).

The next step is to check whether your Acronis bootable rescue media recognizes the SSD.

1. Boot from the rescue media.

2. Select **Tools & Utilities -> Add New Disk** in the main menu and the **Disk selection** screen will show the information about all hard disks in your system. Use this for checking whether the SSD is detected in the recovery environment.
3. If the screen shows your SSD, just click **Cancel**.

If the rescue media does not recognize the SSD and the SSD controller mode is AHCI, you can try to change the mode to IDE (or ATA in some BIOS brands) and see whether this solves the problem.

Attention! Do not start Windows after changing the mode; it may result in serious system problems. You must return the mode to AHCI before starting Windows.

If after changing the mode the rescue media detects the SSD, you may use the following procedure for recovery under rescue media:

1. Shut down the computer.
2. Boot to BIOS, change the mode from AHCI to IDE (or ATA in some BIOS brands).
3. Boot from Acronis rescue media.
4. Recover the disk.
5. Boot to BIOS and change IDE back to AHCI.
6. Start Windows.

What to do if the above suggestions do not help

You can try to create a WinPE-based rescue media. This may provide the necessary drivers. For more information, see [Creating WinPE-based rescue media](#).

One more option is to request a custom rescue media from Acronis Support. For more information, see [Creating a custom rescue CD](#) (p. 136).

Please be aware that finding the appropriate drivers and making the custom rescue media may take time. Furthermore, finding the appropriate drivers may not be possible in some cases.

6.5.1.2 What to do if your SSD does not have enough space for all HDD content

Now let's see what can be done when the occupied space on your old hard disk exceeds the size of your SSD.

In this case, you need to move your data files from the old hard disk to another location, for example, to another hard disk drive.

If your notebook has space only for a single disk, your options are limited. You can move the data files you rarely use to an external hard disk. Alternatively, you can create zip archives of such files and then delete the original files. In addition, you can clean up the hard disk. Choose to delete the System Restore points on the More Options tab of the Disk Cleanup window.

After freeing up space on the old hard disk, check whether the occupied space is less than the SSD size. If so, perform the migration procedure described earlier. Take note that for stable operation, Windows needs to have several GB of free space on the system partition.

After you migrate the system, you can try to tweak some of the Windows settings. This will reduce the disk space required for Windows. In most cases you can safely perform the following:

- Turn off System Restore. You don't need it, because you have Small Office Backup for restoring your system.

- Disable Indexing Service.
- Turn off the hibernation mode.

6.5.1.3 Checking SSD partition alignment

If you installed Windows Server 2008 or Windows Server 2012 from the installation DVD to a new hard disk, the operating system automatically aligns the hard disk during installation to a multiple of 4096 and usually to 1.024 MB. In any case, it will be useful to check.

1. Mount the SSD into the intended location in your computer.
2. Type **cmd** in the Search field and press **Enter**.
3. At the command line prompt type:

```
wmic partition get BlockSize, Index, Name, StartingOffset
```

You will get the output looking like this:

```
C:\Users\tester>wmic partition get BlockSize, StartingOffset, Name, Index
BlockSize Index Name StartingOffset
512 0 Disk #0, Partition #0 32256
512 1 Disk #0, Partition #1 107619563520
512 2 Disk #0, Partition #2 201371304960
512 3 Disk #0, Partition #3 203016360960
512 0 Disk #1, Partition #0 32256
512 0 Disk #2, Partition #0 17408
512 1 Disk #2, Partition #1 134235136
512 0 Disk #3, Partition #0 1048576
512 0 Disk #4, Partition #0 1048576
```

In the screen shot, disk 0 has an incorrect alignment and disks 3 and 4 have the correct alignment.

If the SSD has an incorrect offset value, see Fixing SSD partition alignment (p. 126).

6.5.1.4 Fixing SSD partition alignment

If you did not properly prepare your SSD before transferring your system to it, the starting offset may turn out be incorrect.

Let's see how to fix the alignment problem.

1. Start Small Office Backup.
2. Create a task for backing up your SSD in the disk backup mode.
3. Back up your SSD using as destination, for example, an external hard disk.
4. Go to the command line prompt. To do so, perform one of the following:
 - Shut down the computer and then boot using Windows installation CD. Press Shift+F10 during GUI-mode phase of the Setup. Note, that you should not start Windows installation.
 - If you have a WinPE-based Acronis rescue media, shut down the computer and boot from the media. Boot to Small Office Backup and then exit it.
5. At the command line prompt type:

```
diskpart
select disk N where N is the number of your SSD
clean
create partition primary align=1024
active
format fs=ntfs quick
exit
exit
```

6. Shut down the computer and then boot to Acronis rescue media.

7. Validate the backup to make sure that it can be used for recovery.
8. Click the **Recovery** tab and then click **Disk recovery**.
9. Select the backup of your SSD at the **Archive selection** step and then click **Next**.

*If the disks have different disk letters in Windows and the recovery environment, click **Browse** and show the path to the backup.*

10. Select **Recover whole disks and partitions** and click **Next**.
11. Select the check box of the entire SSD disk and click **Next**.
12. Select the SSD as the destination and click **Next**.
13. When the confirmation window appears stating that the destination disk contains partitions, perhaps containing useful data, click **OK**.
14. Carefully read the summary of operations to check the settings you made and click **Proceed**.
15. After the recovery finishes, check the partition offset once more to make sure it is fixed.

6.5.2 Migrating to an SSD using the backup and recovery method

You can use the following procedure for all supported operating systems. First, let's consider a simple case: your system disk consists of a single partition. Note that for Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, the system disk usually has a hidden System Reserved partition.

1. Start Small Office Backup.
2. Create Acronis rescue media, if you do not have it yet. To do this, on the toolbar, click **Create bootable media** and follow the instructions on the screen. See details in Acronis Media Builder (p. 93).
3. On the toolbar, click **Disk and partition backup** and then back up your system disk (in the disk backup mode) to a hard disk other than your system hard disk and the SSD.
4. Switch off the computer and remove your system hard disk.
5. Mount the SSD into the slot where the hard disk was.

For some SSD brands you may need to insert the SSD into a PCI Express slot.

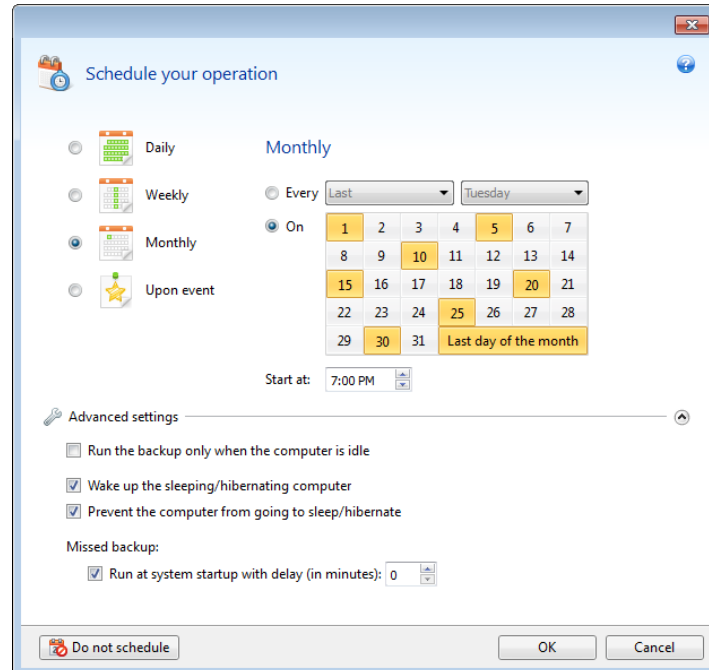
6. Boot from your Acronis rescue media.
7. Validate the backup to make sure that it can be used for recovery. To do this, click **Recovery** on the left pane and select the backup. Right-click, select **Validate Archive** in the shortcut menu and then click **Proceed**.
8. After the validation finishes, right-click the backup and select **Recover** in the shortcut menu.
9. Choose **Recover whole disks and partitions** at the Recovery method step and then click **Next**.
10. Select the system disk at the What to recover step.
11. Click **New location** and then select the SSD as the new location for your system disk, then click **Accept**.
12. At the next step click **Proceed** to start recovery.
13. After the recovery is complete, exit the standalone version of Small Office Backup.
14. Try to boot from the SSD and then make sure that Windows and applications work correctly.

If your system hard disk also contains a hidden recovery or diagnostic partition, as is quite often the case with notebooks, the procedure will differ. You will usually need to resize the partitions manually during recovery to the SSD. For instructions see Recovering a disk with a hidden partition (p. 62).

6.6 Scheduling

To open the **Scheduler** window, click the **Turn on** link to the right of **Schedule** while configuring a backup.

Here you can specify the backup and validation schedule settings.



You can choose and set up one of the following backup or validation frequencies:

- **Daily** (p. 83) - the operation will be executed once a day or more frequently.
- **Weekly** (p. 84) - the operation will be executed once a week or several times a week on the selected days.
- **Monthly** (p. 83) - the operation will be executed once a month or several times a month on the selected dates.
- **Upon event** (p. 84) - the operation will be executed upon an event.

Clicking the **Do not schedule** button turns off the scheduler for the current operation. In this case the backup will run only when you click **Back up now** in the main window.

Advanced settings

Clicking **Advanced settings** allows you to specify the following additional settings for backup and validation:

- To postpone a scheduled operation until the next time the computer is not in use (a screen saver is displayed or computer is locked), select the **Run the backup only when the computer is idle** check box. If you schedule validation, the check box will change to **Run the validation only when the computer is idle**.
- If you want to wake up the sleeping/hibernating computer to perform the scheduled operation, select the **Wake up the sleeping/hibernating computer** check box.
- If you do not want your computer to go to sleep or hibernate while performing the scheduled backup operation, select the **Prevent the computer from going to sleep/hibernate** check box.

- If the computer is switched off when the scheduled time comes, the operation won't be performed. You can force the missed operation to run at the next system startup. To do so, select the **Run at system startup with delay (in minutes)** check box and set a time delay to start operation after the system startup.
- If you want to regularly back up data located on a removable media (for example USB flash drive) or remote storage (for example network folder or NAS), we recommend that you select the **Run when the current source device is attached** check box. This is useful because an external storage device may be often unavailable at the scheduled moment of backup. In that case, if the check box is selected, the missed backup operation will start when the device is connected or attached.

Having finished scheduling, click **OK**.

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Weekly execution parameters	129
Upon event execution parameters	130

6.6.1 Daily execution parameters

You can set up the following parameters for daily operation execution:

- **Start time or periodicity**
 - If you select **At**, set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons. You can specify several start times by clicking **Add**.
 - If you select **Every**, choose daily operation periodicity from the dropdown list (for example, every 2 hours).

Description of the **Advanced settings** see in Scheduling (p. 82).

6.6.2 Monthly execution parameters

You can set up the following parameters for monthly operation execution:

- **Periodicity or dates**
 - If you select **Every**, choose a numeral and the day of the week from the dropdown lists (example: First Monday - the operation will be performed on the first Monday of every month)
 - If you select **On**, choose the date(s) for operation execution (example: you may want the operation to be run on the 10th, 20th, and last day of the month)
- **Start time**
Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 82).

6.6.3 Weekly execution parameters

You can set up the following parameters for weekly operation execution:

- **Week days**

Select the days on which to execute the operation by clicking on their names.

- **Start time**

Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 82).

6.6.4 Upon event execution parameters

You can set up the following parameters for the Upon event operation execution:

- **Event**

- **User logon** – the operation will be executed each time the current user logs on to the OS.
- **User logoff** – the operation will be executed each time the current user logs off the OS.
- **System startup** – the operation will be executed at every OS startup.
Additionally, you can set a time delay to start backup after the system startup. For example, to start backup 20 minutes after system startup, type *20* in the appropriate box.
- **System shutdown or restart** – the operation will be executed at every computer shutdown or reboot.

- **Additional condition**

- If you want to run an operation only at the first occurrence of the event on the current day, select the **Once a day only** check box.

Description of the **Advanced settings** see in Scheduling (p. 82).

6.7 Choosing columns for viewing in wizards

You can change the way the columns are represented in various wizards.

To sort items by a particular column, click the header (another click will switch the items to the opposite order).

To select columns to view, right-click in the right pane and select **Choose Columns** in the shortcut menu. Then flag the columns you want to display. You can also change the display order of columns using the **Move Up** and **Move Down** buttons.

You can change the width of a column by dragging its borders with the mouse.

6.8 Backup information

The backup information window provides detailed information about the selected backup.

- **Path** - the location where the backup is stored. In case it is an incremental or differential backup, the location may be different from the location where the full backup is stored.
- **Backup method** may be full, incremental or differential. For more information about types of backup see Full, incremental and differential backups (p. 28).
- **Backup file type** - ***.tib** (special Acronis format).
- **Created** - the date and time when the backup was created.
- **Comments** - if you have entered comments, they will be shown here.

6.9 Timeout settings

Sometimes when the program performs an operation, an error message or a warning message may interrupt the operation progress. To resume the operation, some additional information or a decision is required from the user.

For example, such a situation may occur during a backup operation when the storage space in the destination location becomes insufficient for completing the backup. The program will wait for your decision on whether you want to cancel the backup, free some storage space or select another destination for the backup.

Timeout settings allow you to specify the time interval the program should wait for your response. Move the slider to the right to set the time interval (in minutes). Note that the **Infinite** setting is not recommended. If the response is not received during the interval, the operation will be canceled.

7 Troubleshooting

In this section

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7.1 Acronis System Report

When you contact the Acronis support team, they will usually need information about your system in order to resolve your problem. Sometimes getting the information is an inconvenient process and may take a long time. The Generate system report tool simplifies the procedure. It generates a system report containing all the necessary technical information and allows you to save the information to file. When it's necessary, you can attach the created file to your problem description and send it to Acronis support team. This will simplify and speed up the search for a solution.

To generate a system report, perform one of the following:

- On the main program window click the question mark symbol, and select **Generate system report**.
- On the Windows **Start** menu, click **All Programs -> Acronis -> Acronis Small Office Server Cloud Backup -> Tools and Utilities -> Acronis System Report**.
- Press **CTRL+F7**. Note that you can use the key combination even when Acronis Small Office Backup is performing any other operation.

After the report is generated:

- To save the generated system report to file, click **Save** and in the opened window specify a location for the created file.
- To save the report to file and send it to Acronis support team by e-mail, click **Save and send**.
- To exit to the main program window without saving the report, click **Cancel**.

You can place the tool on your bootable rescue media as a separate component to be able to generate a system report when your computer cannot boot. After you boot from the media, you will be able to generate the report even without running Acronis Small Office Backup. In this case you should plug in a USB flash drive before clicking the **Acronis System Report** icon. The generated report will be saved on the USB flash drive.

To place the Acronis System Report tool on a bootable rescue media:

- Select the **Acronis System Report** check box on the **Rescue Media Content Selection** page of the **Acronis Media Builder** wizard.
- Click **Next** to continue.

Creating a system report from the command line prompt

1. Run Windows Command Processor (cmd.exe) as administrator.

2. Change the current directory to the Small Office Backup installation folder. To do so, enter:

```
cd C:\Program Files (x86)\Acronis\SmallOffice
```

3. To create the system report file, enter:

```
SystemReport
```

File SystemReport.zip will be created in the current folder.

If you want to create the report file with a custom name, type the new name instead of <file name>:

```
SystemReport.exe /filename:<file name>
```

7.2 Acronis Smart Error Reporting

To help users with troubleshooting, the new releases of Acronis products employ the so called Acronis Smart Error Reporting. When an issue is caused by an error in the program's operation, Small Office Backup displays an appropriate error message.

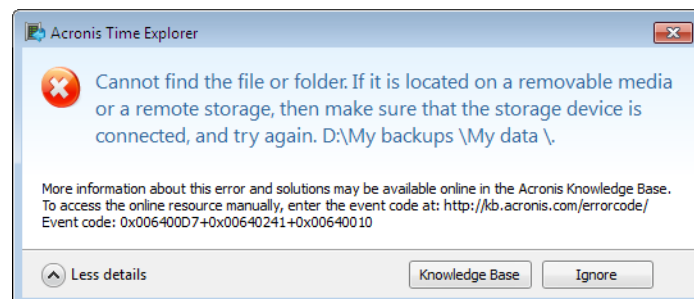
An ordinary error

The error message contains an event code and a short description of the error (sometimes with a possible solution), for instance:

"Check the disk and file system for errors and try to repeat the operation. Event Code: 0x000101F6"

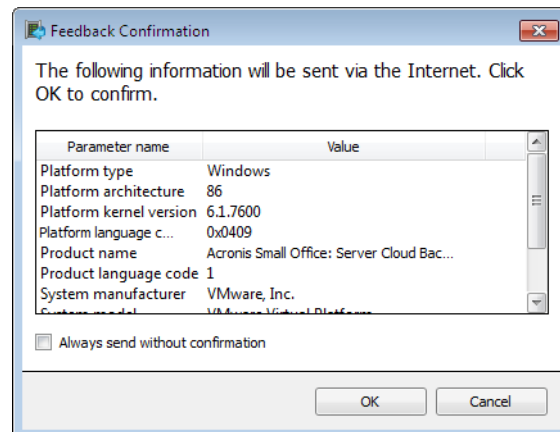
The error message may also include the program module where the error has occurred and the error message from the module.

You can view more detailed information about the error by clicking the **More details** link in the message box. The detailed information may look like as is shown on the following screen shot:



To view the Acronis Knowledge Base article suggesting a solution(s) for correcting the error, click the **Knowledge Base** button.

This will open a confirmation window that lists the information to be sent via Internet to the Acronis Knowledge Base. Click **OK** to permit sending the information.



If in future you would like to send such information without confirmation, select the **Always send without confirmation** check box.

An error in a low-level module

Sometimes, an error may occur in a low-level program module and then propagate to higher-level modules resulting in errors in those modules as well. This is a so called composite error, where every higher level module generates its own error (event) code. The following event code is an example: 0x00970007+0x00970016+0x00970002

The event codes from different modules are combined with "+" symbols. When manually entering such event codes into the appropriate field to search in the Knowledge Base, enter the event code components without spaces around the "+" symbols.

If you do not have Internet

If you do not have Internet access when such an error message is shown (this may happen, for example, when booted from the rescue media), please write down the event code. When you establish Internet connection or if you can use another computer where Internet connection is available, use the following URL to go to the Acronis Web site error reporting form: <http://kb.acronis.com/errorcode/>.

Select the Acronis product version you use and manually enter the event code into the appropriate field. Then, click the Search button to search for an article that may contain the solution to your issue.

If the event code(s) is not recognized in the Knowledge Base, the base does not yet contain an article to resolve the issue. In such cases, please open a trouble ticket with Acronis Customer Central.

7.3 How to collect crash dumps

Because a crash of Small Office Backup or Windows can be caused by different reasons, each crash case must be investigated separately. Acronis Customer Central would appreciate if you could provide the following information:

If Small Office Backup crashes, please provide the following information:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. Dr. Watson crash dump. For information on how to collect such a dump, see the Acronis Support Knowledge Base (KB) article at <http://kb.acronis.com/content/2192>

If Small Office Backup causes a Windows crash:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. A Windows dump file. For information on how to collect such a dump see the Acronis Support KB article at <http://kb.acronis.com/content/17639>

If Small Office Backup hangs:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. A userdump of the process. See the Acronis Support KB article at <http://kb.acronis.com/content/6265>
3. The Procmon log. See the Acronis Support KB article at <http://kb.acronis.com/content/2295>

If you cannot access the information, contact Acronis Customer Central for an FTP link for uploading files.

This information will speed up the process of finding a solution.

7.4 General recommendations

The below information may help you in troubleshooting issues encountered during installation and use of Acronis Small Office Backup.

Quite often the cause of an issue may be trivial. For example, a loose connection of an external hard drive. Before trying other solutions described in this chapter, it is advisable to check if the issue is caused by one of the following:

- loose connections to the external drive;
- poor quality connecting cable;

When using an external USB hard drive, try the following additional suggestions:

- if the drive is connected through a hub, connect it directly to a rear connector of your PC;
- to prevent conflict with other USB devices attached to your PC, try disconnecting all the USB devices (except the mouse and keyboard).

You can try to find the solution to your problem in the Acronis Support Knowledge Base (KB). To access the Support KB, click on the following link: <http://kb.acronis.com/>. Then use the Search function. Enter the key words related to your problem into the appropriate field and click Search. The KB may have recommendations on solving your specific problem. Acronis Support team continuously adds new articles to the KB. If you are not able to find the solution to your problem in the KB or the suggested solution(s) does not help, feel free to contact Acronis Customer Central at <http://www.acronis.com/support/>.

When your issue is an error encountered during Acronis Small Office Backup operation, the error message box will contain the **Knowledge Base** button. Clicking the button will take you to a Support KB article offering solution(s) for the issue that caused the error. The error message box will also have a link to the Acronis Support KB. This link may be useful when the KB does not have the appropriate article yet. Clicking the link will take you to a Web form. There, you can enter the event

code displayed in the error box to search for a solution in the entire KB. For more information, see Acronis Smart Error Reporting (p. 133).

System report

Acronis Support personnel may request you to provide the system report. To create the report, select **Generate system report** in the **Help** menu, then save the report and send it to Acronis Customer Central. For more information see Acronis System Report (p. 132).

7.5 Creating a custom rescue CD

In most cases you can use a standard rescue CD created with a help of Acronis Media Builder. For more information see Creating bootable rescue media (p. 93).

If the recovery environment cannot detect some of the hard disk drives, the network adapter, the mouse or the keyboard, usually there is a problem with the drivers. So when the standard rescue CD lacks some of your hardware drivers, you need to create a custom one.

The Linux-based recovery environment used by Acronis does not provide the ability for users to add new drivers. Because of this, you should request Acronis Customer Service Department to create a custom rescue CD that will have all the drivers you need.

Before making a request, collect the information about your system. Select **Generate system report** in the Help menu. Acronis Small Office Backup will automatically collect the required information and display a list of what is collected in the report. In the process of creating the report the program may install some components required for collecting the necessary information. When the report is complete, click **Save** and select the desired folder or leave the default folder. The program will archive the report into a zip file. This report may also be useful when you request the Acronis Customer Service Department to help you with a problem.

Send the file to the Acronis Customer Service Department. They will build an iso image of a custom rescue media compatible with your computer hardware and send you the iso file. Burn this file to a CD/DVD using a program that can handle iso files such as Nero.

Please be aware that finding the appropriate drivers and making the custom rescue media may take time. Furthermore, finding the appropriate drivers may be not possible in some cases.

After burning your custom rescue CD, test it to make sure that all your computer hardware is now detected in the recovery environment.

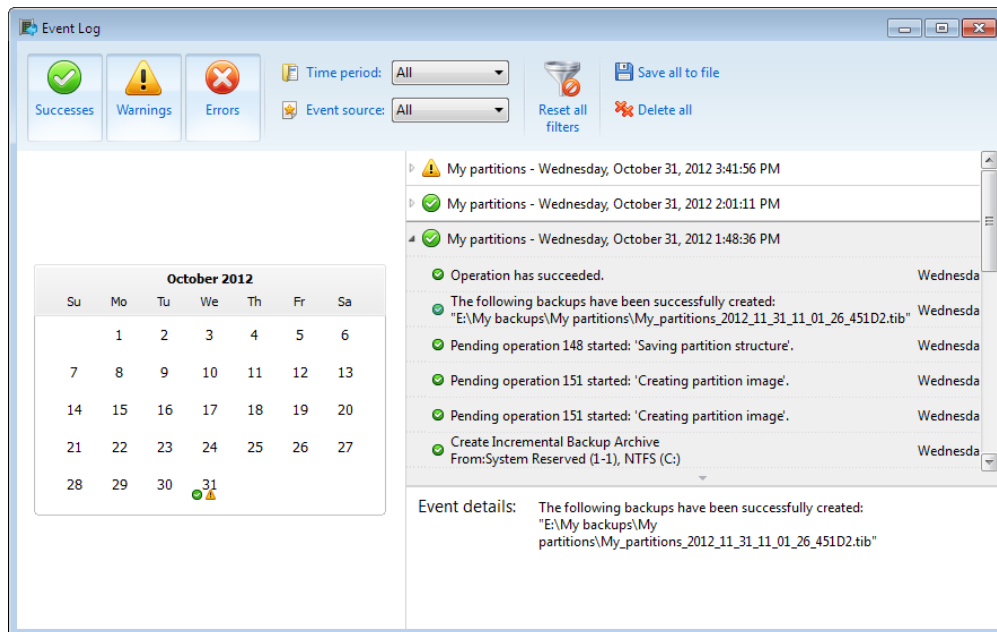
7.6 Viewing log

Most Acronis Small Office Backup operations write their own entries in the logs. When issues with the operations occur, the log entries may provide information on their causes.

The log can provide information, for example, about scheduled backup results, including causes for any failures.

If you want to view the log of Acronis Small Office Backup operations, click the gear wheel icon on the toolbar to open the Settings menu and then select **View log**.

You can also open the log for viewing by selecting **View log** in the Operations menu of a backup box. In this case you will see only the log items for the last run of the selected backup.



Viewing log entries

By default all logs are selected for viewing. The right pane shows all major log entries in the collapsed state. To expand a log entry for viewing individual log items, double-click it. To collapse the expanded log entry, double-click it again. You can scroll the log entries using the scroll bar on the right side of the window.

For some error events the log can have the **How to solve the problem** link. Clicking the link takes you to an article of the Acronis Knowledge Base, which may help you to solve the problem.

To delete a log entry, select it, right-click and select **Delete** in the shortcut menu. To delete all log entries, select **Delete all**. You can also save a log entry to file by selecting **Save**. To save all logs to file, select **Save all**.

The toolbar

To view the logs for a desired period, select the period from the drop-down list. You can select **Today**, **Last week**, **Last month**, and **Custom**. To view all logs, select **All**.

To view the logs for a specific time interval, select **Custom** and specify the desired interval. You can enter the desired period start and end dates directly into the fields. You can also select a time interval on the calendar. To select, click the start date and then the end date while keeping the **Shift** key pressed.

To view the logs for a specific event source, select the desired event source in the dropdown list below **Event source**. You can select the following event sources:

- All - shows all logged events.
- All backups - shows logs for all your backups.
- Backup validation - shows logs for the validation operation.
- <Backup name> - shows logs for a specific backup you select by its name.

- Etc.

The three buttons to the left filter the following events: successful completion states, warning messages and error messages.

To reset all the filters to their default values, click **Reset all filters**.

At the upper-right corner there are the **Save all to file** and **Delete all** buttons. They do the same operations as the corresponding shortcut menu items.

The calendar section

The buttons with up and down arrows at the top and bottom of the calendar allow you to browse the months being shown in the calendar.

The color marks in the calendar show information about the days when operations completed with errors (red marks), warnings (yellow marks), and success (green marks). The current day is highlighted. Clicking a marked day shows the logs for that date.

7.7 Acronis Customer Experience Program

Acronis Customer Experience Program (CEP) is a new way to allow Acronis customers to contribute to the features, design and development of Acronis products. This program enables our customers to provide us with various information, including information about the hardware configuration of your host computer and/or virtual machines, the features you use most (and least), and the nature of the problems you face. Based on this information, we will be able to improve the Acronis products and the features you use most often.

If you choose to participate, the technical information will be automatically collected every 90 days. We will not collect any personal data, like your name, address, phone number, or keyboard input. Participation in the CEP is voluntary, however, but the end results intended to provide software improvements and enhanced functionality to better meet the needs of our customers.

Note that you will be able to leave the program any time.

Click the **Learn more** link to read the participation terms.

To make a decision:

- Choose **Yes, I want to participate in the program** if you want to join the program
- Choose **No, I do not accept** if you do not want to join the program

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Acronis patented technologies

Technologies used in this product are covered by the following patents: U.S. Patent # 7,047,380; U.S. Patent # 7,246,211; U.S. Patent # 7,318,135; U.S. Patent # 7,366,859; U.S. Patent # 7,636,824; U.S. Patent # 7,831,789; U.S. Patent # 7,886,120; U.S. Patent # 7,934,064; U.S. Patent # 7,949,635; U.S. Patent # 7,979,690; U.S. Patent # 8,069,320; U.S. Patent # 8,073,815; U.S. Patent # 8,074,035.

8 Glossary of Terms

B

Backup

1. The same as Backup operation (p. 140).
2. A set of backup versions created and managed by using backup settings. A backup can contain multiple backup versions created using full (p. 141) and incremental (p. 141) backup methods. Backup versions belonging to the same backup are usually stored in the same location.

Backup operation

An operation that creates a copy of the data that exists on a machine's hard disk for the purpose of recovering or reverting the data to a specified date and time.

Backup settings

A set of rules configured by a user when creating a new backup. The rules control the backup process. Later you can edit the backup settings to change or optimize the backup process.

Backup version

The result of a single backup operation (p. 140). Physically, it is a file or a set of files that contains a copy of the backed up data as of a specific date and time. Backup version files created by Acronis Small Office Backup have a TIB extension. The TIB files resulting from consolidation of backup versions are also called backup versions.

Backup version chain

Sequence of minimum 2 backup versions (p. 140) that consist of the first full backup version and the subsequent one or more incremental or differential backup versions. Backup version chain continues till the next full backup version (if any).

Bootable media

A physical media (CD, DVD, USB flash drive or other media supported by a machine BIOS as a boot device) that contains standalone version of Acronis Small Office Backup.

Bootable media is most often used to:

- recover an operating system that cannot start
- access and back up the data that has survived in a corrupted system
- deploy an operating system on bare metal
- create basic or dynamic volumes on bare metal
- back up sector-by-sector a disk that has an unsupported file system

C

Consolidation

Combining two or more subsequent backup versions (p. 140) belonging to the same backup (p. 140) into a single backup version.

The consolidation procedure allows you to delete the backup versions you no longer need from any backup chain while maintaining the consistency of chain's backups. A chain to be consolidated consists of a full backup and one or more incremental backups. Consolidation keeps whichever backups you choose and deletes any backups that are not selected. Note that consolidation may take a lot of time and system resources (including disk space).

D

Differential backup

1. A backup method used for saving data changes that occurred since the last full backup version (p. 141) within a backup.
2. A backup process that creates a differential backup version (p. 140).

Differential backup version

A differential backup version stores changes to the data against the latest full backup version (p. 141). You need access to the corresponding full backup version to recover the data from a differential backup version.

Disk backup (Image)

A backup (p. 140) that contains a sector-based copy of a disk or a partition in packaged form. Normally, only sectors that contain data are copied. Acronis Small Office Backup provides an option to take a raw image, that is, copy all the disk sectors, which enables imaging of unsupported file systems.

F

Full backup

1. A backup method that is used to save all the data selected to back up.
2. A backup process that creates a full backup version (p. 141).

Full backup version

A self-sufficient backup version (p. 140) containing all data chosen for backup. You do not need access to any other backup version to recover the data from a full backup version.

I

Image

The same as Disk backup (p. 141).

Incremental backup

1. A backup method used for saving data changes that occurred since the last backup version (p. 140) (of any type) within a backup.
2. A backup process that creates an incremental backup version (p. 141).

Incremental backup version

A backup version (p. 140) that stores changes to the data against the latest backup version. You need access to other backup versions from the same backup (p. 140) to restore data from an incremental backup version.

O

Online backup

Online backup - a backup that is created using Acronis Online Backup. Online backups are stored in a special storage named Acronis Cloud, accessible over the Internet. The main advantage of an online backup is that all backups are stored on the remote location. It gives a guarantee that all backed up data will be safe independently of a user local storages. To begin to use Acronis Cloud a user should subscribe to the service.

R

Recovery

Recovery is a process of returning of a corrupted data to a previous normal state from a backup (p. 140).

V

Validation

An operation that checks whether you will be able to recover data from a particular backup version (p. 140).

When you select for validation...

- a full backup version (p. 141) - the program validates the full backup version only.
- a differential backup version (p. 140) - the program validates the initial full backup version and the selected differential backup version.
- an incremental backup version (p. 141) - the program validates the initial full backup version, the selected incremental backup version, and the whole chain (if

any) of backup versions to the selected incremental backup version. If the chain contains one or more differential backup versions, the program validates (in addition to the initial full backup version and the selected incremental backup version) only the most recent differential backup version in the chain and all subsequent incremental backup versions (if any) between the differential backup version and the selected incremental backup version.