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Acronis True Image 9.0 Reviewer's Guide

Introduction

This guide is designed for members of the media who will be evaluating Acronis True Image 9.0 disk imaging, backup and bare-metal recovery software. We will look at not only the features and benefits of the product, but also some of its underlying technology.

Here you will learn not only the capabilities of the product, but also a bit about how it competes in the market and some of the key features and capabilities. You also will learn some of the technology that makes it possible for Acronis True Image to do what it does — something that challenges all of the conventional thinking of how to do disk imaging in Windows and provides users with brand new capabilities in an easy-to-use, easy-to-understand environment.

Chapter 1

What is Acronis True Image?

Acronis True Image falls generally into the categories of backup and disaster recovery software. Acronis True Image creates an exact duplicate image of the live disk drives, including the operating system, all configuration files, programs, updates, databases, and such at the drive sector level.

The image can be saved to an internal or external disk drives (including USB 2.0 and FireWire), networked drives, or to a writable CD or DVD. The image also can be saved to the same disk being imaged in the Acronis Secure Zone; we'll address this feature later. The image can be used for any number of purposes, including disaster recovery, data backup and disk cloning.

In addition to image-based backups, Acronis True Image 9.0 adds an important, new feature — file-based backups. Users have indicated that while they need image-based backups for disaster recovery, they also like having file-based backups for quick retrieval of data files. Acronis now provides the best of both worlds — the most advanced image-based technology that can create the image without interrupting the user or any running applications, but also a comprehensive file-based backup approach when that strategy is called for.

Acronis has the ability to exclude system and hidden files, as well as to allow the user to specify specific files that they want excluded. This means that if you are imaging your data and wish to exclude, for example, your huge video files, you can do so. Likewise, if you choose to image *only* your video files, you can exclude everything except those file extensions.

Supported operating systems include all current workstation versions of Windows, including Windows 95/98/Me/NT/2000/XP. It also can be used with other non-Windows operating environments, including Linux and Novell NetWare. Supported file systems include Windows FAT 16, FAT 32 and NTFS, as well as Linux Ext2/Ext3, ReiserFS, JFS and XFS file systems, as well as Linux SWAP partitions.

Simplicity At Its Finest

Acronis True Image is easy to use and understand. Key features include:
A Windows XP-like interface that is familiar and easy to use and understand
Transparently create the live disk image for complete backup
Mount the disk image as a virtual volume and restore individual files and folders
Restore the entire original disk contents or just specific files and folders
The fastest bare-metal restore
It's two products in one – the award-winning disk imaging tool and files- and fold-based backup tool
Acronis Snap Restore lets you boot *directly* from the image and begin using your system even *while the image is still being restored*

Hibernation/paging files are *not* backed up — this increases the speed of creating the backup and reduces the size of the backup
Schedule automated disk backups
Create incremental and differential disk images
Manage Microsoft System Restore
Context-sensitive help
Built-in disk image verification tool
Verify an image *before* you restore it to ensure a perfect recovery
Verify the file system *after* the restoration to ensure a perfect recovery
Clone and upgrade drives
All levels of IDE and SCSI RAID controllers support

Who Needs It?

Acronis targets this product to end users and small and mid-size businesses that need to back up desktops and workstations. Acronis True Image is the complete backup and recovery solution and the only solution customers need to protect their workstations.

The back-up can be used for disaster recovery or simply to restore a single file — or a group of files — that become corrupted. In cases where a bare-metal recovery is required, such as replacing a physically damaged disk drive or computer — Acronis True Image 9.0 provides the fastest and most reliable recovery available. This is particularly important in corporate environments where having a PC down can translate directly to reductions on the bottom line.

Acronis True Image also could be used by those who need to move data from one disk drive to another, and then prepare the original disk for redeployment.

Disk Imaging or File-by-File

As noted, Acronis True Image creates an exact duplicate of the live hard disk at a sector level. Essentially, you can think of it as a snapshot in time. That image, when restored, will include all of the drive's existing data, operating system and software, databases, and configuration files.

This is important because should a disk drive become unable to operate due to a damaged operating system, a virus or other serious problem, the traditional fix was to wipe the drive completely, reinstall the operating system; reinstall all programs, updates and patches; and then go back and restore the lost data from backups. Such bare-metal recoveries can take hours or days, depending on the complexity of the configuration. Just *finding* all the software can be a challenge.

However, Acronis True Image also has the ability to create file-based backups. Unlike an image-based backup, file-based backups are designed to copy specific files and folders, such as you're My Documents folders or those that contain specific user data, such as images or audio files.
File-by-file backups are adequate to back up data files only, but they cannot provide the consistency between files being used by the operating system and applications. As a result, it is not an appropriate strategy for disaster recovery applications, although it is useful when you have specific files you want to save.

Quantifying Productivity

Acronis True Image works transparently in Windows while creating a live backup. Other popular disk imaging products forces the user to reboot to DOS. As a result, those users are unable to continue working on their Windows-based applications during the creation of an image. They are effectively locked out of the drive during the backup procedure.

Being able to work 100 percent of the time in Windows has two distinct advantages. One is the depth and breadth of supported backup hardware; the second is productivity. When the user is forced to boot to DOS, they are restricted to back-up mediums that have DOS driver support. When was the last time — or the first time, for that matter — you saw a DOS driver for a DVD drive? Many high-performance, high-capacity storage devices are not supported by DOS.

Second, when an image is being made by a DOS-based application, the user is unable to use their system for any Windows applications. Essentially, the user and the system are put *on hold* while the image is created. With Acronis True Image, the user never has to disrupt their productivity — the image is created while they continue to work. The process is entirely transparent to them.

Third, and this often considered the most important in a corporate environment, productivity means money. Workstations or servers that are not running are not only not making money, but costing money. As a result, the goal is to have your systems back up and running – be it on the same physical hardware or on other hardware – as quickly as possible.

Additionally, Acronis allows the user to set the priority of the backup. For example, if you have an application running that *must* have CPU priority, you can set your backup to a lower level of priority, making sure your other application gets the CPU cycles it needs.

Acronis provides several strategies for getting your hardware back up and running quickly. They include the ability to begin working *even while the image is being restored* on the same hardware, the ability to restore the image to new hardware locally, and the ability to restore the image to new hardware remotely. We will look at these options in the next chapter when we discuss Restoring an Image. First, however, let's look at how to create an image.

Chapter 2

Using Acronis True Image

When installing Acronis True Image, one of the options during the setup process is the ability to create a rescue media boot disk. There are two reasons why we recommend that you exercise that option.

An emergency boot disk is required should your operating system or drive become corrupt and you cannot reboot your system normally
An emergency boot disk is required if you want to image an operating system other than Windows

In either of these cases, you must use the Acronis rescue media disk.

Making A Boot Disk

The rescue media is one of the most important components of the Acronis True Image disaster recovery system. Unlike some competitive products that require you to have a floppy drive, Acronis True Image allows you to make your boot disk on either floppies or a writeable CD-ROM or DVD, as well as to flash drives. (Most of the manufacturers today are shipping systems without floppy drives, so if your software only writes to floppies, you're out of luck!)

If you are working in a Windows environment, you will first install the software on your system. During the install process, you will be asked to create a boot disk.

If you are using a *non-Windows* system, such as Linux or Novell Netware, you must boot from a disk. You can also download a bootable ISO image of the product from the Acronis Web site.

Creating A Disk Image

Creating a disk image with Acronis True Image is a little like filling a barrel of water using a bucket from a well — if you use a large enough bucket, you can fill the barrel with one bucket of water. If you use smaller buckets, you might need several to carry the water you need. When it comes to making images, you might be able to store your entire image on a single storage device, such as an external hard disk, tape drive or a DVD disk. If you're using CD-R or CD-RW disks, you might have to create multidisk volumes.

When you begin your back-up, the software will ask you where you want to save your file. You can choose a local or networked drive, tape drive, a removable storage device, a CR-RW or writable DVD, or you can even create a file directly on the very same partition that is being scanned.

Some competitive products force the user to boot to DOS. This significantly limits their ability to store the image on modern, high-performance media. Additionally, many competitive products don't allow you to save the file to the same partition that's being imaged. You might want to save a copy of the image on your local disk if you do not have an immediate access to a backup storage. Later you can copy the disk image file to another storage device.

Acronis True Image 9.0 bypasses temporary files such as paging and hibernation files when creating an image. This significantly reduces the size of images as compared to earlier versions of the software and also permits you to make an image faster than ever before.

As soon as you create your disk image, you can verify the integrity of the image using the integrated disk verification tool.

Incremental Backup

An important feature in Acronis True Image is the ability to make **incremental** backups. Once you create a complete image of your disk, you only need to image files that changed during an incremental backup. This process is much faster than imaging an entire drive, since the actual number of changed files will likely be significantly fewer than your total number of files.

Acronis True Image is able to compare the data on disk sectors of your hard disk to an existing disk image. The program then only re-images those sectors that have changed. In that way, you always have a current complete image of your disk. Think of incremental images as a *layered* approach to imaging – each incremental image is matched to a base image and all the incremental images that came before it.

Acronis recommends that users set back-up policies so that full images are created on a regular basis and incremental backup images are created at intervals between the full backups. When restoring a system with incremental images, you will need to have all of your incremental images, as well as your base image, in order to restore the full system. If even one incremental image is missing, you run the risk of not being able to restore the system.

Differential Backup

If incremental images are layers, then differential images are more akin to bookends. While incremental images record changes since the last incremental image (or since the base image for the *first* incremental image), a differential image records all the changes since the most recent full image.

A differential image will take longer to create than an incremental image and generally will be larger in size, but it contains all the changes since the last backup.

As a result, you need only one differential image to be mated with a full backup in order to restore your system.

Data Verification

Acronis True Image includes a tool that can verify that the image itself, and all the data contained therein, are valid. This means you do not need to worry that after you create an image, you won't be able to restore it; the data and image verification tools will ensure the images are correct and undamaged.

Additionally, Acronis also provides a tool to ensure a perfect image *before* you running the Restore command. While images might be perfect when they are created, they could become damaged or corrupted later on due to unrelated actions. For example, a network surge could corrupt a file when it is being transferred from the network disk back to the PC to be recovered. Acronis recommends testing every image prior to running the Restore command so that you are ensured that the recovered image will be usable.

Scheduling A Backup

Acronis True Image allows you to schedule a disk backup. Users, for example, can program the application to back up a drive every Saturday night at 11 p.m. to another drive, so that the user will have a current backup each week. Or, a user could configure their system to back up daily, so that there is always a current incremental image handy. You also can schedule a backup to occur when you shut down, log out or start your system.

Acronis Secure Zone

The Acronis Secure Zone is a convenient backup location for those who do not want to use or do not have any other storage device. As such, it is often used by mobile computer users with laptop systems that do not have additional backup devices attached – or those who do not want to burn or carry extra CDs/DVDs with them for backup. It is an excellent backup strategy for users who experience a software-related failure, such as a virus, malware or flaky software install. It will not work if the disk drive on which the Acronis Secure Zone is installed suffers a catastrophic hardware failure.

The Acronis Secure Zone is a hidden partition on a hard drive in which the user can store an image of the disk. This partition cannot be accessed by normal user activity, so it is safe from accidental damage. Should the disk drive's operating system fail, the user can boot their system from the boot disk and restore the image from the Acronis Secure Zone. They also can access the Acronis Secure Zone using the Acronis Startup Recovery Manager function.

Managing System Restore

If you run Acronis True Image regularly, the System Restore feature in Microsoft Windows is redundant and can use up roughly 12 percent of your disk space. Acronis lets you manage the System Restore function from within Acronis True Image.

To invoke the System Restore Management Wizard**,** select Manage System Restore from the menu or from the Tools group, or click Manage System Restore on the toolbar. After you click the Next button, you can turn on or off System Restore on all your hard disk(s) partitions at once or do it individually for each partition.
It is important to note that you cannot turn off System Restore on the system partition of the hard disk, yet keep it on another partition. Also, if you turn off System Restore on any drive or partition, all previously created restore points for that partition will be deleted. Please make sure you do not need those restore points before proceeding.

RESTORING YOUR DISK

As we noted earlier, there are multiple ways to restore your disk drive. You can restore either an image or specific files or folders. Images can be store on a local drive, networked drive, removable media, or the Acronis Secure Zone. You can:
Restore an image from within Windows of a non-system partition
Restore an image from the emergency boot disk of a system or non-system partition
Restore an image using Acronis Recovery Manager
Restore an image using Acronis Snap Restore

When restoring specific files or folders, you again have multiple options. You can:
Mount an image as a logical disk drive, then copy back files or folders from an image
Run the Restore Files Wizard and restore files or folders from a file-based backup.

Acronis Snap Restore

If speed is of the essence, especially speed in using your system following a system failure, then there is nothing like Acronis Snap Restore for you.

Here's how it works. Let's say you've created an image with Acronis True Image and your system partition fails. You can boot your system directly from the image using Acronis Snap Restore. This application boots a small Linux kernel and begins to restore your Windows OS. About 10MB of data is restored – just enough so that the system can reboot directly into Windows before proceeding with the restore procedure.

After Windows boots, you can then begin to launch an application – even if that application hasn't been fully restored. For example, let's say you try and launch

Microsoft Outlook. If the program isn't fully restored yet, Acronis Snap Restore will make the restoration of Outlook a priority. As soon as the application is restore, it will launch, allowing the user access to the program *even through* the rest of the image is still being restored.

Acronis Snap Restore will continue to restore the image until the next application request is made. Again, if that application has yet to be restored, it will become the next priority for restoration.

Acronis Startup Recovery Manager

The Acronis Startup Recovery Manager function allows the user to boot their system even if the primary operating system fails. (Note: If the drive has a physical failure, such as a crashed head, you will need the boot disk to start the system.) Once you launch the Acronis Startup Recovery Manager, you will have the option to restore an image from either the Acronis Secure Zone or from an external source, a networked drive, or Acronis Secure Zone. The Acronis Startup Recovery Manager is launched by pressing the F-11 key when prompted during the boot process.

Verifying an Image

Before the archive is restored, Acronis True Image can check its integrity. If you suspect that the archive file might have been corrupted, check Verify backup before restoration. Having restored a disk/partition or selected files from an image, Acronis True Image can check the integrity of the restored files. To do so, select Check restored files.

To check data from an incremental backup, you must have all previous incremental backup files and the initial full backup. If any of successive backups is missing, restoration is impossible.

To check data from a differential backup, you must have the initial full backup as well. However, if you created several differential or both incremental and differential backups based on the same full backup (and therefore, in the same folder), you will need ALL of these successive backups to check the archive.

Verification of the files is available only when restoring under Windows NT SP6/2000/XP and for FAT16/32 and NTFS file systems.

DATA MIGRATION

Disk cloning is a function that allows the user to make an exact duplicate of their hard disk onto a different hard disk. Thereare two ways this can be done. One method is commonly referred to as data migration. The second method is to create a backup image and then restore it to a new disk drive.

Using the migration method, the user can connect a new disk drive as a slave to the existing drive, which is configured as the master. (Some disk drive vendors recommend that the jumpers on the drives be set to the Master and Slave settings, respectively. Others recommend that jumpers be set to Cable Select. Consult your disk drive documentation for the recommended setting.)

Once the two drives are connected and in place, the user then runs the Disk Clone wizard from the main menu. The software then will migrate the operating system, all settings, software, configuration files, data and the like from the master to the slave drive. NOTE: The master and slave need not be the same size drive for this function to work. In fact, this function is normally used when migrating to a larger drive. If you are migrating to a smaller drive, however, you must make sure there is enough free space on the new drive to hold all of the data from the originating drive.

The second method of creating an image is described above; it entails creating a backup image first on an external or removable device, then restoring it to the new drive.

The benefit to using the data migration method is speed. The data only needs to move once from the originating drive to the target drive. The benefit to creating an image first is that you now would have a full and complete backup of the drive. However, this process takes longer since you first have to create an image, then you restore it to the hardware.

Cloning a System Drive from an Image (not Data Migration)

Acronis True Image can be used to clone an image onto multiple drives. For example, a company might purchase several drives and require that the same environment exist on each of them. Traditionally, users would install the operating system and programs on each of them. Acronis True Image, however, allows the user to simplify the process and save considerable time creating a disk image of the first deployed system. That image can then be duplicated on to multiple disks.

By cloning systems as needed, the company ensures that it has standardized systems. (Note: When cloning a drive using Windows XP or Windows 2000, you may need to use the Microsoft Sysprep utility first. For more details on Sysprep, please go to http://www.acronis.com/products/trueimage/faq.html#17)

Add New Disk

Acronis True Image includes basic disk partitioning and formatting capabilities. The user can create, copy or move a partition, as well as format the new partition for receiving data on a drive.

Disk Redeployment

Acronis True Image can prepare an old disk to be redeployed as a data disk or as a system disk. Using the disk-wiping technology, Acronis True Image can safely and completely destroy all data on a disk drive. Acronis True Image uses a "fast" algorithm to wipe a drive; Acronis Privacy Expert Suite, by contrast, supports up to 7 international data destruction methods, including the same "fast" algorithm.

System Performance

System performance is not impacted during the imaging process when using Acronis True Image. Acronis uses its Drive Snapshot technology to create an image of the drive. Depending on the imaging technique used — whether it's the Windows-optimized approach where only sectors with data are imaged or a sector-by-sector image — Acronis creates the image *while the users continues to work in Windows.*

In contrast, technologies that require a system to boot to DOSare inherently impacted by this process. A system must be taken offline during the imaging process when the system is booted to DOS.

Chapter 3

Special Features

Recapping, here are some key features to look for when you're reviewing Acronis True Image:

It's two products in one – our award-winning disk imaging tool and a file-based backup tool for backing up files and folders
Incremental and differential backup capabilities
Acronis Snap Restore lets you begin working even while the image is being restored
Data verification after image creation and prior to image restoration
Creates images faster and requires less disk space by skipping hibernation and paging files
Fastest bare-metal restore for workstations and stand-alone PCs
Scheduling
Support for all Windows workstation operating systems:
Windows 95/98/Me/2000/XP
Support for all Windows files systems: FAT 16, FAT32, NTFS
Support for non-Windows operating systems including Linux and NetWare
Support for high-speed, high-performance storage devices
Full support for all RAID configurations in IDE and SCSI environment
Acronis Secure Zone: A hidden partition where the user can create a mirror image of their disk right on the same drive being imaged
Acronis Startup Recovery Manager: The ability to access an image and restore a disk even if the system's operating system is damaged
The ability to work from within the Windows environment; no booting to DOS to create an image (system remains productive at all times)
Drive cloning
Can be used to migrate data from an old drive to a new drive
An old drive can be prepared to be redeployed as a data disk or a system disk
Stores only the necessary disk sector contents
User-defined compression levels
Multivolume archives
Password protection
Support for hard disks of any size
Changes partition type, file system, size, and disk location during restoration

Chapter 4

Frequently Asked Questions about Acronis True Image 9.0

What is Acronis True Image 9.0?

Acronis True Image is an easy-to-use, affordable backup and restore solution for home and home office users that can protect family pictures, videos, music, and important documents stored on your home PC.

You've accumulated a lifetime of memories on your home PC, in addition to important personal documents, such as tax returns and resumes, not to mention all the applications you have installed and unique settings for each family member that took countless hours to set up. Acronis True Image 9.0 helps ensure that you are adequately protected, ensuring that you can recover your precious data in case your PC fails or your computer hard disk is damaged by a virus.

How does Acronis True Image 9.0 work?

With the introduction of Acronis True Image 9.0, consumers are provided with two backup products in one.
1) Our original disk imaging backup option which enables you to create an image of your entire hard disk drive, including the operating system, applications, user settings, and all data. Use the image to restore your PC to a known working state without any reinstallation.
2) A new file-based backup option which enables you to backup and restore individual files and folders, like your My Documents folder or a specific file, like your latest tax return. A wizard walks you through all of the steps.

Who is Acronis True Image 9.0 intended for?

Acronis True Image 9.0 is intended for use in the home and home office. It is a tool that enables you to protect and recover data on your system. It is easy to uses wizards to walk you through the steps required to protect and recover your data, including:
Creating bootable media. Bootable media (a floppy, CD, or flash drive) will enable you to start your computer when the operating system becomes unstable and you can't boot your machine
Creating and scheduling backup images to protect all of the information held on your system AND backing up specific files and folders, like your My Documents folder or your most recent tax return
Recovering your data in case of system failure

Why use Acronis True Image 9.0 instead of some other product?

There are several exclusive features of Acronis True Image 9.0 software that distinguish it from other products.

Provides two backup products in one – our original disk imaging back option *and* a new file-based backup option that enables you to backup specific files and folders
Acronis Snap Restore – Lightening-speed restore of your Pc from an image. You can start working in sections while your system is still be restored
Acronis Secure Zone – Save data to special partition on your hard drive. There is no need to purchase an extra hard drive, CDs, or DVDs to protect your data. This is especially useful for notebook computers
Acronis Recovery Manager – Recovery option that enables you to restart your computer by hittingthe F11 key in case you computer does not boot correctly. Even if your operating system has been deleted, the Acronis Recovery Manager can boot your computer
Live backup - Run backups while you are using your computer
Restore your entire PC, including the operating system, applications, and user settings without reinstallation of *any* software - Restore in minutes by avoiding the time-consuming task of locating all your application CDs and registration codes, and then reinstalling all programs
Back up individual files or folders
Restore individual files or folders from an image archive
Scheduler – You can run backups on a regular basis automatically
Supports all Microsoft Windows desktop operating systems - Still running Microsoft Windows 98 on that PC you refuse to recycle? No problem. Acronis True Image protects PCs running 98, Me, NT 4.0, 2000, and XP
Wizard-driven interface - Product walks you through each task so that you don't need to be a computer expert to use it

What is the difference between Acronis True Image 9.0 and Acronis True Image 8.0 Corporate Workstation?

Acronis True Image 9.0 is meant for use in the home and home office. Acronis True Image 8.0 Corporate Workstation is meant for use business environments. The corporate workstation version includes remote installation and central management that allows IT staff to manage backup tasks and protect employee laptops and desktops throughout an organization from one central location. Acronis True Image 9.0 does not include these features.

What operating systems does Acronis True Image 9.0 run on?

The answer to this question can be divided in two parts.
The installation package can be run under any operating system of the Windows family:
Windows XP (Home/Professional)
Windows 2000 Professional
Windows NT 4.0 Workstation Service Pack 6
Windows Me
Windows 98
After installation you will be able to use Acronis True Image 9.0 under Windows.

For backing up *networked* workstations, see Acronis True Image Corporate Workstation. For server operating systems backup, see Acronis True Image Enterprise Server and Acronis True Image 8.0 Server *for Windows*.

After installing Acronis True Image 9.0 in Windows, you will be able to create/activate the standalone version of Acronis True Image 9.0 that doesn't require any operating system to be running.

What is the difference between an incremental and differential image?

An incremental image contains all changes that have been done since the latest incremental (or full) image was created. If one full image and several incremental were created, all of these images must be saved in the same folder in order to be able to restore. If one of incremental images (or full image) is deleted, there is no way to restore the set, since all images are dependent on each other.

A differential image contains all changes that have been done after the full image creation. To restore a differential image, Acronis True Image must match the differential image with the original image.

What is the standalone version of Acronis True Image 9.0?

The standalone version of Acronis True Image 9.0 is an exclusive recovery environment for restoring images. Additionally, it also allows you to create images, clone hard disk drives, partition new hard disk drives and manage the Acronis Secure Zone without having to boot into Windows. It has the same graphical interface as when you run Acronis True Image 9.0 under Windows.

There are two variants of the standalone version. The *full* variant is based on Linux operating system and uses Linux drivers for getting access to all hardware devices. The *safe* variant is based on DOS environment and doesn't provide you with an access to the USB, PCMCIA, SCSI, RAID devices and the network. We recommend you to use the safe variant only if the full one doesn't work.

You can run the standalone version of Acronis True Image 9.0 from a bootable media (a CD-R(W) disc, a set of floppy diskettes, a USB flash card or a ZIP-diskette). Also you can activate Acronis Startup Recovery Manager and boot your computer into the standalone version (full variant) of Acronis True Image 9.0 by pressing the F11 button when the computer boots up.

Does Acronis True Image 9.0 support computer hard disks with Linux file systems and Linux operating system?

Yes, it does. Acronis True Image 9.0 supports the following Linux file systems: Ext2, Ext3, ReiserFS, Reiser4, and Linux Swap. Acronis True Image 9.0 also works with any other unknown file system in special sector-by-sector mode. If the software cannot identify the file system, it simply creates an exact image of every sector on the disk.

The standalone version of Acronis True Image 9.0 can be run from a bootable media on any PC (x86 compatible), independent of the operating system installed.

What storage devices does Acronis True Image 9.0 support for saving images to / restoring images from?

Acronis True Image 9 supports the following storage devices:
Hard disk drives
Networked storage devices
CD-R(W)
DVD-RW, DVD+R(W)*
ZIP®, Jazz® and other removable media

P-ATA (IDE), S-ATA, SCSI, IEEE1394 (Firewire) and USB 1.0 / 2.0 drives, PC card storage devices

* — requires third-party DVD packet-writing software to be installed. This software is generally provided with DVD drives when you purchase them

Does Acronis True Image 9.0 support RAID arrays?

The answer to this question can be divided in two parts.
In Windows Acronis True Image 9.0 supports all RAID arrays Windows has drivers for.
The standalone version (full variant) of Acronis True Image 9.0 uses embedded Linux drivers for RAID arrays. There is a probability that Linux drivers for the specific RAID array have not been included yet. In this case you should try to use a special plug-in for BartPE instead of the standalone version. This plug-in allows you to use Windows drivers for the RAID array when running Acronis True Image 8.0 Server for Windows from a bootable CD. You may also contact Acronis Support Team and report that the standalone version doesn't recognize your RAID array. Our Development Team will add drivers as soon as possible.

What is the difference between creating an image with Acronis True Image 9.0 and using the embedded "Disk Clone" tool?

The "Backup" wizard of Acronis True Image 9.0 creates an image file for backup and disaster recovery purposes, while the "Disk Clone" tool simply copies/moves the entire contents of one hard disk drive to another. Here's how both tools work and when you should use them.

When you create an image with Acronis True Image 9.0, you get an exact copy of your hard disk, a disk partition or individual files or folders (you make this choice when you create the image archive). If you choose to back up a hard disk drive or a partition then every portion of the hard disk that has data written to it (sectors) is saved into a compressed file — or multiple files if you'd prefer. You can save this image to any supported storage device and use it as a backup or for disaster recovery. (Note: if Acronis True Image cannot identify the file system, it creates a sector-by-sector image of the disk. This image is not compressed and the image file will be the same size as the disk being imaged.)

When you use the "Disk Clone" tool, you effectively copy/move all of the contents of one hard disk drive onto another hard disk drive. This function allows you to transfer all the information (including operating system and installed programs) from a small hard disk drive to a large hard disk drive without having to reinstall and reconfigure all of your software. The migration takes minutes, not hours, but it is not generally used as a backup strategy.

Do I need to uninstall the existing version of Acronis True Image prior to installing the latest update?

No, this is not required. You can install the latest update for Acronis True Image 9.0 over the existing version. To do this, run the installation program and select "Repair/Upgrade Acronis True Image" option.

Can I restore the images created with the previous version of Acronis True Image using the latest version?

Yes, you can. The latest version is able to restore all the images created using any previous version of the product.

Can I backup/restore Windows partition that is in hibernation state using the standalone version of Acronis True Image 9.0?

It is not recommended to create an image of the hibernated system. However, if you have already created such an image, please do not resize partitions during restore. Also, cloning of the hibernated system should be performed without resizing partitions.

What is a sector-by-sector back up (row image)?

The sector-by-sector method allows you to create an image of all sectors of the selected partition. This image will contain not only sectors with data but also sectors that are free. As a result, this image will be equal in size to the disk being imaged, as there is no data compression. This method is useful if a partition being backed up is not supported by Acronis True Image 9.0 or is corrupted. In this case, all sectors of this partition are included in this image and will be restored.

Do I need to reboot the computer in order to restore the system partition of my hard disk drive?

Yes, you do. Windows does not allow you to run an application while this application completely rewrites the partition where Windows is installed. Therefore, Acronis True Image 9.0 will prompt you to reboot the computer into its standalone version to restore the system partition. Once the partition has been restored, you will be able to boot Windows in the usual way.

I have run/scheduled a task to create an image to the mapped drive. It sometimes works, sometimes not. What should I do?

When you map the drive it becomes mapped only under your Windows account. Acronis True Image 9.0 runs its tasks using the system account and so it is sometimes unable to locate your mapped drive (especially when you are logged off). Please use the full UNC path (e.g. \\server\share\) instead of the mapped drive.

I created an image that is saved on multiple CD-R(W) discs, but when I want to explore this image, Acronis True Image 9.0 says that it cannot mount the partition as a logical drive.

Acronis True Image 9.0 can explore an image archive only if all its volumes reside in the same folder. If your archive spans several CD-R(W) discs and you wish to explore the image, you need to copy all volumes into a single folder on a local or networked hard disk drive. Future versions of Acronis True Image will allow you to view all the files included into the image archive and restore the needed ones. We apologize in advance for the current inconvenience.

I can not explore an image of the Linux partition in Windows. Why?

If an image contains a partition with a Linux file system, Windows will not be able to view it as the Windows OS does not support the Linux file systems. As a result, Linux partitions cannot be mounted as virtual drives on a Windows-based PC.

I can not plug an image archive created from individual files or folders, what can I do?

If an image archive is created from individual files or folders, then Acronis True Image 9.0 can not explore it. In this case if some data from this archive must be restored then use "Recover" wizard to restore needed files or folders. There you will be able to see a content of this image and choose what files (folders) you want to restore. You will be also able to restore this data to another location.

I created an image archive of my hard disk and mounted this image archive on another computer. When I try to explore folders on the mounted logical drive, I get "Access Denied" message. How can I overcome this?

The most common reason why you might run into this error message, even if you are using a computer with the same user name, is that the user profile and permissions could be different from those on your original system. Different permissions and profiles might make you unable to view certain files and/or folders. The only workaround is to restore the image archive (at least the necessary partition) and take ownership over the files and/or folders you need in your new profile and permissions. You then will be able to access, view and change these files and/or folders.

Microsoft provides instructions on how to perform this task. You can find them in Microsoft Knowledge Base Article 308421.

I started the standalone version of Acronis True Image 9.0 to restore an image located on a network share, but I can't find the desired computer on the network.

If at least one computer is visible in "Computers near me", then try to specify the full UNC path to the desired computer in the "File name" edit box, e.g. \\server\share.

If no computers are visible on the network, but the "Computers near me" icon is found in "My Computer" on the Image Archive Selection screen, then please ensure that a DHCP server is running on your network. If you don't use a DHCP server, then please ensure that network settings accessible via the Options item in the Tools menu are correct.

If the "Computers near me" icon is not available in "My Computer," then there could be problems either with your network card or with the card driver shipped with Acronis True Image 9.0. Please contact the Acronis Support Team and provide information about your network card model and vendor.

I started the standalone version of Acronis True Image 9.0 to restore an image located on a network share, but when I try to login to a network computer, it asks me for the user name and password again and again. What should I do?

In some cases, especially when a domain controller is present on the network, you should specify an authorizing server name or domain name along with a user name. The user name should be specified in the form of *SERVER\USER* or *DOMAIN\USER*.

If you are trying to access a server in a domain that is controlled by Windows Server 2003 and still can not login to a server, please try the following:
Open **Active Directory Users and Computers** on domain controller (Windows Server 2003).
In the console tree, right-click **Domain Controllers**, click **Properties**, and then click the **Group Policy** tab.
Click **Default Domain Controllers Policy**, and then click **Edit**.
Open the **Computer Configuration \ Windows Settings \ Security Settings \ Local Policies \ Security Options** folder.
Locate the **Microsoft network server**: **Digitally sign communications (always)** policy setting, and then click **Disabled** or **Do Not Configure**. Please also check that the **Microsoft network server**: **Digitally sign communications (if client agrees)** policy setting is **Enabled**.

You can also read Microsoft Knowledge Base Article 823659 regarding this problem.

Can I create an Acronis Secure Zone on an external drive?

It is not recommended to create the Acronis Secure Zone on a detachable drive. If you activate Acronis Startup Recovery Manager and then for some reason disconnect the drive Acronis Secure Zone resides on, your computer may boot with a long delay or not boot at all. You will need to either reconnect the drive with the Acronis Secure Zone or fix the master boot record (MBR).

After removal of Acronis Secure Zone I found that the space I used to create it is lost. How can I get it back?

Such situation may occur when you do not add the space freed from Acronis Secure Zone to one of your partitions. Actually, the space isn't lost; it has become unallocated.

You can do the following in order to get the space back:
Create an Acronis Secure Zone again using the unallocated space
Remove Acronis Secure Zone by means of the Manage Acronis Secure Zone wizard, adding the space to a partition you want
You can also use any partitioning program (for example, Acronis Disk Director Suite 9.0) in order to create a partition using the unallocated space.

How can I use Acronis True Image 9.0 to write images directly to DVD discs?

Acronis True Image 9.0 is capable of writing to a DVD disc in Windows if UDF packet DVD-writing software is installed and the DVD disc is formatted. If a DVD disc is not formatted then Acronis True Image 9.0 will ask you to format DVD disc and will be able to format it if DLA DVD-writing software is installed. Acronis True Image 9.0 currently supports the following DVD-writing software:
Roxio Drag-To-Disc — a part of Roxio Easy Media Creator
Ahead InCD — available for free on the Nero site for Ahead Nero users (and usually is shipped with Nero)

In general, Acronis True Image 9.0 also supports other UDF packet DVD-writing software, but the two above are the most popular and they have been tested and approved by Acronis.

To make the DVD disc writeable in Acronis True Image 9.0, you should do the following:
Install UDF packet DVD-writing software.
Format the DVD discs.

Start Acronis True Image 9.0, insert the formatted DVD disc into the DVD burner and create an image.
The images from the DVD disc can be restored both in Windows and by means of the standalone version of Acronis True Image 9.0.

There is also a two-step method for writing to DVDs. Acronis True Image 9.0 can create an image of a hard disk/partition as a single file on the hard disk itself, and then you can copy the file using your own DVD-writing software to the DVD disc. We recommend you to set the image archive splitting size to 2,000 MBytes (2 GBytes) on the "Image Archive Splitting" screen, as generally the maximum size of a file stored on a DVD disc is 2 GBytes.

After I installed Acronis True Image 9.0, I cannot access shared folders that reside on this computer. What's wrong?

The problem is that Microsoft Lanman Server has a fixed limit on how many filters it will support. Since Acronis True Image 9.0 Server installs some filters to support backups, the total number of filters can exceed the server's limit. The same problem may occur after installation of an antivirus product and is described in the Microsoft Knowledge Base Article 177078. Please apply the described workaround and contact Acronis Support Team if it doesn't help.

Is Acronis True Image 9.0 compatible with Norton GoBack?

Acronis True Image 9.0 is compatible with Norton GoBack, but for specific Acronis True Image functions you will need to disable Norton GoBack:
If you use the standalone version of Acronis True Image 9.0.
If you want to restore an image archive.
If you want to manage (create, resize or delete) Acronis Secure Zone.
Please note that after restoring an image archive the history of Norton GoBack stored on the target hard drive is automatically lost.

How can I prepare my Windows NT, XP or 2000 system for cloning/migrating it to different hardware?

In order to clone your Windows system to different hardware, you should first prepare Windows using Microsoft System Preparation Tool (sysprep). According to Microsoft Knowledge Base Article 298491: "One problem from duplicating an installation of Windows 2000 is that each cloned computer has the same security identifier (SID) and computer name. This may prevent the cloned computers from functioning correctly in a workgroup or a domain. To work around this problem, administrators use the System Preparation Tool (Sysprep.exe) to remove configuration settings that are unique to the computer such as the computer name and SID. The resulting image can then be safely reused for installation on other computers." This issue also exists in Windows NT 4.0 and Windows XP, and thus computers running those operating systems must be prepared as well. To download Microsoft System Preparation tool, click on your operating system: Windows NT 4.0, Windows 2000, Windows XP.

In brief, here is how you prepare your Windows operating system in order to create a master clone image and migrate system to a new computer:
Create Acronis True Image 9.0 bootable media with Bootable Rescue Media Builder available in Acronis True Image 9.0 program menu.
Run sysprep.exe on your source computer. Microsoft gives you the option to specify the following keys:
-nosidgen — If you plan to erase all data from the original hard disk drive and/or do not plan to use both original and new hard disk drives in different computers simultaneously, use this option.

-mini — If you plan to migrate your operating system to a computer with different hardware. Reboot the source computer and boot it from the created bootable media. Now run the 'Create Image' wizard and create an image of the prepared hard disk drive.
Boot the target computer from the bootable media and restore the image you just made. Reboot the target computer and boot it from the hard disk drive.

We recommend you to read Microsoft articles regarding using sysprep on your operating system, available at the following links: Windows NT 4.0, Windows 2000, Windows XP

Chapter 5

Underlying Technology

For a detailed discussion on the underlying technology in Acronis True Image product family, you are invited to read ***Disk Imaging in Windows — Increases user productivity and permits broader range of backup devices***, an article that ran in the January 2003 issue of *Computer Technology Review* (http://www.acronis.com/company/inpress/2003/01-ctr-disk-imaging.html). Here is a quick look at how Acronis True Image works.

Competitive applications that image Windows-based systems are not able to copy the system partition from within Windows because they are unable to copy open systems files. Consequently, they force users to boot to DOS in order to image a disk drive. In cases where the user's hard disk is large — say 120GB or more — it means that the user is out of commission for hours at a time while the program chugs away at creating an image in DOS. These DOS-based systems often have complex user interfaces and support a limited number of back-up mediums.

Acronis True Image overcomes this limitation by effectively freezing a moment of time *without leaving the Windows environment.* A special filter driver layers between file system drivers and volume drivers, allowing the software to create and backup consistent views of all files, including open files. The driver is installed above the volume drivers so it can see all the read and write requests passing to a volume — or partition.

As data is written from the image, bits are reset. The user is able to continue working in Windows, making changes to their documents, and the driver will monitor all disk modifications. When the image is complete, all changes that occurred during the writing process will be included in the disk image.

The fundamental difference between Acronis True Image and its competitors is productivity. Users who are forced to boot to DOS and take a workstation offline during a back-up are less productive and put more data at risk than those who back up without shutting down their system. Additionally, Acronis True Image supports more back-up media options, so the user has more flexibility to choose if they want to back up over a network, commit the back-up to an external USB 2.0 or FireWire drive, or to removable media such as DVDs or writable CDs.

Chapter 6

About Acronis, Inc.

Acronis offers corporate- and workstation-class storage management solutions that are technically advanced for mission-critical applications but easy to use. The company provides disaster recovery, backup and restore, partitioning, boot management, privacy, data migration, and other storage management products. Acronis has offices in the United States, Europe and Asia and sells its products through retail outlets, resellers and on the Web. For additional information or for a review copy of the software, please visit http://www.acronis.com or contact Director of Marketing Stephen Lawton at media@acronis.com.

Technical Support

Registered users can get free technical support by writing to support@acronis.com, by sending a fax to [650] 875-7587, and by checking out the FAQ page on the company's Web site at http://www.acronis.com/support/faq.html. Telephone support is available on an incident basis or to those who purchase an Acronis support or maintenance agreement.

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