

Using Acronis True Image Home 2009

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User Group Relations

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Before you install and start to use *Acronis True Image Home 2009*, I would suggest that you view my tutorial titled the *Perfect Backup Approach*, which can be seen at www.ugr.com/tutorials.html. This tutorial is also on the CD you received from us with *True Image*. The tutorial is 50 minutes long and will introduce you to the best ways to do backups today. It is also an overview of the details that you will find in this paper.

This paper is a step by step guide to installing and using *Acronis True Image Home 2009* on your computer. It is available at www.ugr.com/newsletters.html or is also on the CD you received from us with *True Image*. I recommend that you print this paper and follow it carefully as you use *True Image* for the first few times. Once you have more experience in using *True Image*, you will no longer need to follow this paper. It is intended to help you get started quickly and effectively in using *True Image*.

If you want to learn more about *True Image*, you can read the official *Acronis True Image Home 2009 Users Guide* (149 pages). This guide is available to download from http://download.acronis.net/pdf/TrueImageHome2009_UserGuide_Eng.pdf and it is also on the CD you get from us. Just be aware that the manual is intended to describe all of the function of the product, but not to tell you how to best use it. I hope to cover that side of *True Image* in this paper, so that you will not only know how to do things, but what are the best ways to do them.

Getting Ready to use *True Image*

There are some things that you need to do before you can start to do backups with *True Image*. We will cover these preliminary tasks in this section of the paper. Once you complete this list, you will be ready to start to backup your computer's main hard drive using *True Image*.

Installing *True Image* from a Download: *Acronis True Image* is normally available as a download software product. The download facilities used by Acronis seem to conflict with some download accelerators on the market, so turn all of these off before trying to download *True Image*.

The best way to download the *True Image* installation module consists of the following three steps:

1. *Set up an Account on the Acronis web site.* To do this, go to the Acronis web site at www.acronis.com and click on the **My Account** link in the upper right corner of the screen. This will take you to a page where you can setup your new account in the middle of the page under Register Now. Fill in your first and last name,

- your email address, and a password you will use to access your Acronis account. You will need to confirm your password and then click on the **Continue** button to complete the setup of your account. Next, you will need to download your email messages and open the message from Acronis. In this message, you need to click on the confirmation link to verify that the email address is valid. This will take you to the first page of your new account. If you already have an account on the Acronis web site, then all you need to do is to login to your Acronis account.
2. *Register True Image 2009 Home in your Account.* To do this, click on the **Product Registration** link on the left side of your opened account screen. This link will take you to a page with a box in the middle of the screen. Copy the serial number from the email message we sent you and paste this number in the box. If all you have is a printed serial number, then carefully enter in the serial number of your Acronis product exactly as you received it, dashes and all. Do not press the Enter key to continue entry on the next line, but let the entry automatically flow to the next line. Acronis will know which product you have by the serial number you enter. When you have entered it exactly, click on the **Register** button to complete the registration.
 3. *Download the Registered Product from your Account.* Click on the **Registered Products** link on the left side of the screen and this will take you to a page where you can see all of the products that you have registered with Acronis. Find and click on the plus (+) sign in the blue bar next to *Acronis True Image Home 2009*. This will open the information about that product. Find and click on the **Download Installation File** link below the product name and this will start to download the installation module for you. Click on **Save** to download the product and save it on your computer. The download is about 87MB and should take less than 15 minutes to download, depending on the speed of your internet access. When the download completes, find the installation module on your hard drive with Windows Explorer or My Computer and double click on the file to start the installation of *True Image* on your computer. This will start the install process.

Installing True Image from our CD: Some of our user group customers prefer to have their software delivered on a CD. So, as a convenience to them, we have downloaded the software and have burned it onto a CD. This is not an official Acronis CD, but simply a download convenience we offer our customers. If you received one of these download alternative CDs from us, all you need to do to install the product is to load the CD in your CD reader and on the screen that comes up, click on the **Install True Image** button. This will bring up another selection screen and again select **Install Acronis True Image Home** on this screen. This will start the install process.

Installation Process: The install process is quick and simple to complete. As the process begins, you will see the introductory screen for the install wizard. Read the information shown and click on **Next** to continue. On the next screen, you can read the license agreement and click on **I accept this agreement** button and then **Next** to continue. The next screen requires you to enter in your serial number exactly as you received it from us,

dashes and all. Since this is a long and complex set of characters, I would suggest that you copy the serial number you received from us and then paste it into the box provided. When you do, click on **Next** to continue. Next you will be given three options as to how to install this product. Click on the **Typical** button to continue. You can now select if you want to install the product for all users. I usually pick this option and then click on **Next** to continue. Finally, you will see a list of steps that the install wizard will do. Click on **Proceed** to start the actual installation of True Image. This will take about a minute to install on your computer. When done, click on the **Close** button to complete the installation. If you are installing from a CD, you can remove the CD at this time. You will get a message that the system needs to reboot to complete the installation. Click **YES** to reboot your computer now and complete the installation.

Upgrading True Image: If you installed *True Image* from a CD, be aware that the CD was probably created a few weeks ago. Acronis does an excellent job of correcting problems with their products and publishing new builds of the software about once a month. So, depending on when your CD was created, there may be one or more updates to the software since your CD was created. I normally check about once a month to make sure I still have the latest update of the products. I use *True Image* all of the time and want to keep my copy up to date, but you may want to download updates less frequently than I do. You can select an option in your account to have Acronis notify you of new builds to your product. I recommend you check this option.

The way to tell if you are current is to run *Acronis True Image* and when the main window appears, click on the **Tools** menu and then the **Create Bootable Rescue Media** menu item. This will start the Acronis Media Builder utility. Read the overview of this utility and then click on **Next**. The next screen will show you what programs you may put on the media. Click once to highlight the *Acronis True Image Home* (Full version) line and then on the right side of the screen you will see a string of numbers like 12.0.9608. This is version 12.0 (aka True Image 2009) and build 9608. Compare this number with the one you will find at the <http://www.acronis.com/homecomputing/support/updates/> screen. If your build is not up to date, I would recommend that you download the latest build and bring your software up to date. You can find instructions on how to download the latest build at <http://www.ugr.com/AcronisQuestions.html>.

Starting True Image Program: The first time you start a newly installed version of *True Image* on your computer, you will get a box asking if you want to run the Acronis One-Click Protection tool immediately. If you click on the **Protect** button, you will start this initial backup of your operating system partition and your Master Boot Record. Acronis will pick how to do this backup and where to store your backup information. While this is a great help for new users of True Image, it takes the choices away from you as to how to do your backups and where to store them. Rather than click on **Protect** at this point, I recommend that you click on **Cancel** instead and then follow these instructions to set up your backups in the best way possible.

Create Bootable Rescue Media: Another step that you need to take before you are ready to create your backup images is to create a bootable rescue media to use in case your

main hard drive should fail and you need to restore an image without an operating system to run on. Acronis True Image will make a bootable CD, a flash memory chip, or a set of bootable diskettes for your rescue media depending on what hardware your computer supports. I would recommend that you burn a bootable CD. Diskettes will require a few blank diskettes to use instead of one CD.

To create this bootable CD, bring up True Image and click on the **Tools** menu item and then the **Create Bootable Rescue Media** menu item. You can select what software to be saved on the CD. I would select all of the items listed. Skip the next screen on Bootable Media Startup Parameters. Next select your CD burner and place the blank CD in the tray, but do not close the tray. Leave it open. Click on the **Proceed** button and Acronis will close the tray and burn the CD for you. Some users have had problems closing the tray early and not being able to burn the bootable rescue media on a CD. For more suggestions on how to create this bootable CD, see <http://www.ugr.com/AcronisQuestions.html>.

Installing and Testing Your External Hard Drive: Once you have your Acronis True Image software installed and up to date on your computer with a bootable CD made, you should get your backup media ready to save the backup images to. I recommend that you use an external hard drive to safely guard your important backup images. Acronis True Image will work with many other types of backup media, but an external hard drive is by far the best and fastest to use. The nearest alternative to an external hard drive would be a second internal hard drive that can easily be removed from your computer and stored away from your computer. This article will assume that you follow my advice and have an external hard drive to save your backup images to.

Many users will purchase a new external hard drive to run with Acronis True Image and run that hard drive for the first time when they use True Image. I recommend that you install and test your new external hard drive before you try to run True Image. If you do this, then you can be confident that your hard drive is working properly. The easiest way to test your external hard drive is to open up Windows Explorer and make sure you can see the external hard drive listed. If Windows Explorer cannot see the external hard drive, then you need to figure out what is wrong with the external hard drive or the connection before you try to use True Image. I would also copy a small file to the external hard drive with Windows Explorer and then close Windows Explorer and open it back up and see if the file is actually on your external hard drive.

External hard drives are designed to be easily attached and removed from your computer. However, there is a procedure to follow to do this correctly. If you don't do this right, then your external hard drive may not function correctly, even if it worked perfectly a day or two ago. So, check out your external hard drive each time you attach the drive to your system and before you try to run True Image. True Image will not be able to use your external hard drive if Windows Explorer cannot use it.

I have found that if you attach your external hard drive in the following manner, it will work most of the time. If your external hard drive has an on/off switch on it, make sure it

is turned off before you try to attach it to your computer. Place the external hard drive near your computer and first attach the power cord and power converter block to the drive and then to the wall plug. Now switch on your external hard drive. Next, attach the USB2 cable (or Firewire cable) to the external hard drive and then plug it into the USB2 (or Firewire) port on your computer. If all went properly, your computer should recognize the drive in a few seconds and tell you that it is detected and ready to use.

The problem most users get into is they simply unplug on the external hard drive when they are done using it. This could cause you problems with the drive and make it non-workable. Instead, you need to stop the drive in Windows before you physically remove the drive or power it off. To do this in WinXP, look for the small green and grey icon in the system tray at the lower right corner of your main Windows screen. When you position your cursor over this icon, you should see the comment, "Safely Remove Hardware". Click on this icon once and it will display all of the removable devices that are attached to your computer. Find the external hard drive in this list and click on it to disconnect the device. Wait until you get a message that says it is now safe to remove the device. Once you get this message, you can power down and unplug the device and remove it without causing any problems to Windows.

If you get a message saying that the drive is currently in use and cannot be stopped at this time, try it again. If you continue to get this message, then you will need to shut down Windows and power off your computer before you can remove the external hard drive. Once power is off on your computer, you can safely remove the external hard drive.

Creating External Hard Drive Folders: Your external hard drive should already be partitioned and formatted with one large backup partition. Most external hard drives that you buy today will come with one large partition on them and that partition is formatted as FAT32. This permits the external hard drive to be used on all Windows operating systems. If you format it only with NTFS, then you can only attach it to a WinNT/2K/XP/Vista system. It will not work on Win98/Me systems. In this large backup partition, I would create a folder for each of the hard drive partitions that you will be backing up to this external hard drive. So, if your computer has two partitions on it, I would create a separate folder for each of these two partitions. If you have another computer with three partitions that you plan on backing up to the same external hard drive, you should create three more folders on the external hard drive for these partitions. Then, you should save your image files from each of these various partitions and computers in the appropriate folders on the external hard drive. This will help to keep your image files well organized on the external hard drive.

Creating folders on your external hard drive is easy to do with Windows Explorer. Run Windows Explorer and find and highlight your external hard drive on the left side of the screen. The right side of the screen should be blank or only have a couple of test files on it that you have copied to it. With the external hard drive highlighted on the left side of the screen, click on the File drop down menu at the top of the screen and then the New menu item and finally click on Folder. This will place a blank folder on the left side of the screen under your external hard drive. Key in the name that you want to give this

folder and press Enter to complete naming this folder. Pick a name that will identify which computer and what partition this folder will be used with. Then repeat this till you have created all of the folders you need to save your images in.

If you use True Image to backup more than one computer, you should have installed True Image on each of the computers you will backup. Since True Image is licensed for use on one computer, you should legally have a separate license for each of your computers. True Image will not prevent you from installing it on each of your computers, but you will not be valid in following the license agreement if you do.

Backing Up Your Hard Drive

Set the Backup Options: Before we start to make our first backup image, we need to set a few options that will be used during the backup. This will make the backup process much easier to complete each time you do a backup. Most of the options have been selected already by Acronis, so you may only need to change one or two of them to have your backups done the best way possible. I will give you my recommendations for each of the settings available to you.

To set your backup options, start up Acronis True Image and click on the Tools button near the top of the main screen. Then select the Options menu item on the drop down list. Double click on the Default Backup Options on the left side of the window and you will see eleven option sections listed. By clicking on each of these names in the list, you will be able to enter your options on the right side of this window. The Backup Performance option has several sub-options under it so you will need to double click on this item to open up these sub-options.

- Click on the Archive Protection item to set up a password that you will need to enter to use any of your backup images. Unless your computer is open to the public, you may not want to password protect your backup images. You can leave these passwords blank and not use image passwords. You can also encrypt your backup images to give you even more protection if you want to. I do not use image file security on my backup images.
- Click on the Source Files Exclusion item to exclude any files of these types from a file backup. I prefer to backup all of my files and not exclude any file, so I skip setting this option.
- Click on the Pre/Post Commands to set up special processing to be done just before a backup starts or just after you complete a backup. You would need to provide these programs in order to use this feature. You will probably never have to use this feature.
- Click on Compression Level to set the level of compression of your backup image. Normal compression is recommended. It will give you approximately 40% compression and is much faster than the higher compression levels. High is only

about 45% compression and Maximum is about 50% compression, but both of these run much slower than Normal. If you select None, your backup image will not be compressed and it will take much more room on your external hard drive. I recommend that you select the Normal compression level on your system.

- Double click on Backup Performance to show the following three performance options.
 - Click on Backup Priority to set how much of your computer will be given to the backup function. I usually run True Image when little else is running on my computer, so I select High to give most of my computer's attention to completing the backup. This will cause the backup to complete much faster. If you select Low or Normal, then other things running on your computer will be given more attention and they will complete faster, but your backup will complete much slower. Leaving it on High is probably right for most users.
 - Click on HDD Writing Speed to set the demands on your hard drive writing speed. By setting this high, your backup will complete faster, but your hard drive will be very busy doing your backups and other programs may not be able to use the hard drive as well. If you want other programs to write easily to your hard drive, then set this option low. Again, my preference is to do my backups when I have little else running on my computer and I want to complete the backup just as quickly as possible. So, I would set it high.
 - Click on Network Connection Speed to set the demands that True Image will place on your network if you are backing up to a network hard drive. This will let other users on the network use the network while you are running your backup. Again, set this high if you are not backing up to a network drive or have few others using the network while you are doing your backups.
- Click on Archive Splitting to set the maximum size of your image files. If you want to copy your image files to CDs at some point in the future, then you might want to set this to Fixed Size and set the size to 700MB, which is the largest size file that you can save on a CD. If you want to burn the image to a DVD at some later point, then pick 4.7GB as your maximum size that will fit on a DVD. Splitting images may slow down the creation of your backup image, so select Automatic unless you know that you will definitely copy your images to CDs or DVDs at some later point. Since you are saving your images to an external hard drive, I would recommend that you select Automatic for this option.
- Click on File Level Security Settings to specify a couple of security related settings. For now, check the Preserve files security settings in archive and leave

unchecked the store encrypted files in decrypted state.

- Click on Media Components to place a bootable stand alone version of True Image on the same CD or DVD as your backup image. Since you should be backing up to an external hard drive, I recommend that you leave all of the boxes on this option unchecked. The advanced tab lets you pick what programs to store on your backup media. Since you are probably not using this option, just ignore these selections.
- Click on Error Handling to select a couple of important options. If your backup fails every time you attempt to do a backup, then you most likely have some bad sectors on your hard drive. I would try to clean these up by doing a Check Disk of your main hard drive and your backup hard drive to find and remove any bad sectors. If this does not clean up the drives to let True Image complete properly, then your hard drive may be starting to fail. Before it fails permanently, you should make a backup of the full hard drive with the Ignore Bad Sectors box checked. This will let the backup complete, even if bad sectors are on the drive and can't be fixed with a normal Disk Check utility. At least you will have most of your hard drive backed up when the drive fails. The other option should be checked only if you are doing automatic backups unattended and you do not want the backup to halt with an error message and nobody there to reply to it. By checking this box, the backup will continue and the errors will be logged for you to view later.
- Click on Additional Settings to make a couple of more important selections. I recommend that you click on the “Validate backup archive when it is created”. This will cause True Image to check that the backup image you just completed is a valid backup and can be restored if needed. There is nothing worse than thinking you have a good backup only to find out when you need it most, that it was faulty from the beginning. This will slow down your backup time quite a bit, but it is worth it to be sure you have a good backup image when you are done. The other option to ask for first media is only used for CDs and DVDs, so I would leave it checked in case you ever use these devices.
- Click on Backup Reserve Copy to make two copies of your backup image at the same time on two different devices. You can make one of the backups using the normal .tib file that Acronis normally provides. Then you can make the other backup image on another device using another file format like the ZIP compression or an uncompressed flat file format. This feature is important for small businesses, but is probably overkill for most end users. So, I would probably not use this option.

Click on OK to save your backup default options and you are now almost ready to make your first backup.

Getting Ready to Create Backup Images: You should now have your software installed and up to date with a bootable rescue CD to use in case your operating system is not usable. You have also tested your external hard drive and know that it works on your computer and have setup folders on your external hard drive. You have set your backup options to make doing backups easier. So, now we can start creating backup images of your main hard drive.

The first time you backup your main hard drive, you should backup the entire hard drive in one backup image. This will backup all of the parts of your hard drive including the Master Boot Record and all of the partitions on the drive, hidden or non-hidden. In case you should need to restore your entire hard drive to a new empty hard drive, you may need to use this entire hard drive backup to put all of the pieces back together on the empty hard drive. So, make this initial full backup by checking Disk 1 when given that option. I would suggest that you do this initial backup again if you should change your hard drive layout in any way with Acronis Disk Director Suite or other partitioning utilities. You may want to create an extra folder on your external hard drive to contain this initial backup image.

After you create this initial full disk backup image, I recommend that you backup each partition on your main hard drive separately and save them in their own folders. You would only need to do this for partitions that you save files in (such as your c: partition) and not backup special hidden partitions that you never use. These special partitions are saved in the initial backup mentioned above. I would suggest that you backup all of your partitions at approximately the same time and not at different times. This helps to keep your partitions in sync if you should have to restore them later. If you have one partition that only contains your data files, then you can backup that partition more frequently than the other partitions that contain your operating system and application programs.

In the Perfect Backup Approach, I recommend that you create a full backup of each partition once a month and then create incremental images of each partition each week. At the beginning of the next month, you would start again with a full backup image to be followed by weekly incremental images. If you want the added protection of daily backups, I would recommend instead that you do a full image each week with daily incremental images. Then start the next week with a new full image. How you do these two options is identical. Only the frequency is changed.

A full backup image followed by several incremental backup images form what is called an image set. The full image that starts the image set contains a backup of all of the files on the partition. The incremental image that follows is a backup of only the changed portion of the partition since the full image was created. Incremental backup images created later contain only the changes since the last incremental backup image. The full image and all of the incremental images are linked together and are needed if you want to restore the partition. All of these images in an Image Set would normally be saved together in the same folder on your external hard drive. *Acronis True Image Home 2009* offers the option to save these images in different locations, but unless this is needed, it is best to save them all together in the same folder on your external hard drive.

All of the images in an image set may be contained on the same backup media and not spread across multiple media, like multiple CDs. That's one of the reasons why an external hard drive is the ideal backup media to use and not CDs. Also, all of the images in an image set may have the same base name so that they can be identified as part of the same image set. True Image will add a sequence number to the end of this name to make each image file in the image set uniquely named as it is stored on your external hard drive. Again, True Image Home 2009 offers some flexibility in these suggestions, but unless you really need to do these exceptions, it is best to do the normal approach.

The name you choose for the image set can be anything you want, but let me suggest a naming convention that might help you identify the images better. The first part of the name should identify which computer this image is from. The next part of the name should identify what partition the image is on that computer. Finally, the last part of the name is the month it was created in. For example, a name like PC1_PART1_MAY08 would be from your first computer (PC1), the first partition on that computer (PART1) and was your May 2008 backup (MAY08). True Image will add the extension of .tib to this name so you will find a file saved in your external hard drive folder named PC1_PART1_MAY08.tib after the backup is created. If your image file gets to be too large, True Image will automatically split it to save it in segments on your external hard drive. FAT32 has a file size limit of 4GB, so a 10GB image will be split into two 4GB image files and a 2GB image file. So, you may find that your full image will come in two or more pieces, named PC1_PART1_MAY081.tib, PC1_PART1_MAY082.tib, etc. This is not a problem and True Image can merge these all back together again if you need to restore your main hard drive.

When you make your next backup image in this set (an incremental image) it will be saved as PC1_PART1_MAY082.tib and the one after that as PC1_PART1_MAY083.tib, etc. If your full image is in more than one segment, then the numbers added to the incremental images will be one number higher than the last number used. The number at the end of the name is added by True Image to identify the sequence that the images need to be put back together again when you restore the partition.

With that as background, let's now start to create the backup images of your partition. The sequence to creating a full backup image and an incremental backup image is somewhat different. So, I will cover how to create a full image first and then show you the differences when you create an incremental image. Let's start with a full image of one of your partitions.

Creating a Full Backup Image: Start up *Acronis True Image Home 2009*. When you get to the main screen, click on Backup under "What would you like to do". This will take you to the next page where you click on My Computer. This will bring up the Backup Wizard window showing the partitions to backup. Check the box next to Disk 1 the initial time you make a backup. After this initial full backup, you would select which individual partition you want to create an image of. This will create a separate image for each partition. So after the initial Disk backup, you should select only one partition to

create an image for in this step. Click Next when you have checked the Disk or partition to image.

Next you will need to select the target backup archive. Either select Create new backup archive (Full backup) or Add to existing backup archive (Incremental backup). Since we are doing Full backups in this description, select the Create new backup archive option. In the box below titled Backup Location, enter in the folder name on your external hard drive for this partition's backups to be saved in or use the Browse button to find and save this folder. Then place your cursor at the end of the folder name that is already in the box and enter in the name of your full image file. For example, key in PC1_PART1_MAY08 to complete the path and file name of this image file. True Image will add the .tib extension to this name when you click on Summary to continue.

This brings us to the Summary screen before we start to do the backup. On this screen is listed all of the selections you made for this backup. Read down through them to make sure they are all correct. If you want to change any of the settings, click on Back to go back to the window where you entered in the setting that was in error and correct it. If all of the settings look good to you, then click on the Proceed button to start the backup image creation process.

Be prepared to wait a while for your backup to complete. As a rule of thumb, it will take about 1 minute for each 1GB that you backup. So, if you have 10GB on your hard drive that you are backing up to an external hard drive, it will take about 10 minutes to complete. As the backup progresses, it will tell you how long the backup is expected to take. Don't be concerned about what it tells you the first couple of minutes. It always starts high and then adjusts down as the backup progresses. If after the backup is running a couple of minutes and it still estimates over an hour, then something is probably going wrong or you have a lot of files to backup.

True Image is one of the fastest backup utilities on the market, so I suspect that you will be surprised at how fast it completes. You can watch the backup progress and complete. When it is done, you will return to the last True Image screen before the backup started. If you want to go back to the initial True Image screen, click on Home in the lower left corner of your True Image screen.

When it completes, you should have a new file (or files) in the folder on your external hard drive. Use My Computer or Windows Explorer to check that these new files are in the right folder and that the size of them is about what you expect.

Having created a full backup image of one of the partitions on your hard drive, I would now backup all of the other partitions on that drive one at a time. Do all of them together and don't wait until next week to do the other partitions. If you have to restore your hard drive, you should restore all of your partitions at the same time from images taken at the same time. Your operating system partition and your application program partitions are interrelated and keeping them in sync is important. Partitions containing only data files can be backed up more frequently than your other partitions if you want to do this. When

you complete all of your backups, you should remove the external hard drive and store it away from your computer till you need it for the next backup. Remember to remove it in the right way in order to prevent errors in Windows.

Creating an Incremental Backup Image: The steps to creating an incremental backup image are much the same as a full image until you get to the Target Backup Archive screen. On this screen, you select “add to existing backup archive” and then click on the Select button to find the last backup image you created in this image set and click on that file to highlight it. Then click on OK a couple of times and then Next to continue defining your incremental backup image. Do not change anything in the File Name box under the directory tree once you find and click on the last backup image you made of this partition. If it has been filled in correctly for you. Check the sequence number in the file name to make sure it is the next one in the sequence. When done, click on Summary to end the settings phase of the backup and start the actual backup running. At the Summary screen, check that the options are correct and then click on Proceed to start the incremental backup image. This backup should proceed much faster than a full image and when you find the image file with Windows Explorer after it is completed, it will be much smaller than the full image. If your incremental backup images are as big as your full images, then something is going wrong. Send me an email and I will help you figure out what is happening to cause this.

That's all there is to making an incremental backup image. Just make sure you find and select the last backup image you made so that True Image will make a new one based on the prior images in the image set. Also, don't mess with the file name once you have highlighted the last image. This may cause the name to be changed and you will get a new full backup instead of the incremental backup you wanted.

Restoring Your Hard Drive

Restoring Hard Drive with Image Sets: Your image set (full backup image followed by one or more incremental backup images) must all be used in order to restore your hard drive partition. Acronis True Image will combine your full backup with the following incremental images to recreate your hard drive. All of the images in this set are important and needed to restore the partition. If one of the images in an image set were to become corrupted, then you could not restore it or any of the incremental images that followed it. They are all linked together and must be used to rebuild your hard drive. So, you do not want to risk your backup by letting your image set get too big before you start a new image set with a new full backup image of the partition.

On the other hand, it does not make sense to only create full backup images. These take up lots of space on your external hard drive and so you will not be able to save as many backups as you would using a combination of full and incremental backup images. So, a happy medium is the best way to go.

I would recommend that you create fewer than a dozen or so incremental images before you start a new image set. That will keep your risk of a broken image set chain to a

minimum. You should definitely take advantage of incremental images, but don't overdo it. If you follow my recommendations of a monthly full backup image and then weekly incremental backup images, you will only have 4-5 images in your image set. If you do weekly full backup images and daily incremental image, then you will only have 7-8 images in your image set. Both of these are about right as far as the size of your image set goes. You could do a full backup image each month and then incremental images every other day for an image set of 16-17. That's pushing it a bit, but will most likely be just fine.

Starting a new image set is very easy to do. You simply create your next backup image with a new image name and you will get a full backup image. This starts a new image set. Use the new image name when you create the incremental images and they will be linked to the new full backup image. Save it in the same folder as your last image set for that partition. Do not delete the last image set you made, but keep it on your external hard drive until you start to run out of space on that drive. This will build up a historical archive of your entire hard drive usage. This is a very powerful capability that will let you see your hard drive exactly as it was at any point in the past. So, you can go back to a prior image set to find a file that was later deleted from your hard drive and retrieve that file and put it back on your computer. More about this later in this article.

When you start to run out of space on your external hard drive, you will need to find the oldest image set (full backup and following incremental backups with the same name) and copy this image set to a CD or DVD for archival storage. Once you have that image set captured offline (on a CD or DVD), you can safely delete it from the external hard drive. A reasonable sized external hard drive should let you keep a year or so worth of backup images that you can dig into any time you want. Having older image sets stored off line on CDs or DVDs will let you retrieve that history if you really need it without too much work. Simply copy the image set from the CD or DVD back to a hard drive folder to open it up with True Image and retrieve any files from it.

Retrieving and Restoring Individual Files from Image Sets

This next function is one of the more powerful functions of Acronis True Image and one that you will use frequently. It gives you the ability to go back to any backup image in the past, open up that image and look at files in that image or copy them back to your main hard drive. True Image can do this without having to recreate your entire hard drive and destroying your current files. Here's how it works.

Let's assume that you have been using True Image to backup your main hard drive for 2-3 months. You have on your external hard drive the following files:

PC1_PART1_OCT07.tib
PC1_PART1_OCT072.tib

PC1_PART1_NOV07.tib
PC1_PART1_NOV072.tib (file was created after this image made)

PC1_PART1_NOV073.tib (file is available in this image)
PC1_PART1_NOV074.tib (file was deleted before this image made)

PC1_PART1_DEC07.tib
PC1_PART1_DEC072.tib
PC1_PART1_DEC073.tib

Now, let's say you want to find a file that you deleted in the last part of November and it is no longer on your main hard drive. Using Acronis True Image, you can look inside your November image set to find the missing file. Since you deleted this file in the last half of the month, it is no longer in your last incremental image. That's ok, as you can tell True Image to only build the image set up to the second incremental image in the set (PC1_PART1_NOV073.tib). In other words, you can look at your hard drive as it was at any backup point in the past; full backup images or incremental backup images.

To look at how your hard drive looked like at any point in the past, you would bring up True Image main screen. Click on the Operations menu item near the top of the screen and then the Mount Image menu item under it. This will bring up the Mount Wizard to guide you through looking inside any backup image on your external hard drive. The first screen lets you find and select which image from the past you wish to look at. Highlight the full backup or incremental backup image that you want. Make sure that it does not say Edited Backup under the Method column as this is something else. Then click on **Summary** to complete the mount function. The Summary screen will show you what the wizard will do next. Remember the drive letter assigned to this image. You will need it later to see inside your backup image file. Click on Proceed to build a virtual drive of your specified images and mount it under Windows with the special drive letter assigned to it. It will take less than 30 seconds to complete this. When it is done you will get a message telling you the operation completed successfully. Click on OK to continue.

Now, you need to open up Windows Explorer or My Computer to look at your hard drives and the files in them. You will see a new hard drive in Windows Explorer with the special drive letter assigned to your image file. This drive letter will give you a look inside your backup image file that you mounted. True Image calls this a virtual hard drive, because it is not really a physical hard drive on your computer, but a look at your backup image file you mounted.

You can see the virtual drive just like any hard drive with Windows Explorer or My Computer. You can look at individual files or copy files or folders to your main hard drive. You should not try to change any of the files in the virtual drive unless you know what you are doing.

Another neat trick is to share this virtual drive with others on your network. So, others that are linked to you on a local area network can actually look at a backup image file that you have mounted as a virtual drive and shared with them. To them it looks like another hard drive on your computer. They can retrieve files from it if your sharing permits this.

The virtual drive will remain open on your computer until you reboot your computer or Unmount the drive. To do this, you click on the Operations menu item near the top of the screen and the Unmount Image menu item under it. This brings up the Unmount Image wizard. You will see a list of all mounted images and their drive letters. Make sure there is a check box next to those mounted images that you want to unmount and then click on OK to continue. The unmount function takes about 5 seconds to complete and then you will see a operations successful message telling you that you are done. Click on OK to finish this process. Shutting down or restarting your computer will force an automatic Unmount of all mounted virtual drives. Just don't forget to Unmount the image before trying to create more images with True Image. If you forget and try to create a new image on the same image set, you will stall waiting for the opened virtual drive to be closed in the Unmount process. So, it is best to Unmount virtual drives soon after you are through using them.

Restoring Entire Partitions to Your Hard Drive

If anything should happen to your hard drive that requires a complete restore of the partitions on the drive, you will see the full power of Acronis True Image. While you can restore individual partitions separately, I recommend that you restore all of your partitions one after another, so that your operating system and application programs remain in sync. A partition that only contains data files can be restored separately if you need to. In fact, having all of your data files in one separate partition is a very good way to organize your hard drive. This would let you backup your data partition each day and only have to backup your operating system and application programs once a week.

With Acronis True Image, you can restore a partition while Windows is running if the partition is not currently being used. This lets you restore your data partition at any time if it becomes damaged in any way. If a partition is being used, then it must be restored by bringing down the computer for the restore process. Since your operating system partition is always being used, you can only restore that partition offline. Also, if your hard drive has crashed and you have installed a new empty hard drive on your computer, it will definitely need to be restored offline. We will look first at online restores and then at offline restores.

To restore a partition that is currently idle, you can run True Image under Windows and click on Manage and Restore on the main screen. On the next screen, find the image file that you want to restore. If you don't see it, you can click on the Browse for Backup... button in the upper right corner of the screen to find the image file you want. You can select a full image or an incremental image from any of the image sets on your external hard drive. Normally, you would want to select the most recent image to restore, but you could pick any of the other images you have on your external hard drive. It would restore that partition to exactly the way it was when the specified image was taken. The Wizard will guide you through defining the image restore. In general, I would take the default options unless you understand what you want to do. Acronis True Image gives you lots of choices on the restoring of a partition.

The offline restore is used where your main hard drive has crashed and will not boot into Windows. So, you cannot run True Image under Windows to restore your backup image. I recommend that you remove your crashed hard drive from your computer and replace it with a new hard drive that is empty. Do not format this drive or install Windows on it. Leave it totally empty like it was when you bought it, right out of the box. When this is done, attach your external hard drive containing your backup image to the computer and then boot your computer from the CD that you created when you first install True Image on your computer. The CD contains a bootable stand alone version of True Image that you can run when your main hard drive is not working. This lets you restore your backup image to an empty hard drive by running the stand alone rescue version of True Image that is on the CD. You boot from the CD and run True Image to retrieve the image files from your external hard drive and to create and restore all of the partitions on the main hard drive. The Recovery process of True Image is vastly easier than trying to restore from a file backup utility. You simply install the empty hard drive in your computer and run True Image to rebuild it in one easy step. You don't have to build and format partitions on your hard drive or reinstall the operating system before the restore. It couldn't be easier to do.

If the restored hard drive does not boot for some reason, you may need to first restore your very initial backup of your entire hard drive and then restore the most recent image of each partition on the main hard drive. This rebuilds the partition table and other parts of the hard drive that you might have missed by restoring just individual partitions.

One last suggestion on restoring your entire hard drive. I strongly recommend that you only restore to a new empty hard drive and not on top of your existing main hard drive. The first thing that happens in the restore process is to delete everything from your main hard drive. If the restore process fails and does not complete, you no longer have your main hard drive to fall back on. So, make sure you replace that main hard drive with a new empty hard drive before you do any restore function of the entire hard drive. Then your old main hard drive is safe on the shelf if anything goes wrong in the restore process.

Other Functions of True Image

Acronis True Image has some other functions that you may want to consider using. Since they are not part of the Perfect Backup Approach, I will not cover them in any detail in this article. True Image has the ability to Clone a hard drive. You would use this function if you want to copy your entire hard drive in order to replace your main hard drive with a larger one. Some individuals will use this to backup their main hard drive, but this method is not a good backup approach, so I do not recommend it. True Image can also help you Add New Disk to your computer. This task will help you create partitions on that new disk and format these partitions. True Image also has the ability to schedule tasks that will let you schedule a backup to occur in the future instead of being done right now. This is convenient if you want to complete some work on your computer and then have the backup occur in the middle of the night. This function has been considerably improved in *Acronis True Image Home 2009* and is a valuable way to do backups. I

would recommend that you do a few manual backups following the instructions in this paper before you set up the automatic backup function of True Image. Look for another paper on this web site titled, Making Automatic Backups with *Acronis True Image Home 2009*. Acronis also offers you many ways to backup individual files or groups of files. If you do the full and incremental backups explained in this paper, you will not need to do additional backups of individual files. However, that function is available to you in True Image if you wish to use it. True Image 2009 also offers the Try&Decide feature that will create a safe environment on your computer to test out risky operations such as opening attached files or installing unknown software on your computer. This feature requires the Acronis SecureZone to run, so it may not be something you would want to do. Look for another paper on the topic of Sandboxes and why you need them. Finally, True Image 2009 has lots of features to clean up your computer and to wipe a computer hard drive before giving it away. This will also be described in another article on this web site.

That completes this article on Using *Acronis True Image Home 2009*. If you have questions on this article or other questions about your hard drive, send a note to support@ugr.com and I will try to assist you. While I try to help my customers as time permits, I am not Acronis official technical support for this product. To reach them, send a note to support@acronis.com and they will assist you in a couple of days or so. Let me know if you cannot get the support you need from them.

Enjoy using *Acronis True Image Home 2009*. It's an outstanding product!