

Using Acronis True Image Home 2010

By Gene Barlow

User Group Relations

Copyrighted October 2009

Before you install and start to use *Acronis True Image Home 2010*, 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 2010* on your computer. It is available at www.ugr.com/nl0909b.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*.

This paper is divided into four parts to make it easier to work with.

- **Installation** (5 pages) deals with installing *Acronis True Image Home 2010* on your computer and maintaining it with the latest builds. It also covers setting up an external hard drive to save your backups to.
- **Backup** (8 pages) deals with backing up your computer's main hard drive with *True Image*. It shows you the best way to do your backups using this powerful backup utility.
- **Automatic Backup** (5 pages) deals with setting up your *True Image* software to do scheduled backups for you on an automatic basis. Making regular backups of your computer is very important to do. Users tend to forget to do this important process. So, setting up your system to do backups on an automatic basis is the best way to go.
- **Restore** (5 pages) deals with restoring your entire hard drive or restoring a few individual files and folders from your backup image. *True Image* lets you do either of these restoring steps quickly and easily.

If you want to learn more about *True Image*, you can read the official *Acronis True Image Home 2010 Users Guide* (193 pages). This guide is available to download from http://download.acronis.net/pdf/TrueImageHome2010_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.

Installation of True Image

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 off all of these 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. Fill in your first and last name, your email address, your country, 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. You can add additional information to your account by clicking on the Personal Profile link on the left side of the screen. This additional information is optional and not required to setup your account. If you already have an Acronis account, login to your Acronis account instead of setting up a new account in this step.
2. *Register *True Image Home 2010* 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 (Ctrl-C) the serial number from the email message we sent you and paste (Ctrl-V) 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. If you have already registered this product serial number then you can skip this step.
3. *Download the Registered Product from your Account.* Click on the **Registered Products & Support (or My Products & Downloads)** 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 the product that you want to download and click on the Download button in the product box and this will start to download the installation module for you.

Click on Run to immediately download and start to install the product on your computer. Or, you can click on Save and provide a location on your hard drive to download and save the installation file on your hard drive. After the download is complete, you will need to find this Saved file with Windows Explorer and double click on the file name to start the install on your computer. By saving an installation file, you can burn it on a CD to store off your computer if you want to. You can always download it again from your Acronis account.

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 the **I accept this agreement** button and then **Next** to continue. The next screen lets you elect to join the **Acronis Customer Experience Program (ACEP)**. This is entirely optional, so read what this is and then select either **Yes** or **No** 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 (Ctrl-C) the serial number you received from us and then paste (Ctrl-V) 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. 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. If you are installing from a CD, you can remove the CD after the computer completes the reboot process.

Updating *True Image*: If you install *True Image* from a CD, be aware that the CD may have been 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.

The way to tell if you are current is to run *Acronis True Image* and when the main window appears click once on the Alt key. An extra line will appear at the top of your *True Image* screen. On this line, click on the Help and then About menu item to show what build you are currently running. The build number is a four digit number following the product release name. 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 Backup** tool immediately. While this may be helpful 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 **Proceed** 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. The install process will also install an icon on your screen titled, **Acronis One-Click Backup**. Do NOT click on this icon as it will immediately do the **One-Click Backup** without giving you a choice to cancel it. Right click on this Icon and delete it to be safe from accidentally clicking it in the future. This just removes the shortcut Icon from your screen.

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 & Utilities** 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 **Next** button and the **Proceed** button. After doing this, close the CD tray and Acronis will 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 brought up to date with the latest build and have created a bootable CD, you are ready to prepare a place to save your backups on your computer. 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. This article will assume that you follow my advice and have a dedicated 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.

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 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 stop 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. (In Vista click on Start and Computer and then right click on the external hard drive icon. Then click on Safely Remove before you attempt to physically remove the device.)

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.

Formatting External Hard Drive as NTFS: Most hard drives come already formatted by the manufacturer with the FAT32 file system. This is the most common file system used on computers, but not the best file system to use. The NTFS file system is a much better option to

have on your external hard drive. So, before you start to use the external hard drive, I would recommend that you format your external hard drive as NTFS. The format function will erase everything on your external hard drive, so make sure you save any files stored on the drive before you start the format operation.

Attach your external hard drive to your computer and then click on Start and then right click on My Computer (XP) or Computer (Vista) and then click on Manage. On the box that appears, click on Disk Management. This will display information on the right about all hard drives attached to your computer. Find the box that represents your external hard drive and right click on this box. Then click on Format and follow the instructions to format this drive as NTFS. After the drive has been formatted, you can return to the drive any files that you saved elsewhere during the format process.

Creating External Hard Drive Folders: Your external hard drive should already be partitioned and formatted with one large partition. In this large partition, I would create a folder for each of the computers that you will be backing up to this external hard drive. If any of your computers contain more than one internal hard drive inside the computer, I would create a subfolder under your computer folder for each internal hard drive. So, if you have two computers that you plan to backup on this single external hard drive and one of the computers has two hard drives inside the computer and the other computer just has a single hard drive inside it, I would set up the following folders on your external hard drive:

- Gateway Computer Folder
 - Program Drive Backup Folder
 - Data Drive Backup Folder
- Dell Computer Folder
 - Main Drive Backup Folder

Then, you should save your image files from each of these various computers and hard drives 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 few files on 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 hard drive 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 & Utilities button near the top of the main screen. Then select the Options menu item on the drop down list. Click on the Backup Options on the left side of the box and you will see eight 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 box.

- Click on the **What to Exclude** item to exclude any files of these types from a file backup. I prefer to backup all of my files and not exclude any files, 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.
- 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 **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. Setting it on High is probably right for most users.

- Click on **File Level Security Settings** to specify a couple of security related settings. For now, leave checked the Preserve files security settings in archive and leave unchecked the store encrypted files in decrypted state.
- Click on **Error Handling** to select how *True Image* should handle certain error conditions. 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 next 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. Finally, if you are storing your backups in the Acronis Secure Zone (ASZ), which I do NOT recommend, then you can tell *True Image* what to do if the space in the ASZ is too small to contain your next backup.
- Click on **Removable Media Settings** 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.

In general, most of the default backup option settings are just the way you want them. The only one I would change would be changing the **Backup Priority** from Low to High, just to speed up your backup process. Click on OK to save your backup default options and you are now almost ready to make your first backup.

Backup Considerations: 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. Before we describe exactly how to do a backup, let's get a couple of backup considerations out of the way.

There are two basic approaches to backing up your main hard drive – the **File Backup** approach and the **Image Backup** approach.

The oldest approach is called the **File Backup** approach. This approach has been around since shortly after the PC was introduced to the public. It consisted of making a copy of a few important files on your computer that you do not want to lose. By nature, it is a selective backup approach. You decide which files you want to backup and only those individual files are backed up for you. If you forget to include an important file for backup, that file is not backed

up. **File backup** utilities are also very slow in doing backups since they backup one file at a time using the slow operating system file system interface. So, **File Backups** are only partial backups that are slow to run and are subject to human errors in deciding which files to backup.

The newer backup approach is called the **Image Backup** approach. This approach will backup your entire hard drive, so nothing important is ever forgotten. Everything gets backed up for you without your having to compile a list of important files. It is also a very fast way to backup as you copy all the hardware sectors on a hard drive, one at a time, till the entire hard drive is saved for you exactly as it is on your main drive. This is a much better approach to doing backups than the older **File Backup** approach. This is the approach that I recommend in this paper. The rest of this paper will guide you in doing an **Image Backup** of your entire hard drive.

Your computer hard drive is constantly changing. Hundreds of files are either added or changed on your hard drive each day. These are not all data files that you created, but many of them are system files that let your computer function properly for your use. In a week's time, thousands of files will change on your computer. So, if you backup your hard drive at the beginning of the week and your hard drive crashes at the end of the week, you will have thousands of changes to the drive that are not in your last backup and will be lost. When you consider how many important files you can lose that have not been backed up, you can see that you need to do backups on a regular and frequent basis. I recommend that *small businesses backup at least daily* and that typical *end-users backup at least once a week* to be well protected.

Another consideration that many users misunderstand is that a single backup of their computer is adequate to protect you. In a perfect world, this might be true, but in a perfect world nothing would fail so you would not need to do any backups. In the real world, the backup image you made last week may be able to restore your computer or it may not. Bad things can happen to a very large backup image file. That is why you need some alternative backup images to use in case your most recent backup is not usable. I recommend making a minimum of three months worth of backups before you start to delete any of the older backup images. This will give you some margin of protection, even if the last backup image turns out to be corrupted. Since

The first time you backup your main hard drive, you should backup the entire hard drive with a **Full** backup image. This will backup all of the parts of your main hard drive including the Master Boot Record and all of the partitions on the drive, hidden or non-hidden. It will also backup all of the files and folders in each of these partitions. When you need to restore your entire hard drive to a new empty hard drive, you will need to have all of these parts saved in your backup image.

After the first backup you make with *True Image*, you can save considerable space on your external hard drive by doing **Incremental** backup images. Incremental backup images contain just those files that have changed since the last backup you made. So, instead of containing all of the files and parts of the hard drive, incremental backup images contain only the changed or new files on the drive. Don't worry; you do not have to furnish a list of all changed files for this amazing technology to work. *True Image* will find these changed files for you and only include them in the next Incremental image file.

So, a backup of your main hard drive will consist of one full backup image file and a few incremental backup image files. If your main hard drive should crash, *True Image* will combine together the full backup image and all of the incremental backup images associated with the full image to recreate your main hard drive again.

In the Perfect Backup Approach, I recommend that you create a full backup image of your main hard drive once a month and then create incremental backup images of your main hard drive each week. At the beginning of the next month, you would start again with a full backup image to be followed by weekly incremental backup images. Just make sure the new full backup image is given a new file name so that it does not overlay and destroy the backup image file of last month. If you want the added protection of daily backups, I would recommend instead that you do a full backup image each week with daily incremental backup images. Then start the next week with a new full backup 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 hard drive. The incremental image that follows is a backup of only the changed portion of the hard drive 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 hard drive. All of these images in an Image Set would normally be saved together in the same folder on your external hard drive.

All of the images in an image set should be contained on the same backup media and not spread across multiple media, like multiple CDs/DVDs. That's one of the reasons why an external hard drive is the ideal backup media to use and not CDs/DVDs. Also, all of the images in an image set should 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.

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 hard drive on your computer the image is made from if you have more than one physical hard drive installed inside your computer. Normally, your computer will only have one internal hard drive and you could skip naming that drive in the file name. Finally, the last part of the name is the month it was created in. For example, a name like Gateway_ProgramDRV_MAY09 would be from your Gateway computer (Gateway), the first hard drive on that computer that contains your program files (ProgramDRV) and was your May 2009 backup (MAY09). *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 Gateway_ProgramDRV_MAY09.tib after the backup is created.

NOTE: If your external hard drive is formatted with FAT32 as they normally are and you have not formatted the drive as NTFS as I recommended earlier, then *True Image* will automatically split large image files into 4GB segments on your external hard drive. This is needed as FAT32 has a file size limit of 4GB, so a 10GB image file 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 Gateway_ProgramDRV_MAY091.tib, Gateway_ProgramDRV_MAY092.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. NTFS does not have this maximum file size limitation, so each backup image will only be stored as a single file on your external hard drive if you format the external drive as NTFS to begin with.

When you make your next backup image in this set (an incremental image) it will be saved as Gateway_ProgramDRV_MAY092.tib and the one after that as Gateway_ProgramDRV_MAY093.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 for the full backup image. 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 slightly 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 hard drives. These steps apply to creating manual backups of your main hard drive. The next section of this manual will describe how to create automatic backups of your main hard drive. While very similar, there are some differences to watch out for in doing automatic backups.

Creating a Full Backup Image: Start up *Acronis True Image Home 2010*. When you get to the main screen, click on **Back Up** under "What would you like to do". This will take you to the next page where you click on **Disk and Partition Backup**. This will bring up the Disk Backup Wizard window showing the partitions available to backup. Check the box next to the hard drive you want to backup. This should place a check in the box next to Disk 1, if that is the drive you want to backup. This screen will show you all of the hard drives on your computer, both internal hard drives and external hard drives. You should not check your external backup hard drive in this step as you should not backup your backup drive. Click Next when you have checked the hard drive to backup (Disk 1). If you have more than one internal hard drive on your computer, you should repeat this step later for the other internal hard drives (Disk 2, etc.).

Next you will need to select the target backup archive. Either select the Create new backup archive (Full backup) or Add to existing backup archive (Incremental backup). Since we are doing Full backups in this section, select the Create new backup archive option. In the box below titled Backup Location, enter in the path and folder name on your external hard drive for this computer/hard drive's backups to be saved in. Better still, use the Browse button to find and save the path and folder name in this box. The Browse option will generate a default image file name for you. It is better if you create your own backup image file name as described above. So, 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 Gateway_ProgramDRV_MAY09 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 Next 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, go back to the window where you entered in the setting that was in error and correct it. Before you click on the Proceed button to actually run the backup, there is one more option to select. Click on the Backup Options link on the left side of the box and then click on Archive Validation at the bottom of the middle column in the box. Then at the right side of the box click on the box next to Validate backup archive when it was created. This will add several minutes to your backup run, but it will test your backup image after it is created to make sure it was created correctly and can be used to do a restore later. There is nothing worst than having your hard drive fail and finding that your last backup was not valid and cannot be used. Validate it immediately after you create it. If it didn't get created properly for some reason, you can fix the problem and then make a new backup image immediately. With all of the setting in place, 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 30GB on your main hard drive that you are backing up to an external hard drive, it will take about 30 minutes to complete. Validation of your image may take as much time as the backup run, but you will be more secure if you validate all of the time. 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 very 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 or two, then something may be going wrong or you have a lot of files to backup. Something is definitely wrong if your backup takes more than a couple of hours to complete. Contact me and we can figure out what is going wrong.

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. Remember, it is backing up more than just a few of your data files. It is backing up everything on your hard drive. 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 upper left corner of your *True Image* screen.

When it completes, you should have a new file (or files on a FAT32 hard drive) 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 internal hard drives on your computer, I would now backup all of the other internal hard drives one at a time that you actively use on that computer. Do all of them together and don't wait until next week to do the other internal hard drives. If you have to restore your hard drives, you should restore all of your backups at the same time from images taken at the same time. 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” button. You will notice that the name of your full backup image will be filled in the box immediately below this selection. If it is not correct, click on the Select button to find and select the name of the full backup image you want in this box. You will also notice that the Backup Location box below will also be automatically filled in for you with the same name and path as the full backup image but with a new sequence number added to the end of this name for the incremental image you are about to make. Check the sequence number in the file name to make sure it is the next one in the sequence. When done, click on Next 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 the Backup Options link in the left side of the box you are looking at. Then in the middle column, click on the Archive Validation link and then check the box next to the Validate Backup Archive when it is created. This will cause your backup to be validated once it is created to make sure it was created ok and can be used to do a restore. Next, click on the Proceed button 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.

That's all there is to making an incremental backup image. Making full and incremental backup images with *Acronis True Image* is very easy to do.

Advanced Backup Approaches

The backup approaches in this section are optional and do not need to be made. They may strengthen your backup system if you use them, so give them some consideration. You do not need to do these immediately, but can start them later after you get more familiar with *True Image*. These other approaches should only be done in addition to the full/incremental backup approach shown in this document. You should never use these other approaches instead of this basic backup approach as this would leave your computer only partially protected.

Separate Data Files from Program Files: One very important backup approach that you may want to consider is to separate your data files in your computer from your program files. (See <http://www.ugr.com/nl0608.html>) This will protect your important data files from viruses and operating system crashes. It also gives you more flexibility to backing up your data files more frequently than your program files. You can also keep your data backup images longer than you would want to keep your program backup image files.

There are two ways to accomplish this separation. First, you can install a second internal hard drive inside your desktop computer and then move all of your data files from your main internal hard drive to this second internal hard drive. This gives you the separation you need as well as provides a slightly better performing system. It does require purchasing a new hard drive and

installing it inside your computer. Installing a second hard drive inside your computer is fairly easy to do, but the less experienced user may need to have a technician do this work for them.

Second, you can divide your main hard drive into another partition to be used for your Data files. This new Data partition needs to be created on your single main hard drive using a partitioning utility. We offer an excellent partitioning utility called Acronis Disk Director Suite 10 that you can purchase from us at a great discount price. Just go to www.ugr.com/DiskDirector.html to place your order for this excellent utility. It can safely be used to create this new Data partition on your existing hard drive without having to buy and install a second hard drive in your system.

Special File Backups in Addition to your Full Image Backups: There are many other approaches using *True Image* to make additional backups of your system if you want to. You can backup your “My Documents” folder more frequently than your weekly image backups of the entire internal hard drive to give you added protection of your important data files. You can also backup separately individual files that are very important to you. For example, you can have *True Image* find and backup all your digital photo files for you each time you transfer your photos from your camera to the computer and before you delete these photos from the camera. A new feature in *True Image* 2010 lets you do continuous backup of key files on your hard drive. These files will be backed up every 5 minutes so that you do not lose an important file during the creation of the file. Also new in *True Image* 2010 is the ability to backup your important data files to a safe storage location on the Internet. If you live in a place where physical damage of your computer location is possible, then keeping certain key files at a remote location like the Internet can be a real benefit. Just remember that these other approaches are only partial backup methods and cannot fully protect your computer in case of a major crash. These should only be used to supplement your basic image backup approach described in this document.

Automatic Backups

Many users start with a great determination to do their backups on a regular basis, but after a couple of weeks of doing backups they tend to forget to do them on a regular basis. I have found that it is best to automate your backups, so that you don't need to remember to do this very important task. Let the computer remember to do its own backups when they need to be done. That way, your backups will get done on the weekly basis, so that you are properly protected. The purpose of this section is to help you set up automatic backups on your computer so that you can set them and forget them.

Before we begin the detailed steps to set up your automatic backup, let me suggest a calendar change that needs to be considered. I recommend a full backup at the beginning of each month and then weekly incremental backup images at the end of each week during the month. The problem in doing this is that every month has a different number of days and begins on a different day of the week. So, setting up a rule to do exactly this schedule is not easy to do. A better approach is to adopt the 13-month calendar of exactly 4 weeks that many businesses use. That would give you exactly a full backup followed by 3 weekly incremental backups 13 times each year. This approach is more regular than trying to fit a regular backup schedule into our irregular monthly calendar. So, in this paper, I will be showing how to set up a 13-month approach.

First, create a folder on your external hard drive to contain your backups. Name this folder after the computer and internal hard drive that you plan to backup in this folder. If you have one computer and one main hard drive in it, this folder may simply be named something like *My Backups*. If you have two computers to backup on the same external hard drive, set up two folders and name them after each computer. For example, name them *My Backups HP Computer* and *My Backups Dell Computer*. Now we are ready to start setting up the automatic backup process with *True Image 2010*.

Setting up Automatic Backups with True Image 2010

Run *Acronis True Image Home 2010* on your computer and on the main screen, click on the *Tasks & Log* button on the left side of the screen. This will take you to the area in *True Image* where you set up and manage your automatic backups. Now click on the *Scheduled Tasks* tab in the middle of the screen under the calendars. Below the tabs is an area where you will see all of the automatic scheduled tasks on your computer. At this point, you should see the indication, *No items to display*. Next, click on the *Create Backup Task* menu item near the top of the screen. This will begin the *Backup Wizard* which will guide you through setting up an automatic backup task on your computer.

The first window in the *Backup Wizard* identifies what type of a backup you want to do. Click on *Disk and Partition Backup* to do a full backup image of your computer's hard drive.

The next window identifies the internal hard drive you want to backup. Most users will see two disks listed -- your main internal hard drive and your backup external hard drive. Check the **Disk 1** box next to your main hard drive. Do NOT check the box next to your external hard drive. Click on *Next* to continue.

The next window identifies your *Target Backup Archive*, which is where you want to save your backup image files. Near the top of this wizard are two options. Make sure the circle next to the item, *Create New Backup Archive* is selected. This will create a full backup image to begin your automatic backups.

Next, click on the *Browse* button next to the *Backup Location* box to find your folder on the external hard drive where you will be saving your automatic backup images. This will bring up a directory tree screen on the left side of the window. Find your external hard drive and the folder name where you want to save your automatic backup images. Click once on this name to highlight it. You will notice that the path to this folder is listed in the *File Name* box. A dummy file name will probably be included in the box along with the path. Place your cursor in this box and replace this dummy file name with one that will better describe your situation.

Earlier in this paper, we suggested a naming convention for manual backups such as *Gateway_ProgramDRV_MAY09.tib*. Using the 13 month accounting calendar in setting up automatic backups would not fit this naming approach. So, instead, you may want to name your backup image file something like *Gateway_ProgramDRV_AUTO.tib*. The first month of automatic backups will use the names:

Gateway_ProgramDRV_AUTO.tib
Gateway_ProgramDRV_AUTO2.tib
Gateway_ProgramDRV_AUTO 3.tib
Gateway_ProgramDRV_AUTO4.tib.

The second month of automatic backups will use the names:

Gateway_ProgramDRV_AUTO(1).tib
Gateway_ProgramDRV_AUTO(1)2.tib
Gateway_ProgramDRV_AUTO(1)3.tib
Gateway_ProgramDRV_AUTO(1)4.tib

In following months, the number inside the parentheses will automatically increase each month to make it unique. When you are happy with your file name, click on *OK* to return to the prior screen. *True Image* will add a .tib as the extension of the filename you have choosen.

You will notice that the *Backup Location* box on this screen is now filled in with your backup path and file name from the prior screen. Click on *Next* to continue.

You will now see the Summary screen in the *Backup Wizard*. Review what this backup task will backup and if all looks correct, click on the Options button to continue.

The *Backup Wizard* is now ready to identify the frequency of your backups. Click on the *Weekly* round button to select it. This will bring up additional information in this box to complete. Under *Run this task weekly*, enter in the time of the day you wish to do your backups. While *True Image* can do backups while you are using your computer for other things, I prefer to run my backups in the middle of the night. So, I set 1:00am as my start time. Next, I select to run this task every 1 week. Then I select which day of the week to run my backups. I picked Sunday as my backup day, but any day that is convenient to you can be selected. So, my backups will run at 1am on Sunday morning, a time I am seldom at my computer working. I just need to remember to leave my computer running Saturday night when I go to bed. Leave the settings at the bottom of the screen unchanged for now. They will work just fine in most cases as they are listed. If I forgot and turned off my computer Saturday night, the backup will start when I power on Sunday morning. Click on *Next* to continue.

On the *Backup Methods* screen, you should have selected the round button next to *Incremental* backups. Then check the box next to *Create a new full backup after* heading. Below it, change the number to 3 to permit three incremental images between each full backup image. That will give you a total of four backup images (1 full and 3 incremental images) in each of 13 months that follow. Do NOT check the *Delete previous backup archives* option as you want to save more than one month of backups on the external hard drive. Click on *Next* to continue.

The *Files to exclude* screen lets you exclude certain files from your backup image. Personally, I want to include everything on my backup image, so I leave this screen blank and just click on *Next* to continue.

If you have followed my recommendations earlier in this paper, you will have already set up your backup options and do not need to repeat it at this point. If you wish to change any of your default backup options set earlier for this automatic backup, you can do so on this screen. There is one very important option that you did not set with the default options earlier and it is shown as the last option in the list, *Archive validation*. Click on this entry and then click on the check box next to *Validate backup archive when it is created*. This will check the backup you are doing to make sure that you can use the backup that is created. If the backup image is faulty for some reason, you want to know about it now so that you can make a good backup to replace it. This function will take some time to complete, but it is highly recommended that you always use this feature. When you have checked the Validate box, click on *Next* to continue.

The *Automatically Consolidate Backup* screen is new to the past two versions of *True Image*. With older releases, when your backups exceeded certain limits, those over that limit were simply thrown away. With *True Image 2010*, you can now keep the older backups, but consolidate them into using a smaller space for storage. What will happen is that the oldest incremental backup will be merged into the full backup it is based on to make an updated full backup. Then if more space is still needed, the next oldest incremental backup will be consolidated into the full backup. Thus, all of the backups are kept, but they will be consolidated to take up less room. This consolidation option has advantages and disadvantages over the old approach of simply throwing away any images that exceed the limits. The advantage is that you continue to keep all of your past backup images, but in a smaller space on the external hard drive. The disadvantage is that you may lose a few files that were only in one or two incremental image files and then deleted. These will be consolidated out and will be lost from your backups. My personal preference is to not consolidate, but to replace a backup external hard drive when it fills up with a new empty external hard drive. That way, I keep several years worth of backups in case I need to find an important file that was on my computer sometime in the past.

If you decide to do consolidation, you have three tests to start your consolidations – the *number of backup images*, the *age of the backups*, or the *size of the backups*. I prefer to use the last option, the *size of the archives*. To use this, check the box next to *Size of archive exceeds*: and then set the number below it to about 80% of the size of your external hard drive. For example, if your external hard drive is 500GB, then you would set the size of this option to 400GB. That means that when you exceed the use of 400GB of space on your external backup hard drive, *True Image* will start some consolidation till the backup space used is below 400GB. For most users, this is the best option to pick. Click on *Next* to continue.

You can place a comment in the *Archive Comments* screen if you want to. I seldom do, so click on *Proceed* to continue.

That completes setting up a scheduled task to automatically backup your main hard drive on a weekly basis. If you have additional hard drives attached to your computer, you should now create a new scheduled task to back them up as well. Make sure you schedule them to run at a slightly different time than the other automatic tasks that you are running to avoid overtaxing the resources of your computer system. For example, I have a second hard drive inside my computer that I save all of my data files to. Because these are more important files to me than the program files, I want to back these up daily (full backup weekly with daily incremental backups). My

program drive backups will be deleted every few months, but my data file backups, I prefer to keep these forever. So, I would set up a different scheduled task to do my data drive backups separately.

In closing, let me suggest that you periodically look at the backup image files *True Image* is automatically making for you on your external backup hard drive. Use *Windows Explorer* to do this. After a few weeks, you should see a list of files something like this:

My Backups	(folder name)
MyBackup.tib	(full backup image of first month)
MyBackup2.tib	(incremental backup image of first month)
MyBackup3.tib	(next incremental backup image of first month)
MyBackup4.tib	(last incremental backup image of first month)
MyBackup(1).tib	(full backup image of next month)
MyBackup(1)2.tib	(incremental backup image of next month)
MyBackup(1)3.tib	(next incremental image of next month)
MyBackup(1)4.tib	(last incremental image of next month)
MyBackup(2).tib	(full backup image of current month)
MyBackup(2)2.tib	(incremental image of current month)

If they do not look similar to this, then you may have set up your automatic task wrong and you need to check it and edit it so that it is set up correctly.

If you do not consolidate, you will need to watch your external hard drive to determine when it is getting full. You will need to either replace the full external hard drive with a new external hard drive or manually delete about a third of the oldest image files to make room for new image files. Deleting an image file should be done using *True Image* so that *True Image* will know that the files are deleted. If you delete them with *Windows Explorer*, then the tables in *True Image* will think that the image files are still in place. This could be confusing to the program and could cause you errors in running *True Image*.

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. *Acronis True Image* will combine your full backup with the incremental images associated with the full image to recreate your hard drive. All of the images in this set are important and needed to restore the hard drive. 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. All images in an image set 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 could with 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. If you could do a full backup image each month and then incremental images every other day for an image set of 16-17, then that would be pushing the limits 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 hard drive. 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. I will cover 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:

Gateway_ProgramDRV_MAY09.tib
Gateway_ProgramDRV_MAY092.tib

Gateway_ProgramDRV_JUN09.tib
Gateway_ProgramDRV_JUN092.tib (file was created after this image made)

Gateway_ProgramDRV_JUN093.tib (file is available in this image)
Gateway_ProgramDRV_JUN094.tib (file was deleted before this image made)

Gateway_ProgramDRV_JUL09.tib
Gateway_ProgramDRV_JUL092.tib
Gateway_ProgramDRV_JUL093.tib

Now, let's say you want to find a file that you deleted in the last part of June and it is no longer on your main hard drive. Using Acronis *True Image*, you can look inside your June 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 (Gateway_ProgramDRV_JUN093.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 the *True Image* main screen. Click on the Tools & Utilities 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. Then click on **Next** to complete continue. 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 about 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 Tools & Utilities 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 checked 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. You can always mount them again later if you need to.

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. Click on Recovery on the main screen to start the restore process. On the next screen, make sure that the Disk Backups tab is selected and then find the image file that you want to restore. If you don't see it, you can click on the *Browse for backup...* button on the right side 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 installed *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 entire hard drive and not just one of your partitions separately. Then restore the most recent image of each partition on the main hard drive that you have. 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. Acronis also offers you many ways to backup individual files or groups of files. If you do the full and incremental image 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* 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. Look for another paper on the topic of Sandboxes and why you need them. Finally, *True Image* 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.

New to *True Image* 2010 are a couple of exciting backup options that you may want to try. One is called Online Backup. This feature in *True Image* gives you the ability to backup some of your very important files to a storage location on the Internet. Having these important data files backed up away from your computer gives you the added protection for these files against theft,

fire, floods, hurricanes, and other natural disasters. Acronis offers Internet storage locations that you can rent for a small monthly or annual fee. Once you obtain this Internet space from Acronis, you can use *True Image 2010* to setup and run these Online Backups for you. Another new function in *True Image 2010* is Nonstop Backup. This feature lets you select some of your very important data files to be backed up every 5 minutes. That way, files that you are working on for a special project can be frequently backed up to make sure you have a history of all of the changes you have made to this project. This function does place more demands on your computer for resources, but for certain files, it can be a valuable way to do the frequent backups you need. Both of these new options are only partial backups of a few of your important data files. They are not complete backups of your entire system. So, make sure that you follow the full system image backups that I recommend in this paper and use these other partial backup approaches only in addition to the normal full backup approach recommended.

Enjoy using *Acronis True Image Home 2010*. It's an outstanding product!

That completes this paper on Using Acronis True Image Home 2010. 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.