

Popular Threads on Solosez

Backup Storage Method

I have a CD burner, but backing up my hard drive takes 12 discs and a bit of time. Should I:

- a. continue this way since I have the equipment;
- b. spend money on a DVD burner for backup purposes; or
- c. spend money on an external hard drive for backup purposes?

If it matters, I use Norton Ghost 9.0. Thanks!

David Tarvin, Elkhorn, Nebraska

Do you back up your entire hard drive each time? Why? I would think that backing up your data files would be what is necessary, as you in all likelihood have the original discs your applications came on.

If you want to back up the entire hard drive, why not get another hard drive and use a RAID configuration? I presume you use a flavor of XP. Hard drives are cheap these days...you should be able to get a 160 gig HD for under \$200.

As for using RAID, those more tech-savvy than I can help you here. My understanding of RAID is that it uses the 2nd HD to "mirror" the 1st, so that if the 1st fails, it steps up to the plate.

Tom Simchak, Houston, Texas

Ross, forgive them. They know not what they say.

Ed Lawson

There are pros and cons of both approaches. I personally backup essential files only, in a variety of ways.

Ernest Schaal, Japan

Option C is best of those listed. <http://www.microlaw.com> and look for the articles to see Ross Kodner's view of the matter.



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Darrell Stewart, San Antonio, Texas

A DVD burner doesn't cost that much at all nowadays and DVDs hold something like 8 GB (I think?) whereas CDs hold something like 400mb (I think?). Anyway, the order of magnitude difference is something in that neighborhood such that 1 DVD is equal to 16 or more CDs. Go for the DVD burner if you can.

I personally like to use an external hard drive to backup my files. Once I get a hold of Acronis TrueImage 9, I'll backup my entire hard drive, but until then, I'm just backing up essential files. I regularly swap between 2 computers (a laptop and a desktop) so I'm constantly backing up and restoring from backup, each time. That way I know the backups work.

The advantage of backing up the entire hard drive is that you also save all the settings of your various programs that you use. It can take hours to reinstall and reconfigure programs on a hard drive that you've reformatted or that is replacing a hard drive that has failed. I know this from

experience  So I'll be picking up Acronis soon.

Ross Kodner is THE guru of backup, based on his fantastic backup treatise that is floating around in the Solosez archives. I've read through it a few times, I think you should too. Ross has clearly thought through all the various issues in great detail, so it's a good read.

Gene Lee

I recognize that Ross is an expert on backup, and I am familiar with what he recommends. My problem with what he recommends is that he tends to be evangelistic about his recommendations. Things are not as black and white as he makes it appear.

Yes, I agree that backing up is essential, and I do backup to a hard drive (among other things), but I don't buy the recommendation that I make mirror copies of my computers. It takes a lot of time to backup essential files, I don't want to spend the longer times needed to backup everything.

You are right about the hours to reinstall and reconfigure programs on a hard drive that you've reformatted or that is replacing a hard drive that has failed, but you forget the cumulative hours required for backup.

So far, I have spent about three hours a week on computer maintenance of my computers. That includes not only multiple backups of essential files (including my complete photo, movie, and music collection), but also includes routine checks of file integrity, repairing permissions, checking for and installing upgrades, etc. If I did a complete mirror backup it would take a lot longer.

The real questions to ask yourself are how much more time would it take do the complete backup (delta tc) in addition other computer maintenance,

how many times can you expect to do that before a crash (n), and how long would it take to restore your files the old way (to).

If "delta tc" times "n" is greater than "to", it would not be a cost effective procedure.

Ernest Schaal, Japan

I've also thought about the same point you make regarding the true net time savings of doing a total backup. So far, backing up individual key files is time intensive and has the disadvantage of requiring my constant attention. The human operator has to select the files to be backed up, drag them over to the hard drive, hit the "replace all" button constantly, etc. I haven't done a total backup using Acronis, but from what I hear, it automates the backup process nicely. Acronis 9.0 allows you to backup either the entire hard drive (as an image) or individual key files (the approach you and I currently use), so you may want to look into it. Once I try it out, I'll report back to the list and share what I find.

Gene Lee

I agree that you should backup software so that it doesn't require your constant attention. I just disagreed with the idea that you have should backup everything every time.

I use Backup to backup to my .Mac account storage space, to my iPod, to my Firewire backup hard drive, and to DVD or CD-ROM. It is smart enough to only back up the files that have changed since the last backup, which really saves time.

Ernest Schaal, Japan

To answer your particular question, why not get a couple of external hard drives. You can buy ones that are substantially larger than any DVD for maybe \$100. I've never priced DVD burners, but I can't imagine 2 hard drives are more expensive than a burner and a bunch of blank DVDs. You can then swap the hard drives as often as you like, bring one home, and, voila, instant off-site backup.

I just went through this whole thing -- I had been using Retrospect and external hard drives to back up a file server. I didn't like Retrospect.

I ended up buying a Mirra (www.mirra.com), which Ross recommended in a recent article, and which Jim Calloway(?) recently wrote about. It's way cool, and, in the giant scheme of things, not too expensive. I bought the biggest one, like 9 million GB or something, and it was about \$800. Smaller ones were about \$400 or \$500. We're combining this with an online (offsite) backup of data.

The Mirra is like a little linux computer that plugs into your computer, or network, and automatically and continuously backs up whatever you want, on the fly. It also allows you to share data, either over a network, or over the internet.

The best part is that, when I accidentally overwrite or delete a file that I needed -- happens every couple of weeks or so -- I can just download the old version from the Mirra (which you could also do if you backed up to an external hard drive)

I happen to agree with the school of thought that doesn't back up every piece of a desktop. My feeling is, if my desktop fails catastrophically, I'm getting a whole new machine, which will have new guts, and I'd probably screw everything up on the new machine if I uploaded everything -- registry, etc., from my old machine. While waiting for the new machine to set up, I'd just use a laptop. The "bare metal restore" theory, it seems to me, would apply only if you are going to plug a new hard drive into the box that's already sitting on your desk, or if you are going to buy EXACTLY what you previously had on your desk. As I have no idea what parts are in what I have on my desk, I'd never be able to buy the exact same thing. Maybe I'm wrong about that, but that's my theory, and I'm sticking with it.

Patrick W. Begos, Westport, Connecticut

Not that I am by any means a "tekkie", and this advice may be elementary. I recently purchased an external hard drive, for around \$120.00, and it works great. It's really easy to use, and really quick. I only back up my WordPerfect files, my QuickBooks files, and my Timeslips files.

David A. Silverstone Hollywood, Florida

I have my entire system backed-up two different ways.

1. All essential files are backed-up off-site to www.connected.com. This includes all law firm documents (including accounting) and essential personal documents. (The first back-up took hours.) On a nightly basis, connected.com does an incremental back-up of new or changed files in the computer folders designated for back-up.

2. Every Sunday morning at 5:00 a.m., my entire hard drive -- programs and data -- gets backed-up to an external hard drive. Then, every night during the week (except Sunday), I do an incremental back-up that saves files that are new or have been changed since the last full back-up.

Scott I. Barer

There is nothing more important than having a backup system for your

files. "Mirroring" is simply having a mirrored additional hard drive on your server or main pc. This type of protection is okay; however, if your computer is wiped out by a virus or has some other major malfunction, you cannot access the data even on the mirrored hard drive. We've utilized tape backups for the past 7 years; however, we recently started utilizing Intronis online storage. If you want a truly safe backup with tapes, it's best to rotate the tapes biweekly. For example, we utilized Monday through Friday backup tapes where we had Monday of week 1 through Friday week 1 and the following week we'd start with Monday week 2.

However, there are cons to utilizing tape backups: 1. The tape drives can be expensive and they often need replacing. We've replaced ours approximately 3 times in the past 4 years. 2. Someone has to manually insert the tape into the tape drive daily. 3. Retrieval of a lost file can be time consuming. We recently changed to online backup storage with Intronis "ESureit". The cost is approximately \$19.95 per month for 4 GB of storage. The benefits I have found thus far: 1. No one has to manually install a tape. 2. It's an automatic backup so there's no "forgetting" 3. If there's a fire or if a virus infects our main server, it's all offsite. The monthly charge is well worth the service. No more purchasing 24m tapes, no more replacing hard drives, no more verifying if someone inserted the tape, no more stress.

Penni McGrath

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