

Photographers must have a secure backup strategy to protect their image files. We examine the options to help you make the best decision for your studio.

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# Safe spaces

BACKUP OPTIONS



Sabio Products' CM-4

Photographers' need for digital storage is growing exponentially. No matter how large your computer's hard drive, the ever-expanding volume of applications, images, documents, mp3s, video files and other data soon outgrows the available space.

But then, your primary hard drive isn't the best location to store everything. It's best to keep your primary operating environment as clean as possible. Even working images, active jobs and recently completed projects that might need to be accessed again, belong on a separate, high capacity internal or plug-and-play removable USB drive.

It's vital for photographers to protect their images. Whether internal or external, a **Infrant Technologies' Ready NAS NV + RAID**

secondary hard drive is not the optimum backup solution. Almost all storage drives eventually fail. Fortunately, there's a variety of software and hardware backup and restoration products on the market.

Traditionally, you could back up to either online or offline storage. Online storage referred to data made accessible to a computer network, offline storage to data accessed from separate media, such as CDs and DVDs. Now "online storage" often refers to data posted to and available on an Internet site hosted by a commercial service.

## RAID

Redundant array of independent drives, or RAIDs, comprising ordinary hard drives, are still the most reliable direct-access storage solution. You can configure a RAID in any number of ways, but the goal is to safeguard data by storing it in at least two locations in the systems, in essence backing up your backup in case one of the drives fails.

**Infrant Technologies**, a Netgear Company, sells **ReadyNAS NV+ RAID**, a four-drive storage system that provides Level 1 (mirroring) and Level 5

(stripped across multiple drives) storage redundancy. ReadyNAS NV+ ships with four lockable, hot-swappable SATA disk trays, which can each be populated by 256GB to 750GB drives. Unlike other hardware-based storage options that accept USB or FireWire connection, this and most other true RAIDs connect to a computer system through an Ethernet port and are configured with the computer's Internet browser, using Internet Protocols. Infrant ReadyNAS NV+ RAIDs ship with the popular EMC Retrospect backup software, with prices ranging from \$649 (with the user providing the hard drives) to \$2,799 for a 3 terabyte (TB) version that includes the hard drives.

**Sabio Products'** similar product, the **CM-4** Ethernet-based RAID, a network-based solution, is one of the easiest RAIDs to configure. The CM-4 ships with four drive bays with total linear capacity up to 3TB. It includes Bare Metal Recovery and file-level recovery software, which makes the RAID serve as a boot-up disk when the computer's built-in boot drive fails. Once the RAID boots the computer, the built-in boot drive and image storage drives can be rebuilt. Prices range from \$849 for a 1TB version, to \$1,499.99 for a 2TB array.



## THE GOODS: STORAGE



Western Digital My Book Pro Edition

### BIG DRIVES

Large-capacity removable drives are viable for anyone who wants to securely back up data files but doesn't necessarily need a full-fledged RAID. Many photographers have multiple hard drives to hold their image files, which should be backed up regardless of where the originals are stored. A high-capacity drive can do that relatively easily.

The **Western Digital My Book Pro Edition** is a good example of an external,

affordable, high-capacity drive with automatic backup capability. The 500GB drive connects via the computer's FireWire 800/ 400 or USB 2.0 port. It ships with a handy built-in capacity gauge LED and EMC Retrospect Express backup and recovery software. The new My Book Pro Edition sells for \$229.95.

The **LaCie Big Disk Extreme+** connects via USB 2.0 or FireWire and comes in 1TB, 1.5 TB and 2TB versions. Big Disk Extreme+ drives ship with EMC Retrospect Advanced backup and recovery software, which can be started with the push of the drive's built-in shortcut button, making the backup process almost automatic. Extreme+ drives range in price from \$349.99 to \$849.

### PORTABLE STORAGE

**Turnkey Technology Solutions' Turnkey BackupKey** system can be used to back up files from multiple computers. The drive will fit into a shirt pocket—and draws its power through the USB port of the system it's backing up. When you connect the device to the computer and press enter twice, the built-in software automatically identifies the computer, searches for all data files, then backs them up. It's a Windows-based product, but files stored on BackupKey are

readable on any platform that supports the NTFS file system. You can choose to restore selected files or just new and changed files. The system also automatically updates its built-in software via the computer's Internet connection. The pocket-size 80GB version sells for \$169.95, the 160GB for \$239.99. Larger high-capacity versions are available in 500GB (\$349.99) and 1TB (\$899.99).

### SYSTEM BACKUP

After a major system meltdown, you have to restore the system and reinstall and reconfigure every driver and data library. It's frustrating and time consuming. Fortunately, there are bundled solutions that streamline the process. These generally comprise an external hard drive and a software module that automates backup and recovery.

**Personal BackupBox**, from **Red Paws System**, handles full system restoration and requires virtually no user input or configuration. It automatically creates and maintains a mirror image of the computer's boot drive,



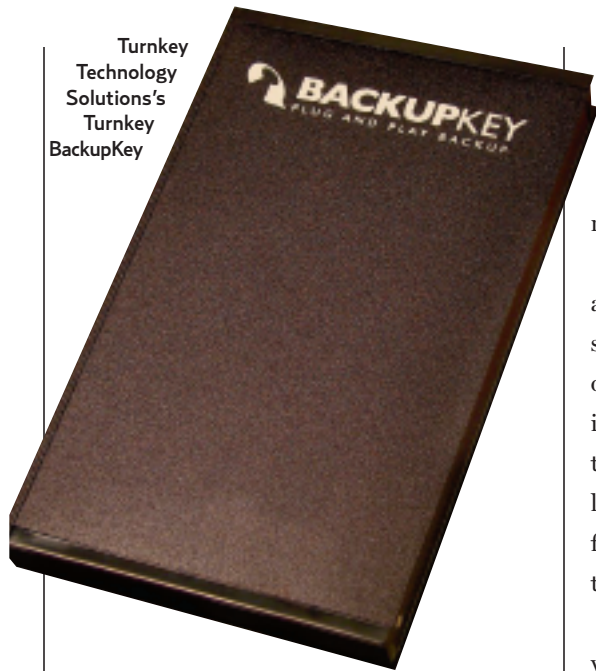
LaCie Big Disk Extreme

## NOT ALL DVD DRIVES AND DISCS ARE CREATED EQUAL

Burning data to DVD is an excellent method of both archiving and backing up the image files on your primary drives. However, you cannot assume that every DVD you burn will be long-lasting, or even useable. Not all drives have the same characteristics, and neither do recordable DVDs. According to several recent online studies, the best DVD blanks on the market include Pioneer, Mitsubishi, Hitachi Maxell, Taiyo Yuden, Sony and TDK. The studies revealed that most off-brand DVD blanks fare badly, and should be avoided. A DVD drive may record more reliably with a particular kind of disk. Sony's DVD drives, for example, work well with disks manufactured in Japan, but according to a number of sources, including the forums at OurPPA.com, Sony DVD drives achieve less than spectacular results with disks manufactured elsewhere.

## THE GOODS: STORAGE

Turnkey  
Technology  
Solutions's  
Turnkey  
BackupKey



including any partitions, the Windows operating system, file structure, applications and data files. Designed for Microsoft Windows 2000 or later, Personal BackupBox uses USB or FireWire connectivity and is available in five disk capacities from 80GB to 750GB, ranging in price from \$199 to \$699.

### OPTICAL BACKUP MEDIA

One widely promoted backup strategy pairs high-capacity drive storage for direct access to images with an archival medium such as pro-quality CD, DVD or dual layer DVD. When a drive problem occurs, the protected copies can still be retrieved. Most pro asset management programs track images stored on CDs and DVDs with referenced thumbnail files, so finding the right disk is easy. Disk storage also lends itself to offsite storage, alleviating the risk of fire, flood and other disasters.

### ONLINE BACKUP

High-speed Internet connection gives you access to commercial online image backup services. With Internet storage, the photographer keeps files on one or more hard drives on location, but all backups are stored on the provider's servers. A good backup service

has several advantages: the servers are generally more bulletproof than desktop systems, have better protection from hacking and virus attacks, and have built-in redundancy protection.

Off-site backup and restoration services are becoming an affordable option for secure digital data storage. Each provider offers a few unique features, but they all include backup and restoration software that automatically stores data files at remote locations. The speed of saving and retrieving files depends on the speed and reliability of the Internet connection.

It takes only 5 minutes to install the software and select the folders to be backed-up with **Data Deposit Box** ([www.datadepositbox.com](http://www.datadepositbox.com)). All subsequent functions are automated, including file encryption and restoration. Data Deposit Box software will back up files when they're modified, and maintain multiple versions of each file on the offsite server. You can restore older versions of a file, even if the current version has been changed or deleted. The software supports one or more computers. Monthly storage costs \$2 per gigabyte of stored data.

**Mozy Online Backup** ([mozy.com](http://mozy.com)) offers unlimited storage accounts for a flat \$4.95 monthly. Its fast and efficient software expedites the process with block-level incremental backup while conserving your Internet bandwidth. Block-level incremental backup software detects changes to stored files, and instead of sending the entire file to the offsite storage server, sends only the blocks of the file that have changed. Mozy backup software supports multiple file versions, encryption and automatic or scheduled backups.

Online print services and other photography-related Web sites have provided some secure online storage for more than 10 years, but they were designed primarily for the online display and sale of photo products,

not for primary backup and file restoration.

**PhotoShelter** ([www.photoshelter.com](http://www.photoshelter.com)) is an exception. Its variety of online photographic services includes a fully integrated e-commerce shopping cart for print and electronic image sales. More than 8,000 professional photographers are using the service for its user-friendly method of backing up and restoring files. Instead of just one way to backup and restore, PhotoShelter supports Web-based archiving of files, as well as its own proprietary uploading software. The backups are secure. For added redundancy, PhotoShelter archives all data on high-speed servers on both the east and west coasts. The popular Web site offers a variety of accounts, including an annual flat fee of \$1,000 for 1TB of online storage.

No matter which combination of backup methods you choose, the important thing is to protect your business files and images. It's the ones you lose you'll miss the most. ■



Red Paws System's Personal BackupBox