



- Mast Storage at CeBIT 2005. New products: Disk Backup Solutions & Optical Archiving
- Mast and Computer Associates Team up

■ Mast Storage at CeBIT 2005. ■

The company has moved to Hall 1 this year

CeBIT, the world's leading event for information technology, telecommunications, software and services, will be held this year from 10 - 16 March. Located in **Hall 1, Stand 7g13**, Mast Storage, specialist in value added storage solutions, will be presenting its new range of storage products: Optical Storage and Disk Backup.

Some of Mast Storage's highlighted products which will be shown at CeBIT 2005 are the following:

-OPTICAL STORAGE:

UDO (Ultra Density Optical). It is the first storage technology specifically designed for professional data archiving applications. UDO offers 30 GB of capacity, 8 MB/s of uncompressed transfer rate and it has a roadmap defined for two more generations. MAST UDO allows long-term data retention: the information remains unaltered for even longer than 50 years.



Hall 1 Stand 7g13



-DISK BACKUP range:

Handisk Backup (D2D). Mast's Handisk Backup is an internal storage solution which supports 3.5" Parallel ATA (PATA) drives and internal USB 2.0 connection, with a capacity of 80 GB and 200 GB. Mast Storage's Handisk Backup is a hot swap device. The unit includes frame, carrier with HDD & backup software.

D2D2T (Disk to Disk to Tape). Mast's D2D2T is a complete solution for creating and restoring security copies which combines the fast disk access with the reliability of the tape units, as well as an integrated software with unlimited customers. Just as its name suggests, the D2D2T first copies the data onto a disk and then, periodically and according to a configurable migration, onto the tape unit. It is ideal for those companies and organisations in need of prompt and efficient data retrieval.

In addition to these **Optical Storage and Disk Backup Solutions**, MAST will be presenting its wide range of **tape backup** technologies in CeBIT: **TRAVAN, SLR, DAT, AIT, SAIT, DLTVS, SDLT, LTO tape drives and Automation.**

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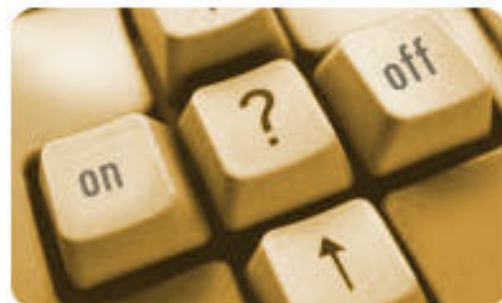
Mast Storage has reached an agreement with Computer Associates regarding the software BrightStor ARCserve Backup v.11.1 OEM for Windows.

Established in 1976 and headquartered in Islandia, N.Y., Computer Associates International is the world's largest management software company.

Further to this agreement, Mast Storage will offer the CA backup software as an option with all its tape SuperDrives and Automation products.

1. Can I leave my SCSI device powered off (or disconnect it) while the computer is on?

No. All SCSI devices connected to the computer MUST be powered on while the computer is on. You should turn on all SCSI devices before powering on the computer and leave the devices on until after you have done a proper shut down of the computer. Failure to run with SCSI devices powered on can cause the computer to not operate properly and may cause directory corruption.



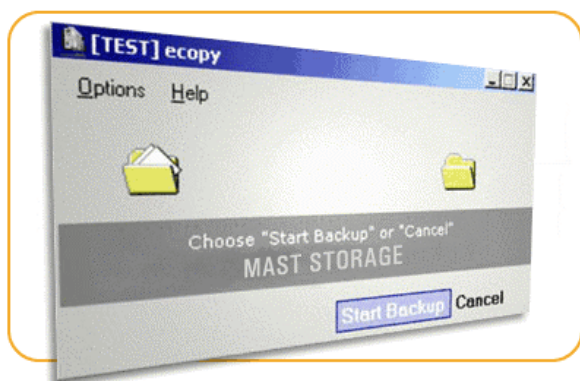
NOTE: Never connect or disconnect a SCSI device while the computer is powered on. You can cause hardware damage. Always power off the computer first and then power off all SCSI devices before connecting or disconnecting anything on the SCSI bus.

2. Why doesn't my tape drive show up on My Computer?

Unlike a hard drive, removable cartridge or floppy disk, tape cartridges won't mount. To access your tape drive you need a backup program. We bundle TapeWare XE with our SuperMast format.

3. I am not getting as much data on my tapes as I should and my buffer runs out of data. What should I do?

If the buffer runs out of data to send to the tape drive, the tape will continue with unused sections thus wasting tape. This is called an "underrun". Here are some things that can cause the buffer to run out of data:



- Backing up across a network. Because network traffic can slow the data getting from a remote client to the tape drive, back up during off-hours.
- Incorrect SCSI configuration can also cause data bottlenecks, for best performance it is recommended to configure the tape drive with a dedicated SCSI controller.

Verify that all SCSI devices are ON - leaving them off can interfere with data transfer. Verify

that you have the proper termination on your SCSI chain.

- Anything that can cause write errors can reduce tape capacity. For example, dirty drive heads and poor media conditions can cause errors. Should an error occur the data will then be written again. This may use up more tape. Therefore do make sure your drive heads are clean and the media is in good condition.

Today most files that are created have already been compressed by the application that created them. You will not usually get close to the compressed storage size advertised for the tape drive. Audio, video, graphics and applications are already fully compressed. You may get some compression from databases and text files, but it is hard to say how much.

Disk Backup: Advantages & Disadvantages

The backup to disk solutions have become increasingly popular partly thanks to the hard disk price fall, the increase in its capacity and the lesser time used to make the security copies. However, the copy to disk systems are not always the most suitable to make security copies: there has to be a research of the company's needs so as to select the best backup system for it.



The backup to disk option is unbeatable for quick copying and restoring. The data is copied almost instantaneously when using differential copying politics and may restore files, folders or even whole systems in very little time. This option, when combined with copy and restoration applications, allows the users themselves to retrieve files or modifications quickly and easily.

Nonetheless these systems do have their limitations: when it is required to file and externalise security copies, the backup to disk must be complemented by permanent storage systems such as tapes or professional optical support so it can provide data redundancy, migration of infrequently used data, the possibility of retrieving data from a certain date and availability in case of an unforeseen disaster.

A complete backup solution for a company should have a copy to disk system (so as to be able to make copies onto the disks on a regular basis and allow for a quick data restoration) as well as a tape system and/or professional optical support (eg: UDO) which would allow the migration of the data copied onto the disk, storing it safely. This data migration may be whole or specific in order to reduce and optimise the size and time needed to make such copies.

With these specifications we will come up with a solution whereby we will be able to reduce the time for the retrieval of the systems and to have the data available in case of unexpected events.

GLOSSARY

T. TCP/IP

(Transmission Control Protocol / Internet Protocol)

Transmission Control Protocol/Internet Protocol is a combined set of protocols that performs the transfer of data between two computers. TCP monitors and ensures correct transfer of data. IP receives the data from TCP, breaks it up into packets, and ships it off to a network within the Internet. TCP/IP is also used as a name for a protocol suite that incorporates these functions and others.

T. TERABYTE (TB)

1,099,511,627,776 bytes, from the prefix "tera", which means trillion. Broadly, one trillion bytes, or one thousand gigabytes.