

DeskTape Help

Click on a topic below for help. Balloon Help^A is also available under System 7.

- ^B Protecting Your Data
- Erasing a Tape
- Inserting/Ejecting a Tape
- Mounting a Tape
- Hardware Data Compression (HDC)
- Controlling Compression
- Tape Directory
- Tape Handling Guidelines
- Tape Mounting Problems
- Compatibility Issues
- About Optima Technology

Protecting Your Data

To protect against data loss, always maintain two separate copies of your data. If you plan to delete data from your hard drive, first make sure you have two other copies. Also, never turn off your tape drive while writing to the tape. It's also a good idea to activate the write-protect tab on a tape until you actually plan on adding more data to it.

First time users should perform the following integrity test when installing DeskTape on a new CPU or System folder:

- 1) Use the Finder to copy 10 MB on a new tape.
- 2) Copy a different 10 MB on a second tape.
- 3) Mount the first tape and check to make sure that the data on the tape is correct.
- 4) Mount the second tape and check to make sure that the data on the tape is correct.

If error dialogs appear, or the data read back from either tape is incorrect, DO NOT continue to use DeskTape until these problems are resolved.

Erasing a Tape

There are several ways to erase a tape:

- Blank tapes automatically cause the standard blank disk dialog to appear.
- Choose Erase Disk from the Finder's Special menu to erase a mounted tape.
- Hold down the <option> and <delete> keys when inserting a tape to force it to be erased.
- Run a short write test on a tape (Utility menu).

It takes 2 to 3 minutes to format a DAT tape. You should copy at least one file to a newly formatted tape. Otherwise, you will be forced to reformat it the next time it is inserted.

Inserting/Ejecting a Tape

It's best to wait until your Macintosh starts up before inserting tapes into your tape drive. This minimizes startup delays due to tape loading. It also allows you to respond to any startup error messages that may appear.

If the tape is mounted, it's best to drag it to the trash and wait for it to eject before restarting or shutting down. This allows you to respond to any errors that may occur while writing the directory to the tape (see Tape Directory below).

Mounting a Tape

Tapes automatically mount when they are inserted in your tape drive. If the DeskTape control panel is

open, the tape will not mount because DeskTape assumes you want to perform a Utility or Session function.

Sometimes a tape will mount with a padlock icon ^C even though the write-protect tab is not activated. This can occur if the tape was mounted using DeskTape's session recovery tools (Session menu) or the tape is so full that there is not enough room to write another directory.

Hardware Data Compression

HDC is a lossless technique that increases the data capacity and speed of a tape. The preferred compression format is DDS-DC which is based on the Lempel-Ziv algorithm. Some tape drives have non-standard compression formats and you may have problems interchanging tapes with these drives. Also, compressed tapes cannot be used with non-compression drives.

^B There may be cases where HDC actually causes data to expand on the tape. Data expansion reduces tape performance and available capacity and is most likely to happen if the data is pre-compressed (like QuickTime movies). It's best to turn compression off when working with pre-compressed data.

Controlling Compression

If your drive has built-in DDS-DC hardware data compression, you can control it with the HDC check box in the main DeskTape window or by using the compression check box in the 'Tapes' window.

If the tape is not mounted, use the HDC check box in the main DeskTape window to control compression. It's best to turn compression off before running a Write Test or using Kill Tape.

DeskTape will use the compression setting in the 'Tapes' window when initializing the next tape. Tapes always mount with the size and compression state they were initialized under.

Tape Directory

DeskTape creates a file in the System folder of your startup drive called DeskTape.dir. This file is a place holder for the tape's directory and allows dynamic interaction with files and folders on a tape.

When a tape is loaded, DeskTape transfers the directory from the tape to the DeskTape.dir file and then mounts the tape. Any changes to the tape directory are first made to the DeskTape.dir file on your startup drive. When the tape is ejected, DeskTape writes the directory to the tape.

The size of the DeskTape.dir file determines how big the tape directory can grow. The tape directory contains entries for each file on the tape and applications use up more directory space than documents. The default size is 5 MB but can be changed through the 'Config' window. Depending on the types of files on the tape, a 5-MB DeskTape.dir file can hold 8,000 to 25,000 files.

^B Since the tape's directory is temporarily stored on your startup drive, it is very important that your startup drive is in proper working order. Use Norton Disk Doctor to verify your startup volume, and a low-level disk utility like DiskMount to verify the startup drive's media. Do not use Norton Disk Doctor to repair a tape volume.

Tape Handling Guidelines

- Clean your drive mechanism once a month with an approved cleaning tape.
- Use only data tapes and cleaning tapes labeled DDS with DAT drives.
- Keep tapes within the temperature range of 5°C to 45°C (41°F to 113°F).
- Allow tapes to equalize in temperature when changing environments.

- Store and use tapes in a clean place. Dust, dirt, and smoke decrease tape life and increase data errors.

Tape Mounting Problems

There are several reasons a tape may not mount:

- The tape is blank.
- The tape was not created by DeskTape.
- The tape has a damaged End Of Data (EOD) marker.
- A directory could not be found at the end of the tape.
- The tape was written using hardware data compression and you have a non-compression drive.
- You have a SCSI hardware problem (cable, termination, or ID conflict).
- You have a software compatibility problem (see Compatibility Issues below).

If a tape is blank or was not created by DeskTape, the message "This tape does not contain any sessions" will appear after choosing Find Next (hold down the <option> key) from the Session menu. In some cases, tapes not created by DeskTape will cause "SK=128" or "SK=32" to appear when running the Read Test.

If you choose Find Last from the Session menu and the message "Last session not found" appears, then the tape has a damaged EOD marker or the tape does not contain a directory for the last session. Try mounting this tape by choosing <option> Find Log from the Session menu. You can verify that the EOD marker is good by running a Read Test on the tape.

If you run a short read test (Choose Read Test from the Utilities menu) and the message "SK=3" appears at Block #0, it may indicate the tape was created using compression (or an incompatible compression format).

SCSI problems most likely show up as computer freezes or erratic behavior. To help isolate the problem, run a "Write Test" followed by a "Verify Test." If your computer freezes or the message "OSerr=XX" appears, try disconnecting all other SCSI devices except your startup drive and tape drive to help isolate the problem.

Compatibility Issues

DeskTape is designed to be used with the Finder. Third-party software, like automatic compressors and copy accelerators, that modifies how the Finder interacts with mounted volumes may interfere with DeskTape. To isolate the incompatibility, try using DeskTape on a freshly installed System Folder. After verifying proper operation, add additional software one at a time until the problem recurs.

About Optima Technology

Optima Technology is a quality manufacturer of high-performance hard disk, optical and tape subsystems, including:

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