

## Basic Precautions

Many times retrieval is made more difficult by the users trying to recover data themselves and inadvertently making the situation worse. If this is the case, some basic precautions should be observed:

- **Wet tape cartridges:** speed is of the essence, but don't try to hurry up a drying process. Tape can react badly to fast changes in temperature, humidity, etc.
- **Something loose within the tape cartridge:** running it in a tape drive can cause severe physical damage to the tape surface.
- **Shipping tape media for recovery:** Package securely. Be aware that water escaping from tape media can disintegrate the packaging. Ensure the package is water tight and padded.
- **Act quickly to seek advice when a disaster occurs:** The effects of temperature, humidity, water damage, etc., can gradually worsen over time.

When all the other variables are also considered, it can clearly be seen why optimum minimum restore time is seldom achieved.

## TAKE CONTROL OF YOUR DATA

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## Data Recovery

eMag Solutions provides data recovery services for all media types. eMag engineers have extensive knowledge in the storage and retrieval of data, and the recovery success rate is impressive at over 97%. eMag can solve data recovery needs with either a software or a service at the US location in Atlanta, GA or at the UK facility in Cardiff, Wales.

### TAPE DATA RECOVERY

As in all data recovery operations, recovering data from tapes is very specialized. Tape data recovery is the successful retrieval and copying of data from a tape cartridge that has been damaged due to any of the following:

- Heat and Smoke Damage
- Water Damage - Sprinkler System or Flooded
- Damage Resulting from Dropping the Cartridge
- Data Residing after an EOF Mark (Overwritten)
- Damage Resulting from the Tape Drive
- Damage as a result of Aging (Past Warranty)
- Damage Resulting from Exposure to Extreme Temperatures or Humidity
- Internal Cartridge Mechanism Failing
- Permanent Errors Residing Mid File

### PHYSICAL DATA RECOVERY

Physical Data Recovery is necessary when there is a physical problem with the media or plastics, which prevents the data from being read normally. While these physical issues are often difficult to handle, the recovery rate of these types is usually 97% or better. This type of recovery may include dealing with issues such as:

- Deteriorating magnetic coatings
- Cracked or broken reels/cartridge shells
- Creased tape edges
- Twisted or folded tape
- Stretched or broken tape
- Media subjected to adverse conditions (water, mud or other debris)

### LOGICAL DATA RECOVERY

Logical Data Recovery is typically the most difficult, and consequently, the most expensive. Recovering files logically includes recovering the data portion of a tape that was successfully recorded, but for some unknown reason cannot be read. The recovery of files from this type of problem often requires multiple passes using proprietary software that restores the file to the HDD. If hard errors occur, "dummy locks" are written in their place, the file fragments are pieced back together and the logically recreated file is written to the appropriate output tape.

Other forms of Logical Data Recovery include tapes written with misaligned heads and tapes containing critical data re-initialized by mistake. All of these problems can be recovered, or at least partially recovered, using internally developed proprietary software and processes.