Retrospect A/UX: Special Considerations (8/93)

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TOPIC --

This article describes some special considerations for backing up A/UX
volumes with Retrospect A/UX

DISCUSSION ---

Because Retrospect A/UX uses the A/UX-Macintosh file translation features of
the operating system, there are several factors that may affect the validity
of a backup. Almost all limitations are inherent in the operating system and
affect only the most esoteric configurations:

• Because standard Macintosh file systems are case-insensitive, Retrospect
  considers files that differ only in their case as referring to the same file.
  If A/UX settings are changed so that its file system is case-sensitive, it is
  possible for users to create two files in the same folder that differ only in
  case. Retrospect may fail to properly backup and restore such files.

• It is important that the operator ensure that toolbox translation option
  settings are consistent between backup and restore. For example, the toolbox
  environment variable TBTRANSLATEUXONLY controls the conversion of control
  characters within text files. If this option is changed between backup and
  restore, some files may be incorrectly translated. If you change them, you
  must make sure that they are set the same for backup and restore.

• Macintosh file and folder names are limited in length to 31 characters. It
  is possible to create A/UX files that are longer, but the additional
  characters will not be backed up or restored and no A/UX information will
  be stored for those files. (A warning is reported.)

  Also, A/UX files that are non-unique within the first 31 characters are
  invisible to the Macintosh environment and will silently be omitted from
  backups.

• Unlike most busy files, hybrid applications such as CommandShell are not
  accessible through the Macintosh environment when they are in use and will
  not be backed up; an error is reported instead.

• Current versions of the Macintosh A/UX environment use a synthetic Desktop
  Folder instead of a real directory to store files that appear on the desktop.

This prevents access to the A/UX information for files on the desktop, but can also result in strange behavior. Do not store critical files on the desktop.

- Although Macintosh files restored by Retrospect are identical to the originals from a Macintosh point of view, the underlying A/UX file(s) will often be different from an A/UX point of view. These files are isomorphic instead of identical because the Macintosh resource forks and Finder information can be stored in a different order within the A/UX file. Therefore, A/UX's diff utility may report differences between two files while MPW's equal utility claims that they are identical. Pure A/UX files are always identical.

- Retrospect does not follow symbolic links when backing up files. Instead, it backs up only the link itself. In addition, files with multiple hard links are optimized to be copied only once, although all links are fully backed up.

- The A/UX creation and modification dates cannot be set for symbolic link files upon restore. Once the symbolic link file is created, any attempt to modify its information is redirected to the link's target. This means that symbolic link files are not incrementally restored -- they are copied even though they may already exist on the destination volume. Also, if a file is selected to be restored using a SnapShot, all hard links to that file are automatically selected for restore.

For further information on working with Retrospect and Retrospect A/UX, search the Tech Info Library by "Retrospect" or "Remote."
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