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Technical Note #74

Abekas A60 Tape Utility

Lisa Berson

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This utility allows you to extract frames from an Abekas A60 back-up tape in CD-I IFF RGB888 file format. It also allows you to create an Abekas A60 back-up tape from CD-I IFF RGB888 files. This utility runs on a Sun3 or Sun4 machine.

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Create mode:

The total number of frames to be processed for writing to the tape. This number includes any frames that will be skipped during the conversion process. The default is the number of files that match the criteria set by **pr=** **ex=** and the source directory name.

fo=num

The frame offset from the start of the tape where extraction starts (used in extract mode only). The default is 0 (the start of the tape).

sk=num

The number of frames to skip after processing a frame. The default is 0.

fs=num

The starting frame number to be used in file names (extract mode only). The default is 0.

st=525i625

The standard for the A60 system being used. The default is 325 for an NTSC system.

pr=prefix

Extract mode:

A string of characters that will be prepended to the current frame number to create the file name for each frame extracted from the tape.

Create mode:

A string of characters that is used to wild card match the files in a directory that will be written to tape.

ex=extension

Extract mode:

A string of characters that will be placed at the end of a filename following a period (.) for each frame extracted from the tape. The default is **rg8**.

Create mode:

A string of characters at the end of a file name following a period (.) that will be used to wild card match files in a directory that will be written to tape.

**destination/
source directory**

Extract mode:

This is the directory where all files extracted from tape will be placed. The directory must already exist, and you must have write permission for this directory. The default is the current directory.

Create mode:

This is the directory where RGB files that will be written to tape are stored.

FILES

/dev/rst?

SCSI tape interface

/tmp/a60tape.*

Temporary file used in create mode

NOTES

The picture resolution expected for RGB files in create mode is 720 X 486 for NTSC pictures and 720 X 576 for PAL.

Pictures are stored as fields on the tape with NO file marks between fields and no frame numbers associated with the fields. Therefore, all fields on a tape must be read sequentially. Field 1 dominance is assumed here. Failure to record the back-up tape from the A60 or to restore the back-up tape to the A60 in a field 1 dominant mode will yield undesirable results

The process of converting back and forth between RGB and the native format of the A60 (YUV) does not preserve all information. In the conversion from RGB to YUV some filtering is done to prevent banding in pictures containing dark gradations.

EXAMPLES

Extract mode:

```
a60tape xv mt=/dev/rst1
```

This will extract the entire tape into the current directory. The file names will start as **./0000.rg8**

```
a60tape xv mt=/dev/rst1 fc=50 fo=3 sk=1 fs=10 pr=test ex=rg8 new
```

The total number of frames that will be read from tape is 50. The first frame to be extracted will be the fourth frame on the tape. Every other frame will be skipped. The file names of the extracted files will be of the format `new/testnnnn.rg8` where `nnnn` starts at 0010. This will create the following files:

```
new/test0010.rg8  new/test0012.rg8  new/test0014.rg8  .....  
new/test0056.rg8
```

Create mode:

```
a60tape cv mt=:dev/rst1
```

This will get a list of all files in the current directory that match `.*.rg8` and transfer them to tape in the Abekas backup format.

Note: You should back up only as many frames as can be held by the A60 device to which you intend restore the frames.

```
a60tape cv mt=:dev/rst1 fc=10 sk=1 pr=test ex=rg8 new
```

A list will be created of all files matching `new/test*.rg8`. This is the same as using `ls -l new/test*.rg8` in the shell. From this list, only the first ten files will be considered. The first file is written to tape followed by every other file in the list until a total of five files have been written.