Subject: Re: A rant: features vs. programming features
Posted by David Foster on Fri, 07 Nov 1997 08:00:00 GMT
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Michael Slameczka wrote:
>
> Joseph B. Gurman wrote:
>>

>
> wow; if someone really has such routines; I would be a happy man.
> But what I am now looking for about 12 month now are routines,
> where I can do the opposite. That means READ_AVI, READ_QUICKTIME,
> READ_MPEG. Is there anybody out there, who knows of such routines?
>
> Thanks
> michael
>

Have you guys seen this WRITE_MPEG.PRO routine that has been out
in the newsgroup. I got it about a year ago; you have to download
'mpeg_encode' program first, but the routine seems to work pretty
well. I think it came from Scott Denning (not sure if he wrote it).

Here it is:

------------- Cut Here ---------------------------------------
; Subject: Re: MPEG creation with IDL
; From: scott@abyss.ATMOS.ColoState.Edu (Scott Denning)
;
; The following idl procedure will produce an mpeg file from a series of
; images stored in a 3D array (width x height x # of frames). It
requires
; the "mpeg_encode" executable to be in the unix search path. This can
be
; obtained from ftp://mm-ftp.cs.berkeley.edu/pub/ .
;
; Multimedia stuff previously at:
;   ftp://s2k-ftp.cs.berkeley.edu/pub/multimedia/mpeg/encode.
;
; There are lots of options that can be handled differently, to make
; tradeoffs between image quality, speed, and disk space. See the
; documentation for mpeg_encode for more details.
;
; If your animation is stored in the array "image_array" and you want to

```
; write it to a file called "movie.mpg," you would do so by typing
;
; WRITE_MPEG, 'movie.mpg', image_array
;


PRO WRITE_MPEG, mpegFileName, image_array

movieSize = SIZE(image_array)
xSize = movieSize(1)
ySize = movieSize(2)
nFrames = movieSize(3)

nDigits = 1+FIX(ALOG10(nFrames))
formatString = STRCOMPRESS('(i'+STRING(nDigits)+'.'+STRING(nDigits)$
        +         ')', /REMOVE_ALL)
; Load current color table into byte arrays
TVLCT, red, green, blue, /GET
red = BYTE(red)
green = BYTE(green)
blue = BYTE(blue)

ON_IOERROR, badWrite

; Make a temporary directory if necessary or clear it otherwise'
TMPDIR = '/tmp/idl2mpeg.frames'
SPAWN, 'if (-d ' + TMPDIR + ') echo "exists"', result
dirExists = result(0) EQ 'exists'
IF dirExists THEN command = 'rm ' + TMPDIR + '/*' $
  ELSE command = 'mkdir ' + TMPDIR
SPAWN, command

; Write each frame into TMPDIR as an 8-bit .gif image file
FOR frameNum = 0, nFrames-1 DO BEGIN
  fileName = TMPDIR + '/frame.' + STRING(frameNum,FORMAT=formatString)$
       + '.gif'
  WRITE_GIF, fileName, image_array(*,*,frameNum), red, green, blue
ENDFOR

; Build the mpeg parameter file
paramFile = TMPDIR + '/idl2mpeg.params'
OPENW, unit, paramFile, /GET_LUN
PRINTF, unit, 'PATTERN     IBBBBBBBBBP'
PRINTF, unit, 'OUTPUT      ' + mpegFileName
PRINTF, unit, 'GOP_SIZE 12'
PRINTF, unit, 'SLICES_PER_FRAME 5'
PRINTF, unit, 'BASE_FILE_FORMAT PPM'
PRINTF, unit, 'INPUT_CONVERT   giftoppm *'
```

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PRINTF, unit, 'INPUT_DIR   /tmp/idl2mpeg.frames'
PRINTF, unit, 'INPUT'
PRINTF, unit, '`ls *.gif`'
PRINTF, unit, 'END_INPUT'
PRINTF, unit, 'PIXEL      FULL'
PRINTF, unit, 'RANGE       5'
PRINTF, unit, 'PSEARCH_ALG  LOGARITHMIC'
PRINTF, unit, 'BSEARCH_ALG  SIMPLE'
PRINTF, unit, 'IQSCALE     8'
PRINTF, unit, 'PQSCALE      8'
PRINTF, unit, 'BQSCALE      8'
PRINTF, unit, 'REFERENCE_FRAME  DECODED'
PRINTF, unit, 'FORCE_ENCODE_LAST_FRAME'
FREE_LUN, unit

; spawn a shell to process the mpeg_encode command
SPAWN, 'mpeg_encode ' + paramFile

RETURN

badWrite:
alert, 'Unable to write MPEG file!'

END
```

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Hope this helps someone out!

Dave

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   David S. Foster   Univ. of California, San Diego
    Programmer/Analyst   Brain Image Analysis Laboratory
    foster@bial1.ucsd.edu Department of Psychiatry
    (619) 622-5892   8950 Via La Jolla Drive, Suite 2240
                La Jolla, CA 92037
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