
Subject: XINTERANIMATE -> MPEG?

Posted by [Pierre Maxted](#) on Thu, 29 Aug 1996 07:00:00 GMT

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Hello fellow IDLers,

We have a nice animation running using XINTERANIMATE (IDI V4.0 on a SPARC) of a binary star and we want to show it to the public at a forthcoming open day. We only have a PC available at the open day so:

Does anyone have a routine for writing MPEG files from IDL?

advaTHANKSnce,

Pierre Maxted

Hannah Quaintrell

--

```
  _ _ _      _ _ _  
|  Dr Pierre Maxted (pflm@star.maps.susx.ac.uk)  |  
||  Astronomy Centre, University of Sussex      ||  
|  Falmer, Brighton, BN1 9QH                    |  
- _ _ -      Procrastinate now!!!      - _ _ -
```

Subject: Re: XINTERANIMATE -> MPEG?

Posted by [Christian Soeller](#) on Thu, 29 Aug 1996 07:00:00 GMT

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Pierre Maxted <pflm@star.maps.susx.ac.uk> writes:

- > We have a nice animation running using XINTERANIMATE (IDI V4.0 on a SPARC)
- > of a binary star and we want to show it to the public at a forthcoming open
- > day. We only have a PC available at the open day so:
- > Does anyone have a routine for writing MPEG files from IDL?

I don't know of an mpeg writing routine but here is another suggestion. Write out the individual images as a sequence of images in a well known graphics format, e.g. tiff (using tiff_write). There are some applications around (I definitely know that moviemaker on SGI machines is able to do this but will only output SGI Movie and Quicktime formats) that allow you to create a movie from such a sequence of images.

Hope something like that is an alternative for you,

Christian

Christian Soeller mailto: csoelle@sghms.ac.uk
St. Georges Hospital Medical School Dept. of Pharmacology
Cranmer Terrace London SW17 0RE

Subject: Re: XINTERANIMATE -> MPEG?
Posted by [A. Scott Denning](#) on Fri, 30 Aug 1996 07:00:00 GMT
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Pierre Maxted wrote:

>
> Hello fellow IDLers,
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> day. We only have a PC available at the open day so:
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>

Enclosed below is a procedure "write_mpeg.pro" which does what you need.
Load your sequential images into a single array (imageWidth x
imageHeight x nFrames), then call this procedure as follows:

```
write_mpeg, 'myMovie.mpg', imageArray
```

NOTE: This procedure uses SPAWN to call an executable called
"mpeg_encode", which actually creates the mpeg file. This is freely
available at

<file://s2k-ftp.cs.berkeley.edu/pub/multimedia/mpeg/>

For more information about recording or playing mpeg files, please see

<http://www.arc.umn.edu/GVL/Software/mpeg.html>

--

A. Scott Denning	scott@abyss.Atmos.ColoState.edu
Dept. of Atmospheric Science	Phone (970)491-2134
Colorado State University	Fax1 (970)491-8428
Fort Collins, CO 80523-1371	Fax2 (970)491-8449

===== C U T H E R E =====

```
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)  
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 a 24-bit .ppm image file
FOR frameNum = 0, nFrames-1 DO BEGIN
  fileName = TMPDIR + '/frame.' + STRING(frameNum,FORMAT=formatString)$
    + '.ppm'
  image = pseudo_to_true(image_array(*,*,frameNum))
  WRITE_PPM, fileName, image
  PRINT, 'Wrote temporary PPM file for frame ', frameNum+1
ENDFOR

; Build the mpeg parameter file
paramFile = TMPDIR + '/idl2mpeg.params'
OPENW, unit, paramFile, /GET_LUN
PRINTF, unit, 'PATTERN IBBBBBBBBBBP'
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 *'
PRINTF, unit, 'INPUT_DIR /tmp/idl2mpeg.frames'
PRINTF, unit, 'INPUT'
PRINTF, unit, 'ls *.ppm`'
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 6'
PRINTF, unit, 'PQSCALE 6'
PRINTF, unit, 'BQSCALE 6'
PRINTF, unit, 'REFERENCE_FRAME ORIGINAL'
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

Subject: Re: XINTERANIMATE -> MPEG?

Posted by [Pierre Maxted](#) on Mon, 02 Sep 1996 07:00:00 GMT

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Problem solved. Thanks to A. Scott Denning for his write_mpeg routine.

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```
  _ _ _      _ _ _  
|  Dr Pierre Maxted (pflm@star.maps.susx.ac.uk)  |  
||    Astronomy Centre, University of Sussex    ||  
|    Falmer, Brighton, BN1 9QH                    |  
_ _ _      Procrastinate now!!!      _ _ _
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