
Subject: A rant: features vs. programming features
Posted by [gurman](#) on Sat, 01 Nov 1997 08:00:00 GMT
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I was wondering whether anyone else has the impression that I do of IDL 5: that it makes programming many things easier, and certainly niftier (at least if OOP is your idea of nifty), but it hasn't added much in the way of real functionality.

One area of functionality that I thought was screaming for attention was the production of Web-based material, specifically:

I realize that there are straightforward, free ways to do all of these things --- on some operating systems. But one of IDL's strengths is its cross-platform capabilities.

Other areas that could be addressed include creation of image maps, clicking on any of which returns a pixel value, the straightforward creation of HTML tables from 2-D arrays of data (or structures),

I know there's an "IDL on the Web" product in testing, but my impression is that that is quite different (opposite, in some sense): it is meant to make it easier to create Web pages that cause IDL to do things.

Is anyone else interested in the kind of features I've mentioned, or am I totally crazy? I get the impression that almost everyone who uses IDL to display data representations eventually puts some of those representations on the Web, or would like to.

Joe Gurman

P.S. I must be getting to be a real curmudgeon, because I see the creation of Web content as a much more promising area for scientific/technical software than keeping programmers gainfully occupied. Still, both of the people we sent to the recent advanced (read "objects") IDL course came

back thinking of ways they could do several things easier and better, so I shouldn't complain.

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expressed herein must therefore be someone else's. | SPAMbot trap:
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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      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 giftoppm *'
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

----- Cut Here -----

Hope this helps someone out!

Dave

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Subject: Re: A rant: features vs. programming features
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Thanks
michael

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