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Subject: Re: LZW in IDL

Posted by [Haje Korth](#) on Wed, 09 Jun 2004 18:15:59 GMT

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Don't bother with the waiver, just wait. :-)

Cheers,  
Haje

"Jonathan Joseph" <jj21@cornell.edu> wrote in message  
news:ca7ilv\$553\$1@news01.cit.cornell.edu...

>  
> While checking in on the whole LZW issue recently, I read the following  
> on an RSI website (<http://www.rsinc.com/services/techtip.asp?ttid=3543>)  
>  
> "The LZW compression patent held by Unisys, which is the basis for their  
> claims surrounding the GIF file format, expired in the U.S. on June 20,  
  
> and expire in Canada on July 7, 2004."  
>  
> With the last of these patents expiring this summer, can we look forward  
> to using LZW encoding again in the next release of IDL, or is that a  
> pipe-dream? I don't have much desire to create GIF images, but I do  
> create TIFFs, and in recent images I have found that using the packbits  
> compression actually creates larger files than when I use no compression.  
>  
> -Jonathan

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Subject: Re: LZW in IDL

Posted by [Jonathan Joseph](#) on Wed, 09 Jun 2004 20:01:53 GMT

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Is there a way to query whether or not you have permission to write an  
LZW compressed tiff file?

I just found out that we actually do have the LZW licensing string in  
the license.dat file. Unfortunately, It seems as though the number of  
allowable LZW licenses is 1, while the number of allowable IDL licenses  
is 8 - so if someone else has started IDL before you, they have the one  
and only LZW license. I hope this was just a glitch in the creation of  
the license.dat file. Another multi-user license we have seems to have  
the same number of LZW licenses as IDL licenses.

Regardless of whether I get our licensing working correctly, I would  
like to be able to write the code so that it uses LZW if availalbe and  
either no compression or packbits otherwise. Is there any way to query

whether the write\_tiff command with compress=1 will work before calling it? Currently, if LZW licensing is not available, the program will halt at the write\_tiff call (despite something I read on an RSI web page which claimed that it would default to packbits).

For example, if I send the code to collaborators, I want it to not crash if they don't have LZW licensing. Even when the Unysis patents expire, it will take some IDL maintenance (at least a new license string, if not a new version of IDL) to be able to use the functionality again.

Thanks.

-Jonathan

---

Subject: Re: LZW in IDL

Posted by [David Fanning](#) on Wed, 09 Jun 2004 20:11:10 GMT

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Jonathan Joseph writes:

> Is there any way to query  
> whether the write\_tiff command with compress=1 will work before calling  
> it? Currently, if LZW licensing is not available, the program will halt  
> at the write\_tiff call (despite something I read on an RSI web page  
> which claimed that it would default to packbits).

This might be a good time to learn what CATCH error handling is all about. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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Subject: Re: LZW in IDL

Posted by [Mark Hadfield](#) on Wed, 09 Jun 2004 23:52:29 GMT

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Jonathan Joseph wrote:

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- > like to be able to write the code so that it uses LZW if available and
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- > at the write\_tiff call (despite something I read on an RSI web page
- > which claimed that it would default to packbits).

When I first read this thread, I thought "Why not just use Zip compression?" It's as effective, compression-wise, as LZW, and widely supported. But not supported by IDL apparently, at least not according to the documentation. This is a shame. Time for a feature request?

You can always post-process the images with ImageMagick, which does support Zip compression.

--

Mark Hadfield            "Ka puwaha te tai nei, Hoesa tatou"  
m.hadfield@niwa.co.nz  
National Institute for Water and Atmospheric Research (NIWA)

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Subject: Re: LZW in IDL

Posted by [andrew.cool](#) on Thu, 10 Jun 2004 04:52:01 GMT

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Jonathan Joseph <jj21@cornell.edu> wrote in message  
news:<ca7qcv\$8bl\$1@news01.cit.cornell.edu>...

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- > LZW compressed tiff file?
- >
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- >
- > For example, if I send the code to collaborators, I want it to not crash

> if they don't have LZW licensing. Even when the Unysis patents expire,  
> It will take some IDL maintenamce (at least a new license string, if not  
> a new version of IDL) to be able to use the functionality again.  
>  
> Thanks.  
>  
> -Jonathan

Jonathon,

Try issuing the command `Help,/DLM,OUT=a`  
This will return a list of all the DLMs that IDL knows about, even if  
they haven't been loaded in that session yet.

```
IDL> help,/dlm,out=a
IDL> gif=where(strmid(a,0,6) EQ '** GIF')
IDL> print,a(gif)
** GIF - IDL GIF support (not loaded)
```

If GIF reurns as -1, then you ain't got GIF available

Cheers,

Andrew  
DSTO, Adelaide, South Australia

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Subject: Re: LZW in IDL  
Posted by [Mark Hadfield](#) on Thu, 10 Jun 2004 06:17:27 GMT  
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Andrew Cool wrote:

> Jonathan Joseph <jj21@cornell.edu> wrote in message  
news:<ca7qcv\$8bl\$1@news01.cit.cornell.edu>...  
>  
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> \*\* GIF - IDL GIF support (not loaded)  
>  
> If GIF reurns as -1, then you ain't got GIF available

That reminds me--I wrote some code to solve a similar problem, ie determining if the AVI DLM is loaded. I spent a bit of time making it as fast & robust as possible. See below

--

Mark Hadfield            "Ka puwaha te tai nei, Hoesa tatou"  
m.hadfield@niwa.co.nz  
National Institute for Water and Atmospheric Research (NIWA)

.....  
))))))))))))))))))))))))))))))))))))

```
function MGH_HAS_AVI

    compile_opt DEFINT32
    compile_opt STRICTARR
    compile_opt STRICTARRSUBS

    common mgh_has_avi_common, has_avi

    ;; Detect the DLM by parsing out from HELP. DLMs are normally
    ;; registered when an IDL session is initialised, so this test is
    ;; done only on the first call..

    if n_elements(has_avi) eq 0 then begin

        help, /DLM, OUT=info

        has_avi = max(strmatch(temporary(info), '\.* IDL_AVI *')) gt 0

    endif

    return, has_avi

end
```

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Subject: Re: LZW in IDL  
Posted by [Haje Korth](#) on Thu, 10 Jun 2004 13:02:08 GMT  
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Jonathan,  
have you tried whether TIFFSupport = LMGR('idl\_tiff\_lzw', VERSION='1.0')  
works? This stuff is largely undocumented, but RSI uses it for example in  
query\_image to check for gif support.

Cheers,  
Haje

"Jonathan Joseph" <jj21@cornell.edu> wrote in message  
news:ca7qcv\$8bl\$1@news01.cit.cornell.edu...

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> a new version of IDL) to be able to use the functionality again.  
>  
> Thanks.  
>  
> -Jonathan

---

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Subject: Re: LZW in IDL  
Posted by [Haje Korth](#) on Thu, 10 Jun 2004 13:04:37 GMT  
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Andrew,  
this will only check whether the dlm is present, but not whether it is  
properly licensed. IMHO, you either have to parse the license file for  
idl\_tiff\_lzw or use the LMGR routine.

Cheers,  
Haje

"Andrew Cool" <andrew.cool@dsto.defence.gov.au> wrote in message  
news:c6d70400.0406092052.5b0b8ed6@posting.google.com...

> Jonathan Joseph <jj21@cornell.edu> wrote in message  
news:<ca7qcv\$8bl\$1@news01.cit.cornell.edu>...

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> Andrew

> DSTO, Adelaide, South Australia

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