Subject: Matlab to IDL
Posted by dino.nicola on Sat, 11 Oct 2003 16:50:00 GMT
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hi! i'm trying to translate this Matlab script into IDL, but the image
I show is not right.

```
function [RAD]=read_1rad(i_pr,Directory,prefix)
i_pr
Directory
CONC=[Directory prefix]
nome=[ CONC num2str(i_pr) '.sdt']
FID=0;
FID=fopen(nome,'r','ieee-be');
[RAD,c]=fread(FID,[1024,512],'float32');
figure(3), imshow(RAD,[ ]); title(' proiezione ')
fclose(FID);
colormap(gray(512));
```

Here is the IDL script:

```
file='c:\pcon_1.sdt'
rad=fltarr(1024,512)
openr,lun,file,/get_lun
point_lun,lun,0
readu,lun,rad
close,lun
device,decomposed=0
loadct,0
tv,rad
end
```

Anybody can help me? thanks!

Subject: Re: Matlab to IDL
Posted by Nigel Wade on Mon, 13 Oct 2003 10:04:18 GMT
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dino nicola wrote:
> hi! i'm trying to translate this Matlab script into IDL, but the image
> I show is not right.
>
> function [RAD]=read_1rad(i_pr,Directory,prefix)
> i_pr
> Directory

> CONC=[Directory prefix]
> nome=[CONC num2str(i_pr) '.sdt']
> FID=0;
> FID=fopen(nome,'r','ieee-be');

The ieee-be option indicates your data is big endian.

> [RAD,c]=fread(FID,[1024,512],'float32');
> figure(3), imshow(RAD,[ ]); title(' proiezione ')
> fclose(FID);
> colormap(gray(512));
>
>
> Here is the IDL script:
>
> file='c:\pcon_1.sdt'
> rad=fltarr(1024,512)
> openr,lun,file,/get_lun

to read big endian data in IDL on a little endian system you need to append
the /SWAP_ENDIAN keyword to openr.

What hardware are you running IDL on?

--
Nigel Wade, System Administrator, Space Plasma Physics Group,
University of Leicester, Leicester, LE1 7RH, UK
E-mail : nmw@ion.le.ac.uk
Phone : +44 (0)116 2523548, Fax : +44 (0)116 2523555

Subject: Re: Matlab to IDL
Posted by dino.nicola on Mon, 13 Oct 2003 17:01:41 GMT
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Finally I could solve the problem! Here is the code working good:

```
file='c:\pcon_1.sdt'
rad=fltarr(1024,512)
openr,lun,file,/get_lun,/swap_endian
point_lun,lun,0
readu,lun,rad
close,lun
window,xs=1024,ys=512
device,decomposed=0
loadct,0
```

tvscl,rad
end

So the big question was the /SWAP_ENDIAN (either
/SWAP_LITTLE_ENDIAN) keyword. I'm running IDL on a PC with Windows
2000 but I don't know what kind of system the data are coming from.
Thanks a lot, I really appreciate your help! Dino

Subject: Re: Matlab to IDL
Posted by Paul Van Delst[1] on Mon, 10 Jul 2006 17:03:43 GMT
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KRDean@gmail.com wrote:
> One of my colleagues dumped some Matlab code on my desk and gave me a
> choice, learn MatLab or rewrite it in IDL.

If the dumped code came with an accompanying matlab license, I would vote for learning
Matlab.... and along the way of that, rewriting the code in IDL. Having another tool in
the toolbox can only help with writing code in IDL.
>
> Of course, my first choice would be to rewrite it in IDL.
>
> Most of the code is straight forward, but how would I write this
> MatLab statement in IDL?
>
> # -- MatLab Code
> # -- ASSUMES THE YEAR IS THE SAME
>
>   months_differ = month_beg ~= month_end

~= is the "not equal to" relational operator (NE in IDL).

In IDL:

  month_differ=(month_beg NE month_end)

and used thusly:

IDL> month_beg=2
IDL> month_end=12
IDL> month_differ=month_beg NE month_end
IDL> if (month_differ) then print, 'they are different'
they are different
IDL>

paulv

--
Paul van Delst Ride lots.
CIMSS @ NOAA/NCEP/EMC Eddy Merckx
Ph: (301)763-8000 x7748
Fax:(301)763-8545

Subject: Re: Matlab to IDL
Posted by btt on Mon, 10 Jul 2006 17:09:40 GMT
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Paul Van Delst wrote:
> KRDean@gmail.com wrote:
>> One of my colleagues dumped some Matlab code on my desk and gave me a
>> choice, learn MatLab or rewrite it in IDL.
>
> If the dumped code came with an accompanying matlab license, I would
> vote for learning Matlab.... and along the way of that, rewriting the
> code in IDL. Having another tool in the toolbox can only help with
> writing code in IDL.
>>
>> Of course, my first choice would be to rewrite it in IDL.
>>
>> Most of the code is straight forward, but how would I write this
>> MatLab statement in IDL?
>>
>> # -- MatLab Code
>> # -- ASSUMES THE YEAR IS THE SAME
>>
>> months_differ = month_beg ~= month_end
>
> ~= is the "not equal to" relational operator (NE in IDL).
>

Hello,

I think Paul has it, but the ~= is described below (kind of) under the
short circuit logical operators.

http://www.mathworks.com/access/helpdesk/help/techdoc/matlab _prog/

I am just learning Java so my well entrenched IDL syntax combined with
the little I know from c and MatLab are enough to put me waaay over the
edge. Now I know where the cartoon-esque !@#$%!@*# comes from.

Cheers,

ben

Subject: Re: Matlab to IDL
Posted by Paul Van Delst[1] on Mon, 10 Jul 2006 17:49:55 GMT
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Ben Tupper wrote:
> Paul Van Delst wrote:
>>
>> ~= is the "not equal to" relational operator (NE in IDL).
>>
>
> Hello,
>
> I think Paul has it, but the ~= is described below (kind of) under the
> short circuit logical operators.
>
> http://www.mathworks.com/access/helpdesk/help/techdoc/matlab _prog/

To be even more explicit, see:

http://www.mathworks.com/access/helpdesk/help/techdoc/ref/re lationaloperators.html
or
http://www.mathworks.com/access/helpdesk/help/techdoc/matlab _prog/f0-38145.html

> I am just learning Java so my well entrenched IDL syntax combined with
> the little I know from c and MatLab are enough to put me waaay over the
> edge. Now I know where the cartoon-esque !@#$%!@*# comes from.

Tell me about it. I couldn't put it off any longer so I'm teaching myself how to use regular expressions via Jeff Friedl's "Mastering Regular Expressions". Cripes. Being an old vi user, I knew the stone cold basics, but now that regex's like
/\b([a-z]+)((?:\s|<[^>]+>)+)(\1\b)/
start to make sense to me I'm beginning to get worried.... :o)

paulv

--
Paul van Delst Ride lots.
CIMSS @ NOAA/NCEP/EMC Eddy Merckx
Ph: (301)763-8000 x7748
Fax:(301)763-8545

Subject: Re: Matlab to IDL

Posted by James Kuyper on Mon, 10 Jul 2006 18:46:40 GMT
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Paul Van Delst wrote:
...
> Tell me about it. I couldn't put it off any longer so I'm teaching myself how to use
> regular expressions via Jeff Friedl's "Mastering Regular Expressions". Cripes. Being an
> old vi user, I knew the stone cold basics, but now that regex's like
> /\b([a-z]+)((?:\s|<[^>]+>)+)(\1\b)/
> start to make sense to me I'm beginning to get worried.... :o)

You haven't had real fun with regular expressions until you've written
a vi regular expression
to search for a vaguely remembered regular expression in a document
which describes how they work.

Subject: Re: Matlab to IDL
Posted by Ken Mankoff on Sun, 16 Jul 2006 11:00:25 GMT
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On Mon, 10 Jul 2006, Paul Van Delst wrote:

> Tell me about it. I couldn't put it off any longer so I'm teaching
> myself how to use regular expressions via Jeff Friedl's "Mastering
> Regular Expressions". Cripes. Being an old vi user, I knew the
> stone cold basics, but now that regex's like
> /\b([a-z]+)((?:\s|<[^>]+>)+)(\1\b)/
> start to make sense to me I'm beginning to get worried.... :o)

A great way to help learn them is to use an interactive (realtime)
regex demonstrator... A non-free one is the Regex Coach
http://weitz.de/regex-coach/ but I know some free ones exist, just
not where right now... If anyone has a web-based free version I'd
love to know about it.

-k.

Subject: Re: Matlab to IDL
Posted by Bruce Bowler on Mon, 17 Jul 2006 15:05:24 GMT
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On Sun, 16 Jul 2006 07:00:25 -0400, Ken Mankoff put fingers to keyboard
and said:

> A great way to help learn them is to use an interactive (realtime) regex
> demonstrator... A non-free one is the Regex Coach

> http://weitz.de/regex-coach/ but I know some free ones exist, just not
> where right now... If anyone has a web-based free version I'd love to know
> about it.

According to the website, it's free for private or non-commercial use.
ISTM that "teaching yourself the ins and outs of regex's" is both private
and non-commercial.

--
+------------------+------------------------------------ ------------+
Bruce Bowler | One learns in life to keep silent and draw one's
1.207.633.9600 | own confusions. - Cornelia Otis Skinner
bbowler@bigelow.org |
+------------------+------------------------------------ ------------+