Subject: ASCII import
Posted by none on Sun, 26 Mar 2006 19:56:34 GMT
View Forum Message <> Reply to Message

Hi, i have to import a number of ASCII .txt files and save them as ENVI standard images, but I can not found any IDL script able to do this; do you know which is the code ENVI uses to to open generic format-ASCII data ?
thanks
m

Subject: Re: ASCII import
Posted by none on Mon, 27 Mar 2006 23:43:25 GMT
View Forum Message <> Reply to Message

hi mike thanks a lot; it helps a lot, but what i am still missing is the function to convert an ascii file in an ENVI format;
any clue ?
thanks
marco

Subject: Re: ASCII import
Posted by Jeff N. on Tue, 28 Mar 2006 05:19:03 GMT
View Forum Message <> Reply to Message

Well, see here's the thing: there is no magic function to do this. That's b/c there's lots of ways to organize data in an ASCII file, and how you read the file obviously depends on how the file is set up. Why don't you have a look at one of these ASCII files and describe the format for us, then maybe we can help :)

Jeff

Subject: Re: ASCII import
Posted by none on Tue, 28 Mar 2006 19:19:01 GMT
View Forum Message <> Reply to Message

hi jeff, thanks for replying; well, the txt file just consist of 1 column of numbers, without semicolumns or commas separating them, and it should yield a one-band image, double precision data type.
it looks like something like this..
0.3798
-0.0277
-0.0357

-0.0287
-0.0550
-0.0415
-0.0666
-0.0868
-0.0823
-0.1248

thanks
marco

Subject: Re: ASCII import
Posted by Jeff N. on Wed, 29 Mar 2006 00:12:10 GMT
View Forum Message <> Reply to Message

Ok, so now I think we're getting somewhere. What are the dimensions of the final image though? Is it supposed to be a one column image as well - so that the single column of ASCII input becomes a single column image on output? If not, how do you know how to fill the output image? Assuming that the first number in the text file is the value for pixel [0,0], is the second number in the file for pixel [0,1], or is it for [1,0], etc? You have to be able to describe all of this, which is why it's impossible to just have one function that reads any ASCII file :)

Jeff

none wrote:
> hi jeff, thanks for replying; well, the txt file just consist of 1
> column of numbers, without semicolumns or commas separating them, and
> it should yield a one-band image, double precision data type.
> it looks like something like this..
> 0.3798
> -0.0277
> -0.0357
> -0.0287
> -0.0550
> -0.0415
> -0.0666
> -0.0868
> -0.0823
> -0.1248
>
> thanks
> marco

Subject: Re: ASCII import
Posted by none on Wed, 29 Mar 2006 01:19:14 GMT
View Forum Message <> Reply to Message

well jeff, thanks for your patience...
the file is made of 5,760,000 numbers, resulting in an image of 2400 columns * 2400 rows. the second number should be the pixel [0,1] and so on, till the number #2401 that becomes the pixel [1,1].
thanks
marco

Subject: Re: ASCII import
Posted by lbusett@yahoo.it on Wed, 29 Mar 2006 15:16:08 GMT
View Forum Message <> Reply to Message

Hi Marco,

What about something like this ?

```
pro multiple_conversion

; Define image dimensions

    n_col = 2400L
    n_row = 2400L
    arr_dim = n_col*n_row
    tmp_array = fltarr (arr_dim)

; Select Input Files

    file_list = dialog_pickfile ( title = 'Select files to convert',
/multiple_files)

   ; Begin the for loop to convert each file

   for file = 0, n_elements(file_list-1) do begin

 openr, in_lun, file_list [file], /get_lun ; Open the file
 readf, in_lun, tmp_array        ; Store data in a temporary array

;"Create" a square image from tmp_array

 tmp_image = reform (tmp_array, n_col,n_row)
 out_filename = file_list[file] + '_envi'   ; Define output file

 ; Write envi output file
 ENVI_WRITE_ENVI_FILE, tmp_image, out_name=out_filename   free_lun,
```

```
in_lun
   endfor
end
```

I didn't test it, so it's possible that it doesn't work, but I think
that this is a possible approach: Just select the files that you need
to convert, then read one file at a time with a simple READF
instruction, "reform" the data into a square matrix and write an output
with the ENVI dedicated write function (ENVI_WRITE_ENVI_FILE). You just
have to be sure that there is no header in your .txt files: otherwise,
you have to skip the header lines before you read "tmp_array".

Hope this helps,

Lorenzo

none wrote:
> well jeff, thanks for your patience...
> the file is made of 5,760,000 numbers, resulting in an image of 2400
> columns * 2400 rows. the second number should be the pixel [0,1] and so
> on, till the number #2401 that becomes the pixel [1,1].
> thanks
> marco

Subject: Re: ASCII import
Posted by none on Wed, 29 Mar 2006 22:12:05 GMT
View Forum Message <> Reply to Message

grazie lorenzo,
thanks a lot, it seems to work
buona giornata
marco
