
Subject: How Could I read dates(strings) into a structure?

Posted by [limiqt](#) on Wed, 01 Nov 2017 20:07:31 GMT

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Hi,

I wonder if someone could show me how could I read dates (strings) into a structure.

I need to read thousands of files each with thousands of lines like this one:

FileIn1:

```
2015-06-01 11:02:28 -17.8620 -34.3080 -12.1940
2015-06-01 11:02:29 -12.4835 -24.4790 -8.8535
2015-06-01 11:02:30 -10.9240 -22.0480 -7.8587
2015-06-01 11:02:31 -11.6355 -22.9650 -8.0603
2015-06-01 11:02:32 -12.7080 -26.4340 -8.5855
2015-06-01 11:02:33 -12.4525 -24.8820 -8.4100
2015-06-01 11:02:34 -11.2980 -23.5610 -7.9932
2015-06-01 11:02:44 8.8110 12.8375 4.2657
2015-06-01 11:03:00 -5.4033 -10.9245 -3.4665
2015-06-01 11:03:01 -9.4730 -19.0120 -5.6915
```

I have done the following:

```
=====
```

```
Pro ReadMyData
```

```
Close, /All
```

```
FileIn='FileIn1'
```

```
nlines=File_lines(FileIn)
```

```
datastruct={MyDate:' ', MyTime:' ', var1:0.0, var2:0.0, var3:0.0}
```

```
Mydata=Replicate(datastruct, nlines)
```

```
Mydata.MyDate = STRING(Mydata.MyDate, FORMAT = '(A10)')
```

```
Mydata.MyTime = STRING(Mydata.MyTime, FORMAT = '(A10)')
```

```
OpenR,lun, FileIn,/Get_Lun
```

```
ReadF,lun, dataw
```

```
Free_Lun, lun
```

```
End
```

```
=====
```

However, I get the error message: READF: Input conversion error. Unit: 100.

I will appreciate any assistance.

Thanks

Subject: Re: How Could I read dates(strings) into a structure?

Posted by [Helder](#) on Thu, 02 Nov 2017 08:15:55 GMT

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Hi,
the error message you are getting is because IDL does not know what "dataw" in:
ReadF,lun, dataw
is.
That said, if you are reading a text file, you want to read in strings. There are two very similar approaches: in one case you read the file line by line and each time you process the line and in the second case you read the file as a whole and process everything afterwards.
I'm giving you an example of the second type:

```
;read the data
nlines = FILE_LINES('theLocation\OfMy\File.txt')
sarr = strarr(nlines)
get_lun, myUnit
openr, myUnit, 'theLocation\OfMy\File.txt'
readf, myUnit, sarr
free_lun, myUnit

datastruct={MyDate:' ', MyTime:' ', var1:0.0, var2:0.0, var3:0.0}
Mydata=Replicate(datastruct, nlines)

;process the data
for i=0,nlines-1 do begin
  splitLine = strsplit(sarr[i],/extract)
  ;process the data
  Mydata[i].MyDate = splitLine[0]
  Mydata[i].MyTime = splitLine[1]
  Mydata[i].var1 = float(splitLine[2])
  Mydata[i].var2 = float(splitLine[3])
  Mydata[i].var3 = float(splitLine[4])
endfor
```

I hope this helps.

Cheers,
Helder

On Wednesday, 1 November 2017 21:07:34 UTC+1, Lim wrote:

```
> Hi,
>
> I wonder if someone could show me how could I read dates (strings) into a structure.
```

```

>
> I need to read thousands of files each with thousands of lines like this one:
>
> FileIn1:
>
> 2015-06-01 11:02:28 -17.8620 -34.3080 -12.1940
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>
>
> I have done the following:
>
> =====
> Pro ReadMyData
> Close, /All
>
> FileIn='FileIn1'
> nlines=File_lines(FileIn)
>
> datastruct={MyDate:' ', MyTime:' ', var1:0.0, var2:0.0, var3:0.0}
> Mydata=Replicate(datastruct, nlines)
> Mydata.MyDate = STRING(Mydata.MyDate, FORMAT = '(A10)')
> Mydata.MyTime = STRING(Mydata.MyTime, FORMAT = '(A10)')
>
> OpenR,lun, FileIn,/Get_Lun
> ReadF,lun, dataw
> Free_Lun, lun
>
> End
> =====
>
> However, I get the error message: READF: Input conversion error. Unit: 100.
>
> I will appreciate any assistance.
>
> Thanks

```

Subject: Re: How Could I read dates(strings) into a structure?
 Posted by [Lajos Foldy](#) on Thu, 02 Nov 2017 15:20:24 GMT

On Wednesday, November 1, 2017 at 9:07:34 PM UTC+1, Lim wrote:

Move the FORMAT to READF:

```
datastruct={MyDate:' ', MyTime:' ', var1:0.0, var2:0.0, var3:0.0}  
Mydata=Replicate(datastruct, nlines)
```

```
OpenR,lun, FileIn,/Get_Lun  
ReadF,lun, Mydata, format='(A10,3X,A8,3F9.4)'  
Free_Lun, lun
```

regards,
Lajos

```
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>  
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>  
> I need to read thousands of files each with thousands of lines like this one:  
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> Close, /All  
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> FileIn='FileIn1'  
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```

> Mydata.MyTime = STRING(Mydata.MyTime, FORMAT = '(A10)')
>
> OpenR,lun, FileIn,/Get_Lun
> ReadF,lun, dataw
> Free_Lun, lun
>
> End
> =====
>
> However, I get the error message: READF: Input conversion error. Unit: 100.
>
> I will appreciate any assistance.
>
> Thanks
