
Subject: Re: Working with lists

Posted by [Helder Marchetto](#) on Mon, 03 Jun 2013 19:21:57 GMT

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On Monday, June 3, 2013 7:39:46 PM UTC+2, fgg wrote:

> Hello,

>

>

>

> I have a string array that looks like this (with the exception that the numbers actually vary from element to element):

>

>

>

> str = replicate('1000 1000.1515 400 40', 10)

>

>

>

> Is there a simple way to extract these numbers to a 4 by 10 array without using loops? I've tried the following, but it doesn't work:

>

>

>

> str = strsplit(str, /extract)

>

> array = str.ToArray(type='float')

>

>

>

> % LIST::TOARRAY: Unable to convert to type FLOAT: Element 7

>

> % Error occurred at: LIST::TOARRAY

>

> % \$MAIN\$

>

> % Execution halted at: \$MAIN\$

>

>

>

> What's the problem with this?

>

>

>

> Thanks!

How about this:

IDL> str = strsplit(str, /extract)

```

IDL> str = replicate('1000 1000.1515 400 40', 10)
IDL> str = strsplit(str, /extract)
IDL> array = float(str.ToArray() )
IDL> help, array
ARRAY          FLOAT    = Array[10, 4]
IDL> print, array[*,0]
    1000.00    1000.00    1000.00    1000.00    1000.00    1000.00    1000.00    1000.00
    1000.00    1000.00

```

Cheers,
Helder

Subject: Re: Working with lists
 Posted by [fgg](#) on Mon, 03 Jun 2013 21:09:06 GMT
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Different error, but still doesn't work here. Btw, I'm running IDL 8.0.1 on Windows 7.

```

str = replicate('1000 1000.1515 400 40', 10)
str = strsplit(str, /extract)
array = float(str.ToArray())

```

```

% LIST::TOARRAY: Unable to convert to type STRING: Element 7
% Error occurred at: LIST::TOARRAY
%          $MAIN$
% Execution halted at: $MAIN$

```

```

> How about this:
>
>
>
> IDL> str = strsplit(str, /extract)
>
> IDL> str = replicate('1000 1000.1515 400 40', 10)
>
> IDL> str = strsplit(str, /extract)
>
> IDL> array = float(str.ToArray() )
>
> IDL> help, array
>
> ARRAY          FLOAT    = Array[10, 4]
>
> IDL> print, array[*,0]
>

```

```
> 1000.00 1000.00 1000.00 1000.00 1000.00 1000.00 1000.00 1000.00
> 1000.00 1000.00
>
>
>
> Cheers,
>
> Helder
```

Subject: Re: Working with lists
Posted by [Craig Markwardt](#) on Tue, 04 Jun 2013 04:18:05 GMT
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On Monday, June 3, 2013 1:39:46 PM UTC-4, fgg wrote:
> I have a string array that looks like this (with the exception that the numbers actually vary from element to element):
>
> str = replicate('1000 1000.1515 400 40', 10)
>
> Is there a simple way to extract these numbers to a 4 by 10 array without using loops? I've tried the following, but it doesn't work:
>
> str = strsplit(str, /extract)
> array = str.ToArray(type='float')

Umm, is there any reason that this doesn't work?
ff = fltarr(4,10)
reads, str, ff

I don't use ToArray(), so I don't really understand how it works. Maybe it's getting confused, but plain READS does not get confused.

Craig

Subject: Re: Working with lists
Posted by [SonicKenking](#) on Tue, 04 Jun 2013 04:23:46 GMT
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On Tuesday, June 4, 2013 7:09:06 AM UTC+10, fgg wrote:
> Different error, but still doesn't work here. Btw, I'm running IDL 8.0.1 on Windows 7.
>
>
>
> str = replicate('1000 1000.1515 400 40', 10)
>

```

> str = strsplit(str, /extract)
>
> array = float(str.ToArray())
>
>
>
> % LIST::TOARRAY: Unable to convert to type STRING: Element 7
>
> % Error occurred at: LIST::TOARRAY
>
> %           $MAIN$
>
> % Execution halted at: $MAIN$
>
>
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>
>> How about this:
>
>>
>
>>
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>>
>
>> IDL> str = strsplit(str, /extract)
>
>>
>
>> IDL> str = replicate('1000 1000.1515 400 40', 10)
>
>>
>
>> IDL> str = strsplit(str, /extract)
>
>>
>
>> IDL> array = float(str.ToArray() )
>
>>
>
>> IDL> help, array
>
>>
>

```

```

>> ARRAY      FLOAT   = Array[10, 4]
>
>>
>
>> IDL> print, array[*,0]
>
>>
>
>>      1000.00    1000.00    1000.00    1000.00    1000.00    1000.00    1000.00
1000.00    1000.00    1000.00
>
>>
>
>>
>
>>
>
>> Cheers,
>
>>
>
>> Helder

```

The error is probably due to your version of IDL.
 Anyway, here is a solution without 8.0 features:

```

s = '1000 1000.1515 400 40'
array = rebin(float(strsplit(s, /extract)), 4, 10)

```

Subject: Re: Working with lists
 Posted by [fgg](#) on Fri, 07 Jun 2013 17:33:36 GMT
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strsplit returns a list in this case, and if I do what you suggested below I get:

```
% READS: Object reference expression not allowed in this context: STR.
```

```

> Umm, is there any reason that this doesn't work?
>
> ff = fltarr(4,10)
>
> reads, str, ff
>
>
>
> I don't use ToArray(), so I don't really understand how it works. Maybe it's getting confused, but

```

plain READS does not get confused.

>
>
>
> Craig

Subject: Re: Working with lists
Posted by [fgg](#) on Fri, 07 Jun 2013 17:40:35 GMT
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Yes, this works for a single line '1000 1000.1515 400 40', but my dataset is actually composed by a bunch of lines like this, where the numbers actually vary. So you have something like replicate('1000 1000.1515 400 40', 10), but where the lines are not really replicates.

Thanks!

>
> The error is probably due to your version of IDL.
>
> Anyway, here is a solution without 8.0 features:
>
>
>
> s = '1000 1000.1515 400 40'
>
> array = rebin(float(strsplit(s, /extract)), 4, 10)
