Subject: Re: floats from strings... duh!
Posted by thompson on Fri, 26 May 1995 07:00:00 GMT
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afl@cdc.noaa.gov (Andy Loughe) writes:

> In article <3q4tku$iqu@dux.dundee.ac.uk>, pjclinch@dux.dundee.ac.uk (Pete
> Clinch) writes:
> |>
> |> I'm sure I'm missing something obvious... want to do the equivalent of a
> |> C sscanf or atof on a string I've got in a PV~Wave program that has a
> |> floating point number in string form.
> |>
> |> Rather than write my own function to convert "1.234" to 1.234, is there a
> |> way in the system to do it easily?
> |>
> |> Thanks.
> |>
> |> Pete.
> |> --
> |> Peter Clinch Dundee Teaching Hospitals NHS Trust
> |> voice: 44 1382 660111 x 3637 snail: Directorate of Medical Physics
> |> fax: 44 1382 640177 Ninewells Hospital
> |> email: p.j.clinch@dundee.ac.uk Dundee DD1 9SY Scotland UK

> Again, I may be missing the boat here, but is this what you want?

> IDL> a = '1.234'
> IDL> b = float(a)
> IDL> help, b
> B FLOAT = 1.23400

In IDL, there's also a routine called READS, which works like READ or READF, except that the input is a string instead of the keyboard or a file. Thus, one could do things like

READS, '1.23 4.56 7.89', X, Y, Z

and can even use FORMAT statements. I don't know if this also exists in PV-Wave or not.

Bill Thompson

Subject: Re: floats from strings... duh!
Posted by afl on Fri, 26 May 1995 07:00:00 GMT

In article <3q4tku$iqu@dux.dundee.ac.uk>, pjclinch@dux.dundee.ac.uk (Pete Clinch) writes:
|>
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IDL> a = '1.234'
IDL> b = float(a)
IDL> help, b
B               FLOAT     =       1.23400
```

--

Andrew F. Loughe email: afl@cdc.noaa.gov
University of Colorado, CIRES voice: (303) 492-0707
Campus Box 449 fax: (303) 497-7013
Boulder, CO 80309-0449 USA

Subject: Re: floats from strings... duh!
Posted by zowie on Fri, 26 May 1995 07:00:00 GMT

Pete Clinch (pjclinch@dux.dundee.ac.uk) wrote:

: I'm sure I'm missing something obvious... want to do the equivalent of a
: C sscanf or atof on a string I've got in a PV~Wave program that has a
: floating point number in string form.

: Rather than write my own function to convert "1.234" to 1.234, is there a
: way in the system to do it easily?

Yeah -- just cast it. If you don't bother, IDL will usually cast it for you, ie 'A = 5 + "3.14"' will set A to 8.14. This is (IMAO) the Wrong Thing, because IDL will cast strings to numbers in contexts where you don't want it, ie

```
 mydata = indgen(30)
 plotno = 5
 plot,mydata,title="Plot number "+plotno
```

will screw up by attempting to cast "Plot number " to an integer, and generate an error message. You have to say

```
 plot,mydata,title="Plot number "+string(plotno)
```

which won't look right because the title will be "Plot number 5" instead of "Plot number 5", so you need to tack another bag on that:

```
 plot,mydata,title="Plot number "+strtrim(string(plotno),2)
```

which is a lot of verbiage for text formatting that you could do more elegantly on an Apple][in 1978.

All this is a long winded way of saying not to worry, IDL will convert your strings for you whether you want it to or not!

--
Craig DeForest "My research group launched a rocket into space, and all I got was this lousy T-shirt"

Subject: Re: floats from strings... duh!
Posted by phil on Sat, 27 May 1995 07:00:00 GMT
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In article <3q568j$5bd@nntp.Stanford.EDU> zowie@banneker.stanford.edu (Craig DeForest) writes:

> which won't look right because the title will be "Plot number 5"
> instead of "Plot number 5", so you need to tack another bag on that:
>
> plot,mydata,title="Plot number "+strtrim(string(plotno),2)
>

you could also just use the strcompress function. ie:

```
 plot,mydata,title="Plot number"+strcompress(plotno)
```

There is also no need for the trailing space in the "Plot number"
string since string compress prepends a space.

Hope this helps.

--
/** ****************/
Phil Williams
Postdoctoral Researcher "One man gathers what
MRI Facility another man spills..."
The Ohio State University -The Grateful Dead
email: phil@peace.med.ohio-state.edu
URL: http://justice.med.ohio-state.edu:1525
/** ****************/

Subject: Re: floats from strings... duh!
Posted by rivers on Sat, 27 May 1995 07:00:00 GMT
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In article <3q4tku$iqu@dux.dundee.ac.uk>, pjclinch@dux.dundee.ac.uk (Pete Clinch) writes:
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>
> Rather than write my own function to convert "1.234" to 1.234, is there a
> way in the system to do it easily?
>

Use the float() function. It can handle string input.

```
print, float('1.234')
  1.23400
```

_____
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