Subject: Re: string manipulation
Posted by John-David T. Smith on Mon, 26 Feb 2001 23:34:01 GMT
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Craig Markwardt wrote:
>
> I have been thinking about the following problem, but have been pretty
> frustrated.
>
> I have input keyword/value strings of the following form. People may
> recognize this from a FITS file.
>
> TTYPE2 = 'X1LSpecPcu0' / X1LSpecPcu0 : Histogram
> TUNIT2 = 'count '
> 1CTYP2 = 'CHANNEL '
> 1CPIX2 = '0~4,5:53,(54~135;2),(136~237;3),(238~249;4),250~255'
> 12CD2A = 1.25
> ^name^^ ^value^^^^^^^
>
> All of the keyword names have a trailing "2" which indicates that they
> are describing column number 2 in a FITS table. Note that in the name
> "12CD2A", only the *final* 2 refers to the column number.
>
> The interesting question happens when I want to change the column
> number, say from "2" to "50". Is there a straightforward way to do
> this in "vectoral" sort of way?
>
> I am able to find the string positions of the 2's, so that's not
> really a problem. I do this by making a byte array of the strings,
> and blanking out any alphabetic characters and any leading numeric
> characters. Here I appreciate STRPOS is (partially) vectorized.
>
> However, when it comes to resubstituting the "50" back in, that's when
> I get stymied. This is primarily because STRMID and STRPUT are not
> vectorized at all. Well STRMID *is* vectorized, but not with a sane
> behavior. For example, what I'd like to do is:
>
> NEWKEY = STRMID(KEY,0,P1) + '50' + STRMID(KEY,P2,100)
>
> Where KEY, P1, and P2 are vectors. Obviously this doesn't work. Any
> ideas?

I was going to come up with something using histogram, but I figured I'd be pressing my luck. I would probably use a loop and the sx{add,del,}par.pro routines from the nasalib. FITS has lots of rules about keyword length, total line length, etc. Best to waste some cycles and make sure it's done right.

Good luck,

JD

Subject: Re: string manipulation
Posted by Pavel A. Romashkin on Tue, 27 Feb 2001 00:20:26 GMT
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JD Smith wrote:

> I was going to come up with something using histogram, but I figured I'd
> be pressing my luck. I would probably use a loop

Oh, no. I am losing my faith :-(

Pavel

Subject: Re: string manipulation
Posted by Craig Markwardt on Tue, 27 Feb 2001 01:41:09 GMT
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JD Smith <jdsmith@astro.cornell.edu> writes:
> Craig Markwardt wrote:
... deleted ...
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> I was going to come up with something using histogram, but I figured I'd
> be pressing my luck. I would probably use a loop and the
> sx{add,del,}par.pro routines from the nasalib. FITS has lots of rules
> about keyword length, total line length, etc. Best to waste some cycles
> and make sure it's done right.

Jah, that's what I do now, except I know they are valid header
keywords already, since they come from an already-existing file, and
I'd like to preserve the original formatting as much as possible. But
I guess a loop is just necessary.

[I was looking for the magic HISTOGRAM bullet too ...]

Craig

--
-- --------------
Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
-- --------------

Subject: Re: string manipulation
Posted by R.Bauer on Tue, 27 Feb 2001 10:40:54 GMT
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Craig Markwardt wrote:
>
> I have been thinking about the following problem, but have been pretty
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>
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> TUNIT2 = 'count   '
> 1CTYP2 = 'CHANNEL '
> 1CPIX2 = '0~4,5:53,(54~135;2),(136~237;3),(238~249;4),250~255'
> 12CD2A = 1.25
> ^name^^ ^value^^^^^^^
>
> All of the keyword names have a trailing "2" which indicates that they
> are describing column number 2 in a FITS table. Note that in the name
> "12CD2A", only the *final* 2 refers to the column number.

...

Dear Craig,

I believe my replace_string is the right tool for your request

txt= ['TTYPE2' ,$
     'TUNIT2', $

```
    '1CTYP2', $
    '1CPIX2' ,$
    '12CD2A']

result=replace_string(txt,'2','50',pos=4,no_of_replaces=1)
print,result
TTYPE50 TUNIT50 1CTYP50 1CPIX50 12CD50A
```

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_
html/dbase/download/replace_string.tar.gz

For further routines and licensing please look at
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.h tml

regards
Reimar

--
Reimar Bauer

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http://www.fz-juelich.de/icg/icg1/
==========
a IDL library at ForschungsZentrum Jï¿½lich
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.h tml

http://www.fz-juelich.de/zb/text/publikation/juel3786.html