
Subject: Re: Fuzzy searching of FITS header
Posted by [penteado](#) on Wed, 22 Dec 2010 04:50:39 GMT
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On Dec 21, 11:11 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On Dec 21, 9:00 pm, Gray <grayliketheco...@gmail.com> wrote:
>
>> I'm envisioning a routine that uses lists and hashes to return the
>> keyword and value for all keywords that match any number of search
>> strings... do I have the time/energy to write it?
>
> I was just writing something like that as an example for a class.
> Similar to what the new graphics do to find elements by search strings
> (like axes=plot['*axis*']). I will post it later.

It is not complete (not even documented), but it already does that:

http://www.ppenteado.net/idl/pp_lib/src/pp_readfits__define.pro

I started this as an example for a class, but due to some recent needs I noticed when using fits files, I intend to give it a more complete functionality, with things like processing coordinates through wcs, calculating wavelengths, and allowing to edit and save files.

An example of how it works now:

```
IDL> fits=pp_readfits('test.fits')
% READFITS: Now reading 256 by 256 array
IDL> help,fits.data
<Expression>  LONG    = Array[256, 256]
IDL> help,fits.header
<Expression>  STRING  = Array[184]
IDL> help,fits.variables
<Expression>  HASH <ID=746 NELEMENTS=181>
IDL> help,fits.descriptions
<Expression>  HASH <ID=1117 NELEMENTS=181>
IDL> print,(fits.variables)['NAXIS']
2
IDL> print,(fits.descriptions)['NAXIS']
Number of axes
IDL> print,fits['NAXIS']
NAXIS: 2
IDL> print,fits['NAXIS*']
NAXIS2: 256
NAXIS: 2
NAXIS1: 256
```
