
Subject: Re: reading header and manipulating according to the header information
Posted by [Gray](#) on Sat, 15 May 2010 15:02:37 GMT

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On May 15, 10:21 am, sid <gunvicsi...@gmail.com> wrote:

> Hi,
> Since I am using huge data of several years, different kind of
> ccds are used on different days. I need to trim the data to a size
> which depends on ccd size, is there any method to read the header
> information and take the ccd size from there and then to proceed
> further, instead of giving the ccd size manually. Because it is really
> very tedious to check for the ccd size each time and then to proceed.
> Please help out.
> For example,
> in one of my data the ccd size that is 1K by 1k is given in header as,
> NAXIS =
> 3
> NAXIS1 =
> 1024
> NAXIS2 =
> 1024
> NAXIS3 = 1
> regards
> sid

You can use STREGEX to search for those header lines and GETTOK to pick out the value.

Subject: Re: reading header and manipulating according to the header information
Posted by [Craig Markwardt](#) on Sat, 15 May 2010 16:02:40 GMT

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On May 15, 10:21 am, sid <gunvicsi...@gmail.com> wrote:

> Hi,
> Since I am using huge data of several years, different kind of
> ccds are used on different days. I need to trim the data to a size
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> very tedious to check for the ccd size each time and then to proceed.
> Please help out.
> For example,
> in one of my data the ccd size that is 1K by 1k is given in header as,
...

Anything you can do "manually," you can do in a program. The hard part is usually to make it robust.

Based on the headers you provided, it looks like you have FITS image files. If you don't already have it, get the IDL Astronomy Library. It has many routines for reading FITS images and tables. The easiest one to use is MRDFITS(). MRDFITS() returns the image array which you can query using SIZE() and then trim as needed.

Simple example:

```
filename = 'myfile.fits'
img = mrdfits(filename) ;; Read image
sz = size(img, /dim) ;; Determine size of image
szx = sz(0) ;; Number of columns
szy = sz(1) ;; Number of rows
img = img( (0+2):(szx-3) , (0+2):(szy-3) ) ;; Remove outermost two
rows and columns
```

Good luck,
Craig

Subject: Re: reading header and manipulating according to the header information
Posted by [Craig Markwardt](#) on Sat, 15 May 2010 16:21:07 GMT
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On May 15, 12:02 pm, Craig Markwardt <craig.markwa...@gmail.com> wrote:

```
> On May 15, 10:21 am, sid <gunvicsi...@gmail.com> wrote:> Hi,
>> Since I am using huge data of several years, different kind of
>> ccds are used on different days. I need to trim the data to a size
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> ...
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> part is usually to make it robust.
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> files. If you don't already have it, get the IDL Astronomy Library.
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> can query using SIZE() and then trim as needed.
```

```
>
> Simple example:
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> szx = sz(0) ;; Number of columns
> szy = sz(1) ;; Number of rows
> img = img( (0+2):(szx-3) , (0+2):(szy-3) ) ;; Remove outermost two
> rows and columns
```

Oh, and if you need other header keywords, then you need to read the header with a slightly different call to MRDFITS().

```
img = mrdfits(filename,0,header)
and then retrieve the keyword KEYNAME with FXPAR()
value = fxpar(header, keyname)
```

Craig

Subject: Re: reading header and manipulating according to the header information
Posted by [Jeremy Bailin](#) on Sat, 15 May 2010 23:02:26 GMT

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```
> Based on the headers you provided, it looks like you have FITS image
> files.
```

Did anyone else see this sentence and get Clippy flashbacks??

"It looks like you have FITS image files. Would you like help with flat fielding?"

-Jeremy.

Subject: Re: reading header and manipulating according to the header information
Posted by [sid](#) on Sun, 16 May 2010 14:31:01 GMT

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On May 15, 9:21 pm, Craig Markwardt <craig.markwa...@gmail.com> wrote:

```
> On May 15, 12:02 pm, Craig Markwardt <craig.markwa...@gmail.com>
> wrote:
```

```
>
>
>
```

```
>> On May 15, 10:21 am, sid <gunvicsi...@gmail.com> wrote:> Hi,
>>> Since I am using huge data of several years, different kind of
>>> ccds are used on different days. I need to trim the data to a size
```

```

>>> which depends on ccd size, is there any method to read the header
>>> information and take the ccd size from there and then to proceed
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>>> very tedious to check for the ccd size each time and then to proceed.
>>> Please help out.
>>> For example,
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>> can query using SIZE() and then trim as needed.
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>> Simple example:
>> filename = 'myfile.fits'
>> img = mrdfits(filename) ;; Read image
>> sz = size(img, /dim)    ;; Determine size of image
>> szx = sz(0) ;; Number of columns
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>> img = img( (0+2):(szx-3) , (0+2):(szy-3) ) ;; Remove outermost two
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> Oh, and if you need other header keywords, then you need to read the
> header with a slightly different call to MRDFITS().
> img = mrdfits(filename,0,header)
> and then retrieve the keyword KEYNAME with FXPAR()
> value = fxpar(header, keyname)
>
> Craig

```

Thank you this works now i could able to read the size of ccd as a variable.

In my data header I have a line like the one below,

```
COMMENT = 090222 Lat=40N exp=50s seeing 3",
```

in this line I need to read the lat=40N that is the value 40 as a idl variable which I need use for further analysis, but if I do the same process like, `img = mrdfits(filename,0,header)` and `value = fxpar(header, comment)`, then it prints the whole sentence '090222 Lat=40N exp=50s seeing 3"' .

So can anyone suggest is there any way to read only the desired part of the string.

regards
sid

Subject: Re: reading header and manipulating according to the header information
Posted by [Gray](#) on Sun, 16 May 2010 16:13:15 GMT

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On May 16, 10:31 am, sid <gunvicsi...@gmail.com> wrote:

> On May 15, 9:21 pm, Craig Markwardt <craig.markwa...@gmail.com> wrote:

>

>

>

>

>

>> On May 15, 12:02 pm, Craig Markwardt <craig.markwa...@gmail.com>

>> wrote:

>

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>

>>> ...

>

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>

>>> Simple example:

>>> filename = 'myfile.fits'

>>> img = mrdfits(filename) ;; Read image

>>> sz = size(img, /dim) ;; Determine size of image

>>> szx = sz(0) ;; Number of columns

```

>>> szy = sz(1) ;; Number of rows
>>> img = img( (0+2):(szx-3) , (0+2):(szy-3) ) ;; Remove outermost two
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>> Oh, and if you need other header keywords, then you need to read the
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> So can anyone suggest is there any way to read only the desired part
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> regards
> sid

```

STRSPLIT will split the comment into multiple elements, then
WHERE(STREGEX(/Boolean)) will tell you which one you want, then GETTOK
or STRSPLIT will extract the value.

Subject: Re: reading header and manipulating according to the header information
Posted by [sid](#) on Fri, 21 May 2010 19:37:54 GMT
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On May 16, 9:13 pm, Gray <grayliketheco...@gmail.com> wrote:
> On May 16, 10:31 am, sid <gunvicsi...@gmail.com> wrote:
>
>
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>> sid
>
> STRSPLIT will split the comment into multiple elements, then
> WHERE(STREGEX(/Boolean)) will tell you which one you want, then GETTOK
> or STRSPLIT will extract the value.
```

Thank you everyone, i could do the job with
strsplit(variable,'string',/extract)
regards
sid
