Subject: Re: [Q]: reading hexadecimal numbers from text files
Posted by davidf on Mon, 02 Apr 2001 23:58:10 GMT

Erin McKay (intrigue@ozemail.com.au) writes:
>
> I'm working with some DICOM files that are not supported by IDL's built-in
> access functions. I've written a DICOM parser and would like to make use
> of an external DICOM dictionary. But I can't figure out how to interpret
> ASCII strings as hexadecimal coded integers (its always the little
> things...). For example, I need to read lines like:
>
> 7FE0, 0010, 'CS', 'Pixel Data'
>
> and interpret the first 3 fields as unsigned short integers. I also need
> to print these values back out as they are displayed here.

I have no idea how to read 'CS' into a short integer, but
hexadecimal values are quite straightforward. You use
the "Z" format to transfer the data back and forth:

```
  IDL> variable = 0U  ; Create an unsigned short integer.
  IDL> Read, variable, Format='(Z4)'
    : 7FE0
  IDL> Help, variable
     VARIABLE    UINT    =    32736
```

You do the same thing to write it out:

```
  IDL> Print, variable, Format='(Z4)'
     7FE0
```

Cheers,

David

--
David Fanning, Ph.D.
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Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: [Q]: reading hexadecimal numbers from text files
Posted by John-David T. Smith on Tue, 03 Apr 2001 00:06:38 GMT

Erin McKay wrote:

>
> I'm working with some DICOM files that are not supported by IDL's built-in
> access functions. I've written a DICOM parser and would like to make use
> of an external DICOM dictionary. But I can't figure out how to interpret
> ASCII strings as hexadecimal coded integers (its always the little
> things...). For example, I need to read lines like:
>
> 7FE0, 0010, 'CS', 'Pixel Data'
>
> and interpret the first 3 fields as unsigned short integers. I also need
> to print these values back out as they are displayed here.
>
> Please forward replies to 'intrigue@ozemail.com.au' as well as this group.

Try the "Z" format code:

```
a='7FE0'+", 0010, 'CS', 'Pixel Data'"  ;can't write "7FE0...
a1=0 & a2=0 & rest=''
reads,a,FORMAT='(Z,I,A)',a1,a2,rest
print,a1,a2,rest
```

JD

Subject: Re: [Q]: reading hexadecimal numbers from text files
Posted by davidf on Tue, 03 Apr 2001 00:07:38 GMT
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David Fanning (davidf@dfanning.com) writes:

> I have no idea how to read 'CS' into a short integer, but
> hexadecimal values are quite straightforward.

Well, "no idea" is perhaps too strong. You can turn
the string "CS" into a integer value like this:

```
  IDL> variable = "CS"
  IDL> var = Fix(Byte(variable), 0)
  IDL> Print, var
      21315
```

I'm just not sure that's what you really wanted to do. :-(

Cheers,

David

--
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Subject: Re: [Q]: reading hexadecimal numbers from text files
Posted by intrigue on Tue, 03 Apr 2001 02:00:22 GMT
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In article <MPG.1532c233dd7e5ef6989dbc@news.frii.com>, davidf@dfanning.com
(David Fanning) wrote:

> David Fanning (davidf@dfanning.com) writes:
>
>> I have no idea how to read 'CS' into a short integer, but
>> hexadecimal values are quite straightforward.
>
> Well, "no idea" is perhaps too strong. You can turn
> the string "CS" into a integer value like this:
>
>   IDL> variable = "CS"
>   IDL> var = Fix(Byte(variable), 0)
>   IDL> Print, var
>   21315
>
> I'm just not sure that's what you really wanted to do. :-(
>

Yep, thats it. Didn't realise I could do that with 'Fix'. Might try
reading the manual next time ;-)

Thanks muchly,
erin