Subject: Re: Changing variable type
Posted by Helder Marchetto on Mon, 16 May 2016 12:37:22 GMT
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On Monday, May 16, 2016 at 1:19:53 PM UTC+1, Mats Löfdahl wrote:
> Den måndag 16 maj 2016 kl. 13:34:52 UTC+2 skrev Helder:
>> On Monday, May 16, 2016 at 12:31:45 PM UTC+1, Helder wrote:
>>> On Monday, May 16, 2016 at 11:43:54 AM UTC+1, Mats Löfdahl wrote:
>>>> Is there a way in IDL to change the type of an array, specifically a 16-bit integer into a 16 bit unsigned integer?
>>>>
>>>> No, I do not mean b = uint(a). This makes a new array and keeps the values. I want to change the variable type of the existing array (from 2 to 12), so the bit values are interpreted differently. Is this possible?
>>>>
>>>> /Mats
>>>
>>> Hi Mats,
>>> I think you're looking for the offset keyword in the uint function, but I'm not 100% sure (because this also makes a copy of the variable... there is no /temporary keyword)
>>>
>>> IDL> a = -1
>>> IDL> help, a
>>> A INT = -1
>>> IDL> print, uint(a,0)
>>> 65535
>>>
>>> Would this do what you want?
>>>
>>> Cheers,
>>> Helder
>>
>> Sorry, you wanted an array, so you have to do this:
>> IDL> a = indgen(20)
>> IDL> a[10:19] = -indgen(10)
>> IDL> a
>> 0 1 2 3 4 5 6 7 8 9 0 -1 -2 -3 -4 -5 -6 -7 -8 -9
>> IDL> print, uint(a,0,20)
>> 0 1 2 3 4 5 6 7 8 9 0 65535 65534 65533 65532 65531 65530 65529 65528 65527
>>
>> Does it make sense?
>>
>> Cheers,
>> Helder
>
> I'd like to avoid making new variables if possible.

>
> I guess I was thinking that IDL variables in reality were some sort of objects, and there would be methods that just change the type property. Or something like that.

Well, there's the idl_variable method convert:
a.convert(type=12)
but it also creates a new variable.

I don't see another way around unless you use some DLL trick to modify the variable internally. But maybe some IDL gurus know more about this stuff... I never ventured beyond using the offset options.

Cheers,
Helder
