Subject: Re: Access array elements with String
Posted by humanumbrella on Mon, 14 Jul 2008 16:59:26 GMT
View Forum Message <> Reply to Message

On Jul 14, 12:30 pm, Bob Crawford <Snowma...@gmail.com> wrote:
> On Jul 14, 11:49 am, humanumbre...@gmail.com wrote:
>
>
>
>> On Jul 14, 11:41 am, Bob Crawford <Snowma...@gmail.com> wrote:
>
>>> On Jul 14, 11:16 am, humanumbre...@gmail.com wrote:
>
>>>> Hello all,
>
>>>> Another issue - perhaps one of you has encountered this before. It's
>>>> sort of a neat problem. I'm attempting to build array subscripts on
>>>> the fly based on user input. IE the number of static/variable elements
>>>> is changing, which allows the user to pick different axes to plot.
>>>> Nevermind all that.
>
>>>> Anyway, let's say a user wants a particular axis to be variable. In
>>>> this case, the dataset array where I'm attempting to pull values from
>>>> would contain a *, to get all these elements. Unfortunately, I do not
>>>> know in advance which dimension of the array I will be using, so I am
>>>> attempting to build the subscript based on a string.
>
>>>> This was my original thought:
>>>> a = dindgen(5,5,5)
>>>> b = ['3','3','3']
>>>> print, a[b]
>>>> but this just returns a[3], a[3], a[3]
>
>>>> So, I figured I'd do it this way:
>>>> c = '3'
>>>> print, a[c,c,c] -- This works!
>
>>>> Now for the gold,
>>>> d = '*'
>>>> print, a[c,c,d] -- error - can't convert string-> long
>>>> so I get an idea-- maybe I'll just use the ascii value for the
>>>> asterisk.
>>>> d = String(42b)
>>>> print, a[c,d,d] -- error - can't convert string-> long
>
>>>> Any thoughts ?
>>>> Thanks in advance
>>>> --Justin

>
>>> Why try to force the '*' - might not SIZE be more useful?
>>> e.g.
>>> s=SIZE(a)
>>> print, a[c,c,s[3]] ; for a[c,c,d]
>>> print, a[c,s[2],s[3]]; for a[c,d,d]
>
>> Hey Bob,
>
>> Thanks for the post!
>> I think I may need to elaborate a bit more --
>> I need the entire row of the multi-dimensional array.
>> So, for example, let's say I have an array that is 30 x 20 x 50
>> I will need *,0,0 to plot the first 30 values
>> but I could just as easily need 0,*,0 or 0,0,* Depending on user
>> input, so I can't anticipate that in advance.
>
>> Cheers,
>> --Justin- Hide quoted text -
>
>> - Show quoted text -
>
> Oops.
> I posted too soon (thank you for the clarification Justin - that is
> what I was trying to do)
> Here is what I should have posted:
>
> print, a[c,c,0:(s[3]-1)] ; for a[c,c,d]
> print, a[c,0:(s[2]-1),0:(s[3]-1)]; for a[c,d,d]
>
> Isn't '*' just short form notation for 0:(s[n]-1), anyway?

Hey Bob,

Yes, I think '*' is short for 0:(s[n]-1) but I read somewhere that you
shouldn't use the range because of performance issues...
Can anyone shed light on that issue?