Subject: Re: Null terminated strings
Posted by Craig Markwardt on Tue, 08 Jan 2002 19:51:50 GMT
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James Kuyper <kuyper@gscmail.gsfc.nasa.gov> writes:
> Craig Markwardt wrote:
...
>> What happens when you swizzle it through a STRING-BYTE-STRING
>> transformation?
>>
>> I.e.,
>>
>> date = string(byte(date))
>>
>> I believe that STRING will ignore any trailing 0-bytes, hence this may
>> solve your problem exactly, at the expense of some extra CPU.
>
> Thanks - that worked. It only solves the single-string case, but that's
> the case I am currently facing. It saves me the trouble of figuring out
> how long the string is, and it does the right thing, whether or not the
> string is null-terminated.
>
> I'm still wonder how to best convert a null-delimited list of strings
> into an IDL string array (it's just curiousity, I don't have any
> immediate need for that ability). My best solution so far is to convert
> it to a byte array, find the null delimiting characters with where(),
> and then write a loop to convert each subarray into a seperate IDL
> string. This should work, but I'm always suspicious of the efficiency of
> any solution for an IDL problem that involves an explicit loop.

The problem is that IDL has no way to represent the 0th ASCII
character in a string. At least no way that I can find, other than
bringing the data in from outside, as you have done with HDF.

My best solution is to do as you have, which is to convert to BYTEs,
then locate the 0's. But at this stage you can quickly replace the
0's with some other control character, say ASCII 1. [ This assumes
that 1 = CTRL-A never appears in your strings. ] Then you can convert
back to string and use STRSPLIT or STR_SEP to split it up.

However, you should be aware that STR_SEP uses FOR loops, and I have
never really noticed an impact when I've used it. Unless your code is
*actually* a dog with FOR loops, versus *hypothetically* a dog, then
there is no reason to optimize it. :-)

Craig

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