Subject: Re: PV-WAVE/HDF/SDS
Posted by rivers on Wed, 28 Jun 1995 07:00:00 GMT
View Forum Message <> Reply to Message

In article <DAvn1G.M76@news.dlr.de>, grueber@dv.kp.dlr.de (Wilhelm Grueber) writes:
> I want to read a one dimensional array of a scientific data set (SDS)
> from a HDF file via the function SDreaddate into a two dimensional array
> (respective into a subarry of buffer array).
> For example:
> ------------------------
> length = 3000000L
> number = 12L
>
> buffer = intarr(length,number)
>
> k = 2
> ....
>
> status = SDreaddata(sdsid,[0],[1],[len],buffer(0:len,k))
> ------------------------ ^^^^^^^^^^^^^
>
> This example doesn`t work, despite it's possible to address subarrays
> in this manner (array(from:to)) in PV-Wave. Status doesn't indicate
> an error! I work around it in this way:
> ------------------
> tmpbuf = intarr(len)
>
> ....
> status = SDreaddata(sdsid,[0],[1],[len],tmpbuf)
> buffer(0:len,k) = tmpbuf
> ------------------

This is not a problem with the SDS interface, it is an intrinsic problem in IDL and PV-WAVE. When you pass a subset of an array (buffer(0:len,k) to a routine you are actually passing an EXPRESSION, which is a COPY of that part of the array. You cannot store back into the original array using this syntax. Your workaround is the only way to do it.

I am surprised the copies are taking as long as you say. You might try the syntax:
buffer(0, k) = tmpbuf

which should be equivalent to buffer(0:len, k)=tmpbuf, but may be faster.

Mark Rivers (312) 702-2279 (office)
CARS (312) 702-9951 (secretary)
Univ. of Chicago (312) 702-5454 (FAX)

5640 S. Ellis Ave.
Chicago, IL 60637

(708) 922-0499 (home)
rivers@cars3.uchicago.edu (Internet)