Subject: Re: Use of fill_value in HDF files
Posted by liamgumley on Thu, 29 Jun 2006 17:03:22 GMT
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Mark,

I don't know if HDF gives any guidelines, but netCDF does. From
"Attribute Conventions" at

http://www.unidata.ucar.edu/software/netcdf/guidec/guidec-13 .html

"valid_range: A vector of two numbers specifying the minimum and
maximum valid values for this variable, equivalent to specifying values
for both valid_min and valid_max attributes. Any of these attributes
define the valid range. The attribute valid_range must not be defined
if either valid_min or valid_max is defined.

Generic applications should treat values outside the valid range as
missing. The type of each valid_range, valid_min and valid_max
attribute should match the type of its variable (except that for byte
data, these can be of a signed integral type to specify the intended
range)."

Therefore, I think you should set valid_range to [0-10000].

Cheers,
Liam.
Practical IDL Programming
http://www.gumley.com/

mconner@aer.com wrote:
> I think this is more properly addressed to an HDF group, but there are
> quite a few HDFers here and I'm using IDL to create these files.
>
> For the valid_range attribute (RANGE parameter in HDF_SD_SETINFO),
> should it be the range of the uncalibrated data, or the range of the
> calibrated data. I'm storing a calibrated value that goes from 0.0 to
> 1.0 as a short int that goes from 0-10000 to save a couple bytes per
> element. Should valid_range be set to 0.0-1.0 or 0-10000? I'm
> thinking the latter, but thought I'd ask.
>
> Mark Conner