Subject: Re: HDF_SD_ADDDATA problem
Posted by jameskuyper on Mon, 28 Apr 2008 02:52:31 GMT
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adfraser@utas.edu.au wrote:
> Thanks, Liam (nice book, by the way).
>
> I haven't yet investigated this, but I'd hope that the IDL routines
> are smart enough to decompress before opening the files! Actually I'm
> pretty sure they do - I can read the SDS data fine using IDL. But
> you're right, writing may be a different story. I'll check it out.

I believe that they decompress the data sets in memory; but the original data is still in the file in compressed format, and that's what causes the problem. The only way you can write to a compressed SDS is if it defined as having an unlimited dimension, and the write only appends data at the end, rather than replacing data within the SDS.

> So LAADS MODIS HDFs are HDF4, not HDF5? That's interesting.

The MODIS project standardized on HDF4 before HDF5 ever came out. HDF4 wasn't even stable yet; there's traces of bizarre workaround in some of our code for bugs that HDF4 no longer has.

When HDF5 did come out, it was decided that with a planned instrument lifetime of 5 years, it wasn't worthwhile going to the trouble of switching MODIS products to HDF5. The MODIS instruments launched later than originally planned :-(but have lasted longer than planned :-), so the decision looks a little less reasonable now than it did at the time. Hindsight is 20/20.