
Subject: Re: Reading individual bits of MODIS BRDF quality files
Posted by [emitchard](#) on Fri, 18 Sep 2009 12:05:48 GMT

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Please ignore this, I've solved the problem by writing to a temporary file, opening it using `readu` as a byte array with four times as many lines, reading the needed bytes and allowing the values I need through an 'if' statement.

Apologies,

Edward

On Sep 18, 10:54 am, emitchard <emitch...@googlemail.com> wrote:

> I am running IDL 7.0.6 on Windows vista (with ENVI 4.6). I am using
> MODIS BRDF corrected 500 m data (MCD43A4). I have sucessfully written
> a program to open the HDF files and produce the output vegetation
> indices I'm interested in. However, I need to filter out cloud-
> contaminated pixels, and am having problem reading the bit-packed
> quality control file (MCD43A2).

>
> I have written a program to extract the layer I'm interested in from
> the HDF file and save it as a 32-bit unsigned integer. However, I
> really need to extract the raw values of the first 12 bits of this
> number (the values of the remaining fields do not matter to me). I
> started writing a program to list all the numbers (from 0-4294967295)
> that result from my required bit combination of these first 12 bits,
> but that approach is not going to work as there are several million
> 'allowable' numbers.

>
> Is there a function in IDL that can read individual bits, or any other
> clever way to produce an array of 1s and 0s from a 32-bit integer?

>
> Many thanks for your help,

>
> Edward Mitchard