
Subject: SRTM DTED read routines in IDL?
Posted by [andrew.cool](#) on Thu, 21 Apr 2005 01:58:59 GMT
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Hello All,

Does anyone have IDL code to read 3 arcsec Shuttle Radar Topography Mission (SRTM) DTED files that they'd care to share?

TIA,

Andrew Cool
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Subject: Re: SRTM DTED read routines in IDL?
Posted by [James Kuyper](#) on Sun, 24 Apr 2005 15:03:22 GMT
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Andrew Cool wrote:

...
> (4) Data Records (1201 records at 2414 3429,5843,
> bytes/record)** 8257, etc.

What does the footnote cross-referenced by the "***" say?

Subject: Re: SRTM DTED read routines in IDL?
Posted by [marit](#) on Mon, 25 Apr 2005 17:36:56 GMT
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> (4) Data Records (1201 records at 2414 3429,5843,
> bytes/record)** 8257, etc.
>
>
> I see how the value of 1201 is derived, but 2414bytes/record? Even
converting
> that to integers gives 1207, which ain't 1201, or anything else that
seems
> to make sense.

there is probably a few bytes of line header for each line

> It should be as simple as :-
>

```
> readu,lun,UHL ;(bytarr(80))
> readu,lun,DSID ;(bytarr(648))
> readu,lun,AR ;(bytarr(2700))
> readu,lun,square_degree_of_data ;(bytarr(1201,2414))
>
```

change a to:

```
a = intarr(1207,1201)
```

then discard leading or trailing integers as necessary.

If the number of line header bytes is odd, make array "a" a byte array (bytarr(2414,1201)) and convert to integers with fix (i.e. fix(a[*],i),x,1201), for each line where x is the length of the line header in bytes)

it could also be possible to make an array of line structures, where each line structure had a header and a data member, (a= replicate({h:bytarr(12),d:intarr(1201)},1201)) but I don't recall if idl tries to align structure members on 2 or 4 byte boundaries on some platforms on I/O, so that might not always work
