Subject: Re: SRTM DTED read routines in IDL?
Posted by b_gom on Thu, 21 Apr 2005 03:35:01 GMT
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Andrew,

if we're talking about the same file format (.hgt), then the 3 arc-sec
data is simply a 1201x1201 integer array in a binary file, and the
coordinates are given by the file name. The area is 1 sq degree. READU
is all you need.

Brad

Subject: Re: SRTM DTED read routines in IDL?
Posted by andrew.cool on Sun, 24 Apr 2005 11:27:52 GMT
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b_gom@hotmail.com wrote in message
news:<1114054501.935858.78890@l41g2000cwc.googlegroups.com>...
> Andrew,
>
> if we're talking about the same file format (.hgt), then the 3 arc-sec
> data is simply a 1201x1201 integer array in a binary file, and the
> coordinates are given by the file name. The area is 1 sq degree. READU
> is all you need.
>
> Brad

Hi Brad,

The files on the USGS disk are .dt1 files, and the readme.txt says :-

(1) User Header Label (UHL: 80 bytes) 1
(2) Data Set Identification Record (DSI: 648 bytes) 81
(3) Accuracy Record (ACC: 2700 bytes) 729
(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.

I've tried your suggestion of a simple READU of an INTARR(1201,1201) array,
but that produces a diagonally striped pattern of data that no amount of
transposing or rotating will fix.

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))
```

I can get TV a recognisable map out of this, but there are "extra" segments on the right and top of the correct map area.

I've searched the SRTM forum, but there's no mention of IDL there, which surprised me, so I'm hoping that mentioning SRTM here will make someone's ears prick up... ;-)

Cheers,

Andrew
