
Subject: Re: cgmap_gshhs.pro minarea issue
Posted by [pvelissariou](#) on Sun, 24 Nov 2013 04:03:03 GMT
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On Thursday, November 21, 2013 7:09:28 PM UTC-5, pvelis...@fsu.edu wrote:

> Apparently, in the recent versions (≥ 2.2) of gshhs database
>
> the units of the header.area changed from $1/10 \text{ km}^2$ to $1/10 \text{ m}^2$.
>
> For cgmap_gshhs to work properly the line:
>
> `polygonArea = header.area * 0.1` (ok for gshhs < 2.2)
>
> should be changed to:
>
> `polygonArea = header.area * 1.0e-7` (for gshhs ≥ 2.2)

David,

I think the following changes are required:

the line: `river = ISHFT(f, -25) AND 255B`
should be: `river = ISHFT(f, -25) AND 1B`

also, header.area is of type LONG and $10^{\text{magnitude}}$ is of type INT
therefore the calculated polygonarea is wrong, I have modified the
following lines as:

from:

```
IF version LE 8 THEN BEGIN
    polygonArea = header.area * 0.1 ; km^2
ENDIF ELSE BEGIN
    polygonArea = header.area / 10^magnitude ; km^2
ENDELSE
```

to:

```
IF version LT 9 THEN BEGIN
    polygonArea = Double(header.area) * 0.1 ; km^2
ENDIF ELSE BEGIN
    polygonArea = Double(header.area) / 10.0^magnitude ; km^2
ENDELSE
```
