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Subject: Re: Digital Chart of World (WorldMap)

Posted by [Martin Schultz](#) on Thu, 03 Dec 1998 08:00:00 GMT

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Nando lavarone wrote:

> Hi all,  
> I need to access to the IDL database of DCW.  
>  
> Particularly I need a function returning a vector  
> of lat/lon coordinates of a feature (e.g. rivers or coasts)  
> in a region of interest,  
> starting from the coordinates of ROI (e.g. 4 corners in lat/lon).  
>  
> Does someone know how to resolve this problem?  
>  
> Greetings,  
> Nando  
>  
> --  
> Nando lavarone  
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> via Lazzaro Belli, 23  
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I can only suggest a quick "lowres" resolution to your question: Draw your map in a limited window `map_set...,limit=[..]` and overlay your "feature" in a specific color. Then you can perform a `tvrd()` and "query" the resulting byte array for values of that specific color (e.g. rivers = `where(image eq 3)`). You would still have to convert the pixel index to coordinates (so you better choose a simple projection), and you cannot resolve individual features (i.e. you will not get a vector of say the amazon river). So, probbaly, this isn't of too much help.

One more thing: I discovered that there may be some inconsistencies in the map database: when I tried something like the above to create maps with individually color coded countries, I discovered, there were a few places where country boundaries did not end at a coastline but left a little gap instead (this screwed up my fill algorithm). Same thing may be true for rivers, so if you get your vectors, and you want to re-construct a river you may end up forming a lake if two rivers don't meet exactly (this was with the low res data set).

Martin.

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Subject: Re: Digital Chart of World (WorldMap)  
Posted by [Mark Hadfield](#) on Mon, 07 Dec 1998 08:00:00 GMT  
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Nando lavarone wrote in message <36672204.665D0EDC@acsys.it>...

> Hi all,  
> I need to access to the IDL database of DCW.  
>  
> Particularly I need a function returning a vector  
> of lat/lon coordinates of a feature (e.g. rivers or coasts)  
> in a region of interest,

In map\_continents.pro, there is a function called MAP\_GETINDEX which reads the index data (position in file, number of points, lon/lat range for each segment) in a map index file. The index files have names like

.../IDL52/resource/maps/high/\*.ndx  
.../IDL52/resource/maps/low/\*.ndx

Attached is code for a function, MAP\_GETDATA, which reads the lon/lat data for a specified segment. The data files have names like

.../IDL52/resource/maps/high/\*.dat  
.../IDL52/resource/maps/low/\*.dat

MAP\_GETDATA calls FDECOMP from the IDL Astronomy Users Library (<http://idlastro.gsfc.nasa.gov/homepage.html>)

To find all the segments for a specified ROI, you need to read in the index data then search for lon/lat ranges that match the ROI. Unfortunately, segments don't correspond very well to "features", ie a coastline or river

may be split into several segments.

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### File Attachments

1) [map\\_getdata.pro](#), downloaded 99 times

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