
Subject: MAP_SET vs MAP_PROJ_*

Posted by [KM](#) on Wed, 10 Nov 2004 16:09:37 GMT

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In a different thread, I mentioned MAP_SET, and David Fanning wrote:

> Well, the MAP_PROJ_*** routines are quite good and can be used
> with either direct or object graphics. And of course you get a
> much more complete set of map projections and options when you use
> them.

I hadn't know about the MAP_PROJ_* routines, as I haven't used IDL since 5.6 when they were introduced.

I don't need the extra projections, nor the fine-grained detail of the major/minor planet axes, etc.

Can anyone recommend one over the other? Is there a speed difference?

Also, this is an educational product, and it would be great for the kids to be able to print & make globes out of their maps. Here are some possibilities:

<http://www.progonos.com/furuti/MapProj/Normal/ProjPoly/Foldout/foldout.html>

Has anyone added map projections to the IDL routines and can offer advice? I am comfortable modifying the routines, and in the past have added magnetically-aligned continents as an option to MAP_CONTINENTS.

Thanks,

-k.

Subject: Re: MAP_SET vs MAP_PROJ_*

Posted by [btt](#) on Tue, 08 Feb 2005 18:01:47 GMT

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Gadhavi wrote:

> Dear Friends,
> I tried to run the program given by Ben that is mapTest. I found
> that map_continent and map_grid subroutines are not accepting the
> keyword map_structure. I am using IDL 5.6. The subroutine shown by Ben
> is very useful for my purpose. Any suggestion to overcome this problem
> Thanking you

Hi ,

Those routines did not accept the MAP_STRUCTURE until IDL 6.1. Your alternative is to set all of the paramters with the tradtional MAP_SET procedure.

Ben

Subject: Re: MAP_SET vs MAP_PROJ_*
Posted by [Gadhavi](#) on Thu, 10 Feb 2005 05:15:35 GMT
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Ben Tupper wrote:

> Gadhavi wrote:

>> Dear Friends,

>> I tried to run the program given by Ben that is mapTest. I
found

>> that map_continent and map_grid subroutines are not accepting the
>> keyword map_structure. I am using IDL 5.6. The subroutine shown by
Ben

>> is very useful for my purpose. Any suggestion to overcome this
problem

>> Thanking you

>

> Hi ,

>

> Those routines did not accept the MAP_STRUCTURE until IDL 6.1. Your
alternative

> is to set all of the paramters with the tradtional MAP_SET procedure.

>

> Ben

Thank you Ben

I have IDL version 5.6. I have to use GCTP routine which are available through only MAP_PROJ_INIT function. I also tried to modify !MAP system variable by assigning it to the results returned by MAP_PROJ_INIT function but I could not get the work done. Let me tell more details about the work I want to do. I have MODIS satellite data for land reflectance. Which are available on the grid of size 1200 x 1200 on Integerized Sinusoidal projection. Latitudes and Longitudes for four corner points are also given. I can create the image of the size say 400 x 400 from given data using rebin. This image I want to project over map with political boundaries and rivers. First of all Integerized sinusoidal projection is not available in MAP_SET. So I have to use MAP_PROJ_INIT function. It appears to me that this function do not accept keyword "limit" with 8 elements giving 4 corner latitudes and longitudes. Rather it accepts limit keyword with diagonal values of latitude and longitude. This may not be correct for my problem as given image is not rectangular in terms of latitude and longitude. This is

one part of my problem. Another problem is that I want to extract the data values for station with known latitude and longitude. For that purpose I want to calculate nearest index number to that station. I will highly appreciate the help in this regard

Thanking you

HG

HG

Subject: Re: MAP_SET vs MAP_PROJ_*

Posted by [Gadhavi](#) on Wed, 16 Feb 2005 16:02:07 GMT

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Hello! Friends,

I am looking for a way to change the map projection for the data given in one projection. It seems that it is straight forward job with Map_proj_image routine but unfortunately I am still using older version of IDL (5.6) in which this routine is not available. I will highly appreciate it if some one can show way out from the problem I have mentioned in my earlier message. Even reference to the similar post will do.

Thanking you in anticipation

Harish Gadhavi

Subject: Re: MAP_SET vs MAP_PROJ_*

Posted by [KM](#) on Wed, 16 Feb 2005 22:15:01 GMT

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On Wed, 16 Feb 2005, Gadhavi wrote:

> I am looking for a way to change the map projection for the data
> given in one projection. It seems that it is straight forward job
> with Map_proj_image routine but unfortunately I am still using
> older version of IDL (5.6) in which this routine is not available.
> I will highly appreciate it if some one can show way out from the
> problem I have mentioned in my earlier message. Even reference to
> the similar post will do.

Hi Gadhavi,

I've noticed the silent non-replies to your questions. This newsgroup is usually very helpful, so I think maybe you cannot do what you want easily. I can think of a few options:

1) Take the MAP_PROJ_* routines from an IDL 6.1 install and get them

working in 5.6. Maybe this just involves compiling them, maybe it is impossible.

2) Upgrade to 6.0 or 6.1 or whatever version supports your routines
Note that if you just need to convert 1 file 1 time or something like that, maybe you could do all the required work in < 7 minutes. If this is the case, you can do it with the free demo/trial version. I think writing to files is disabled, but print your data to screen, then cut and paste.

3) Find the equations to convert from your current projection (Integerized Sinusoidal projection?), and then hand-code a reverse lookup, or hand-code a conversion from that to a projection that is easier to deal with (Cylindrical/Equirectangular).

4) Find a different piece of software to solve your problem. If you want/need to use IDL for other parts, then do suggestion 3 with different software, then continue in IDL.

Good luck,

-k.

<http://spacebit.dyndns.org/>

Subject: Re: MAP_SET vs MAP_PROJ_*
Posted by [savoie](#) on Thu, 17 Feb 2005 18:18:14 GMT
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Ken Mankoff <mankoff@yahoo.com> writes:

> On Wed, 16 Feb 2005, Gadhavi wrote:
>> I am looking for a way to change the map projection
>> <snip>

> I've noticed the silent non-replies to your questions. This newsgroup is
> usually very helpful, so I think maybe you cannot do what you want easily. I
> can think of a few options:
>
> 4) Find a different piece of software to solve your problem. If you want/need
> to use IDL for other parts, then do suggestion 3 with different software,
> then continue in IDL.

I can think of two tools that might be useful.

The MODIS Reprojection Tool:

<http://edcdaac.usgs.gov/landdaac/tools/modis/about.asp>

And possibly:

The MODIS Swath-to-Grid Toolbox (MS2GT) is a set of software tools that can be used to read HDF-EOS files containing MODIS swath data and produce flat binary files containing gridded data in a variety of map projections. Multiple input files corresponding to successively acquired 5 minute MODIS "scenes" can be processed together to produce a seamless output grid.

<http://nsidc.org/PROJECTS/HDFEOS/MS2GT/>

Good luck.

Matt

--

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