Subject: 6-1-75-6 W5M --> LOCAL GRID
Posted by Mark Chan on Mon, 26 Mar 2001 04:23:22 GMT
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GIVEN:
Point A @ 6-1-75-6 W5M (Take this to be the origin. Some where in Canada).
Point B @ 1-1-75-6 W5M
Point C @ 16-1-75-6 W5M

QUESTIONS TO BE ANSWERED:
What is the distance between A and B?
Ans: B is 5 miles east of A.

What is the distance between A and C?
Ans: sqrt(5^2+5^2). C is NE of A.

Etc. calculation like these.

QUESTION FOR IDL EXPERTS:
Is there a public domain IDL routine to do the conversion between the land system above to local coordinate?

Thanks in advance,
Mark Chan

Subject: Re: 6-1-75-6 W5M --> LOCAL GRID
Posted by btt on Tue, 27 Mar 2001 13:43:37 GMT
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Hi Mark,

I have not heard of such a system of conversions,... but, it's not clear to me what the 'land' coordinates of points A, B and C mean. There is code to convert between Lon/Lat in decimal degrees to UTM coords in meters. From the UTM coordinate system you can then get relative range/azimuth values between the points. You might even be able to translate the UTM coords to the Canadian equivalent of the US State Plane coordinate systems.

Perhaps you could provide more details about these coordinate systems.

Ben

Mark Chan wrote:
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Ben Tupper
Bigelow Laboratory for Ocean Sciences
180 McKown Point Rd.
W. Boothbay Harbor, ME 04575
btupper@bigelow.org

Subject: Re: 6-1-75-6 W5M --> LOCAL GRID
Posted by Martin Trobec on Tue, 27 Mar 2001 21:10:52 GMT
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Hi Mark

You can convert well uwi to utm (northing-metres, easting-metres) using
D. W. Lepard and K. N. Nairn TOWNSHIP UTILITIES program (1996) available
at the University of Calgary bookstore for about $20. The program will
output utm coordinates from a input Canadian uwi well list, or output
utm coordinates from a input lat/long list for all the western Canadian
provinces (including the BC land system). The default projection is
NAD27 but you have a few other choices.

Once you have the utm well file you can use IDL to calculate distances
from point to point (like your euclid example calculation).

Lepard's program will also create a vector file to plot section and
township maps for overlaying your utm well locations (NAD27 projection).

If you purchased ENVI with your IDL program, you can use ENVI to convert

the map to about 38 different projections.

Martin Trobec

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Subject: Re: 6-1-75-6 W5M --> LOCAL GRID
Posted by Mark Chan on Wed, 28 Mar 2001 05:23:12 GMT
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Ben,

Could you point me to the site where I may find out more about the
conversion porgram that you mention?

As per Martin Trobec's posted reply, there seems to be a program one can
buy. However, I will like to see if the conversion program you mention will
do the job or not.

Thanks,
MC

"Ben Tupper" <btupper@bigelow.org> wrote in message
news:3AC09909.5241880A@bigelow.org...

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> Ben Tupper
> Bigelow Laboratory for Ocean Sciences
> 180 McKown Point Rd.
> W. Boothbay Harbor, ME 04575
> btupper@bigelow.org

Subject: Re: 6-1-75-6 W5M --> LOCAL GRID
Posted by btt on Wed, 28 Mar 2001 13:36:40 GMT
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Hi Mark,

I wrote the LL to UTM transformation code (and the reverse) using the
methods outlined in the following reference:

; REFERENCE:
; J.P. Snyder, "Map projections - A working manual',1987,
; U.S.G.S. Professional Paper 1395, Supt. of Docs No: I 19.16:1395,
; U.S. Govt Printing Office,Washington, DC 20402.

I don't have that code handy here, but will send it to you.

Ben

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