
Subject: Re: create an UTM grid

Posted by [David Fanning](#) on Mon, 28 Nov 2011 22:33:17 GMT

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nata writes:

```
> Thank you David. Just to be sure, if I want a grid of 1000x1000, 1km
> resolution and centered on 45.42419lat -73.9372lon, is the following
> code right ?
>
> center_lat=45.42419
> center_lon=-73.9372
> xdim=1000
> ydim=1000
> resolution=1000.
>
> map_utm=MAP_PROJ_INIT('UTM', /GCTP, CENTER_LON=center_lon,
> CENTER_LAT=center_lat, ELLIPSOID=24)
>
> xycenter=MAP_PROJ_FORWARD(center_lon, center_lat,
> MAP_STRUCTURE=map_utm)
>
> x_grid=xycenter[0] + FINDGEN(xdim)*resolution - xdim/2.*resolution
> y_grid=xycenter[1] + FINDGEN(ydim)*resolution - ydim/2.*resolution
>
> result = MAP_PROJ_INVERSE(x_grid, y_grid, MAP_STRUCTURE=map_utm)
>
> lon=REFORM(result[0,*])
> lat=REFORM(result[1,*])
```

Well, something like that. :-)

More like this, I think. (Maybe this is what you had.)

```
mapStruct = Map_Proj_Init('UTM', /GCTP, $
    Center_Lon=-74, Center_Lat=45, Ellipsoid=24)
xycenter = Map_Proj_Forward(-74, 45, Map_Structure=mapStruct)
xstart = [xycenter[0]-49995
ystart = [xycenter[1]-49995
```

```
xgrid = Findgen(1000)*1000 + xstart
ygrid = Findgen(1000)*1000 + ystart
```

```
xdim = 1000
ydim = 1000
```

```
xgrid = Rebin(xgrid, xdim, ydim)
ygrid = Rebin(Reform(ygrid, 1, ydim), xdim, ydim)
```

Cheers,

David

--

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
