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Subject: Map\_Image and interpolation

Posted by [Ben Tupper](#) on Wed, 08 Dec 1999 08:00:00 GMT

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```
<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
```

```
<html>
```

```
Hello,
```

```
<p>I have a set of ship positions (Lon/Lat in WGS 84 map datum).&nbsp;
I also have a bathymetric grid which I have warped into a tranverse mercator
projection (Datum = WGS 84). The ship locations plot correctly on the warped
image. Now I would like to interpolate values off of the warped image between
consecutive ship locations.
```

```
<p>I need to interpolate between two locations using Z = INTERPOLATE(WarpedGrid,
X, Y) where X and Y are vectors of arbitrary length in WarpedGrid coordinates.
```

```
<p>I tried the some thing terribly clever, like this:
```

```
<p>Sz = Size(WarpedGrid, /Dimensions)
```

```
<p>NormalXYZ = Convert_Coord(ShipLon, ShipLat,/Data,/To_Normal)
```

```
<br>X = NormalXYZ[0,]*(SZ[0]-1)
```

```
<br>Y = NormalXYZ[1,]*(SZ[1]-1)
```

```
<p>Good try, but the X, Y values are not located correctly on the WarpedGrid
and the ship seems to be aground.&nbsp; Oopsie!
```

```
<p>So how do I go from Ship Lon/Lat to WarpedGrid[X,Y]?
```

```
<pre>Thanks,</pre>
```

```
<pre>Ben</pre>
```

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<pre>--&nbsp;
```

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&nbsp;</html>
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