Subject: Re: Interpol. irregular grid to irregular grid
Posted by Mark Hadfield on Thu, 08 Feb 2001 20:32:40 GMT
View Forum Message <> Reply to Message

<deja_jlin@my-deja.com> wrote in message news:95nn6i$25g$1@nnrp1.deja.com...
> howdy!
>
> i'm trying to interpolate data from one irregular
> 2-D grid to another (different) irregular 2-D
> grid:
>
> - does IDL have any other built-in functions
> besides MIN_CURVE_SURF that can do this?

Not that I'm aware of. It's a pity because there's no fundamental reason why TRIGRID (for example) couldn't be modified to handled irregular output grids.

> - does anyone have any warnings regarding the
> behavior of MIN_CURVE_SURF?

Yes! It's terribly slow when the input grid is of a significant size. For an NxN input grid, the execution time of MIN_CURVE_SURF increases as approx. N^3. This is because the alogorithm is non-local, i.e. every point in the input grid affects every point in the output grid.

> - has anyone implemented irregular-to-irregular
> interpolations using other algorithms?

No but you could try calling TRIGRID repeatedly, once for every output point...

Mark Hadfield
m.hadfield@niwa.cri.nz http://katipo.niwa.cri.nz/~hadfield
National Institute for Water and Atmospheric Research