Subject: surface fittin
Posted by Tal Feingersh on Fri, 04 Mar 2005 13:45:37 GMT
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hello,

i have a certain physical phenomenon that i visualize in IDL with a surface (or image), where x and y dimensions are the explaning independent variables and the z dimension is the dependent variable. this surface has usually a rather smooth variation and its icludes a "topography" of "hills" and "valleys".

i also want to save a formal definition of this surface (its polynomial coefficients) so i can use it for further analysis later on.

i worked with SFIT for that and used a 6th order polynomial which does a good job (when looking at the output image it creates). however, when trying to reconstruct that image that i see, by using the required x, y and the coefficients, the resulting surface is far from being similar to what the surface really is. i managed to fully and exactly reconstruct a 3x3 Gaussian. so i know that i read the KX coefficients correctly. i also defined my x and y variables correctly (100% sure). but is doesn't work for my 72x15 pixels surface. KX is a floating point output. it could be that when saved as double precision, results will be better. but there is no keyword for that.

any other ideas?
thanks in advance.

Tal