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Subject: interpolation!

Posted by [hwang](#) on Wed, 21 Jan 1998 08:00:00 GMT

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I want to use bilinear to interpolate.

I have the values of five points:

$(x_1, y_1, t_1), (x_2, y_2, t_2), (x_3, y_3, t_3), (x_4, y_4, t_4), (x_5, y_5, t_5)$ .

Suppose  $t$  is the function of  $x$  and  $y$ :  $t=t(x,y)$ .

Now I want to know the value of  $t$  at the given point  $(x,y)$ . How can I use bilinear routine to interpolate?

According to the manual, the bilinear need three arguments:

`bilinear(p,ix,jy)`

$P$  is a 2 dimensional array.

$ix$  and  $jy$  are "virtual subscripts" of  $p$ .

If  $p$  is 2 dimension, how can I feed in the values of  $(x_1, y_1, z_1)...$ ?

What is the meaning of "virtual subscripts"?

There is another method. If I suppose the general form of bilinear function:  $t=ax+by+cxy+d$ . I can get the coefficients  $(a,b,c,d)$  using some routines, but?????

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