
Subject: More 3-D transformations

Posted by [philaldis](#) on Fri, 11 Jun 1999 07:00:00 GMT

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Well I thought while a few people are talking about 3-d transformations, I thought I'd try and get in and ask a question that I really can't work out.

For starters I don't understand how !p.t really works. I'm only 18 and my double maths A-Level certainly did not stretch to 4-d transformation matrixes. So, I really do know nothing about them, which is why I'm finding this problem a very difficult one to solve.

In this object/direct graphics thing that I'm doing (which by the way anyone going to the RSI England user seminar will hear about because I'm doing a talk on it) positions are always a 4 element vector [x, y, x, y]. The system is not at all 3-d and so that made sense.

However I have also written surface objects (which use direct graphics to display). I want these also to have a 4 element position vector [x,y,x,y], which is the same as for a plot.

i.e. It would be as if you displayed the surface in the z graphics buffer then displayed the image at the right position using tvimage.

So what I want to know is how can I set up all the x, y, z, scaling factors and !p.t, and whatever, based on the xz and xy rotations so that the surface WILL appear within a specified 4 element position vector.

I hope I've made what I would really like clear. If anyone can help, I would be SO SO grateful.

Cheers,
Phil Aldis
