Subject: Re: Finding all angles within a range of directions; an algorithm question
Posted by Struan Gray on Mon, 15 Apr 2002 13:18:45 GMT
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@yahoo.com writes:

> Could anyone please advise on a better way to do this?

Construct a rotation matrix which describes a rotation of the original angular coordinates into the 'reference frame' of the plate, i.e. which translates theta and phi into theta* and phi* where theta* is the angle from the plate normal.

Then just do a matrix multiply (fast in IDL) and find the items with theta* less than 90 degrees. You can probably speed it up by not bothering to calculate phi* at all, and do a matrix multiply with a vector to just find theta*.

You can either keep track of the time values by suitable identity elements in the rotation matrix, or seperate out the angular information and use where/histogram/compare* to find the indices of the elements you want.

Struan