Subject: Re: Calculate the included angle between two vectors
Posted by Chris[6] on Thu, 09 Apr 2009 17:41:36 GMT
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On Apr 9, 5:43 am, Pierre <pierre.villene...@gmail.com> wrote:
> On Apr 9, 7:14 am, "dux...@gmail.com" <dux...@gmail.com> wrote:
>
>> Is there a function which can calculate the included angle between
>> two three-dimensional vectors?
>
>> jdu
>
> Here's a simple solution. Assume v1 and V2 are each three-element
> vectors of any magnitude. Compute the angle in degrees as follows:
>
> angle = acos(transpose(v1)#v2 / sqrt(total(v1^2)) / sqrt(total
> (v2^2))) * 180./!pi
>
> Good luck.

There is an issue with this method due to the fact that acos cannot distinguish between positive and negative angles (cos(-theta) = cos (theta)).
I have found this website to be very useful for coding geometry type problems like this one:
http://local.wasp.uwa.edu.au/~pbourke/geometry/

chris