
Subject: Re: IDLgrModel, rotation angles
Posted by [James Kuyper](#) on Mon, 23 Feb 2004 18:27:40 GMT
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lyubo wrote:

>
> Hello,
>
> I have a transformation matrix and I must find the amount of rotation
> in degrees. How can I do that? Any help would be appreciated.
>
> Thank you,
>
> Lyubo

The eigenvalues of a pure rotation matrix are

```
EXP(COMPLEX(0,-theta))  
1.0  
EXP(COMPLEX(0,theta))
```

where theta is the rotation angle in radians. Therefore,

```
!RADEG*MAX(IMAGINARY(ALOG(HQR(ELMHES(rot)))))
```

Will give you back the rotation angle of rot in degrees.
