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Subject: Re: line drawing knowing angle and a point

Posted by [btt](#) on Wed, 21 Jul 2004 20:13:00 GMT

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Francois Leduc wrote:

> Hello,  
>  
> I there a fast way to draw a line in an image knowing 1) the angle of the  
> line (with the vertical direction) and 2) a point belonging to the line ?  
>

Hello,

Assuming that you angle is acute, the following should work.

$y = a + bx$   
p = point at x,y  
theta = angle in radians

$b = \tan(\pi - \theta)$   
 $a = py - b * px$

theta = 0.4 & p = [11,3]  
 $b = \tan(\pi - \theta)$  &  $a = p[1] - b * p[0]$   
 $x = \text{findgen}(40) - 20$  &  $y = a + b * x$   
plot, x,y  
plots, p[0], p[1],/data, psym = 5

Ben

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