Subject: Re: One ellipse to rule them all
Posted by Vince Hradil on Mon, 11 Feb 2008 23:55:41 GMT
View Forum Message <> Reply to Message

On Feb 11, 5:06 pm, ianpaul.free...@gmail.com wrote:
> On Feb 11, 4:51 pm, David Fanning <n...@dfanning.com> wrote:
>
>> ianpaul.free...@gmail.com writes:
>>> I'm hoping someone has done this before and can help me out.
>
>>> I have a bunch of x,y points, and I'd like to find the ellipse (with
>>> minimum area) that encompasses all of them. Any thoughts?
>
>> I can show you how to find an ellipse:
>
>> http://www.dfanning.com/ip_tips/fit_ellipse.html
>
>> To enclose all the points I would, uh, expand it
>> slowly. :-)
>
>> Cheers,
>
>> David
>
>> --
>> David Fanning, Ph.D.
>> Fanning Software Consulting, Inc.
>> Coyote's Guide to IDL Programming (www.dfanning.com)
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
> My gut tells me I should be able to do it analytically. I *think* the
> two points that have the largest separation should define the major
> axis and position angle. Then I just need to fit for the minor axis
> from the rest of the points, and the largest one is the winner.

Look here - and references therein:
http://www-eleves-isia.cma.fr/documentation/CgalDoc2.4/basic
_lib/Optimisation_ref/Class_Min_ellipse_2.html