Subject: Re: union or overlap of two plots
Posted by Spon on Tue, 22 Jul 2008 16:26:46 GMT
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On Jul 22, 3:59 pm, kedmond <kedm...@gmail.com> wrote:
> Chris,
>
> Thanks for the quick response. Your solution worked amazingly
> well....now I have to sit and figure out why!

All I'm doing is finding out which is the lower of the two values for each point in the dataset with the MIN call, and storing the result in YMin. Then I'm using integration to find the area under the new YMin curve.

> To make the min()
> function work, I had to set y1 and y2 equal to their transpose() since
> min() wants the data to be in vector form. Once I did that, your
> instructions work as stated.

Yes, I had forgotten that PLOT will automatically 'flatten out' the input in a way that array concatenation won't.
I guess to make the solution more general you could add in the Reform command before the concatenation:

```
ny = N_Elements(y1)
FlatY1 = Reform(y1, ny)
FlatY2 = Reform(y2, ny)
YMin = Min([[FlatY1], [FlatY2]], Dim = 2)
```

Here's some tutorials to help you figure out what IDL's doing here:
http://www.dfanning.com/tips/rebin_magic.html
http://www.dfanning.com/tips/array_concatenation.html

The second one explains what all the square brackets are doing, but I've found it's far easier to get your head around if you take the time to read the first one beforehand!

>
> Thanks again.
>
> -Kazem

All the best,
Chris