Subject: Re: How do I create a plot which looks something like a Matrix Plot in IDL ?
Posted by James[3] on Sat, 02 Jan 2016 21:30:21 GMT
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On Saturday, January 2, 2016 at 9:51:16 PM UTC+1, Jim P wrote:
> On Saturday, January 2, 2016 at 10:31:50 AM UTC-7, James wrote:
>> I have two dataset scenarios. Each scenario is an output from a model and each scenario contains an array of values in the x (horizontal) axis and 10 arrays of values in the y (vertical) axis. I am trying to create a plot which looks like this
http://www.mathworks.com/matlabcentral/answers/uploaded_file s/42412/3.png
>> I have been looking for a plot function in ENVI IDL which can help make these plots but so far I did not find any. Can anybody help? Even better if someone can suggest a better graphical/visualization/plot option to display these two multivariate datasets so that the differences are conspicuous enough. With line graphs the visualization is not clear enough because the same values overlap on top of each other.
>>
>> Following are my scenarios.
>>
>> SCENARIO A
>>
>> x= [0, 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1]
>> y1= [0, 0, 0.02, 0.01, 0, 0, 0, 0, 0, 0, 0, 0]
>> y2= [0.01, 0, 0.05, 0.1, 0.19, 0.6, 0.87, 1, 1, 1, 1, 1]
>> y3= [0.02, 0.05, 0.2, 0.69, 0.99, 1, 1, 1, 1, 1, 1, 1]
>> y4= [0.02, 0.12, 0.25, 0.97, 1, 1, 1, 1, 1, 1, 1, 1]
>> y5= [0, 0.12, 0.68, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y6= [0, 0.2, 0.84, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y7= [0.01, 0.49, 0.97, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y8= [0.01, 0.51, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y9= [0.01, 0.82, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y10= [0, 0.84, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>>
>> SCENARIO B
>>
>> x= [0, 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1]
>> y1= [0.01, 0.03, 0.01, 0, 0.01, 0, 0, 0, 0, 0, 0, 0]
>> y2= [0.01, 0.07, 0.04, 0.13, 0.23, 0.5, 0.92, 1, 1, 1, 1, 1]
>> y3= [0.01, 0.03, 0.2, 0.61, 0.99, 1, 1, 1, 1, 1, 1, 1]
>> y4= [0.02, 0.06, 0.4, 0.99, 1, 1, 1, 1, 1, 1, 1, 1]
>> y5= [0, 0.24, 0.61, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y6= [0, 0.26, 0.88, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y7= [0, 0.51, 0.99, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y8= [0.02, 0.64, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y9= [0.02, 0.87, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>> y10= [0.01, 0.94, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]
>
> The simplest way may be to use a widget_table with cell colors, then take a screen capture.
>

> Jim P.
********** **********

Dear Jim,

Thanks a lot for your helpful comments. I have never used WIDGET_TABLE function before since I am quite new to IDL Programming. The idea seems interesting and I want to try it. I am right now looking at the help page http://www.exelisvis.com/docs/WIDGET_TABLE.html
Do you know whether this function allows automatic addition of cell colours based on the range of values present or do I need to manually assign cell colours to the values? Additionally, if I assign colours to the cells which hold the values, will the values be still visible or I can replace the values just with colours? Apologies if I am asking some basic questions which may be otherwise common knowledge among the IDL Programmers' community. It would be a great help if I can find an example. I will search the web for it. If you have any other suggestions they are welcome.

James