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An Example

First a simple GUI example is given to allow the user to quickly observe the graphing capabilities of Stripper. Next command line examples are described.

Simple Example

Start the Stripper application. Choose the Data menu and then the Open Data File. Select PLT005.DAT. Next place the mouse in the drawing area, hit the right mouse button, and select Auto. The AutoCommand dialog box is displayed. Select 4 plots per graph. Use the PageUp and PageDown keys to view graphs of the document.

Command Line Examples

The following example opens a the data file PLT005.DAT and then automatically generates a command file. The command file is automatically generated by using the a=1 option. This option displays 1 plot per graph. The first plot will display column 1 vs column 2 of the data file and the 2nd plot will display column1 vs column 3 and so on until all the columns are displayed.

start /max stripper /d=PLT005.DAT /a=1

The next example is similiar to the first but there will be 3 plots per graph.

start /max stripper /d=PLT005.DAT /a=3

If a command file already exits, the user should use the following example.

start /max stripper PLT005.STP /d=PLT005.DAT

If you would like to compare to data files use the following procedure from the command line.

start /max stripper /d=PLT005.DAT,PLT006.DAT /a=3

Definitions

<u>series</u> - represents a single XY trajectory on a plot <u>plot</u> - this is a box which contains up to 10 series <u>graph</u> - this is a page of the command file document which can contain up to 6 plots <u>data file</u> - this file contains plotting data <u>document</u>- command file which dictates which data in the data file is used for plotting

Command Line Options

/d=file1.dat,file2.dat,	where file.dat is the data file
/a=#	 auto command where # is the number of plots per page
/m=#	 multi command where # is the number of data files to
compare	
/c=#	- auto mulit command where # is the number of plots per page
/р	- print all graphs

Command File

The command file (*.stp) stores the current graph document which dictates the information to be graphed. The data files are not stored in this document.

Data File

The user may open (or actually import) a data file by selecting the Data menu and then choosing Open Data File. A standard open dialog box will be displayed. The user may select one or more data files to open. If the user would like to delete a date file then select the Data menu item and then choose Clear Data. A dialog box will then prompt the user to delete selected or all data files. The use may delete files by also double clicking a file in the list box.

The data file can have unlimited rows and up to 100 columns. The maximum data files read in at one time is limited to 50. If these limits are unsatisfactory, contact the author to increase the values. See Registration menu in the Stripper application.

Data files may be dragged and dropped on the application.

Below is an example data file.

```
T: BELL 230, 6920 lbs, 120 knots
S: ILS Approach Tests
D: Test 1
C: time h velocity roll
U: *sec* *feet* *knots* *deg*
        0.00000e+00   1.50000e+03   1.00000e+02   0.00000e+00
        2.00000e-01   1.50006e+03   1.00000e+02   -1.77695e-01
        4.00000e-01   1.50021e+03   1.00013e+02   -3.77410e-01
        6.00000e-01   1.50043e+03   1.00028e+02   -4.01005e-01
        8.00000e-01   1.50102e+03   1.00046e+02   -2.97496e-01
        1.00000e+00   1.50102e+03   1.00068e+02   -1.32345e-01
        1.20000e+00   1.50135e+03   1.00097e+02   1.07169e-02
        1.40000e+00   1.50168e+03   1.00131e+02   1.00785e-01
        1.60000e+00   1.50231e+03   1.00167e+02   1.52624e-01
        1.80000e+00   1.50231e+03   1.00249e+02   1.83343e-01
```

The header is not manditory but allows the user to easily edit the graphs. Below is the definition of the header components.

T: title
S: subltitle
D: used in the legends when comparing data files with the same column names
C: column names
U: unit names

The first column in the data file is reserved for header designators and pen operations (^). The symbol ^ may be used to pick up the pen during graphing. Below is an example data file which demonstrates the usage.

T: Test File
S: Pen Pick Up Demo
C: Column1 Column2 Column3 Column4
U: *unitless* *unitless* *unitless*
 1.10000e+00 2.00010e+04 6.77000e+04
 1.20000e+00 4.01000e+04 3.77000e+04

^			
	1.30000e+00	3.00000e+04	6.77000e+04
	1.40000e+00	4.10000e+04	6.77000e+04
^			
	1.50000e+00	5.00010e+04	4.77000e+04
	1.60000e+00	4.00000e+04	6.77000e+04
^			
	1.70000e+00	4.00001e+04	6.77000e+04
	1.80000e+00	3.00000e+04	8.77000e+04
^			
	1.90000e+00	5.00000e+04	6.77000e+04
	2.00000e+00	4.00000e+04	6.77000e+04
^			

Edit

The graph may be editted using the Edit menu or by clicking the right mouse in the graph area which also displays the Edit menu.

Graph

A graph is 1 page of the stripper document. Each graph can contain up to 6 plots. The user can add, delete, move, and change the graph titles.

Adding a graph

From the Edit menu choose Graph and then Add. A new graph will be inserted after the current graph.

Deleting a graph

From the Edit menu choose Graph and then Delete. A dialog box will be displayed. The use may select a graph and then press the Delete button or the user may double click a graph selection to remove the graph from the document.

Move a graph

From the Edit menu choose Graph and then Move. A dialog box will be displayed. The user may select a graph and then use the spin buttons to the left to move the graph up or down.

Changing graph titles

From the Edit menu choose Graph and then Titles. A dialog box will be displayed. The user may use automatic titles and subtitles or disable the option and change the strings.

Plot

A plot is used to display data files series selections. Each graph can contain up oo 6 plots. The user can add, delete, move, change the plot legends, change the plot scaling, and change the plot titles.

Adding a plot

From the Edit menu choose Plot and then Add. A new plot will be added to the graph and the series dialog box will prompt the user for the series to be added to the new plot.

Deleting a plot

From the Edit menu choose Plot and then Delete. A dialog box will be displayed. The user may select a plot and then press the Delete button or the user may double click a graph selection to remove the graph from the document.

Move a plot

From the Edit menu choose Graph and then Move. A dialog box will be displayed. The user may select a plot and then use the spin buttons to the left to move the plot up or down.

Changing legends

From the Edit menu choose Plot and then Legends. A dialog box will be displayed. The user may use automatic, user, or no legends. If the user option is choosen, the legend may be placed anywhere on the graph using 0 to 1 for XY placement.

Changing the scaling

From the Edit menu choose Plot and then Scaling. A dialog box will be displayed. The user may choose automatic scaling. The user may also set the scaling for all the plots in the entire document by selecting the global check box. If the user may reset the global scaling by using the Auto Reset button for each axis.

Changing axis titles

From the Edit menu choose Plot and then Axis Titles. A dialog box will be displayed. Th user may use automatic titles or disable the option and change the strings. Each plot uses separate titles.

Series

A series is a trajectory on a plot. There can be up to 10 series per plot. The series may be editted by selecting the Edit and then the Series menu. A dialog box will be displayed to allow the user to add, move, or delete series from a giving plot.

Adding a series

After the series dialog box is displayed, the user may add a series by selecting a data file column in the graph data list box. The user may either double click or use the Add Series Selection button to added the series to the plot. The first selection is the X axis and the second selection is the Y axis.

Deleting a series

After the series dialog box is displayed, the user may select a series and then press the Delete button or the user my double click a series selection to remove the series from the plot.

Move a series

After the series dialog box is displayed, the user may select a series and then use the spin buttons to the left to move the series up or down.

Zooming

While a graph is being displayed, the user may use the left mouse button and drag the zoom box around the desired area to zoom. The zoom can be used over more the one plot at a time. If the user would like to return to autoscaling the user should hold the Shift key down while using the left mouse button to select the plot to autoscale.

Auto Command Files

Stripper allows the user to automatically produce documents. The methods allowed are Auto, Multi, and AutoMulti.

Auto

If a user wants to quickly display all the data in the first data file opened, choose Edit menu and then Auto. The user is prompted for the number of plot per graph to be displayed. All of the data in the data file will be plotted against the first column (except for the first column itself).

Multi

The multiple command feature works great if user wants to compare 2 or more data files to each other which have the same number of columns. If a user wants to compare 2 or more data files first the document must already exist (like using Auto feature) and then second , choose Edit menu and then Multi. The user is prompted for the number of data files to compare. Multiple series are then displayed for data file on each plot.

AutoMulti

AutoMulti is just like Auto but works on multiple data files.

Options

The user has 2 options which can be changed. The series colors can be changed and the date format can be set to international (switch the day and month order). The date is displayed in each graph.