CYBER S?LUTI?NS

Area Under A Curve

Main Screen



The above screenshot shows the main window in the program. The basic function of 'Area Under a Curve' is to take in a text file of numbers and display these as a scrollable graph and take readings from this graph as appropriate. These readings can be saved to a .csv (comma-delimited) file which may later be opened in excel or any other program for further analysis

E-mail: Lesley@Cyber-Sol.co.uk Phone : 01382 520755

Toolbar Functions



1 Open a file of numbers for analysis (two examples of a number file are included with the demo)

2 Clear any currently set area

3 Analyse area between the intersection of the graph with the horizontal

- 4 Analyse area between the intersection of the graph and a dropped perpendicular
- 5 Show the readings which have been taken
- 6 Copy the current image to the clipboard
- 7 Show the original data
- 8 Show the smoothed data

9 Option to analyse original or smoothed data

General instructions for usage

Open a numbers file

Set options such as showing smoothed data/ type of area analysis Click in the graph to set first endpoint. Click again to set second end point. The area that is being calculated will be shown in the graph (see below)



Calculated area on smoothed data

If the area being calculated is correct then click on the 'save' button at the right hand side of the screen underneath the readings and the reading will be saved. If you wish to reset the endpoints just double click on the graph.

The intersection points with the graph at each endpoint may be dragged up and down to manually adjust the area calculation

E-mail: Lesley@Cyber-Sol.co.uk Phone : 01382 520755 WWW : <u>http://www.Cyber-Sol.co.uk</u> Mobile : 07811 442619 To move along to further data screens use the scrollbar at the top of the graph

Once you have taken all the required readings click on 'save' on the 'Area Readings' form to save all the readings to a csv file. This file may then be opening in excel for further analysis as required.

x1		y1	x2	y2	Max	Area
	20.800	118.40000	42.600	152.00000	185.000	-99.0438
	50.400	129.80000	61.300	121.00000	181.000	5.9367
	58.000	89.30000	65.400	120.50000	170.000	8.6602
	49.800	126.00000	74.700	135.20000	181.000	75.523
	76.700	143.40000	90.300	121.80000	172.500	-1.6203
	70.300	114.50000	102.600	103.40000	185.100	42.0169
	86.300	153.00000	100.200	88.90000	185.100	105.0310

Area Readings form

Further Development

Should the Area program not complete fit your requirements please contact me to discuss possible further development/customisation of the program.

LSD.

Lesley Duncan Cyber Solutions

E-mail: Lesley@Cyber-Sol.co.uk Phone : 01382 520755



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