Create Stacked Profiles

The Discover **Stacked Profile** tool creates a line graph of a nominated field displayed along a traverse base line. Stacked profile presentations of line oriented data are frequently used in geophysical and geochemistry data analysis.

Advantages offered by stacked profiles over imagery or point displays include:

- subtle trends and anomaly correlation from line-to-line can be subtle and easier to identify or display in profile data compared with contouring or imagery
- multiple data channels can be displayed at the same time with identical or varying scaling
- various filter operators can be applied to line data and the results optimally displayed in stacked profile form
- Stacked profiles created within Discover offer the following features:
- control over clipping (high and low) thresholds
- filling of a profile above or below a definable baseline (a variable area presentation)
- linear or logarithmic scaling

In order to generate a stacked profile the data table must contain a column with a unique line identifier attribute (e.g. line number) and at least one numeric data column on which to create the profile.

Example 13: Create Stacked Profiles using regular geochem soil survey data

1. Open the SYLVANIA_GEOCHEM table	Open ?X
from the Encom	Look in: 🔁 Geochemistry 💽 🗢 🖆 📰 • 🦉
Training\Sylvania\Geochemistry folder.	Workspaces Directory File name: Sylvania_Geochem.TAB Workspaces Directory File name: Sylvania_Geochem.TAB Workspaces File soft type: MapInfo (".tab) Preferred View: Automatic Help Create copy in MapInfo format for read/write Create copy in MapInfo format for read/write Standard Places Create copy in MapInfo format for read/write

2.	Display all the data in a map window.	🔤 Sylvania_Geochem Map	
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3.	Select Discover>Data Utilities>Create	Discover Geosoft MapImagery	Help Drillholes
	Stacked Profiles	Map Window Map Grid Map Autogrid Scaled Output Auto-Shade	▶
		Import and Export Surfaces menu Images menu Drillhole menu GraphMap menu Geochem menu ColourMap menu Discover 3D Menu Structure Symbols	Enhanced Layer Contr Sylvania_Geochem Ma Sylvania_Geochem Ma Sylvania_Geocherr
		Tenements	•
		Map Making	
		Object Editing Table Utilities	 Fext Search and Replace Select by Group Table Split
		Show Enhanced Layer Control Restore Autosave Workspace	Update Coordinates Transform Coordinates
		Discover Help	Keproject Coordinates Local Grid Layout
		Configuration Licensing About Discover	Assign Values Proximity Search Data Normalizing
		Exit	Line Orientation Extract Nodes Distance Calculator
			DigData menu
			Compute Area Change Plot Vectors Temporal Trends menu Create Stacked Profiles

4.	Select the SYLVANIA_GEOCHEM table	Discover - Stacked Profile
	from the Dataset pull-down list	
_		Select table
5.	Click OK	Sylvania_Geochem
6.	Select the data column to display in the	9. The baseline or x-axis may be displayed with the
	profile from the Field pull-down list. For the purposes of this exercise we will grid the Au field.	profile. Use the Baseline pull-down list to select from the range of baseline options. A baseline may be created according to the minimum, maximum,
7.	Select the column containing the unique line identifying information from the	average or median value of the data column. A user- specified baseline value can also be entered.
	Line pull-down list.	10. In the Line Style control check the Show Base Lines
8.	Check the Draw Across Nulls box to enable Discover to continue to draw a profile when a blank data field is encountered. In the event of larger gaps in the sampling interval within the one	box to display the base line or x-axis of the profile. Check the Show Field Lines to display the profile for the selected data column. Use the line style buttons next to each option to select the desired line style and colour.
	sample line, check the Distance Threshold box and enter a distance. When the distance between two sample points is greater than the value entered	A profile may be filled with a solid colour to denote samples with values above or below the baseline or a user specified value. Click on the colour buttons to change the fill colour.
	as the distance threshold, Discover will start a new profile on the same sampling line. If a distance threshold is not entered, a continuous profile for the line will be displayed	The minimum and maximum values in the data column are automatically inserted into the Clip control. Check the Above or Below box to enter another value in order to clip the data range used to the specified data range.
Sca log of dis	aling of the field data can be linear or arithmic and comply with the Scale Factor the map in which the stacked profiles are played or in units per centimeter.	

	💯 Discover : Stacked Profile 🛛 🔀
	Input Input Dataset: Sylvania_Geoch ▼ Field: Au Line: Line Line: Line Distance Threshold Fill Scale 0.1 Log/Linear: Linear Type: Input units/cm Map Scale: 1: 0.1 Clip Above 7.4 Above 7.4 Dutput Generate C:\Documents and Settings\carroll\My Documents\En E
11. The stacked single table a the mapper If you have e the baseline separate laye objects.	profiles are output to a and added as a new layer to containing the source data. elected to fill above or below the fill will be written to a er as a series of polygon

12. Close all currently open tables on	File Edit Tools Objects Query Tab
completion of this exercise	New Table Ctrl+N
	Open Ctrl+O
	Open Workspace Ctrl+A
	Open Web Service 🕨
	Open DBMS Connection
	Close Table
	Close All Close DBMS Connection

Congratulations, you are now ready to move on to the next lesson. If you are still unsure of any of the concepts here, or you wish to investigate proportional symbol sizes in more detail (from a geochemical point of view) then you may wish to attempt the following exercise.

To close your work and leave MapInfo:

Choose File > Close All and click Discard. Choose File > Exit.