## ROUGH GUIDES

# **Creating Formation Models**



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# Introduction

This Rough Guile explains how to create a formation model form Surface code depths.

Outputting the survey to the base of surface depths

Start by opening the design model that has surface depths.



A quick "Query / Section" shows the depth of each surface...

Query Section															x
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Datum 98.589	) (m)	Locate	V. exagg.	: < 1	>	Background									
					E	Back Next	Can	cel Help							

Now we first need to use the command "Output / Surface boundaries".

Output Surface Boundaries	x
Create file : DESIGN.004 Bro	owse Edit Next
Output	
Surface feature(s): A1, A2, A3 Select	Locate
Internal offset distance: 0.005 (m)	
Offset link feature: L Select Locate	
<ul> <li>Replace existing links</li> <li>Calculate terrain level at offset</li> </ul>	
Back OK Cancel Help	

This command will generate an offsetted string around the boundary of each surface code. This is to ensure that when the formation model is created, there is a decent sidewall and level transition between adjacent surface codes.

The outputted data will need to be created for the current model. So just click Next to the edit button.

We also need to ensure that all the relevant surface codes are selected, then click Ok.



#### Save and Load the file.

Even though it will look exactly the same, there is now an offsetted string inside each surface.



#### We now need to use the command "Output / Survey".

Output Survey		-	x
Create file : FORMATION	Browse	Edit	Next
Output Entire survey By Selection Filter Options Penumber points Adjust levels for surface height / depth Perpendicular to surface Back OK Cancel Help			

Here we need to specify the name of the new formation model to create. Also the important option to select is "Adjust levels for surface height / depth".

When we click Ok, LSS will display a message about needing to use "Output / Surface Boundaries". Simply click Ok, as we have already done this.

Output S	Survey	x
<u> </u>	You have chosen to output observations at the height / dep of surfaces. For best results, we would recommend you first use Output / Surface Boundaries to generate points on the inside edge of surfaces. For further information, select HELP.	oth
	Back OK Cancel Help	

LSS will then display the following window. This is to choose what level to assign to the points between adjacent surfaces. So to get a good step between difference surface depths we will select "Mean"

Output Survey							
Where a point is entirely surrounded by heighted surfaces of differing heights, please choose how the level should be calculated.							
Options Mean Highest Lowest Original							
Back OK Cancel Help							

Here are some explanations o the other options...

#### Mean

This option will calculate the mean of the highest and lowest levels.



### Highest

This option will assign the highest level of the boundary points to the new points.



#### Lowest

This option will assign the lowest level of the boundary points to the new points.



## Original

This option will keep the point at its original level.



As with other commands, Save and Load the newly created load file.

Output Survey - File Close							
Output file C:\SURVEYS\FORMATION.002							
Options Save and LOAD file							
◯ Save ◯ Delete							
Back OK Cancel Help							

The resultant formation model should look something like this:







If you need further Technical Support, or you wish to attend any training courses please contact us...

#### **McCarthy Taylor Systems Ltd**

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