

## ToolBox Help

This toolbox requires a DEM, transects shapefile, sample size and the output pathname as inputs. In the folder provided for testing the tool, the data (two DEMs and shapefile containing two transects) is saved in a folder named data and another folder is created to put the intermediate data named scratch. Multiple DEMs can be used but it is important to input the DEMs in order so that the output would be saved in order in the attribute table of input transects. Also the input shapefile containing the transects should have an attribute in the attribute table including a unique number for each transects starting from one. The outputs include the distances for different transects for different resolutions that are added to the input transects shapefile's attribute table. To verify the outputs check the attribute table.

SurfaceDistance

DEMs

C:\Users\David\Desktop\Project\_v2\data\dem3m  
C:\Users\David\Desktop\Project\_v2\data\dem10m  
C:\Users\David\Desktop\Project\_v2\data\dem30m  
C:\Users\David\Desktop\Project\_v2\data\dem100m  
C:\Users\David\Desktop\Project\_v2\data\dem1000m  
C:\Users\David\Desktop\Project\_v2\data\dem5000m

Transects

C:\Users\David\Desktop\Project\_v2\data\transects.shp

Sample size

3

Result folder

C:\Users\David\Desktop\Project\_v2\scrach

OK Cancel Environments... Show Help >>

ID	Shape *	Id	p2p9	arcBt9	arcTt9	arcM9	arcCt9	clos9	weiAvr9	biLin9	biQua9	biGub9	p2p27	arcBt27	arcTt27	arcM27	arcCt27	clos27	weiAvr27	biLin27	biQua27	biGub27	p2p84	arcBt84	arcTt84
0	Polyline	1	127852	105639	104914	104877	106657	109328	106408	105782	105747	105562	127144	105457	104947	104888	108366	111540	106570	106038	105846	105411	130034	105036	104933
1	Polyline	2	79007.6	67727.2	67097.4	67086.7	68039	70459.2	68329.2	67826	67811.4	67686.5	78701.7	67584.5	67115.9	67094.4	68611.8	71848.2	68440.8	67911.4	67874.6	67536.1	80415.2	67215.5	67101.6
2	Polyline	3	53959.6	39424.5	39227.8	39203.9	40536.3	40716.6	39849.1	39471.9	39463.7	39414.9	53747.7	39379.5	39242	39206.1	39984.0	41586.1	39720.7	39572.2	39513.5	39394.8	54881.4	39258.7	39245.5
3	Polyline	4	93615	75295.4	74752.2	74740.3	76333.2	77862.7	75834.1	75382.1	75377.7	75236.4	93270.2	75151.4	74772	74744.2	76865.5	79470.6	75854.9	75582.3	75408.5	75188.3	95332.7	74848.7	74561.2
4	Polyline	5	109155	108971	105908	105637	111841	111789	108263	107194	107157	106905	108705	106706	105941	105687	111287	114141	108540	107504	107242	106870	110990	108032	105773