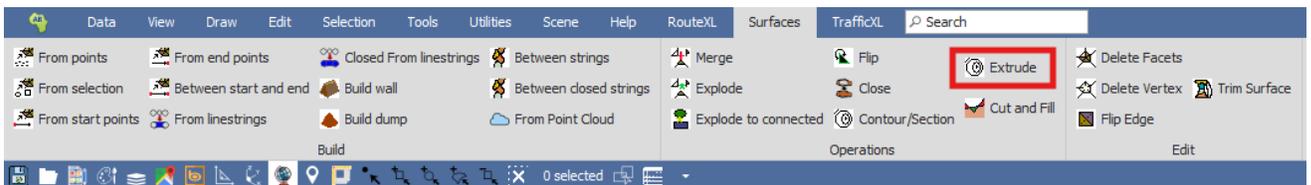
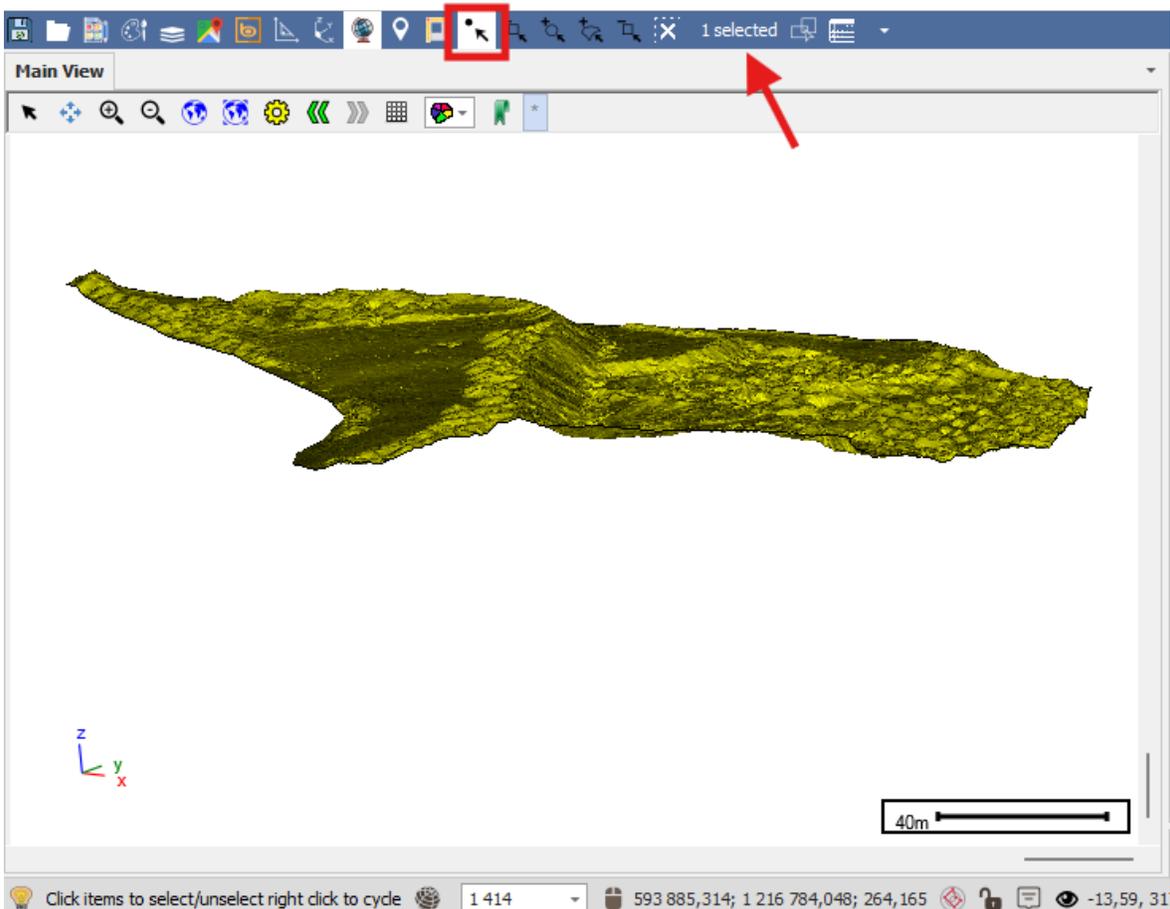


Extrude Tool

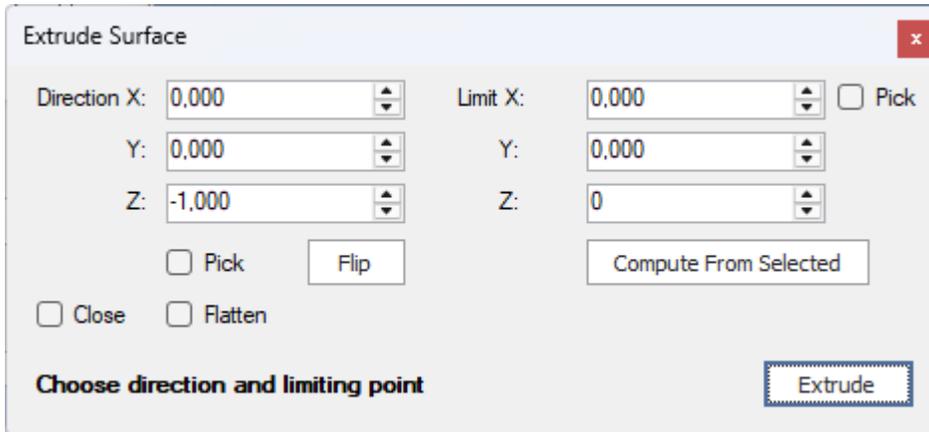
The Extrude tool is a feature in our spatial products, found in the “Surfaces” tab, that enables you to extrude out a surface by a certain amount in a desired direction.



First, select your surface, you can do this by using one of the selection tools:



Then, open the Extrude tool. You will be presented with the following dialogue:

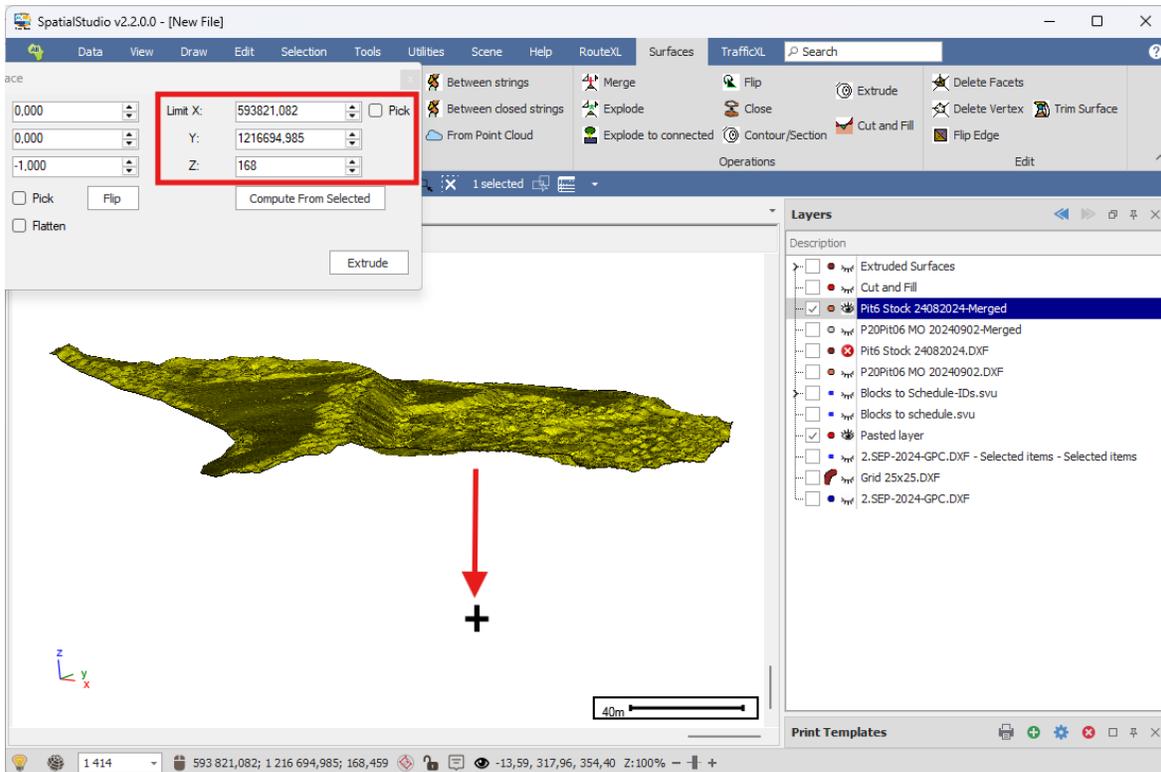


When you extrude a surface, it will choose a direction to extrude it in, the default it gives you is Z: -1 which is in a downwards direction.

You can also pick the direction using the “Pick” checkbox. Check it on, then click the from and to point in the scene and it will populate the direction values in for you.

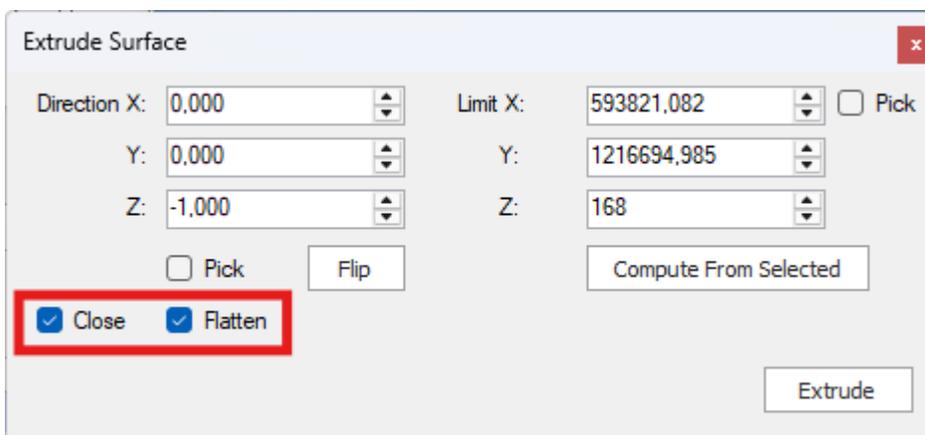
Once you have specified a direction, you can flip the direction, so it goes the other way, by clicking the {Flip} button.

Then you have to choose what level you want to extrude to. You specify the Limit X, Y and Z values either by typing them in or simply picking it from the scene using the “Pick” checkbox. Check it on then select the distance in the scene:



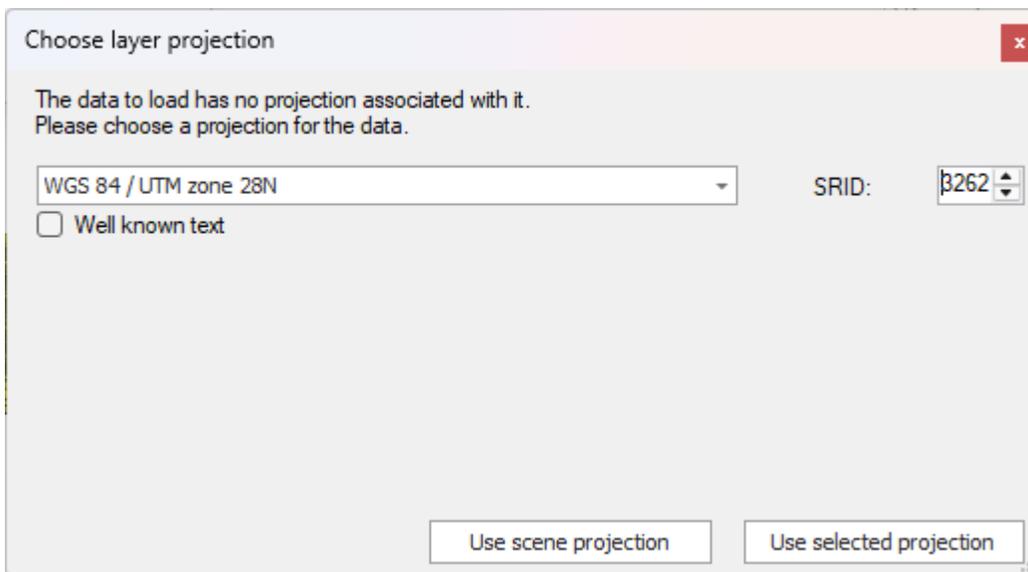
If you check on “Close” it will close the bottom part of the surface when extruded.

If you check on “Flatten” it will extrude the surface straight down without following along the original features of the surface.

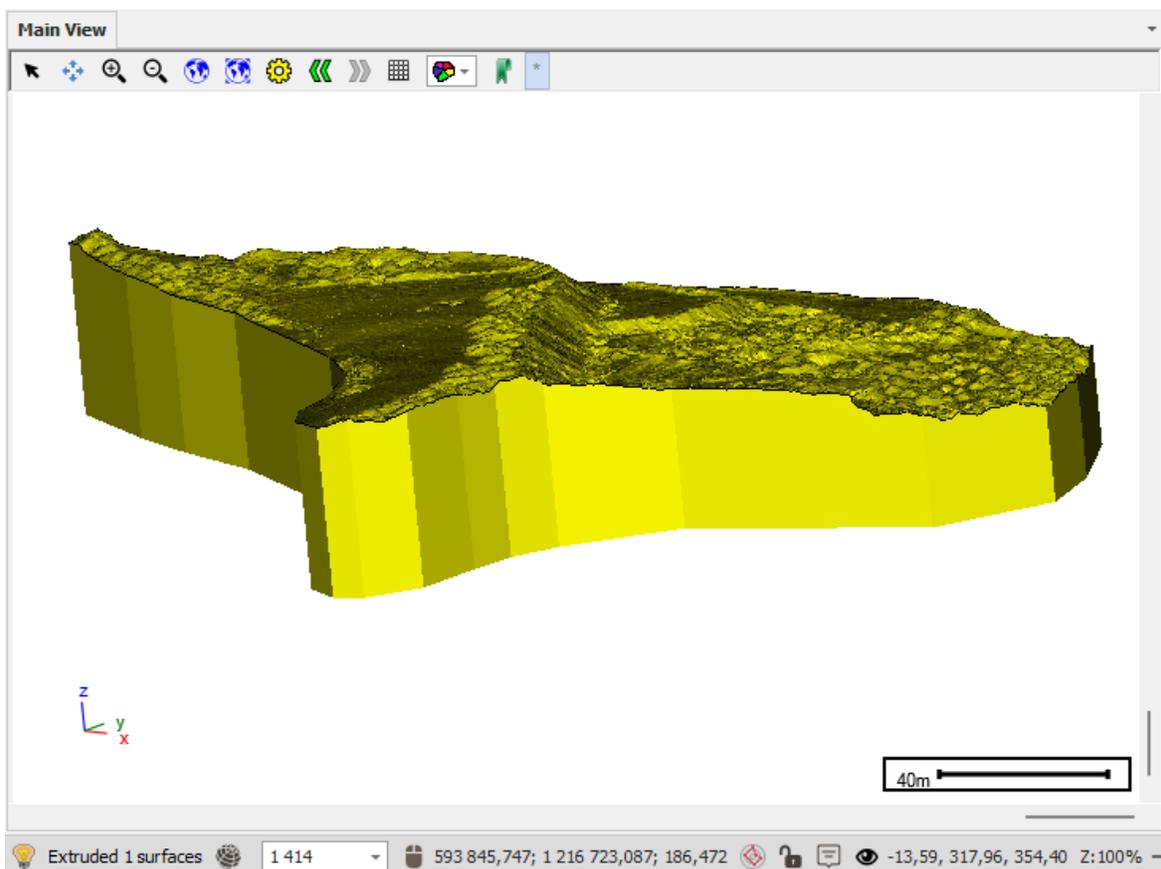


I am now ready to extrude the surface so I will click the {Extrude} button.

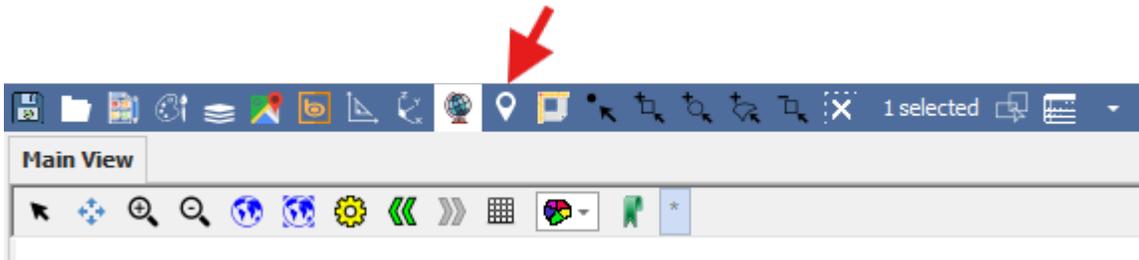
It will then prompt you to choose the projection for the new layer it will create:



It then will add the layer with the extruded surface:



If we view the properties of the surface by clicking on the Inspector tool , and then click on the surface to select it, we can see that it is a proper closed surface and we can see its volume:



Item Properties 1 of 1

Main Search

Copy Geometry Edit Geometry

Selected Visible Select Layer

Previous Next

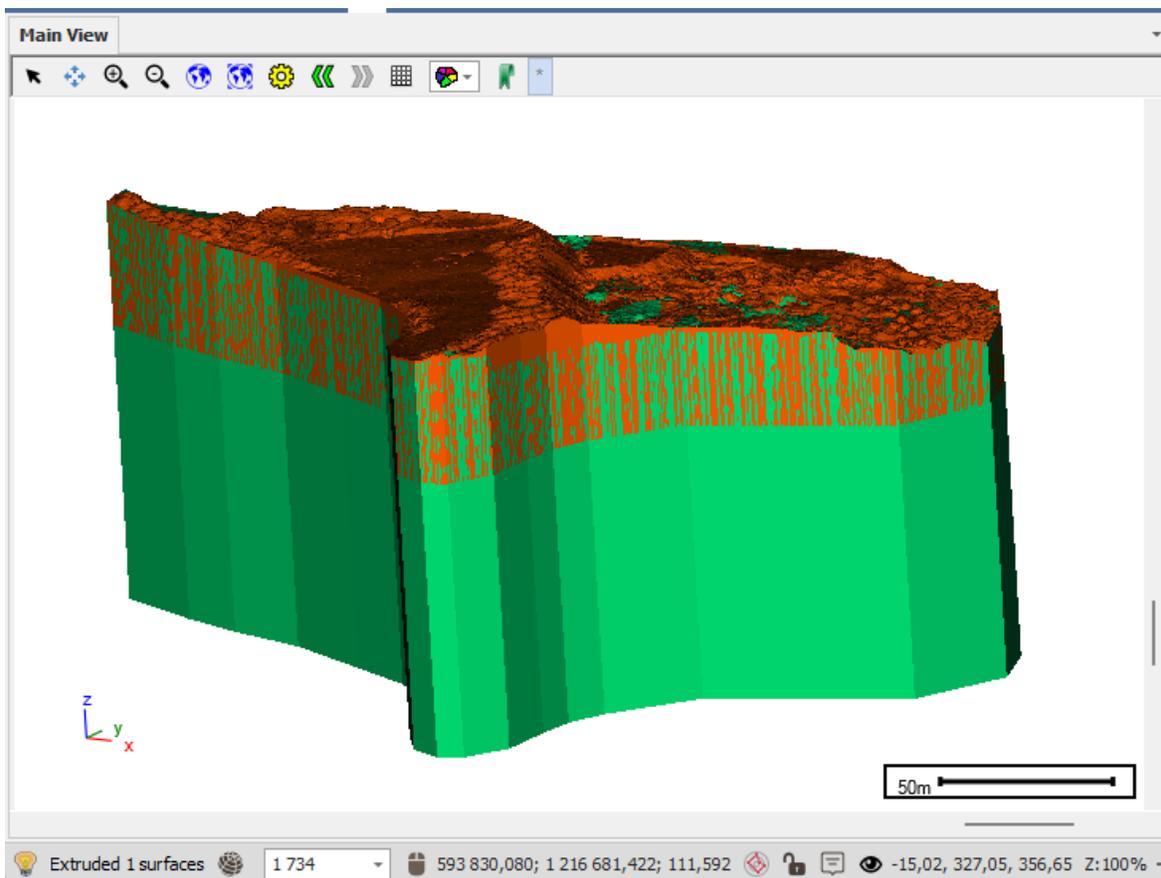
Edit Selection Navigation

Data Linked Data **Measurements** Geometry Profile Vertices Images

Measurements	
Length (metre)	0,000
Area (metre2)	79 883,616
Volume (metre3)	859 245,835
Centroid X	593 684,018
Centroid Y	1 216 814,785
Centroid Z	186,317
Dip Direction (degrees)	41,2155
Dip (degrees)	3,1388
Vertices	110068
Geometries	1
Bounds	593522.317...
Valid	<input checked="" type="checkbox"/>
Closed	<input checked="" type="checkbox"/>

Ready

With these extruded surfaces you can use them for very accurate cut and fill, where you will select both the top and bottom surfaces to extrude and then, once extruded, do the cut and fill between them.



For more information on how to use the Cut and Fill tool check out the Cut and Fill [user guide](#) and [video](#)!

You can also use the extruded surface for creating mining blocks to schedule for use in [ScheduleXL](#), our mine scheduling product.

Support



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