

ROUGH GUIDES

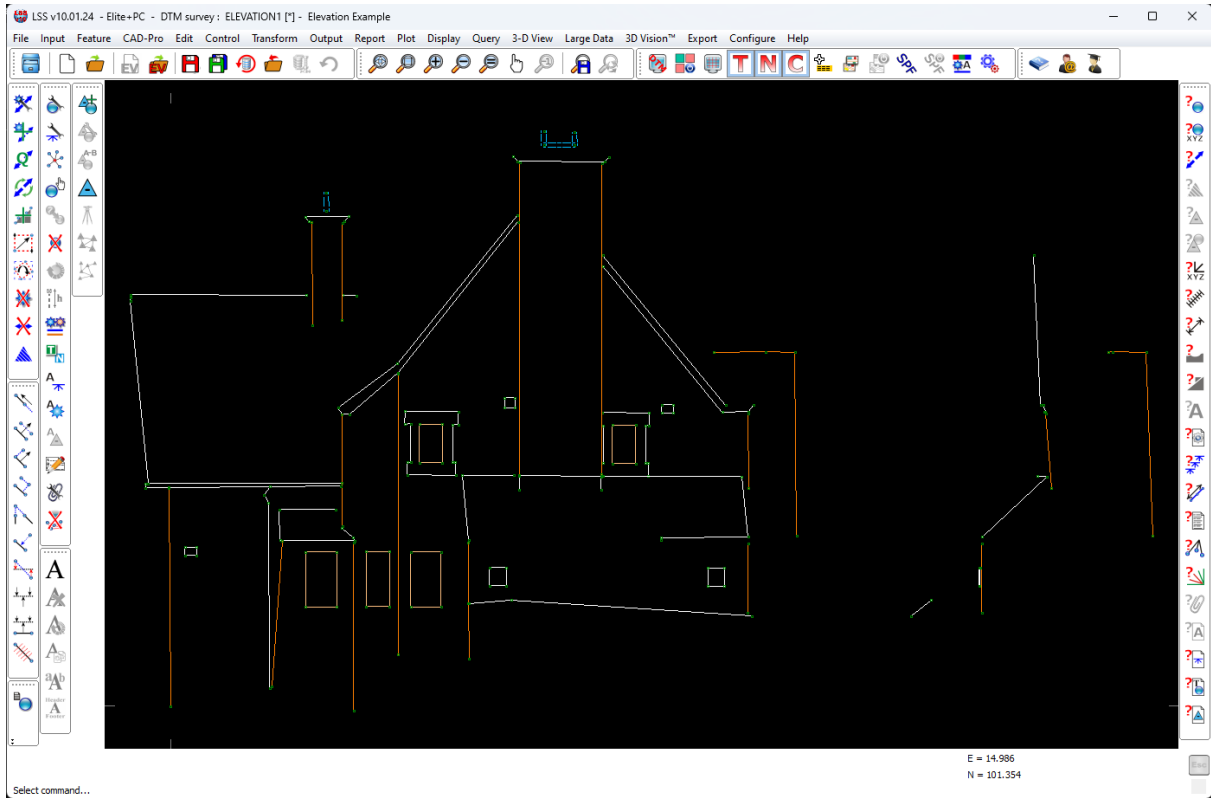
Processing a Building Elevation in LSS

LSSTM

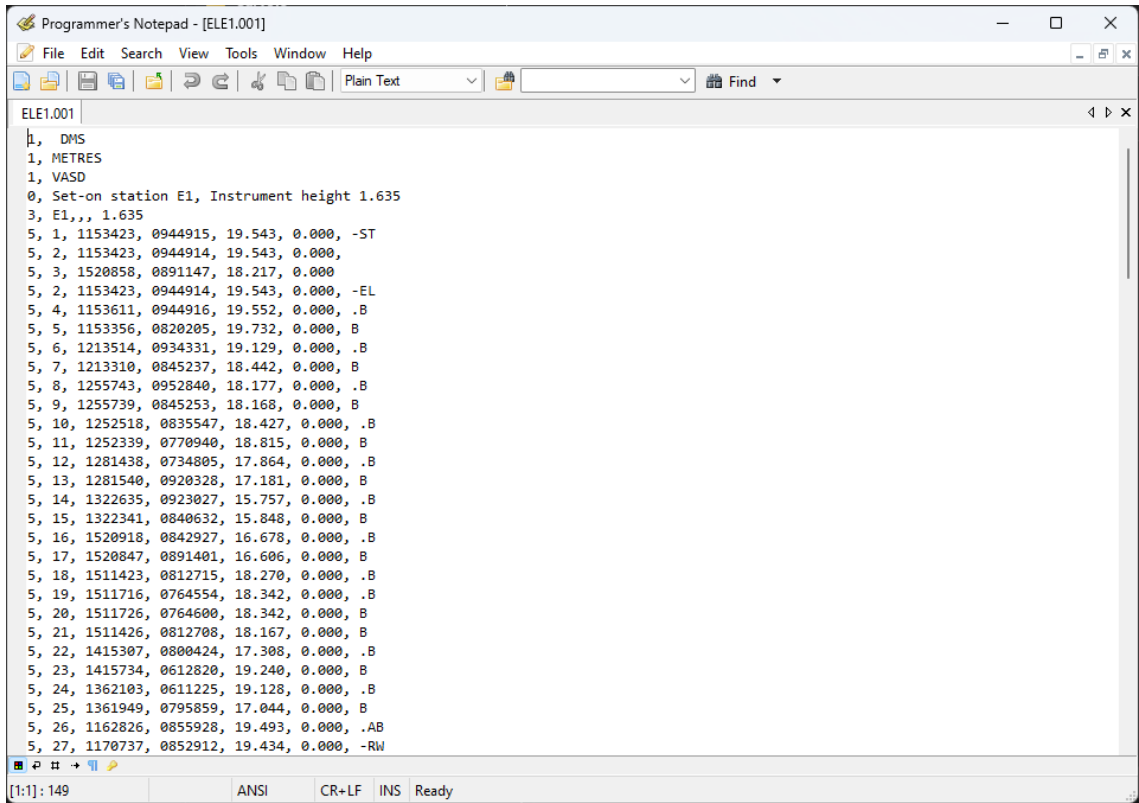
Introduction

This Rough Guide explains the process of how to create a building elevation using an LSS loadfile.

In this guide we are going to produce this building elevation.



This is an example of an LSS Load File.



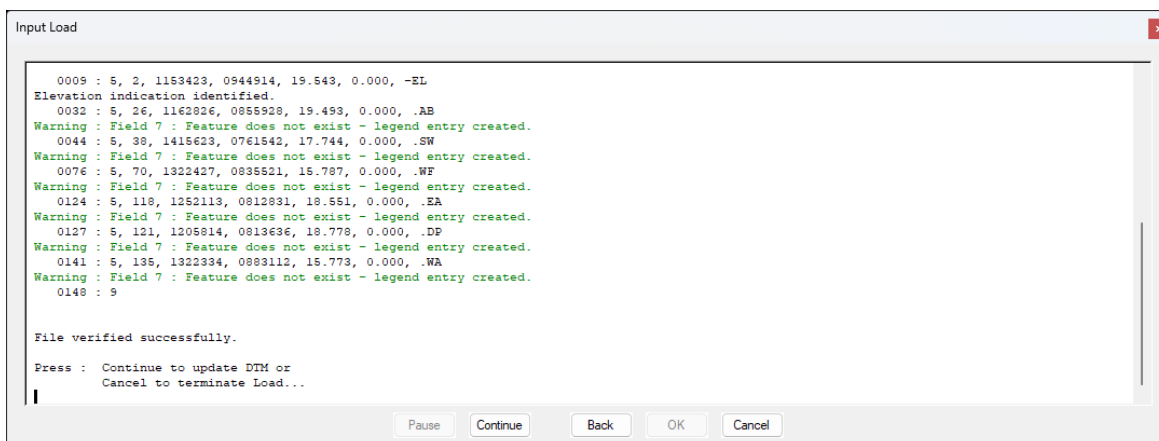
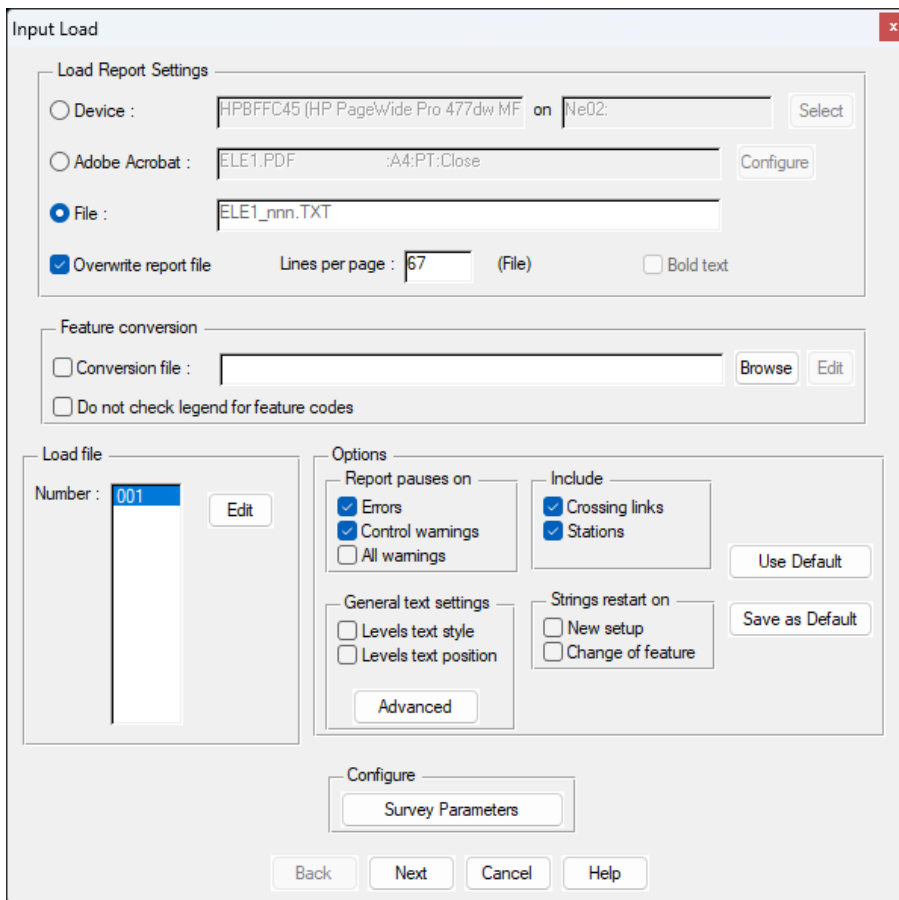
Immediately after the setup you will see the '-ST' control observation. Then following it you'll see two observations. In this file they represent two points on the ground at each end of the building façade. These two observations needn't be the baseline points, but LSS does require at least one observation to be taken before the elevation begins in order that the LSS screen has something to scale itself to and therefore show the elevation points.

If you are loading an elevation into an existing LSS survey then you can go straight into the elevation without any additional observations.

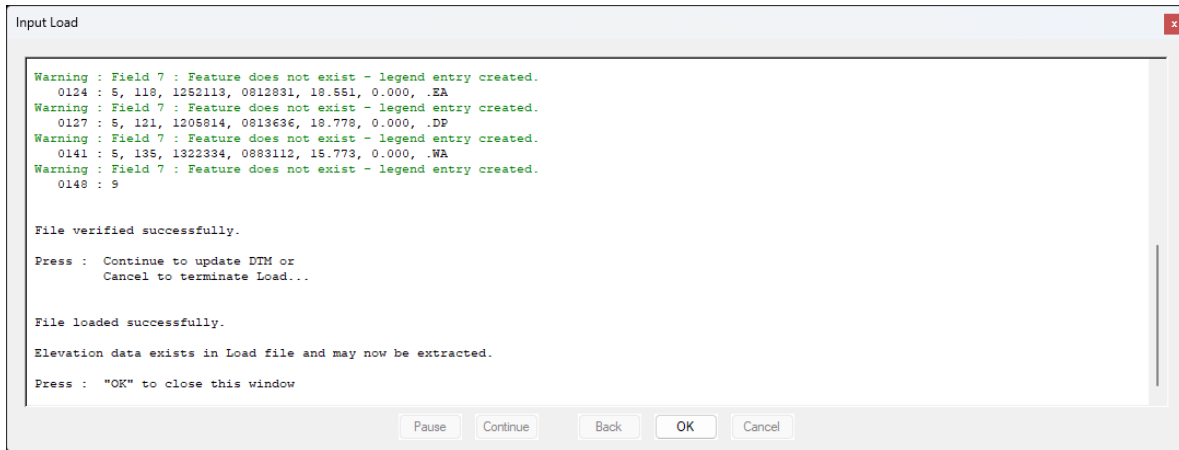
The elevation starts with the reserved code '-EL'. Every point from here until either the end of the file or the next instrument setup will be treated as elevation data.

Within the elevation dataset you can use the same feature codes you would normally use, though the only reserved code you are able to use is '-RW' which allows you to pick up the diagonal corners of a rectangle and LSS will draw the remaining two points automatically.

Create the new survey and load the elevation load file.

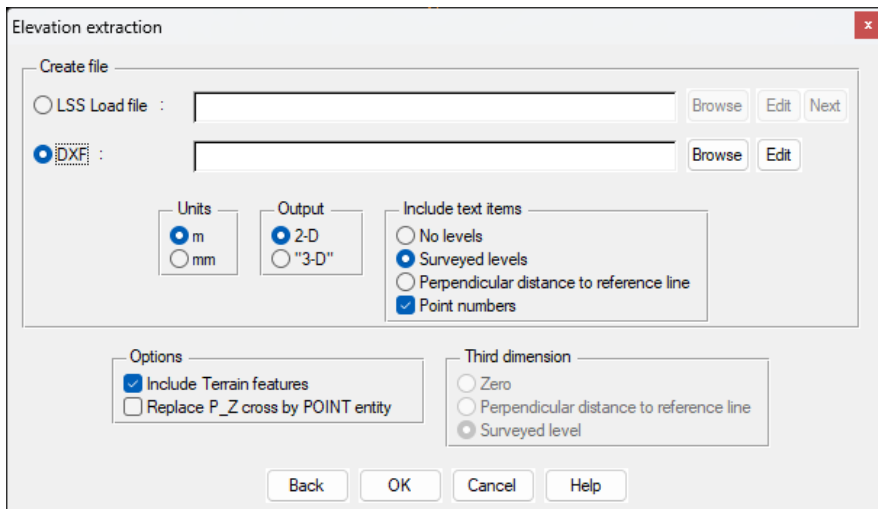
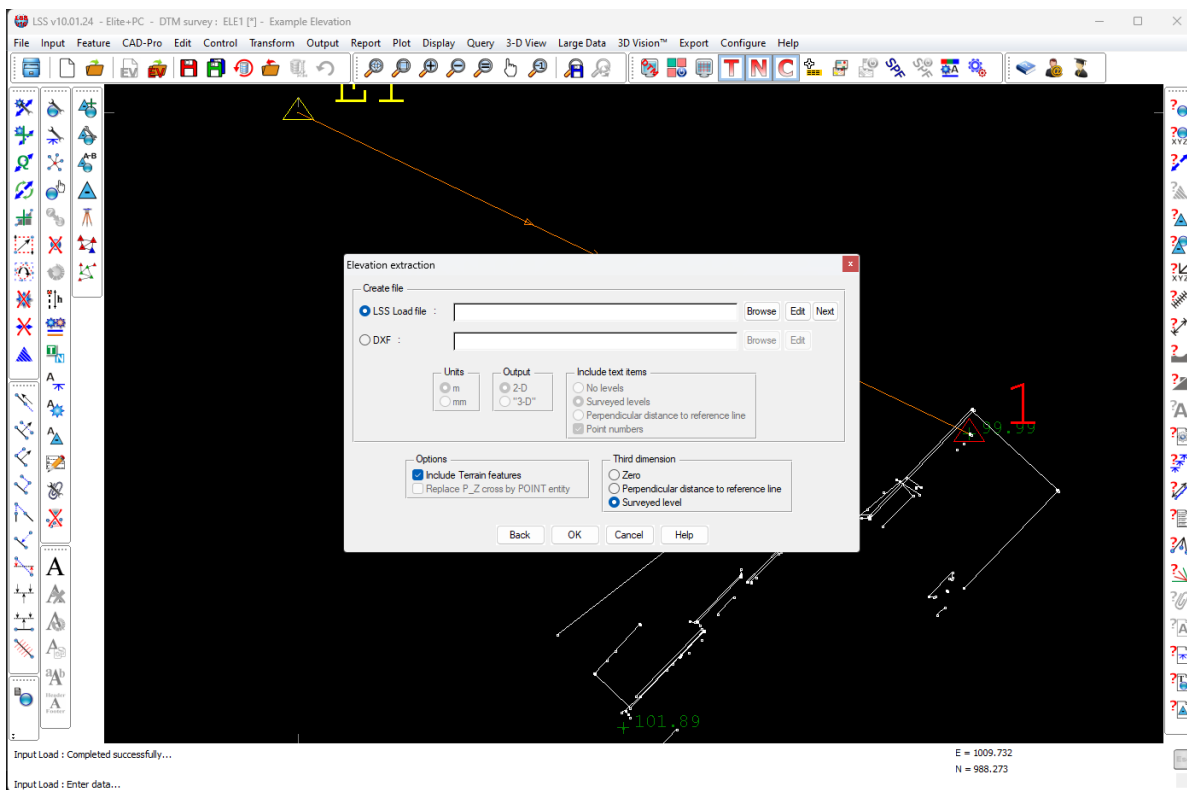


At the end of the data processing you will hit 'Continue'



The stations and two surveyed observations will appear in the background and the LSS load report window will ask if you want to 'extract' the elevation data. Hitting 'OK' will proceed to the next screen.

As soon as you hit 'OK' the elevation points will appear in white behind the next menu.



Now you choose whether to 'process' the elevation inside LSS or send the data straight out to a DXF file. We will choose the LSS route.

Type in a new survey name for the elevation.

Elevation extraction

Create file

LSS Load file : [ELEVATION1] [Browse] [Edit] [Next]

DXF : [Browse] [Edit]

Units

m
 mm

Output

2-D
 "3-D"

Include text items

No levels
 Surveyed levels
 Perpendicular distance to reference line
 Point numbers

Options

Include Terrain features
 Replace P_Z cross by POINT entity

Third dimension

Zero
 Perpendicular distance to reference line
 Surveyed level

[Back] [OK] [Cancel] [Help]

The options on this screen are as follows...

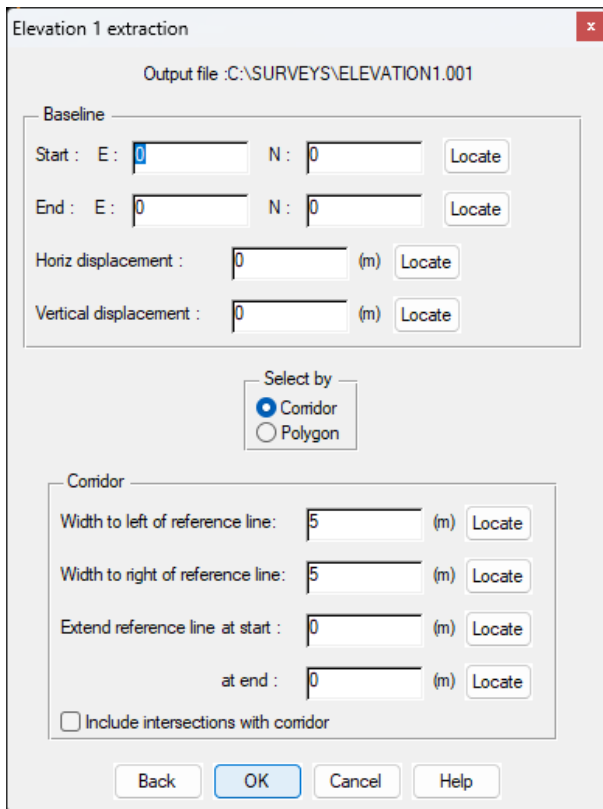
- **Include Terrain features** – If you have picked up any terrain points as part of the main topographical survey which you want to appear on the elevation. Such items may be steps, walls etc.
- **Replace P_Z cross with POINT entity** – This option is only applicable to DXFs, where the levels cross can be a POINT entity instead of a block.

Third dimension

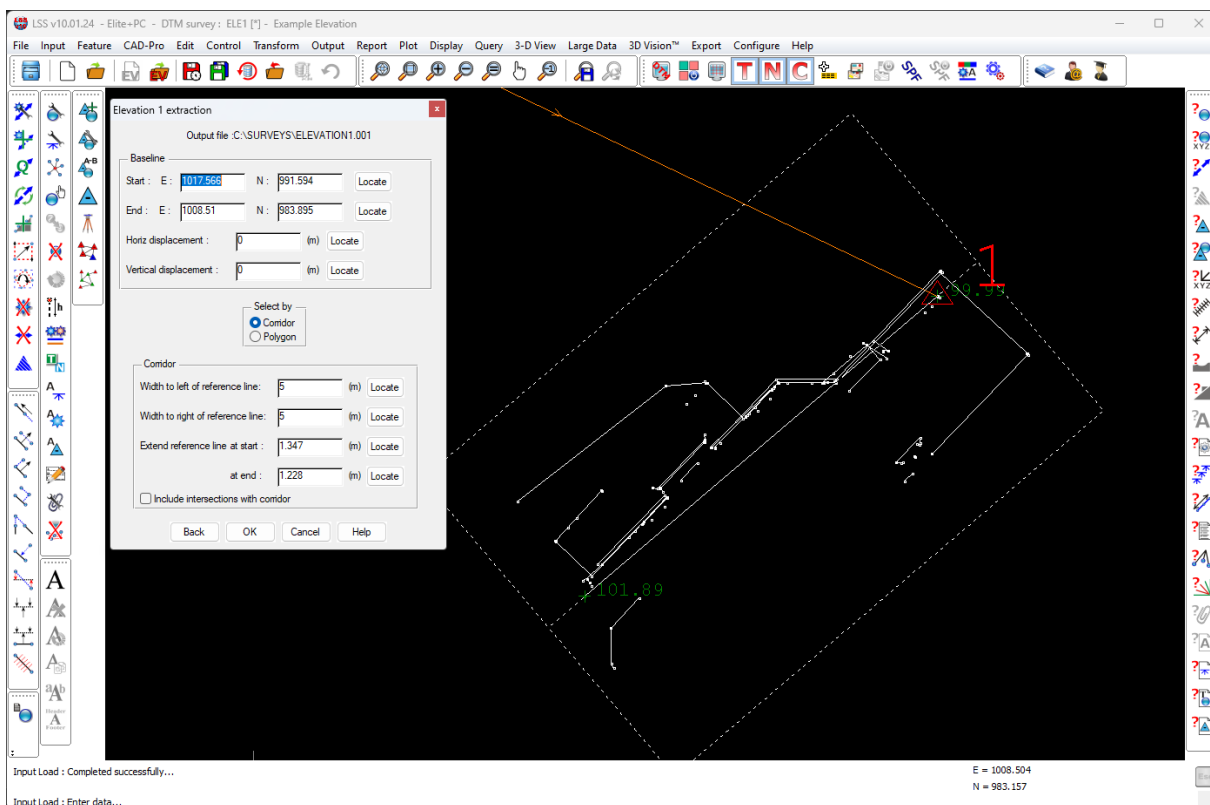
Imagine, when processed, the elevation will be the building laid on its back. The X axis will run along the front of the façade and the Y axis will run up the façade. This leaves the Z axis available for a choice of uses.

- **Zero** - All points will have a zero Z value
- **Perpendicular distance to baseline** - When the elevation is defined you will be asked to choose the baseline onto which all points will effectively be 'snapped'. If you wish to record the distance that each point is in front of or behind this baseline, then choose this option. This would be useful if repeating an elevation of an unstable building and you wanted to monitor how parts of the wall were moving relative to a fixed baseline.
- **Surveyed level** - Useful for showing the height of eaves or chimneys above the survey datum.

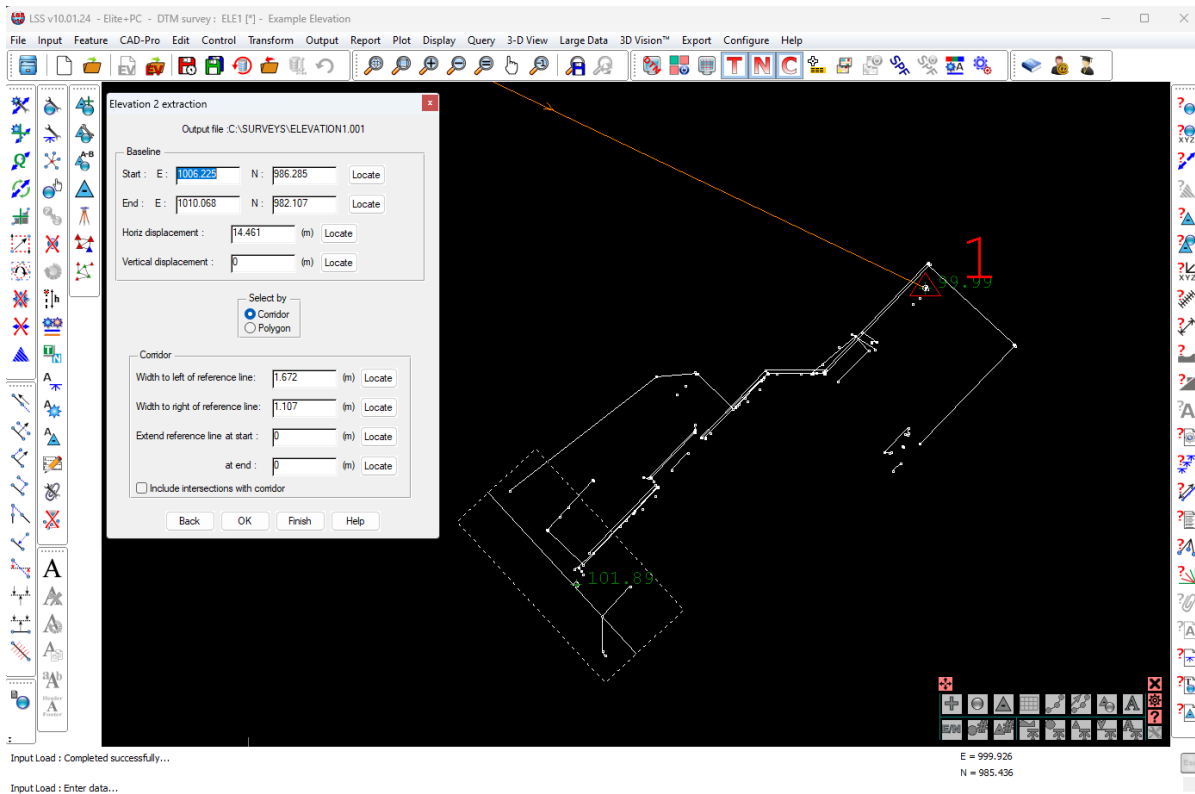
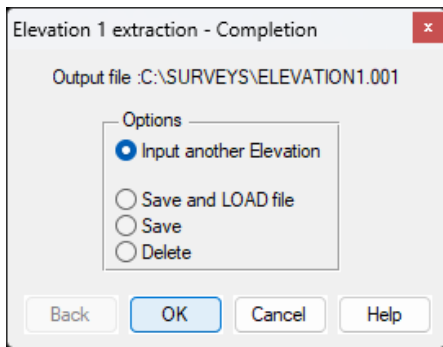
Now it's time to define the corridor.



Locate the start and end of the baseline and its width. The default mode will be to 'snap on' observations, but you can change this as required using 'Mode'.

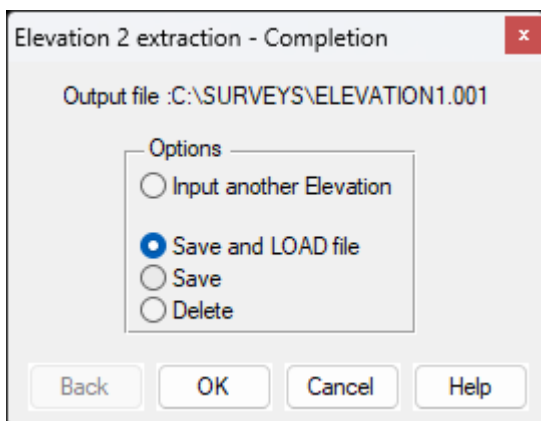


When you are happy with the corridor settings hit 'OK' and you will be given the opportunity to define another elevation using the same data. You would want to do this if the elevation included several walls and therefore several baselines.



You're not loading any more data, just defining a new elevation. Each separate elevation will be 'tacked onto' the end of the previous one, thus creating a continuous panoramic elevation.

When you've finished, click 'Save and load' and 'OK' and the current survey will be closed and the elevation survey created.



File New DTM - DTM survey

New survey : C:\SURVEYS\ELEVATION1.LSS Browse

Survey title : Elevation Example

Copy Prototype from

Survey : C:\SURVEYS\PROTOTYPE\PROTOTYPE.LSS Browse

Include stations from

None

Prototype

Survey : Browse

Handling 2-D data

Terrain is all 3-D - send 2-D data to Non-terrain

Terrain may include 2-D data - NOTE: volumes, etc, not permitted

Option

Configure Survey Parameters

Back OK Cancel Help

Input Load

Load Report Settings

Device : HPBFFC45 (HP PageWide Pro 477dw MF on Ne02: Select

Adobe Acrobat : ELEVATION1.PDF :A4:PT:Close Configure

File : ELEVATION1_nnn.TXT

Overwrite report file Lines per page : 67 (File) Bold text

Feature conversion

Conversion file : Browse Edit

Do not check legend for feature codes

Load file

Number : 001 Edit

Options

Report pauses on

Errors

Control warnings

All warnings

Include

Crossing links

Stations

Use Default

General text settings

Levels text style

Levels text position

Advanced

Strings restart on

New setup

Change of feature

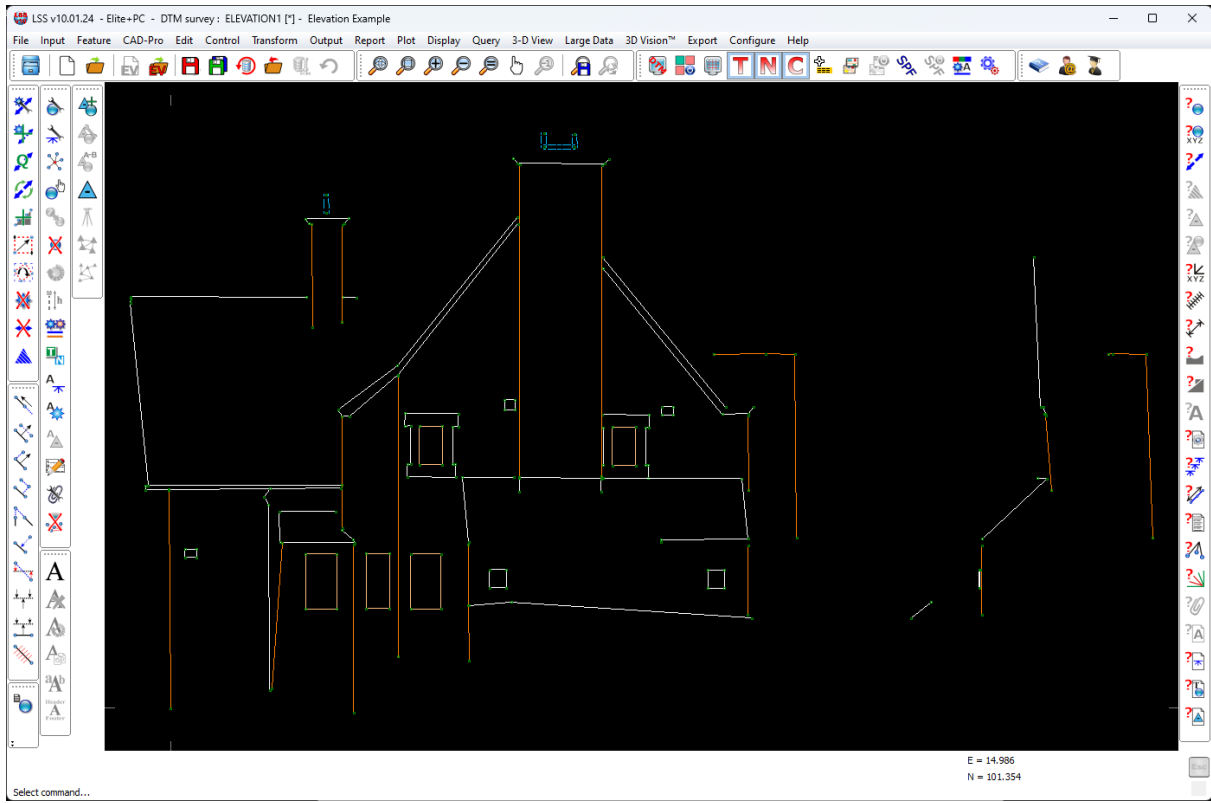
Save as Default

Configure

Survey Parameters

Back Next Cancel Help

This is the completed elevation. We've highlighted with a white rectangle those points which have come from the second baseline. See, they are added onto the end of the main elevation.



The survey can now be saved, edited and exported as required.

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

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