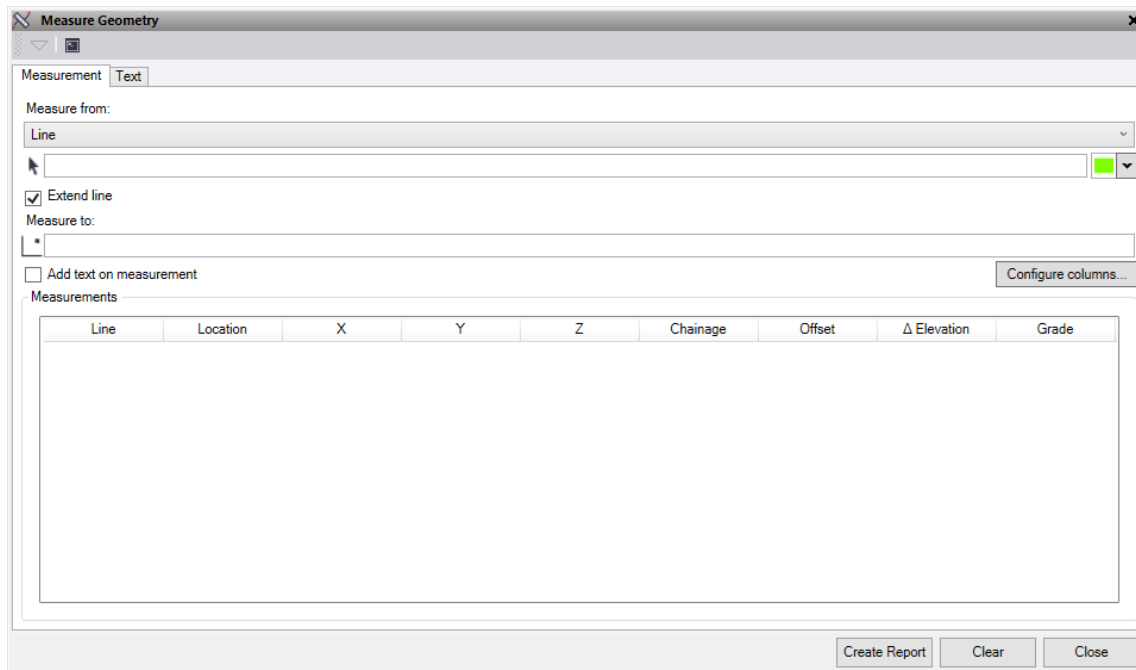




Command Description

The Measure Geometry command allows the user the ability to select a line or point as a base, then select points/nodes to calculate various measurements such as, chainage, offset, delta elevation, grade, azimuth, vertical angle, slope from zenith and distance. Annotate results to a text layer and/or create an excel report.



Measurement Tab

1. Select a **Measure from** mode to use - pick from list:
 - Choose **Line** to measure from an existing line.
 - i. Select the **Line**. Option to change the selection highlight colour.
 - Choose **Point** to measure from a base point.
 - i. Select a point.
2. If using the *point* mode, there is the option to add an **Azimuth swing** to adjust the azimuths displayed in the report.
3. If using the *line* mode, there is the option to **Extend line** to allow measurements past the end of the selected line. Note, the geometry of the last segment will be extended.
4. Use the **Measure to** pick box to select the objects to measure. These measurements will display in the *Measurements* text box.
5. Check the **Add text on measurement** box to place the measurements directly on the screen as you select each location. The settings for text display are on the **Text tab**.
6. The **Configure columns** button allows the user to nominate which measured values are displayed in the measurements text box and reported in the excel sheet.
7. Press the **Create Report** button to create an excel file of the data in the *Measurements* text box.
8. Press the **Clear** button to clear the measurements text box.

Text Tab

- Go to the **Text** tab to draw the measurements taken and recorded in the measurement tab to text.
 - Define the **Layer** – A layer called “Text – MeasureGeometry” is automatically created.
 - Choose a **Colour**
 - Choose a text **Style**.
 - Enter a text **Height**.
 - Enter a **Gap** between the location and the start of the text.
 - Choose the **Line style** used when drawing the measurement line.
 - Check the **Text on measurement line** box to align the text along the measured line.
 - Check **Include data prefix** to include the “Data” type as a prefix to the text on screen. The values available will depend on the mode chosen.

Field	Remarks	Applies to mode	
		Line	Point
X	Easting Coordinate at location	✓	✓
Y	Northing Coordinate at location	✓	✓
Z	Elevation at location	✓	✓
Chainage	Chainage value at location	✓	✗
Offset	Offset value at location	✓	✗
▲Elevation	Difference in elevation	✓	✓
Grade	Horizontal grade	✓	✓
Horizontal Dist	Horizontal distance	✗	✓
Slope Dist	Slope distance	✗	✓
Azimuth	Plan Azimuth	✗	✓
Vertical Angle	Vertical angle	✗	✓
Slope From Zenith	Percentage slope away from vertical	✗	✓

- Create Text** button will create text of all the measurements taken and currently active on the *Measurement* tab.
- Clear Layer** button will delete everything on the selected layer that contains the text.

Example: Report & Visual in TBC

Point	Location	X	Y	Z	Horizontal Dist	Slope Dist	Azimuth	Δ Elevation	Grade	Vertical Angle	Slope From Zenith
Base1	Point: Top1	503948.0096 m	6941954.7897 m	61.710 m	0.001 m	8.210 m	0°00'00"	8.210 m	8209.9987:1	0°00'25"	0.01%
Base2	Point: Top2	503952.5700 m	6941953.0850 m	61.460 m	0.007 m	7.960 m	310°47'05"	7.960 m	1107.2219:1	0°03'06"	0.09%
Base3	Point: Top3	503957.1400 m	6941951.3680 m	61.220 m	0.004 m	7.720 m	198°20'09"	7.720 m	1882.9413:1	0°01'50"	0.05%

