



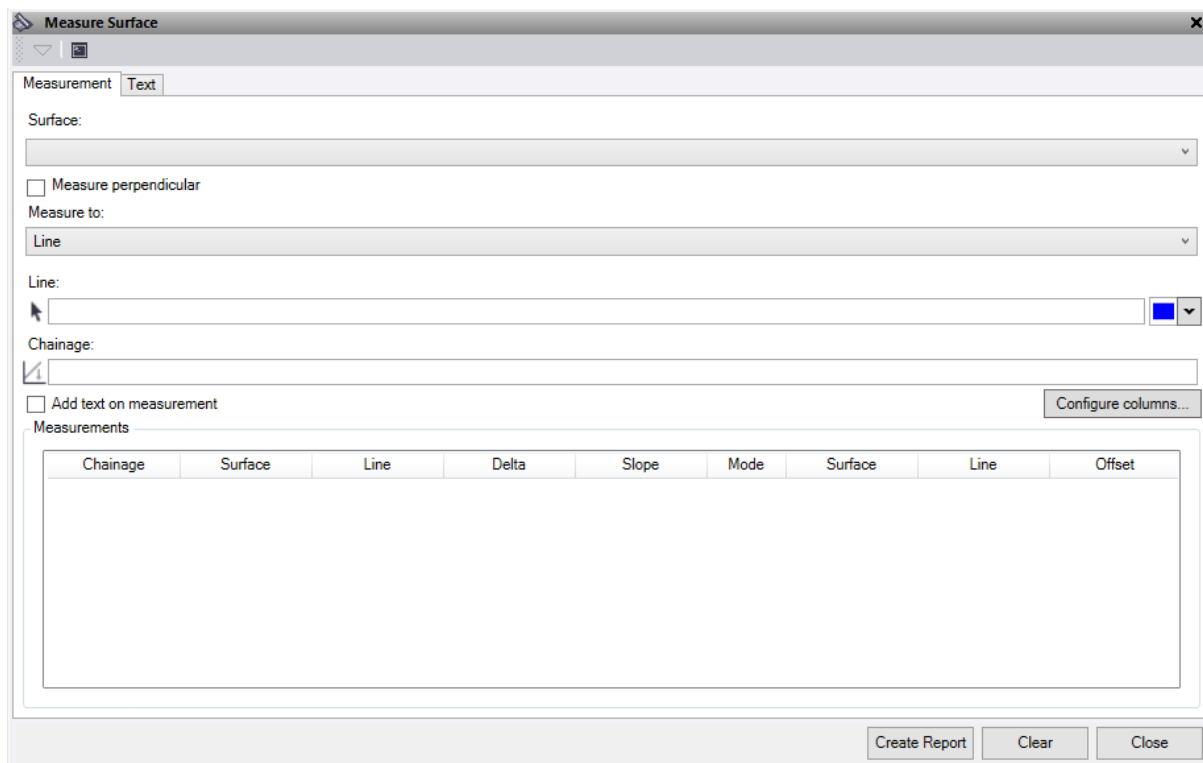
Measure Surface

Command Description

The Measure Surface command allows the user to measure a distance between an initial surface and the following entities (defined by the “Measure to” option):

- Positions on a line.
- Positions on a secondary surface.
- A collection of points.

Recorded measurements are displayed in the measurements list box and displayed dynamically in the 2D and 3D views. An excel report can be produced from the list of recorded measurements.



Chainage	Surface	Line	Delta	Slope	Mode	Surface	Line	Offset

Measurement Tab

1. Pick a **Surface** to report against (*This is the surface that the measurements will be perpendicular too if that option is used*)
2. **Measure perpendicular** check box. If this is unchecked the mode is vertical. If checked, the measurements will be the closest distance perpendicular to the first surface chosen. Note that the height used as the base for the calculation will vary depending on the measure method chosen as explained below.
3. **Measure to** - pick from list:
 - Choose **Line** to measure the surface height against a line.
 - Choose **Surface** to measure the surface height against another surface.
 - Choose **Points** to measure the surface height against one or more points.

4. If Measure to **Line** is chosen:
 - Pick in the **Line** selection and choose a line on the graphic view. Option to change the selection highlight colour. **Note**, *the highlight does not work on Pipe strings*.
 - Click in the **Chainage** box and then move your pointer over the graphic view to get dynamic position and height to the surface from the line. If you click a location on screen that chainage position is recorded in the measurements text box.
 - If a linestring is chosen, enter an optional vertical offset to be applied to the line.
 - If a pipe string is chosen, select the justification of the pipe to measure too.
5. If Measure to **Surface** is chosen:
 - Pick **Surface 2** from the list.
 - Click in the **Coordinate** box and then move your pointer over the graphic view to get dynamic position and height between the surfaces. When you click a location on screen, the position and height of surface 2 is used to project to surface 1 and is recorded in the measurements text box.
6. If Measure to **Points** is chosen:
 - Pick in the selection box and then in a graphic view select the points which you want to use or click Options for additional selection options.
 - Press the **Refresh** button to display the point results in the measurements text box.
7. Check the **Add text on measurement** box to drawing the measures directly to the screen as you select each location. These settings are found on the Text tab.
8. The **Configure columns** button allows the user to nominate which measured values are displayed in the measurements text box and reported.
9. Press the **Create Report** button to send the data in the measurements text box to excel.
10. Press the **Clear** button to clear the measurements text box.

Text Tab

1. 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 – MeasureSurface" 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 a **Line style** to be used when drawing the offset line.
 - Check **Draw delta line** to create a line for the 3d vector of the measurement.
 - Check **Align line text square to line** to draw text perpendicular to the line selected when in line mode.
 - Check **Include data prefix** to include the "Data" type as a prefix to the text on screen.
 - **Delta** – level difference from surface to measured item.
 - **Slope** – Slope of surface at the location.
2. **Create Text** button will create text of all the measurements taken and currently active on the measurement tab.
3. **Clear Layer** button will delete everything on the selected layer that contains the text.

Note: When data is measured, a graphical representation of the distance measured is shown on screen as a 3d vector. This is best viewed in the 3d view.

Example:

