


Measuring and profiling height along a line

- 1 In a view, select the 3D lines you want to place in a graph. The lines can come from either a feature theme or from graphics. If you want the lines to come from a theme, you must first activate its legend by clicking on its Table of Contents. If you want the lines to come from graphics, you must first select the line graphics.
- 2 In the project, select Layouts from the documents scrolling list. Double click on the Layouts icon or press New to open a new layout, or double click on an already existing layout in the scrolling list to open it.
- 3 Select the Profile Graph tool .
- 4 Using the cursor, define the area on the page you want the graph by moving the mouse to the upper left corner of the area, pressing the left mouse button, and, while holding the button down, moving the cursor to the lower right. Then release the mouse button.
- 5 In the Profile Graph dialog, choose the view containing the selected 3D lines you want to graph.
- 6 Modify the axis labeling and vertical scaling as desired and press OK.

You can create profile graphs from selected 3D lines. These graphs let you easily see and measure, any changes in height along a line, a feature that is especially useful, for example, in evaluating the difficulty of mountain trails or assessing the viability of a corridor for railway lines.

The line-feature theme must be derived from a 3D shape file. If you want to profile lines from a 2D line theme, the theme first must be transformed into a 3D theme. [Converting 2D themes into 3D](#) establishes height values for all 2D line features. Without these values the Layout Profile tool cannot produce a graph of the line features.

To create 3D line graphics, follow the steps for creating a line in [Interactively creating 3D point, line, and polygon features](#). Then make certain that the graphics you want to profile have been selected.

You can also profile an active theme with the selected 3D line graphics by following the above steps. The lines from the active theme and the 3d line graphics will be profiled in different colors in the resulting graph.