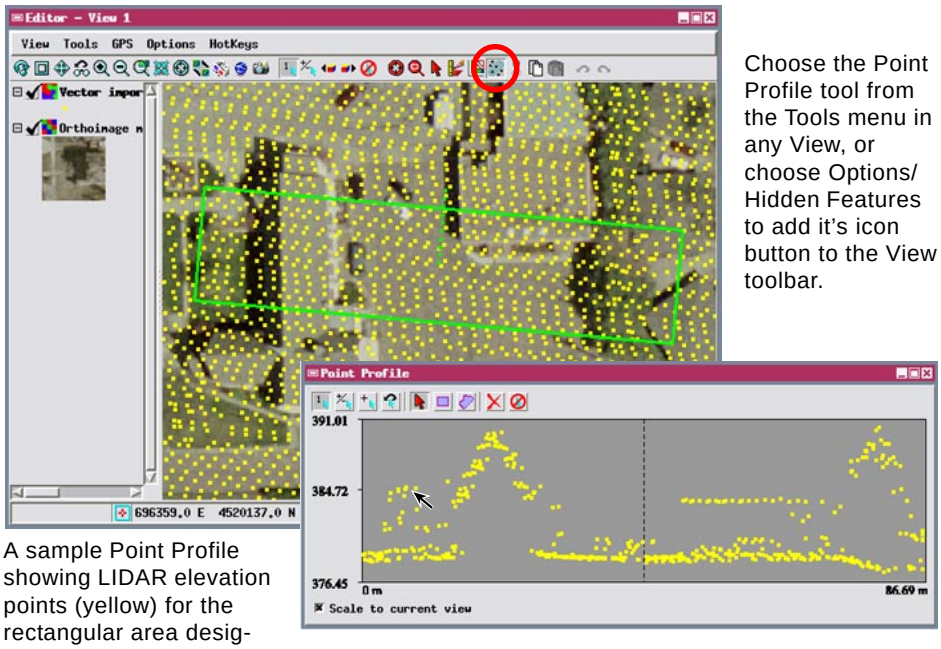
Point Profile Tool

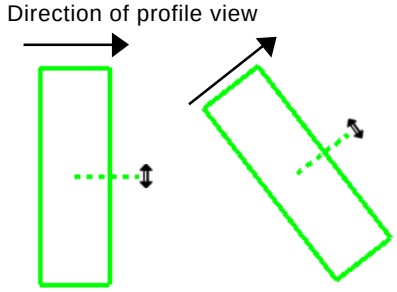
The Point Profile tool creates a vertical profile of 3D points falling within the rectangular area you designate in the View window. This tool is designed for use with points in one or more 3D vector or shape objects, including LIDAR points in linked LAS files (see the Technical Guide entitled *System: Use LAS LIDAR Point Files as Shape Objects*). The Point Profile allows you to visualize the 3D relationships of the points and provides several methods for manually marking points or groups of points within the profile; these points are then automatically marked in the View window as well. Points manually marked in the tool's active area in the View are also marked in the Point Profile. The Point Profile tool is available in every geospatial view in the TNT products, including the TNT Editor, where its marking capabilities can be used for selecting points for editing or deletion.



Choose the Point Profile tool from the Tools menu in any View, or choose Options/ Hidden Features to add it's icon button to the View toolbar.

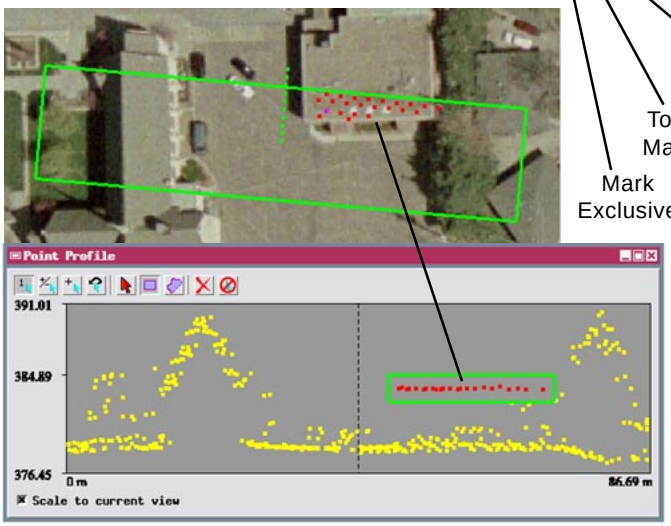
A sample Point Profile showing LIDAR elevation points (yellow) for the rectangular area designated in the View (green in these illustrations). In the View the points are displayed over a 1-foot color orthoimage. The elevation of the cursor position in the Profile View is indicated dynamically on the profile's vertical axis.

You can draw the tool's rectangle in any position in the View and easily resize, reposition, or rotate it. The dashed line extending outward from the rectangle indicates the direction of the profile view and provides a handle for rotating the rectangle around its center. The Point Profile window can be resized to give the profile any convenient dimensions and vertical exaggeration. The vertical scale is set by default to the elevation range of the points shown (with a small buffer at the top and bottom of the profile); turning off the *Scale to current view* toggle resets the vertical scale to the elevation range of all points in the object or objects being viewed.



Rotate the profile rectangle by dragging the dashed direction line. Resize the rectangle by dragging any of its sides or corners.

The Point Profile window (left) includes point, rectangle, and polygon tools for marking points or groups of points in the profile. The selected points are also automatically marked in the View window. In the view illustrations below, the point layer is hidden so that only the marked points (red) are shown over the reference image.



Points marked in the Point Profile using the rectangle tool: this flat line of points corresponds to a flat roof.

Profile points marked using the polygon tool: this high cluster of points consists of returns from a tree canopy.