# Modeling with Vector Data Step-by-Step
Reminder of Useful Functions (Edit Mode)

Remember these **Edit** mode functions to make 2D-to-3D CAD/PDF conversions, data cleanup, and break line entries faster and easier (see next page for **Entry** mode functions and more keyboard shortcut references) …

Control visibility of layers/data with **Alt-V** (hide/redisplay current background layers, page 95), **Alt-B** (set/change current background display layers, page 219), **Alt-H** (hide selected data/redisplay hidden data, page 108).

Find Elevation function (**Edit > Find Elevation** from menu) can be used to find and select bad imported CAD elevations (page 95) when the more-efficient CAD elevation filter is not used in **Import** mode (page 81).

Label Selection $\mathcal{L}_s$ (**Ctrl-L**) and **Join** (**Ctrl-J**) utilities are used to select and join sets of broken 2D vector data (contours and line work for buildings/pavements) to facilitate 3D conversion (pages 97, 107)—when joining line work, be sure to adjust **Bridge Gap Distance** (**Options > Bridge Gap Distance**) as needed.

Point Compression utility (**Options > Compression Delta** then **Utility > Compress Selected**) applied to existing surface contours (page 100) will reduce job file size; applied to design line work after joining in **Edit** mode (page 107) will remove potential duplicate join points.

Elevation Snap function (**F9** once) copies elevation from data point (or CAD text object) at *Arrow* pointer tip to selected data point(s)/line(s). F9 with a CAD text object parses and copies the numeric text value to any selected point/s (page 99) and/or line/s (page 96) as an elevation. If the selected data is 2D *Annotation* line(s), the F9 elevation is assigned as an *Entered* value to the first point of the annotation line and to all other points on the annotation line as an *Interpolated* value (pages 96, 107). If the selected data is 3D *Data Line*(s), the F9 elevation is assigned only to the selected point on the *Data Line* (page 117).

Auto-Increment Snap function (**F8** once per snapped line) assigns elevations to sequentially snapped contour lines based on contour interval and slope direction (page 98). Contour interval is set by consecutively F8 snapping two consecutive 3D contours; each subsequently F8 snapped 2D contour is then assigned an elevation value based on the two starting F8 3D contour values. If the subsequent F8 snapped contours are 2D *Annotation* lines, the F8 elevation is assigned as an *Entered* value to the first point of the annotation line and to all other points on the annotation line as an *Interpolated* value. (If the subsequent F8 snapped contours are already 3D *Data Lines*, the F8 elevation is added to the 3D *Data Line* as an *Entered* elevation only at the point nearest to the *Arrow* pointer tip.)

Auto Pad utility (**Ctrl-P** in *AGTEK 3D*, **Ctrl-W** in *AGTEK 4D*) uses selected CAD elevation text labels and bounding *Annotation* lines to automatically elevate multiple level pad/building areas (page 108).

Insert/Break function (**F5** once) inserts a new data point on a line segment at the *Arrow* pointer tip then immediately breaks the line at the new F5 point. If F5 is used at a sloping *Data Line* segment, the resulting F5 point elevation will be correctly interpolated on the *Data Line* segment's slope (page 175).

Insert Point function (**F6** once) inserts a new data point on a line segment at the *Arrow* pointer tip (as described with F5 above) but line segment ***is not broken*** at the new **F6** point (page 123).

Move Point function (**F7** once) moves selected point to *Arrow* pointer tip (page 175); (*press and hold* **F7**) "drags" selected point with *Arrow* pointer; or use **Extend/Shorten** variation (**F7** once) with selected end segment of a line (pages 123, 164).

Conform Selected utility (**Utility > Conform Selected**) elevates selected *Annotation* lines by "draping" them onto **(1)** *Data Lines* (**To Data Lines** option pages 101, 123) or **(2)** active *Surface* (**To Current Surface** option page 185).

Swap Ends ⇄ utility (**Ctrl-S**) reverses entry direction of selected object/s (pages 122-123, 145, 169); **Move Start Point** function (**Ctrl-M**) moves *diamond* point of closed object to the selected data point of the closed object (page 116).

Offset Line utility (**Ctrl-O**) Creates new data lines from extant data lines based on a user-defined horizontal/vertical/slope specification (pages 116, 122, 174-176, 179-180). [*AGTEK 4D*'s **Apply Template** utility can be used to create multiple offset lines in a single pass (see AGTEK video references on page 174).]