

Program and Vector Data Overview

Typical Vector Data File Manipulation Sequence

The typical steps for importing and processing vector data files are as follows . . .

- ◆ If you're new to importing vector data files, review the preceding pages (24-28 and 31-38) for some useful tips and background information.
- ◆ If the vector data files are compressed, they must be extracted before they can be read by AGTEK (see EXE and ZIP file types on page 39).
- ◆ In AGTEK, start by opening the vector data file (see page 46 for PDF, page 72 for CAD, and page 86 for LandXML).
- ◆ Use Import (CAD Transfer) mode to view, filter, select and transfer relevant imported vector data layers to the appropriate AGTEK surfaces/layers:
 - If expected vector data does not initially display in Import (CAD Transfer) mode, see page 65 (for missing vector PDF data) and pages 78-79 (for missing CAD data).
 - Also with CAD files, be sure to take advantage of important settings such as **Min/Max**, **Import Transfer Units**, **Join** and **Point Labels** (see page 81).
 - Use display options such as **Alt-B**, **Hide** / **Hide All But** with layer and object selection options such as **Ctrl** / **Shift** to efficiently select various sets of imported vector data for transfer (see pages 82-83).
 - Transfer selected vector data sets to the appropriate destination AGTEK Surface/Layer (see page 87).
- ◆ If working with CAD/LandXML data, use a corresponding PDF plan sheet (or paper plan sheet in older AGTEK systems unable to import PDFs) to verify that the imported vector data matches the corresponding plan sheet:
 - Scale and align the PDF plan image (page 90) or paper plan sheet (*Appendix L*, page 363) using the CAD/LandXML coordinates.
 - Spot check against the scaled PDF (or paper) plan sheet to identify any unexpected horizontal and vertical deviations in the CAD/LandXML data (see page 92).
 - If a paper plan sheet is used for the verification, disable the tablet when done with the verification (see page 24).

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Typical Vector Data File Manipulation Sequence (Cont.)

- ◆ Check, cleanup, and supplement the imported vector data:
 - Use 3D views and **Find Elevation** to identify grossly invalid elevations and use the Point/Line editors to correct them (see pages 93-95).
 - Use **Snap**, **Auto Pad** and **Conform** functions to convert 2D data to 3D data when practical (see pages 96-124). Offset (pages 65 and 116), "Draft" (page 120 and "Design and Drafting Tools" in *Appendix J*), or manually digitize any line work that can't be imported from the vector files—see *Day 1 Seminar Handbook* for step-by-step details on manual digitizing).
 - After curb lines and other primary feature lines are converted to 3D, use the **Offset Line** and/or **Apply Template** utilities to enter any parallel or constant-relationship Data Lines (offsetting is fully documented in the *Day 1 Seminar Handbook*, but see pages 116, 145-146, 150-152, 174-176, 179-180 and *Appendix J* of this *Day 2 Seminar Handbook* for various offset examples).
 - Use **Snap** to enter "break lines" to correct any interpolation errors identified in the 2D/3D views (follow the systematic error-checking procedure detailed in the *Day 1 Seminar Handbook*).
 - For grade control modeling, consider the "File Preparation Tips for Field Data" in *Appendix D* (pages 279-280).
- ◆ Enter Existing Perimeter(s) as required (pages 73-74 in *Day 1 Seminar Handbook*).
- ◆ Enter Design Perimeter(s) (pages 156-157 in *Day 1 Seminar Handbook*).
- ◆ Final Error-Check of Design Surface (pages 158-161 in *Day 1 Seminar Handbook*).
- ◆ Enter Stripping Areas, if required (pages 166-171 in *Day 1 Seminar Handbook*).
- ◆ Enter Report Regions/Sectional Areas, if required (pages 172-192 in *Day 1 Seminar Handbook*).
- ◆ Enter Strata data, if required (see *Day 3 Seminar Handbook*).
- ◆ Calculate volumes and print documentation, if required (*Day 1 Seminar Handbook*, pages 208-214 and *Appendix E*).
- ◆ (AGTEK 4D Only) Geo-reference job file (pages 126-130 and *Appendix I*) then export data to KMZ for Google Earth (*Appendix D*, page 287).