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Point Management with Land Desktop

Approaches to Point Management

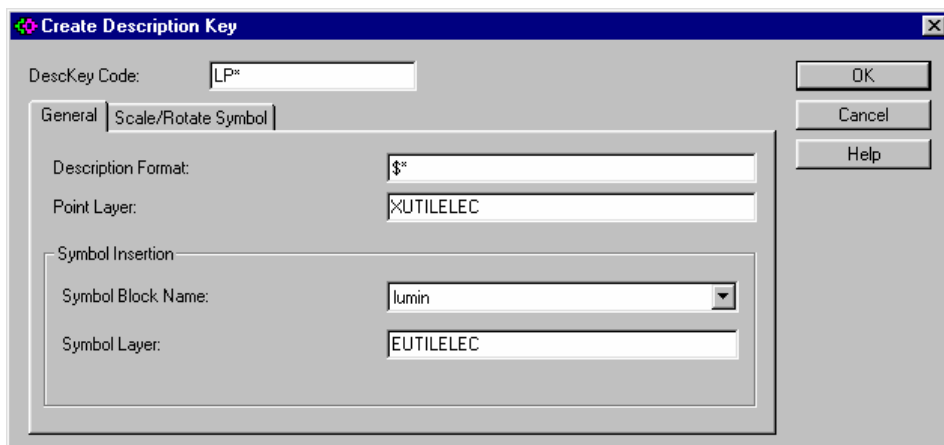There are two primary approaches to managing and working with points:

1. Keeping all points in the drawing AND the project database at all times. This normally requires the points to be sorted on different layers so they can be frozen and thawed as needed. This method is best used on smaller projects where the sheer number of points doesn't overwhelm the drawing.
2. Keeping all points in the project database only and using the insert to and remove from drawing commands to bring in only the points you are currently working with. For instance, when you are ready to connect all the points for the edge of pavement, you would "Remove From Drawing" all points in the project. Then, you would "Insert Points to Drawing" all points with an "EOP" description. Unlike method #1, this method only requires one working layer for the points currently being used.

Description Keys can be set up to accommodate both methods.

Importing Points from an ASCII point file

1. Open the ASCII point file in a text editor.
   Start> Programs> Accessories> Wordpad

   A. Check the point file for 3 things:
      1) The format of the point file.
         - What information is included for each point? PNEZD is most common and includes Point number, Northing, Easting, Z-coordinate (Elevation) and Description.
         - Do commas separate the different components? The file is considered to be "comma-delimited".
         - Do tabs separate the different components? The file is considered to be "space-delimited.
      2) Are the descriptions all in capital letters? If not, edit the file to make them so.
      3) Have the descriptions of the points included in the file been added to the Description Key file? If not, make a list of the "new" descriptions so that they can be added to the DescKey file.
   B. If any changes have been made to the ASCII file, Save and Exit the file. Save the file as a "Text Document".

2. In Land Desktop, edit the DescKey file to add new Description Keys. See That CAD Girl's "Overview of Description Keys" white paper for more information.
   Points> Point Management> Description Key Manager

   A. Create a new or select the correct DescKey File to modify
      1) To create a new file Manager> Create DescKey File... or select icon
      2) To edit an existing DescKey File, select the correct file from the list on the left of the dialog box.
   B. Create a new DescKey Manager> Create DescKey... or select icon
      1) DescKey Code
         a) Capital letters
         b) Short and concise
         c) Each should begin with a generic description matching point file description
         d) Each should end with an asterisk (*) so that more specific information can be included in each description in the field.

2) Description Format - It is best to keep the descriptions that were used in the field when importing the points into a drawing. However, this option allow you to give a "Full Description" to each point when brought into the drawing as opposed to keeping the "Raw Description" or abbreviated version that is typically entered in the field. To keep the same description as entered in the field, enter a dollar sign and asterisk ($*) in this field.
3) Point Layer - Enter the layer on which the point object is to be inserted.
   Symbol Block Name - Enter a new symbol block name or select from the pull-down list to designate a symbol that is to be inserted at each occurrence of this description. The symbol blocks listed are the symbols included in Utilities> Symbol Manager
5) Symbol Layer - Enter the layer on which the symbol is to be inserted.

For the example shown above:
- All point descriptions beginning with "LP" but have anything else afterward will be sorted according to this DescKey. As long as the first two characters entered in the field are "LP", this allows for specific information about each light pole to be added after the "LP". Other examples are:
    - TREE* - allows for <u>TREE OAK 16"</u> as a field description
    - DI* - allows for <u>DI INV 3.2'</u> as a field description
    - CULV* - allows for <u>CULV 15" RCP</u> as a field description
- All points having a description beginning with "LP" will keep the same description when imported in the drawing as was given in the field.
- All points having a description beginning with "LP" will have the point object inserted on layer "XUTILELEC" where the "X" portion designates a layer for point objects only, the "UTIL" portion tells that the point is a utility structure and the "ELEC" portion tells that the point is an electric structure.
- All points having a description beginning with "LP" will have a symbol named "lumin" inserted at the location of the point.
- The symbol inserted for this DescKey will be inserted on layer EUTILELEC where the "E" portion designates a layer for existing features, the "UTIL" portion designates utility structure and the "ELEC" portion designates it as an electric structure.
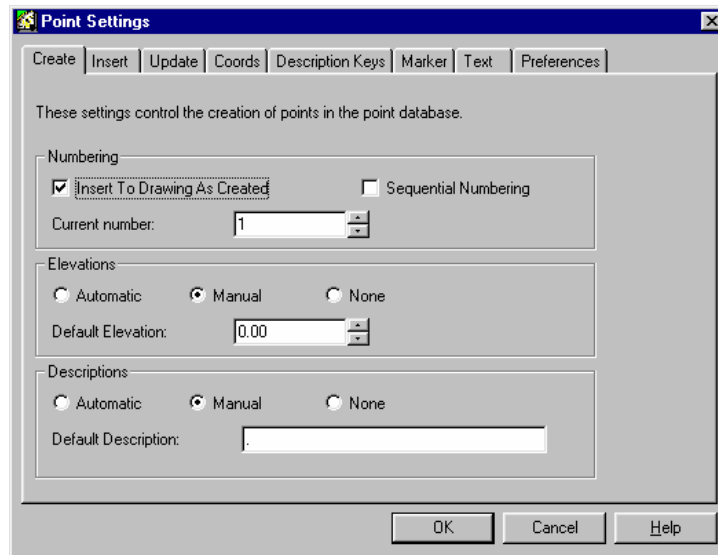
ADDITIONAL INFORMATION -
- To determine the symbol name for a symbol shown in the Symbol Manager, select the symbol and then select the "Edit" button.
- The SCALE / ROTATE SYMBOL tab in the Create Description Key box allows for scaling and rotation of each symbol as it's inserted
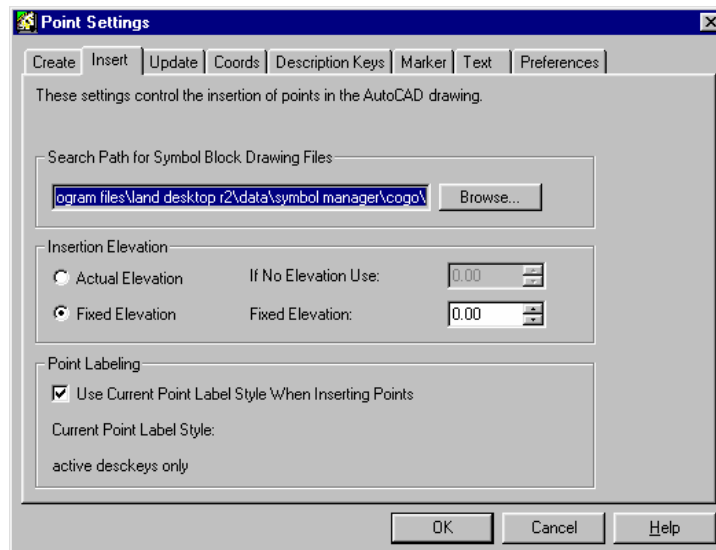
3. Prepare to Import New Points
   A. Set Point Settings – Points> Point Settings. As a general rule, set the <u>POINT SETTINGS</u> options to match the following examples:
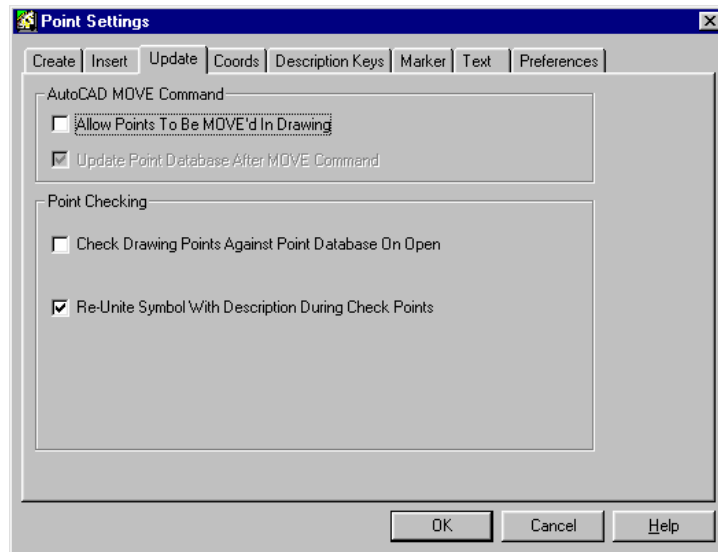
   1) CREATE

   - If Sequential Numbering is turned "ON", points will be imported using the next available point number instead of keeping the numbering system established in the field and data collector.
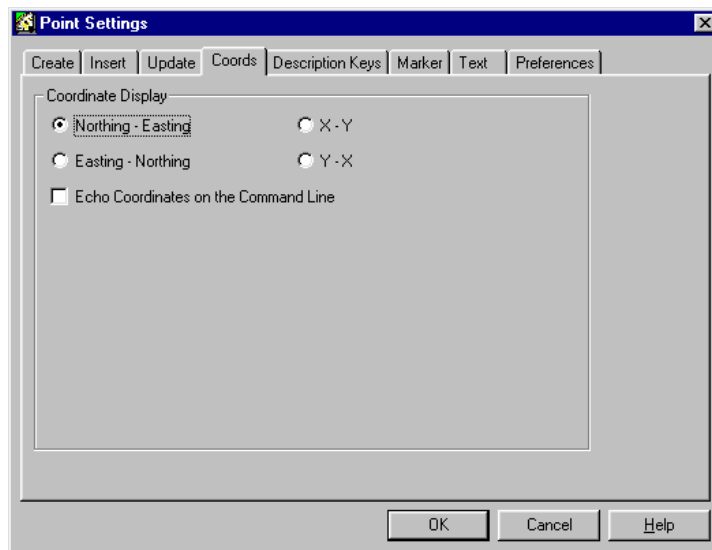
   2) INSERT

   - The Insertion Elevation in the INSERT tab is referring to is the "AutoCAD Elevation" of the point object itself and not the elevation determined by the survey point file
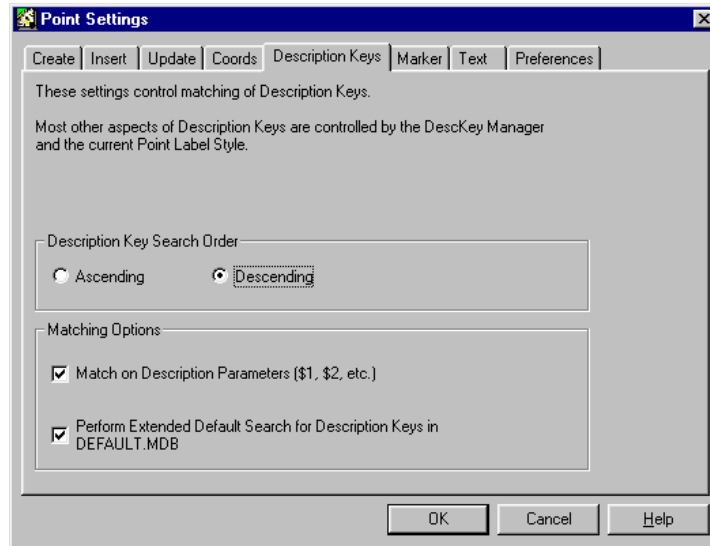
3) UPDATE

- If checked, the Allow Points to be MOVE'd In Drawing will allow the basic AutoCAD MOVE command to change the Northing, Easting and Elevation of the point. If not checked, the point can only be MOVE'd using Points> Edit Points> Move. It is very DANGEROUS to allow the AutoCAD MOVE command to change point location because the point location in the drawing will change but the point location in the Land Desktop database will not reflect the move. Using Points> Edit Points> Move to move points will change the drawing as well as the point database.
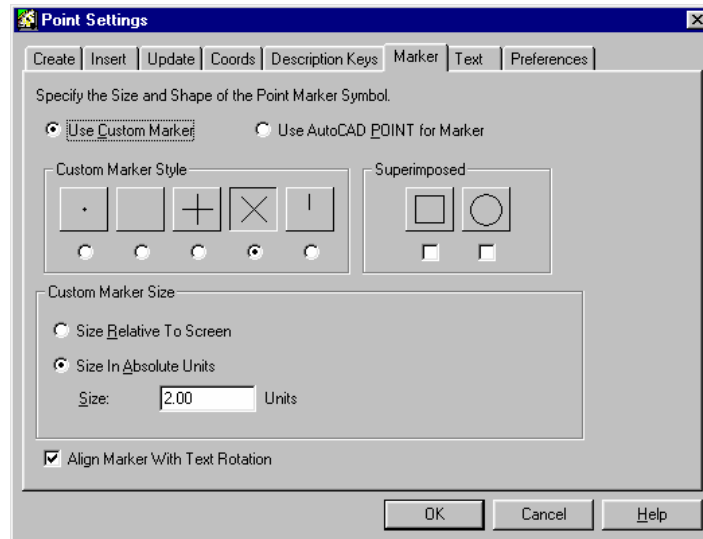
4) COORDS

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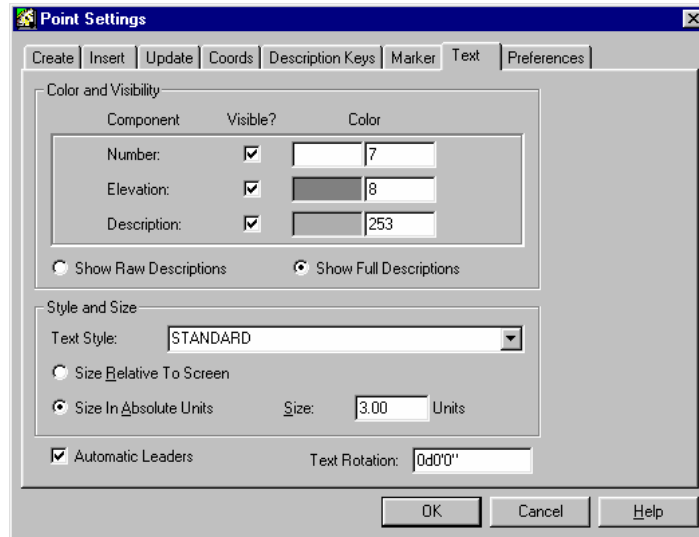
5) DESCRIPTION KEYS

- Setting the Description Key Search Order to "Descending" will allow for a more accurate sorting of the DescKeys when importing points
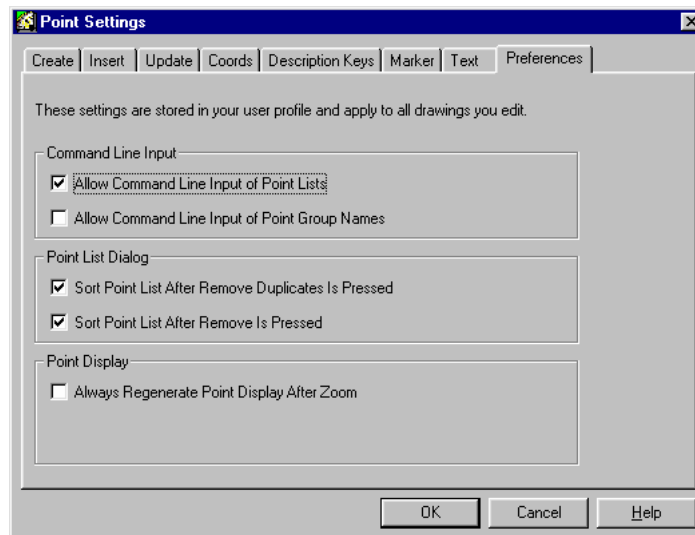
6) MARKER

- This can be used as a general guideline for the settings for this tab but may be changed according to office standards or preference.

7) TEXT

- This can be used as a general guideline for the settings for this tab but may be changed according to office standards or preference. It is highly recommended to keep the Automatic Leaders option selected to help with the visibility of point information.
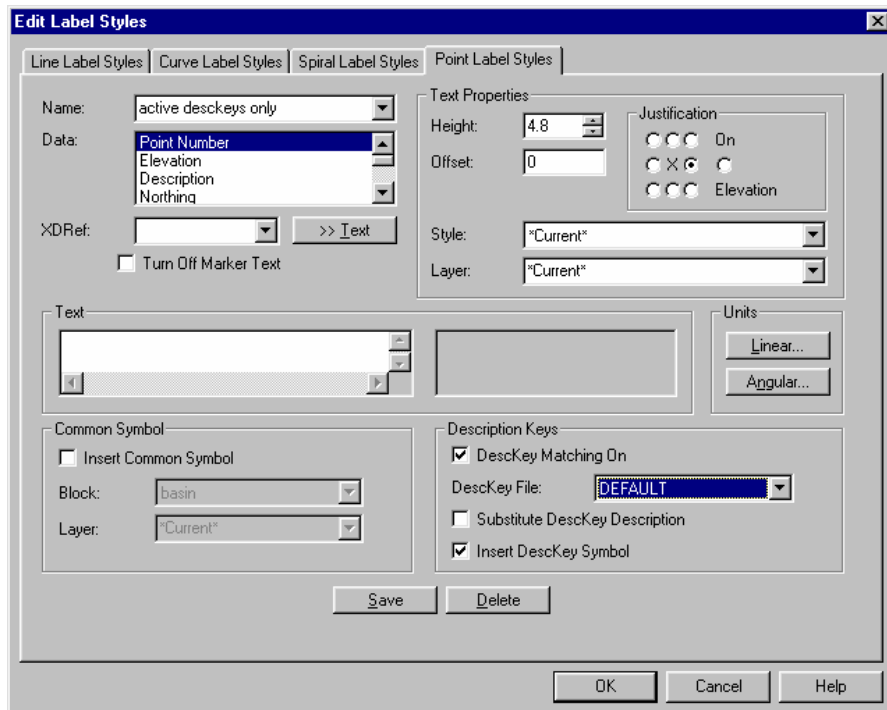
8) PREFERENCES

B. Set Point Label Style – Labels> Edit Label Styles and select POINT LABEL STYLES
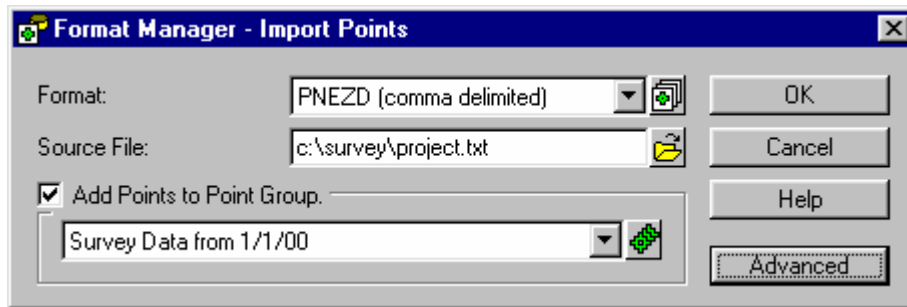
The only relevant section of this dialog box at this time is in the bottom right corner, the section titled, Description Keys:

1) Making certain that DescKey Matching On is <u>selected</u>, use the pull-down list to choose the appropriate DescKey File to use when importing the point file.
2) Unless using something other than "$*" in the DescKey definitions for the Description Format for each DescKey entered, the Substitute DescKey Description option can be turned <u>off</u>. If FULL DESCRIPTIONS have been specified to replace the RAW (FIELD) DESCRIPTIONS, this box can be selected.
3) The first time any set of points are imported or inserted into a drawing the Insert DescKey Symbol option needs to be selected in order to have the specified symbols brought into the drawing. If a particular set of points is RE-INSERTED for any reason, this option can be turned off to avoid multiple symbols being inserted for the same point.

C. Set current layer to be a layer on which all points not matching a DescKey will fall.
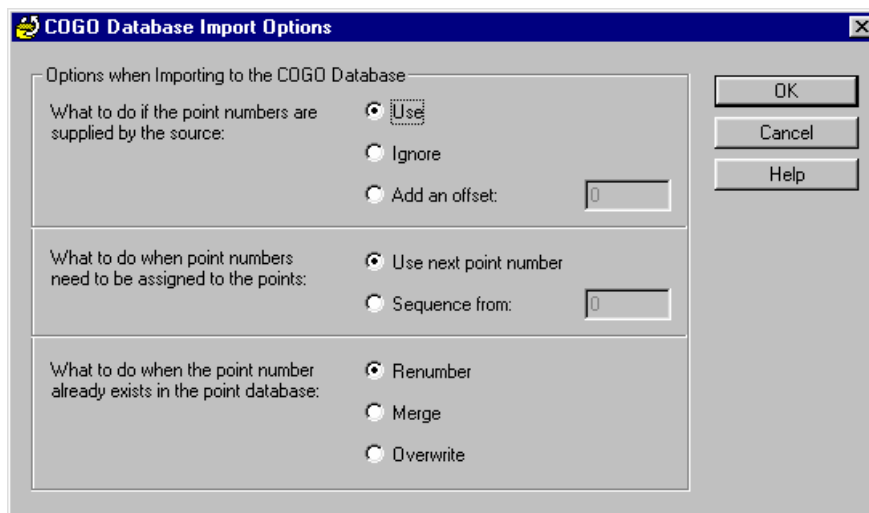
4. Import New Points Points> Import/Export> Import Points

A. Format: Use pull-down box to select the appropriate format as determined in Step 1

B. Source File: Use Browse feature to select the desired point file to import. The "Files of Type" option may
                     need to be changed to "*.*" in order to see all possible file types of survey point data.

C. Add Points to Point Group
                     Use the pull-down to select an existing point group or the icon to create a new point group as
                     the first organization step of sorting points. A point group that specifies the date the field
                     work was done is a good starting organizational theme.

                     CLICK "OK" AFTER A, B AND C ARE PROPERLY SELECTED

D. COGO Database Import Options

This box will appear after selecting "OK". In general situations and unless there is a specific reason otherwise,
use the default options shown above.

                     CLICK "OK" AFTER OPTIONS ARE PROPERLY SELECTED

Compare ASCII text file to Point List in drawing to ensure points were imported properly by going to Points> List
Points.

Select the radio button beside Point Group and use pull-down to select the point group of the points just imported.
Compare this list with the ASCII survey point file that was used in the import process. Check for correct point
numbers.