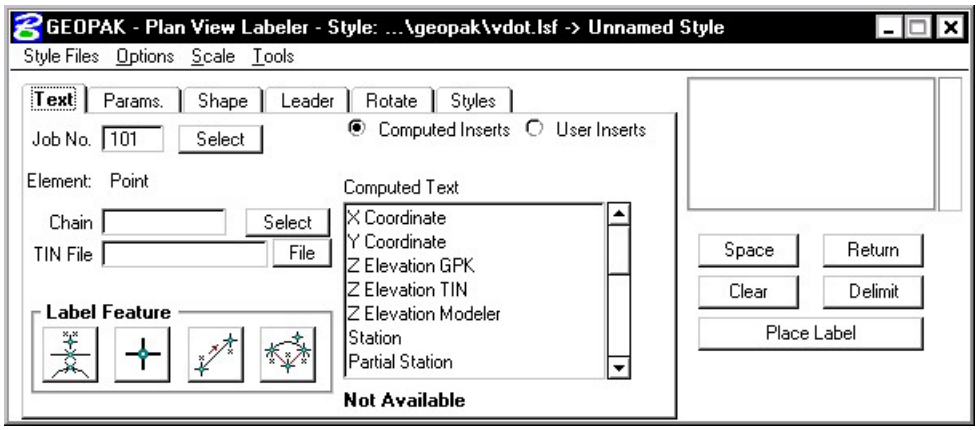
Labeling

17.1 Introduction

Objectives	Learn how to label plan information with Plan View Labeler. Familiarize the user with the Cross Section Labeler.
Project Manager	Plan View Design
Tools  	
Menu Bar Application	GEOPAK Road > Plans Preparation > Plan View Labeling GEOPAK Road > Plans Preparation > Profile Labeling GEOPAK Road > Cross Sections > Labeling

17.2 Plan View Labeling

GEOPAK's labeling tools allow a user to place "smart" labels in a MicroStation drawing. These labels have the ability to calculate XYZ coordinates, station, offset, direction, length, radius, degree of curvature, etc. of the associated element. When the **Plan View Labeling** icon is selected, the dialog box depicted below is displayed.



The label to be placed is displayed in the box on the right side of the dialog box as shown above. The **Space** button places a space in the label at the cursor position. The **Return** button starts a new line of text. The **Clear** button starts a new label. The **Delimit** button places a line above or below a line of text. The **Place Label** button attaches the label to the cursor for placement in the drawing.

The user can select the various tabs to define / modify the label appearance.

17.2.1 Text

For data to be computed, the job number and the chain need to be selected. If elevations are to be calculated, a TIN file needs to be chosen.

The **Computed Inserts** are items that Geopak has the ability to calculate for the chosen item. The list of **Computed Inserts** changes with the type of element that is chosen. If a line is chosen, the list of **Computed Inserts** will show inserts of bearing, and length. If a curve is chosen the list of **Computed Inserts** will change to show inserts of radius, curvature, chord length, etc.

The **User Inserts** are inserts that a user may use on a regular basis. This list can be customized for a specific user's needs.

There are several methods allowing the user to choose the element to use for calculations in the label.

Select GEOPAK or MicroStation Element

The icon to allows the user to identify either for labeling.

Data Point Location

Selects a location in the design file that may or may not be associated with an element.

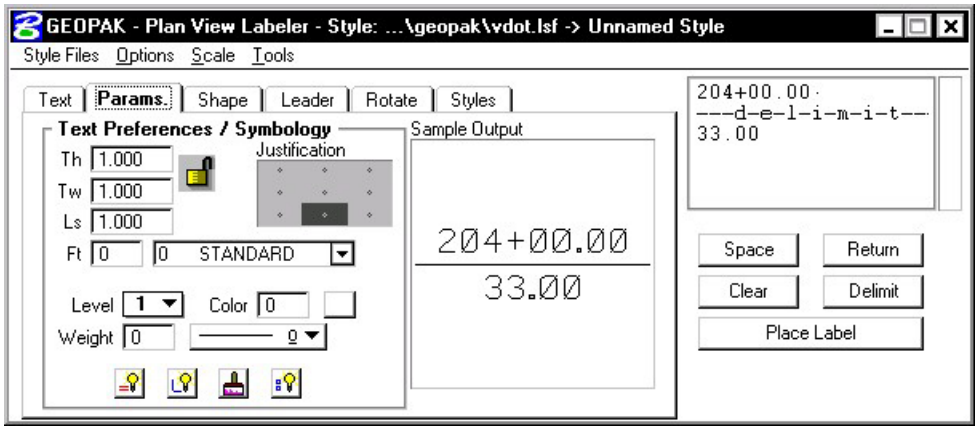
2 GPK Point Line

Selecting lines or points that have been visualized via COGO.

3 GPK Point Arc

Selection of visualized arcs and points

17.2.2 Params.



The **Parameters** tab enables the user set up the text size and symbology for the label.

By Current sets the symbology to the current MicroStation settings. **By Element** allows the user to set the symbology by choosing a MicroStation element. **Set All** sets the symbology for all elements in the label (text, delimiters, leader lines, etc.).

By Current

After pressing this button, GEOPAK determines the active MicroStation symbology (level, weight, color and style) and populates the dialog.

By Element

After pressing this button, GEOPAK prompts to select a previously drawn MicroStation element, and populates the dialog with its element symbology.

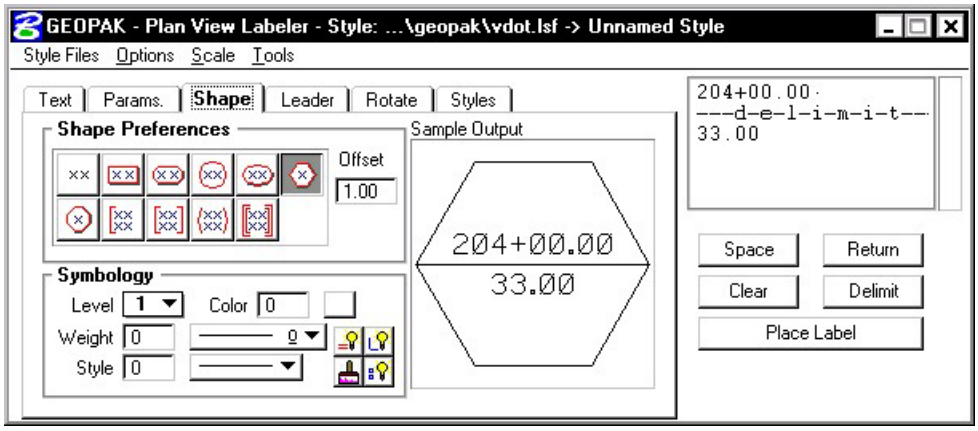
D & C Symbology

Pressing this button invokes the Design and Computation Manager, wherein the desired item may be selected. By double clicking on an Item, the associated element symbology within the Design and Computation Manager is applied to the Labeling dialog.

Set All

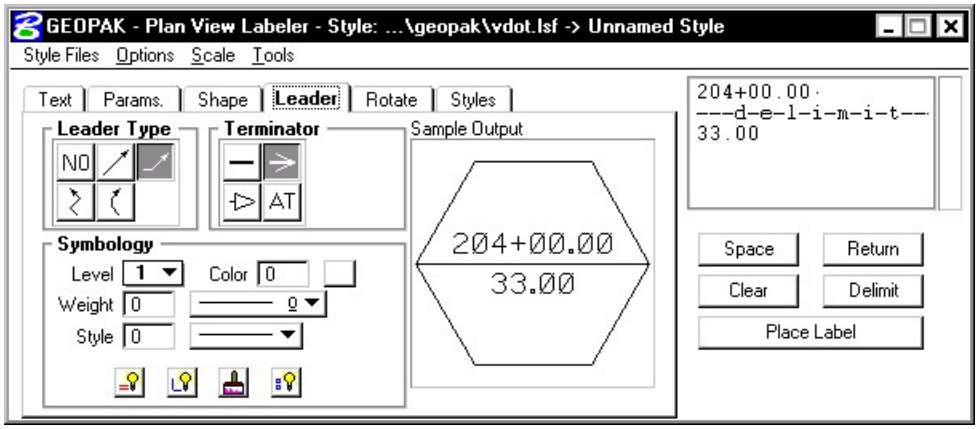
GEOPAK reads the current settings (level, weight, color and style) within the dialog, and populates the Parameter, Shape and Leader dialogs.

17.2.3 Shape



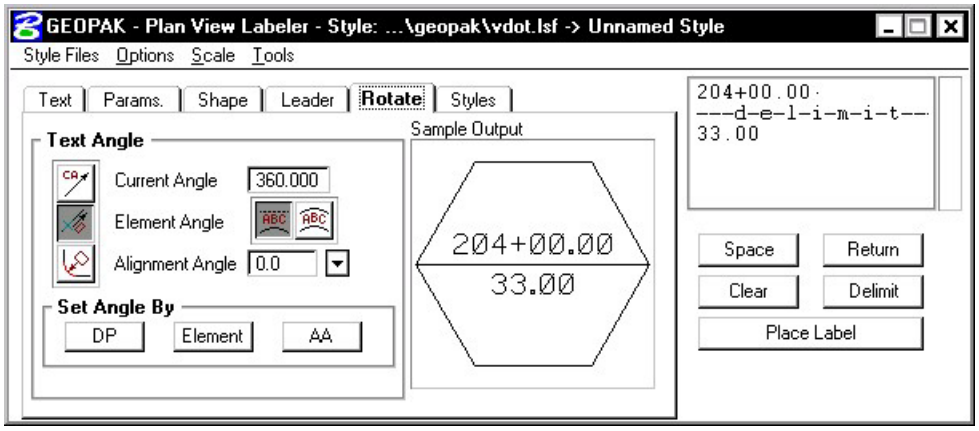
The **Shape** tab allows the user to place a shape around the label, and set the symbology for the shape.

17.2.4 Leader



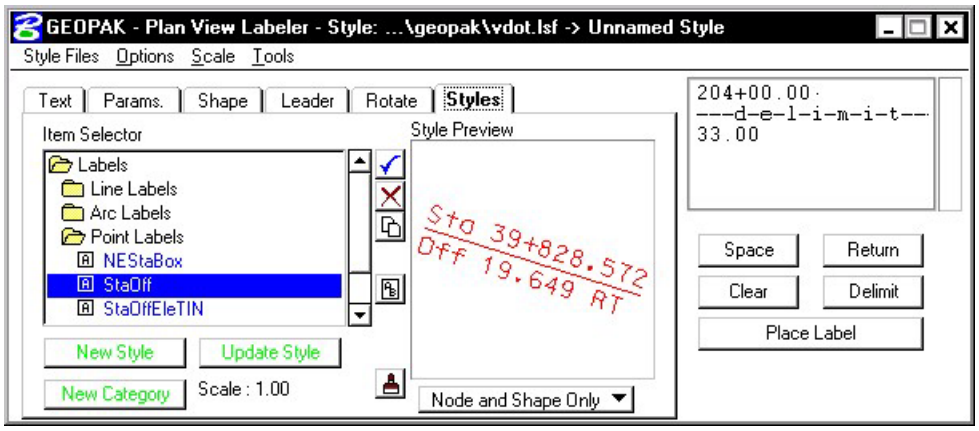
The **Leader** tab allows the user to attach a leader from the label to the point. Different leader types and terminators can be chosen. The active terminator can also be used.

17.2.5 Rotate



The **Rotate** tab allows the label to be rotated. The rotation can be determined from the current angle, the angle of the element, or the alignment angle. The angle can also be set by two data points (first data point set the location, next data point sets the angle) or the active angle.

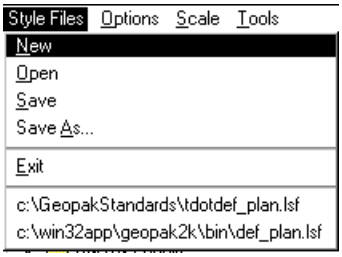
17.2.6 Styles



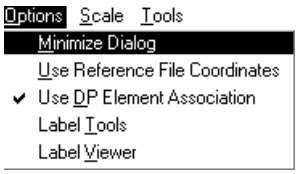
The **Styles** tab allows a user to choose label symbology from a library of pre-defined styles. When the user chooses the style, all symbology, leaders, shapes, etc. is set up for the user.

17.2.7 Menus

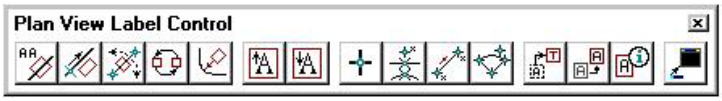
The **Style Files** menu allows the user to open a new style library. You must be under the Styles tab in order to open a style library.



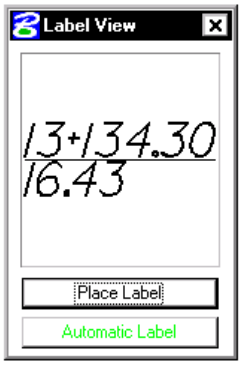
In the **Options** menu, **Minimize Dialog Box** will minimize the dialog box when **Place Label** is chosen. The **Use Reference File Coordinates** option uses the coordinates from the master plan view file when placing a label in a plan sheet.



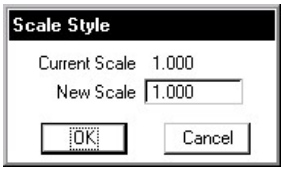
Options > Label Tools invokes the tool frame shown below which enables the user to modify Geopak labels.



Options > Label Viewer brings up a dialog box that allows a user to view and place a label.

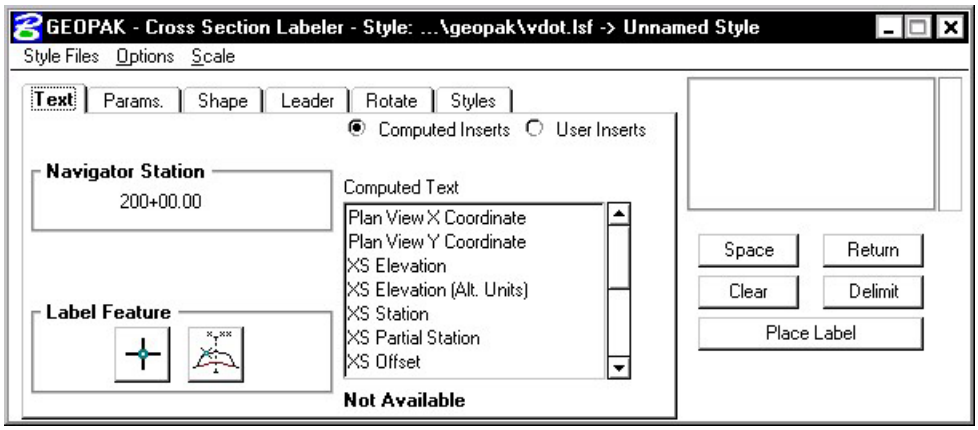


The **Scale > Scale Style** menu allows the user to choose a plan scale. All labels will be adjusted according to the plan scale. The user simply keys in a scale, and chooses a **Labeling Style**. The corresponding label will be placed at the correct size for the scale that was chosen.



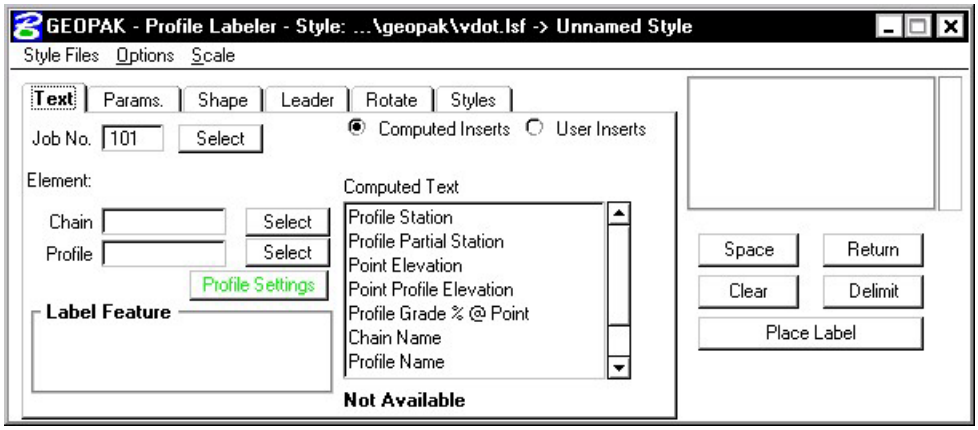
17.3 Cross Section Labeling

The **Cross Section Labeling** dialog box differs from the **Plan View Labeling** dialog box only on the text tab. **Cross Section Labeling** works with the **Cross Section Navigator**. The current **Cross Section Navigator** station is shown on the **Text** tab. The **Computed** and **User Inserts** contain values and phrases related to cross-sections.



17.4 Profile Labeling

The **Profile Labeling** dialog box differs from the **Plan View Labeling** dialog box only on the text tab. The Chain and Profile must be defined, in addition to profile settings. The **Computed** and **User Inserts** contain values and phrases related to profiles.



LAB 17: Labeling

17.1 Accessing the Labeler

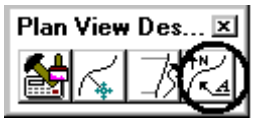
Step 1. Execute **C:\data\geo\VDOT\road1\LAB17.EXE**.

Step 2. Open the MicroStation file **c:\data\geo\vdot\road1\d17682des.dgn.**

Step 3. Access **Project Manager**.

Step 4. Select the icon **Plan View Design** button from the **Road Project: Road1.prj** workflow dialog box.

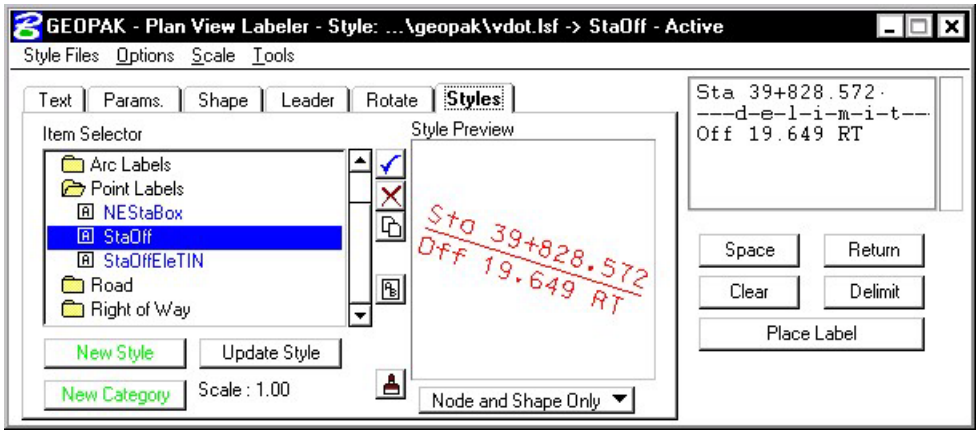
Step 5. From the Plan View Design tool bar, select the Plan View Labeler icon.



17.2 Using Predefined Label Styles

Step 1. Select the Styles Tab.

Step 2. Traverse with the Item Selector box to locate the following style: **Labels>Point Labels>StaOff**. Next, double click the **StaOff** style.



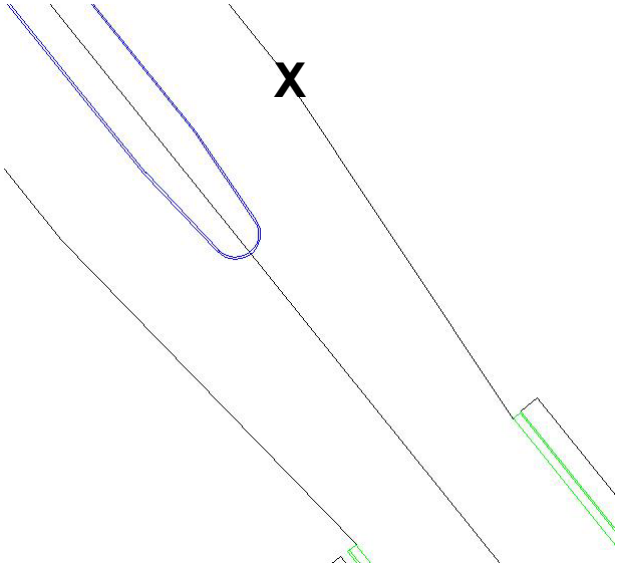
Step 3. Move back to the Text tab and complete as defined below:

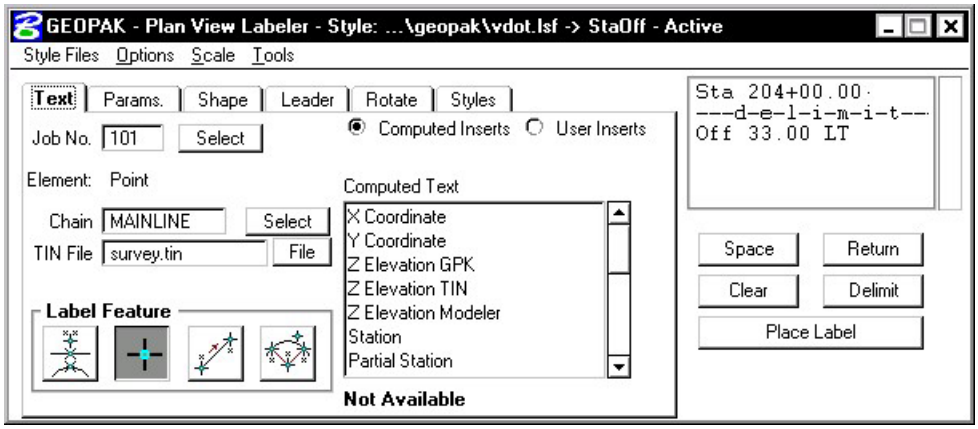
Job No.	101
Chain	MAINLINE
TIN File	SURVEY.TIN

In the following steps, we will use the **Plan View Labeler** to label the beginning and ending points for pavement transitions.

Step 4. Use the MicroStation pulldown **Utilities > Saved Views** to access the saved view "**TRAN1**".

Step 5. To create a label, select the **DP** button and then identify the location as shown by the "X" in the following image. The labeler automatically calculates the information.





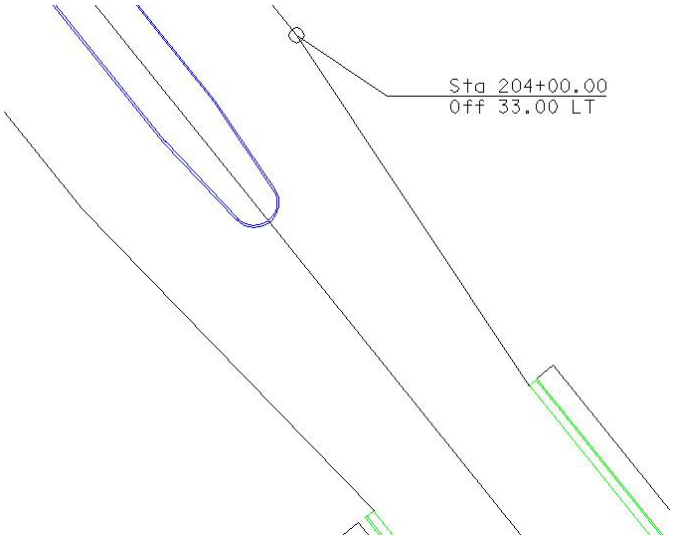
Step 6. Use the **Params.**, **Shape**, **Leader** and **Rotation** tabs to experiment with different labeling styles.

Step 7. To place the label, return to the **Text** tab and click the **Place Label** button.

The label is now attached to your cursor (without the leader for the delimiter).

Step 8. Datapoint at the location you wish the text to be located.

Step 9. A second datapoint will define the side of the label from which the leader line will be drawn from the delimiter line to the computed location.



Step 10. Repeat Steps 5-8 to label other points of the transition area.

Step 11. **Exit** MicroStation.