GEOPAK MANUAL REVISION DATES

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OLD

GEOPAK POINT NUMBERING

The point numbering series used for types of R/W points created in GEOPAK are assigned as follows.

POINT NUMBER SERIES	POINT TYPE
1000-series	R/W Baseline (i.e. RWBL) and R/W Baseline extension (i.e. RWBL1)
2000-series	R/W-Easement Breaks
3000-series	Section Tie calculations
4000-series	Miscellaneous working points

Note: *The CADD Standards Manual doesn't identify these uses of point number series.*

NEW

GEOPAK POINT NUMBERING

The point numbering series used for types of R/W points created in GEOPAK are assigned as follows.

POINT NUMBER SERIES	POINT TYPE
3000-series	R/W Baseline (i.e. RWBL) and R/W Baseline extension (i.e. RWBL1)
4000-series	R/W-Easement Breaks
5000-series	Section Tie calculations
6000-series	Miscellaneous working points

Note: *The samples set forth in this manual are not consistent with these standards.*

NEW

2-1.1 Preparing the Survey Text File

4. Revise any points that may be designated with numeric-alpha characters (i.e. 102A) as GEOPAK will not accept this format. However, GEOPAK will accept alpha-numeric format (i.e. A102). This may be a good alternative for comparison with the survey.

   Note: *Current Standards define the Cadastral/Retracement survey points to range from 1 to 1999*

OLD

3-1.2 Creating R/W Baseline Coordinates

2. The Equate Point dialog box will appear. *(See Figure 4)*

   - Enter **"1000"** for the Begin Point:.

5. To display a text summary of the R/W baseline coordinates, highlight all baseline points in the Navigator (1000 series points) and select **"PRINT DESCRIBE ELEMENT"**. *(See Figure 6)*

NEW

3-1.2 Creating R/W Baseline Coordinates

2. The Equate Point dialog box will appear. *(See Figure 4)*

   - Enter the Begin Point: (i.e. 1000). Refer to the Point Numbering Standards.

5. To display a text summary of the R/W baseline coordinates, highlight all baseline points in the Navigator and select **"PRINT DESCRIBE ELEMENT"**. *(See Figure 6)*

OLD

3-2 Extending the R/W Baseline

10. The Locate Traverse dialog box will appear. *(See Figure 13)*

    - For the Locate Point: enter a new point number from the 4000-series (i.e. 4010).

NEW

3-2 Extending the R/W Baseline

10. The Locate Traverse dialog box will appear. *(See Figure 13)*

    - For the Locate Point: enter a new point number from the r/w baseline series (i.e. 4010).

3-3.4 Section Ties

1. The section tie input file needs to be loaded to recalculate the section ties. Select **"FILE"**, **"INPUT FILE UTILITY"**.

3. The Input File Utility dialog box will appear. *(See Figure 18)*

   - Set the file utility 'drop down' to **"LOAD"**.
   - Ensure the 'Allow Commands to be Added' is not checked.
   - Select the section tie file (i.e. 4243s)

4. Select **"APPLY"**.

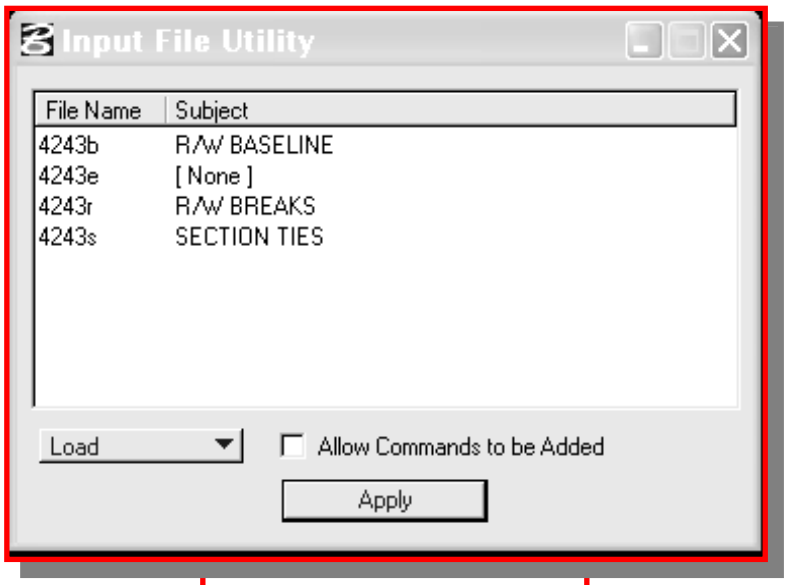

Figure 18

5. The file is now loaded. Within the Coordinate Geometry dialog, select the **"EDITOR"** icon 

6. Select the **"COGO COMMAND RESTORE/READ"** icon  . Close the Cogo Command Editor dialog box. *(See Figure 19)*

NEW

3-3.4 Section Ties

1. The section tie input file needs to be loaded to recalculate the section ties. Select **"FILE"**, **"INPUT FILE UTILITY"**.

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3. Select **"APPLY"**.

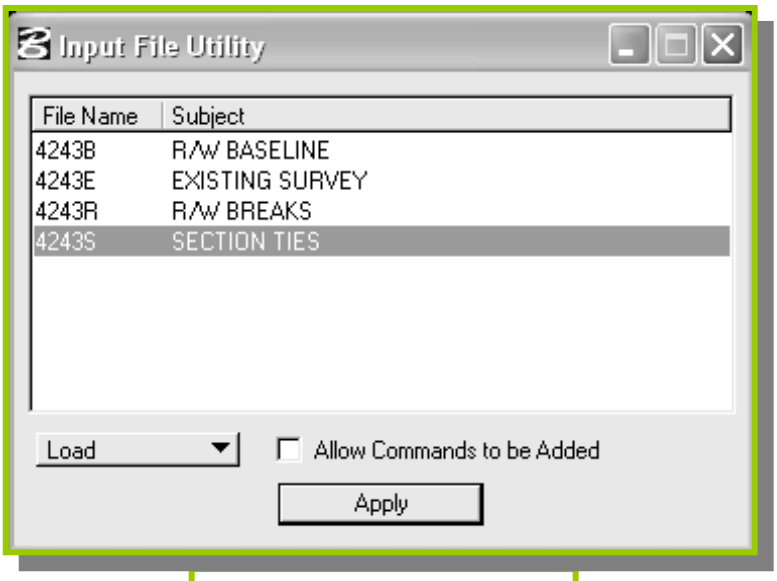

Figure 18

4. The file is now loaded. Within the Coordinate Geometry dialog, select the **"EDITOR"** icon .

5. Select the **"COGO COMMAND RESTORE/READ"** icon . Close the Cogo Command Editor dialog box. *(See Figure 19)*

6. You may need to reconsider any additional section corner ties to a P.C., P.T., etc.

4-1.1 Creating R/W Break & Easement Points

5. Within the Preferences tab set the Point Display Options. *(See Figure 4)*

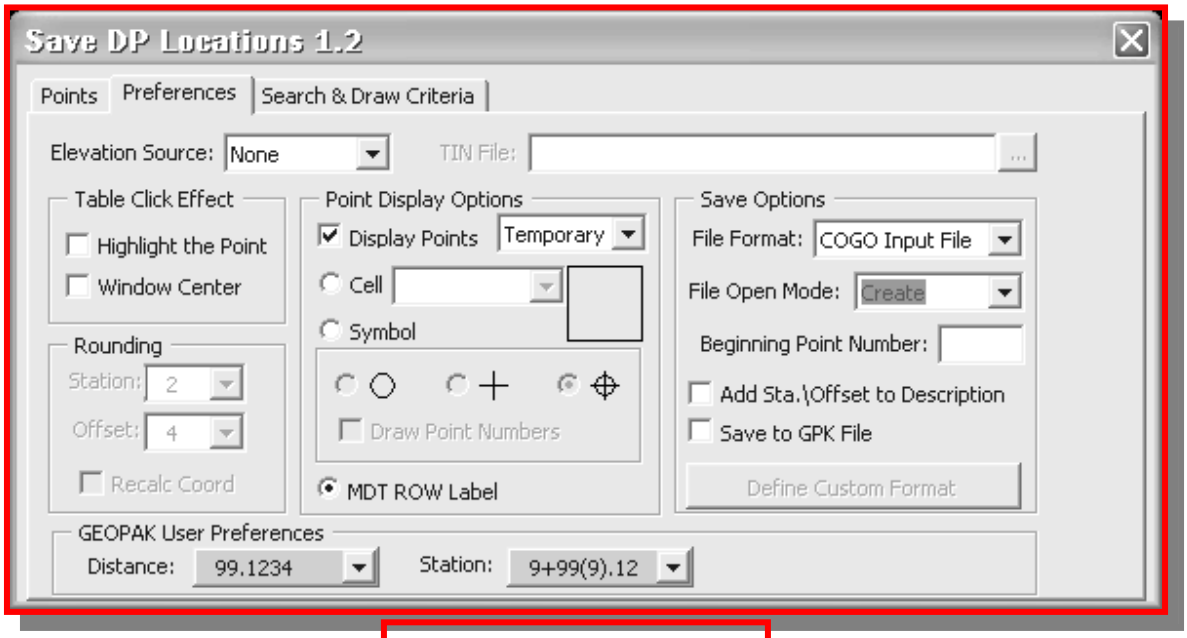

Figure 4

- Check **"DISPLAY POINTS"**.
- Select **"TEMPORARY"** from the drop down.
- Check **"MDT ROW LABEL"**.

8. Return to the Search & Draw Criteria tab to choose settings for calculating easement points. Select the Defaults **"EASE LINE (MET)"** or **"EASE LINE (ENG)"**, then alter the Search and Draw Criteria as appropriate. *(See Figure 7)*

   - For the Search Criteria use the **"MATCH"** button and select the graphical easement line in MicroStation.
   - The MDT ROW Draw Criteria – Line & Text is preset from the previous Defaults selection.

   Note: *The callout will display an offset from the centerline. This will need to be revised as appropriate. Review Section 23-6.7.2 of the R/W Design Manual.*

Figure 7

9. Review the points carefully. If any station or offset is not exactly as expected, your line work may be incorrect. Within the Preferences tab, the Table Click Effect settings may be useful when reviewing points.

   Note: *During a review of the breaks for errors you may find that some points may not have been populated. This is due to occasional unknown circumstances. The missing break(s) will have to be run individually using the* ***"ADD SINGLE POINT"*** *icon*  .

10. Section 23-6.7.1 of the R/W Design Manual outlines when both a station and offset can be labeled on the plans. Delete any r/w break points that can't be labeled with a station and offset. A coordinate can not be provided either. Use the **"DELETE POINT"** icon  .

11. Additional points such as found r/w monuments used to calculate a r/w break on the existing r/w or r/w monuments that will be used as part of the new r/w line will need to be added using the **"ADD SINGLE POINT"** icon  .

12. The points can be ordered using the **"STATION"** heading and/or up and down arrow buttons  prior to assigning point numbers. *(See Figure 8)*

NEW

4-1.1 Creating R/W Break & Easement Points

5. Within the Preferences tab set the Point Display Options. *(See Figure 4)*

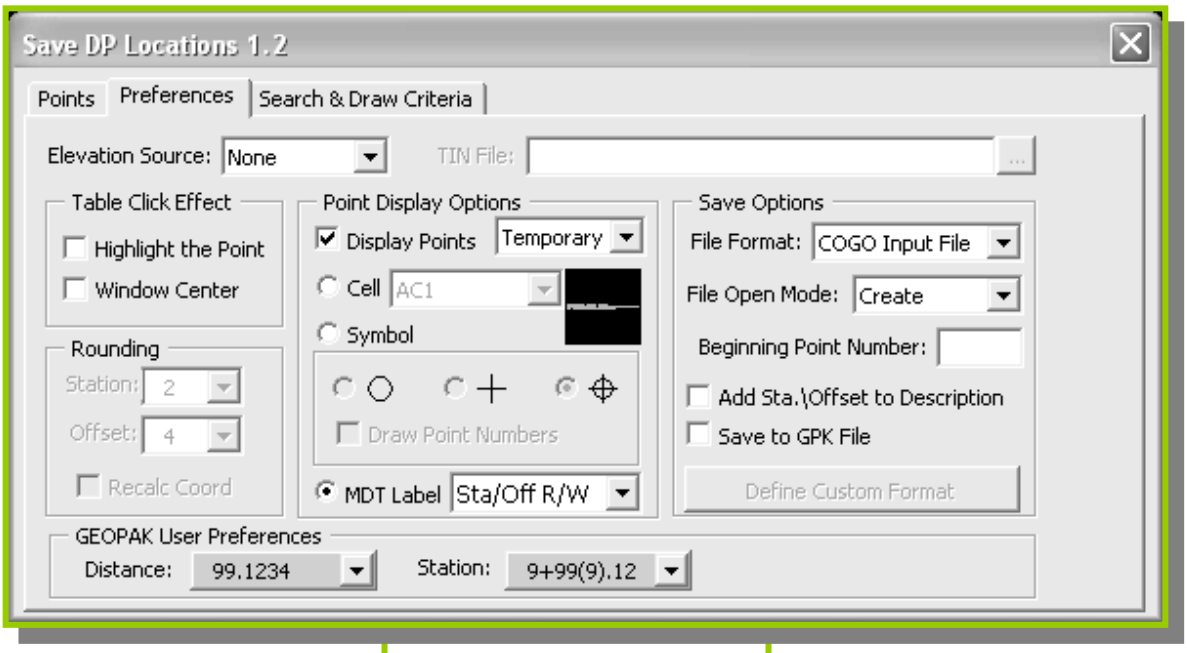

Figure 4

- Check **"DISPLAY POINTS"**.
- Select **"TEMPORARY"** from the drop down.
- Check **"MDT ROW LABEL"** and choose the **"STA/OFF R/W"** option.

8. Return to the Preferences tab to choose settings for calculating easement points. Set the **"MDT ROW LABEL"** Point Display Option to **"STA/OFF"**. *(See Figure 34)*

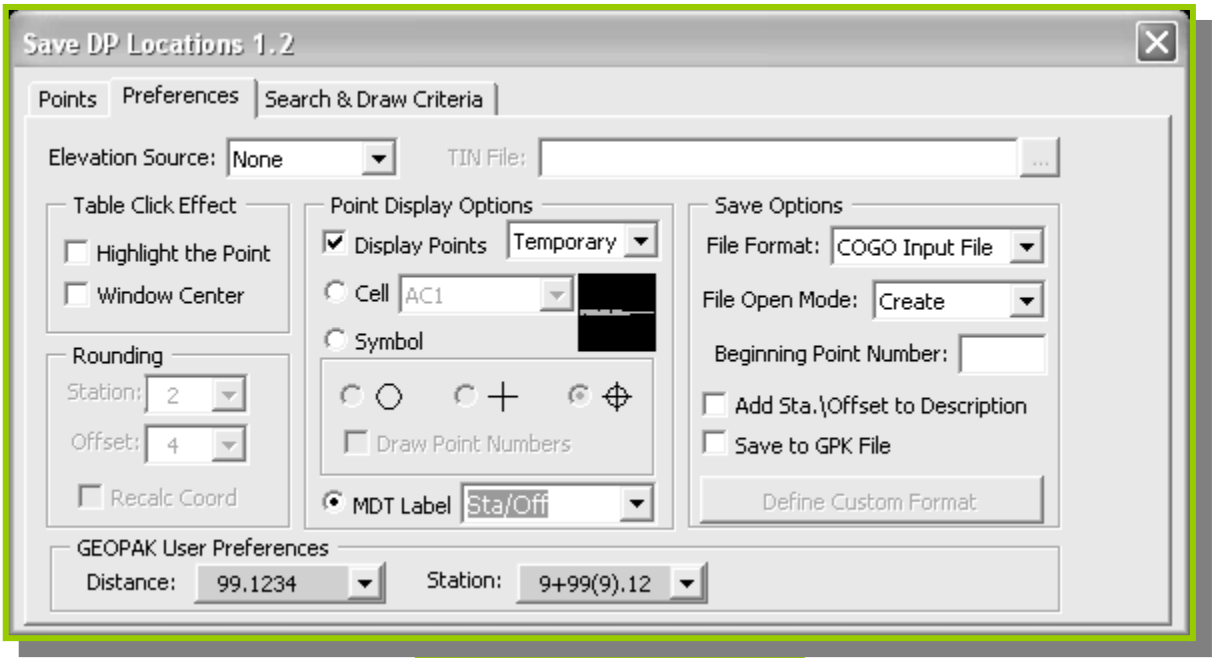

Figure 34

9. Within the Search & Draw Criteria tab select the Defaults **"EASE LINE (MET)"** or **"EASE LINE (ENG)"**, then alter the Search and Draw Criteria as appropriate. *(See Figure 7)*

   - For the Search Criteria use the **"MATCH"** button and select the graphical easement line in MicroStation.
   - The MDT ROW Draw Criteria – Line & Text is preset from the previous Defaults selection.

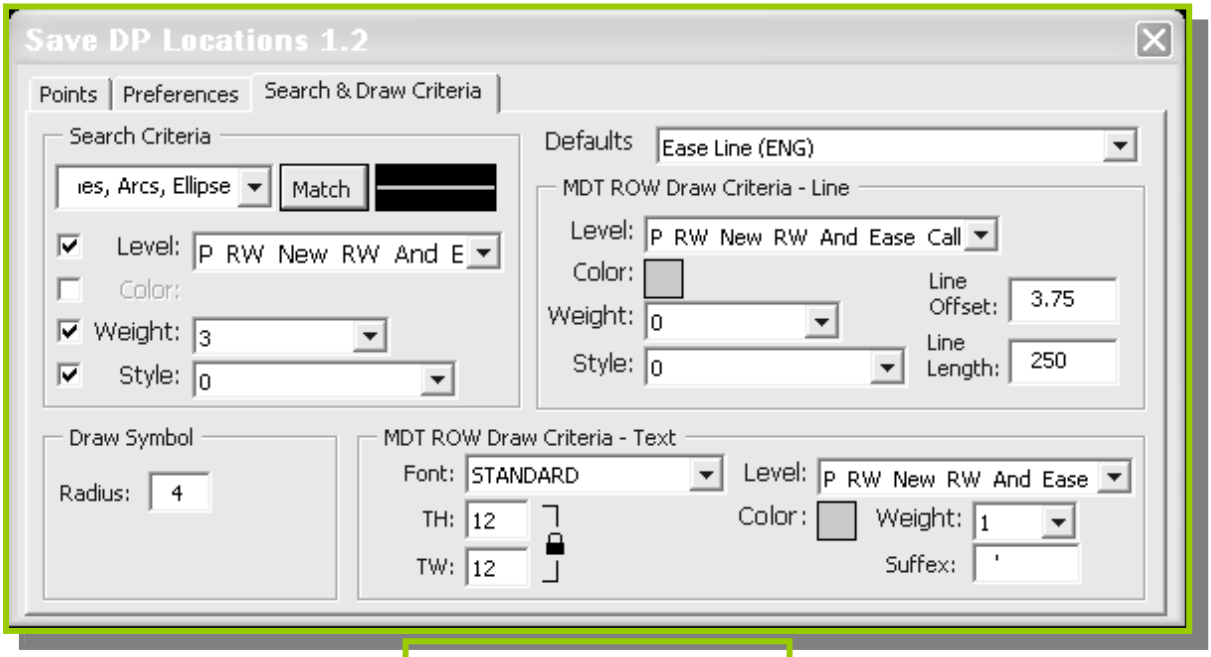

Figure 7

10. Return to the Points tab to establish the easement point coordinates in addition to the r/w break coordinates. The points will populate in the dialog as well as the callouts in MicroStation.

    Note: *The callout will display an offset from the centerline. This will need to be revised as appropriate. Review Section 23-6.7.2 of the R/W Design Manual.*

11. Review the points carefully. If any station or offset is not exactly as expected, your line work may be incorrect. Within the Preferences tab, the Table Click Effect settings may be useful when reviewing points.

    Note: *During a review of the breaks for errors you may find that some points may not have been populated. This is due to occasional unknown circumstances. The missing break(s) will have to be run individually using the* ***"ADD SINGLE POINT"*** *icon* .

12. Section 23-6.7.1 of the R/W Design Manual outlines when both a station and offset can be labeled on the plans. Delete any r/w break points that can't be labeled with a station and offset. A coordinate can not be provided either. Use the **"DELETE POINT"** icon .

13. Additional points such as found r/w monuments used to calculate a r/w break on the existing r/w or r/w monuments that will be used as part of the new r/w line will need to be added using the **"ADD SINGLE POINT"** icon .

14. The points can be ordered using the **"STATION"** heading and/or up and down arrow buttons prior to assigning point numbers. *(See Figure 8)*

OLD

4-1.2 Finalizing and Saving

2. Within the Preferences tab, the Save Options need to be set. *(See Figure 9)*

    - Enter the Beginning Point Number: **"2000"**.

NEW

4-1.2 Finalizing and Saving

2. Within the Preferences tab, the Save Options need to be set. *(See Figure 9)*

    - Enter the Beginning Point Number: (i.e. 2000). Refer to the Point Numbering Standards.

NEW

4-1.3 Revising Break Coordinates

6. Points may need to be removed or revised. This can be accomplished manually from within a text editor program (i.e. Microsoft Word, Notepad, etc.)

OLD

4-2.1 Station and Offset Known

2. The Locate On Element dialog box will appear. *(See Figure 12)*

    - Enter the Locate Point: using a 2000-series point number (i.e. 2000).

NEW

4-2.1 Station and Offset Known

2. The Locate On Element dialog box will appear. *(See Figure 12)*

    - Enter the Locate Point: (i.e. 2000). Refer to the Point Numbering Standards.

OLD

4-2.2 Offset – 'Station Known'

2. The Locate On Element dialog box will appear. *(See Figure 15)*

   - Enter the Locate Point: using a 4000-series point number (i.e.4011).

     Note: *The 4000-series point number will be used in conjunction with the found monument point numbers to calculate the r/w break.*

5. The Intersect Tool dialog box will appear. *(See Figure 17)*

   - Enter the Locate Point: using a 2000-series point number (i.e. 2001).
   - For the With Element area, select the 'drop down' **"LINE"** and enter the 4000-series point number created on the centerline in the previous step for the Point: (i.e. 4011).

NEW

4-2.2 Offset – 'Station Known'

2. The Locate On Element dialog box will appear. *(See Figure 15)*

   - Enter the Locate Point: using a miscellaneous working series point number (i.e. 4011). Refer to the Point Numbering Standards

     Note: *The miscellaneous working series point number will be used in conjunction with the found monument point numbers to calculate the r/w break.*

5. The Intersect Tool dialog box will appear. *(See Figure 17)*

   - Enter the Locate Point: (i.e. 2001). Refer to the Point Numbering Standards.
   - For the With Element area, select the 'drop down' **"LINE"** and enter the miscellaneous working series point number created on the centerline in the previous step for the Point: (i.e. 4011).

OLD

4-2.3 Station – 'Offset Known'

2. The Intersect Tool dialog box will appear. *(See Figure 21)*

   - Enter the Locate Point: using a 2000-series point number (i.e. 2002) .

NEW

4-2.3 Station – 'Offset Known'

2. The Intersect Tool dialog box will appear. *(See Figure 21)*

   - Enter the Locate Point: (i.e. 2002). Refer to the Point Numbering Standards.

DELETED **OLD**

4-2.7 Creating the R/W Break ASCII File

2. The Export GPK Points to ASCII Coordinate File dialog box will appear. Make adjustments as follows: *(See Figure 33)*

   - Highlight those points that define the r/w breaks from the Select Points to Export: area. (2000-series point)

OLD

5-1.1 Found Section Line Crossings

3. The Intersect Tool dialog box will appear. *(See Figure 3)*

   - Enter the Locate Point: using a 3000-series point number (i.e. 3000).

NEW

5-1.1 Found Section Line Crossings

3. The Intersect Tool dialog box will appear. *(See Figure 3)*

   - Enter the Locate Point: (i.e. 3000). Refer to the Point Numbering Standards.

OLD

5-1.2 Additional Section Corner Ties

2 The Locate On Element dialog box will appear. *(See Figure 9)*

   - Enter the Locate Point: using a 3000-series point number (i.e.3011).

NEW

5-1.2 Additional Section Corner Ties

2 The Locate On Element dialog box will appear. *(See Figure 9)*

   - Enter the Locate Point: (i.e.3011). Refer to the Point Numbering Standards.