

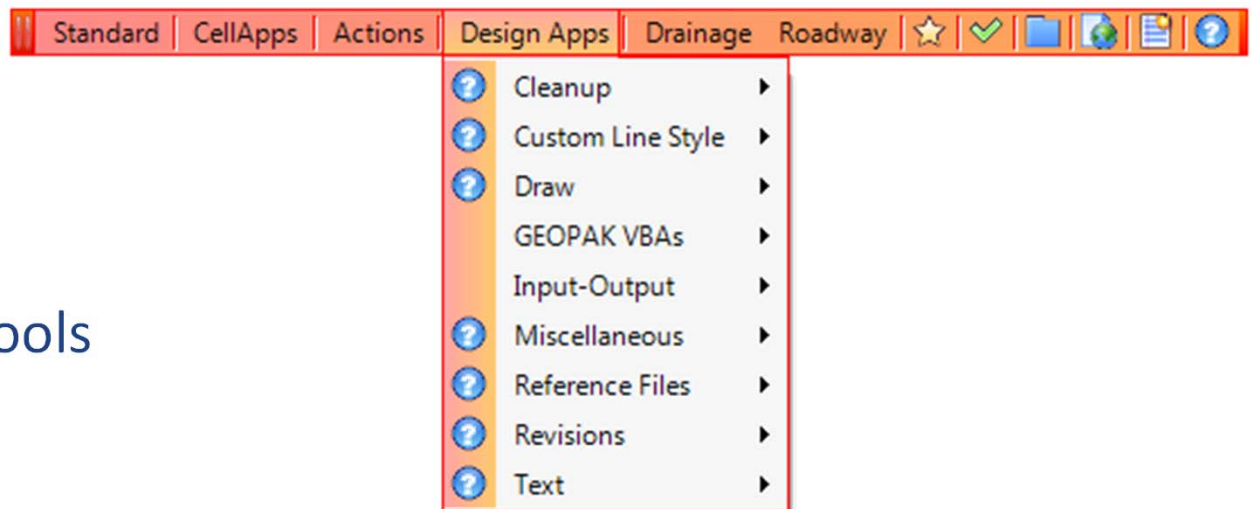


DesignApps Menu

Christiana Holmes

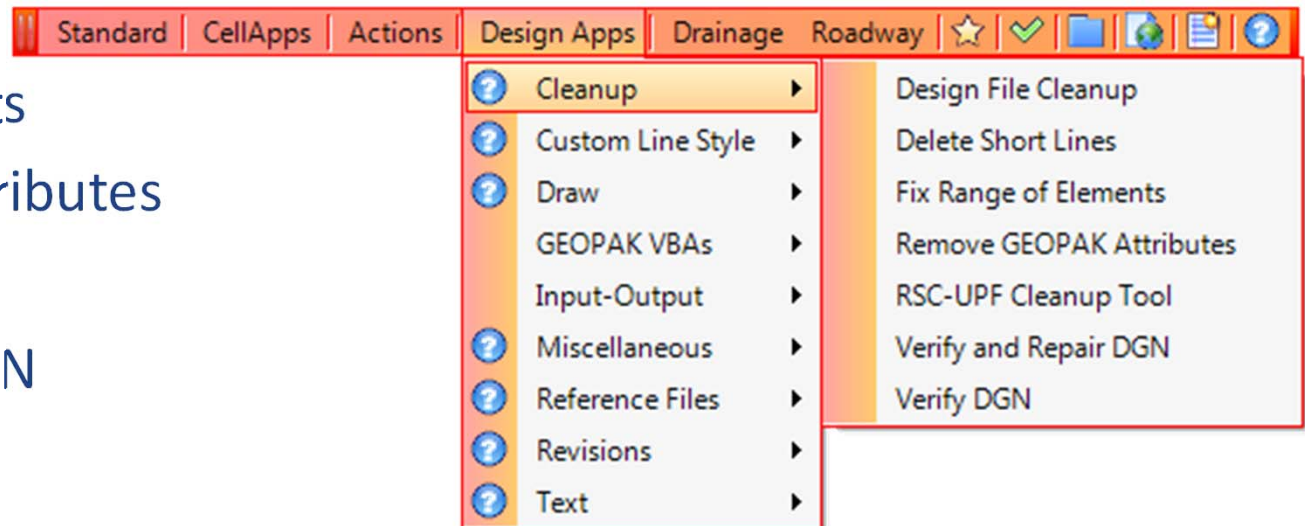
Topics Covered

- Cleanup Tools
- Custom Linestyle Tools
- Drawing tools
- GEOPAK VBAs
- Miscellaneous design tools
- Reference file tools
- Revision tools
- Text tools



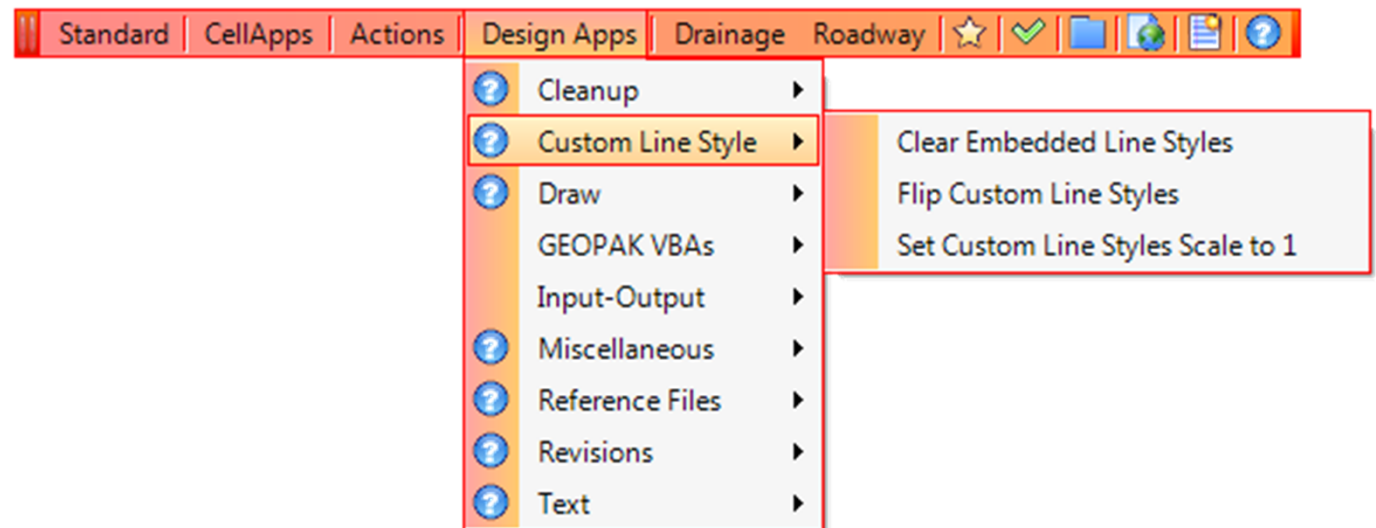
Cleanup Tools

- Design File Cleanup
- Delete Short Lines
- Fix Range of Elements
- Remove GEOPAK Attributes
- RSC-UPF Cleanup
- Verify and Repair DGN
- Verify DGN



Custom Linestyle Tools

- Clear Embedded Linestyles
- Flip Custom Linestyles
- Set Custom Linestyles to 1



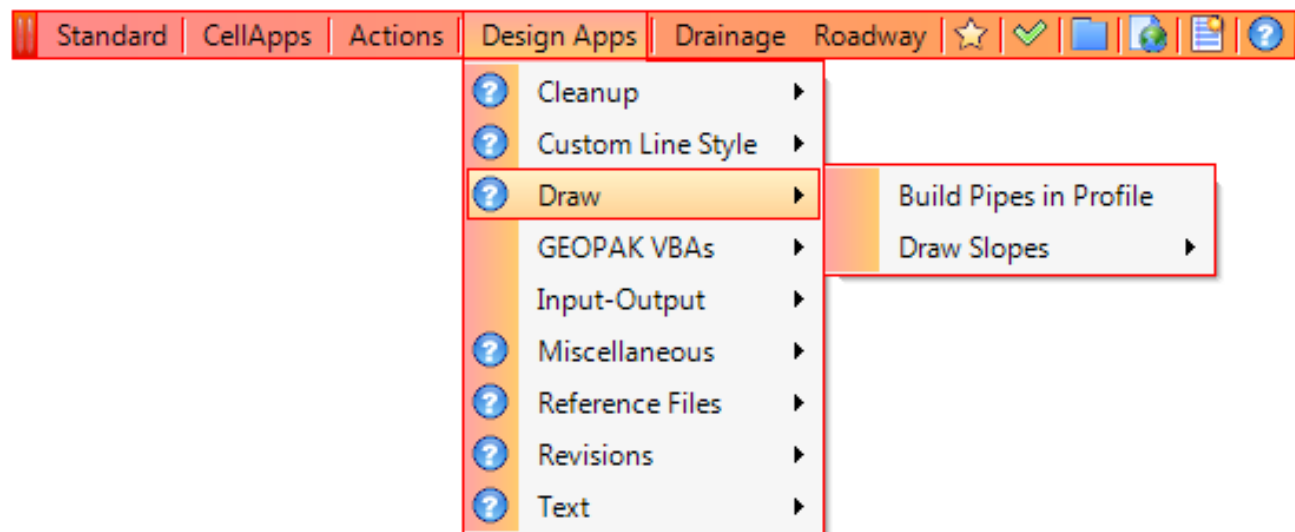
Clear Embedded Linestyles

Steps:

1. The active design file is saved to a *Backup design file* of the same filename with an “.old” file extension located in the same Project folder.
2. Opens the backup file, creates a new design file using the default MicroStation seed file, overwriting the original design file, and opens the new design file.
3. Within the new design file, sets *User Preferences* for reference attachments to **Copy Attachments and Nest Depth 1**.
4. For each *Model* that was in the backup design file, creates a new *Model* in the new design file by copying the default *Model*.
5. For each *Model* in the new design file, **References/Merge All** of the models contained in the backup design file.
6. Restores *User Preferences*.

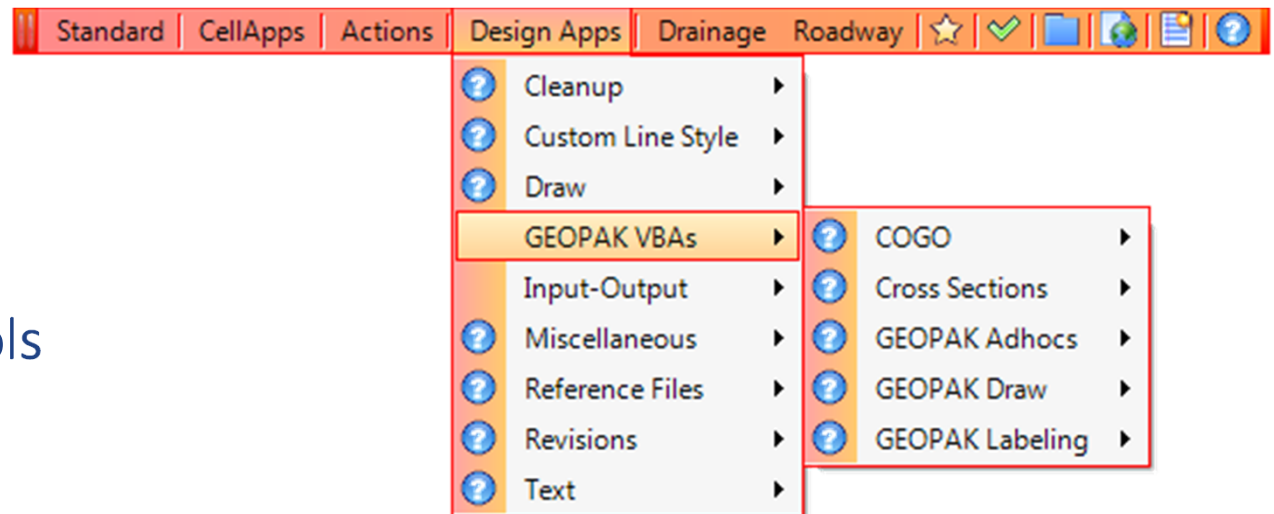
Drawing Tools

- Build Pipes in Profiles
- Draw Slopes



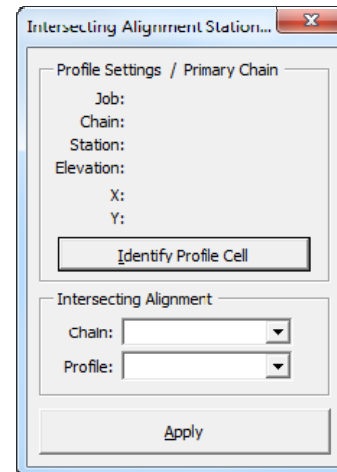
GEOPAK VBAs

- COGO VBAs
- Cross Section tools
- GEOPAK Adhoc tools
- GEOPAK Draw Tools
- GEOPAK Labeling Tools



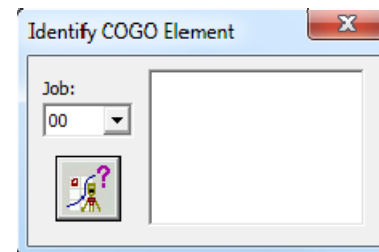
COGO VBAs

- Get Intersection Alignment Station and Elevation
 - Gives the Station and elevation of intersecting alignments.
- Identify COGO Element
 - Allows the user to identify an element in coordinate geometry.



The dialog box is titled "Intersecting Alignment Station...". It contains two main sections. The first section, "Profile Settings / Primary Chain", includes labels for Job, Chain, Station, Elevation, X, and Y, followed by an "Identify Profile Cell" button. The second section, "Intersecting Alignment", includes labels for Chain and Profile, each followed by a dropdown menu. An "Apply" button is located at the bottom of the dialog.

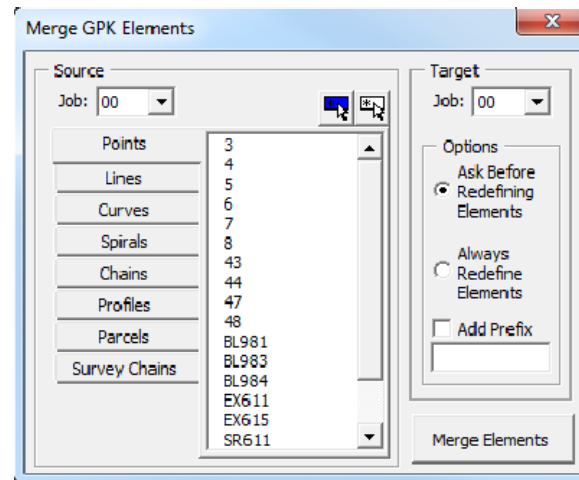
Get Intersection Alignment Station and Elevation
Identify COGO Element
Merge 2 GPK Files
Save DP to File or COGO
Store a Profile from Survey Points
VBA DP Station Offset



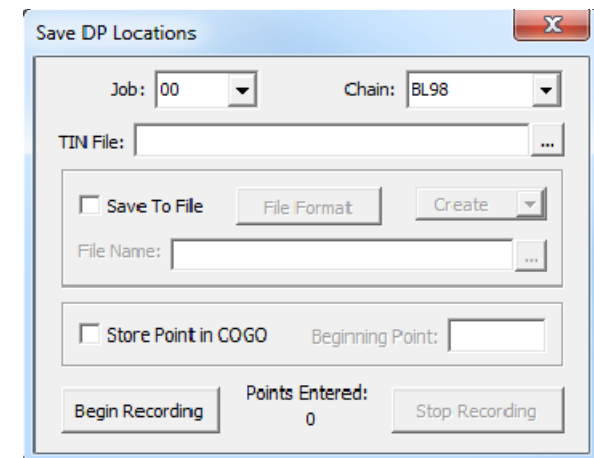
The dialog box is titled "Identify COGO Element". It features a "Job:" label with a dropdown menu showing "00". Below this is a small icon of a surveying instrument. To the right of the icon is a large, empty rectangular area for identifying elements.

COGO VBAs

- Merge 2 GPK Files
 - Merges GPK file elements together.
- Save DP to File or COGO
 - Saves data points to a COGO file or to a specific file type.



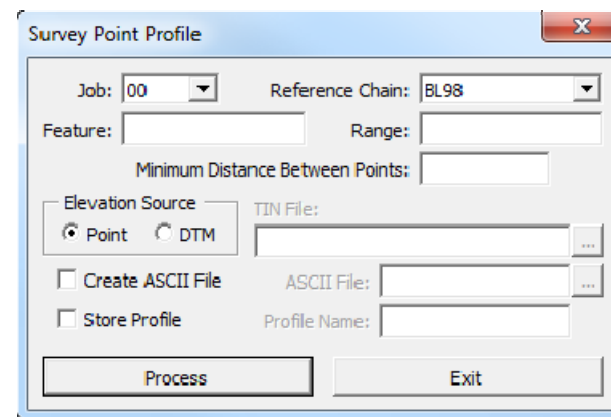
- Get Intersection Alignment Station and Elevation
- Identify COGO Element
- Merge 2 GPK Files
- Save DP to File or COGO
- Store a Profile from Survey Points
- VBA DP Station Offset



COGO VBAs

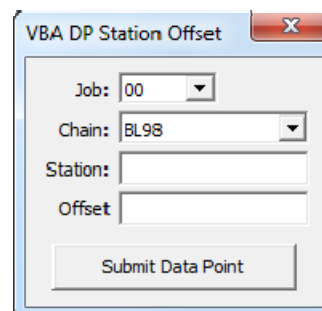
- Store a Profile from Survey Points
 - Creates a profile from an elevation source.
- VBA DP Station Offset
 - Adds a Data Point at a Station and Offset.

Get Intersection Alignment Station and Elevation
Identify COGO Element
Merge 2 GPK Files
Save DP to File or COGO
Store a Profile from Survey Points
VBA DP Station Offset



The 'Survey Point Profile' dialog box contains the following fields and controls:

- Job: 00 (dropdown)
- Reference Chain: BL98 (dropdown)
- Feature: (text field)
- Range: (text field)
- Minimum Distance Between Points: (text field)
- Elevation Source: ☒ Point, ☐ DTM
- TIN File: (text field with browse button)
- ☐ Create ASCII File
- ASCII File: (text field with browse button)
- ☐ Store Profile
- Profile Name: (text field)
- Process (button)
- Exit (button)

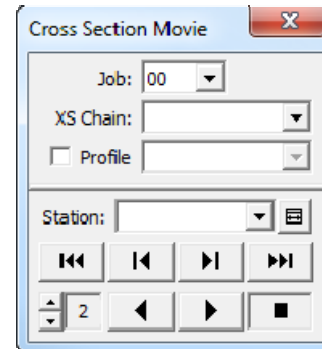


The 'VBA DP Station Offset' dialog box contains the following fields and controls:

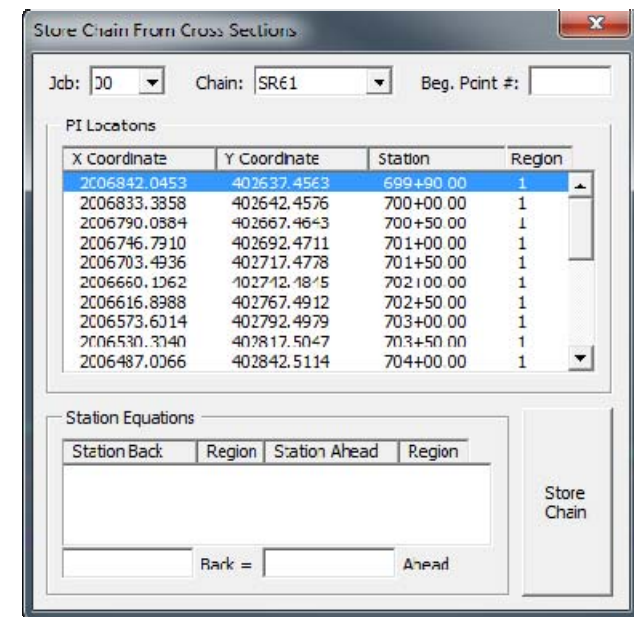
- Job: 00 (dropdown)
- Chain: BL98 (dropdown)
- Station: (text field)
- Offset: (text field)
- Submit Data Point (button)

Cross Section VBAs

- Review Cross Sections in Animation
 - Navigates through cross sections.
- Store Chain from Cross Section Cell
 - Stores a chain from cells in a cross section file.

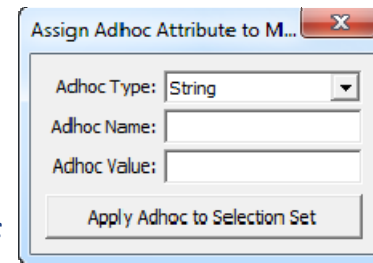


Review Cross Sections in Animation
Store Chain from Cross Section Cell

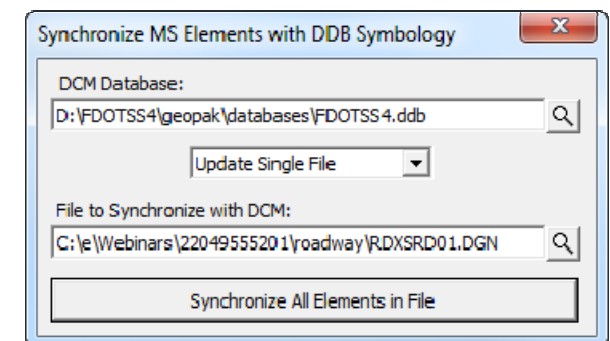
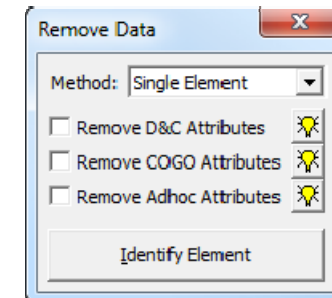


GEOPAK Adhoc VBAs

- Assign GEOPAK Adhocs
 - Allocates adhocs to a selection set of elements.
- Remove GEOPAK Attributes and Adhocs
 - Removes specific data from GEOPAK elements.
- Sync MS Elements w\ DDB Symbology
 - Synchronizes a selected design file with the current ddb.



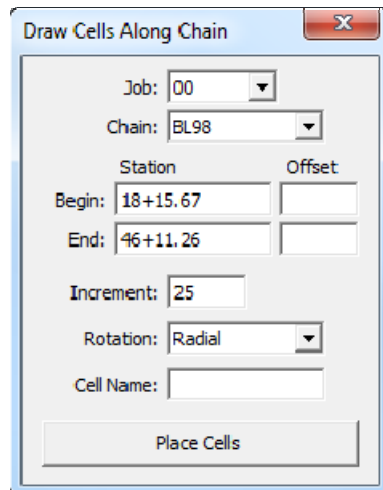
Assign GEOPAK Adhocs
Remove GEOPAK Attributes and Adhocs
Sync MS Elements w\ DDB Symbology



GEOPAK Draw VBAs

Draw Cells Along Chain
Draw Curve Widening

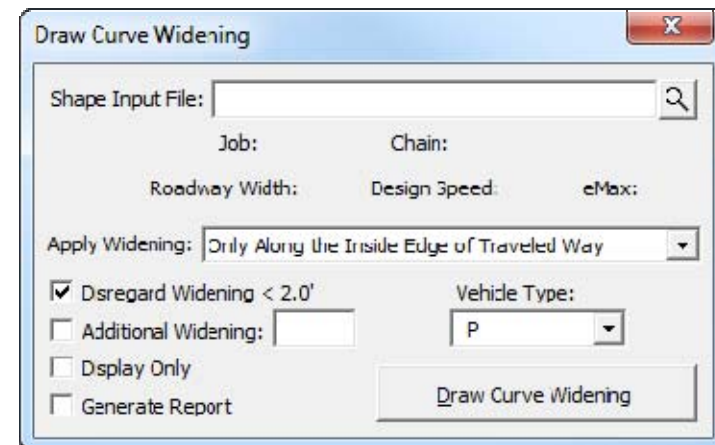
- Draw Cells Along Chain
 - Draws cells along a GEOPAK chain at a set offset.



The 'Draw Cells Along Chain' dialog box contains the following fields and controls:

- Job: 00 (dropdown)
- Chain: BL98 (dropdown)
- Station: Begin: 18+15.67, End: 46+11.26
- Offset: (empty field)
- Increment: 25 (text input)
- Rotation: Radial (dropdown)
- Cell Name: (empty text input)
- Place Cells (button)

- Draw Curve Widening
 - Draws widening for curves based on a shape file.



The 'Draw Curve Widening' dialog box contains the following fields and controls:

- Shape Input File: (text input with search icon)
- Job: (empty field)
- Chain: (empty field)
- Roadway Width: (empty field)
- Design Speed: (empty field)
- eMax: (empty field)
- Apply Widening: Only Along the Inside Edge of Traveled Way (dropdown)
- ☒ Disregard Widening < 2.0'
- ☐ Additional Widening: (empty text input)
- Vehicle Type: P (dropdown)
- ☐ Display Only
- ☐ Generate Report
- Draw Curve Widening (button)

GEOPAK Labeling VBAs

- Label Elevations at Chain Intersections
 - Labels elevations on a profile at intersecting alignments.
- Label Elevations from TIN
 - Labels elevations in plan view from a existing and proposed TIN.

Label Elevations at Chain Intersections

Label Elevations from TIN

Label Elevations on Profile at Sheet Limits

Label Profile Elevations

Label Profile Information

Label SSD on Profile Sag Curves using Headlight Projection

Label Station Equations in Profiles

Intersect Alignments

Profile Settings / Primary Chain

Job:

Chain:

Station:

Elevation:

X:

Y:

Identify Profile Cell

Apply

Intersecting Chains

Chain

Profile

Chain

Profile

Label DTM Elevations in Plan

Existing TIN:

Proposed TIN:

Placement Mode: Single Point

Grid Interval

X:

Y:

Label Composition

☒ Existing Elevation

☒ Proposed Elevation

☒ Elevation Difference

Place Single Label

Exit

GEOPAK Labeling VBAs

- Label Elevations on Profile at Sheet Limits
 - Labels the elevations on a profile at the sheet borders.
- Label Profile Elevations
 - Places the elevations of a profile at a specific spacing.

Label Elevations at Chain Intersections

Label Elevations from TIN

Label Elevations on Profile at Sheet Limits

Label Profile Elevations

Label Profile Information

Label SSD on Profile Sag Curves using Headlight Projection

Label Station Equations in Profiles

Draw Profile Elevations on... X

Job: 00
Chain: SR61
Profile: SR61_PR
Increment: 25

Place Elevations

Profile Elevations at Sheet Limits X

Profile Settings

Job:
Chain:
Station:
Elevation:
X:
Y:

Identify Profile Cell

Profile Sheet Shapes Found

Existing Profile:
Proposed Profile:
Label Scale: 10

Preferences Draw Profile Elevations

GEOPAK Labeling VBAs

- Label Profile Information:

Label Profile Information

Profile Settings

Job:
Chain:
Station:
Elevation:
Scale:
X:
Y:

Identify Profile Cell

Station Equations

☐ Label Station Equations

Prefix: Suffix:

Back: Sta. Back =
Ahead: Sta. Ahead

☐ Include Regions in the Label

Summit Points

☐ Label Summit Points ☐ HP/LP Prefix

☐ Station Prefix: Stc.
☐ Elevation Prefix: El.

Apply

Profile: [dropdown]

Label Elevations at Chain Intersections
Label Elevations from TIN
Label Elevations on Profile at Sheet Limits
Label Profile Elevations

Label Profile Information

Label SSD on Profile Sag Curves using Headlight Projection

Label Station Equations in Profiles

- Label Station Equations in Profiles:

Label Station Equations in Profile

Profile Settings

Job:
Chain:
Station:
Elevation:
Scale:
X:
Y:

Identify Profile Cell

Profile: [dropdown]

Prefix: Suffix:

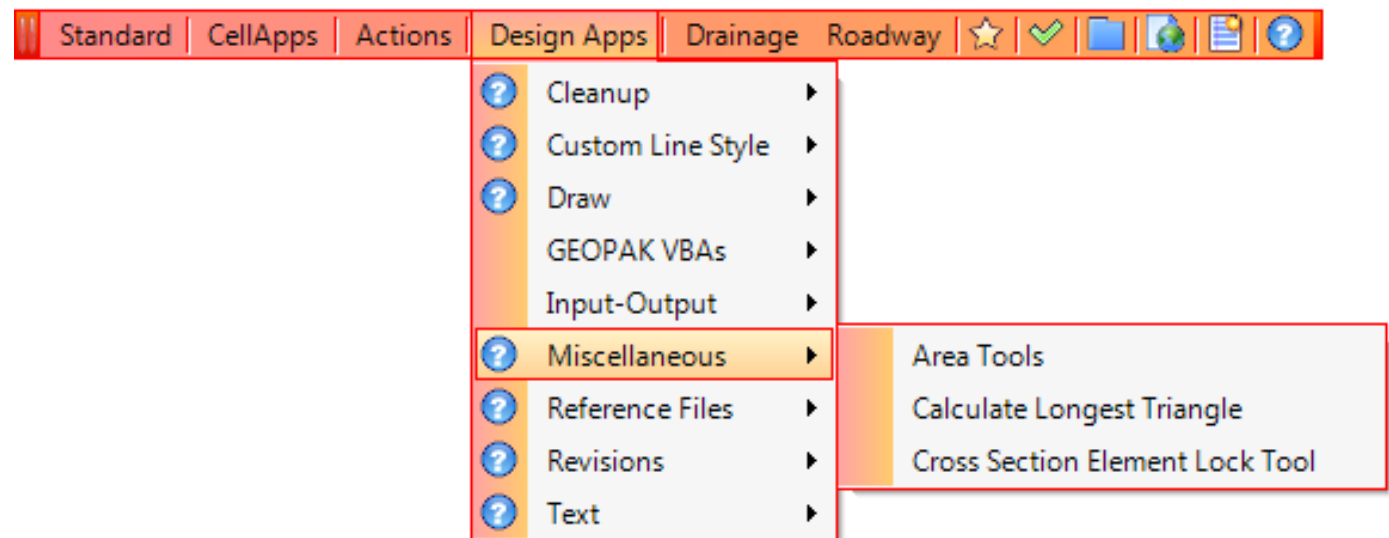
Back: Sta. Back -
Ahead: Sta. Ahead

☐ Include Regions in the Label

Apply

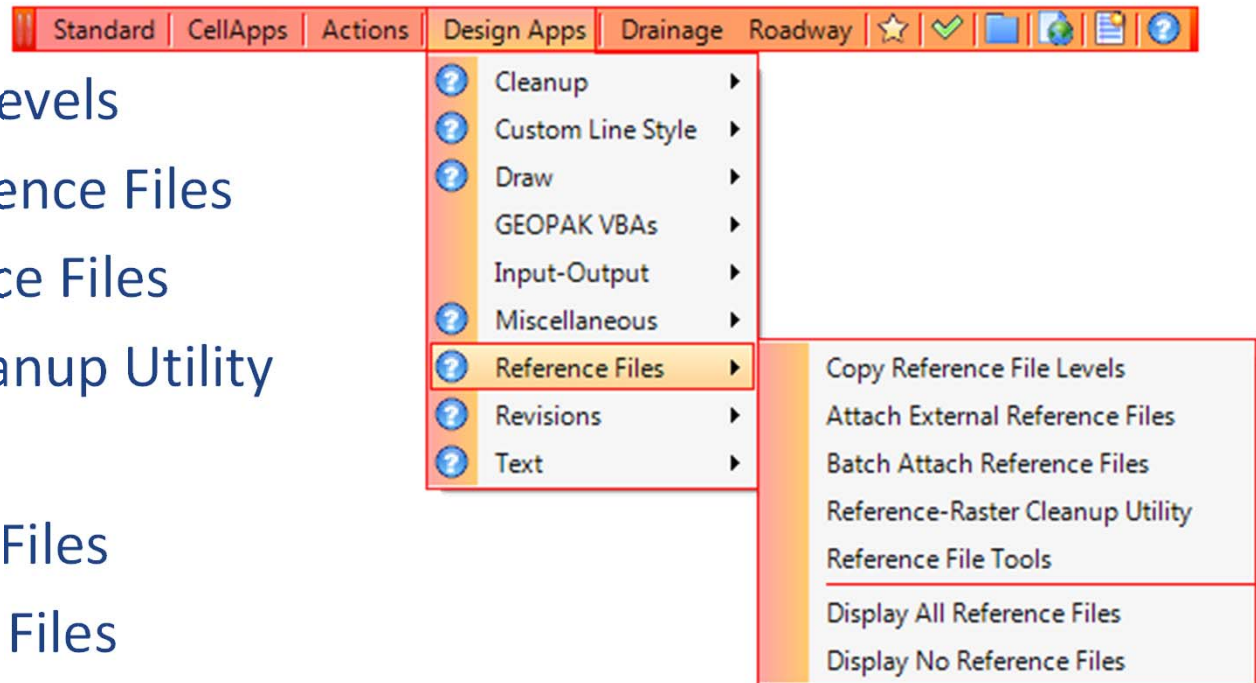
Miscellaneous Design Tools

- Area Tools
- Calculate Longest Triangle
- Cross Section Element Lock Tool



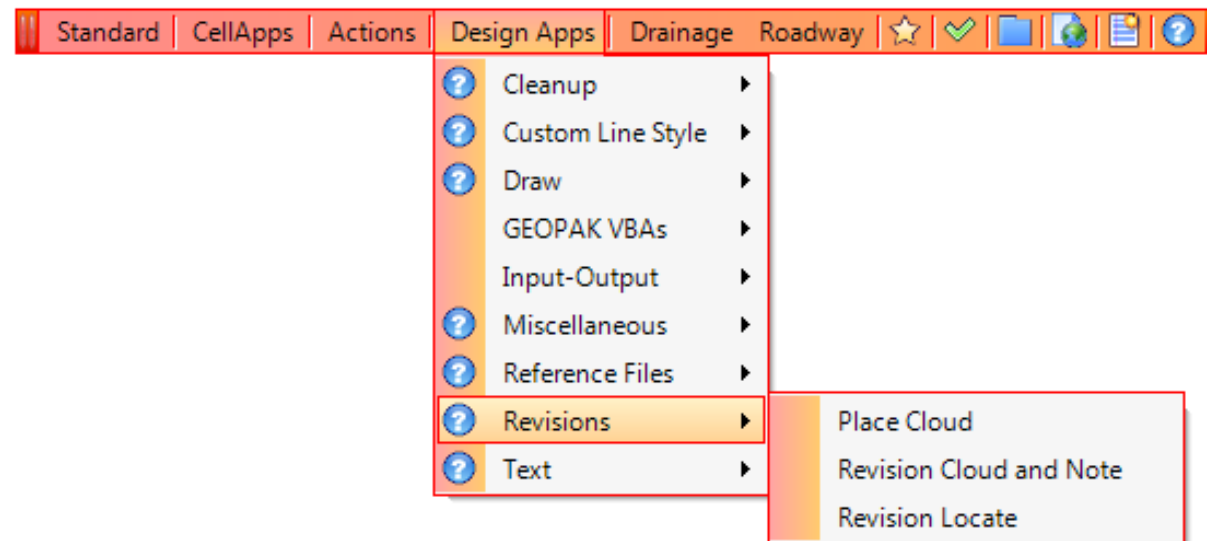
Reference File Tools

- Copy Reference File Levels
- Attach External Reference Files
- Batch Attach Reference Files
- Reference-Raster Cleanup Utility
- Reference File Tools
- Display All Reference Files
- Display No Reference Files



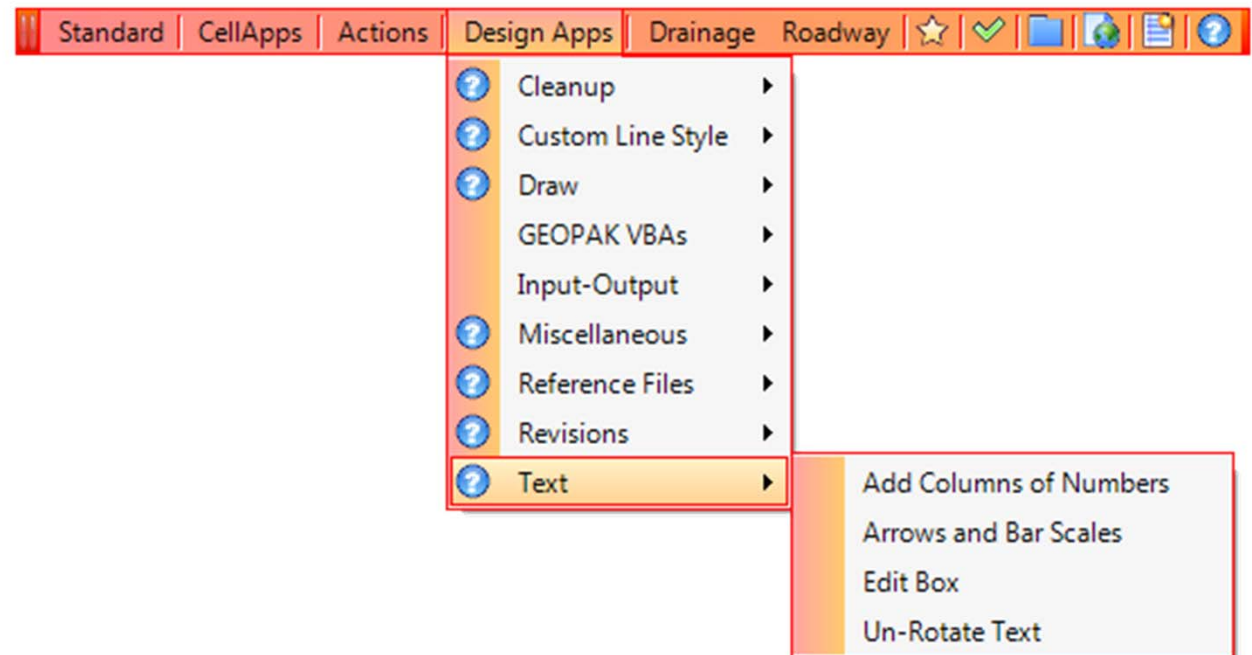
Revision Tools

- Place Cloud
- Revision Cloud and Note
- Revision Locate



Text Tools

- Add Columns of Numbers
- Arrows and Bar Scales
- Edit Box
- Un-Rotate Text



Questions?

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