MONTANA
Department of Transportation

2021

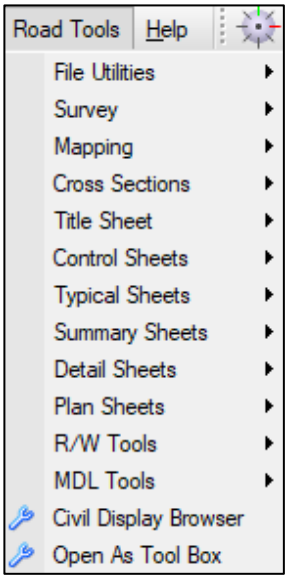
MicroStation / Power GEOPAK V8i (SELECTseries 10) Enhanced Workspace Macro Overview

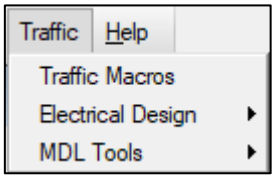
TABLE OF CONTENTS

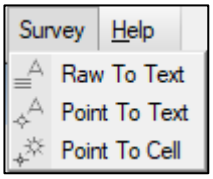
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OVERVIEW

This document is an overview of the macros that exist within the Road Tools, Traffic, and Survey menus in MicroStation/Power Geopak. Users should utilize the HELP button on a macro for a more in-depth description on how to use it.







REFERENCES

Enhanced Workspace Overview

This document provides a user focused overview of the MDT Enhanced workspace.

Creating and Annotating Cross Sections

R/W Labeler

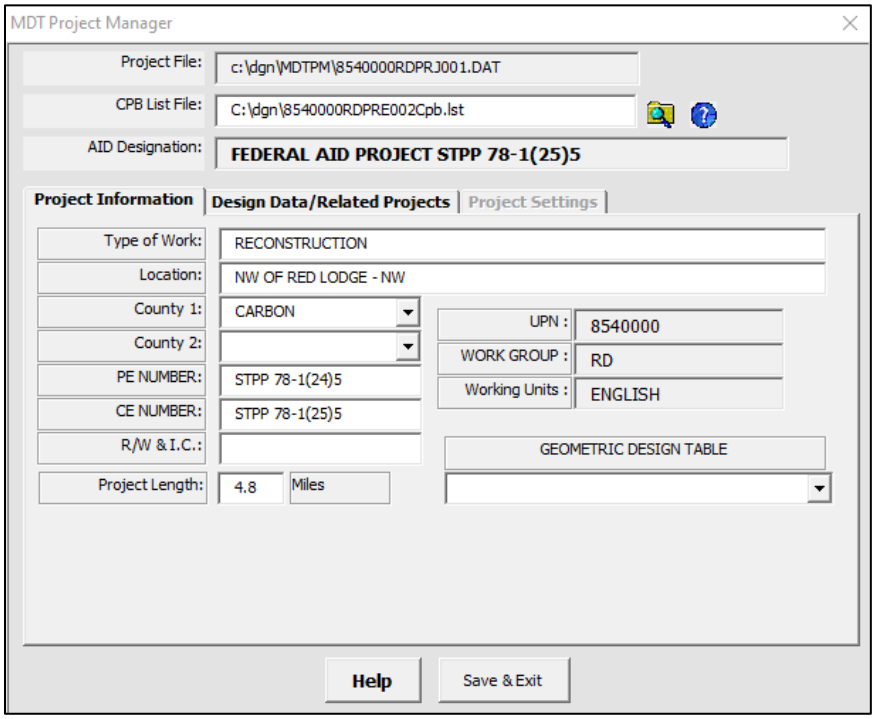
ROAD TOOLS

FILE UTILITIES

The File Utilities macros are generally used for project setup and file creation and serve as a basis for the rest of the macros within this document.

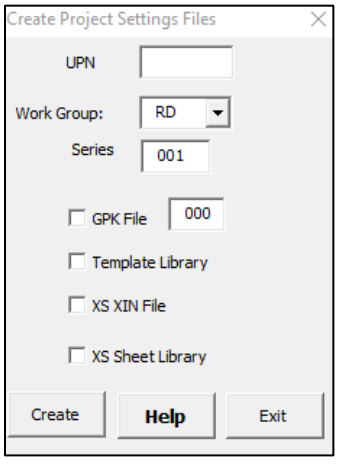
Project Manager

Used to manage project-related data in DGN files, such as the Title Sheet and sheet borders.



Create GPK Project

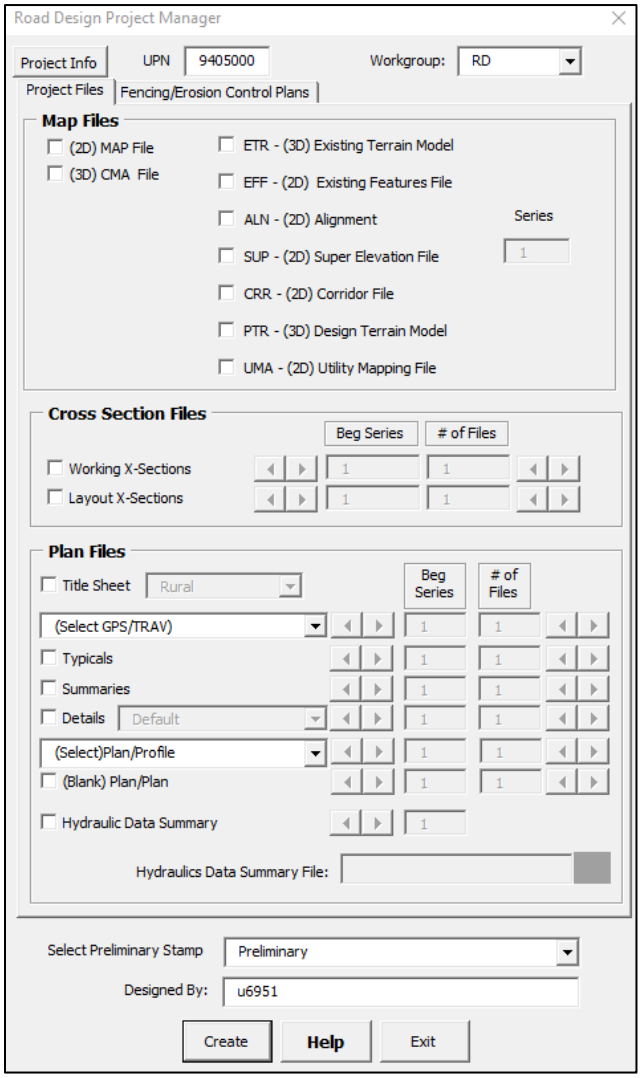
Used to create project GPK files.



Create DGNs

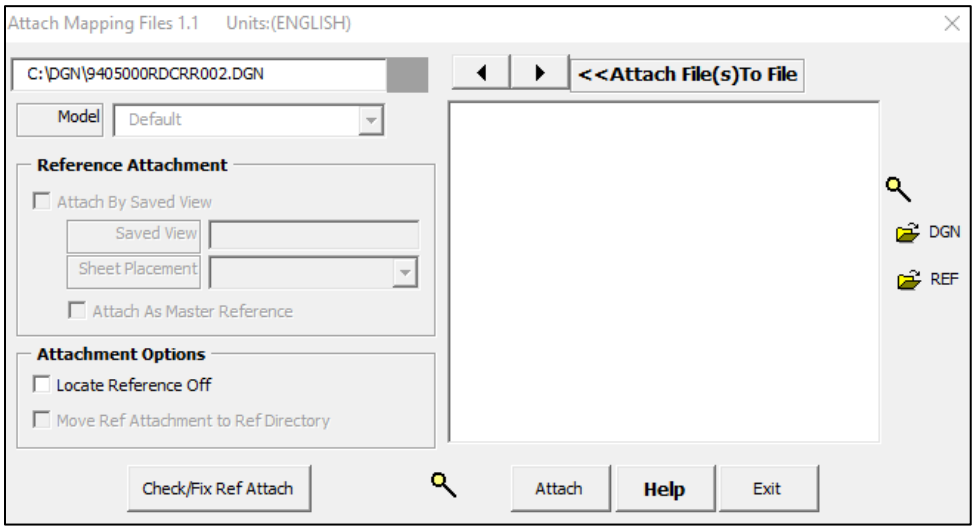
Used to create Road Design, Safety, and Hydraulics project DGN files.

NOTE: This tool will crash if a file is open with a dynamic view open.



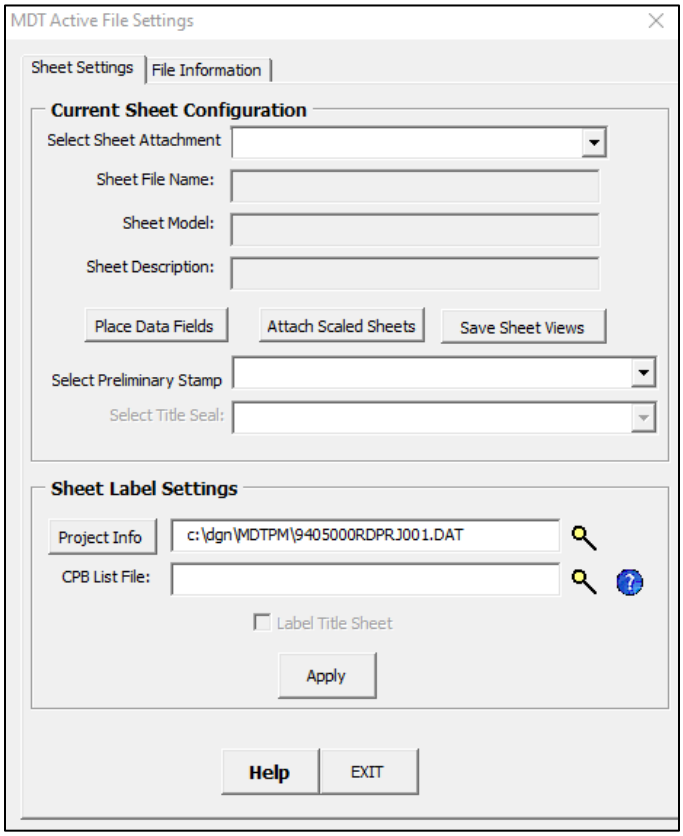
Attach Mapping Files

Used to attach reference files to a project. Check/Fix Ref Attach adds or corrects file name logical prefixes for the references to be correctly processed by MDT's Project Content Management System (PCMS) and plotting solution (Docuplot).



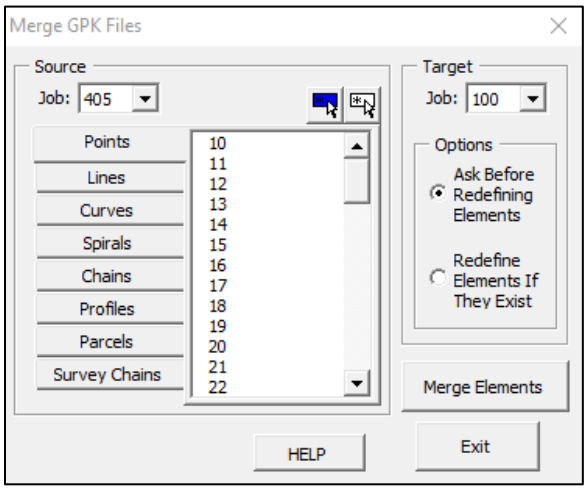
Active File Settings

Used to modify file attachments and settings only within the current active file.



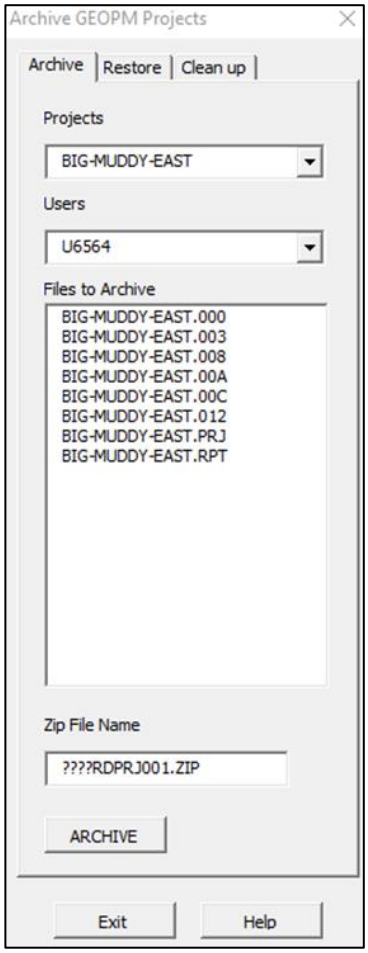
Merge GPK Files

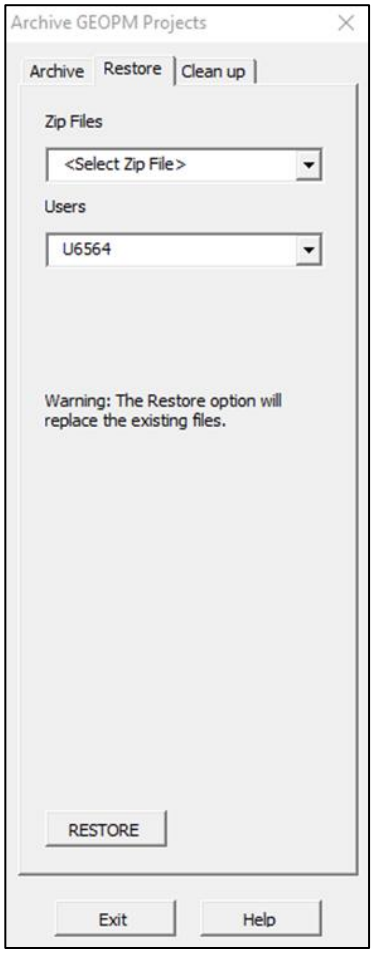
Geopak > Merge GPK Files. Used to merge elements from one GPK file to another.

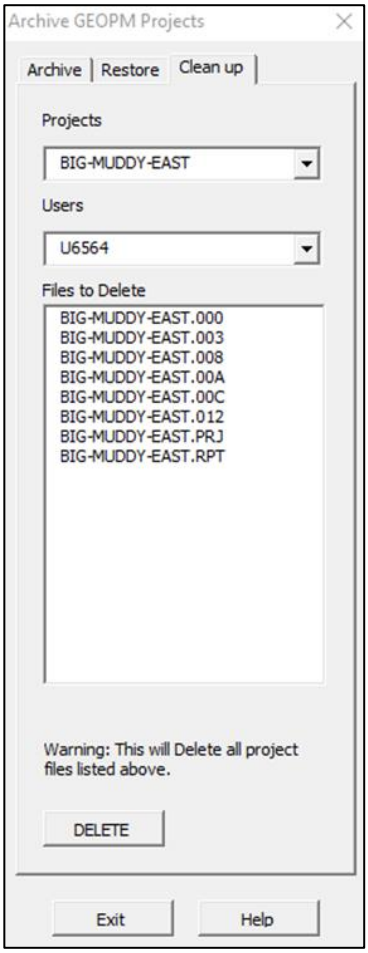


Archive GPK Project

Geopak > Archive GPK Files. Used to archive GEOPM files to C:\DGN.





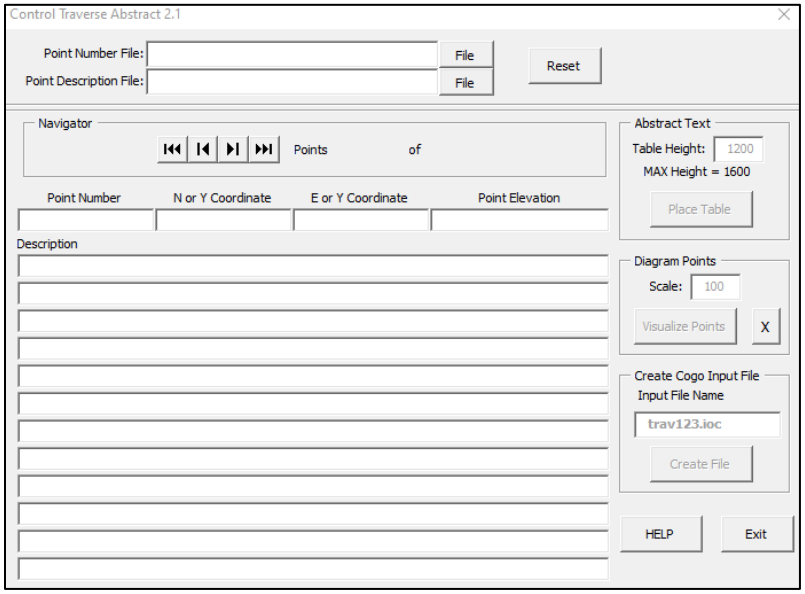


SURVEY

Survey macros use survey data to import tables, cells, and text into the appropriate files.

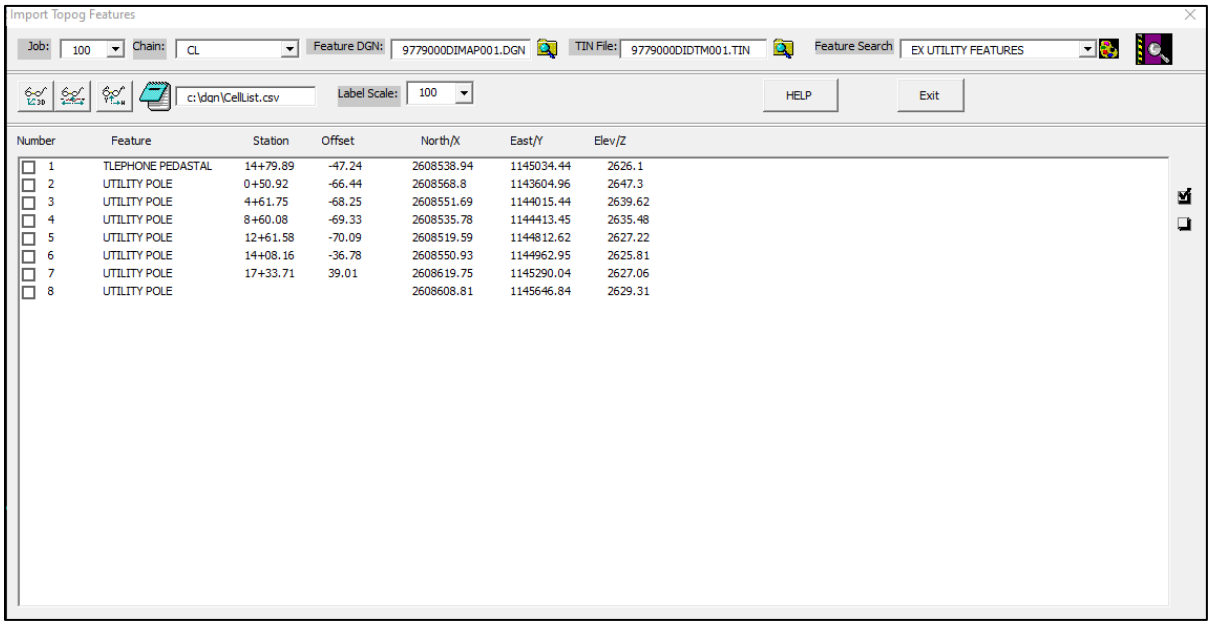
Import Survey Control

Used to import control points and control point description tables into MicroStation from Survey .ITL and .DES files. This macro is typically used in a Traverse (TRV) DGN file.



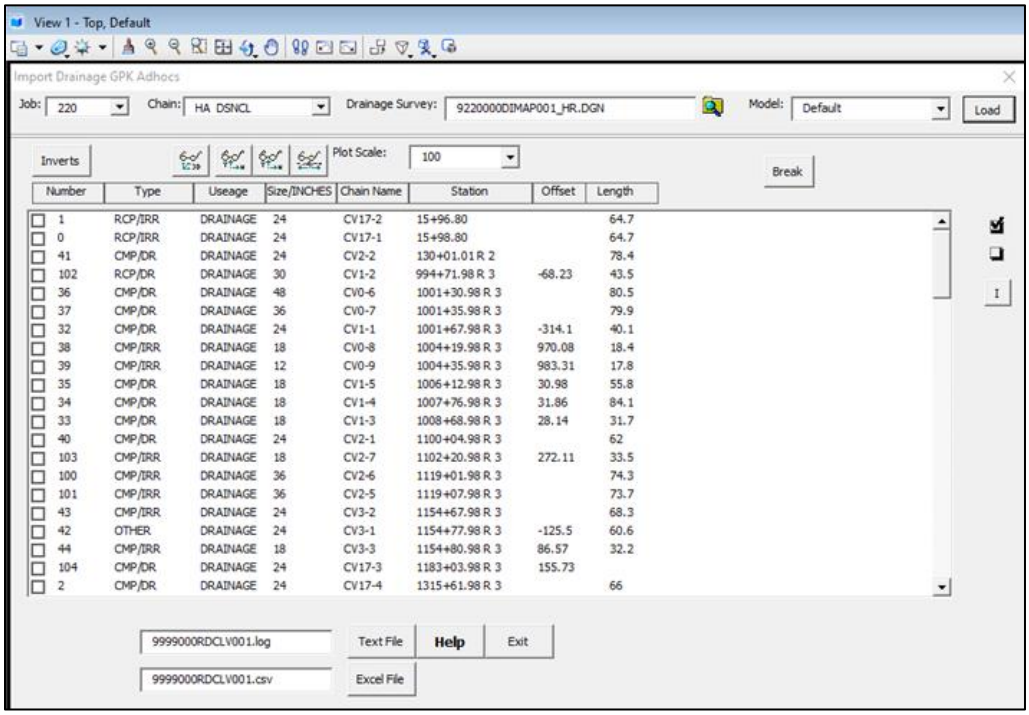
Import Topog Features

Used to import topographic features. These can be placed as 3D cells, features on cross sections, as a text list, or exported as a .CSV (comma-separated values) file.

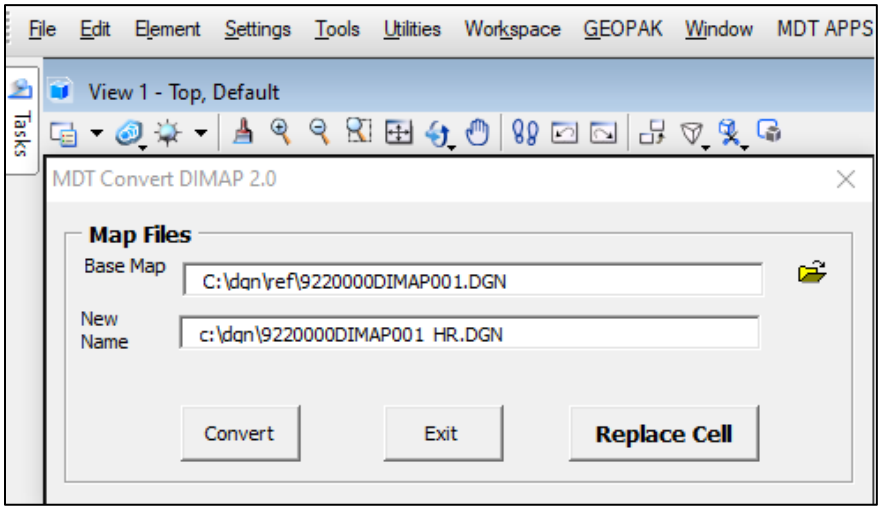


Import Drainage GPK Adhocs

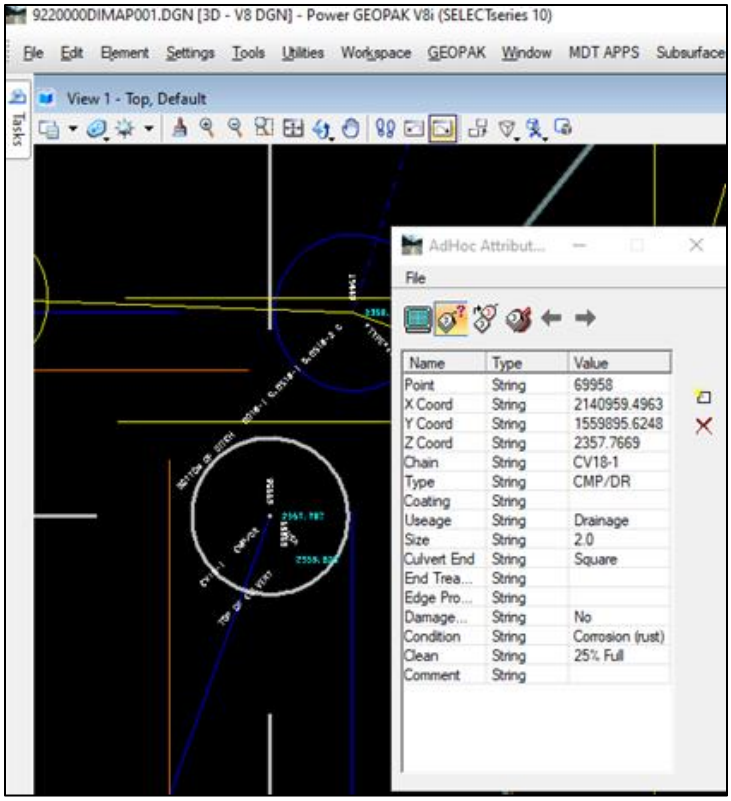
Import Drainage Features > Import Drainage GPK Adhocs. Used to import culvert data from survey. This tool can only be used for Legacy survey files.



To use Legacy survey in an OpenRoads Enhanced project, it first needs to be converted using MDT APPS > DI Converter. This saves a new version of the DIMAP file for use with this macro:



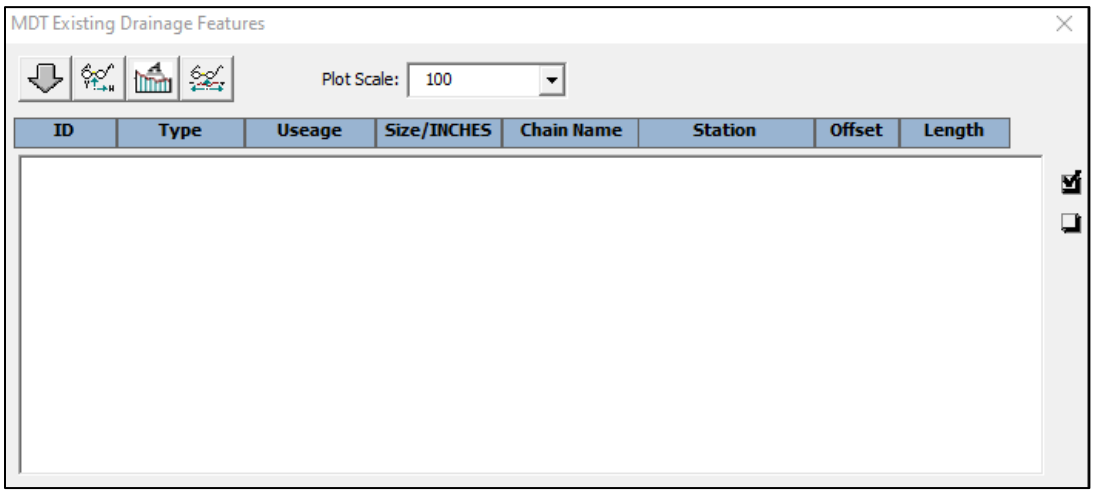
The survey also must be prepared with the attribute data. This can be checked by opening the DIMAP file, using Geopak > Road > 3PC AdHoc Attribute Manager, and double clicking on a culvert end point:



For surveys not prepared with attribute data, it can be manually added to the culvert points using the Inverts button.

Import Drainage Feature Data

Import Drainage Features > Import Drainage Feature Data. Used to import drainage features from survey files. This tool can only be used for Enhanced survey files. This tool can draw features in plan, profile, and XS views.

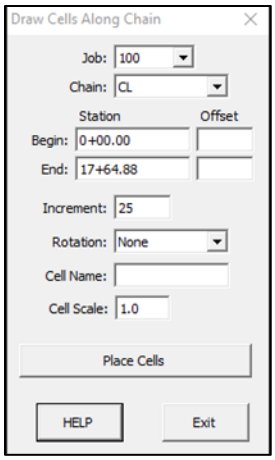


MAPPING

The Mapping macros are typically used in mapping files.

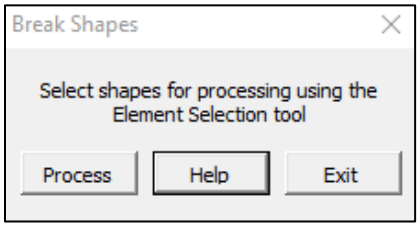
Draw Alignment Cells

Used to place cells along an alignment chain.



Break Shapes

Used to drop closed shape elements to line string elements. Click the Help button for more detail.

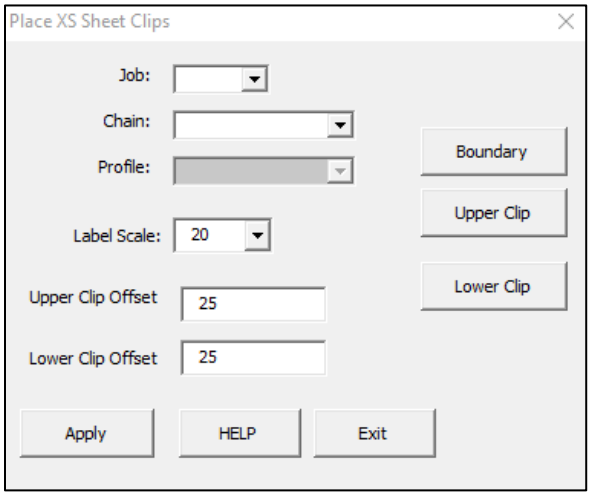


CROSS SECTIONS

The Cross Sections macros apply to cross sections files.

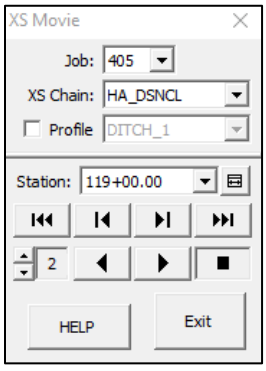
Place XS Sheet Clips

Used to place sheet clips on cross sections.



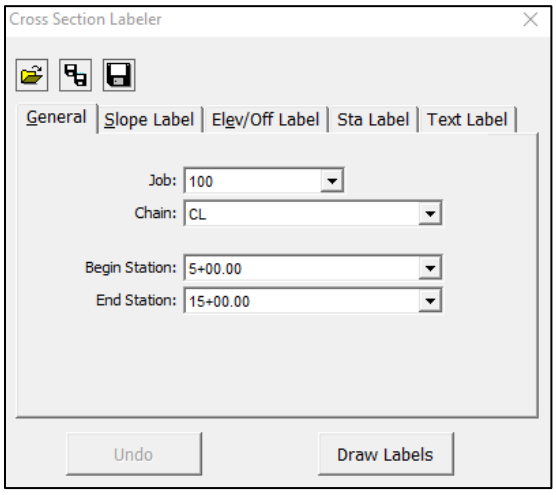
XS Movie

Used to move between cross sections in an XSF file.



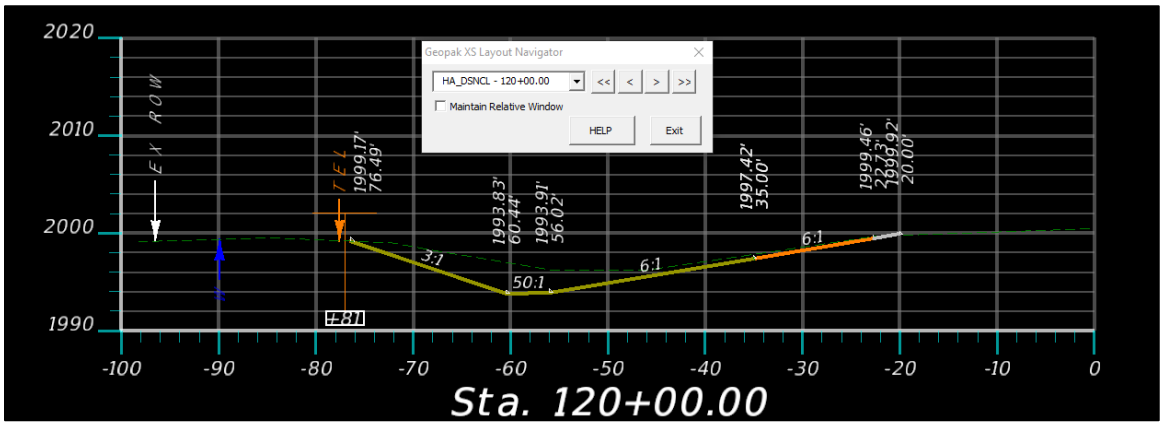
XS Feature Labeling

Used to label cross section features with slope, elevation, offset, etc. This feature label data is saved as an .XLP (Cross Section Labeling Preference) file. Refer to the Creating and Annotating Cross Sections guidance for more information about this tool.



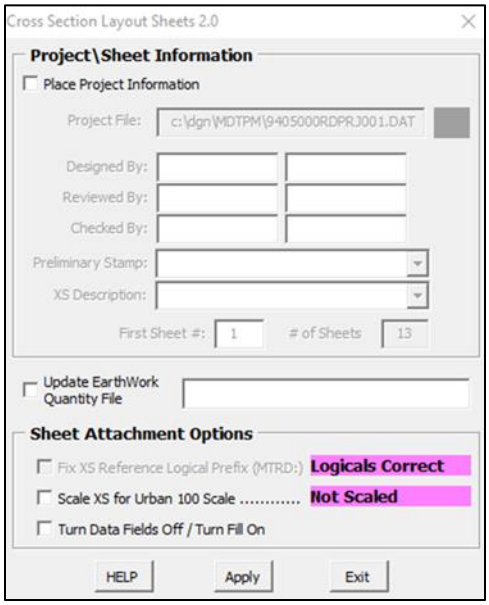
XS Sheet Navigator

Used to navigate between cross sections by station number. The user must be in a Cross Section Layout (LAY) file for this tool to work.



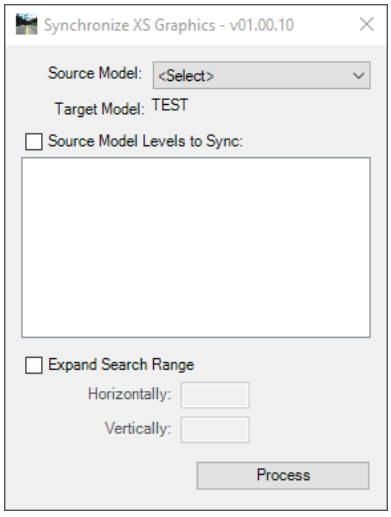
XS Sheet Labeling

Used to label cross section sheets. The user must be in a Cross Section Layout (LAY) file for this program to work.



XS Sync

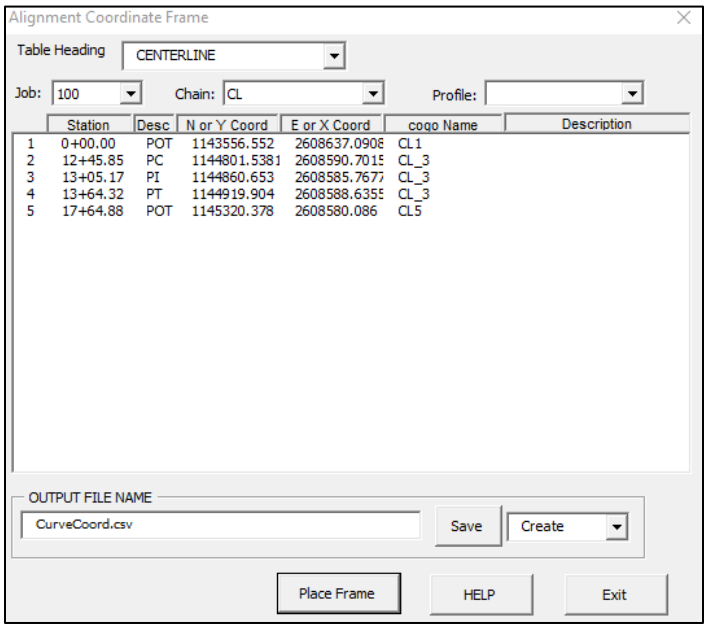
Used to sync levels from a source model to a cross section model. Refer to the Creating and Annotating Cross Sections guidance for more information about this tool.



TITLE SHEET

Alignment Coordinate Forms

Used to draw alignment coordinate tables.



CONTROL SHEETS

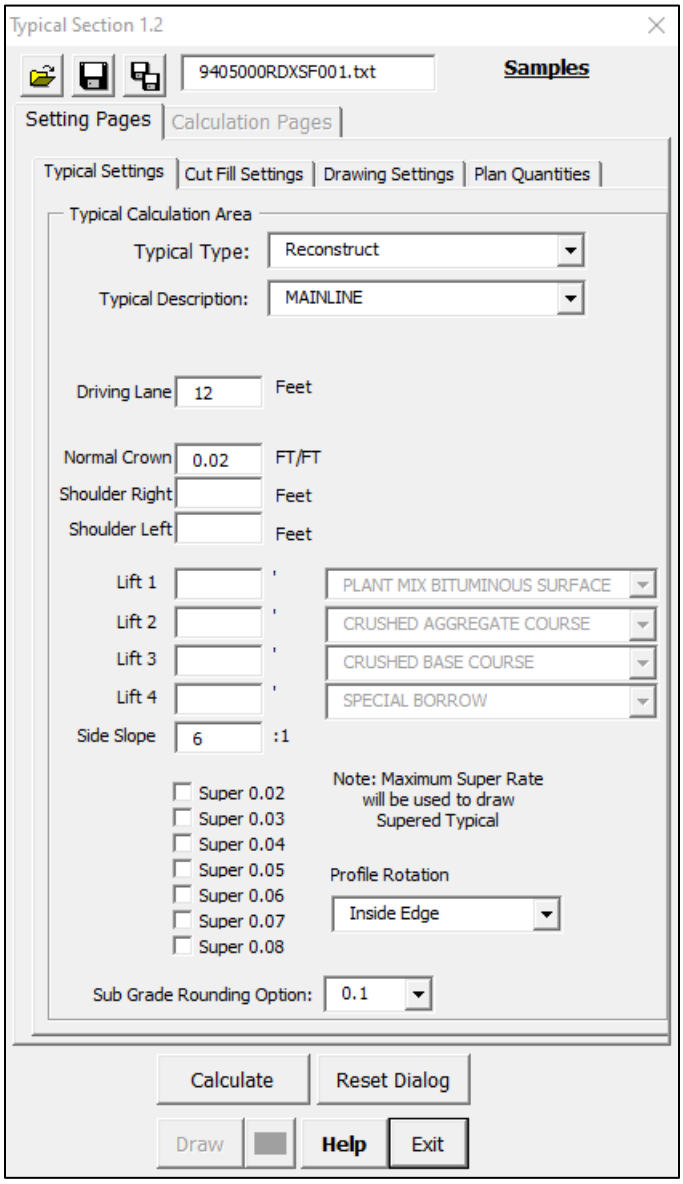
Control Layout

Control Layout is the same macro as Import Survey Control. See the *Import Survey Control* section for further information.

TYPICAL SHEETS

Typical Generator

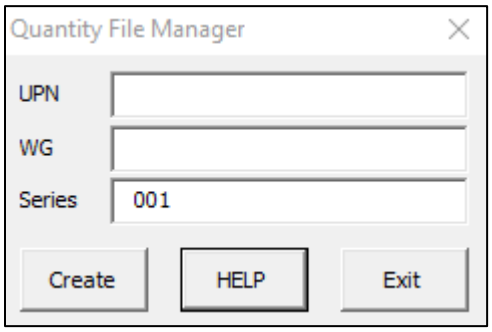
Used to generate standard typical sections in the typical DGN file.



SUMMARY SHEETS

Create Excel Quantity File

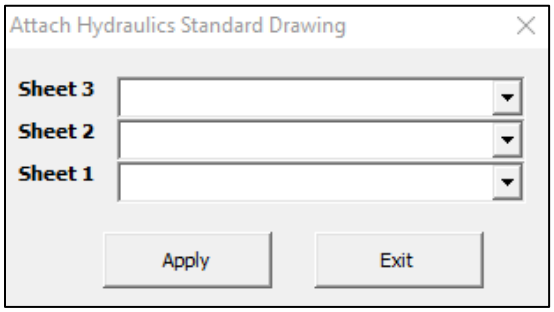
Used to create an Excel quantity manager file for a project. See the Start and Readme Guide tabs in the Excel spreadsheet for information on creating excel summary frames and referencing the summary frames into MicroStation.



DETAIL SHEETS

Attach Standard Hydraulic Drawings

Used to reference Standard Hydraulic Drawings into a DGN file.

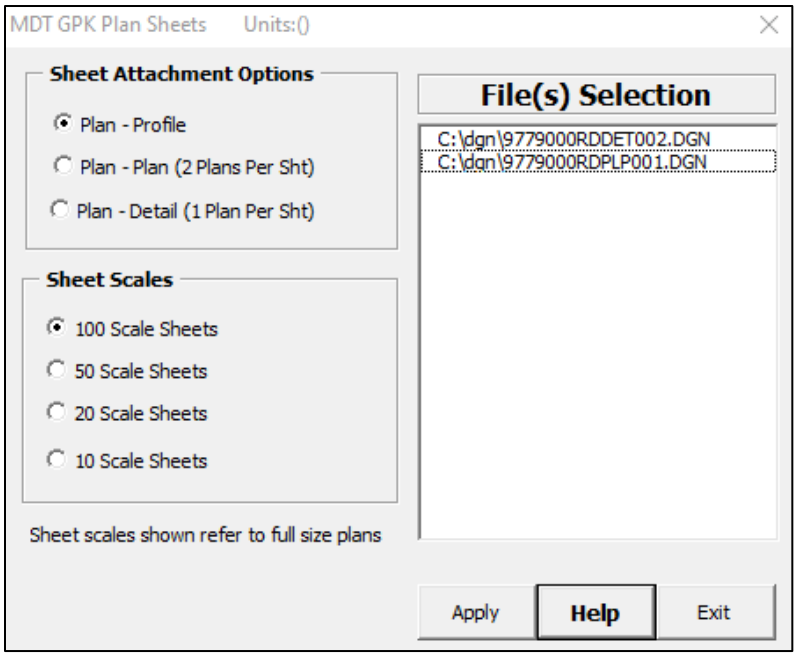


PLAN SHEETS

The Plan Sheets macros apply to plan sheet files.

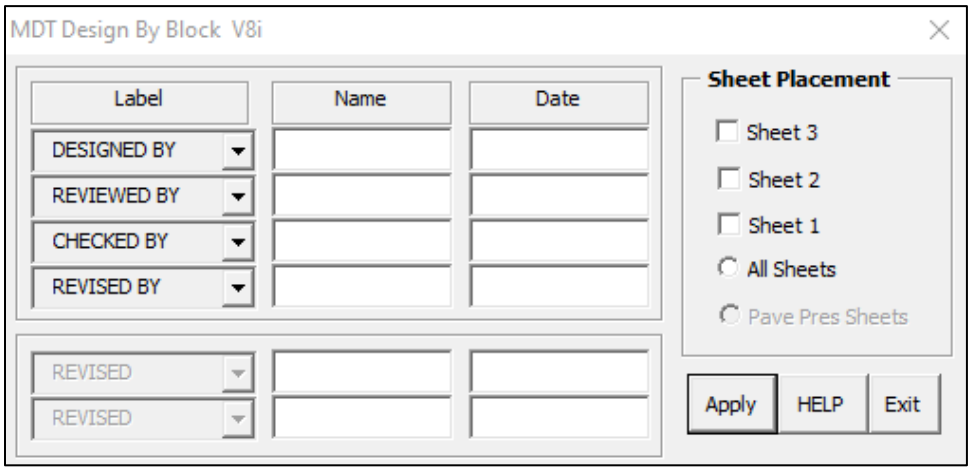
GPK Plan Sheets

Used to attach plan/profile sheet references to a DGN.



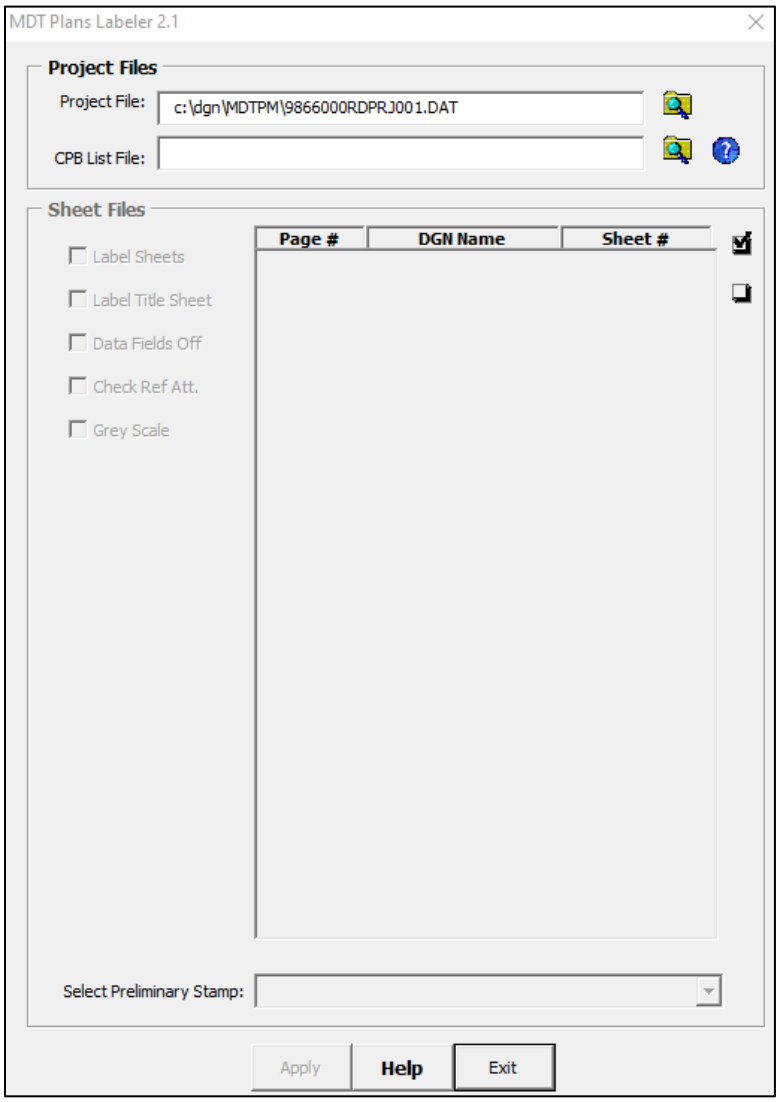
Design Block

Used to fill in the design block in plan sheets. Once a name is filled in, the date will auto-populate with the current date.



CPB Labeler

Used for labeling files referenced in a CPB list (.LST).



R/W TOOLS

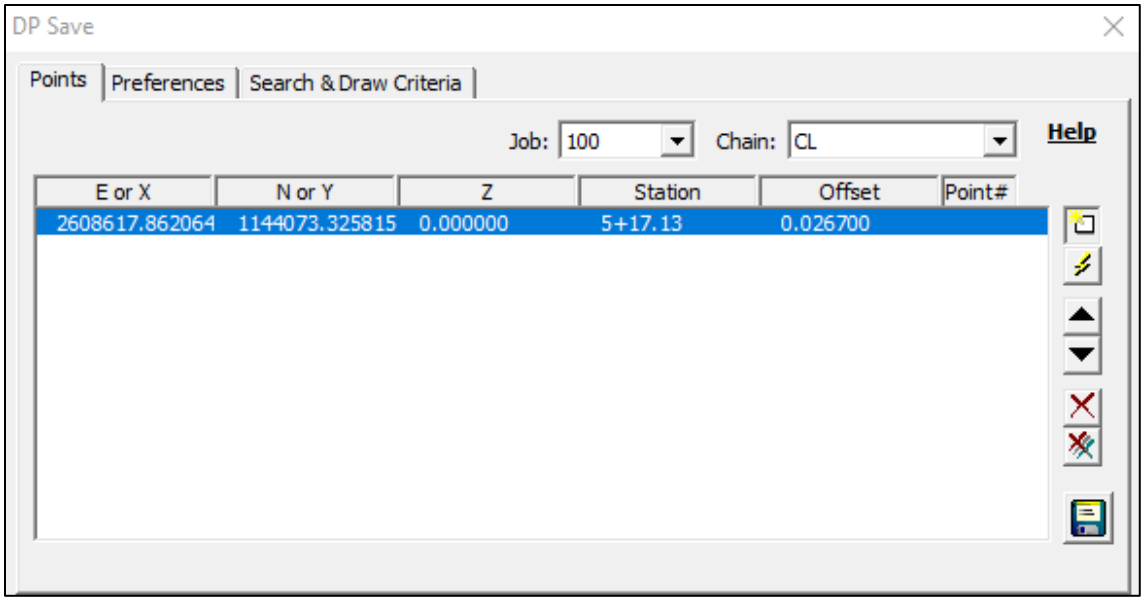
The R/W Tools macros are typically used for right-of-way design.

Save Sheet Views

Used to create a saved view of the sheet that can be accessed at View Attributes > View Setup > Saved Views.

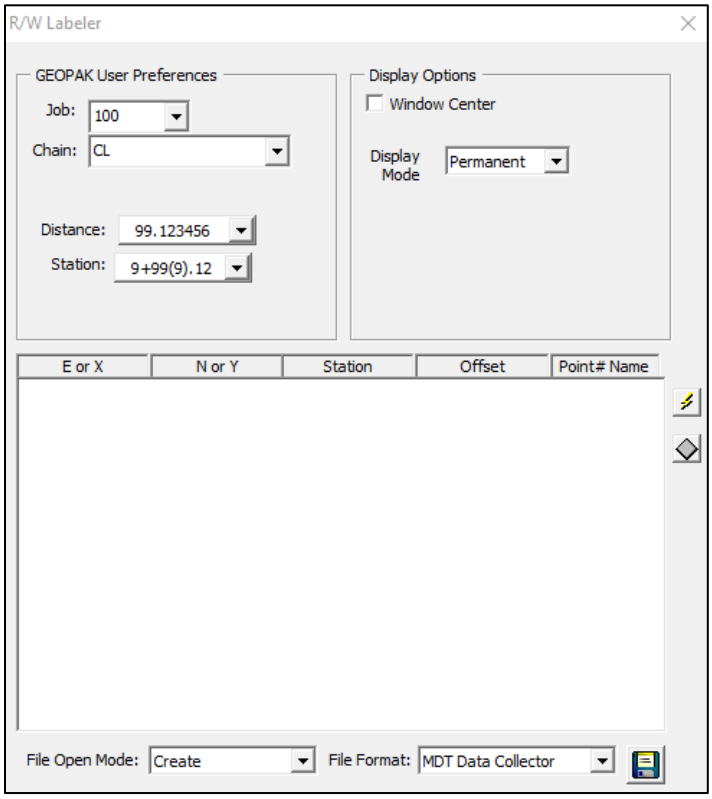
DP Save

Used to calculate and label station and offset data for right-of-way breaks within a design file.



RW Labeler

Refer to the R/W Labeler guidance for more information about this tool.



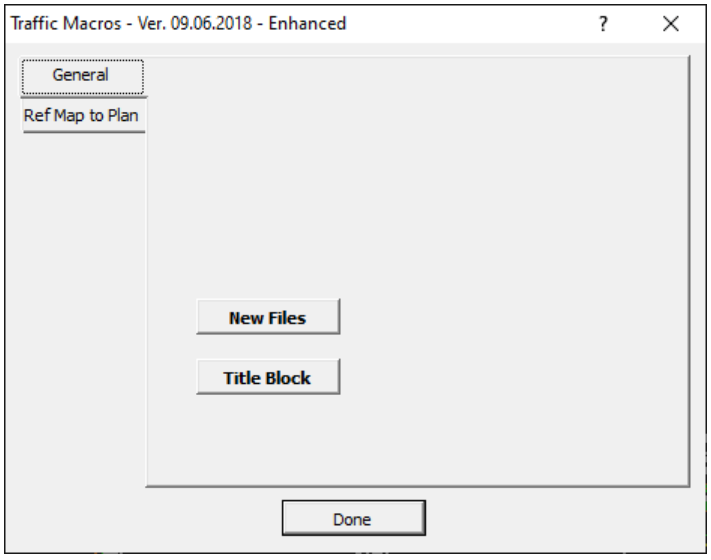
TRAFFIC

Traffic menu items are customized depending on the workgoup project (.pcf file) used when launching MicroStation/Power Geopak.

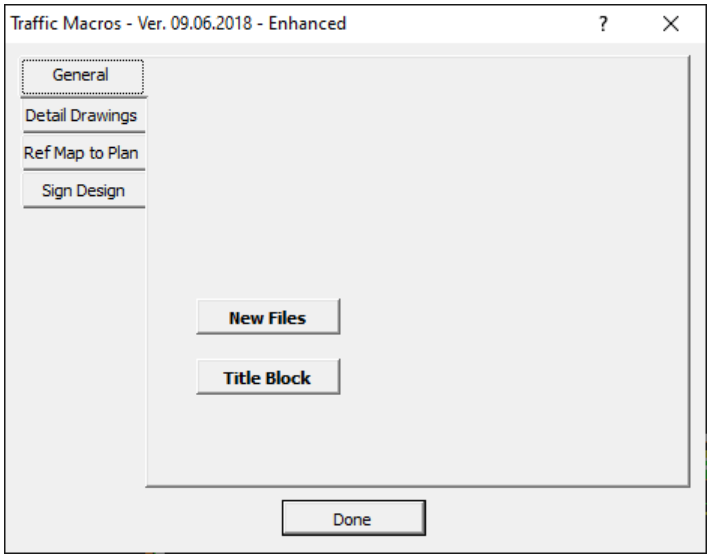
TRAFFIC MACROS

Used to develop Traffic DGN files. Traffic Macro menus and some of their fuctionality are customized depending on the name of the open file.

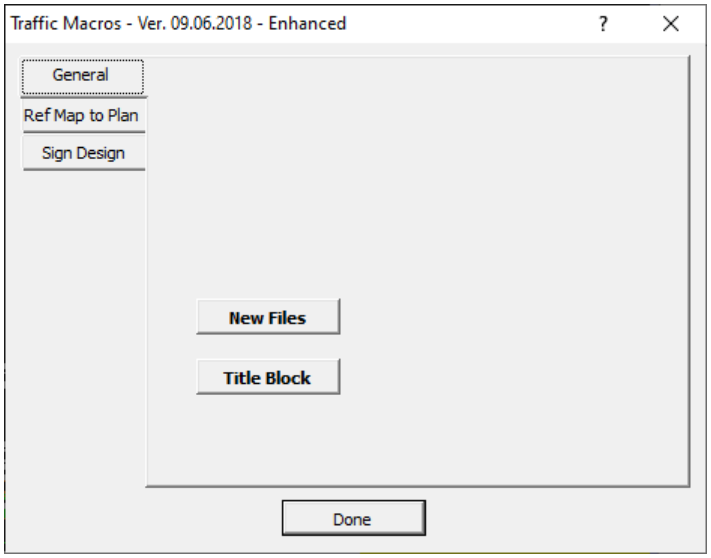
Geometric:



Electrical:



Signing:



GEOMETRICS DESIGN

Includes menus used to load Signing ancillary applications and tools such as AutoTURN and TORUS.

ELECTRICAL DESIGN

Includes menus used to place signing features.

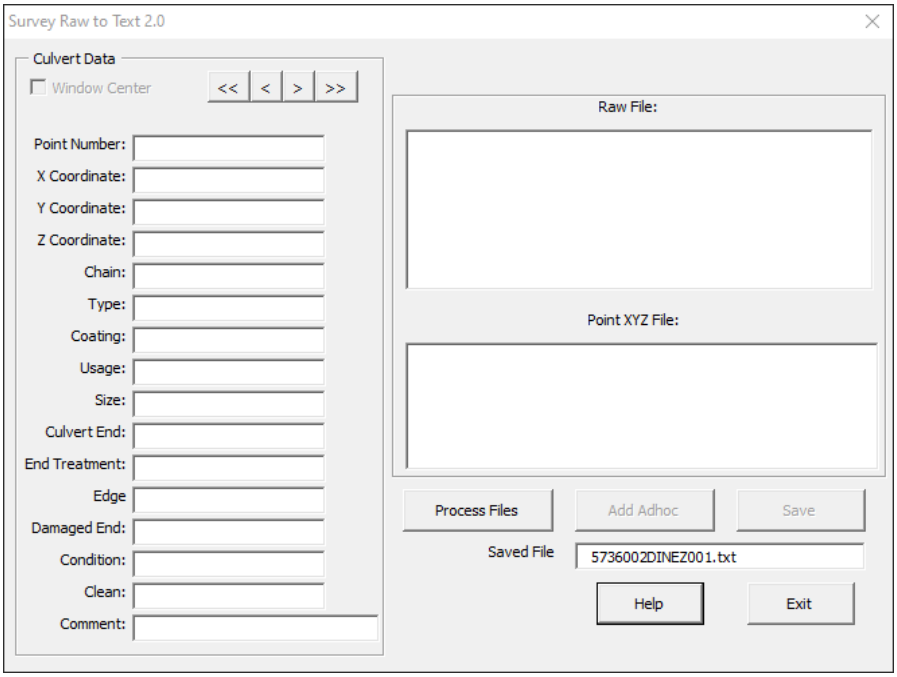
SIGN DESIGN

Includes menus used to load Signing ancillary applications and tools such as GuideSIGN and Excel Spec/Sum spreadsheet.

SURVEY

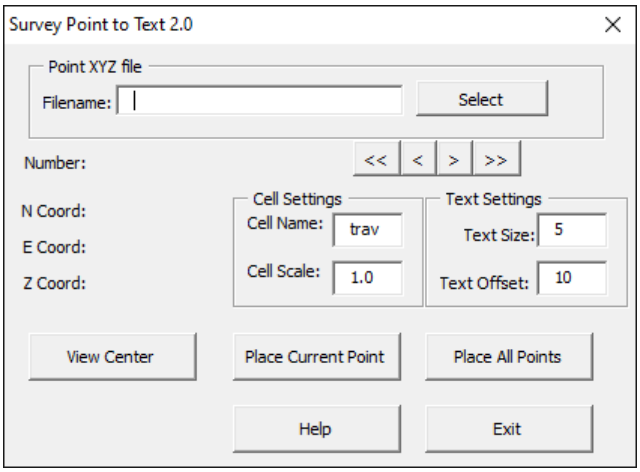
RAW TO TEXT

Processes raw survey files, adds adhoc attribute data for legacy surveys and saves to text file.



POINT TO TEXT

Places cells at points listed in text file.



POINT TO CELL

Scans file and places survey pt1 cell at line end points.