

This document guides you through saving survey fieldbook information to separate MicroStation files based on a specific drawing scale for ease of referencing and level control.

## **Exporting a Fieldbook File**

## Creating a new file

- 1. From the MicroStation pull-down menu select File > New. The New dialog will appear.
- 2. *Navigate* to the project directory folder ...ROW\_Survey\Drawings\Reference\_Files.

At the bottom of the dialog box verify that the seed file is set to *3D*-*Seed\_CDOT.dgn*.

New - C:\Proje	cts\12345\ROW	/_Survey\Drawings\Reference_Files\		? 🔀
Save in:	🚞 Reference_Fi	les 💟 📀 🌶	•111 🥙	<b>S</b> 🖲
My Recent Documents	12345SURV_To 12345SURV_To 12345SURV_To 12345SURV_To 12345SURV_To 12345SURV_To			
My Documents				
My Computer				
	File name:	56789surv_topo100scale01.dgn	<b>~</b> (	Save
	Save as type:	MicroStation DGN Files (*.dgn)	<b>~</b>	Cancel
	Seed:	$\label{eq:closed_cond} \fbox{\closed_cond_scheme} C: \label{transformation} workspace \closed_cond_scheme} C: \closed_cond_scheme \closed_cond_schem$	m (	Browse

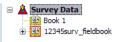
- <u>Note:</u> If *3D-Seed\_CDOT.dgn* is not the seed file specified, <D> Browse button. Navigate to C:\Program Files\Workspace-CDOT\Standards-Global\MicroStation\seed and select 3D-Seed\_CDOT.dgn from the *Select a Seed File* dialog box.
- 3. Key in the name of the file to be created in the *File Name* field: **12345SURV\_Topo100scale01.dgn**
- 4. <D> OK in the New dialog. The New dialog will close and the file *12345SURV\_Topo100scale01.dgn* will open.

## **Setting Up the Survey Options**

- 1. Load InRoads Survey. Verify that the correct \*.xin file is loaded and then open a fieldbook.
  - <u>Note:</u> The correct \*.xin file should either be located in the C:\Workspace\Workspace-CDOT\_XM\Standards-Global\InRoads\Preferences directory or in a project specific directory.
- 2. To speed up processing of data, disable the display of dynamic survey graphics shown on the screen. Toggle off the View Planimetrics icon in or any other symbols, names, codes, etc. that may be enabled, using the toggles in the View Survey Data toolbar.



3. *Verify* the correct fieldbook is active. The active fieldbook is indicated by a red box around the fieldbook icon in the InRoads workspace pane.



4. To modify the scale as it relates to cells, text, and linestyles select Tools > Survey Options. The *Survey Options* dialog will appear.

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oint Seed:	1	
igure Seed:	1	-
Cell Scale:	100.00	
ext Scale:	100.00	 Fieldbook Audit Trail File Name:
ine Scale:	100.00	
File Options           File Options           Resolve Co           Log Code E		Save Computed Coordinates     Add/Edit Audit Trail
View Options	Refresh	Segregate Text by Feature Level
Planimetric Sett		
Use Custom	Operations	Attach Default Tags
Use Symbol	s	Attach Attribute Tags
Use Cells		
Include Cus	tom Operations, S	Symbols and Cells in Single Cell

5. On the *General* tab verify the Scales for Cell, Text, and Line are set to the desired output scale. This would be the same scale as indicated in the filename in *Step 3* of *Creating a New File*. A scale of 100 is used in this example.

- 6. Verify the check box labeled Segregate Text by Feature Level is checked on.
  - **Note:** If checked on, *Segregate Text by Feature Level* will save the symbols, point names, codes, notes, errors, and elevations to the same level as the survey feature.
- 7. **<D> Save**, then **<D> OK**. The *Survey Options* dialog will close.

## Write Survey Data to Graphics

 Once the *Survey Options* have been verified or changed, write the survey data to graphics. From the InRoads menu select Survey > View Survey Data > Write Survey Data to Graphic. The *Write Survey Data to Graphics* dialog will open.

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Include: Planime Symbol Symbol Names Names Codes Elevatio Errors Notes Network	s	Apply Filter Close Help
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Curve Stroking Mode	: Horizontal	and Vertical 💌

- **Note:** If dynamic graphics were toggled on, those same components would be toggled on in the *Write Survey Data to Graphics* dialog.
- 2. Check the Select All check box.

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- 3. Set *Curve Stroking Mode* to Horizontal Only.
- 4. **<D> Apply**. The graphics will be created in the design file.
- 5. **<D> Close**. The Survey fieldbook data has been written to the design file.
- 6. Verify all dynamic View Survey Data icons are toggled off.



- 7. Fit the view of the contents of the design file within MicroStation.
- 8. Review the results to verify the data has been written to the design file and are level stratified.

## **Stratify Survey**

1. From the CDOT Menu command bar, select CDOT Tools > Stratify Survey.

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CDOT Groups	CDOT Tools	Options	Help	,			
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Parameters —							
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Existing Files -							
Append	🔘 Overwrite All	🔿 Overwrite None					
Process							
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Codes	123455URV_TopoCod	les100Scale01.dgn					
Elevations	12345SURV_TopoElev	vations100Scale01.dgn					
Errors	12345SURV_TopoErro	ors100Scale01.dgn					
Notes	123455URV_TopoNot	es100Scale01.dgn					
Network	12345SURV_TopoErro	ors100Scale01.dgn					

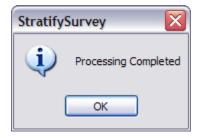
2.

- 3. Verify the JPC, Scale, and Sheet Number entries are correct. Altering any of these values will automatically alter the output file names.
- 4. If the *Attach* check box in the Contours section is grayed out, the contour file does not exist. You may edit the name specified in the File Name field to enter the name of an existing contour file.
- 5. Choose one of the follow option from the *Existing Files* section:
  - Append option will add or merge the new data into an existing file. A new file will be created if the file does not already exist.
  - Overwrite All option will create a new file, deleting any previously existing • file.
  - Overwrite None option will disable the processing option for a file if the file • already exists.

- 6. Toggle on the fieldbook data that should be stratified in the *Process* section.
  - **Note:** Adjust Planemetrics will resize the planemetrics text (if necessary) and convert the grouped text strings to view independent cells in order to allow for viewing this text in any 3D view.
- 7. **<D> OK** button to start the process.
- 8. As the data is being moved to the appropriate reference file a *Processing Status* dialog provides an update on the progress. You may <D> Cancel at any time to stop the processing, if necessary.

Processing	Status	X
Planimetrics Symbols Names Codes Elevations Errors Notes Network	Completed (60 elements processed) Completed (1703 elements processed) <i>working</i>	
Contours		
	Cancel	

9. When completed, a *Processing Completed* message is displayed. <D> OK to exit the program.



10. The fieldbook data has now been stratified into separate reference files. The planemetrics will be in the master design file with all of the symbols, names, codes, etc., attached as reference files. To view these attachments select File > Reference from the MicroStation pull-down menu or click the References icon

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1	12345SURV To	CDOT Default	Fieldbook Data	100ScaleSymbols	Wireframe	1	1	~	
2	12345SURV_To	CDOT Default	Fieldbook Data	100ScaleNames	Wireframe	~	$\checkmark$	~	
3	12345SURV_To	CDOT Default	Fieldbook Data	100ScaleCodes	Wireframe	~	~	$\checkmark$	
4	12345SURV_To	CDOT Default	Fieldbook Data	100ScaleElevations	Wireframe	$\checkmark$	$\checkmark$	$\checkmark$	
5	12345SURV_To	CDOT Default	Fieldbook Data	100ScaleErrors	Wireframe	~	$\checkmark$	1	
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in the Primary Tools toolbar

## **Referencing Survey Topo Files to Design Files**

By using nested references, attaching the master Survey Topo file will also attach all the references to the specific stratified files as well.

- 1. **Open** the design file to that the Topo file should be attached to.
- From the MicroStation pull-down menu select File > Reference. The *References* dialog will appear.

Tools Settings					
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3. From the *References* pull down menu select Tools > Attach. The *Attach Reference* dialog will appear.

Attach Referen	ice - C:\Project	s\12345\ROW_Survey	/\Drawings\	Reference_	_Files\	?	×
Look in:	🔁 Reference_F	iles	✓	) 🔊 🖻 🖪	- 😤 🖲	3D - V8 DGN	
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My Network Places	File name: Files of type:	12345SURV_Topo100Sc CAD Files (*.dgn;*.dwg;*.c Save Relative Path	-	~	Open Cancel Options		

- 4. Set the directory to ...\Projects\12345\ROW\_Survey\Drawings\Reference\_Files
- 5. Select the file 12345SURV\_Topo100Scale01.dgn and <D> Open. The *Reference Attachment Settings* dialog will appear.

6. From the *Nested Attachments* drop down list, select Live Nesting and set the *Depth* to 1.

🔀 Reference Attach	ment Settings for 123	45SURV_Topo100 🔯
<u>Fi</u> le Name: 1234	5SURV_Topo100Scale01.dg	n
Full Path:\Re	eference_Files\12345SURV_	Topo100Scale01.dgn
Model: CDOT	Default	~
Logical Name:		
Description: Globa	al Origin aligned with Master F	ile
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Global LineStyle Scale:	Master	~
	<u>o</u> k	Cancel

- 7. **<D> OK**. The master Survey Topo file will attach along with the fieldbook nested attachments that contain the symbols, names, codes, etc. of the survey data.
- 8. To see the hierarchy of these reference files in the dialog box, **Toggle On** the *Show Hierarchy* button as shown below.

<u>Tools</u> Settings 	D:8	🕥 📢 Hilite Mode:	Boundaries 🖌	
Hierarchy		P   File Name	Model	Descri
Iz345DES_Model.dgn         Iz345DES_Model.dgn         Iz345SURV_Topo100Scale01.dgn         I00ScaleSymbols, 12345SURV_TopoSymbols100Scale01.dgn         I00ScaleCodes, 12345SURV_TopoNames100Scale01.dgn         I00ScaleEvations, 12345SURV_TopoCodes100Scale01.dgn         I00ScaleEvations, 12345SURV_TopoEvations100Scale01         I00ScaleEvations, 12345SURV_TopoEvations100Scale01         I00ScaleErors, 12345SURV_TopoErors100Scale01.dgn         I00ScaleErors, 12345SURV_TopoErors100Scale01.dgn	1	12345SURV_To	CDOT Default	Global
- 100ScaleNotes, 12345SURV_TopoNotes100Scale01.dgn	1000	1.000000	: 1.000000	
	Offset ]	X -178956.971	<u>Y</u> -178956.	971