Workflow IR 12 - Exporting Fieldbook Files

This document guides you through saving survey fieldbook information to separate MicroStation files 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.*
- 3. At the bottom of the dialog box verify that the seed file is set to *3D-Seed_CDOT.dgn*.

S New - C:\Projects\12345\ROW_Survey\Drawings\Reference_Files\								
Save in:	Reference_File	es ·	- 🕝 🤌 📂 🎞 -		8	i 💽		
()	Name	*	Date modified	Туре	Size			
	12345ROW_N	/lodel.dgn	11/20/2007 7:49 AM	MicroStation V8 X	37 KB			
Recent Places	12345SURV_0	Contour100.dgn	11/26/2007 2:35 PM	MicroStation V8 X	5,015 KB			
	12345SURV_N	Model.dgn	11/20/2007 7:49 AM	MicroStation V8 X	36 KB			
	12345SURV_1	「opo_Scale100.dgn	6/10/2010 8:57 AM	MicroStation V8 X	1,242 KB			
Desktop	12345SURV_1	lopo20.dgn	4/7/2010 8:42 AM	MicroStation V8 X	1,212 KB			
	12345SURV_1	lopo40.dgn	4/7/2010 8:42 AM	MicroStation V8 X	1,216 KB			
600	12345SURV_1	lopo50.dgn	4/7/2010 8:42 AM	MicroStation V8 X	32 KB			
Libraries	12345SURV_1	lopo100.dgn	6/10/2010 8:32 AM	MicroStation V8 X	1,241 KB			
	12345SURV_1	lopo200.dgn	4/7/2010 8:42 AM	MicroStation V8 X	1,231 KB			
	12345SURV_1	lopo400.dgn	4/7/2010 8:43 AM	MicroStation V8 X	1,233 KB			
Computer	12345SURV_1	lopo500.dgn	4/7/2010 8:43 AM	MicroStation V8 X	1,235 KB			
	12345SURV_1	「opoCodes100.dgn	11/26/2007 1:45 PM	MicroStation V8 X	737 KB			
	12345SURV_1	TopoElevations100.dgn	11/26/2007 1:46 PM	MicroStation V8 X	750 KB			
Network	12345SURV_1	lopoNames100.dgn	11/26/2007 1:46 PM	MicroStation V8 X	699 KB			
	12345SURV_1	lopoNotes100.dgn	11/26/2007 1:46 PM	MicroStation V8 X	131 KB			
	12345SURV_1	TopoSymbols100.dgn	11/26/2007 1:46 PM	MicroStation V8 X	570 KB			
	K JERRY_Elbert	H JERRY_Elbert.dgn		MicroStation V8 X	1,327 KB			
	File name:	12345SURV_Topo100Scale01.	dgn		▼ Sa	ive		
	Save as type:	MicroStation DGN Files (*.dgn)				ncel		
	Seed:	C:\Workspace\Workspace-CDOT_V8\Standards-Global\MicroStation\seed\3D-Seed_C						

- **Note:** If **3D-Seed_CDOT.dgn** is not the seed file specifieid, <D> Select button and chose 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.
- 4. Key in the name of the file to be created in the Files filed: 12345SURV_Topo100Scale01.dgn
- 5. <D> OK in the New dialog. The New dialog will close and the file 12345SURV_Topo100scale01.dgn will open.
- 6. Disable the view display of dynamic survey graphics shown on the screen. Toggle off the View

Planimetrics icon 💆 or any other symbols, names, codes, etc. that may be enabled, using the toggles in the View Survey Data toolbar.

- 7. *Verify* the correct fieldbook is active. The active fieldbook is indicated by a red box around the fieldbook icon in the InRoads workspace pane.
- 8. To modify the scale as it relates to cells, text, and linestyles select **Tools > Survey Options**. The **Survey Options** dialog will appear.
- 9. On the *General* tab verify the Scales for *Cell*, *Text*, and *Line* are set as shown below.
- 10. Verify the check box labeled Segregate Text by Feature Level is checked on.

Survey Options	;		—			
General Units	Symbology Cor	rections Observation Standard	Deviation			
Chord Height:	0.010000					
Point Seed:	1	ſ	Help			
Figure Seed:	1					
Cell Scale:	100.00					
Text Scale:	100.00	Fieldbook Audit Trail File Na	me:			
Line Scale:	100.00					
File Options	e Errors	Save Computed Coordina	ates			
Log Code En	rors	Add/Edit Audit Trail				
Convert Num	neric Codes to Cor	responding Alpha Codes on Impo	ort			
View Options						
Automatic Re	efresh	📝 Segregate Text by Symb	ology Level			
Automatic Up	odate of Surface					
Planimetric Setti	ings					
Use Custom	Operations	📝 Attach Default Tags				
Use Symbols	•	🔽 Attach Attribute Tags				
Vse Cells						
Include Cust	om Operations, S	mbols and Cells in Single Cell				
OK Preferences Cancel						

- **Note:** Segregate Text by Feature Level, if checked on, will save the symbols, point names, codes, notes, errors, and elevations to the same level as the survey feature.
- 11. **<D> OK.** The **Survey Options** dialog will close.

12. Once the settings 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.

🐂 Write Su	irvey Data to	Gra	p					
Include:				Apply				
	Planimetrics	;						
- *.	Symbols			Filter				
	Names		E	Close				
	Codes							
	Elevations			нер				
	Errors		-					
•	III			Select All				
Planarize	Planarize							
Elevati	on: 🛛	.000)					
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.
- 13. Check the Select All check box.

🐂 Write S	urvey Data to	o Gra	p					
Include:				Apply				
	Planimetric	s	*					
✓ *.	Symbols		-	Filter				
✓ ¹ .2	Names		-	Close				
	Codes			Help				
	Elevations		_					
< _	III	4		Select All				
Planariz	Planarize							
Eleva	ion:	0.000	0					
Curve Stroking Mode: Horizontal and Vertical								

- 14. Set Curve Stroking Mode to *Horizontal Only*.
- 15. **<D> Apply**. The graphics will be created in the design file.
- 16. **<D> Close**. The Survey fieldbook data has been written to the design file.

17. Verify all dynamic View Survey Data icons are toggled off.



- 18. Fit the view of the contents of the design file within MicroStation.
- 19. Review the results to verify the data has been written to the design file and are level stratified.
- 20. From the CDOT Menu pull-down select Add On's > Stratify Survey. The Stratify Survey dialog will appear.

Stratify Survey Data 🛛 🔀								
Parameters —								
JPC: 12345	Scale: 100 Sheet Number: 01							
- Existing Files -								
Append	C Overwrite All C Overwrite None							
Process								
🔽 Adjust Plani	imetrics							
🔽 Symbols	123455URV_TopoSymbols100Scale01.dgn							
🔽 Names	12345SURV_TopoNames100Scale01.dgn							
Codes	12345SURV_TopoCodes100Scale01.dgn							
Elevations	12345SURV_TopoElevations100Scale01.dgn							
Errors	12345SURV_TopoErrors100Scale01.dgn							
🔽 Notes	123455URV_TopoNotes100Scale01.dgn							
🗖 Network	12345SURV_TopoErrors100Scale01.dgn							
Contours File Name: 12345SURV_TopoContour100Scale2_10.dgn								
	OK Cancel							

Note:

- Under *Existing Files*, the *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.
- Under *Existing Files*, the *Overwrite All* option will create a new file, deleting any previously existing file.
- Under *Existing Files*, the *Overwrite None* option will disable the processing option for a file if the file already exists.

- The *Process* option *Adjust Planimetrics* will resize the planimetrics 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.
- 21. Verify the *JPC*, *Scale*, and *Sheet Number* entries are correct. Altering any of those values will automatically alter the output file names. 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.
- 22. **<D> OK** button to start the process.
- 23. 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	Completed (60 elements processed) Completed (1703 elements processed) <i>working</i>	
Contours	Cancel	

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



25. The fieldbook data has now been stratified into separate reference files. The planimetrics 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.

🛣 Re	ferences (6 of 6 unique, 6 displayed)					_	
<u>T</u> ools	Settings							
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Slot	File Name	Model	Description	Logical	Presentation	•	2	R I
1	12345SURV_TopoSymbols100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleSymbols	Wireframe	\checkmark	\checkmark	\checkmark
2	12345SURV_TopoNames100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleNames	Wireframe	\checkmark	\checkmark	\checkmark
3	12345SURV_TopoCodes100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleCodes	Wireframe	\checkmark	\checkmark	\checkmark
4	12345SURV_TopoElevations100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleElevations	Wireframe	\checkmark	\checkmark	\checkmark
5	12345SURV_TopoErrors100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleErrors	Wireframe	\checkmark	\checkmark	\checkmark
6	12345SURV_TopoNotes100Scale01.dgn	CDOT Default	Fieldbook Data	100ScaleNotes	Wireframe	\checkmark	\checkmark	\checkmark
Scale 1.000000 : 1.000000 Rotation X 0*0'0'' Y 0*0'0'' Z 0*0'0'' Image: State Stat								

Roadway Design referencing Survey Topo files

- 1. By using nested references, the designers can attach one Survey Topo file and have all the additional references attach as well.
- 2. From the MicroStation pull-down menu select File > Reference. The References dialog will appear.

💏 Re	ferences (0 of 0 un	ique, 0 displ	ayed)				
Tools	Settings							
-		\mathbb{A}	a) 🖓 🕅	60 60 53	To és 🖽 🛈	📌 Hilite Mode:	Boundaries 🔻	
Slot	File Name			Model	Description	Logical	Presen	tation 💿 🔍
								<u>></u>
Scale			Rotation >	K 🗌 🖓	Z			
	3 🖎 💾 M	t 0) (e	E 9	~	Depth:			

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



- 4. Set the directory to C:\Projects\12345\ROW_Survey\Drawings\Reference_Files
- 5. Select the file *12345SURV_Topo100Scale01.dgn* and <D> OK. 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 12345SURV_Topo100Scale01.dgn
File Name:	12345SURV_Topo100Scale01.dgn
Full Path:	\Reference_Files\12345SURV_Topo100Scale01.dgn
<u>M</u> odel:	CDOT Default
Logical Name:	
Description:	Global Origin aligned with Master File
Orientation:	
View	Description
Coincident	Aligned with Master File
Coincident -	World Global Origin aligned with Master File
🗄 Standard Vie	ws
Saved Views	(none)
Named Fenc	es (none)
Detail	Scale: 1"=100' 🔹
Sc <u>al</u> e (Maste	r:Ref): 1.000000 : 1.000000
Named (Grou <u>p</u> ;
Re	vision:
	Le <u>v</u> el:
Nested Attachr	ments: Live Nesting Dept <u>h</u> : 1
Display Ove	mides: Allow
Ne <u>w</u> Level D	isplay: Use MS_REF_NEWLEVELDH
Global LineStyle	Scale: Master
Synchro	onize with Saved View
Toggles	
	🖸 🚅 🔧 🖓 🕼 🔠 🗞 🖓 🗶
Drawing Title —	
Create	
1	Name: Drawing
	<u>O</u> K Cancel

7. **<D> OK**. The Survey Topo file will attach along with the fieldbook nested attachments.

🛣 References (7 of 7 unique, 7 displayed)			_	
Tools Settings			5	
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Hierarchy	Slot File Name		Model	Descri
E-🔀 12345DES_Model.dgn	1 12345SURV_Top	oo100Scale01.dgn	CDOT Default	Global
🗄 🔀 12345SURV_Topo100Scale01.dgn				
- Marcale Symbols, 12345SURV_TopoSymbols100Scale01.dgn				
- Marcale Names, 12345SURV_TopoNames100Scale01.dgn				
– 🎆 100S caleCodes, 12345SURV_T opoCodes100S cale01.dgn	•			Ð
- Marcale Elevations, 12345SURV_TopoElevations100Scale01.dgn	C	1.000000 D-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		
- 100ScaleErrors, 12345SURV_TopoErrors100Scale01.dgn				° — I
100ScaleNotes, 12345SURV_TopoNotes100Scale01.dgn	◙◡◣≝‴♡	🕫 🎬 🔯 🤉 Live Nestir	<u>ng</u> Depti	r: [1