Workflow MS 10 - Converting AutoCAD Files to MicroStation

This document guides you through translating AutoCAD files into MicroStation using a .CSV remapping file. The MicroStation dgn files produced using this workflow will have standard CDOT levels using bylevel symbology. For plotting AutoCAD files only, see the workflow, *CDOT Printing AutoCAD Files in MicroStation*.

Workflow Outline

Batch Conversion Of AutoCAD Files - All of the file within a directory can be converted at one time using Batch Processing. Because the level conversion table will be set up for only the open drawing it may no convert all AutoCAD level into Microstation levels. When these unconverted levels are discovered, repeat this process to convert the remaining AutoCAD levels.

- Commands Used: File > Open Used to access the MicroStation Manager dialog box. From there, the desired AutoCAD file can be selected.
- **DWG/DXF Units** This is a message window displayed when an AutoCAD file is opened in MicroStation. Set the Units to Survey Feet.
- Utilities > Batch Converter This command is used to select the AutoCAD files for conversion, set up the conversion table, and convert the files.
 - \circ Edit > Add Files Used to select the AutoCAD files for conversion
 - Edit > V8 Save Options Used to access the remapping CSV file.
 - **Excel** > **Level** This button (in the Excel spreadsheet) queries the dgn file for AutoCAD level names and places them into the spreadsheet.
 - **Excel Cut and Paste -** In the Spreadsheet, MicroStation level names are cut from their current location and pasted next to the corresponding AutoCAD level. This tells the batch converter what to rename the AutoCAD levels too.

Fixing Converted Files with Mutiple Models - Some AutoCAD files may have multiple models, usually a sheet border model and a data model. Because the CDOT standard is one model per dgn, these will have to be separated

- Commands Used: File > Save As Used to create a dgn file to contain the sheet border data.
- **Delete** Used to remove the data from the Default Model.
- **References > Attach -** The file is attached to itself so that the sheet border data can be moved into the Default Model.
- **Copy** Used to copy the referenced sheet border data into the Default Model.
- **Models > Delete -** Used to remove all models except the Default Model.
- Color Table > File > Default Used to set the CDOT standard color table active.
- **CDOT Menu > Drafting > Dimensions** Used to replace the AutoCAD dimensions.
- CDOT Menu > Tools > Text to Node Used to group lines of text into paragraphs.
- annotationscale add A MicroStation key in that adds the annotation scale attribute to the text.
- Change Text Attributes Used to assign a CDOT text style to the text.

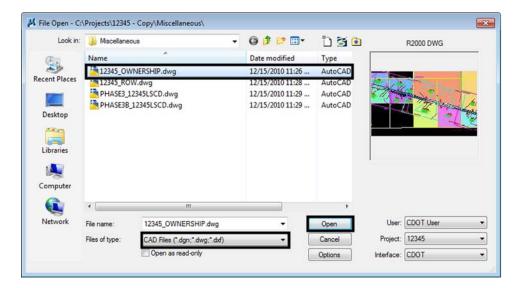
Batch Conversion Of AutoCAD Files

Entire directories can be processed at one time using the Batch Converter. Using this option, a large number of files can be processed quickly. However, because only one of the files can be used to create the CSV file (the open file), many AutoCAD levels may be transferred to the MicroStation files. As the user finds MicroStation files with AutoCAD levels, those files can be used to create a new csv file and the Batch Converter can be re-run on all the files. By repeating this process all of the AutoCAD levels will be gradually eliminated.

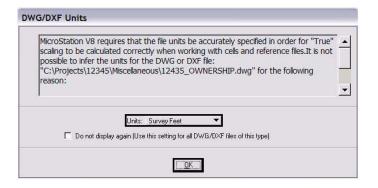
The steps below describe how to set up and run the Batch Converter.

Opening an AutoCAD file in MicroStation

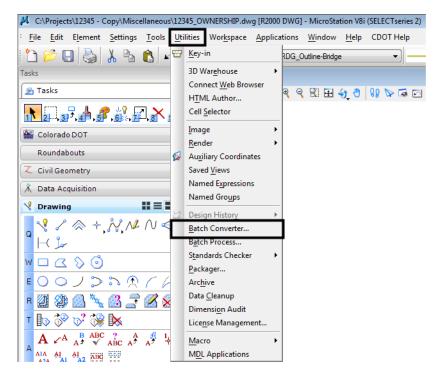
- 1. From the *File Open*, open an AutoCAD (*.dwg) drawing file. (Change *List Files of Type* to CAD Files (*.dwg, *.dgn, *.dgn, *.dsf) to see the AutoCAD files in the selected directory).
- 2. **<D>** the desired file then **<D> OK**.



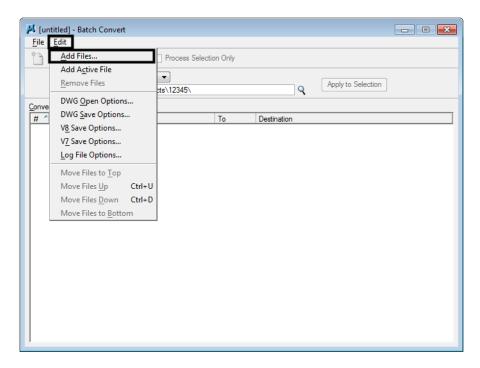
3. The DWG/DXF Units dialog box will appear. Verify the Units are set to Survey Feet and <D> OK.



4. Select **Utilities > Batch Converter** from the MicroStation menu. The **Batch Convert** dialog box is displayed.



5. Select Edit > Add Files from the menu.



6. From the *Select Files and Directories to Convert* dialog box, Navigate to the directory containing the files to be converted, then highlight the files to be converted. **<D> Done** to complete the selection.

📕 Select Files an	d Directories to co	onvert - C:\Projects\12345\Misce	llaneous\		—
Look in:	📗 Miscellaneou	s 🔻	G 🤌 📂 🛄 🗸	S 🖲	
Ca .	Name	*	Date modified	Туре	
~	2345_OWN	IERSHIP.dwg	12/15/2010 11:54	AutoCAD Drawing	
Recent Places	12345_ROW	-	12/15/2010 11:28	AutoCAD Drawin	
	PHASE3_12	-	12/15/2010 11:29	AutoCAD Drawing	
Desktop	PHASE3B_1	2345LSCD.dwg	12/15/2010 11:29	AutoCAD Drawin	
Libraries Computer Other Network					
	•			•	
	File name:	"PHASE3B_12345LSCD.dwg" "1	2345_OWNERSHIP.d 🔻	Done	
	Files of type:	CAD Files (*.dgn;*.dwg;*.dvf)	•	Cancel	
	•			Options	
					łł.

7. Back on the *Batch Convert* dialog box, select Edit > V8 Save Options from the menu.

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<u>F</u> ile	<u>E</u> dit <u>A</u> dd Files Add A <u>ct</u> ive File	Process Selection	on Only				
	Remove Files	▼			٩	Apply to Selection	
Conve	DWG Save Options		То	Destination			
1 2 3 4	V8 Save Options V7 Save Options Log File Options	OWNERSHIP.dwg 12345_ROW.dwg 3_12345LSCD.dwg B_12345LSCD.dwg	V8 v8	C:\Projects C:\Projects C:\Projects C:\Projects	\12345\ \12345\		
	Log File Options Move Files to <u>T</u> op Move Files <u>Up</u> Ctrl+U Move Files <u>D</u> own Ctrl+D Move Files to <u>B</u> ottom	_B_12345LSCD.dw		C:\Projects			

Editing the CSV file

1. In the *Save As V8 Options* dialog box, <D> the Browse for CSV remapping file icon to edit the CSV file.

Save As V8 Options Remap References Filter
CSV File V050000_Level_Update.csv 🤇 😫 🗋
Apply Level Mapping Apply Font Mapping Apply Line Style Mapping
Apply Color Mapping
<u>O</u> K Cancel

2. Navigate to the following directory: C:\Workspace\Workspace-CDOT_V8i\Standards-Global\MicroStation\Tables\Level_Translation and select the V050000_Level_Update.csv file. The CSV file maps all of the previous AutoCAD layers to the standard CDOT MicroStation levels.

📕 Select Remapp	oing CSV File - C:\\	Workspace\Workspace-CDC)T_V8i\Standar	ds-Global\Mid	roSta 💌
Look in:	퉬 Level_Transla	tion	- G 🜶	► 🔝 🏷	3 🖲
9	Name	el Update.csv		odified 2010 10:59	Type Microsoft (
Recent Places					
Desktop					
Libraries					
Computer					
Network	•				•
INETWORK	File name:	V050000_Level_Update.csv		•	Open
	Files of type:	Remapping Files (*.csv)		•	Cancel

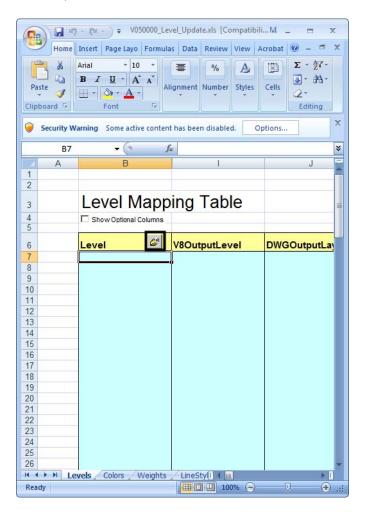
3. The CSV File field will be populated with the correct level mapping file. In the *Save As V8 Options* dialog box, <D> the Edit CSV remapping file icon.

Save As V8 Options
Remap References Filter
CSV File V050000_Level_Update.csv Q 😤 🗅
Apply Level Mapping Apply Font Mapping Apply Line Style Mapping Apply Color Mapping Apply Weight Mapping
QK Cancel

4. Microsoft Excel will activate. If the Security Warning dialog box appears, <D> Enable Macros.

"C:\Projects\12345\Miscellaneous\12345CSV.xls" contains macros by Bentley Systems, Incorporated A certificate (signing or issuer) has expired.
Macros may contain viruses. It is usually safe to disable macros, but if the macros are legitimate, you might lose some functionality.
Always trust macros from this publisher.
Disable Macros Enable Macros

5. In Excel, the *Level* tab will be active. <D> the *icon* that is embedded in the *Level* cell.



6. The fields under Level will be populated with the layers that are defined in the AutoCAD file.

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2				
3		Level Mapp	ing Table	
4		C Show Optional Columns	Ŭ	
5				
6		Level 🥔	V8OutputLevel	DWGOutputLayer
7		TEXT		
8		BROKEN		Ï
9		HIDDEN		
10		OUTLINE	∠AutoC	AD Levels
11		TITLE		
12		HATCH		
13		Center		
14		Dimensions		
15		REBAR		
16		Defpoints		
17		Zigzag		
18		0 0		
19		DRAFT_Text-1		l _
20		DRAFT Text-2	/MicroStat	ion Lavala
21		DRAFT Text-3		IOH Levels
22		DRAFT WT-0	\checkmark	
23		DRAFT_WT-1		
24		DRAFT WT-3		
25		DRAFT_WT-2		
26		DRAFT WT-4		
27		DRAFT_WT-5		
28		DRAFT_WT-6		
29		DRAFT WT-7		
30		DRAFT_Screened-40		
31		DRAFT Screened-70		
32		DRAFT Pattern		

In the example above, the first 12 levels listed are the AutoCAD layer names. The levels below them are the CDOT standard MicroStation levels.

 In order to remap the AutoCAD layers to the standard CDOT levels, you will need to manually populate the *V8OutputLevel* fields. To do this, find the desired CDOT standard MicroStation level in the Level column. Copy/Cut the level and paste it in the V8OutputLevel column directly across from the AutoCAD layer it is to replace.

	A	В	1	J
1				
2				
з		Level Mapp	ing Table	
4		☐ Show Optional Columns _		
5				
6		Level 🖉	V8OutputLevel	DWGOutputLayer
7		TEXT	DRAFT_Text-3	
8		BROKEN	BRDG_BREAK	
9		HIDDEN	BRDG_HIDDEN	
10		OUTLINE	BRDG_OUTLINE	
11		TITLE	DRAFT_Text-2	
12		HATCH	BRDG_PATTERN	
13		Center	DRAFT_LC-Center_WT-0)
14		Dimensions	DRAFT_Text-1	
15		REBAR	BRDG_REBAR	
16		Defpoints		
17		Zigzag	DRAFT_CO-Violet	
18		0	7	
19				
20				
21			MicroStation	Levels moved
22		DRAFT_WT-0		
23		DRAFT_WT-1	from Levels	column
24		DRAFT_WT-3		
25		DRAFT_WT-2		
26		DRAFT WT-4		
27		DRAFT_WT-5		
28		DRAFT_WT-6		
29		DRAFT_WT-7		
30		DRAFT Screened-40		
31		DRAFT_Screened-70		
32		DRAFT_Pattern		

In the above example, elements that were on the AutoCAD 'TEXT' layer will be placed on the 'DRAFT Text-3' level' after conversion.

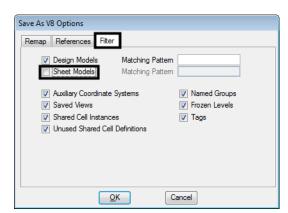
Note: Not all levels need to be populated. Blank entries in V8OutputLevel column will be ignored when processed and the AutoCAD layer (if occupied) will be brought into the MicroStation file as a new level. Be aware that some of the MicroStation levels are not in alphabetical order. And take care to search the entire list for the desired level.

Layers generated in AutoCAD that will be recreated as cells in MicroStation such as the Border, North Arrow, and Bar Scales do not need to be remapped because they will automatically come in on the correct levels when the standard CDOT workflows are followed. Also, the layers used for creating AutoCAD viewports do not need to be remapped. Items on the Defpoints layer should be remapped to the level DRAFT_INFO_No-Plot.

The line styles, color, and weight of each level has already been taken into account through the CSV file. The translation variables in the CSV file have been set to remap all levels to bylevel symbology.

- **Note:** Steps 13 and 14 below are available when converting a single file only. When doing a batch conversion, all of the models within the file will be converted.
- 8. In the Save As V8 Options dialog box, <D> the Filter tab.

9. Toggle off the **Sheet Models** check box.



- 10. <D> the **Remap** tab.
- 11. Check on the fields for Apply Level Mapping, Apply Line Style Mapping, Apply Color Mapping, and Apply Weight Mapping. <D> OK.

Save As V8 Options
Remap References Filter
CSV File V050000_Level_Update.csv 🔍 🥄 🛅
 ✓ Apply Level Mapping Apply Font Mapping ✓ Apply Line Style Mapping ✓ Apply Color Mapping ✓ Apply Weight Mapping
QK Cancel

12. From the *Batch Convert* dialog box, <D> the Process Batch Convert Job icon.

f.	
🔑 [untitled] - Batch Convert	
<u>File</u> <u>E</u> dit	
🗋 📂 🔛 🏠 🗙 🗾 🗆 Process Selection Only	
Default Output Format V8	
Default Destination C:\Projects\12345\	Apply to Selection
<u>C</u> onversion Tasks	
# ^ Source To	Destination
1 C:\Projects\12345\Misc\12345_OWNERSHIP.dwg V8	C:\Projects\12345\
2 C:\Projects\12345\Miscellaneous\12345_ROW.dwg V8	C:\Projects\12345\
3 C:\Projects\12345\Misc\PHASE3_12345LSCD.dwg V8	C:\Projects\12345\
4 C:\Projects\12345\Mis\PHASE3B_12345LSCD.dw(V8	C:\Projects\12345\

13. The *Files To Convert* dialog box is displayed. From this dialog, *<D>* the Convert button.

ŧ	Source	Format	Destination	То	Status
1	C:\Projects\12345\Misc\12345_OWNERSHIP.dwg	DWG	C:\Projects\12345\12345_OWNERSHIP.dgn	V8	Pending
2	C:\Projects\12345\Miscellaneous\12345_ROW.dwg	DWG	C:\Projects\12345\12345_ROW.dgn	V8	Pending
3	C:\Projects\12345\Misc\PHASE3_12345LSCD.dwg	DWG	C:\Projects\12345\PHASE3_12345LSCD.dgn	V8	Pending
4	C:\Projects\12345\Mis\PHASE3B_12345LSCD.dwg	DWG	C:\Projects\12345\PHASE3B_12345LSCD.dgn	V8	Pending
(III			

14. When the processing is complete, *<D>* the **Done** icon to dismiss the dialog box.

#	Source	Format	Destination	To	Status
1	C:\Projects\12345\Misc\12345_OWNERSHIP.dwg	DWG	C:\Projects\12345\12345_OWNERSHIP.dgn	V8	Converted
2	C:\Projects\12345\Miscellaneous\12345_ROW.dwg	DWG	C:\Projects\12345\12345_ROW.dgn	V8	Converter
3	C:\Projects\12345\Misc\PHASE3_12345LSCD.dwg	DWG	C:\Projects\12345\PHASE3_12345LSCD.dgn	V8	Converte
4	C:\Projects\12345\Mis\PHASE3B_12345LSCD.dwg	DWG	C:\Projects\12345\PHASE3B_12345LSCD.dgn	V8	Converte
•					ŀ

This will convert all of the levels in the active file (as specified in the csv file) and convert the same levels in the other specified files.

It is possible that the other files processed will have other AutoCAD levels. When these are discovered, repeat this conversion process on the previously converted MicroStation files. This will clean up the file that is currently being used and update the levels in other specified files.

Fixing Converted Files With Multiple Models

Sheet Layout models are not used in the standard CDOT configuration. However, those models will be retained in batch converted files. If the Sheet Layouts contain information that is needed, they will need to be saved to individual dgn files. To do this we will reference a dgn file to itself, selecting the desired sheet model, in order to copy information from the sheet layout to the default model.

- 1. Open the converted dgn file that contains the Sheet Layouts to be saved.
- Select File > Save As and name the file appropriately for the Sheet Layout to be saved and <D> OK.
- 3. This will open the copy of the file. Delete all of the elements from the Default Model.
- 4. **<D>** the **References** icon from the MicroStation *Primary Tools* toolbar.



5. Select **Tools > Attach** from the References dialog box.

😤 References (0 of 0 unique, 0 displayed)						
<u>T</u> ools <u>S</u> ettings						
<u>A</u> ttach	/ s.a. 🕅 🕫 🛱 🖓					
<u>– D</u> etach						
- De <u>t</u> ach All	lodel Description					
R <u>el</u> oad						
Reload All						
E <u>x</u> change						

6. Select the open dgn file to attach it to itself. **<D> Open**.

🚰 Attach Referer	nce - C:\Projects\12345\Design\Drawings\			×
Look in:	🐌 Drawings	- 🕝 🤌 📂 🛄-	3 🖻	3D - V8 DGN
An	Name	Date modified	Туре	
2	Cross_Sections	12/15/2010 11:22	File folder	
Recent Places	Reference_Files	12/15/2010 11:24	File folder	
	🐌 Tabs	12/15/2010 11:22	File folder	
	📕 12345DES_TitleSht.dgn	6/14/2010 10:31 AM	MicroStat	
Desktop	🖊 12345DES_TyplSect##.dgn	6/14/2010 10:31 AM	MicroStat	
<u> </u>	📕 12345SURV_Tab.dgn	6/14/2010 10:31 AM	MicroStat	
6	📕 12345SURV_WUTab.dgn	6/14/2010 10:31 AM	MicroStat	
Libraries	📕 b206m2_Sheet.dgn	12/15/2010 1:28 PM	MicroStat	
	PM M&S Standard Plans List Index.dgn	6/14/2010 10:31 AM	MicroStat	Attachment Method
Computer				Interactive •

7. In the *Reference Attachment Settings* dialog box, select the desired Sheet Layout from the *Model* drop down menu. <D> OK.

Reference Attachment	Settings for b206m2_Sheet.dgn
File Name: b206	m2 Sheet.dgn
_	rojects\12345\Miscellaneous\b206m2 Sheet.dgn
Model: Layou	i1 ▼
Logical Name: Layo	d1
	al Origin aligned with Master File
Description. Clobi	
Orientation:	
View	Description
Coincident	Aligned with Master File
Coincident - World Standard Views	Global Origin aligned with Master File
Saved Views (none)	
Named Fences (nor	
Detail Scale:	1''=100'
Scale (Master:Ref):	1.000000 : 1.000000
ocale (maater.mery.	1.00000
Named Group:	
Revision:	
Level:	▼
Nested Attachments:	No Nesting Depth: 1
Display Overrides:	Allow
New Level Display:	Use MS_REF_NEWLEVELDI
Global LineStyle Scale:	Master
Synchronize w	rith Saved View
Toggles	
•	🗴 🖓 🖓 🕫 🖽 🗞 🖓 🕼
Drawing Title	
Create	
Name:	Layout1
	OK Cancel

- 8. **<D>** the Fit view control icon to display all of the elements in the view.
- 9. All of the elements in the view must be copied into the default model. This can be done using the **Element** Selector or with a Fence.
 - **Note:** When making the copy be sure to snap to an element when copying and the same point on the element when placing the elements. This will ensure that they are at the same coordinates in the default model as they were in the sheet layout model.
- 10. After the elements have been copied, *Detach* the reference file.

References (1 of 1 u	unique, 1 d	isplayed)
Tools Settings		
<u>A</u> ttach	0 10 100	
r <u>D</u> etach		
- De <u>t</u> ach All	lodel	Description
R <u>el</u> oad	ayout1	Global Origin aligne
Reload All		
E <u>x</u> change		

11. **<D>** the **Models** icon from the MicroStation Primary Tools toolbar.



12. In the Models dialog box, <D> to highlight all of the models except the Default Model. <D> the Delete icon to remove all of the sheet layouts. <D> the 'X' to close the Models dialog box.

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۳.	Active File	- 눱 🔓	* 🗙 🚰 🖾 🖒 –	
Тур	e 2D/3D	Name	Description	-
	<u> </u>	Model		
	Û	Sheet 20	Layout 1	=
	1	Sheet 21	Layout 1	
- 6	1	Sheet 22	Layout 1	
6	n	Sheet 23	Lavout1	Ψ.
•	III			•

13. Steps 19 through 30 will have to be repeated for each sheet layout.

Converting a Single AutoCAD file

- 1. Open the desired AutoCAD file in MicroStation as described in steps 1 and 2 above.
- 2. Select File > Save As.

3 (C:\Proje	cts\12	2345	Misc
File	Edit	E <u>l</u> emen	t <u>s</u>	etting:
D	New		Ctrl+	N
- 🚔	Open		Ctrl+	0
	Close		Ctrl+	W
,8	<u>S</u> ave		Ctrl+	-S
#	Save <u>A</u> s			
1.1	Compres:	S		×
F	Sa <u>v</u> e Sett	tings	Ctrl+	۰F
[<u>R</u> eference	e		
	Raster Ma	nager		
Ø	Models			
1	Import			E.

Change the *Select Format to Save* to MicroStation V8 DGN Files (*.dgn) and navigate to the appropriate folder under the Projects directory. The file will be automatically saved with the same name as the AutoCAD file with a different extension. You can rename the file at this time if you choose to do so.
 <D> Options.

Save As - C:\P	Save As - C:\Projects\12345\ROW_Survey\Drawings\Reference_Files\							
Save in:	🐌 Reference_Fi	es 👻	G 🤌 📂 🛄 🗸	*				
Ca	Name	*	Date modified	Туре				
Recent Places	12345ROW_I		11/20/2007 7:49 AM 11/20/2007 7:49 AM	MicroStat MicroStat				
	P4 123433011V_	Modellagn	11/20/2007 7.49 AW	WICTOStat				
Desktop								
Libraries								
Computer								
Network	•			Þ				
	File name:	12345_OWNERSHIP.dgn		Save				
	Save as type:	MicroStation V8 DGN Files (*.dgn)	-	Cancel				
				Options	.H.			

- **Note:** Model files should be saved to the specialty group's **Reference_Files** folder. Sheet files are saved under the specialty group's **Drawings** folder.
- 4. **<D> Save** in the *Save As* dialog box. The CSV file will execute and the AutoCAD drawing file will be converted to a MicroStation file.

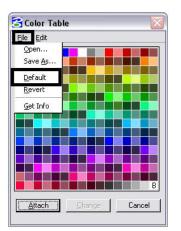
Save in:	-	N_Survey\Drawings\Reference	- G 👂 📂 🛄 -	(Charles)	<u>-</u> X
Save III.	Thereferice_H	es		*	
(Ha	Name	*	Date modified	Туре	
and the second s	12345ROW_1	Model.dgn	11/20/2007 7:49 AM	MicroStat	
Recent Places	🕌 12345SURV_I	Model.dgn	11/20/2007 7:49 AM	MicroStat	
·					
Desktop					
Libraries					
cibraries					
Computer					
Network	•			ŗ	
	File name:	12345_OWNERSHIP.dgn		Save	
	Save as type:	MicroStation V8 DGN Files (*.dg	n) 🔻	Cancel	
				Options	

5. The file that is now open in MicroStation is the converted file. Running the CSV file changed the levels in the Model file to the CDOT Standard levels with bylevel symbology.

6. From the MicroStation menu, selected **Settings > Color Table** after the MicroStation drawing file has been created.

Set	ttings	Tools	<u>U</u> tilities	V
1	Tool S	Settings		
5	Mana	ge		8
9	<u>A</u> ccul	Draw		
	Color	Table		1 A
	Data	pase		۲
	Desig	n File		

7. In the *Color Table* dialog box, select File > Default.



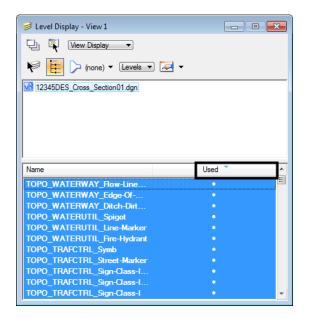
8. <D> Attach.



9. Verify that the conversion was successful. <D> the Level Display icon from the MicroStation *Primary* toolbar.

Primary Tools										83
Primary Tools	• 💼 •	 -	· 🔂 •	- 🤘	ネҳ -	Ke o	• (j)	- 1 7	. -	0

10. In the *Level Display* window, *<D>* on the **Used** tab to sort the levels by those that have elements.



Note: levels with elements will have a dot in this column. If no used levels are visible, <**D**> on the tab again. If the triangle on the tab is pointing down, the used levels are at the top of the window.)

Other Drawing Elements

Other updates will need to be made to the files so all drawing elements and sheet setups conform to the CDOT standards.

All of the Sheet Layouts will need to be recreated using CDOT standard workflows. This means there can only be one Model for each MicroStation file. All of the sheet borders will need to be placed in their own separate file, called a Sheet File. Then, the Model file will be referenced to the Sheet File. Please refer to the documents *CDOT Sheet File Creation, CDOT Sheet File Creation Multiple Scales, and CDOT Creating Multiple Plan Sheets* for additional information about this procedure.

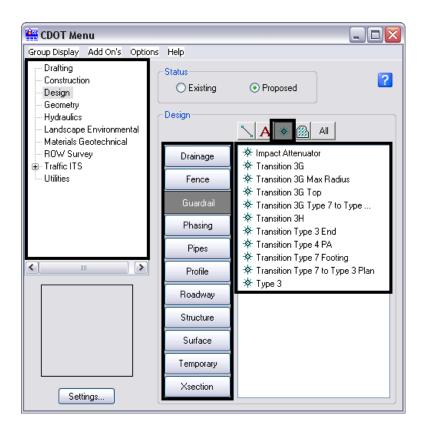
1. Recreate all Dimensions and leader lines (placed by AutoCAD) using the standard CDOT dimension styles. The dimensioning commands are found in the CDOT menu under **Drafting > Dimensions**.

🔛 CDOT Menu			
Group Display Add On's Opti	ons Help		
Drafting Construction Design Geometry	Status Existing	Proposed	2
Hydraulics Landscape Environmental Materials Geotechnical ROW Survey Traffic ITS Utilities	Drafting Border Border PLS Border RE Dimensions Linework Patterning Symbols Text	x .12 .1234	Size Between Size
Settings			

2. Erase all hatch patterns generated in AutoCAD recreate using the MicroStation *Patterns* tools, shown below.

Element Informa Selection Lagrandia Text Nod	
General	Text Node
Level	Default
Color	ByLevel (0)
Line Style	ByLevel (0)
Weight	ByLevel (0)
Class	Primary
Template	None
Transparency	0
Contents	* ₌
Text String	aponfpwpoqdciuvibwb
Text Style	.07" ENG-100

3. All blocks generated in AutoCAD will need to be replaced with the standard CDOT MicroStation Cells. The cells are found on the CDOT menu. Use the CDOT Menu Explorer to select the desired specialty group. Use the Category buttons and the Filter buttons to locate the cells within the menu. Select the desired cell from the list.



Updating Text

Text created in AutoCAD with multiple text strings can be converted to a text node in MicroStation. Some multiple text strings created in AutoCAD will be translated into a text node when the file is converted.

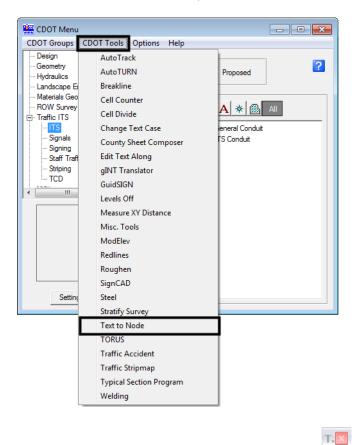
To verify this, <D> the Element Information icon
 Text Nodes will display under the General Tab.

Element Information Selection Entry Text Node	
General	<u>^</u>
Description	Text Node
Level	Default
Color	ByLevel (0)
Line Style Weight	ByLevel (0)
Class	ByLevel (0) Primary
Template	None
Transparency	0
Contents Text String	aponfpwpoqdciuvibwb
Text Style	.07" ENG-100
Formatting	~
Font Name	Engineering
Vertical	False
Height	0.070
Width	0.070
Is Annotation	True
Justification	Left Top
Italics	False
Slant Angle	0°0'0"
Line Spacing	0.023
Line Spacing Type	Exact

- 2. If not, select all text that will be combined into a text node using the **Element Selection** tool. While in the **Element Selection** command, hold down the *Ctrl* key to select individual text strings. Highlight them in the order they are to be placed into the text node.
 - **Note:** Do not *Window* around the multiple lines of text because the text strings may not merge in the desired order.

Tasks # X	ि View 1 - Top, CDOT Default ि → @ ♀ ▼ ▲ ९ ९ धि 田 ॶ 🕙 छ ा क ा । ८ ए ।।
Colorado DOT Roundabouts Civil Geometry	ROY Q. SMITH & JOYCE L. SMITH P.O. BOX 555 KIOWA, CO 80117 RECEPTION NO. 555555
A Data Acquisition Drawing Drawing	BOOK 555 PAGE 555

3. Select the Text to Node utility from the CDOT Menus under Add On's.



- 4. **<D>** the Convert Text Element to Text Node icon
- 5. The following dialog box will appear. The selected text will be anchored to the cursor.

A‡



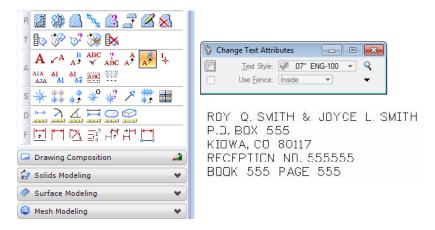
ROY Q. SMITH & JOYCE L. SMITH P.O. BOX 555 KIOWA, CO. S0117 RECEPTION NO. 555555 L. SMITH ROUK 65557465 555 ROWA, CO 80117 RECEPTION NO. 555555 BOOK 555 PAGE 555 6. Check on **Delete Original**, set the **Justification**, and leave the **Line Spacing** set to **1.00**. Place the text in the desired location.

Justification:	Left Top	•
Active Angle	0*0'0.0000''	F
Line Spacing:		

- **Note:** If the Justification is set to anything other than **Left Bottom**, double <D> on the text after it is placed. The text will be brought into the Text Editor dialog. <D> again on the screen to place the text to its proper location and close the dialog.
- 7. Select all text and key-in *annotationscale add*. The text will now recognize the MicroStation Annotation Scale Factor.

Key-in	×
annotationscale add	- ₩ ₩ -

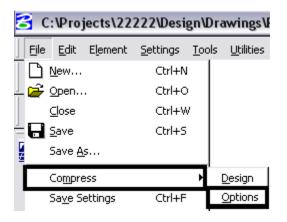
8. Update the text style by **<D> Change Text Attributes**. Select the desired CDOT *Text Style* and select the text placed previously in AutoCAD.



9. All fractions placed in AutoCAD will need to be re-typed in MicroStation so the format conforms to CDOT standards.

Compressing the Model File

1. After all changes and updates have been made to update the drawing into MicroStation using CDOT standards and standard workflows, you will need to compress the drawing in order to remove all AutoCAD information stored in the drawing buffer. This will ensure that AutoCAD data does not get repopulated into the drawing. Select File>Compress>Options.



2. Under *Compress > Options*, verify that all options are checked ON except Delete Text Elements Containing Only Spaces.

☑ Delete Empty Cell Headers EMPTY_CELL ☑ Delete Empty Text Elements EMPTY_TEXT ☑ Delete Text Elements Containing Only Spaces SPACE_TEXT ☑ Delete Unused Named Shared Cells SC_NAMED ☑ Delete Unused Anonymous Shared Cells SC_ANON ☑ Delete Unused Line Styles LINESTYLES		
 Delete Text Elements Containing Only Spaces SPACE_TEXT Delete Unused Named Shared Cells SC_NAMED Delete Unused Anonymous Shared Cells SC_ANON 		
 Delete Unused Named Shared Cells SC_NAMED Delete Unused Anonymous Shared Cells SC_ANON 		
Delete Unused Anonymous Shared Cells SC_ANON		
	SC_NAMED	
Delete Unused Line Styles	SC_ANON	
	LINESTYLES	
Delete Unused Dimension Styles		
Delete Unused Text Styles TEXTSTYLES		
Delete Unused Levels LEVELS		
Delete Unused Nested Attachment Levels LEVELTABLES	3	

3. Once the correct options have been selected, **<D>** the **Compress** button.