# **CDOT Updating InRoads Features**



This document is a guide for updating Digital Terrain Model (DTM) feature styles and Transition Control names within InRoads. These changes are necessary due to new feature styles being developed and modifications or deletions to previous feature style names in CDOT Configuration Release 3.0. This is a complimentary guide to Chapter 2, Digital Terrain Models (DTMs) and Chapter 5, Typical Sections from the Roadway Design Using InRoads Manual.

# **Opening InRoads Files**

- 1. Open MicroStation and InRoads
- 2. Load design DTM's that have been created prior to configuration release 3.0

#### Notes:

- Existing topographic DTMs will not require this update.
- The version of the CDOT configuration can be determined by pausing the cursor over the CDOT logo located at the top-left corner of the main menu bar in MicroStation.



## **Updating Digital Terrain Models Feature Styles**

### **DTM Evaluation**

Determine if the design DTM contains features that require re-association to any new or modified Feature Styles. This can be accomplished by sorting the DTM features through the use of an InRoads feature filter. With feature filters a subset of the DTM features can be identified which lists only the features that require re-association

3. From the InRoads menu select Surface > Feature > Feature Selection Filter. The Feature Selection Filter dialog will appear.

🔭 Feature	e Selection Filte	er.		_ = ×
Filter Name:	CDOT v3.0 Updat	e	-	ОК
Start With:	· · · · ·	None		Cancel
Build Sele Attribute:	Style		<b>T</b>	Save
Value:	D_BR*		극	Save As
Mode:	Include	C Exclude		Delete
	Add Rule F	Replace Rule		Help
Rules: Exclude All Include Sty Include Sty	le = D_BR*	_		Move Up Move Down Delete Rule Clear All
Current Res D_BRAIL_S D_BRAIL_ D_BRAIL_ D_BRAIL_t D_SI-Cut D_SI-Fill	 3 Гу-10 Гу-10Н		<	

4. Select the Feature Filter named *CDOT v3.0 Update* from the drop-down list. Any features displayed in the Current Results list box at the bottom of the dialog pass the *Rules* set in the filter and, subsequently, will need to be re-associated. If no features pass the filter, no further action is required and the Feature Selection Filter dialog can be closed.

### **DTMs that require feature re-association**

5. From the InRoads Locks toolbar select the Filter *CDOT v3.0 Update* from the drop-down list and toggle on the Feature Filter lock.



6. From the InRoads menu select Surface > Feature > Feature Properties. The Feature Properties dialog will appear.

#### **CDOT Update InRoads Features**

- 7. As was mentioned in step 4 above, if no names appear in the **Feature** list box, then nothing further needs to be done. There are no old Feature Styles in the DTM and therefore there is nothing that requires changing. If Features are listed, then complete the following steps.
- 8. Highlight the Feature name that requires re-association. In the example shown here, **D\_BRAIL\_POST** is the selected feature.

urface:	Properties Feature QC	•	_ Style	
eature:	Stule		Available: Selected: B_RAIL_S Primary: B_RAIL_POST	✓ Close
BRAIL P		+	B_RAIL_Ty-10	Filter
_BRAIL_S			B_RAIL_Ty-10H B_RAIL_Ty-10H_S	List Points
_BRAIL_Ty _BRAIL_ty	10H_S_D_BRAIL_Ty-10		B_RAIL_Ty-10M B_RAIL_Ty-10M_S B_RAIL_Ty-10M_S	New Style
_SI-Cut _SI-Fill	D_SI-Cut D_SI-Fill			Help
			Pay Items           Pay Items           Name         Description   From Style	<b>6</b>
	III	All None		
ame:	D_BRAIL_POST		Triangulation Feature Type: Breakline	
		_	Point Density Interval: 0,00	
escription: arent:			Exclude from Triangulation	

- 9. In the *Style* section of the dialog box, select an appropriate Feature Style from the drop-down list provided for Selected:Primary. <D> Apply. Once a new Feature Style has been selected for the Feature in question, the feature will no longer appear in the Feature list box, as it will no longer pass the active feature filter.
- 10. Continue updating other Feature Styles by repeating steps 8 and 9 until no features pass the filter.

**Note:** To expedite the update process, sort the features by style and select several features that have common styles in a single selection. Using this method, multiple features can have their Primary Feature Style updated in a single execution of the command. Remember to hold down the *<CTRL>* or *<SHIFT>* keys while selecting features.

- 11. Once all feature styles have been updated, close the Feature Properties dialog box and toggle the Feature Filter lock off.
- 12. *Save* the DTM Surface.

## **Updating graphics**

DTM features that are currently displayed in a MicroStation file will require redisplay to refresh the graphic display based on the new feature properties.

13. Select the feature filter named **CDOT** v3.0 **Refresh** and toggle on the Feature Filter lock.

Locks						2
CDOT v3.0 Refree 💌	1	3 🔨	×	X		₽ 111

14. From the InRoads menu select Surface > View Surface > Features

🛣 View Featu	res					
Main Advan	ced					
Surface:	Feature QC	Filter				
Fence Mode:	Ignore 💌	Edit Style				
Features:		Help				
D_BRAIL_Ty	Style     Descripting       B_RAIL_S     B_RAIL_S       B_RAIL_Ty-10     B_RAIL_Ty-10H       B_RAIL_Ty-10H_S     D_Top-of-Cut       D_Top-of-Fill     D_Top-of-Fill	<u>+</u>				
<		All None				
Ap	Apply Preferences Close					

- 15. Highlight all, or only the features that require redisplay, from the Feature list box and <D> Apply. Both the DTM and graphics display should now be up to date with the current CDOT configuration.
- 16. Turn off the Feature Filter lock

Locks	_							×
CDOT v3.0 Updat 👻	1	8	1	×	×	$\mathbf{\varkappa}$	 ىيىل 5+00	₽

# **Updating Transition Control Name Feature Styles**

The transition control names associated with templates may also require updating depending on the template library and templates being used. Transition control names refer to feature style names.

17. Once a template library has been loaded, Select Modeler > Define Typical Sections.

Bentley InRoads 2004 Edition						
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<u>File</u> Surface <u>G</u> eometry <u>E</u> valuation	<u>M</u> ode	ler	Drafting	<u>Q</u> uantities	<u>T</u> ools	<u>H</u> elp
:	y D	efine	e Typical	Sections	N.	l l
- 🖌 Typical Section Library - De	1		Typical S		1	
	- m -				Ť	
Templates				al Section Lib	orary	
Life Cut / Fill Tables	1+00 D	efin	e Roadwa	ay		
Material Tables	How Rename Roadway Library					
🖉 Decision Tables						
	<u>5</u>	Jper	relevation			•
	R B	oad	way Mode	eler		
	🏷 E	фre	ss Modele	er		
	TT	-				
🛒 Typical Sections 📲 Roadwa ୶						
	- 1					
Defines templates, decision tables, cut-an	d-fill tab	oles,	, and mat	erial tables		

18. Select the *Transition Control* tab in the Define Typical Sections dialog box.

Define Typical Sections	
Templates Cut/Fill Tables   Material Tables   Decision Tables   Transition Control	
Library Name: TRAINPreview	New
Library Description: CDOT base - Feb 2005	Edit
Name Description Last Revision	Сору
4 Lane Urban Typ. Secti w/ 14' Median 2/2/2005 10:29:01 AM PGMCT Interstate Typ. Profile Grade Medi 2/2/2005 8:47:16 AM	Rename
I-25 Main revised consistent w/ new 11/30/2004 12:11:32 PM acceptable layer names consistent w/ new 12/8/2004 8:40:49 AM	Delete
2 Lane Rural Typ. Sectio 2 Lane Rural Typic 3/16/2005 8:04:48 PM 2 Lane Urban Typ. Secti w/ 14' Median 2/2/2005 5:27:36 PM 4 Lane Urban Typ. Secti Median 2/2/2005 10:47:01 AM	
	Display
Preview	Report
	Help
Display Backbone Only	
Close	

## **CDOT Update InRoads Features**

19. Select the Transition Control Name for updating

emplates Cut/Fill Tables Mat		cision rables manado		-
Library Name: mod CDOT	0605			New
Library Description: jeff mod 060	5			Edit
Name	Description	Feature Style	Color 🔺	Copy
RT_Inside_Shoulder	Right Inside Sho	D_SHOULDER		
Cut Left_RT_Top-of-Cut LT_Top-of-Cut Right_Cut Right_LT_Top-of-Cut RT_Top-of-Cut Top-of-Cut Fill Left_RT Top-of-Fill	Cut Cut Fill	D_SI-Cut D_SI-Cut D_SI-Cut D_SI-Cut D_SI-Cut D_SI-Cut D_SI-Cut D_SI-Fill D_SI-Fill D_SI-Fill		Delete
Let_N_IOFORM T_Toeof-Fill Rtght_RT_Toe-of-Fill RT_Toe-of-Fill Toe-of-Fill Left_LT_Subgrade LT_Subgrade RT_Subgrade		D_SI-Fill D_SI-Fill D_SI-Fill D_SI-Fill D_SUBGRADE D_SUBGRADE D_SUBGRADE D_SUBGRADE		Help
Left Left RT Edge-of-Pavem	Ш	Generic FTW		

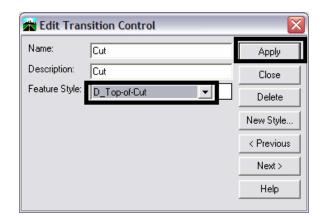
<u>Note:</u> You can sort the dialog by Feature Style, but are only allowed to edit one Transition Control Name at a time.

20. **<D> Edit** to edit the Transition Control.



21. Select the appropriate feature style for the selected transition control name from the drop-down list.

🛣 Edit Tran	sition Control		<b>X</b>
Name:	Cut		Apply
Description:	Cut		Close
Feature Style:	D_Top-of-Cut		Delete
	D_MEDIAN D_POSS D_ROADWAY-Asphalt	^	New Style
	D_ROADWAY-Dirt D_ROADWAY-Gravel		< Previous
	D_SHOULDER D_SUBGRADE		Next >
	D_Toe-of-Fill D_Top-of-Cut D_Wall_Bottom-Left		Help



#### 22. **<D> Apply**

23. Continue updating other Transition Control Feature Styles by repeating steps 19 through 22. Use the next and previous buttons on the **Edit Transition Control** dialog box to move through the Transition Control Names.

**Note:** Once the transition controls have be updated, the Feature Style update will apply to all templates within the template library.

- 24. Once you have updated the feature styles associations for the transition controls, close the Edit Transition Control and Define Typical Sections dialog boxes.
- 25. Save the Typical Section Library.
- 26. Any future run of the **Roadway Modeler** will create *Digital Terrain Models* with the new InRoads Feature Styles.

**Note:** Transition Controls not updated will place graphics on the level named *default* and the symbology will be incorrect.