

Using Adhoc Attributes

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Introduction

What Is An Adhoc?

- Adhoc Attributes (also referred to as just Adhocs) are pieces of user defined information that can be added to MicroStation elements. This information can be just about anything.
- Adhocs are analogous to adjectives in grammar. They allow the user to tag descriptive data to the element that can be retrieved later by various processes.

Examples of Adhoc Tags

- Pipe Material
- Pipe Size
- Flow line elevation
- Quantity of Sod at DBI
- Sidewalk thickness
- Special Ditch Profile Name
- Type of Separator
- Etc.

What Elements Can Have Adhocs Attached?

- There is no limitation on the type of MicroStation element that can be tagged with adhocs. Every type of element from cells to text are acceptable.

How does FDOT use Adhocs?

- To tag additional information to elements for quantity purposes, sheet definitions, data needed to draw cross sections that accurately reflect the proposed design and descriptive information for other programs such as the drawsign program.
- Examples of programs that use adhoc information:
 - Drawsign
 - Cross Section criteria files
 - SheetNavigator
 - D&C Manager
 - Curb and Gutter Maker

Adhoc Designation

Multiple Adhocs can be added to an element, and every Adhoc has a Name, Type and Value. The Adhoc name is limited to a total of 22 characters

- Name of Adhoc: Pipe Material
- Type of Adhoc: String
- Value of Adhoc: Concrete

- Name of Adhoc: Pipe Diameter
- Type of Adhoc: Numeric
- Value of Adhoc: 1.5

Types Of Adhocs

There are five (5) types of Adhocs:

- Numeric - Assign numeric value (0,1,32,1004.64)
- String - Assign string value (Oak, 24",Sod, Directional Arrow, etc.)
- Quantity - Assign numeric value
- Unit - Assign string value
- Remarks - Assign string value

Note: You can have multiple Adhocs with the same name, but they must be of different types. You can have 255 Adhocs per element.

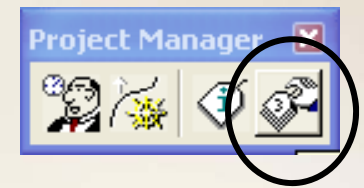
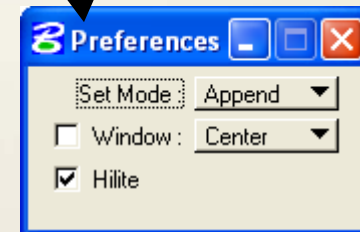
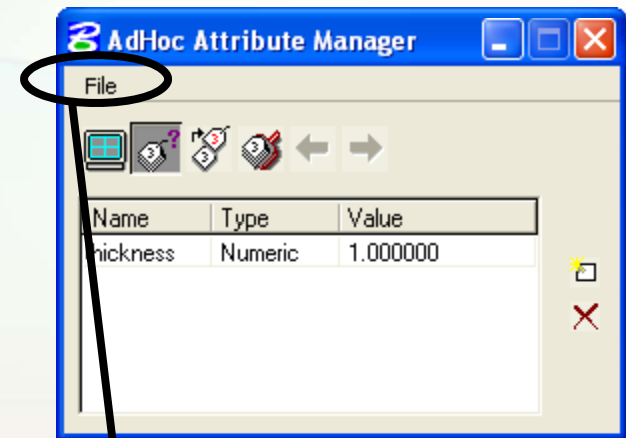
Creating and Tagging Adhocs

- Adhocs can be created and tagged to an element 4 ways:
 - Adhoc Attribute Manager
 - D&C Manager (or any GEOPAK program that uses DDB features)
 - Criteria
 - Custom developed programs (such as Sheet Navigator)

Adhoc Attribute Manager

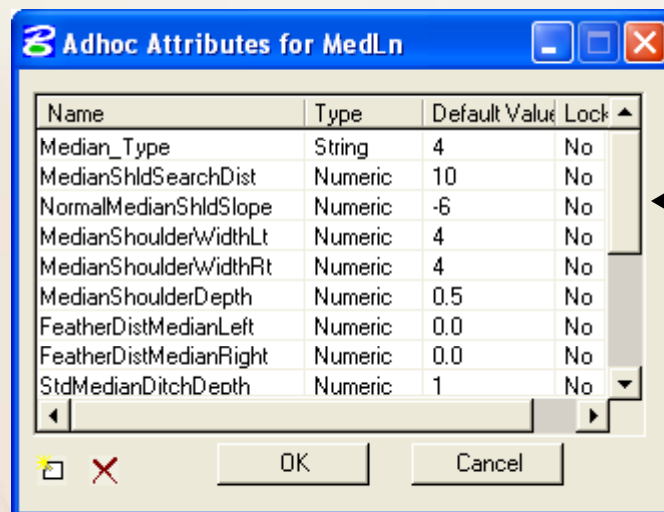
- The Adhoc Attribute Manager can be used to review and or assign Adhocs to existing elements in a design file.
- The Set Attribute icon is used to tag Adhocs to an existing element. You can identify a single element or it will work on an entire MicroStation Selection Set.

Note: The **AdHoc Attribute Manager** can be selected from the pulldown **Applications > Geopak Road > Geopak 3PC AdHoc Attribute Manager** or from the **Project Manager** tool box.

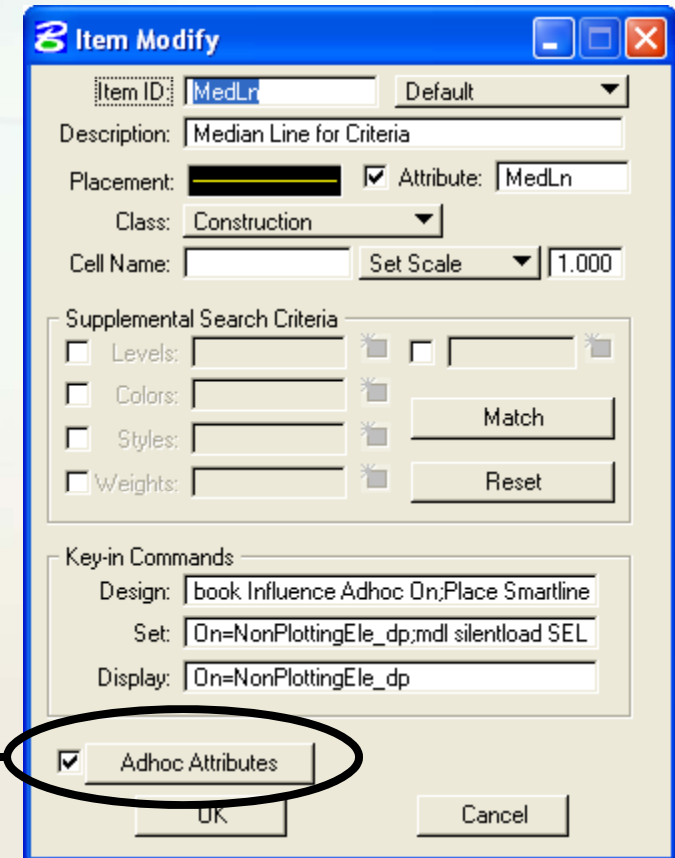


Creating and Tagging Adhocs with D&C Manager

- Another way to tag Adhocs is with the Adhoc Attribute Table from within D&C Manager. The adhoc attributes are stored with the item definition.




Name	Type	Default Value	Lock
Median_Type	String	4	No
MedianShldSearchDist	Numeric	10	No
NormalMedianShldSlope	Numeric	-6	No
MedianShoulderWidthLt	Numeric	4	No
MedianShoulderWidthRt	Numeric	4	No
MedianShoulderDepth	Numeric	0.5	No
FeatherDistMedianLeft	Numeric	0.0	No
FeatherDistMedianRight	Numeric	0.0	No
StdMedianDitchDepth	Numeric	1	No



Item Modify

Item ID: MedLn Default

Description: Median Line for Criteria

Placement:  Attribute: MedLn

Class: Construction

Cell Name: Set Scale 1.000

Supplemental Search Criteria

Levels:

Colors:

Styles:

Weights:

Match

Reset

Key-in Commands

Design: book Influence Adhoc On;Place Smartline

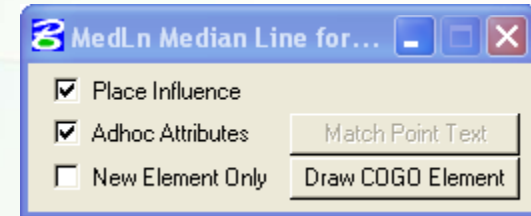
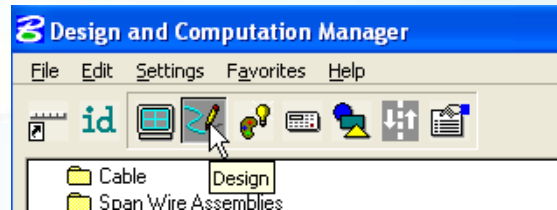
Set: On=NonPlottingEle_dp;mdl silentload SEL

Display: On=NonPlottingEle_dp

Adhoc Attributes

OK Cancel

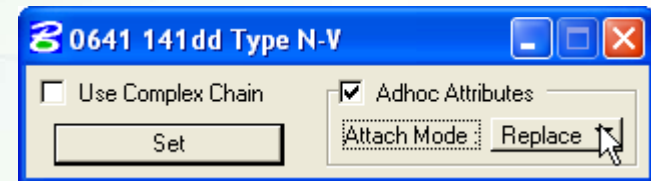
Tagging Adhocs to an Element from the D&C Manager in Design Mode



- When an element is placed using this item both the Place Influence toggle and the Adhoc Attributes toggle should be enabled.
- The Adhocs Attributes table will pop-up and allow the user to review and change the Adhoc values as necessary. Each of these Adhoc attributes will be tagged to the element at placement.

Name	Type	Value
Median Type	String	4
MedianShldSearchDist	Numeric	10
NormalMedianShldSlope	Numeric	-6
MedianShoulderWidthLt	Numeric	4
MedianShoulderWidthRt	Numeric	4
MedianShoulderDepth	Numeric	0.5
FeatherDistMedianLeft	Numeric	0.0
FeatherDistMedianRight	Numeric	0.0
StdMedianDitchDepth	Numeric	1
MedianFrontSlope	String	1:3
MedianDitchWidth	Numeric	2
PavedMedianDitchWidth	Numeric	3

Tagging Adhocs to an Element from the D&C Manager in the Set Mode



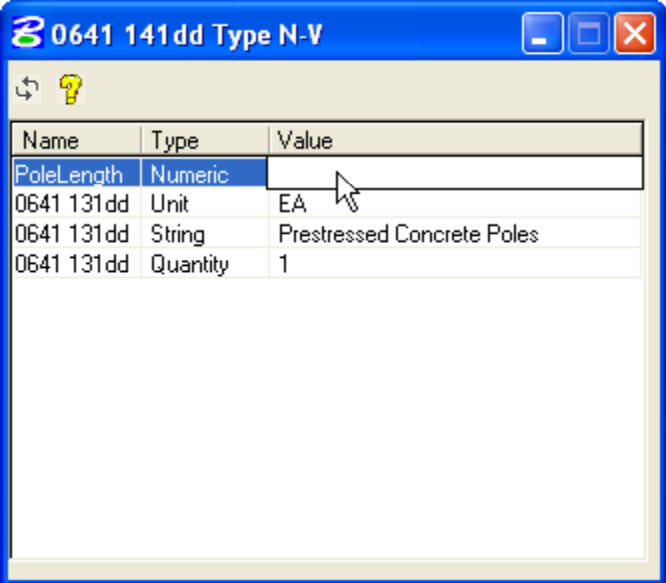
Name	Type	Value
PoleLength	Numeric	40
0641 131dd	Unit	EA
0641 131dd	String	Prestressed Concrete Poles
0641 131dd	Quantity	1

This mode allows 2 Adhoc attribute options when setting the attributes of an existing element to match the currently selected D&CManager item.

- Append - adds the adhocs defined for this item in the adhoc attribute table to the adhocs already attached to the element.
- Replace - replaces any adhocs currently attached to the element with adhocs in the adhoc attribute table for this item.

Changing Adhoc Values in the D&C Manager Adhoc Table

- To adjust/change a value, the user would simply "single click" on the value, type in the new value and then press enter.



0641 141dd Type N-V

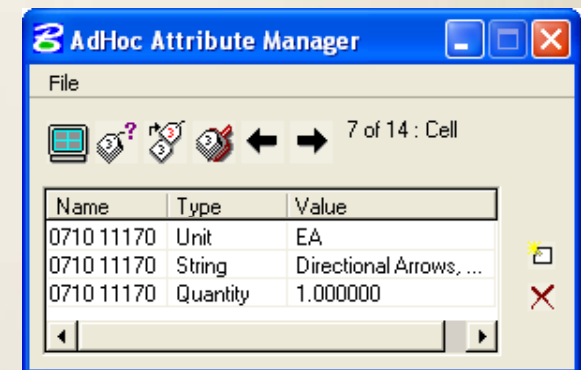
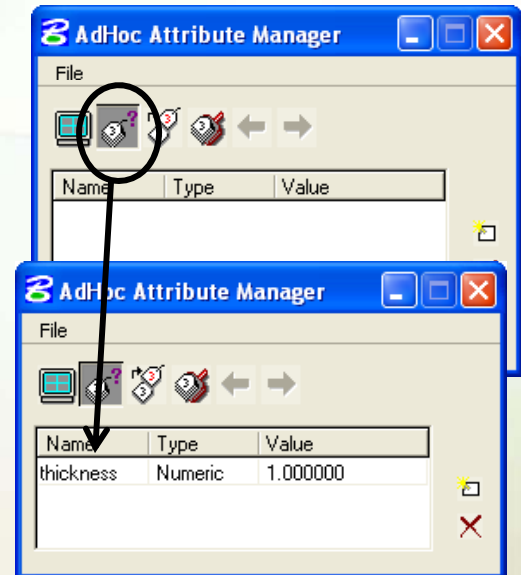
Name	Type	Value
PoleLength	Numeric	
0641 131dd	Unit	EA
0641 131dd	String	Prestressed Concrete Poles
0641 131dd	Quantity	1

Reviewing Adhoc Attributes

- There are two tools which can be used to display and review the Adhoc Attributes which have been tagged to an element in Microstation.
 - Adhoc Attribute Manager
 - Application Attribute Viewer

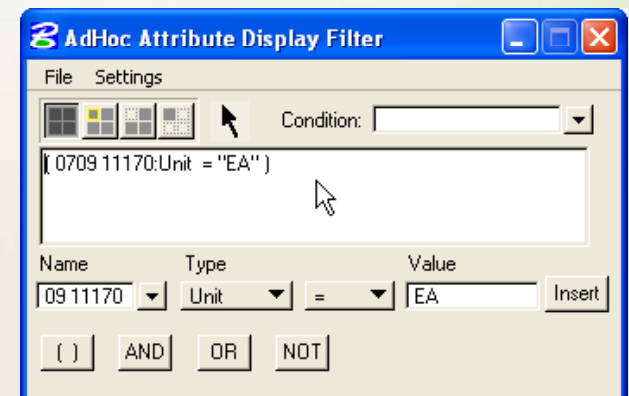
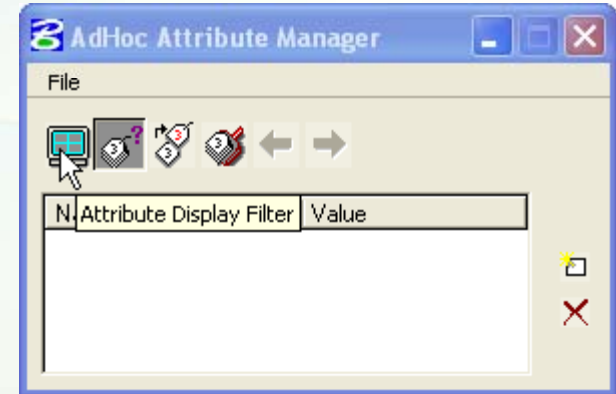
Reviewing Adhoc Attributes

- To review Adhocs tagged to an element, click on the ID icon then datapoint on the element in the dgn file. Any Adhocs tagged to that element will be displayed in the dialog box. The values can then be modified if needed.
- This tool also works with MicroStation selection sets. Place elements in a selection set, then press the ID icon. Adhoc Attribute Manager will gather all of the adhocs per element and allow the user to review the adhocs by element.



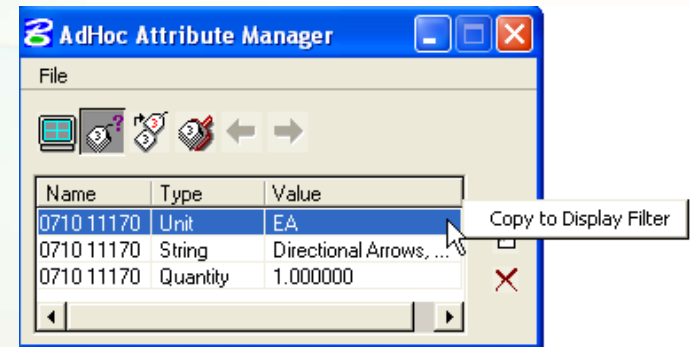
Displaying Elements with Adhoc Attributes

- The Attribute Display filter can control the display of elements with specified adhoc. It is similar to the Display Filter in D&C Manager where the user can control the display and location of D&C Manager items.
- The display of the elements are based on filters defined by the user.
- An example is displaying only pipes that are 18". This tool greatly expands the users ability to filter the display of elements.



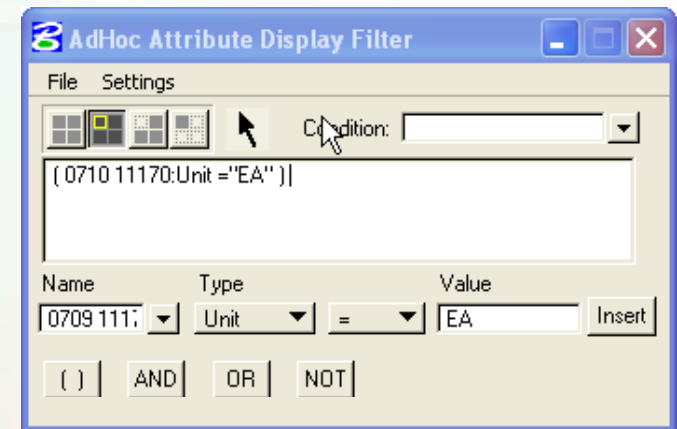
Filtering the Display of Elements with Adhoc Attributes

- To use this tool, identify the element with the Adhoc Attribute Manager ID tool, data point on the element and accept it. This will populate the dialog with the adhoc information.
- To filter the display by a certain adhoc attribute, highlight the entire row then right click to get the option *Copy to Display Filter*. Left click on *Copy to Display Filter*.



Filtering the Display of Elements with Adhoc Attributes

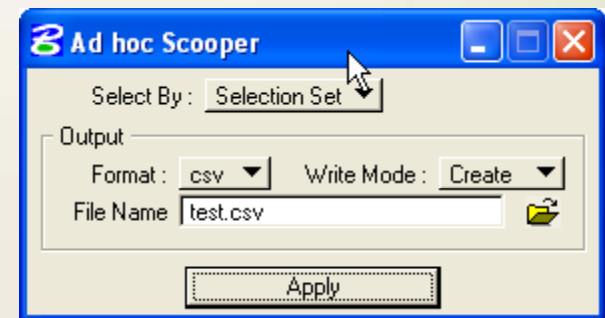
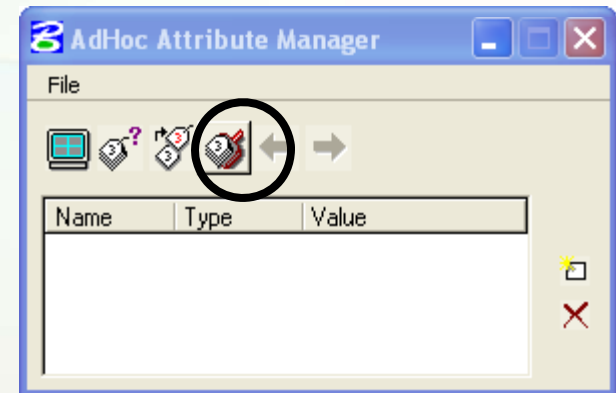
- The Adhoc Attribute Display Filter dialog will list the adhoc(s) for filtering.
- 4 typical Display filters are available:
 - Normal Display
 - Highlight Selection
 - Hide Selection
 - Display Only Selection
- Once filtered, the elements that match the filter may be used for creating a selection set



Note: Additional **conditions** may be added and inserted for additional filtering. Filters can be saved via the File pulldown using Save As.

Creating a Text File of Adhoc Attribute Values

- The Adhoc Attribute Manager also has a tool called Adhoc Scooper. This tool will “scoop” up all the Adhocs and write them to a text file or database.



Adhoc Attribute Output File

Microsoft Excel - test.csv

File Edit View Insert Format Tools Data Window Help Adobe PDF

Type a question for help

100% Arial 10 B I U

A1 ELEMENTID

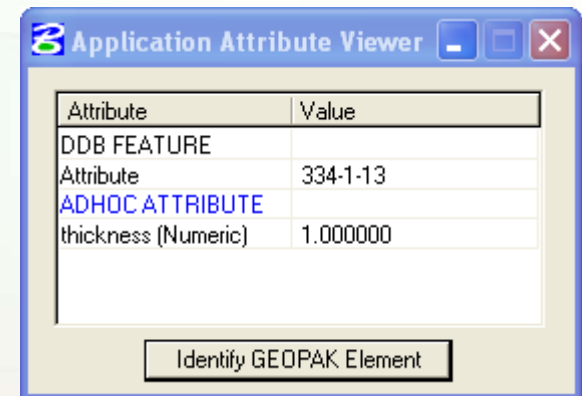
	A	B	C	D	E	F	G
1	ELEMENTID	REFATTID	ADHOCNAME	ADHOCTYPE	ADHOCVALUE	DGNFILE	
2	10180	0	thickness	NUMBER		1 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
3	10276	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
4	10276	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
5	10276	0	0710 11170	QUANTITY		1 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
6	10329	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
7	10329	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
8	10329	0	0710 11170	QUANTITY		1 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
9	10342	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
10	10342	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
11	10342	0	0710 11170	QUANTITY		1 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
12	10355	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
13	10355	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
14	10355	0	0710 11170	QUANTITY		1 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
15	10368	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
16	10368	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
17	10368	0	0710 11170	QUANTITY		2 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
18	10386	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
19	10386	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
20	10386	0	0710 11170	QUANTITY		2 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
21	10404	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
22	10404	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
23	10404	0	0710 11170	QUANTITY		2 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
24	10422	0	0710 11170	UNIT	EA	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
25	10422	0	0710 11170	STRING	Directional Arrows	Paint	C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn
26	10422	0	0710 11170	QUANTITY		2 C:\E\PROJECTS\2280791\roadway\dsgrnd01.dgn	
27							
28							

test

Ready NUM SCRL

Reviewing Adhocs in Application Attribute Viewer

- This tool can be used to review any GEOPAK attributes found on an element. This includes D&C attribute, SMD features and Adhocs Attributes. (Example: Chain Name, Quantity info, etc).
- The attributes cannot be modified from this dialog.



D&C Manager Compute Settings

- Toggle on *Create Adhoc Attribute Table* to take adhoc attribute information to Quantity Manager for reports.

Compute Settings

Baseline Chain Reference

Adhoc Attribute Name: Chain

CSV Export Properties

Delimiter: " Prepend Header Record

DBMS Properties

Driver: Microsoft Access (.mdb)

User Name:

Password:

Purge Quantities for Deleted DGN Elements

Update Quantities for Designated Phase Only

Create Adhoc Attribute Table

Project Specific Supplemental Descriptions

Description Prefix: {} Description Suffix: {}

Tagging Adhocs from Criteria Files

- This process done by creating a selection set of the elements dynamically.

Summary

- The FDOT2006 D&C Manager database file tags adhoc to many of the items for quantity purposes.
- The FDOT 2004 cross section criteria files require the use of adhoc to define design information.

Questions?

- <http://www.dot.state.fl.us/ecso/>
- ECSCO support:
 - 850-245-1600
 - ecso.support@dot.state.fl.us