

FDOT Automated Quantities - Chapter 5 Quantity Manager



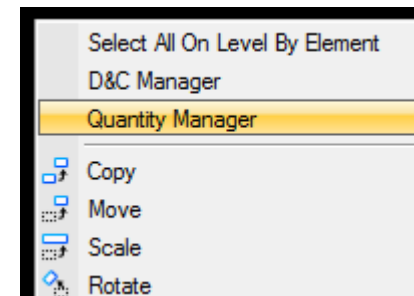
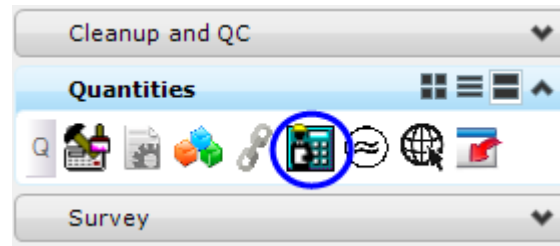
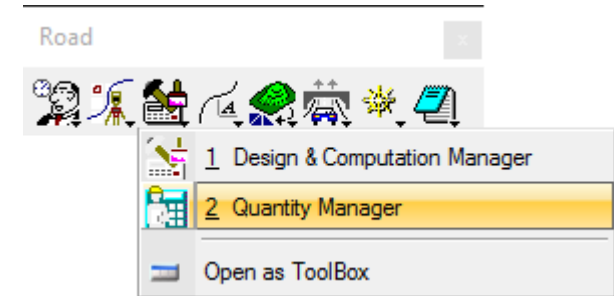
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FDOT
Production Support Office - CADD*

Objectives

- *Introduce Quantity Manager*
- *Review a Quantity Database*
- *Generate Quantity Reports*

Quantity Manager

- *Quantity Manager is the GEOPAK tool used to store, organize, and manipulate quantities.*
- *Access from:*
 - *Road Toolbox*
 - *GEOPAK Menu*
 - *GEOPAK > ROAD > Quantity Manager*
 - *Quantities Task Menu*
 - *Right click option in QTDSRD file*



The screenshot displays the Quantity Manager application window. The title bar shows the file path: "Quantity Manager - C:\e\projects\22049555201_DJB\roadway\22049555201EC SO.mdb". The menu bar includes "Project", "Edit", "View", "Insert", "Tools", and "Help". Below the menu bar is a toolbar with various icons for file operations and data management. A dropdown menu for "Trns*port Groupings" is set to "ALL TRNS*PORT GR...".

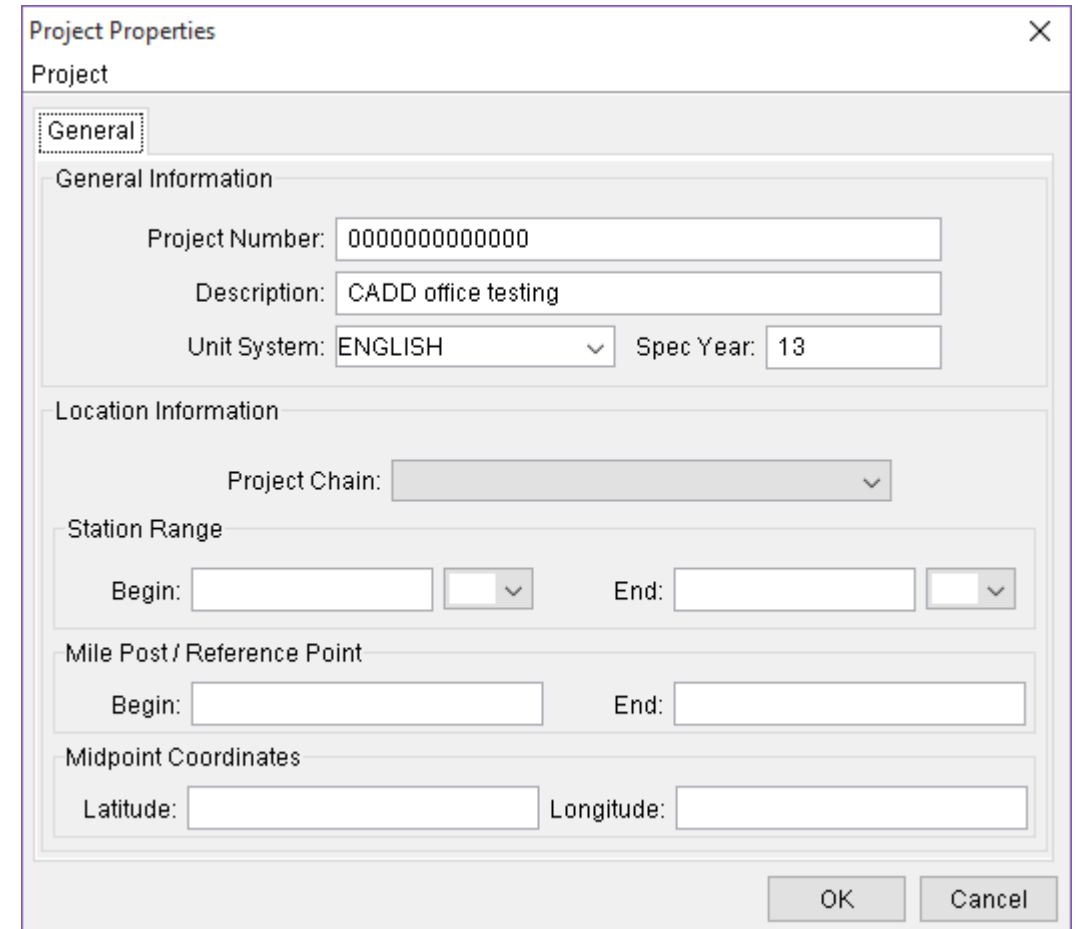
The interface is divided into three main panes:

- Pay Item Tree (Left Pane):** A hierarchical tree view showing the project structure. The "root" folder contains "Roadway Design", "Plan Features", "Quantity Features", "Base", "Milling Existing Asph.", "Asphaltic Concrete", "Superpave Asphaltic Conc", "AC Friction Course", "Sidewalk", and "Manual Items Test". The "Superpave Asphaltic Conc" folder is expanded, showing a list of items, with "0334 1 22 Superpave Asphaltic Concrete (Traffic B, PG 76-22)" selected. A red arrow points to this pane with the label "Pay Item Pane".
- Quantity Pane (Top Right):** A table displaying the quantities for the selected item. The table has columns: "Category", "Payitem", "Trns*port ...", "Chain", "Net Value", "Remarks", "Description", "Extended ...", and "C". The data shows multiple rows for "0334 1 22" with "Net Value" ranging from 15.120 to 91.000. A blue box highlights this pane with the label "Quantity Pane".
- Element Pane (Bottom Right):** A table displaying the elements for the selected item. The table has columns: "Name", "Type", "Radius", "Delta", "Length", "Direction", "Native Id", "Document", and "Ext". The data shows multiple rows for "17105 (Com...)" with "Length" ranging from 4.708 to 137.813. A blue box highlights this pane with the label "Element Pane".

At the bottom of the window, there are two horizontal scroll bars for navigating through the data.

Project Properties

- *Located under Project > Properties*
- *2 ways to define*
 - *Manually*
 - *Important – Make sure the Spec Year is correct*
 - *Import from Designer Interface*
 - *Recommended Method*



The screenshot shows the 'Project Properties' dialog box with the 'General' tab selected. The 'General Information' section contains fields for 'Project Number' (00000000000000), 'Description' (CADD office testing), 'Unit System' (ENGLISH), and 'Spec Year' (13). The 'Location Information' section has a 'Project Chain' dropdown. The 'Station Range' section has 'Begin' and 'End' fields with unit dropdowns. The 'Mile Post / Reference Point' section has 'Begin' and 'End' fields. The 'Midpoint Coordinates' section has 'Latitude' and 'Longitude' fields. 'OK' and 'Cancel' buttons are at the bottom right.

General Information	
Project Number:	00000000000000
Description:	CADD office testing
Unit System:	ENGLISH
Spec Year:	13

Location Information	
Project Chain:	

Station Range	
Begin:	
End:	

Mile Post / Reference Point	
Begin:	
End:	

Midpoint Coordinates	
Latitude:	
Longitude:	

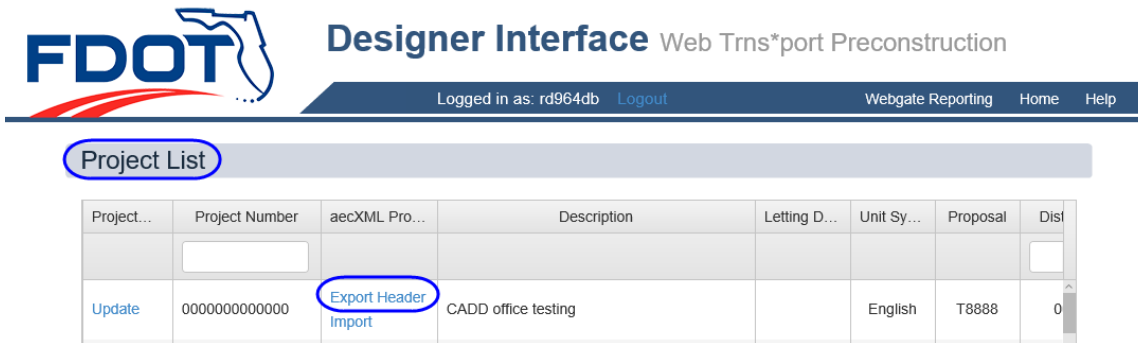
Project Properties – Import Process

- 1. Export the Project Header information (xml file) from Designer Interface*
- 2. Import the project header info into Quantity Manager Project Preferences*

Project Properties – Import Process

1. Export the Project Header information (xml file) from DI

- This can be done in 2 locations...
 - Project List
 - Project Details
 - (Click Update in the Project column to get to the Project Details)
- On either screen, select Export Header.

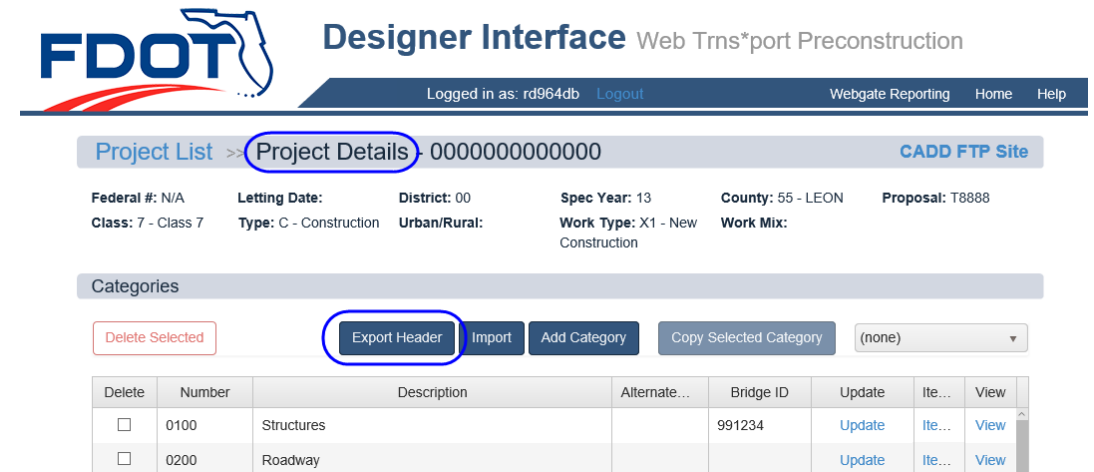


FDOT Designer Interface Web Trns*port Preconstruction

Logged in as: rd964db Logout Webgate Reporting Home Help

Project List

Project...	Project Number	aecXML Pro...	Description	Letting D...	Unit Sy...	Proposal	Dist
Update	0000000000000	Export Header Import	CADD office testing		English	T8888	0



FDOT Designer Interface Web Trns*port Preconstruction

Logged in as: rd964db Logout Webgate Reporting Home Help

Project List >> Project Details 00000000000000 **CADD FTP Site**

Federal #: N/A Letting Date: District: 00 Spec Year: 13 County: 55 - LEON Proposal: T8888
Class: 7 - Class 7 Type: C - Construction Urban/Rural: Work Type: X1 - New Construction Work Mix:

Categories

Delete Selected **Export Header** Import Add Category Copy Selected Category (none) ▼

Delete	Number	Description	Alternate...	Bridge ID	Update	Ite...	View
☐	0100	Structures		991234	Update	Ite...	View
☐	0200	Roadway			Update	Ite...	View

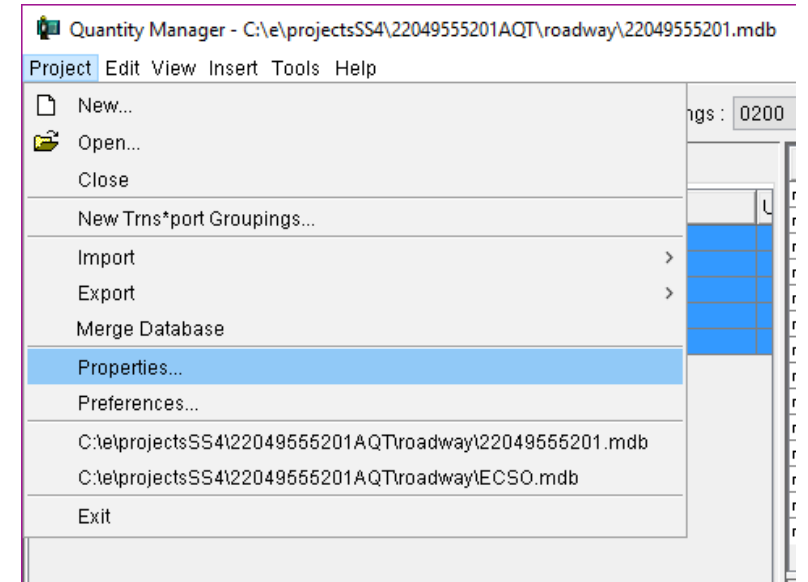
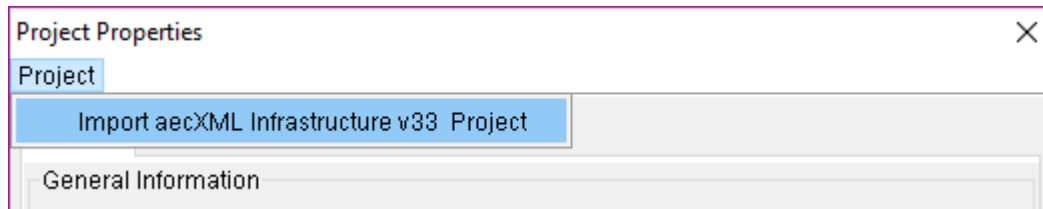
Project Properties – Import Process

1. *Export the Project Header information (xml file) from DI*
 - *Select the drop down option beside the Save option and choose Save As.*
 - *Save the xml to the project discipline directory (i.e. Roadway).*



Project Properties – Import Process

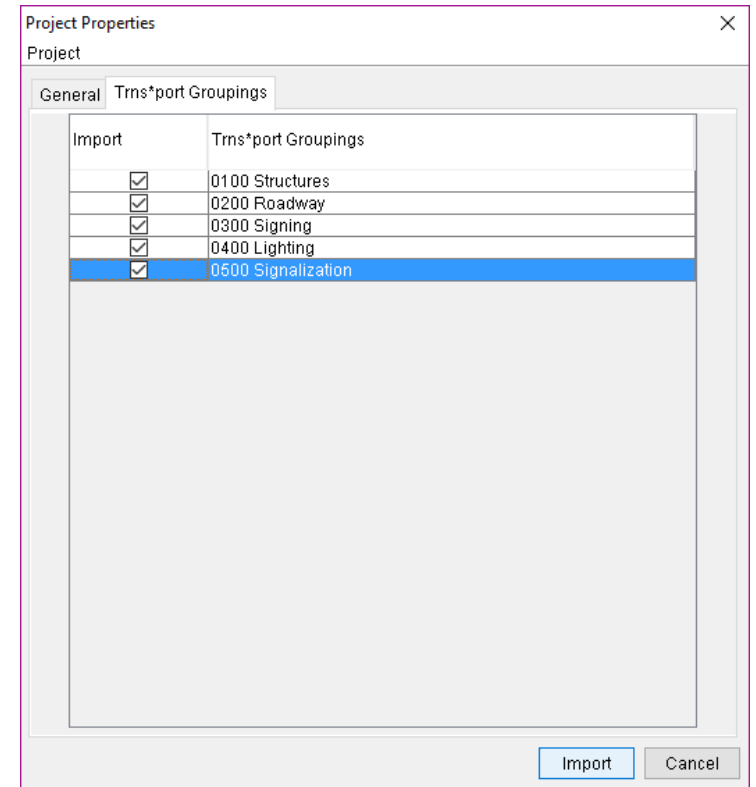
1. *Export the Project Header information (xml file) from DI*
2. *Import the project header info into QM Project Preferences*
 - *In QM, select Project > Properties.*
 - *On Project Properties, select Project > Import aecXML Infrastructure v33 Project.*



- *Browse to the downloaded file and select Open.*

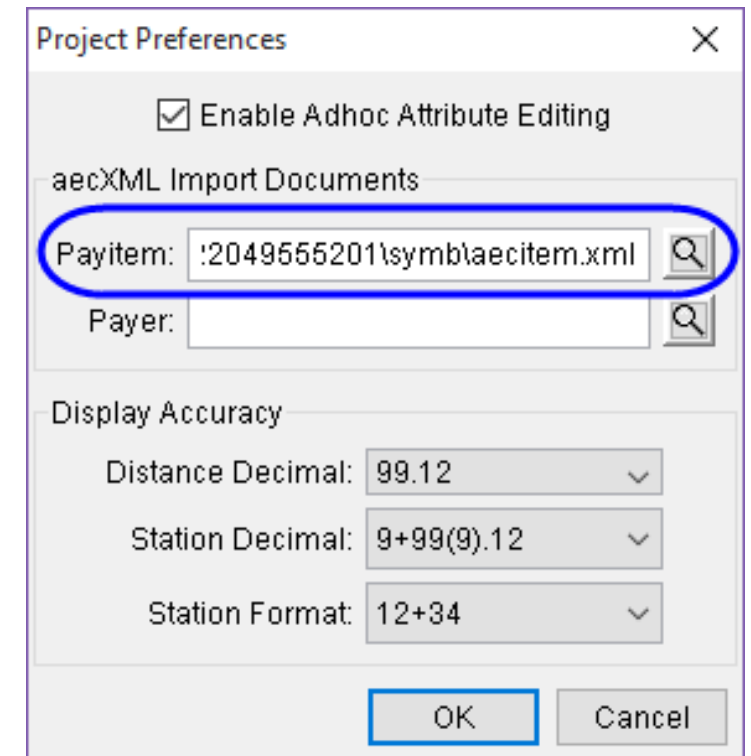
Project Properties – Import Process

1. *Export the Project Header information (xml file) from DI*
2. *Import the project header info into QM Project Preferences*
 - *The Project Properties dialog opens with a new tab for the Trns*port Groupings.*
 - *Select the desired options and then click Import.*



Project Preferences

- *Sets Preferences for the project*
 - *Open through Project > Preferences.*
- *Important...*
 - *Set the Payitem option under aecXML Import Documents*
 - *Used to populate drop down list for pay items when adding quantities manually.*
 - *This XML file can be downloaded from the CADD FTP site.*
 - *Link to CADD FTP site is included on the Actions Menu.*



Project Preferences

☒ Enable Adhoc Attribute Editing

aecXML Import Documents

Payitem: :2049555201\symb\laecitem.xml

Payer:

Display Accuracy

Distance Decimal: 99.12

Station Decimal: 9+99(9).12

Station Format: 12+34

OK Cancel

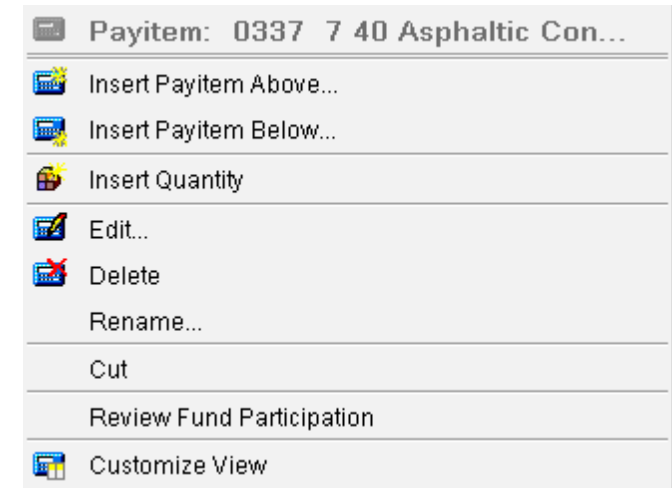
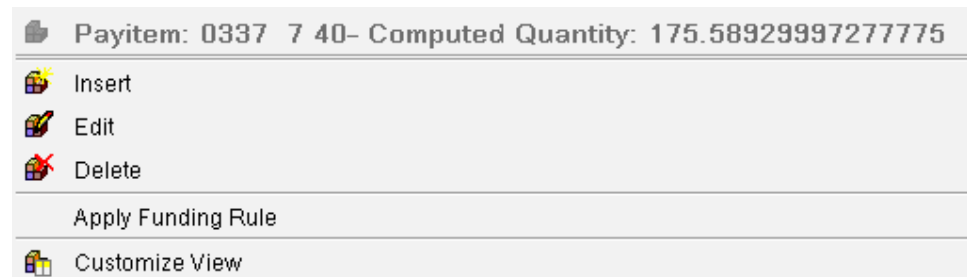
Right Click Menu Options

- *Options will vary depending on the Pane, Category or Item selected.*
 - *These options can also be accessed through the Menus.*



*Category in Payitem
Pane*

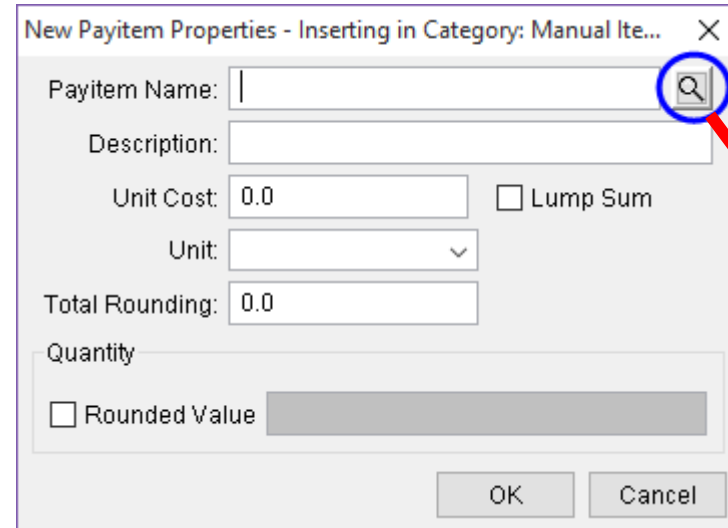
Quantity in Quantity Pane



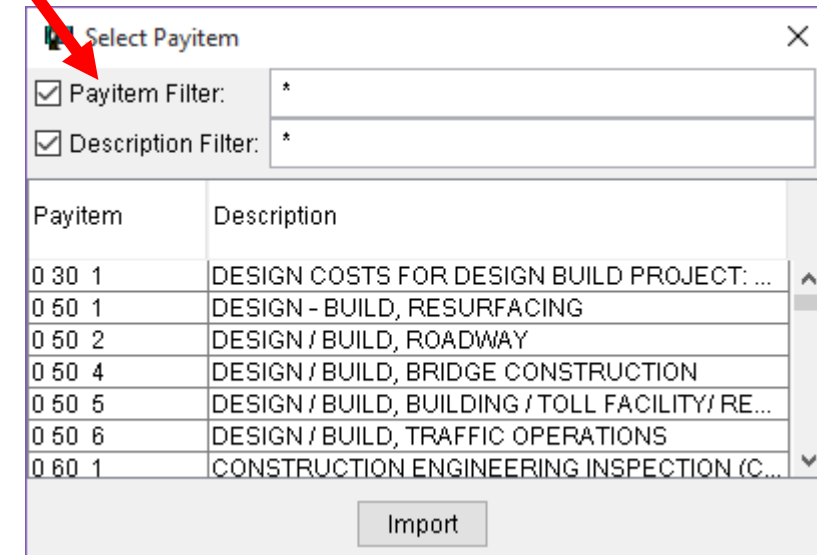
*Item in Payitem
Pane*

Insert Options

- *Category*
- *Pay Item*



The 'New Payitem Properties' dialog box is shown with the title 'New Payitem Properties - Inserting in Category: Manual It...'. It contains fields for 'Payitem Name', 'Description', 'Unit Cost' (0.0), 'Unit' (a dropdown menu), 'Total Rounding' (0.0), and a 'Quantity' section with a 'Rounded Value' checkbox. A red circle highlights a magnifying glass icon in the top right corner of the dialog, with a red arrow pointing from it to the 'Select Payitem' dialog box.



The 'Select Payitem' dialog box is shown with the title 'Select Payitem'. It has two checked checkboxes: 'Payitem Filter:' and 'Description Filter:', both with a '*' in the adjacent text box. Below these is a table with two columns: 'Payitem' and 'Description'. The table contains several rows of data, including '0 30 1 DESIGN COSTS FOR DESIGN BUILD PROJECT: ...', '0 50 1 DESIGN - BUILD, RESURFACING', '0 50 2 DESIGN / BUILD, ROADWAY', '0 50 4 DESIGN / BUILD, BRIDGE CONSTRUCTION', '0 50 5 DESIGN / BUILD, BUILDING / TOLL FACILITY/ RE...', '0 50 6 DESIGN / BUILD, TRAFFIC OPERATIONS', and '0 60 1 CONSTRUCTION ENGINEERING INSPECTION (C...'. An 'Import' button is located at the bottom right of the dialog.

Payitem	Description
0 30 1	DESIGN COSTS FOR DESIGN BUILD PROJECT: ...
0 50 1	DESIGN - BUILD, RESURFACING
0 50 2	DESIGN / BUILD, ROADWAY
0 50 4	DESIGN / BUILD, BRIDGE CONSTRUCTION
0 50 5	DESIGN / BUILD, BUILDING / TOLL FACILITY/ RE...
0 50 6	DESIGN / BUILD, TRAFFIC OPERATIONS
0 60 1	CONSTRUCTION ENGINEERING INSPECTION (C...

- *Note: If you don't get the Select Payitem dialog box or if it's empty, double check that the Spec Year has been set in Project Properties and the aecItems.xml has been set in the Project Preferences.*

Insert Options

- Quantity

New Quantity Properties - For Payitem: 0337 7 40

General Location Adhoc Attributes

Measurement Basis: Each

Measurement Value: 0.000

Computed Quantity: 0.000

Rounded Quantity: 0.000

Deduction Quantity: 0.000

Net Quantity: 0.000

Boundary Type: None

Boundary Name: Boundary

Run Name:

Trns*port Groupings: 0200 Trns*port Gr...

Date / Time: 2016-06-06 18:22:47 Set Current

Remarks:

Description:

Extended Description:

Create Close

New Quantity Properties - For Payitem: 0337 7 40

General Location Adhoc Attributes

Baseline Chain:

Minimum Station

Station: Offset:

Maximum Station

Station: Offset:

VERY IMPORTANT TO
INCLUDE FOR
AUTOMATION

Create Close

New Quantity Properties - For Payitem: 0337 7 40

General Location Adhoc Attributes

Name	Type	Value	Source	Dirty
New 1	String		Manual	☐

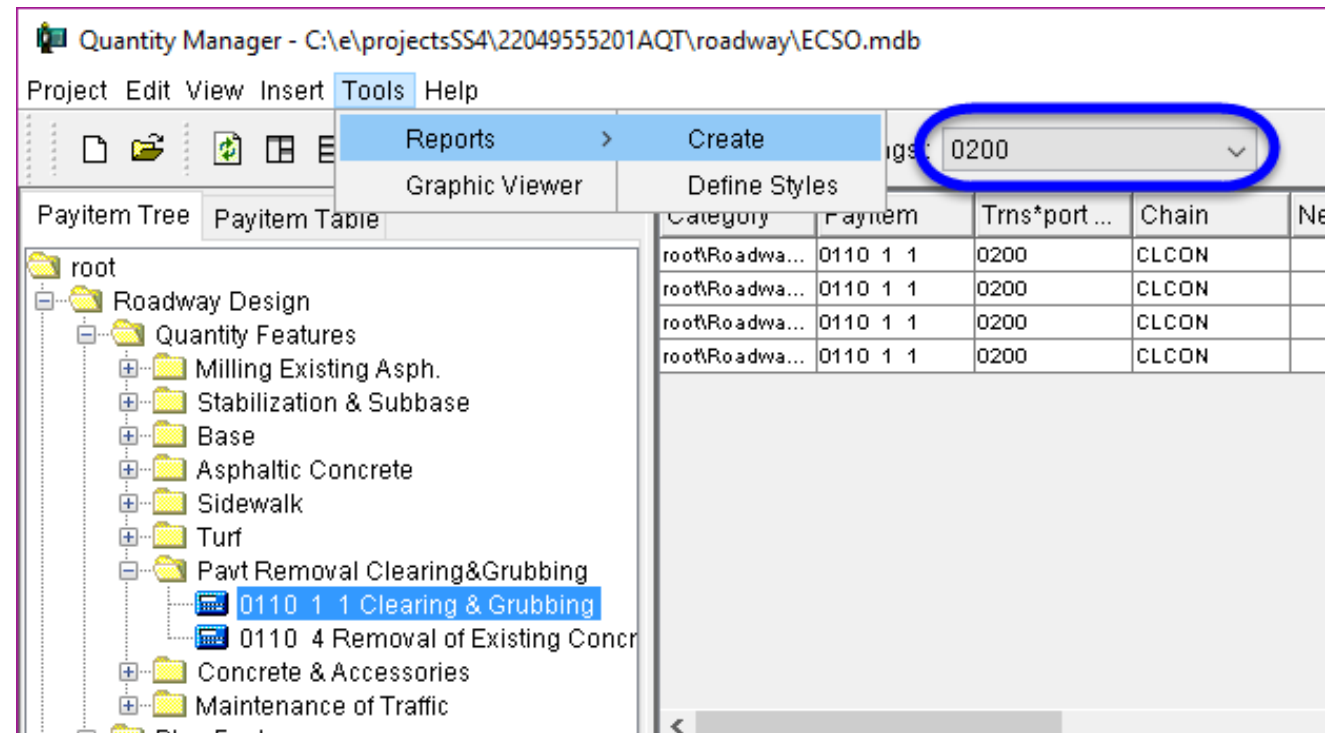
Create Close

Reports

- *Not all quantities that are automated with the D&C are automated with LDM.*
 - *Litter Removal & Mowing*
 - *Removal Items*
- *Reports can be created in CSV format to aid in the development of summary boxes.*

Reports

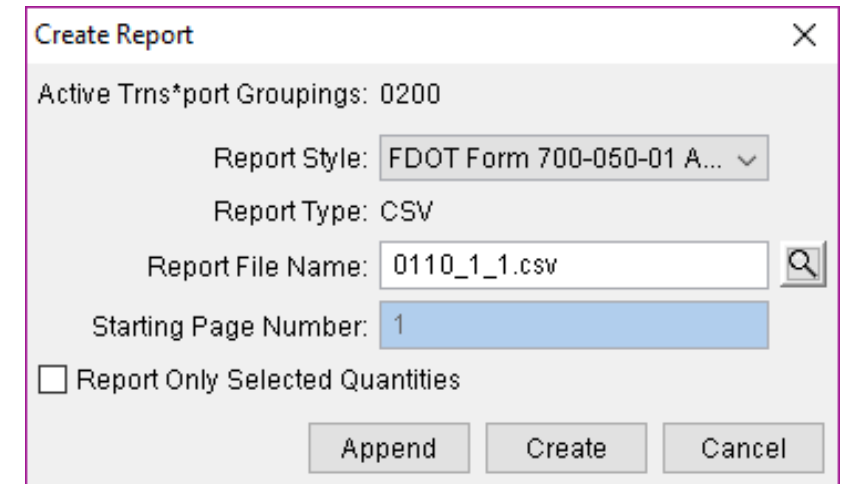
- *Generating Reports*
 - *In QM, set the Transport Grouping setting to the appropriate category (Roadway = 0200)*
 - *Select the desired Pay Item in the Pay Item Pane.*
 - *Select Tools > Reports > Create from the QM menu.*



Reports

- *Generating Reports*

- *On the report menu, select the report for the Area CSV file.*
- *Type in a name for the output.*
- *Click Create. The file will open in Excel.*
 - *This file can be used to copy and paste the information into the template file generated through LDM.*
 - *When pasting the information into the template, make sure to use the option for Values Only so that the formatting doesn't change.*



Create Report

Active Trns*port Groupings: 0200

Report Style: FDOT Form 700-050-01 A... ▼

Report Type: CSV

Report File Name: 0110_1_1.csv 🔍

Starting Page Number: 1

☐ Report Only Selected Quantities

Append Create Cancel

Questions???

Thank-you for joining today's session.

Need some HELP? Contact me...

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E-mail: Denise.Broom@dot.state.fl.us

OR: ecso.support@dot.state.fl.us

<http://www.dot.state.fl.us/ecso>

FDOT CADD Support Forum On-line

http://communities.bentley.com/communities/user_communities/fdot_cadd_support/default.aspx

