Supplement

Information and Instructions for Estimator© version 2.x and Converter

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Section 1
Overview

Objectives

The objective of this booklet is to:

1. Provide a short synopsis of Estimator© version 2.x.
2. Explain how to prepare an estimate using Estimator© version 2.x.
3. Convert an estimate created by Estimator© version 2.x.
4. Provide a simplified way to move a converted estimate from the PC, to the mainframe and into the Design and Construction Information System (DCIS).

This booklet is a supplement. For more information on the use and management of the Estimator© application see Estimator© User and System Manager Guides.

All references to WS-FTP and ROSCOE are general. Coordinate with your Information Resources support staff in your district, division, or office for specific details on how your location utilizes WS-FTP and ROSCOE.

The Estimator© application is licensed by TxDOT from American Association of State Highway and Transportation Officials (AASHTO) and is part of the AASHTO Trns•Port suite of products. InfoTech Inc., a Florida-based company that developed the original Bid Analysis and Management System (BAMS), contributed to the development of Estimator©. TxDOT maintains a site license that covers use by TxDOT employees. Licensing of this product for non-TxDOT employees is available from Info-Tech Inc.

Information on obtaining copies of the Estimator© program, as well as points of contacts, are in Section 7.

Organization of this Booklet

This remainder of the information is organized into:

Section 2 - Estimator© Information
Section 3 - Project Creation in Estimator©
Section 4 - Converting a Project
Section 5 - Roscoe Batch Estimate Layout
Section 6 - FTP and Roscoe
Section 7 - Contact Information

Section 2

Estimator© Information

Introduction

To view a diagram of TxDOT's incorporation of the Estimator© system, see Figure 1. The TxDOT website contains the latest catalogs used by TxDOT and the Converter program.

To run Estimator© you will need the application software and the data to create the spec book year catalog. After you have built an estimate, it is saved as an .est file. When the project information is exported out of Estimator©, it is exported out as a .csv file. The Converter program uses this .csv file to produce a .txt file that can be used to batch upload into DCIS. To do this the .txt file has to be moved from the PC to the mainframe, WS-FTP is software with this capability. Once the file is saved in a ROSOCE library, the RJEJCL facility can be used to batch upload the estimate into DCIS.

Steps involved in moving the data from Estimator to DCIS:

Export the data out of Estimator©

Convert the data

File Transfer Protocol (FTP) the data

Batch upload the data

Estimator© version 2.x. and the new converter do not support earlier versions of Estimator©. You can import a version 1.8a into version 2.x.

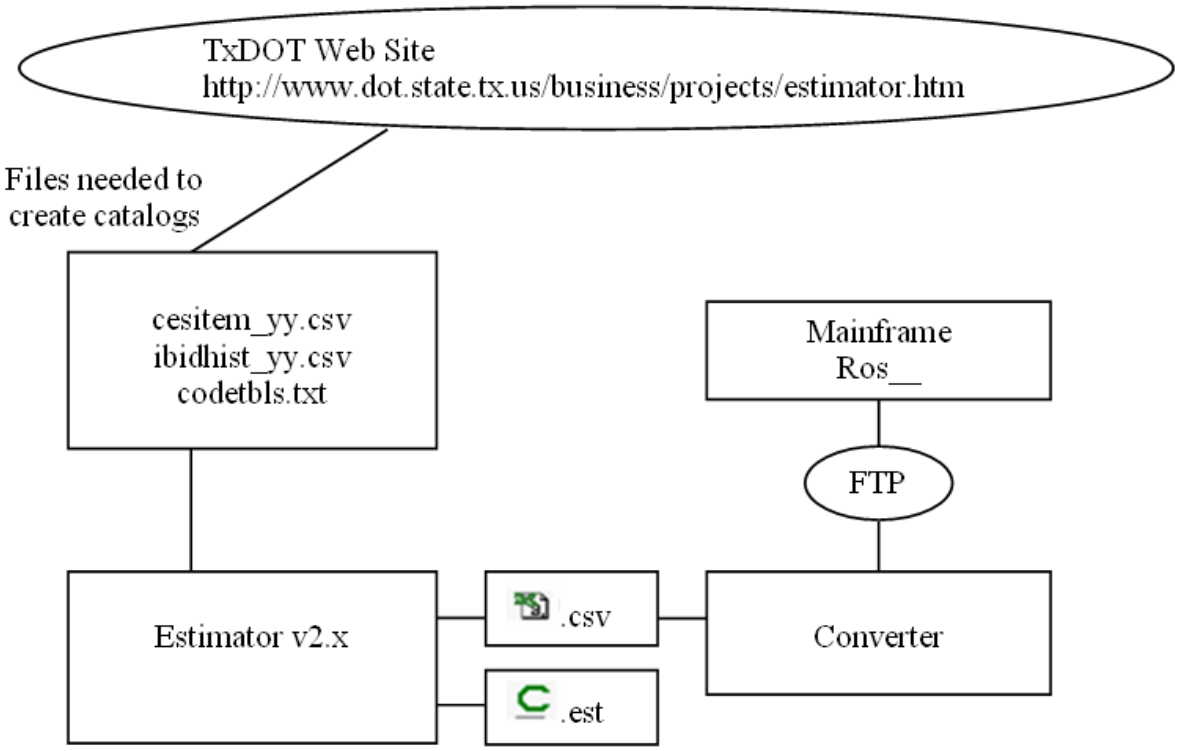


Figure 1 - The TxDOT Estimator System

Installation of Estimator© and Catalogs

Software requirements

Estimator© version 2.x application software

TX data for catalog creation is available at:

http://www.dot.state.tx.us/business/projects/estimator.htm

You will need the following data for the 95 book

cesitem_95.csv

ibidhist_95.csv

codetbls.txt

You will need the following data for the 04 book

cesitem_04.csv

ibidhist_04.csv

codetbls.txt

Note 1: It is recommended for TxDOT users, that installations be on user workstations' not on the network. When creating a catalog, each estimate is based on the name of the catalog that was used to create the estimate. Changing catalog names can cause the estimate to be read only.

Updating the Latest Catalogs

It is recommended that catalogs be placed on single user stations rather than the network. Placement on a network drive or the use of shared drives increases the possibility of software corruption.

To download data off the TxDOT website:

Start your web browser and go to the TxDOT website

http://www.dot.state.tx.us/business/projects/estimator.htm

Transfer the latest .csv and .txt files to your hard disk.

Start Estimator

If the catalog does not exist

◊ Click Tools, Select "New Catalog Wizard"

◊ Enter a new name for the catalog, suggested names are English04 and Metric95. Click OK

◊ Enter the spec book year (04, 95). You can add a description such as when the catalog was created. Click Next

◊ Select "Load new catalog from CESITM and HREG files". Load cesitem_yy.csv, ibidhist_yy.csv, and codetbls.txt. Click Next

◊ Browse to the location where you stored the .csv and .txt files, Click Next.

◊ Click OK, NO, OK, Done.

◊ Switching to another catalog will produce a message box asking you to save the changes to the catalog, click yes.

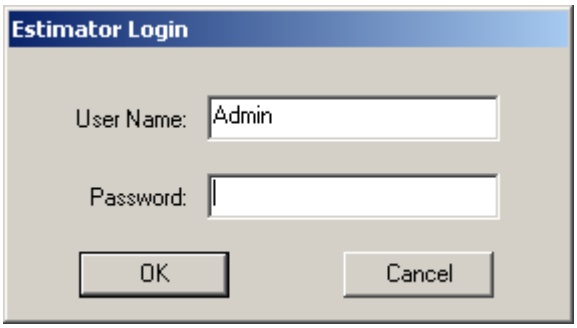
If the catalog exist

◊ Switch to the catalog that is being updated by going to "Tools" and selecting "Switch Catalog".

◊ Under File, select import and select the appropriate .csv files. It will automatically update the catalog.

Starting Estimator©

A dialog box will open asking for a user name and password.



The TxDOT default user name is: Admin

TxDOT Password: password

Both the user name and password are case sensitive and must be typed in as shown.

For TxDOT's purposes it is recommended that the user name and password not be changed and that no new users are added.

Estimator© is similar to other windows systems in that once a user name and password have been entered, a menu bar appears across the top of the screen.

Click on View, Select "Current Catalog" - The information displayed is the current catalog you are in. If you wish to change to another catalog, Click Tools and select "Switch Catalog."

Catalog Data

The TxDOT catalogs are populated by importing standard bid items and bid prices for each spec book year. .csv files are updated quarterly.

Setting up Global Options

Click Tools, Select "Global Options"

Suggested Preferences:

►Under the "General" tab

"Agency Name:" - TxDOT – *District Name* (i.e. TxDOT – Tyler District)

"Auto Save Interval (minutes): If you would like for Estimator to automatically save the file for you put in a reasonable interval time. A time interval too short or too long can have an effect on the Estimator response time. This is not the same as you actually saving your work. It is only for emergencies.

Estimator has an auto-save feature that automatically saves every open window after the designated time has elapsed. These saved files can then be accessed in case of a power-

outage, or if Estimator is shut down in an unconventional way. The Auto Save function is turned off if you set the Auto Save Level to 0. Copyright © 2004 Info Tech, Inc.

"Estimate Archive Level:" If you would like to track you changes put in a number of changes that will be stored. You have to save your work for this to happen.

When you save your estimate, Estimator keeps the former estimate intact in an archive. You can archive up to nine levels. These files can be accessed in the directory where the estimator.exe file is kept. The Archive function is turned off if you set the Archive Level to 0. Copyright © 2004 Info Tech, Inc.

"Estimate Out Of Range Bid History Prices:" Check this box.

Usually when using a bid history, the outliers of an item occurrence or quantity (that is, any number that falls below the 5th percentile or above the 95th percentile) is not used in calculating the bid history price. If this option is selected, then the bid history will use all of the item's occurrences. Copyright © 2004 Info Tech, Inc.

"Roll Up Item Quantity for Bid History Prices:" Check this box.

When bid-based prices are used, the cost of the item usually lowers when a high quantity of an item is purchased. Using a bid-based item price across multiple groups does not give you the advantage of a high quantity purchase. In order to take advantage of the quantity of items, you should roll up the quantities bid-based items across multiple groups. Copyright © 2004 Info Tech, Inc.

►Under the "Numeric and Rounding" tab – Set the defaults to your needs

►Under the "URLs" tab – Put in the paths where Estimator and Catalogs will reside. It is best to have them all point to D:\Highest folder.

►The "Internet" tab is not used.

►The "Proxy" tab is not used.

►Under the "Tree Labels" tab

Estimate: % 2 – CSJ % 1

Group: %2

Item: %2 - %3

Task List: Task List %2

Ref Price: Reference Price %2

Bid History: Bid History %2

Cost Sheet: Cost Sheet %2

Equipment: %2

Labor: %2

Material: %2

Help

The Estimator©'s help screen is specific to the application software.

Section 3

Project Creation in Estimator©

Estimate Preparation

Estimator supports several estimation methods, including bid-based (historical) and cost-based methods. The user will have the following information available for quick and simple estimate preparation:

Standard item catalog with Search and Point & Click.

Historical bid prices for most items (weighted average or regression)

Start Estimator©, enter the user name and password.

Note: Use your mouse or Tab key to move between fields. "Enter" is used only at the end of the process.

The estimate is dependant on the catalog selected. Once a project is saved you cannot change catalogs. You will have to create a new project.

Without a project being opened, go to "Tools" and select "Switch Catalog". Select the catalog that will be used for the project.

Go to File, Click New.

The estimate is shown like an outline.

One header (HWY - CSJ)

Card Type 2

One or more Items

More Card Type 2s

More Items

Project

In the "Estimate ID:" enter the project CSJ (nine digits, **no dashes, no spaces**). Include any leading zeros.

The "Spec Year" comes from the catalog selected.

For "Letting Date", input month, day, and year as close as possible to the actual date that the project will go to letting. (Some of the item prices are based on letting date.)

"Unit System" comes from the catalog selected.

"Work Type", "Highway Type", "Urban/Rural", and "County" are pull down menus. Select the appropriate item. "Season" is not used.

You can put in Contingency %.

Description: Roadway Designator (i.e. IH 40, FM 4331)

PAGE 2 Tab is if you want to track names and dates.

NOTES Tab: for your use.

Save your new project by clicking "File" and selecting "Save." You will be given a chance to name the file and where you will save it at. All file names should be eight characters or less starting with a letter. This is because of mainframe file name limitations.

Card Type 2

A new project will always start off with one initial group. At the header card under the information tabs (Page 1, Page 2, Notes Tabs) is a list of all present groups. To add a second group, you can add a group under the information header tabs, you can add a group by clicking on "Edit" and select add group, or third right click on the header and select add group.

Group information:

Group Number: An incremental designating number.

Alt Code: Not used

Group Description: Insert a descriptor the same as you would in DCIS for a Category (Card Type 2) except for bridges. For bridges put in "Bridge Group xx" where xx is the group number. For a better understanding of when to create bridge groups see http://crossroads/org/brg/PD/documents/BCIInstructions.pdf or contact the Bridge Division.

"Notes" tab: For your use.

Items

Under the "Card Type 2" information tabs is a listing of all items associated with that "card type 2". You can add items there, right click the "card type 2" and select add item, or under "Edit" select add item.

Line Number: Increments according to what was set in the Global Options. You can override this number.

Item Number: Insert the bid item number here, select from the pull down menu, or find the item by clicking on the "…" button.

If you need to enter an item number that is not in the catalog (see Searching for Items), you must enter a description and unit. First, ensure that the number you enter has 8 digits, then ensure that the description does not include double quotes (“). Commonly you would use “ for inches. Here, in a description you must use IN for inches. For unknown item description numbers, use “XXXX.” Example would be 0420XXXX.

Finding an Item

Clicking on the “…” button will bring up the “Find Item” window. The Estimator Help screen has the best definitions on how to find an item.

Quantities and Prices

Enter the quantity. If the item has a bid history and the quantity is within range, a suggested price is filled in. If the item is marked Ad Hoc, there will be no bid history price and you have to enter your own price.

To change a bid history price, you have to click on the Item in the left pane and expand the item. Select Bid History and right clicking on it, select delete Bid History Price. This will clear out the price and replace the description with Ad Hoc. Now you can input the corrected price.

Alt Code: Use this field as you would the alternate fields in DCIS.

Supplemental Description: Use this field to designate special provision.

Notes Tab: For your own use.

Sorting

Selecting the highest level (CCSJ, Card Type 2) under the information tabs is a listing of all the items for that level. In that listing, selecting the column heading, you can select how the rows will be sorted.

Refreshing Prices

Under Edit you will find a selection for updating prices.

Save and Close Project

Save the file/Save As….

Change the name from the CSJ to the highway number with an .est extension (i.e. US90.est).

Close Estimator

File/Exit.

Section 4

Converting a Project

Project Data

After an estimate has been created in Estimator©, it is exported out of Estimator©. Click File | Save then File | Export. This will bring up a file dialog screen for the user to name and save the exported file. It is suggested that the location be in your D:\Highest folder and that the name be the same as the one you named the project. The default export file type is .xml; this needs to be changed to .csv. (When we get into the Converter, it will ask for an output file name, use the same name again. This output file will be a .txt file.) The user should have three files with the same name, but with different extensions.

This .csv file that is exported out of Estimator© is incorrectly formatted and contains more data then is necessary for a batch upload. The Converter program corrects the formatting and deletes unnecessary data. If there is a bridge in the project, the converter allows the addition of the necessary BCI cards.

You can also read a CSV file back into Estimator. Click File | Import and the estimate is brought in. However, if you have a new catalog, the prices in the estimate may be automatically updated.

Converter is a utility program that was developed by the Design Division to transform the Estimator© into mainframe DCIS import format.

Click Start | Programs | Converter |Converter.

Converter Program Main Menu

The first screen has three buttons:

Select a File - to convert, this brings up a dialog box listing the .csv files in the default D:\Highest directory. If necessary, click the folder arrow at top to go to another directory. When you find your file, click Open.

Exit - to exit the program

About - gives a pop up screen with the version and release date of the converter program.

Note: Choosing Cancel causes CONVERTER to Exit.

If you picked a non-Estimator© .csv file, you are forced to Retry or Exit. When you get an acceptable file, you will get a message verifying the file and giving you another chance to change your mind. Click OK. Once you are satisfied with the selected input file, you get another dialog box asking for an output filename. This will be a .txt file, so by default all existing .txt files are listed. You can choose an existing file, or type in a new filename. Click Open. Again, you get a message verifying the filename. Click OK or Cancel.

Now that the input and output files have been selected, Converter displays the CSJ that it found. If an error occurs during the reading of the .csv file, then an error message box will appear and the program will be terminated. If no error is encountered, the CSJ that was entered on the Contract Number field in Estimator© is presented on the main screen. Confirm that the CSJ does not contain dashes and it is the CSJ of the estimate you want to convert. Only the first nine digits of the input are accepted, do **not** use dashes, but **do** enter any leading zeroes, e.g. 001205098. Either way, you get a message confirming that this will be the CSJ in the output file. You can change the CSJ or leave it as is. Click OK, a verification message is displayed.

The conversion process has begun. The first thing that the Converter program looks for is duplicate items with differing prices. Every time it finds an item with inconsistent prices it will display a warning message with the item number. If you get this warning message, write the numbers down, then return to Estimator© or correct them in the output file.

Item Listing Screen 1

This screen contains a listing of all the items in the input file. It is sorted with Roadway items first followed by the different categories. Presented is the first three characters of the category and the item numbers (made up of item code, description code, special provision number, unit prices, quantities, unit of measure, and item descriptions). You have a choice to Save for Excel (output as a .csv file readable by Excel), Print, and Continue or Exit. Click Continue.

If there were no items that were coded as a bridge item, a message will pop up informing you that there were no Bridges found. Click OK.

Item Listing Screen 2

This is the same as screen 1, but the category is spelled out and if there were bridge cards or a comment card, these are also listed. This screen can be printed. Click "Continue."

A message will appear telling you that the file has been converted and the location of where it is saved. Click OK and then click Exit.

Bridge Cost Information Screen

Contract Bridge Division for how to fill in this screen.

Finishing the program.

Once you have finished the process the program exits and a text file is created. You can edit this file with a text editor such as Notepad.

If you plan on batch uploading multiple CSJs as one, the first file must be the controlling CSJ. After you have finish this CSJ a button appears to convert another estimate, and you can repeat for the other CSJs.

Section 5

Roscoe Batch Estimate Layout

Converted Estimate File

For batch estimate processing the layout of the ROSCOE member is very important. This is a sample of a converted estimate file.

```
123456789+123456789+123456789+123456789+123456789+123456789+123456789+
                 101987654321 000001
                3HIGHEST BY SYSTEM ADMINISTRATOR JAN 01, 1970
                2000001 ROADWAY - RURAL
                40100051300000  00000005000000000208856
                40100052100000  00000006000000030000000
                40104050200000  00000022000000000013066
                40150050200000  00000022000000000015832
                40100050200000  00000000000000002149805
                2000001 BRIDGE GROUP 01
                B001N123456789012345 OnCG-PN000000400.000100.00000600.000
                40422050100511  00005800000000000017750
                40416054600011  00000006000000000335656
                40462053700011  00000024000000000577633
                2000001 BRIDGE GROUP 02
                B001R543210987654321Off  CLV000000500.000050.00000730.000
                B002W678901234567890Off GP-I000000600.000050.00000600.000
                404220501000A1A 00000008900000000017750
                40416051000011  00000025000000000240059
                404620509000B1b 00000003500000000419014
                2000001 LANDSCAPE AND LIGHTING
                40416054700000  00000010000000000100000
                40416052200000  00000000000000000000000
                 9
```

All cards start in column 14.

Card 1 is made up of the number "1" followed by the District Number (two digits), County Number (three digits) and CSJ (nine digits – no dashes). 52 more characters can be added to Card 1.

Card 2 is made up of the number "2" followed by the category length. This length is in the format of 999.999 without the decimal period showing. After the length, is the category (35 characters maximum).

Card 3 is made up of the number "3" followed by up to 50 characters.

Card 4 is made up of the number "4" followed by Item number (4 digits), Description code (4 digits or "****"), Special provision number (3 digits), Special account number (2 digits), Alternate group (3 characters), Quantity (11 digits – format of 99999999.999 without the decimal), Unit price (10 digits –format +9999999.999 without the decimal.)

Card 5 is made up of the number "5" followed by Description (39 characters). The unit of measure is 3 characters starting in column 54.

Cards 8 and 9 are just their numbers in column 14.

*** BCI card LAYOUT ***

FIELD	POSITION	VALID VALUES
BRIDGE-IDENTIFIER-CODE	14	'B001' Signifies a bridge cost record
BRIDGE-WORK-TYPE	18	'R' - Replacement 'N' - New Bridge 'W' - Widen & Rehab 'M' - Maint
NBI-NUMBER	19	DDCTY0XXXXXXPSN format where DD = District CTY = County Nbr 0 = '0' Required in byte 6 XXXXXX = Control-Sec (On-System); non-blank for Off-System PSN = Permanent Structure Nbr
SYSTEM	34	(On or OFF)
BRIDGE-TYPE	37	Types found on DCSBRDGE TACS ('CG-PN', 'SLAB ', etc.)
DECK-AREA	41	Numeric 999999999.99 (in feet only)
COST	54	Numeric 9999.99
BRIDGE-LENGTH	61	Numeric 999999999.999 (in feet only)

Section 6

FTP and Roscoe

Overview

The following instructions are generic. Coordinate with the Information Resources support staff in your district, division, or office for specific instructions applicable to your location.

Required resources.

A mainframe ACID for accessing ROSCOE and DCIS batch update.

Transferring the Converted File to Mainframe

To transfer the converted file to the mainframe, you need WS-FTP or a similar utility. Contact your Information Resources support staff for complete setup instructions. On the start up of FTP, the left side of the screen displays PC directories. Browse until you get to the directory with the converted file. On the right side, you need to specify your mainframe directory, e.g. D59.XFER.SHR.*Youracid*. Make sure the ASCII button at bottom is on. Highlight the PC file, click the right arrow between the frames and your file is transferred to the mainframe. If you transfer the file with the .txt extension then your file name will be *FileName.txt.* Example: the file name is FM1433 with a .txt extension. If you transfer FM1433 with the .txt extension, you will have to refer to this in mainframe as FM1433.TXT.

Open mainframe. Log on to ROSCOE. At the top, enter XO.XFER, the XFER screen will appear. Specify that you want to upload a dataset with Global permissions and the next screen will appear. Enter the FileName of the file you transferred up, (this may take a couple of seconds) a pop up message should appear saying the file is now in your directory. You can now find, attach and edit the file.

A second method is to type:
IMPORT DSN=D59.XFER.SHR.*youracid*.*FileName*
at the top of the ROSCOE screen. Attach and Save the file.

Transferring the file from ROSCOE to DCIS

Before batch uploading into DCIS the following needs to be verified.

Is there a Contract-CSJ on the P1 Screen in DCIS?

The batch job will not upload an estimate into DCIS for a CSJ that does not have a Contract-CSJ.

Is the Contract-CSJ the same as the CSJ?

If the Contract-CSJ is the same as the CSJ then a single batch job will work.

If the Contract-CSJ is different then there are two options:

1. Have the CSJs disconnected and let them be their own Contract-CSJ
2. When all of the estimate files are in ROSCOE
   a) Find the Contract-CSJ CSJ member
   b) As the CSJs are listed on the C1 screen, append the ROSCOE members to the bottom of the Contract-CSJ member

Save this member with a new name.

You should now have a member that has all of the combined CSJs. You can use this to upload the combined estimates.

Following are the standard commands for uploading the converted estimate file to Design and Construction Information System (DCIS**)**

1. At the top of the AWS type "RJEJCL 10 1", press Enter
   If the Job card is filled out, press Enter again
2. Type "3" for P414450-Batch Estimate Update, press Enter
3. Type in the ROSCOE member name, press Enter
4. Type "X" for Submit the Job using JSUB, press Enter.
5. At the top of the AWS type "JOUT" and press Enter.
6. Type "1" and press the Enter key to see the information about your transaction.
7. When the Job status states "Awaiting Print", press the F2 key.

Press F2 till you get to the error file. Check to see if there were any errors. This is a 132-column report.

F1 Previous File
F2 Next File
F4 Previous 70 columns
F5 Next 70 columns
F7 Page Down
F8 Page Up
F12 Status
Go to the file that

Section 7

Contact Information

Support

Estimator© Support:

Online help feature

See the System Manager's Guide.

TxDOT employees should contact their respective Design Division Field Area support staff for assistance. Or DES_HELPDESK@dot.state.tx.us Subject : Estimator

Non-TxDOT personnel should contact InfoTech at

http://www.infotechfl.com/software_solutions/estimator.php

- Catalogs and Converter Program Support:

  Contact DES_HELPDESK@dot.state.tx.us Subject : Estimator

Information on Catalogs and Converter Program:
http://www.dot.state.tx.us/business/projects/estimator.htm