Florida Department of Transportation

FDOT Expedite Bid Manual

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July 24, 2002

FDOT Expedite BID Manual

Contents

1.0 Using Online Help

The Expedite Bid Manager's Online Help system, a companion online file, covers the Expedite components used by the bidder. To access the BID online help while you have the program running, press the F1 button on your keyboard. A window containing the contents of the online help system will be displayed.

CONTACT INFORMATION

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2.0 Setup

BID is a 32-bit application for Windows 95, 98, 2000 and NT.

Note: For full functionality, the BID program should be installed using the instructions in section 2.1.

Warning: Trns•port Expedite 5.1a contains underlying program code that incorporates strong encryption technology and is therefore subject to export restrictions. Its distribution may be regulated by 15 CFR Parts 730-774, published by the U.S. Department of Commerce, Bureau of Export Administration, as the Export Administration Regulations (EAR), and probably other laws and regulations. Except for export to Canada for use in Canada by Canadian citizens or lawful permanent residents, Trns•port Expedite and any underlying technology may not be exported outside the United States or to any foreign entity or "foreign person" as defined by U.S. government regulations, including without limitation, anyone who is not a citizen, national, or lawful permanent resident of the United States. Trns•port Expedite is available within the U.S. It may not be exported outside the U.S. Be aware that if you export this software outside the U.S., you may be in violation of U.S. laws.

2.1 Installing BID

The setup program for BID is located on the Contracts Administration Office web site: http//www11.myflorida.com/cc-admin. Contractors are required to download the setup program from the Internet on to their computer.

Installing BID from the Contracts Administration Office web site for Windows 95, 98, 2000 or NT

Follow these steps to install the Expedite BID application software from the web site:

1. Go to: http://www11.myflorida.com/cc-admin.
2. Click the link for ***Expedite.***
3. Click the link for ***Expedite Bid Setup File***.
4. Click the link for ***Expedite Bid 5.1a Setup (zip file)***.
5. Select ***save this file to disk*** and click ***OK***. Select a location to download the file.
6. After downloading the file and unzipping it, you ready to install the program.
7. Click the START button and choose ***Run***. The Run window appears.
8. To install the application software, type the location the file (example: ***C:\Setup.exe***) was unzipped to in the Open text box. Or you can use the BROWSE button to select the Setup.exe file. Click ***OK.***
9. The Expedite BID Setup program will begin. Follow the instructions given in the setup program.

3.0 Using Expedite for Bidding

Bidders use only one component of Expedite, BID, which they install on their computers using the installation program.

3.1.1 BID (Bid Manager)

BID is an interactive, spreadsheet-like program used by contractors to enter their unit price bids. It enables a bidder to produce both an electronic and paper-based bid. BID also supports the merging of electronic amendments with existing electronic bids and electronic bid submission with digital signatures. BID is created by the SETUP.EXE program.

3.1.2 SETUP (Bid Manager Installation Program)

Contractors use the Setup.exe file to install BID from the distribution diskette. During installation, contractors are not required to enter their bidder ID, name, address, and phone number. The bidder ID is now maintained within the BID program itself. The first time the program is used, however, the system will prompt the contractor for a bidder ID and other required fields.

4.0 Making the Bid

This tutorial section is intended for prospective bidders. It is included here in much the same form as it appears in *Bid Manager's Online Hel*p. We recommend following the steps in order for you to grasp a better understanding of the overall bidding process. Once a contractor has opened the electronic proposal and modified it within the BID program, the *proposal* is then referred to as a *bi*d. The BID program allows prospective bidders to interactively enter their unit price bids and produce both electronic and paper-based versions for submission to FDOT. Each time the electronic bid is modified, it will be marked with a unique *revision* number. The paper-based bids will display this revision number so that the wrong copy is not accidentally submitted. FDOT can verify that the two versions are the same.

After an Expedite proposal has been opened into the BID program, the bidder can load and incorporate Expedite amendment files. BID only allows amendments to be loaded in sequential order. Amendments can change general proposal data (such as descriptions and amendment notes) and item data (such as quantities), as well as adding or deleting items. Changes to item data will not change unit prices previously entered.

BID may contain a DBE List window that can be used to track DBE (Disadvantaged Business Enterprise) commitments, or MBE (Minority-Owned Business Enterprise) and WBE (Woman-Owned Business Enterprise) commitments. This section of the program is used to track line items assigned to registered DBE, MBE and/or WBE suppliers, subcontractors, and manufacturers. Total subcontractor commitments can be compared to the overall proposal goals for DBE/MBE/WBE commitments. **FDOT is not currently requiring DBE Commitments to be entered in Expedite BID.EXE bid program**

The BID program may also contain a Miscellaneous Data Entry screen. The Misc Data Entry Screen can contain anything that FDOT would like the bidder to record. Any questions can be displayed for the bidder and any of the bidder's responses can be printed. Information that is entered on the Miscellaneous Data Entry screen, however, never gets passed back to FDOT's bid letting system. Some DOTs use this screen to display contractual information for bidders and use it as a checklist to ensure that all elements of the bid process have been completed.

The following BID tutorial requires that you have the following:

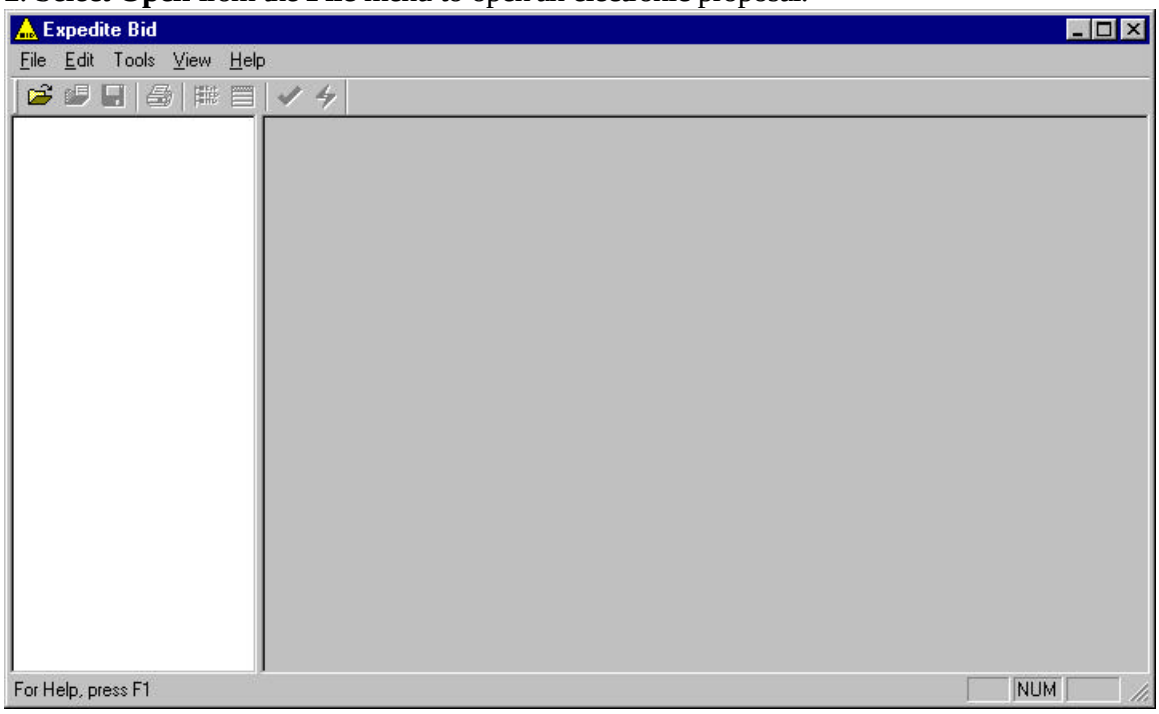
- BID program
- Tutorial files

4.1.1 Opening Electronic Proposals

After you receive your electronic proposal from FDOT, start the BID program so you can begin entering your bids.

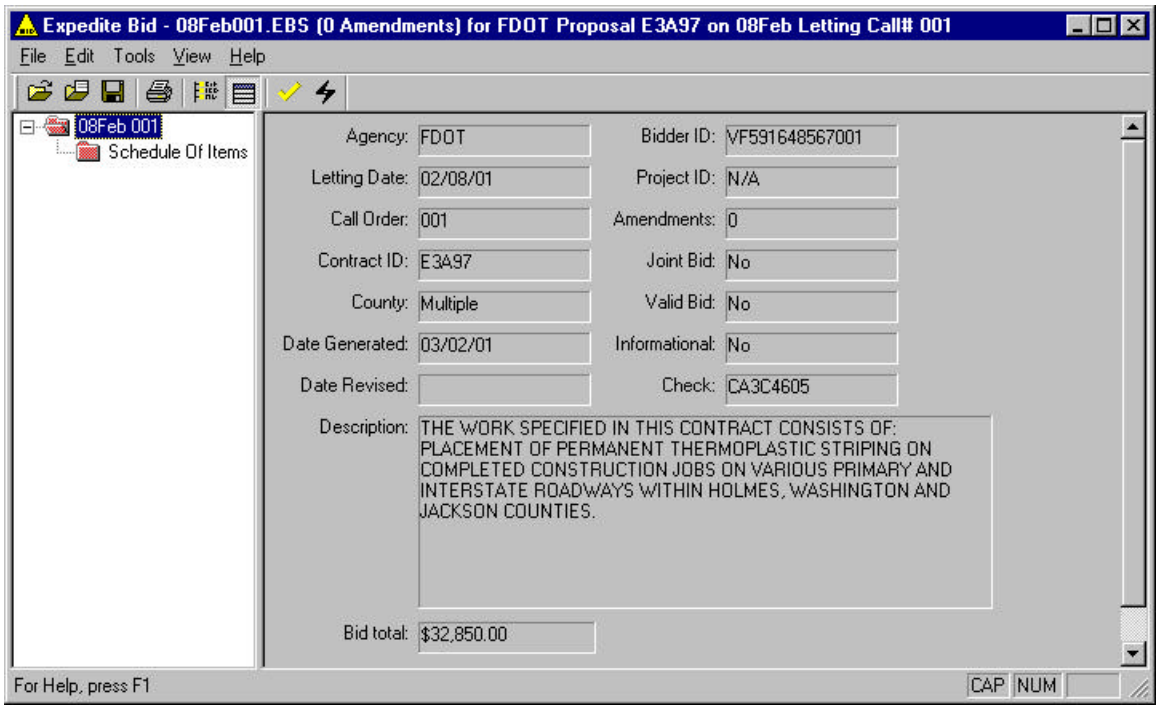
1. Double click the BID button.

2. Select **Open** from the **File** menu to open an electronic proposal.



The File Menu on the Main BID Window

3. BID displays the Open Files window with a list of available .ebs files. Select the file you wish to load from this list and click OPEN. BID displays a split window with the proposal identified in the title bar.



Proposal Window

The left pane of the window displays a tree view of the proposal and the right pane displays general information about the proposal. You can adjust the width of the panes by placing the cursor over the border between the two panes until the cursor turns into a line with arrows on each end. Then press the left mouse button and drag left or right to adjust the width of the panes. The panes maintain these new widths until you change them again.

Opening and Closing Folders in Tree View

When a proposal is first opened, the proposal folder is displayed in the left pane of the proposal window, but the folder is closed. To the left of the folder icon is a plus box [+]. Click on the plus box [+] to expand the tree view hierarchy for that proposal. Notice that the plus box [+] has changed to a minus box [-]. You can collapse the tree view again by clicking the minus box [-].

You will see at least one folder labeled Schedule of Items listed under the proposal folder. If your agency has decided to use the DBE List and Miscellaneous Data functionality, then those folders will also be displayed.

Note: If you open a proposal that has no type of DBE goal assigned to it, the DBE List folder will not appear in the tree view even if that option is being used by your agency.

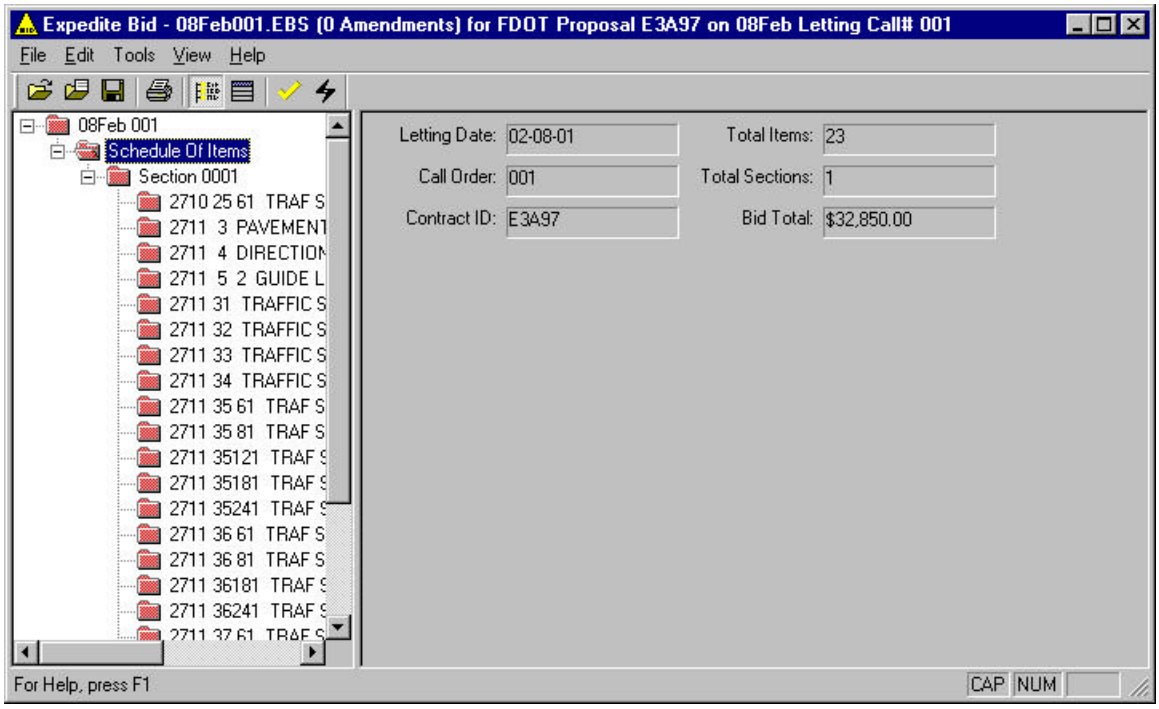
Double clicking on any folder in the tree view will open that folder and display related information in the right pane of the proposal window.

4.1.2 Entering Bids

After you have selected the .ebs file, the next step is to enter bidding prices for the Schedule of Items.

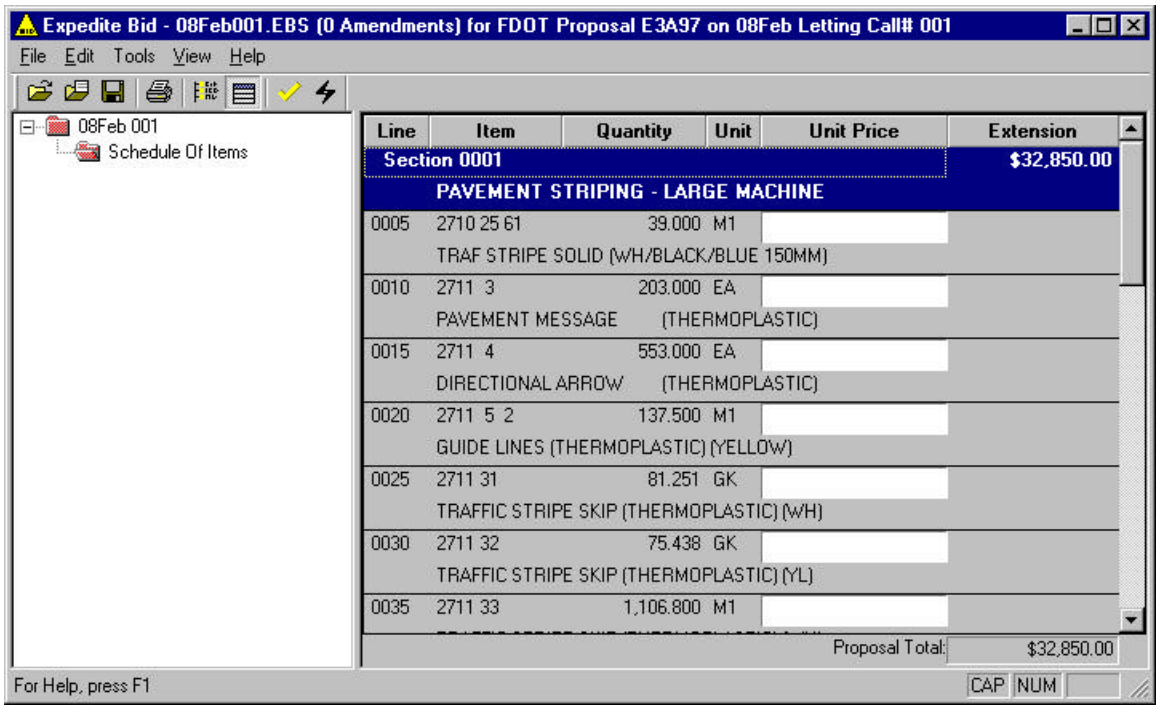
1. Click the plus box [+] to the left of the Proposal number in the left pane of the window. The tree view expands.

2. Click the Schedule of Items folder on the left side of the window. BID displays general information about the proposal and the number of sections and items it contains.



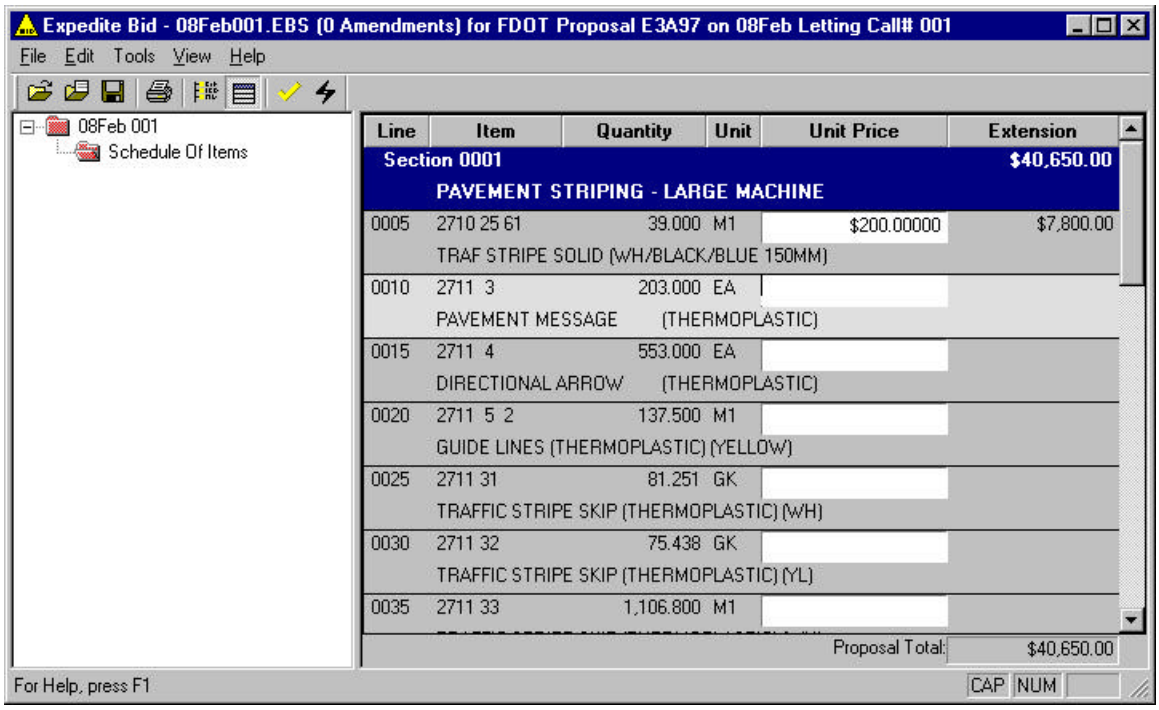
Schedule of Items Information (TREE MODE)

3. Select Item Grid from the View menu. BID displays the Schedule of Items in grid form on the right pane.



Item Grid

4. Move the cursor to the first line item on the right side of the window. Type the amount you want to bid. Press the TAB key. BID computes the Extension, the Section Total, and the Bid Total immediately.

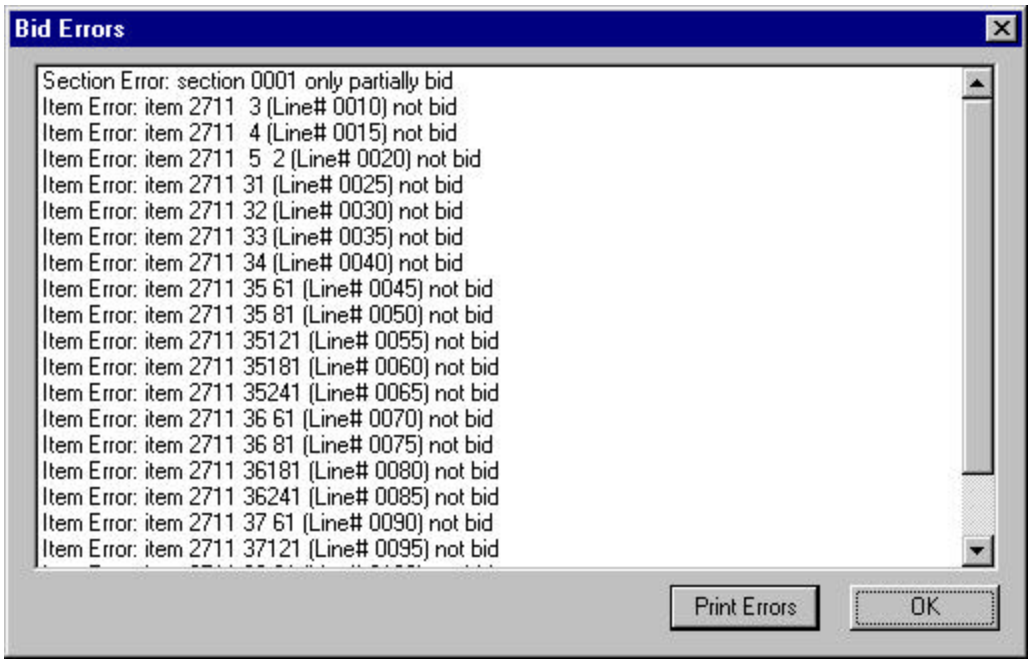


Entering Bids for Line Items

5. Repeat this step to bid on the rest of the line items.

Note: To change a unit price, click the selected item and enter a new amount. If you just want to make a small change to a unit price (such as changing one digit), you can edit the unit price by using the Left Arrow and Right Arrow keys to move the cursor to the selected digit. Delete that digit with the DELETE key, and enter a new digit.

6. Click the CHECK BID button on the toolbar to check the status of the bid. BID displays the Bid Errors Log window, which lists any errors that may have occurred. Resolve errors regarding the Schedule of Items before moving on to the next section. If FDOT does not require any more information in regards to your bid, and if your bid is clear of errors, you can send the bid back to FDOT.



Bid Errors Windows

4.1.3 Tracking Line Item DBE Commitments

Depending on your installation options, you can use Expedite to track either DBE commitments, or MBE and WBE commitments as agreements are made with subcontractors. In addition, a report is available showing DBE, or MBE and WBE plans to meet the appropriate goal(s) for the proposal.

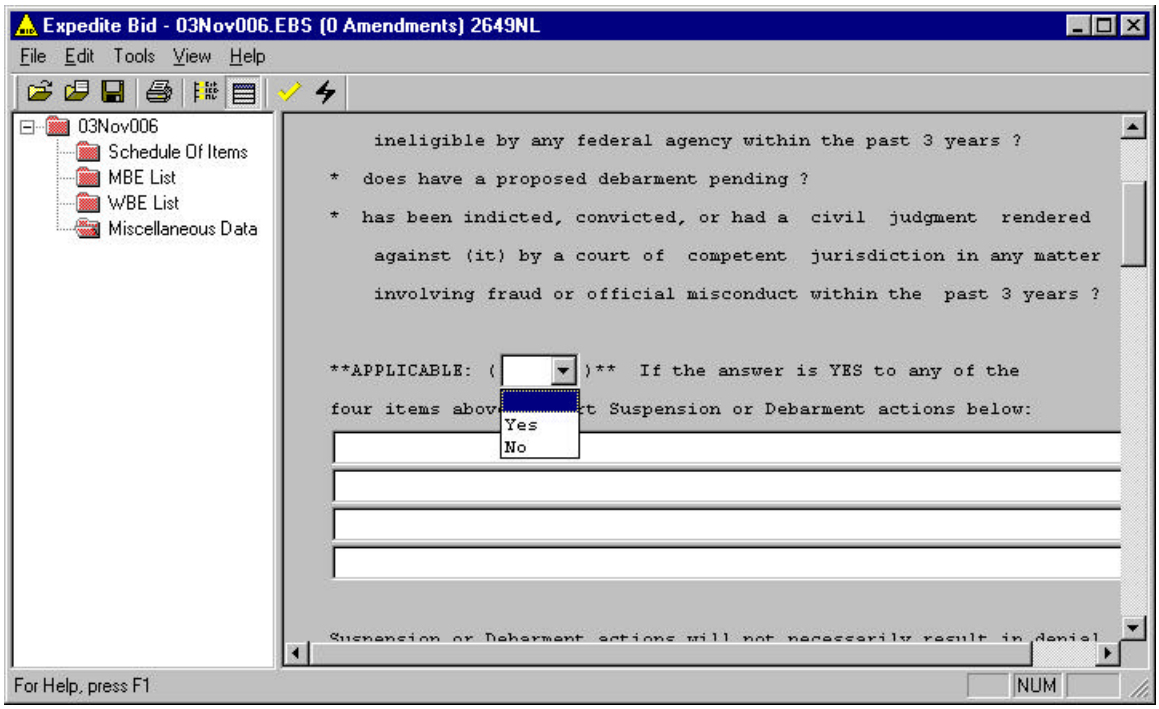
Note: Depending on your agency settings, the PES file is modified for enhanced DBE processing. If you have questions about your agency settings, contact FDOT Contracts Administration Office.

FDOT is not currently requiring DBE Commitments to be entered in Expedite BID.EXE bid program.

4.1.4 Filling Out the Misc. Data Entry Form

Now that you have met the DBE requirements, it is time to fill out the Miscellaneous Data form. It is the decision of FDOT to include the Miscellaneous Data form as part of the proposal. You may not have this screen at all.

1. Click the Miscellaneous Data window option on the left side of the window. The Miscellaneous Data window appears



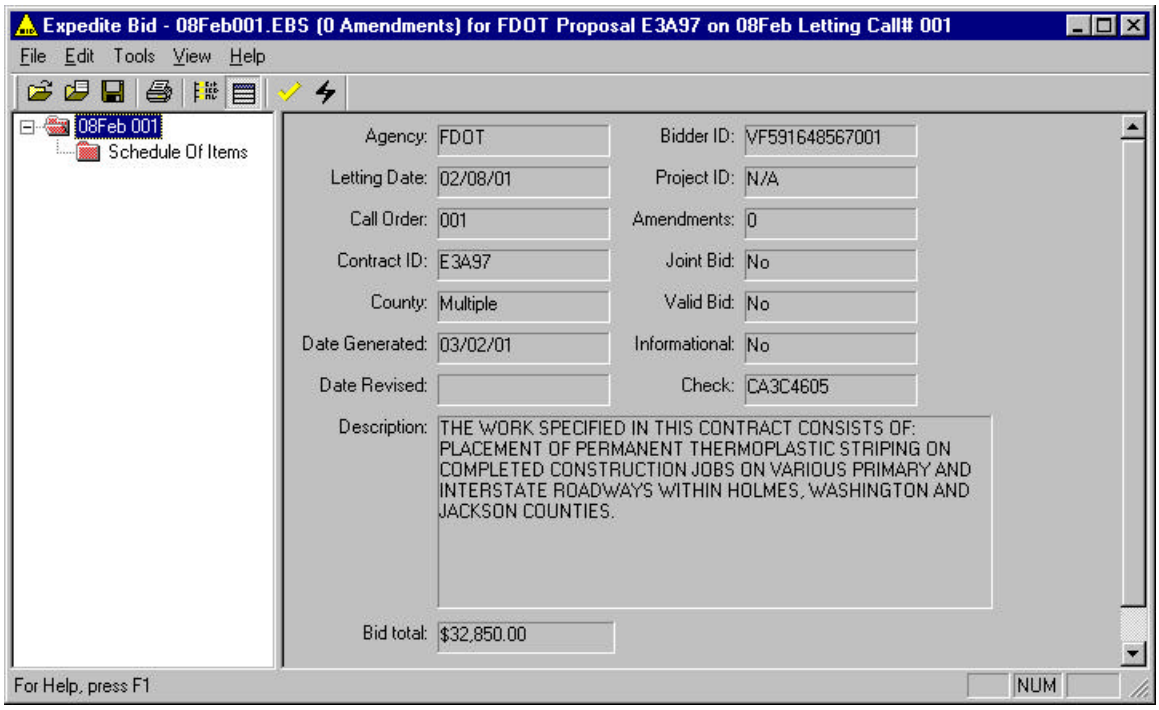
Miscellaneous Data Window

The Miscellaneous Data window contains information that FDOT would like you to record. Any type of form for gathering miscellaneous information can be created. Some DOTs use this screen to display contractual information and use it as a checklist to ensure that all elements of the bid process have been completed.

A common tutorial for this part of the BID program is extremely difficult to produce because FDOT has complete control over customizing the entry screen. When you get to this section, simply enter all the required fields moving through the proposal from top to bottom using the scroll bars on the side of the window. When you get to a field that requires a choice to be made, click in the field and press the first letter of the word you choose and your answer will display. For example, yes or no answers can be entered by pressing **Y** or N. After you filled in all the Miscellaneous Data window fields, click the SAVE button on the Toolbar to save the bid.

4.1.5 Viewing Proposal Info

When you need to view basic information regarding a proposal, click the proposal name on the left side of the window. For example, suppose you wanted to check the letting date for this particular proposal. Click the proposal name. A Proposal Information window appears displaying the letting date as well as other types of information.



Basic Information Window

4.1.6 Exporting Item Data

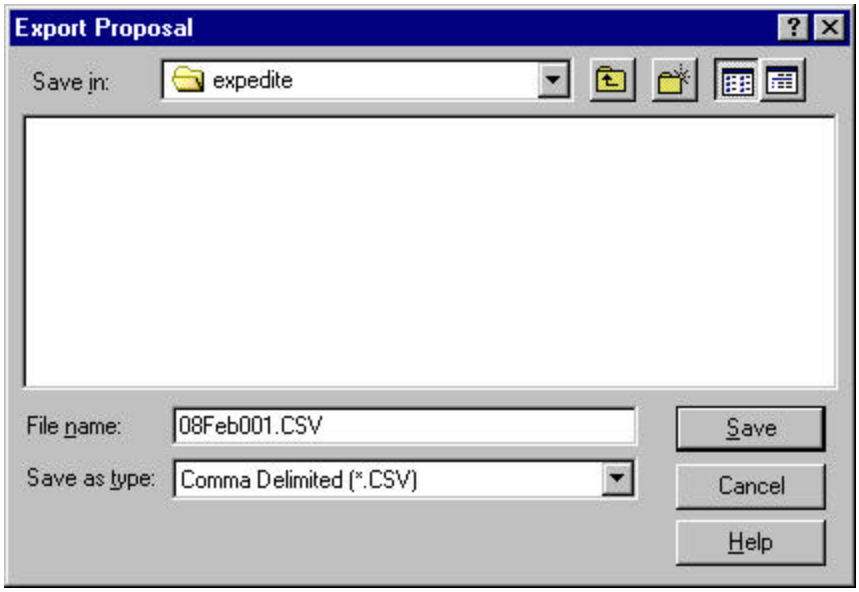
Let's say your company prefers to use a spreadsheet program for entering bids. BID allows you to import and export data in several different formats. This feature allows you to view your bid in Microsoft Excel. Although the file is saved in a *.csv format, the file itself will default to the Excel program.

Note: The Export and Import option fields should be the same in each of the option selections to ensure file import/export compatibility. Otherwise, data exported and edited in third-party software cannot be imported back into Expedite.

There is less chance of a data error if you export the bid from BID first, estimate the job in Excel, and then re-import the bid into the BID program. Choose Export Proposal from the Tools menu to begin the steps of exporting a clean .csv file.

To export a bid into a .csv format, follow the steps below:

1. Select **Export Proposal** from the **Tools** menu. The Export Items window appears asking you to confirm the export operation.



The Export Proposal Window

2. Confirm that the Save as Type field is accurate and click SAVE to export the file in the .csv format. If you now look in your directory, you will find the file type you requested with the same name as the active bid.

3. Exit BID and run Excel. Use its functions to load the proposal item data file, enter your unit price bids, and save. If Excel asks whether to upgrade the file version, click NO.

4. Exit Excel and run BID. Load the electronic bid file by selecting **Import Proposal**

from the **Tools** menu. Press ENTER to confirm the import operation BID will read the Excel file and update any unit price bids that have changed. You can save the updated electronic bid file and print a paper-based bid.

5. An Import Info window will appear displaying the total number of lines, and the total number of bid prices that were imported. Press the OK button to make this window disappear.

The import/export options are described in Section 5.1.3. The import and export file formats supported by BID are shown below.

File Format Description

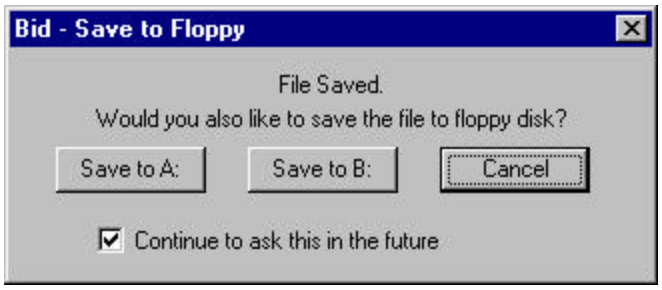
File Format	Description
WK1 (1-2-3 format)	This is a Lotus 1-2-3 native spreadsheet format. This is usually the best choice for importing and exporting to Lotus 1-2-3 for DOS and Windows.
CSV (Comma delimited format)	This is a generic text format that is supported by several spreadsheets and many other programs. This format represents the data as a sequence of fields separated by commas, where each line of text corresponds to a row of data. Fields with embedded commas or quotes are surrounded by quotes. This is a useful format for custom estimation systems.
TAB (Tab delimited format)	This is a very simple text format where fields are separated by a tab, one line per data row. This is a useful format for custom estimation systems.
COL (Fixed column format)	This is a text format where each column takes up a fixed amount of space.
DIF (Data Interchange Format)	This format can be used by DOS-based versions of Lotus, and DBase.
CS2 (Simplified CSV format)	This is a stripped-down version of the CSV format to be read by programs that cannot handle CSV correctly, such as Lotus 1-2-3.
DAT (Test only!)	This export only format contains all the information about a proposal in CSV format. This format is intended to be used by estimation systems that want to know all about the proposal. This format cannot be used to import.

Supported Import and Export File Formats

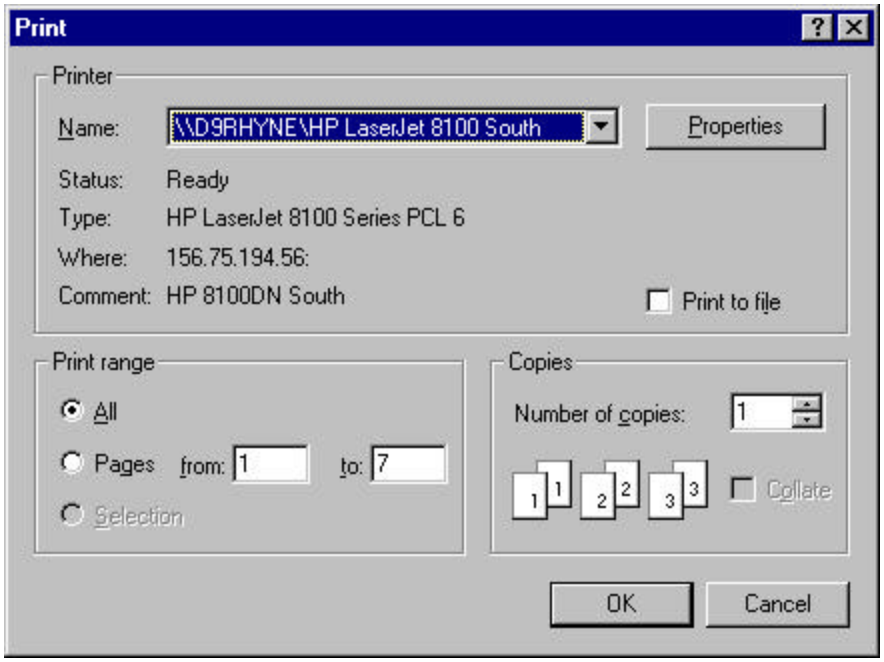
4.1.7 Printing the Bid Proposal

Now that the electronic bid is complete, a paper-based version must be produced for FDOT.

1. Click the PRINT button on the toolbar. A window will appear asking to save to diskette.



BID will also display the Print window . This window lists your options for printing different parts of the active bid. We will print a Full Bid Report for our purposes.



Print Window

2. To print a full BID report, keep the default Print Range of All.

3. Click OK. The electronic bid is sent to the printer.

Printing Selected Items in a Bid Proposal

Occasionally, you may need to create printed quote information on just a few items in a proposal. In these cases, you can use the Print Quote option to print information on only those items that have been given a unit price in the proposal.

Note: The Print Quote option does not perform a check of the bids.

Follow these steps to print information on selected items in a proposal:

1. Open the proposal and enter a unit price for all items you want to quote.

2. Select **Print Quote** from the **File** menu. BID displays the Print window.

3. Keep the default Print Range of All, and click OK. The selected item bid information is sent to the printer.

Note: The format for the printed information is defined by an optional set of templates in the Gen config file (this file is controlled by FDOT)

4.1.8 Sending Bids Back to the State Highway Agency

Once you have finished printing a paper-based version of your bid, click the SAVE button to save your work. You may send your bids back to FDOT electronically or manually.

Follow these steps to send your bid manually:

1. Copy the electronic version onto a diskette.

2. Deliver the paper-based version of your bid and your diskette to FDOT.

Note: Follow your agency's rules about whether to place each bid on a separate diskette, or to turn in a single diskette with all your bids for the letting. Do not change the file names of your bids because the agency will use them when loading and analyzing your bid. Finally, do not include any proposal file for which you are not bidding.

Follow these steps to submit your bid electronically via the Internet:

1. Select **Bid Submission** from the **Tools** menu.

2. Follow the instructions of the bid submission wizard to submit your bid.

4.1.9 Using the Log Directory

Once a bid or a digital ID has been submitted, a log directory is created with a record of those submissions. The types of files that are entered into the log directory are bid submission and key and bid withdrawal. The file name will reflect the date, time, and generation for the submission, plus the type of submission. These text files can be retrieved and printed at any time in any text editor for a file record of those actions. By default, bid submission errors will not be logged in the log directory. However, if your agency wishes to log errors, a parameter can be set in the Expedite Properties window to do this.

5.0 Customizing BID

The BID module of Expedite provides user-friendly windows to make changing system configurations easier. This section describes these windows, and lists the fields of each with a brief description.

BID contains a Miscellaneous Data Entry screen. This screen can contain anything that FDOT would like you to record. Information entered on the Miscellaneous Data Entry screen, however, never gets passed back to its bid letting system. Some DOTs use this screen to display contractual information and use it as a checklist to ensure that all elements of the bid process have been completed.

5.1.1 Primary Windows Fields

BID provides separate windows for the various types of information.
Entities accessed are:

- Proposal
- Section
- Item

Label	Entity	Field	Notes
File			The proposal file name is displayed in the title bar.
Bidder I	Proposal Proposal	Bidder-ID Bidder-Name	
Joint Bid	Proposal	Joint-Bid	Displayed with a Yes or No indicator.
Contract ID	Proposal	Contract-ID	
Letting Date	Proposal	Letting-Date	
Call Order	Proposal	Call-Order	
Description	Proposal	Description	
Section	Section	Number	Entries for each section are interspersed with line items.
Alt Group	Section	Alternate-Code	
(Section Total)			Generated as the sum of the Extensions of all items in this section.
(Section Description)	Section	Description	Only the first line of the multiline description is displayed.
Line	Item	Line-Number	
Item	Item	Item-Number	
Quantity	Item	Quantity	If the item is a lump sum, the quantity will be displayed as 1.000.
Unit	Item	Unit-Price	May be empty (no price displayed).
Extension			Generated as the rounded product of the Quantity and Unit Price, or as zero if the Unit-Price is empty.
(Item Description)	Item	Short-Description	
Bid Total			Generated as the sum of all item Extensions.

BID Program Screen Field Descriptions

5.1.2 Screen Functionality

You can work in BID in multiple windows. The main windows can be navigated by clicking the name of the window (or DBE or Item depending on the mode) on the left side of the main BID window. The main BID window is split into two parts. The left side of the window lists choices for the user. The right side of the window displays the associated details. Although this list can be shorter based on a state's settings, these are the primary BID windows:

Main BID initially displays ready for work on the first proposal/bid you desire; therefore, the initial screen is blank.

Basic The Basic window displays the basic information about the proposal/bid (e.g., letting date, joint bid indicator).

Schedule of Items

The Schedule of Items window displays either one item at a time or a list of items depending on the user's preference. All associated information is also listed (e.g., section totals, proposal total).

DBE, MBE, or WBE List

The DBE (or MBE or WBE) List displays the fields for DBE information. If an existing DBE is selected, the associated information displays; otherwise, the fields are blank to allow entry. Fields displayed include DBE commitment, DBE goal, etc.

Miscellaneous Data

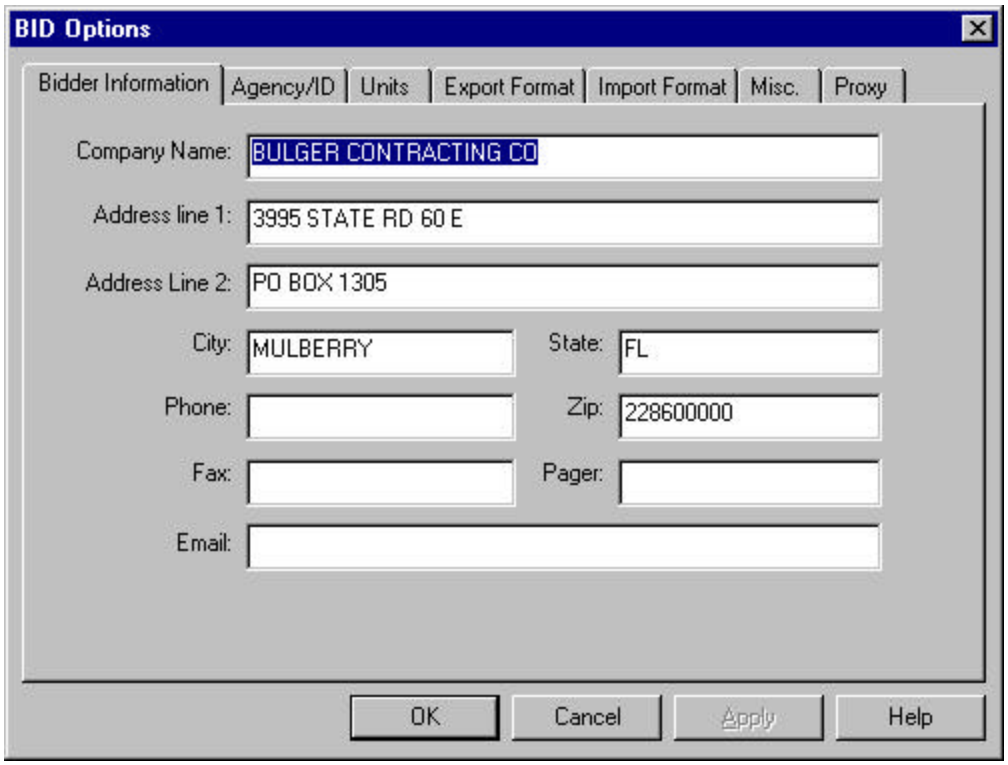
The Miscellaneous Data window is designed by individual DOTs that choose to use the flexibility provided by this free form window.
Whenever the highlighted item is editable (that is, not a section header or a fixed-price item) the bidder can enter a new unit price or edit the existing unit price. Unit prices can be blanked out; blanks are treated like zero for calculations, but print and display differently from zero. Items with blank unit prices are not considered for bidding when Expedite checks for errors.

5.1.3 Setting Options for the BID Program

Selecting **Options** on the **Tools** menu displays a seven-tabbed window that allows you to set options that modify the BID's operation. The window displays with the default entries initially set by the install program. You can alter the user preferences to customize BID to meet your needs. Your changes are saved and applied until modified by you again.

Bidder Information Tab

This tab contains personal information about your company. You can modify your name, address, phone number, and other information on the BIDDER INFORMATION tab.



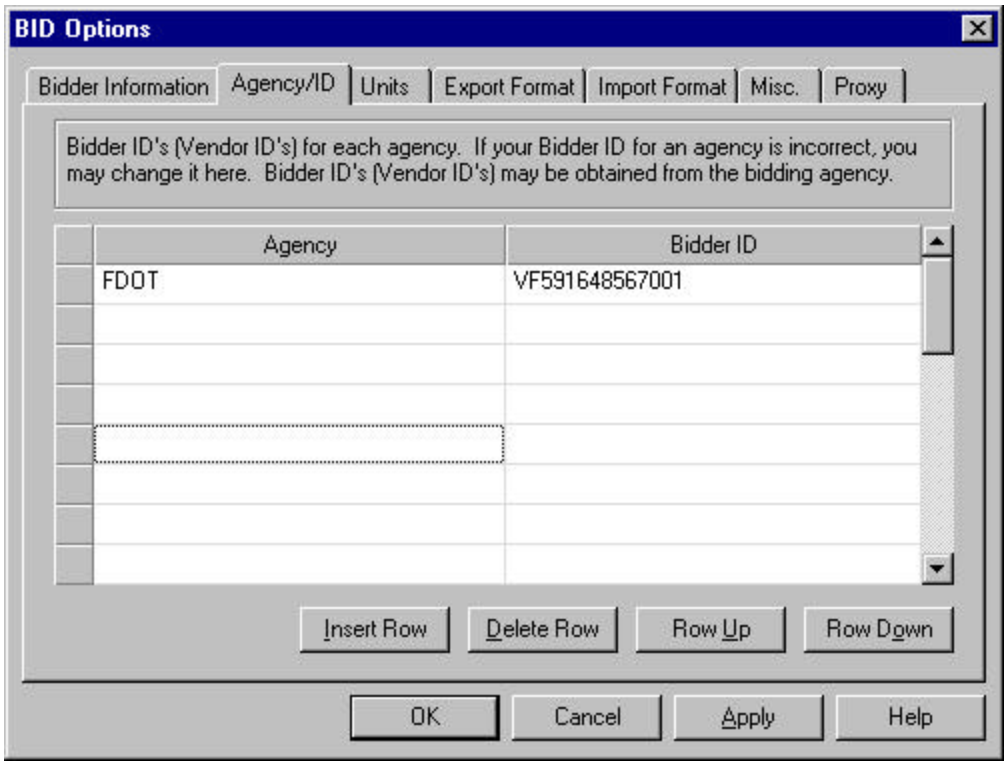
The Bidder Information Tab

Agency/ID Tab

The AGENCY/ID tab is restricted to the Agency and Bidder ID information due to the importance of these fields. The Agency field is used to identify the agency involved in the bidding. The Bidder ID field is the key displayed to identify the bidder by code.

Special, enhanced functionality is available on this tab. If the PC is available for use by multiple bidders, enter the word ASK in the first blank Agency ID row. Every time a proposal/bid is opened, the user will be prompted to choose the bidder ID to be associated with the current proposal/bid. The user will also have the option to click the more detail button to make changes to general company information. This option is for FDOT use only and not available in the online help.

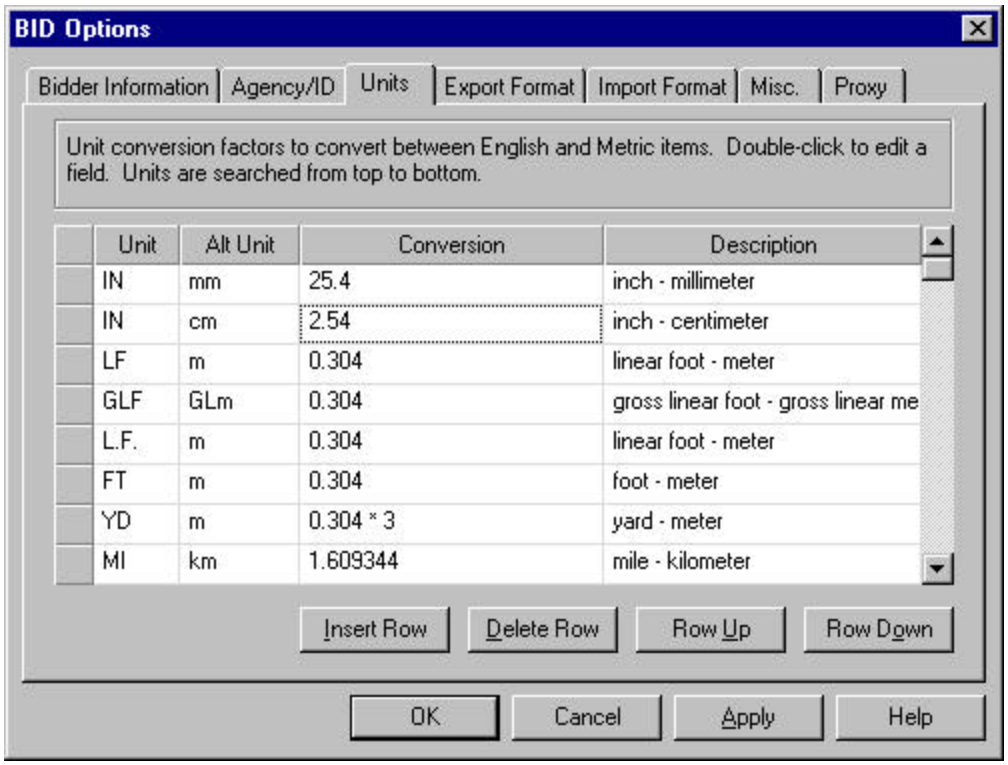
This function is available so FDOT can set up public use of PCs with Expedite installed for contractors to use to complete their bids. The PCs can be set up in a public library, contractor's associations or the DOT office as desired by FDOT. This is beneficial for contractors who can't afford a computer or need to make last-minute changes on letting day and don't have access to their computer.



The Agency / ID Tab

Units Tab

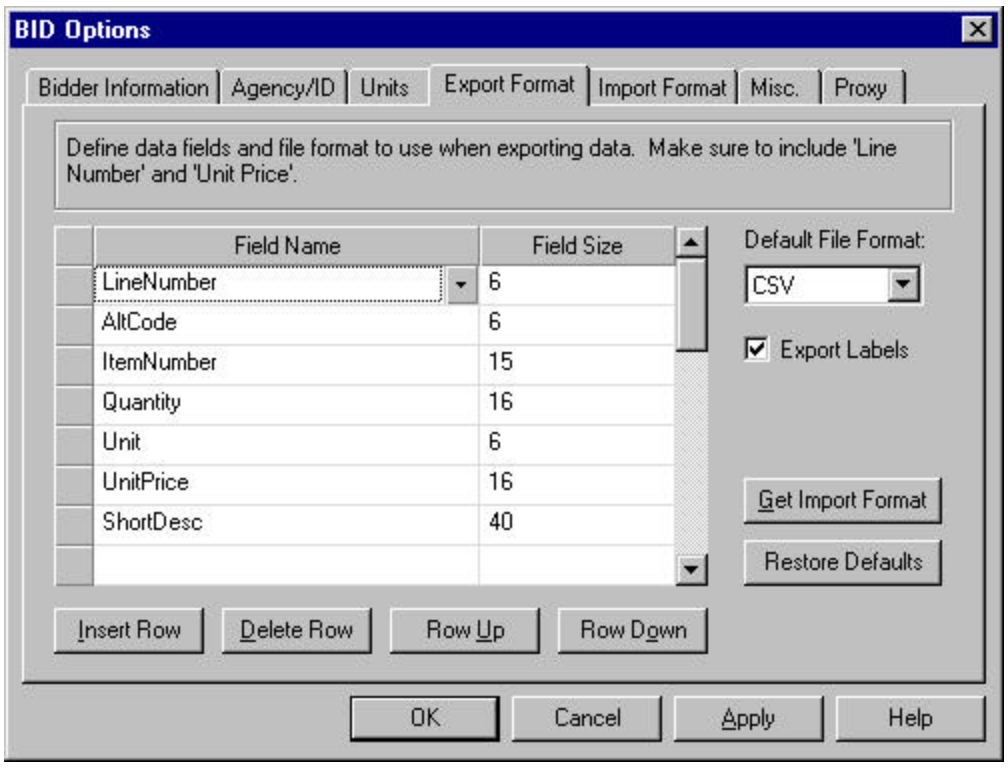
The UNITS tab lists all of the unit types and the conversion amounts. The Unit column lists the English abbreviation units; the Alt Unit lists the metric unit abbreviations. The Conversion column calculates the conversion of the two, and the Description column uses free form text to clarify the conversions.



The Units Tab

Export Format Tab

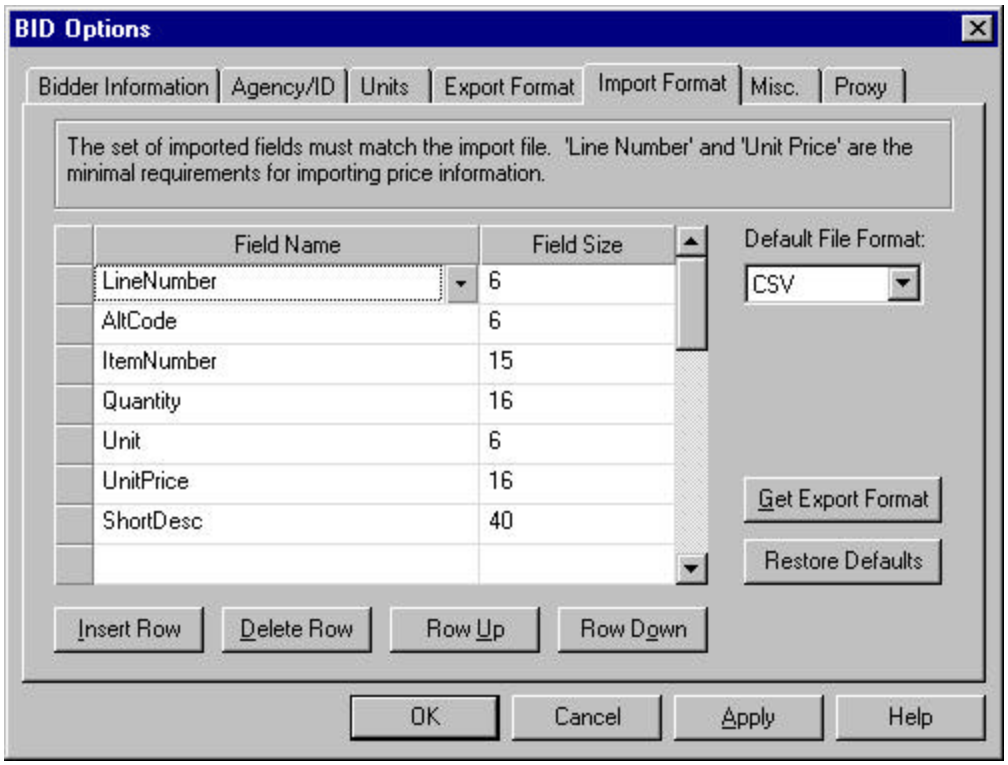
The EXPORT FORMAT tab displays the file an export action will create. This includes the selected file format, data elements, and the ability to revert to system defaults, if needed. The Field Name defines the field label, and the Field Size defines the length of the field. The Default File Format determines what type of file the export will create (e.g., .csv, .wk1). The Export Label box is the indicator of whether to include the field name on the file. The RESTORE DEFAULTS button sets the window back to the initial system settings.



The Export Format Tab

Import Format Tab

The IMPORT FORMAT tab displays the type of file allowed to be imported. This includes the selected file format, data elements, and the ability to revert to system defaults, if needed. The Field Name defines the field label, and the field size defines the length of the field. The Default File Format determines what type of file is being imported (e.g., .csv, .wk1). The RESTORE DEFAULTS button sets the window back to the initial system settings.



The Import Format Tab

Export and Import Informational Tables

The following tables are relevant to import and export functions.
These are the valid file formats that may be transferred between BID and external spreadsheet programs:

CSV	Import or Export using the Comma-separated-value format.
CS2	Import or Export using a Modified CSV (quotes and commas are stripped from strings) format.
TAB	Import or Export using the TAB-delimited format.
DIF	Import or Export using the DIF (Data Interchange Format) format.
COL	Import or Export using the Column-aligned format..5-10 Customizing Expedite
WK1	Import or Export using the Lotus Spreadsheet format.
DAT	Dump entire proposal contents in CSV (EXPORT ONLY!)

Import and Export Field Data Elements

The IMPORTFIELDS and EXPORTFIELDS listed below define which data elements appear in the columns of the data file. These are the options that are available for you to import and/or export.

LineNumber	Item Line Number.
AltCode	Item Option or Alternate Code (if any).
ItemNumber	Item Item Number.
Quantity	Item Quantity.
Unit	Item Unit.
UnitPrice	Item Unit Price.
LumpSumFlag	TRUE or FALSE depending if item is a Lump Sum Item.
ShortDesc	Item Short Description.
LongDesc	Item Long Description.
Skip	A Blank Field.
SectionNumber	The current section number.
SectionAlt	The current section Option or Alternate Code.
SectionDesc	The current section Description.
LettingDate	The proposals bid letting date.
LettingID	The letting ID for this proposal.
CallOrder	The call order for this proposal.
ContractID	The Contract ID for this proposal.
Index	A general purpose row counter.

Import and Export Field Size Values

The following is a list of default field sizes. For a spreadsheet format like .csv, these entries determine the size of the columns. For the .col format, these values determine the exact size of the data fields. To use these entries, simply list the sizes of the fields on the appropriate tab (IMPORT or EXPORT). If sizes are not changed, the defaults listed below are used.

Value Field	Default Value
LINENUMBER	6
UNITPRICE	16
ALTCODE	6
LUMPSUMFLAG	6
ITEMNUMBER	15
SHORTDESC	40
QUANTITY	16
LONGDESC	80
UNIT	6

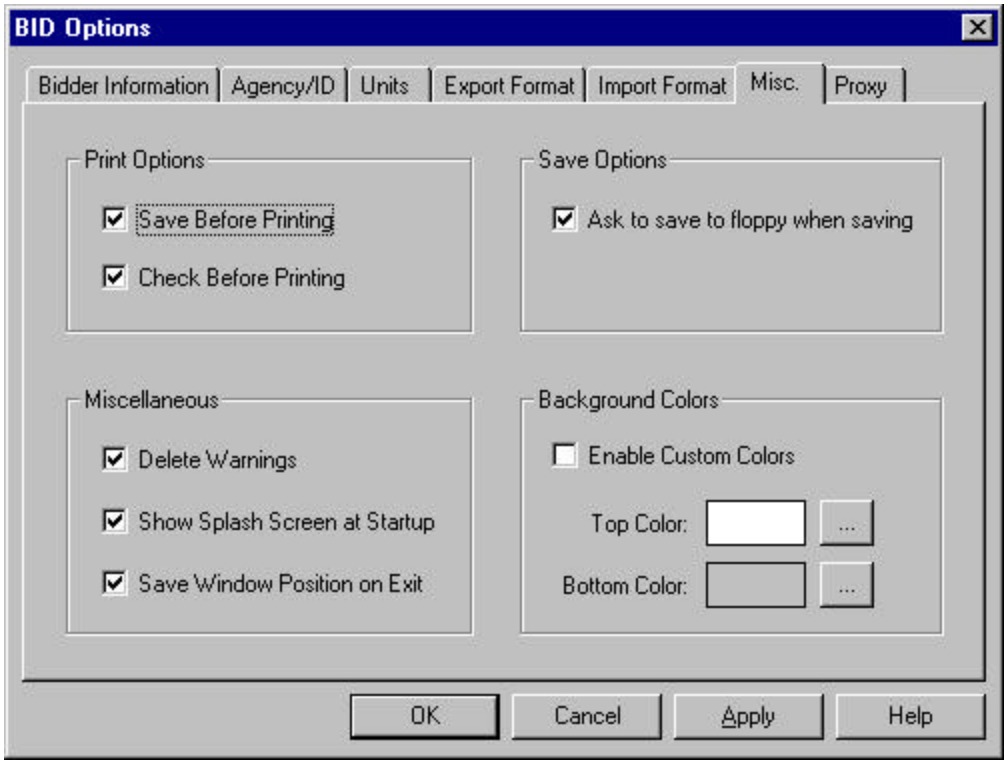
Default Import/Export File Field Sizes

Note: At a minimum, the Import field description must include LINENUMBER and UNITPRICE. This is because BID uses the LINENUMBER value to determine which item to change and uses the UNITPRICE value as the new unit price for the item. Note that you cannot load prices for fixed-price items..5-12 Customizing Expedite

Misc. Tab

The MISC. tab provides the user with optional, miscellaneous settings not available in the prior version of BID. These fields are available on the MISC. tab:

Save Before Printing	Saves the bid prior to printing
Check Before Printing	Checks the bid prior to printing
Delete Warnings	Does not display warning error messages in BID
Show Splash Screen at Startup	Displays the BID graphical window at log on
Save Window Position on Exit	Displays BID in the same position on the PC as the prior session
Ask to save to floppy when saving	Implements an additional prompt to remind bidders that, after entering new bid information, they need to save the bid file to a floppy disk.



The Misc. Tab

Proxy Tab

The PROXY tab is only required when the BID program is run in a network environment where a proxy server is used. Contractors who wish to submit bids via the Internet and are operating in a proxy server environment must fill in the PROXY tab in order for the bid submission to work properly. If you do not have this information, contact your company's or organization's network systems administrator. If you do not use a proxy server, leave all fields blank.

To fill in the PROXY tab do the following:

1. Make sure the Use Proxy field is checked.
2. Fill in your Proxy Server Address.
3. Fill in your Port number.

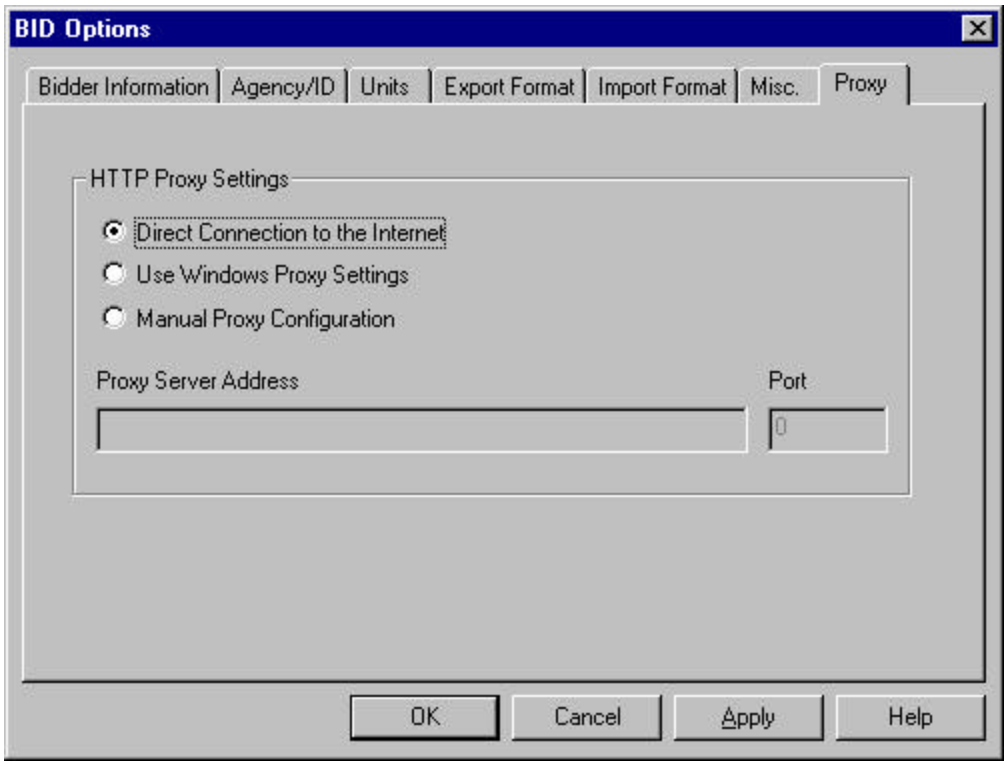


Figure 5-8. The Proxy Tab

5.1.4 Sharing Option Settings

Ordinarily, BID saves the option settings you make to a default file called the Windows registry. However, if you want to be able to Share or transport your settings between PCs or on a network, you can store them in a specific file that BID will use instead of the registry. This file must be named **bid.ini** and must reside in the same directory where you have installed BID.

Follow these steps to create the bid.ini file:

1. Finish setting all options in the Bid Options tab window.

2. Select **Export Configuration** from the **Tools** menu. Trns•port displays the Export Bid Configuration File window with the correct directory already entered in the Save In textbox and **bid.ini** entered in the File Name textbox..5-14 Customizing Expedite

3. Click OK to save the new bid.ini file.

To use the option settings from another BID installation, import the bid.ini file from that installation to the directory where your BID program is installed.

Note: The user whose option settings you want to share must first have created the bid.ini file using the Export Configuration feature for their own BID installation.

Follow these steps to import the file:

1. Open your installation of BID and select **Import Configuration** from the **Tools** menu. Expedite displays the Import Bid Configuration File window with the correct directory entered in the Save In textbox.

2. In the File Name textbox, browse through the Network Neighborhood to the directory where the bid.ini file resides and select it. Click OK.

3. Expedite copies the bid.ini into the appropriate directory for your installation.

5.1.5 Other Settings

Windows Printer Settings

As in other Windows applications, the printer settings can be modified via the **Printer Setup** option on the **File** menu. The settings available to be modified are:

Name	Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the current installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.
Properties	Displays a Properties dialog box, so you can select paper standards to be used.
Paper Size	Select the size of paper on which the proposal is to be printed.
Paper Source	Select the paper tray for printers that offer multiple trays for different paper sources.
Orientation	Choose Portrait or Landscape.

Additional factors are modified via the **Print** option on the **File** menu as defined below:

Name	This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.
Properties	Same as above.
Print to file	Displays a dialog box, so you can select where you want the file saved.
Print Range	Specify the pages you want to print (all, specific pages, or highlighted selection).
Copies	Specify the number of copies you want to print for the above page range.
Collate Copies	Prints copies in page number order, instead of separated multiple copies of each page.

Once the appropriate selections have been made, click OK to print or CANCEL to return to BID.

Appendix A. Digital Signature Overview

Digital signature technology is central to the Windows version of Expedite. This appendix explains the basics of digital signature evolution and technology.

A.1 Purpose of a Signature

Traditionally, a signature on a document serves many purposes. First, it identifies the signer. Second, it indicates the signer's acceptance of the document. Third, it implies an understanding of the consequences of signing the document. For example, a name written on a contract in an area labeled "write your name as you would like it to look on a plaque" is not a signature because it does not indicate acceptance. A name written in frosting on a cake would not be a signature because it is unlikely that that the signer understood that to be a meaningful signature.

Courts have generally held that a signature does not have to be handwritten, provided the above requirements are met. Illiterate people have long been able to simply make any mark rather than write their names as a signature. A rubber stamp is often acceptable as a signature, as are telegraphed names, typed names, and even names on e-mail messages. The courts have stopped short of accepting spoken words as signatures, however. Based on court findings, a digital signature should be simple to provide: simply type your name in a file (or even click on a graphical button). These kinds of "signatures" may be acceptable in court, but they don't protect you very well. They are easy to forge and thus easy to repudiate.

If they are ever disputed, it is unlikely that a court will be able to determine the basic facts needed to assess the existence of a valid signature. For that reason, cryptographic technology is used to create digital signatures, which preserves the intent of a signature, while being very difficult to forge or repudiate.

A.2 Cryptography

At first glance, cryptography does not seem to have anything to do with signatures. Encryption is for keeping secrets, not for verifying identities. However, it turns out that encryption does provide some excellent methods for digital signatures. Some background is required to understand it, however. It has always been important to protect the contents of confidential messages, in case the message is intercepted. Encryption provides a way of scrambling a message so that only the proper party can understand it, whether or not the scrambled message has been disclosed. Encryption is thousands of years old; even Julius Caesar used a simple substitution cipher to protect his communications. Encryption is particularly important in electronic communications because of the ease of covertly intercepting confidential messages.

A.2.1 Single Key Encryption

The most common forms of encryption use a single key, which is used to both encrypt and later decrypt the message. The original message is called the plaintext; the encrypted form is known as the ciphertext. The encryption algorithm has a complementary decryption algorithm. The recipient uses the same key to reverse the operation.

Creation of encryption algorithms is as much art as science. The algorithm must destroy any patterns in the plaintext that would assist in analysis of the ciphertext. For example, any simple substitution cipher, where each character is replaced with a different character, is easy to break for English language text; just count the frequency of each character in the ciphertext. The most common is probably the substitute for "e"; if not, it's likely the substitute for "t" or "a". A good encryption algorithm is not susceptible to this kind of attack. There are a variety of good single key encryption algorithms in use today. One of the most common is DES, the U.S. data encryption standard. Others include IDEA, RC4, and RC5.

When an algorithm is in general use, its weaknesses have been probed by the encryption community, and you can count on it being quite secure. For these strong algorithms, the only practical attack is a "brute force" approach, where every possible key is tried until one works. An encryption algorithm's susceptibility to a brute force attack depends almost entirely on the number of possible keys that must be tested. DES is defined only for 56 bit keys, which is on the verge of being too easy to break by brute force. A variant of DES called triple-DES has 112 bit keys, IDEA uses 128 bit keys, and many other algorithms can use variable key lengths.

Weakness of 56 Bit, Single-Key Encryption

The growth of the Internet has led to a unique public testing ground for encryption algorithms. Companies release encrypted messages and enthusiasts band together to decipher them. One well-organized group, called distributed.net, recently cracked a 56-bit DES encrypted message. It took them just over 40 days using tens of thousands of computers (the computational equivalent of 22,393 Intel Pentium II PCs at 333 MHz each). The group had to test about 63,686,000,000,000,000 keys out of a possible 72,057,594,037,927,936 to find the correct one.

That's not exactly easy, and DES cannot really be called weak. However, we can expect computing advances to make this several times easier to do each year. Simply moving to 64 bit keys would require 256 times as much computing power to crack (or about 30 years with the computing power of distributed.net). Moving to 128 bit keys extends the power enormously. Cracking that, given the same conditions as used by distributed.net in the example above would require 500,000,000,000,000,000,000 years or about 100 billion times the current age of the universe. It seems that 128 bit keys are secure for a while to come.

Managing Single-Key Encryption

The biggest problem using single key encryption to keep information secret is managing the key. The two parties wishing to communicate must share a key. If that key is intercepted or stolen, all messages can now be read by a third party. Another problem is that single key encryption is not very useful for authentication. If parties Alpha and Beta share a single key, and Alpha receives a message encrypted with that key, Alpha could reasonably assume that Beta had created the message. However, if Beta wanted to repudiate the message, he could credibly claim that Alpha had actually created the message and was trying to impersonate Beta.

A second problem with single keys is related to the first: they do not serve the needs of a group well. If all the members of a group trust one another, they can share a single key, and they can all read each other's messages. However, a single untrustworthy, or incompetent, group member can disclose the key and compromise all communication within the group.

A.2.2 Public Key Encryption

In the late 1970s, Diffie and Helman proposed a method to allow two parties to communicate without sharing a single key. The Diffie-Helman algorithm was complex, and was never widely used. However, shortly after that point, Rivest, shamir, and Adelman developed the RSA algorithm that served the same purpose. Since then, a mathematically similar algorithm was developed by El Gamal. All these algorithms share an important feature: they use a pair of keys, instead of a single key, and the holder of either key in the pair can securely communicate with the holder of the other key. The remaining discussion will focus on RSA, although the other algorithms behave in a similar manner.

The first step to using RSA is the creation of a *key pai*r. This requires generating two very large prime numbers. Each key in the pair is based, in different ways, on these two prime numbers. There is no mathematical difference between the two keys in a pair, but one of them must be selected to be the *public key* and the other one to be the *secret key*. The vital fact about RSA (and all public key cryptosystems) is that any message encrypted by one key in the pair can only be decrypted using the other key in the pair. That means that Alpha can keep his secret key to himself and tell the world his public key. Anyone can use Alpha's public key to send him a secret message that only Alpha's secret key can decode.

Public key encryption eliminates the problem of transferring keys secretly between two parties, and protects against the bad faith or incompetence of other parties. No one can disclose Alpha's secret key except Alpha, because no one else ever needs to see it. There is a wonderful side effect of public key encryption: it can be used "backwards" for authentication. That is, Alpha could encrypt a message with his secret key and anyone else can read it using his public key. This is not useful for keeping secrets, since anybody can read the message, but it is perfect for authenticating the sender. Only Alpha has his secret key, so only Alpha could have written the message.

A.2.3 Digital Signature Practicalities

RSA and similar algorithms are relatively slow, and encrypting and decrypting large messages is expensive. All real digital signature algorithms actually extract a *message digest* (or *has*h) of the original plaintext and encrypt that instead. A hash function is a one-way transformation of the original text, usually to a smaller size. Any change in the original text will change the resulting hash value. For example, a checksum is a type of hash function; no matter how large the original text, the checksum is always the same size. It is common to send a checksum along with a message to make sure that there was no data lost in transmission, since any change in the text would change the value of the checksum. A cryptographic hash can serve a similar function.

A typical digital signature protocol will send the original text, along with its hash value encrypted using the secret key. Any recipient decrypts the hash, then creates another hash of the received text using the same algorithm. If the two hashes match, the message is authenticated. First, Alpha signs a message. The combination of the original plaintext and the encrypted hash form a signed message. Any recipient can verify the signature using the public key. If the two hashes match, the signature is considered to be good because only Alpha, the holder of the secret key, could have created the signed message.

This derives from three points:

1. Only the holder of the secret key could have created the encrypted hash. That is verifiable because the encrypted hash could be decrypted with the public key.

2. Only Alpha knows the secret key because Alpha keeps it secret, and it cannot be derived from other information.

3. Only the particular plaintext message could have created the particular hash value.
Point 1 is true based on everything known today about RSA. Point 2 is true for practical purposes only; it turns out that the secret key can theoretically be derived from the public key. However, the computation required makes cracking a 128 bit single key seem easy. Point 3 is false; different plaintext messages could have created that same hash value, but the odds of two different random messages having the same hash value are very small, only 1 in 2^128 (about 1 in 340,000,000,000,000,000,000,000,000,000,000,000,000).
Thus, point three is also true for practical purposes.

Note: Point 3 is true only if different messages are tried at random. If the hash function is as simple as a checksum, a malevolent person could copy the original plaintext and encrypted hash, and substitute a different plaintext with the same hash. Thus, the hash function used for a digital signature must be *cryptographically secur*e, which means it must be computationally infeasible to generate additional documents with a given hash value.

A.2.4 Public Key Encryption Practicalities

The same computational complexity that leads to the use of a hash for a digital signature also causes problems when using public keys for secrecy. It is not practical to encrypt a long message with this algorithm. The solution to this problem is ingenious: the creator of the message also generates a traditional single key, called a *session key* because it is used for just one message. This session key is used to encrypt the message, using traditional single key encryption. The session key itself is then encrypted using public key encryption, and passed along with the message, as shown below. In this way, anybody can send a message that can only be read by the intended recipient.
Only the intended recipient can read the message because it requires use of the recipient's secret key.

A.2.5 Public Key Weaknesses

There are many ways to attack both encryption and signatures based on public key encryption. Each algorithm must be secure, or the entire structure can be cracked.

1. The RSA encrypt and decrypt algorithm must be unbreakable. There must be no way to recover plaintext given the ciphertext and the encryption key only. RSA does appear to meet this requirement. A message encrypted in the late 1970s with a 129 digit key (about 430 bits) was broken only 20 years later. It is generally considered that a 512 bit RSA key is secure for commercial use. However, keys as large as 2048 bits are practical today and are considered extremely secure.

2. The algorithm for creating an RSA key pair must not be predictable. It does no good to have an unbreakable algorithm if the software originally used to create the key pair can be used to recreate the same key pair independently. This requires strong random number generators and the use of some input that varies every time the software is executed.

3. The single key encryption algorithm must be unbreakable. There must be no way to recover plaintext without the key. DES is considered unbreakable except through brute force. Triple-DES, IDEA and RC5 are also considered unbreakable and allow much larger key sizes, and are much more difficult to attack using brute force.

4. The session key generator must not be predictable. Again, this requires good random number generators. An early version of Netscape Navigator was cracked not because the 40 bit session keys were too short, but because many of the bits in the keys were predictable.

5. The hash function must be one-way. If someone can figure out how to create messages that match existing hash functions, they can create falsely signed documents.

6. The source plaintext documents and unencrypted session keys must be kept truly secret. It does no good to send a message in a secure manner if an attacker can simply access the source computer to read the original documents.

7. Your secret keys must be kept truly secret. Again, it is not necessary for someone to crack the key using sophisticated techniques if he or she can just take it off the source computer. For that reason, the secret keys are stored in encrypted form; the single key required to decrypt it is based on a *password* you must remember. Since the required single key is created from information you can memorize, it need never be stored permanently, so it cannot be compromised.

Appendix B. Expedite Tree Mode and Grid Mode

Figure B-1 shows the Expedite tree mode. The left section holds the tree information, while the right section displays the detail information based on the section level of expansion. You click on + to expand the tree or – to collapse the tree.

B.1 Bid Tree Mode

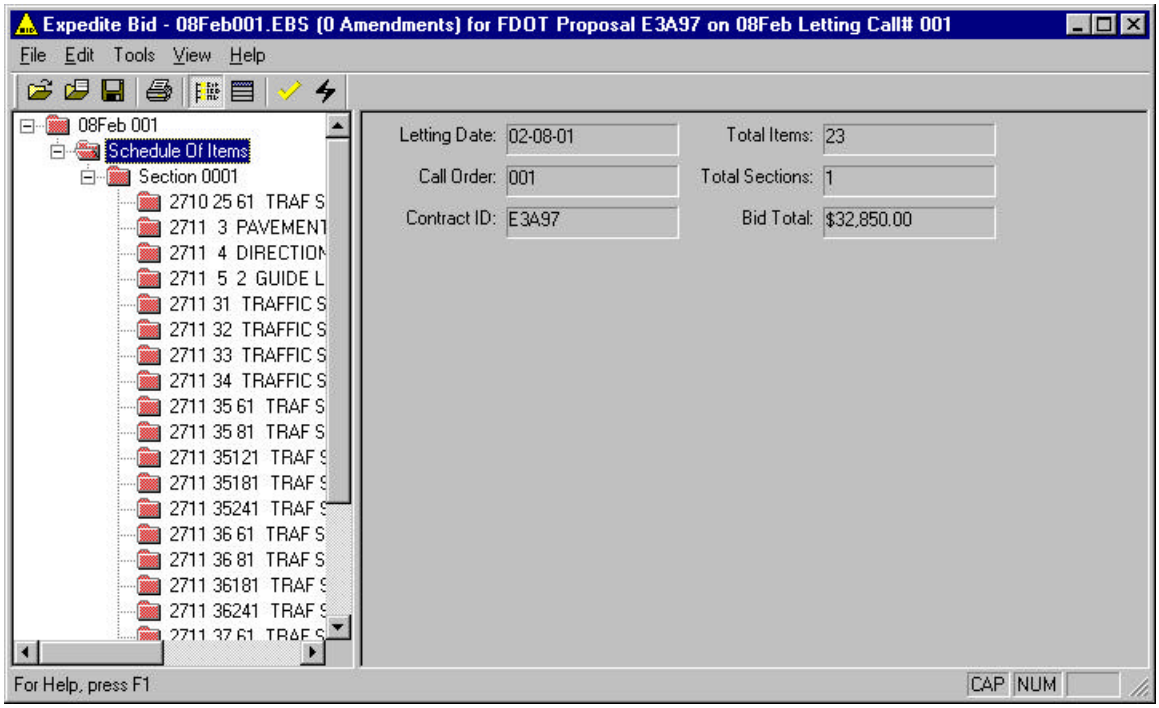


Figure B-1. Expedite Tree Mode

B.2 Bid Grid Mode

Figure B-2 shows the Expedite grid mode. The grid mode is similar to the DOS Expedite view. In the grid mode the proposal item schedule, DBE and Misc. Proposal information are displayed in a grid on the right section. You must scroll up and down to see the entire items list, all DBE information or all Misc. Proposal information.

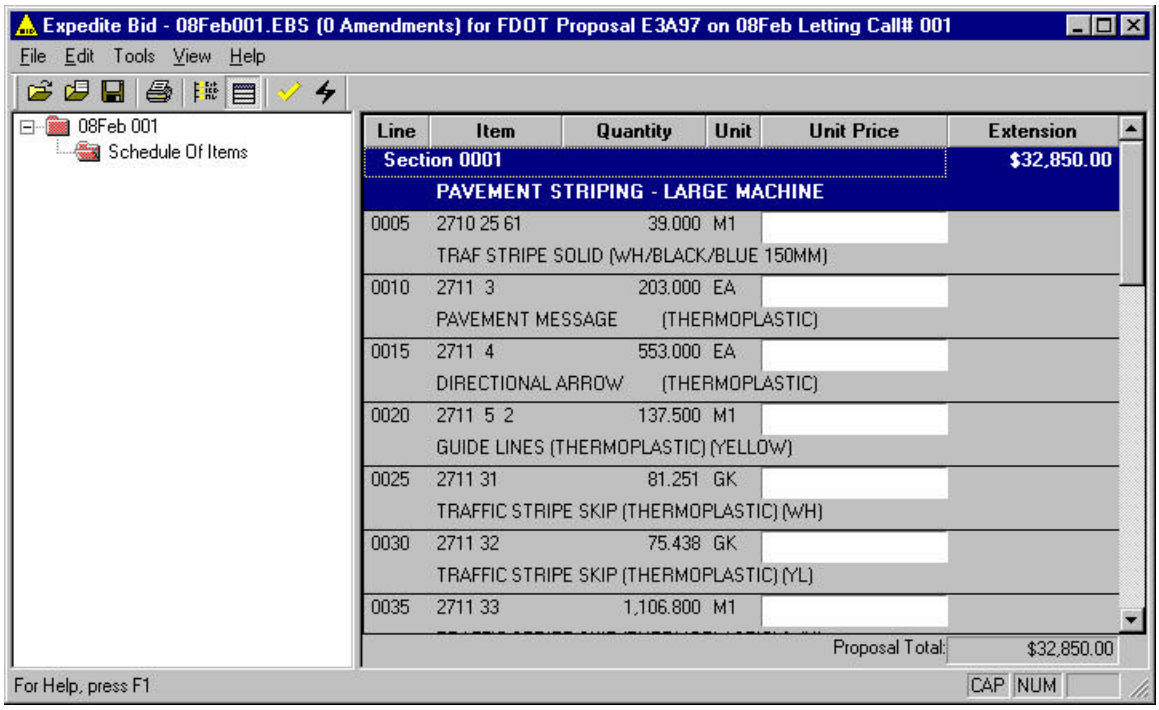


Figure B-2. Expedite Grid Mode