EMTS Conversion Tool (ECT) User's Guide

United States Environmental Protection Agency

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Compliance and Innovative Strategies Division
Office of Transportation and Air Quality
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United States
Environmental Protection
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Section 1: Overview

1.1 Purpose and Description

The EMTS Conversion Tool (ECT) has been developed to assist users in the preparation of XML files for submission to the EMTS. The ECT takes as input Excel or text files and produces as output XML files that conform to the EMTS schema specification (see Appendix C for a logical representation of this schema). Within the ECT, users may select to use either the Basic Version or the Advanced Version.

- Basic Version: This version takes as input files that use EPA-defined standard column headers, or allows user to input data manually. EPA has created several basic Excel templates that use these headers and which are intended to facilitate the use of the Basic Version. The templates are installed with the conversion tool and are stored in the Input_Files folder. These templates are also available for download on the Fuels Reporting Forms Page: *http://epa.gov/otaq/regs/fuels/rfsforms.htm*.

- Advanced Version: This version does not require the use of the basic EPA templates, or that the input files use the standard headers (though the templates or other files with the standard headers can be used). Users can create mappings between their own user-defined column headers and labels that will be used in the XML files. Users can also input data manually and change existing data for conversion.

If the user wishes to directly input user-defined formatted files that do not have the same column headings as those found in the template, then the Advanced Version must be used and the column headers must be mapped to the proper ECT column headers so that the data is read appropriately and valid output is produced.

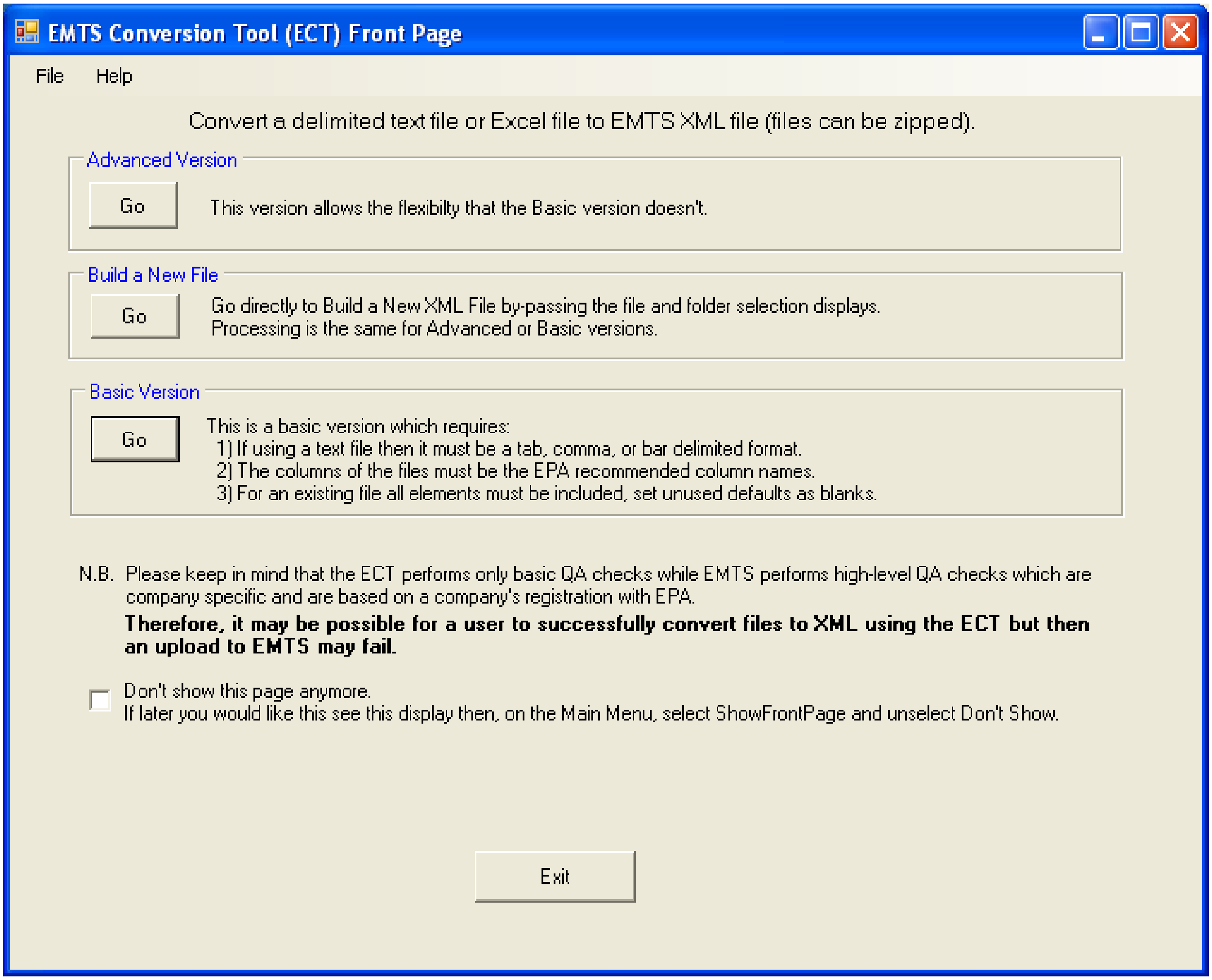
Data Entry
Inexperienced users are advised to use the EMTS website for manual data entry. The ECT does not run Quality Assurance checks on data.

1.2 Overview of the ECT Screens

The User Interface for both the Basic and the Advanced Versions of the ECT consists of three screens.

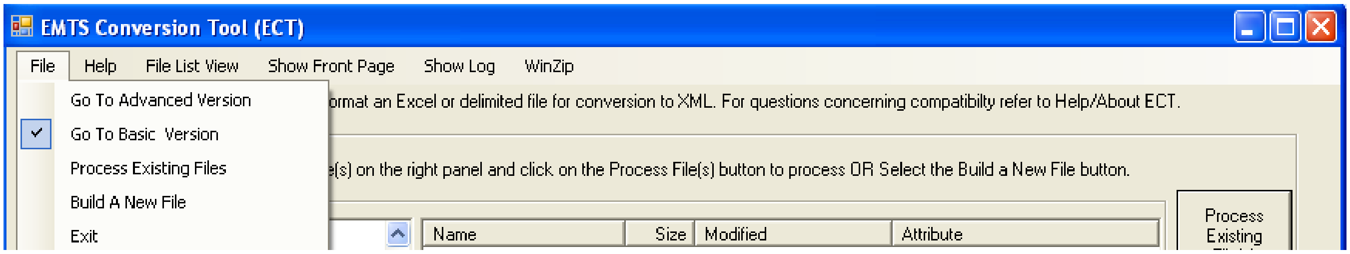
1. A "Start-up" screen where the user can select whether to use the Basic or Advanced Version (see Figure 1-1).

Figure 1-1: Start-up Screen



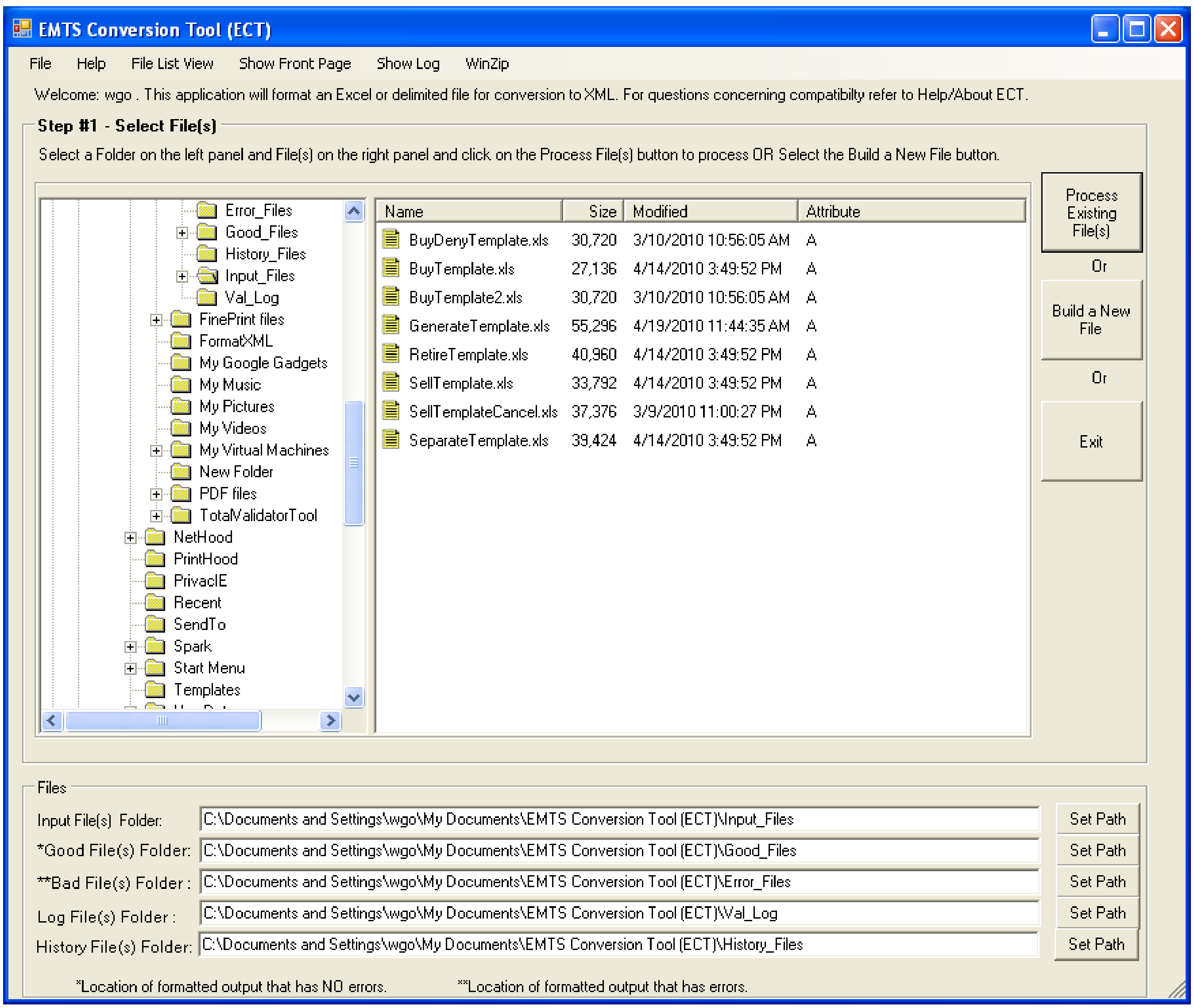
This screen allows the user to select from two versions of the ECT: the Basic Version or the Advanced Version. This screen also allows the user to go directly to the "Build a New XML File" functionality. The user may check the "Don't show this page anymore" box if desired. This will cause the start-up screen to be skipped on subsequent uses of the ECT, resulting in the processing starting up directly at the screen where the input files are chosen. The version that will be used would be the last version chosen after selecting the "Don't show this page anymore" box. This feature can be turned back on from the file selection screen (see Figures 3 and 4) by clicking on "Show Front Page" and then selecting "Show Front Page" when the start-up page appears. Additionally, the user can toggle back and forth between the Basic Version, Advanced Version, and Build a New File options from the file selection screen, as depicted in Figure 1-2.

Figure 1-2: Toggling Between Basic, Advanced, and Build a File Versions



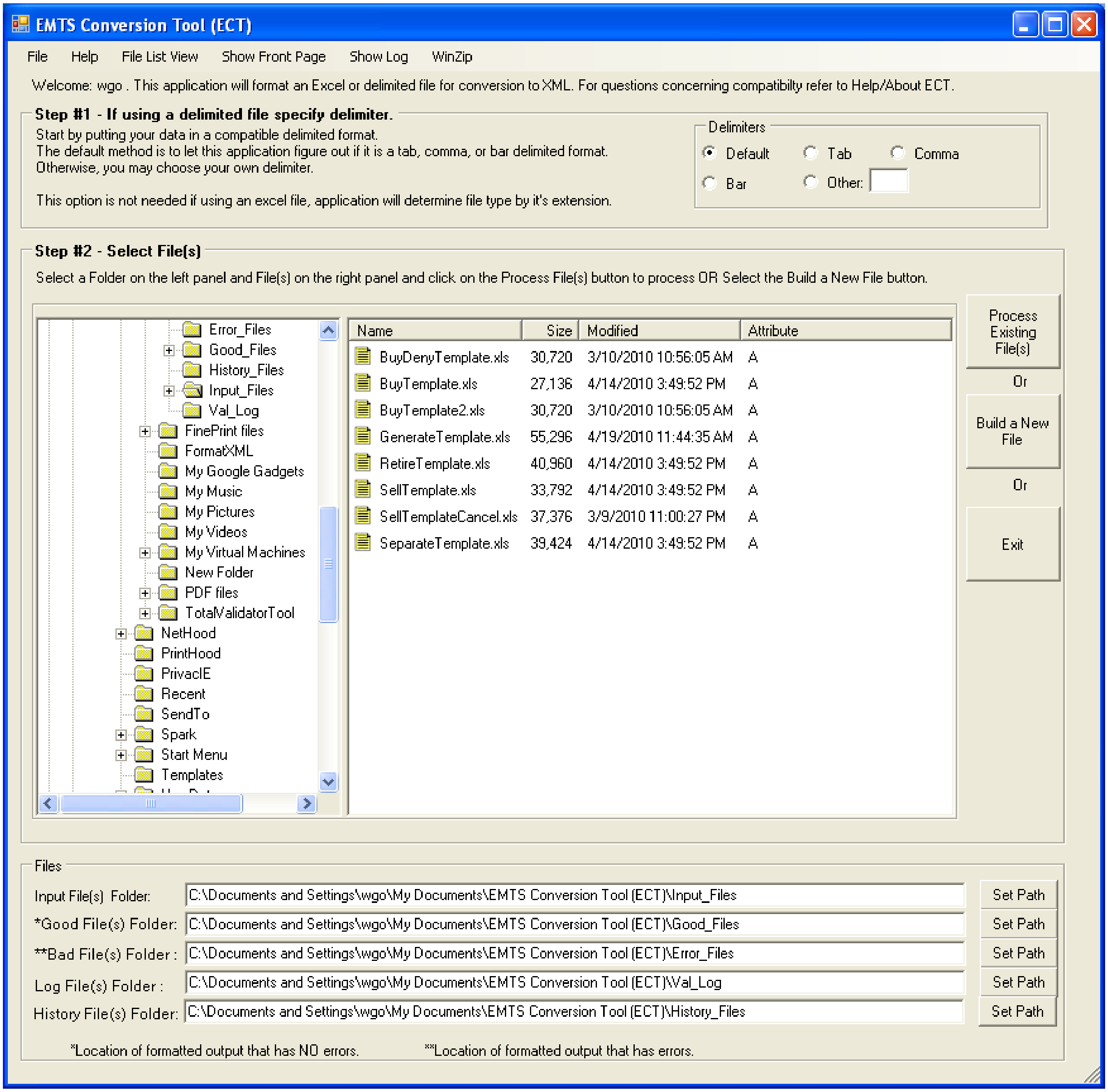
2. A File Selection screen where the user can select the file to be processed. Figure 1-3 displays the Basic Version and Figure 1-4 displays the Advanced Version.

Figure 1-3: File Selection Screen (Basic Version)



By default, the files in the "Input_Files" folder will be displayed on the right-hand side of the File Selection Screen. The user can also use the folder navigation available on the left-hand side of the File Selection Screen to find files in other folders. Either a single file or multiple files can be selected; if multiple files are desired, the selection can be done through the use of the control (CTRL) key. Once the desired file(s) is(are) selected, the "Process Existing File(s)" button should be clicked. The File Processing Screen will automatically appear once per file selected. The user also has the option of clicking on "Build a New File," in which case it is not necessary to select an input file.

Figure 1-4: File Section Screen (Advanced Version)



This screen is similar to the File Selection Screen for the Basic Version, except for the addition of an extra section at the top where users can specify the delimiters used for text-based input files.

3. A File Processing screen where data can be edited and the actual conversion to XML is initiated. See Figures 1-5 and 1-6 (Basic Version) and Figure 1-7 (Advanced Version) below.

Figure 1-5: File Processing Screen (Basic Version, Input File Selected)

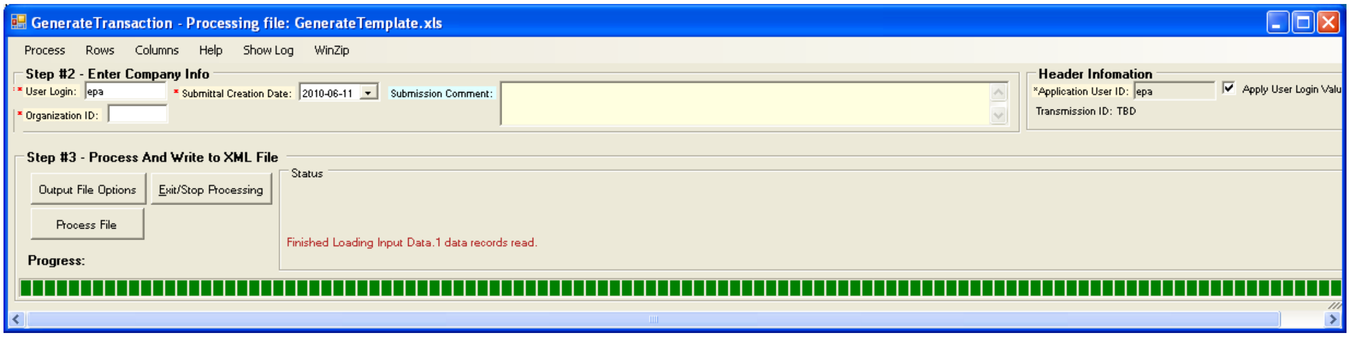


Figure 1-6: File Processing Screen (New File Being Built)

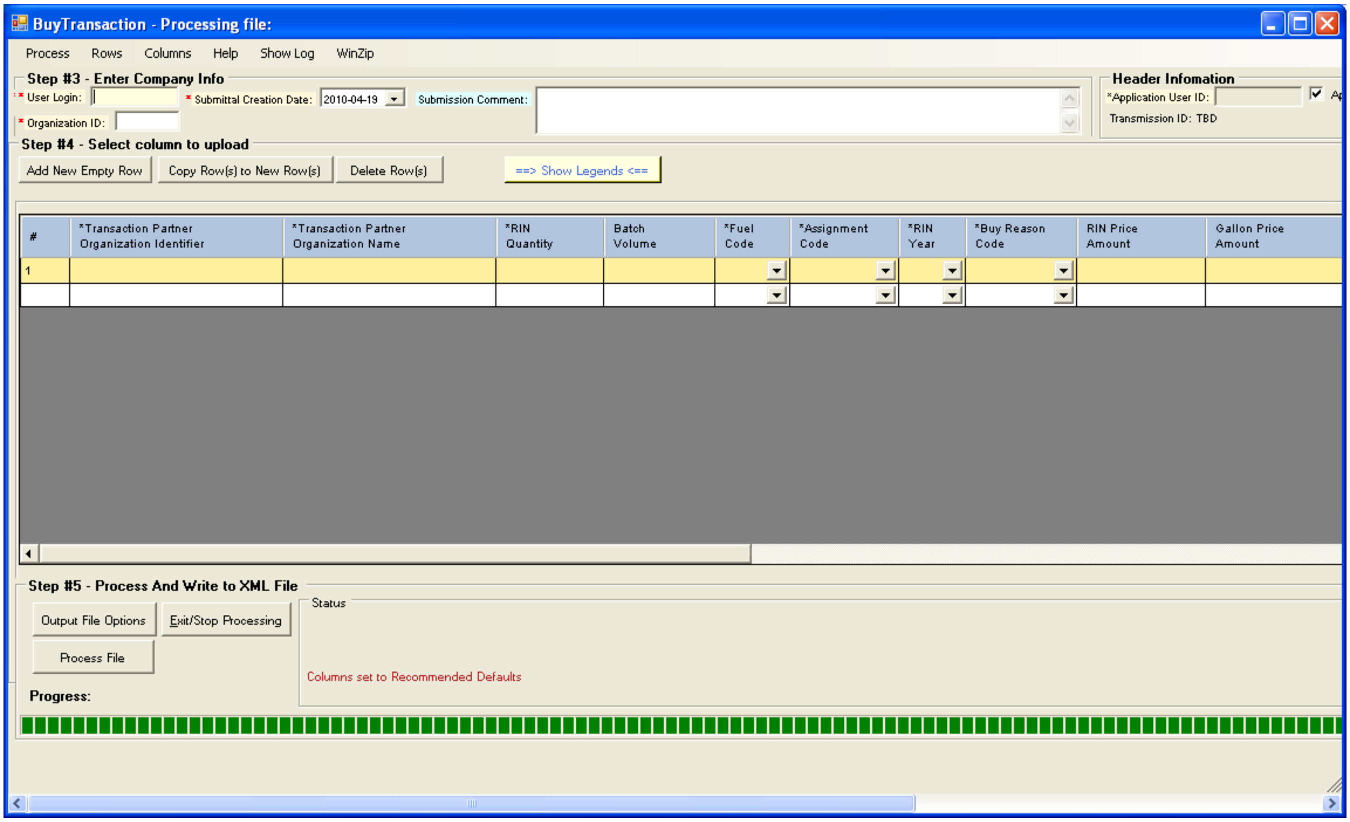
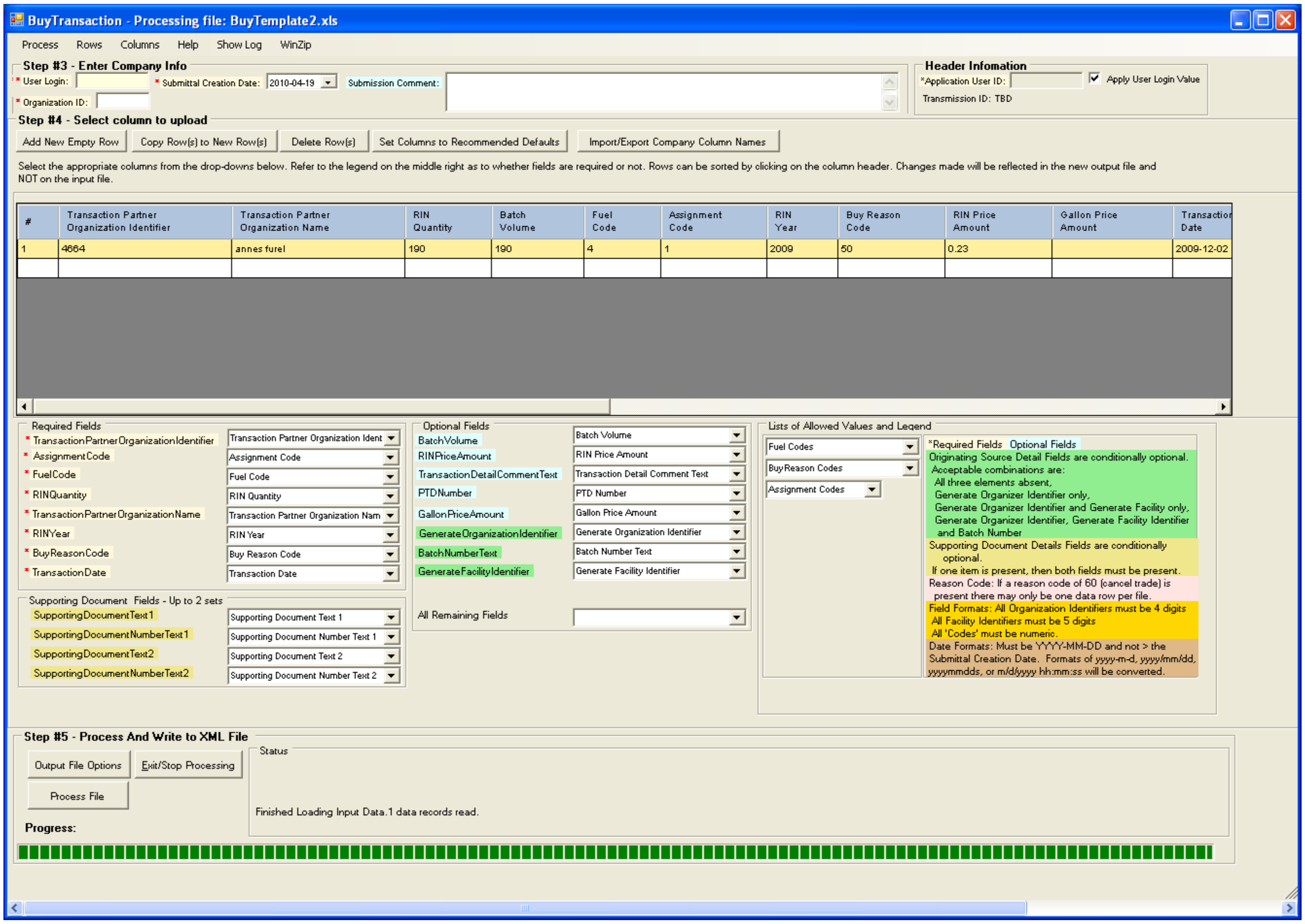


Figure 1-7: Processing Screen (Advanced Version)



Compared to the basic processing screen, the advanced processing screen is different in the following ways:

- The data grid is always present (in the Basic Version, the data grid only appears if the "Build a New File" button is clicked on the File Selection Screen);

- There is a set of labels and drop-down menus where column headings can be mapped to the labels that will be written to the output XML; and

- There is a button which allows user-defined column names to be imported and exported.

1.3 Transaction Types

The ECT can create XML files for all five of the transaction types supported by the EMTS: generate, separate, buy, sell, and retire.

- A **generate** transaction is to be used by organizations who produce renewable fuel;
- A **separate** transaction is to be used by parties who blend fuel and separate RINs;

- A **sell** transaction is to be used by parties who have sold RINs;
- A **buy** transaction is to be used by parties who have bought RINs; and
- A **retire** transaction is to be used by parties who have retired RINs for any reason.

For detailed information on the data elements for each transaction, including allowed values, please see the EMTS Transaction Instructions -- Section 6, "How Do I Report Transactions Using XML Files?"

1.4 Required, Conditional, and Optional Fields

Fields are required, conditional, or optional.

- A **required** field is necessary for every transaction;

- A **conditional** field is dependent on the data that was entered in previous fields and may be required if certain conditions are met; and

- An **optional** field is not required by EPA, but may contain helpful descriptive information about the transaction.

1.5 Setting Up the Input Files

The ECT (both Basic and Advanced Versions) accepts file types which are identified by the following extensions:

- .txt – tab or bar delimited text;
- .csv – comma delimited text; and
- .xls – Excel spreadsheet.

The Advanced Version also accepts text files which do not use commas, tabs, or bars as delimiters.

For these file types, the ECT accepts either a zipped or unzipped file (if zipped, the file extension will be ".zip").

Although the Basic Version accepts data in the formats listed above, the basic EPA templates are only available in Excel format.

Any row in an input file that has two hash symbols (#) at the start will be omitted from the conversion and the first row that does not have "##" and is not blank will be assumed to contain the column headings. Figure 1-8 shows a sample file in which one of the rows (line 5) starts with "##" and will therefore be ignored by the ECT. In this example, the ECT will take the column headings from Row 4 because this is the first row that is not blank and does not start with "##."

Figure 1-8: Omitting a Data Line

	A	B	C	D	E	F	G
1	## Please refer to the "NOTES" tab if you need guidance or codes						
2	##This template corresponds with ECT 1.0.0.0						
3							
4	Transaction Partner Organization Identifier	Transaction Partner Organization Name	RIN Quantity	Batch Volume	Fuel Code	Assignment Code	RIN Year
5	##1234	Bob's Ethanol	5000	5000	4	1	2010
6	2345	Mary's Ethanol	6000	6000	4	1	2010

1.6 Transaction Data Elements in the ECT

The following sections describe, for each transaction, the elements that can be included in the files that are input to the ECT. For each transaction, elements are grouped according to whether the ECT treats them as required, conditional, or optional. The element names presented here are equivalent to the standard column headers defined by EPA and used in the basic Excel templates.

Note that the absence of an element treated as optional by the ECT can still cause the output XML to fail validation when it is submitted to the EMTS; for instance, the ECT treats "Denaturant Volume" as optional even though the EMTS may require this element depending on the value of "Fuel Code."

1.6.1 Generate Transaction Data Elements

The following describes the generate transaction data elements. Up to three feedstocks and two co-products may be specified in the ECT.

The following elements are required:

- Fuel Code;
- Process Code;
- Production Date;
- Fuel Category Code;
- Batch Volume;
- RIN Quantity;
- Generate Organization Identifier;
- Generate Facility Identifier;
- Batch Number Text;
- Feedstock Code 1;
- Renewable Biomass Indicator 1;
- Feedstock Volume 1; and
- Feedstock Measure Code 1.

The following elements are conditionally required:

- CoProduct Code 1 (required if CoProduct Detail Comment Text 1 is present);
- CoProduct Code 2 (required if CoProduct Detail Comment Text 2 is present);
- Feedstock Code 2, Renewable Biomass Indicator 2, Feedstock Volume 2, Feedstock Measure Code 2 (if any one is present, the others are required);
- Feedstock Code 3, Renewable Biomass Indicator 3, Feedstock Volume 3, Feedstock Measure Code 3 (if any one is present, the others are required); and
- Denaturant Volume (if ethanol is produced, this field is required).

The following elements are optional:

- Equivalence Value;
- Import Facility Identifier;
- Transaction Detail Comment Text;
- Feedstock Detail Comment Text 1;
- CoProduct Detail Comment Text 1;
- Feedstock Detail Comment Text 2;
- CoProduct Detail Comment Text 2; and
- Feedstock Detail Comment Text 3.

1.6.2 Separate Transaction Data Elements

This section describes the separate transaction data elements.

The following data elements are required:

- RIN Quantity;
- Batch Volume;
- Fuel Code;
- Separate Reason Code; and
- RIN Year.

The following data elements are conditionally required:

- Supporting Document Text, Supporting Document Number (if one is present, the other is required);
- Generate Organization Identifier (required if Generate Facility Identifier is present);
- Generate Facility Identifier (required if Batch Number Text is present);
- Blender Organization Identifier (required if reason code is 40: Upstream Delegation for Blending); and

- Blender Organization Name (required if reason code is 40: Upstream Delegation for Blending).

The following data elements are optional:

- Batch Number Text; and
- Transaction Detail Comment Text.

1.6.3 Sell Transaction Data Elements

This section describes the sell transaction data elements.

The following data elements are required:

- Transaction Partner Organization Identifier;
- Transaction Partner Organization Name;
- RIN Quantity;
- Fuel Code;
- Assignment Code;
- RIN Year;
- Sell Reason Code; and
- Transaction Date.

The following data elements are conditionally required:

- Supporting Document Text, Supporting Document Number (if one is present, the other is required);
- Generate Organization Identifier (required if Generate Facility Identifier is present);
- Generate Facility Identifier (required if Batch Number Text is present);
- RIN Price Amount (required if GallonPriceAmount is not present);
- Gallon Price Amount (required if RINPriceAmount is not present); and
- Batch Volume (required if the RIN is assigned).

The following data elements are optional:

- Batch Number Text;
- PTD Number; and
- Transaction Detail Comment Text.

1.6.4 Buy Transaction Data Elements

This section describes the buy transaction data elements.

The following data elements are required:

- Transaction Partner Organization Identifier;
- Transaction Partner Organization Name;

- RIN Quantity;
- Fuel Code;
- Assignment Code;
- RIN Year;
- Buy Reason Code; and
- Transaction Date.

The following data elements are conditionally required:

- Supporting Document Text, Supporting Document Number (if one is present, the other is required);
- Generate Organization Identifier (required if Generate Facility Identifier is present);
- Generate Facility Identifier (required if Batch Number Text is present);
- RINPriceAmount (required if GallonPriceAmount is not present);
- GallonPriceAmount (required if RINPriceAmount is not present); and
- Batch Volume (required if the RIN is assigned).

The following data elements are optional:

- Batch Number Text;
- PTD Number; and
- Transaction Detail Comment Text.

1.6.5 Retire Transaction Data Elements

This section describes the retire transaction data elements.

The following data elements are required:

- RIN Quantity;
- Fuel Code;
- Assignment Code;
- RIN Year; and
- Retire Reason Code.

The following data elements are conditionally required:

- Supporting Document Text, Supporting Document Number (if one is present, the other is required);

- Generate Organization Identifier (required if Generate Facility Identifier is present);

- Generate Facility Identifier (required if Batch Number Text is present);

- Compliance Year (if Retire Reason Code is Demonstrate Annual Compliance, this field is required);

- Compliance Facility Identifier (if Retire Reason Code is Demonstrate Annual Compliance, this field is required); and

- Compliance Level Code (if Retire Reason Code is Demonstrate Annual Compliance, this field is required).

The following data elements are optional:

- Batch Number Text;
- Batch Volume;
- Compliance Facility Identifier;
- Compliance Level Code; and
- Transaction Detail Comment Text.

1.7 Data Validation Checks in the ECT

The ECT performs many (but not all) of the data validation checks needed to ensure that the output XML file can be successfully processed by the EMTS. Errors found by the ECT are written to the "Status" message block above the progress bar at the bottom of the screen and to the log file. The following is a list of checks that will be performed during processing.

- Checks that the "Enter Company Info" fields are filled in. All of these fields are required except "Submission Comment." Only the "User Login" is saved between file processing. Submittal creation date must be in the form of YYYY-MM-DD.

- Checks the drop-down lists of column headers for the required, optional, and conditionally optional fields. The following will produce an error:

  -- For a required field, if the user has not selected a column name from the drop-down list or provided data;

  -- For a conditional field or optional field, if the user has indicated that it should be included by selecting a column name from the drop-down list, but has not provided the corresponding data;

  -- If there is no value selected on the drop-down list that corresponds to the column;

  -- If the value selected in the drop-down list does not match any of the column names; and

  -- If the same column heading is selected in multiple drop-down lists for different required fields.

- Checks the transaction data. The following will produce an error:

  -- If data is missing in a required field (note that some fields are conditionally required, meaning that if a certain value is present, then all the following fields are required);

-- If "Assignment Code" has a value other than "1" or "2";

-- If transaction codes contain letters;

-- If "Transaction Partner Organization Identifier" is not four digits;

-- If dates not of the format YYYY-MM-DD. If dates are of the format YYYY/M/D, YYYY-M-D, or MM/DD/YYYY the ECT will make the appropriate change which will be displayed in the data grid without any error messages;

-- The year specified in the Transaction Date is less than 2010;

-- Transaction Date has a value greater than that of the Submittal Creation Date; and

-- If “RINYear” has a value prior to 2010.

Section 2: Installing and Setting Up the Conversion Tool

This guide describes how to install the ECT, how to set up the input files, and how to configure the ECT. Additional information is provided on the usage and customization of the ECT file system directories.

If you already have a version of the Conversion Tool installed, you must uninstall the existing version of the Tool before you install the new version. See Section 3 "Uninstalling the Conversion Tool" for instructions on how to do so.

2.1 System Requirements

The system requirements for running the ECT are as follows:

- MS Windows XP 2002 SP2 or later, Windows Vista, or Windows 7;
- MS Office version 2003 or later;
- A CPU of at least 2.0 GHz;
- At least 1.00 GB of RAM; and
- At least 900 KB of disk space.

Microsoft Excel is required for users who wish to use the basic EPA templates or create their own user-defined files in Excel format.

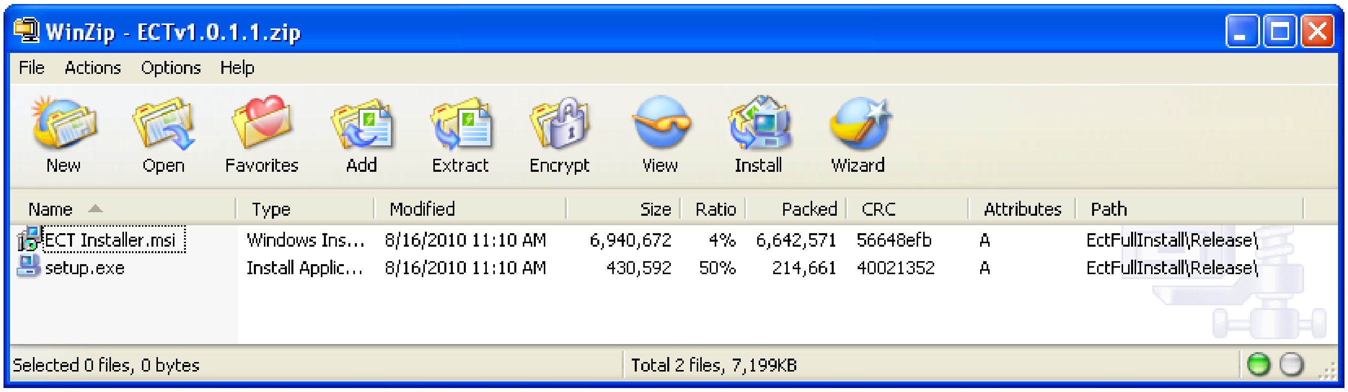
2.2 Obtaining the ECT and Transaction Templates

The ECT and the transaction templates are available at the following location:

http://www.epa.gov/oms/renewablefuels/epamts.htm

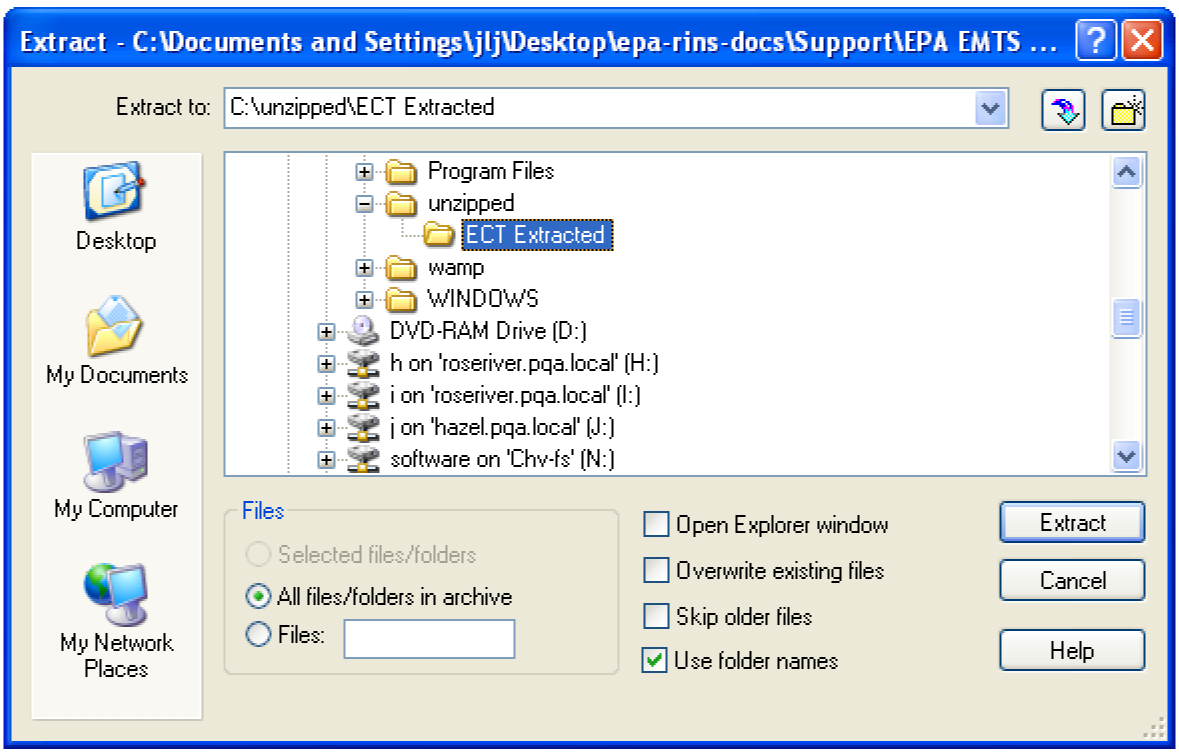
Two ECT files will be available at this location, in the form of Zip archives. The first file, "ECTv1.0.1.1.zip," contains the ECT itself, the five transaction templates that EPA has created for the five transaction types, and the support files necessary for installation of the ECT and the templates. These templates are also available separately in the second file, "EPA Templates.zip". These files can be saved anywhere the user chooses. The user will then need to use a utility such as WinZip to extract the files. Figure 2-1 depicts the WinZip screen that appears after the user has doubled-clicked the file "ECTv.1.0.1.1.zip".

Figure 2-1: Using WinZip to Extract the ECT



Note that users may see variations of the image in Figure 2-1. The user should click the Extract button to get to the window in Figure 2-2 below.

Figure 2-2: Specifying ECT Location



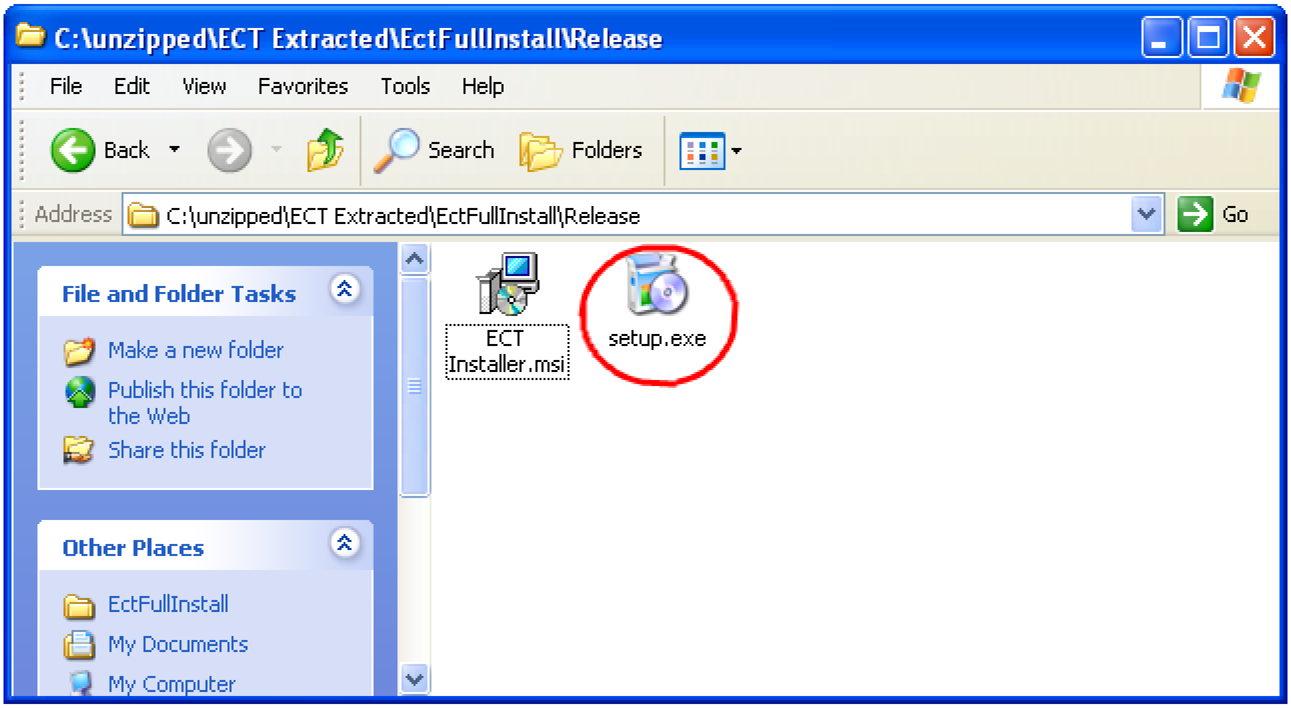
The user can choose to extract the files to any desired location, provided that the folder name does not contain an ampersand (&). In the example above, a location of "C:\unzipped\ECTExtracted" has been selected. Once the location has been selected, the user should click the "Extract" button.

Upon doing so, a folder -- "ECTFullInstall" -- will be created under the selected location.

2.3 Installing the ECT

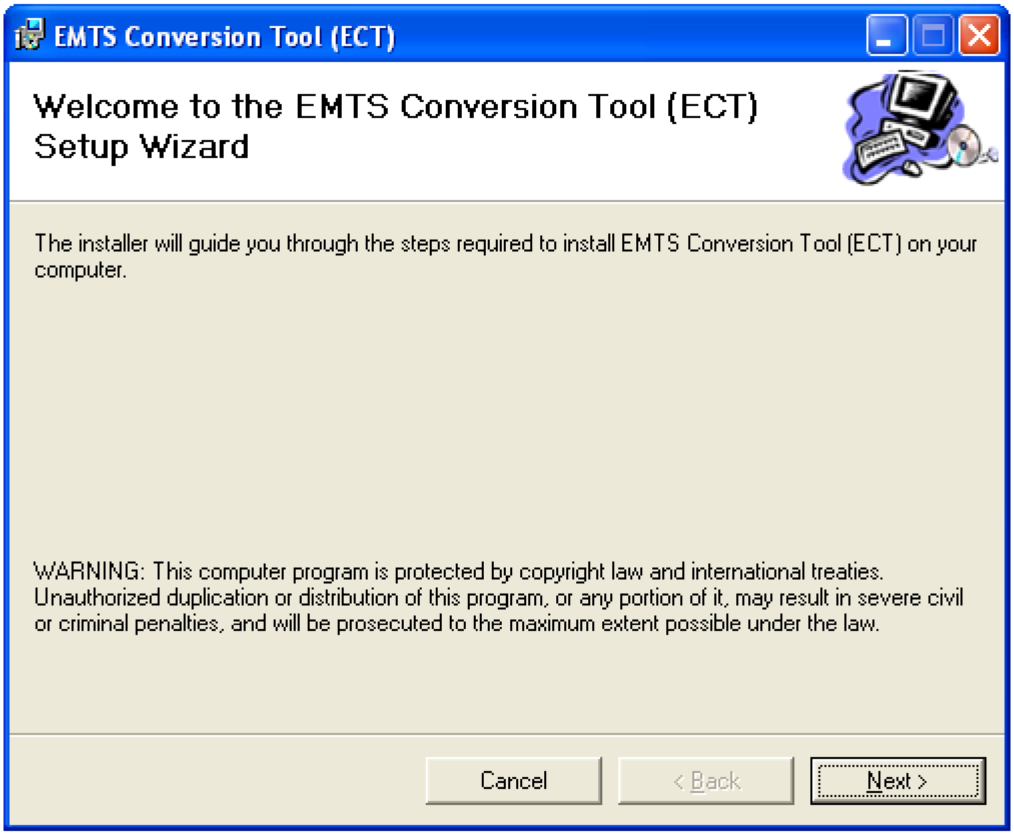
After downloading the zipped ECT and extracting the files, the user must then install the application by navigating to ECTFullInstall/Release and double-clicking the "setup.exe" file. Figure 2-3 depicts this folder when the files have been extracted to "C:\unzipped\ECTExtracted".

Figure 2-3: "Setup.exe" File



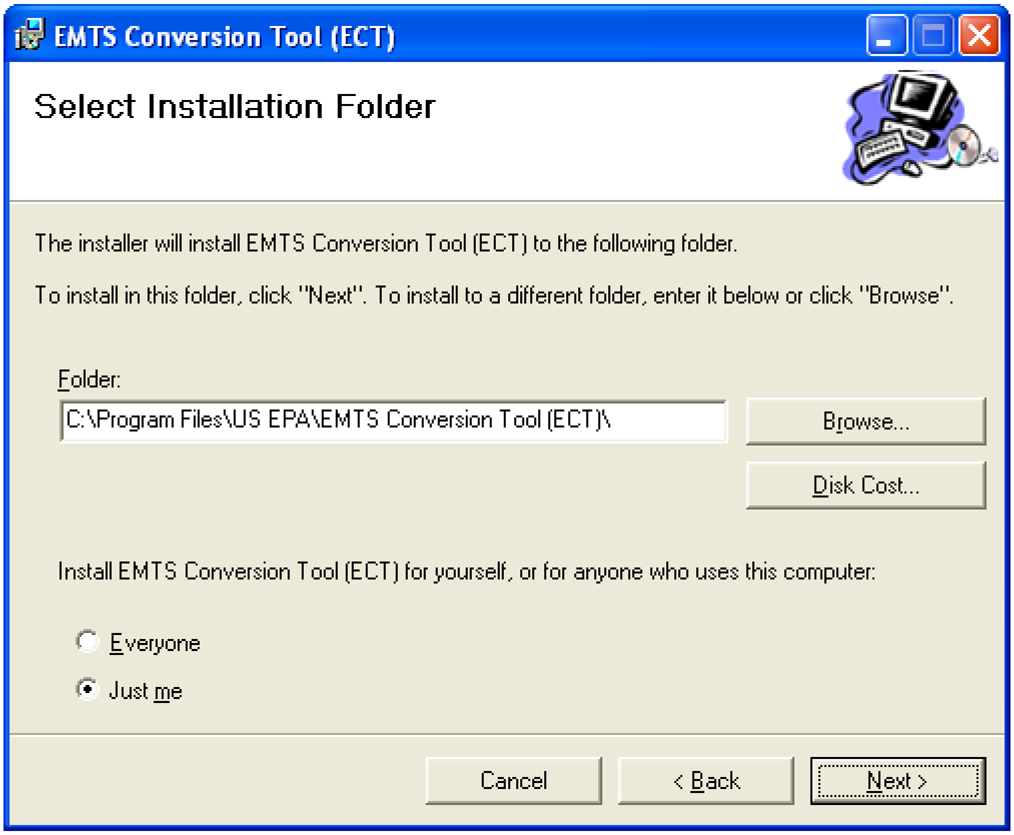
The EMTS Conversion Tool Setup Wizard will guide the user through the steps required to install the ECT. Click the Next button to continue (see Figure 2-4):

Figure 2-4: ECT Setup Wizard



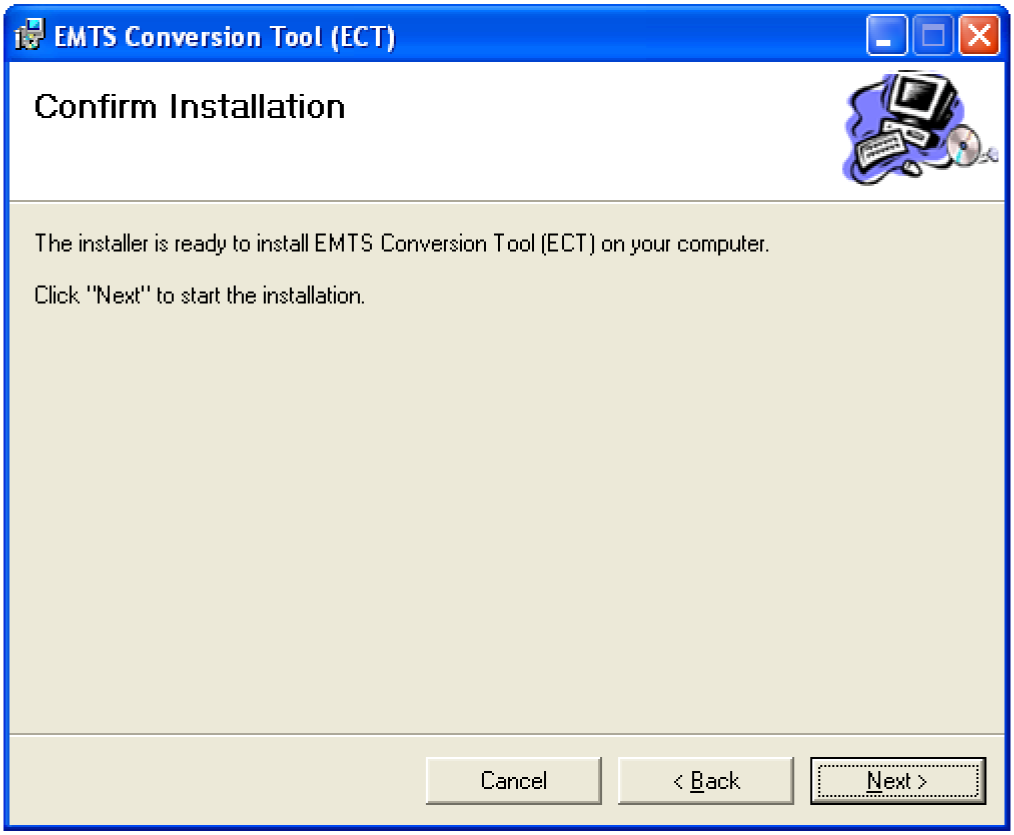
The first installation step is to select the installation folder. The default folder is C:\Program Files\US EPA\EMTS Conversion Tool (ECT)\. To select a different folder, click the Browse button. The ECT must be installed to a location with a drive letter in order to work properly (i.e., C:\, D:\, etc.). The ECT "Help" menu describes a work-around to use if the ECT is not installed to such a location. The ECT will not install correctly from a location with an ampersand (&) in the file path. There is also the option to install the ECT for one user or for anyone who uses the computer (see Figure 2-5).

Figure 2-5: Select Installation Folder



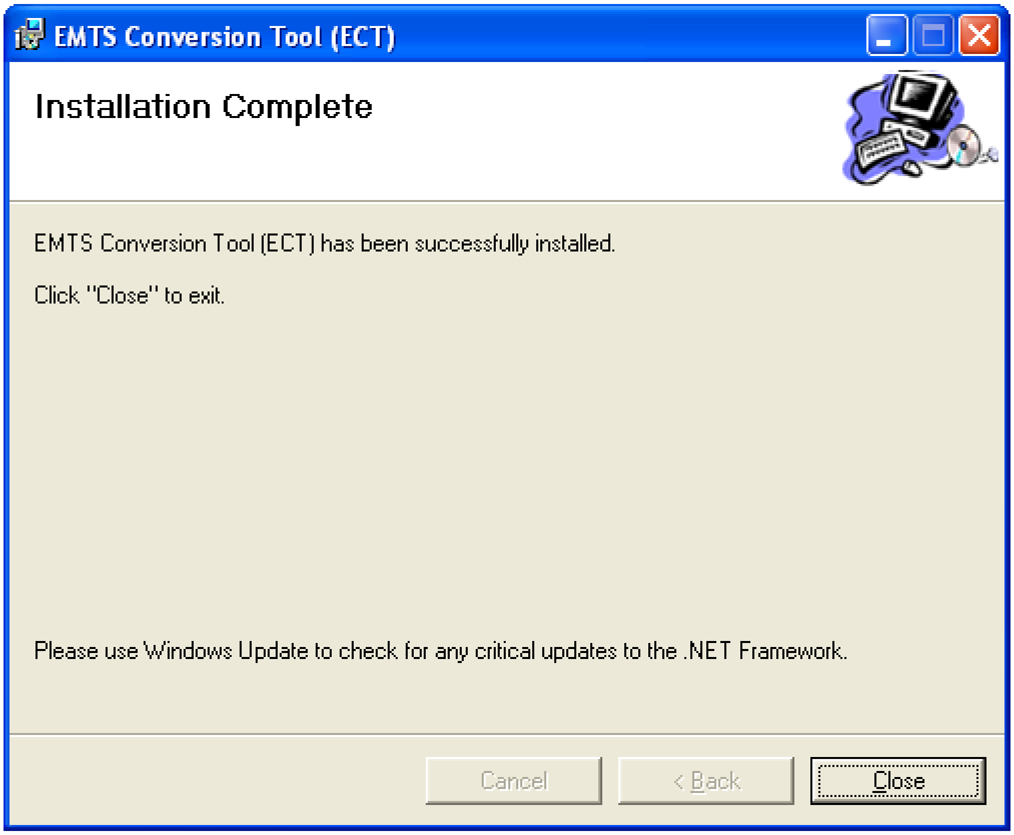
Next you will prompted to confirm the installation. Click the Next button (see Figure 2-6).

Figure 2-6: Select Installation Folder



When the installation is complete, a success message will be displayed. Click the Close button (see Figure 2-7).

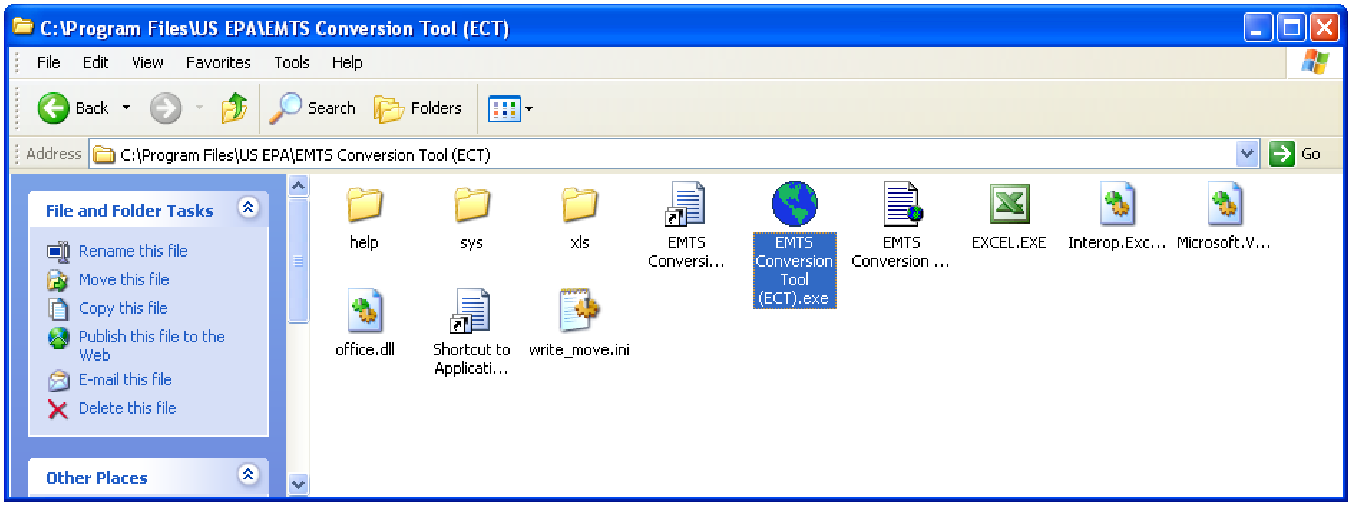
Figure 2-7: Installation Complete



Once the application has been installed, the user can delete the "ECTFullInstall" folder if desired.

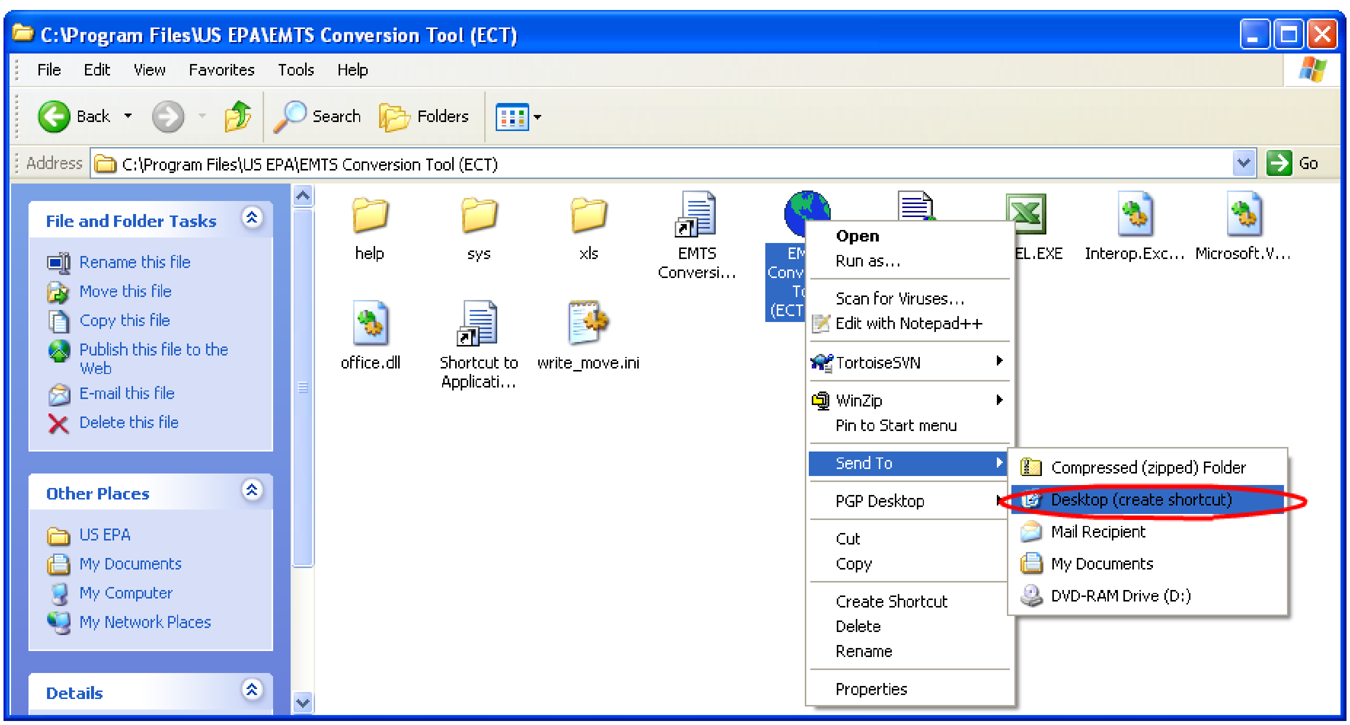
To open the ECT, navigate to the installation directory (by default, C:\Program Files\US EPA\EMTS Conversion Tool (ECT)\) and double-click the "EMTS Conversion Tool (ECT).exe" file (see Figure 2-8).

Figure 2-8: Opening the ECT



To create a desktop shortcut to open the ECT, right click on the "EMTS Conversion Tool (ECT).exe" file and select Send To →Desktop (create shortcut) (see Figure 2-9):

Figure 2-9: ECT Desktop Shortcut

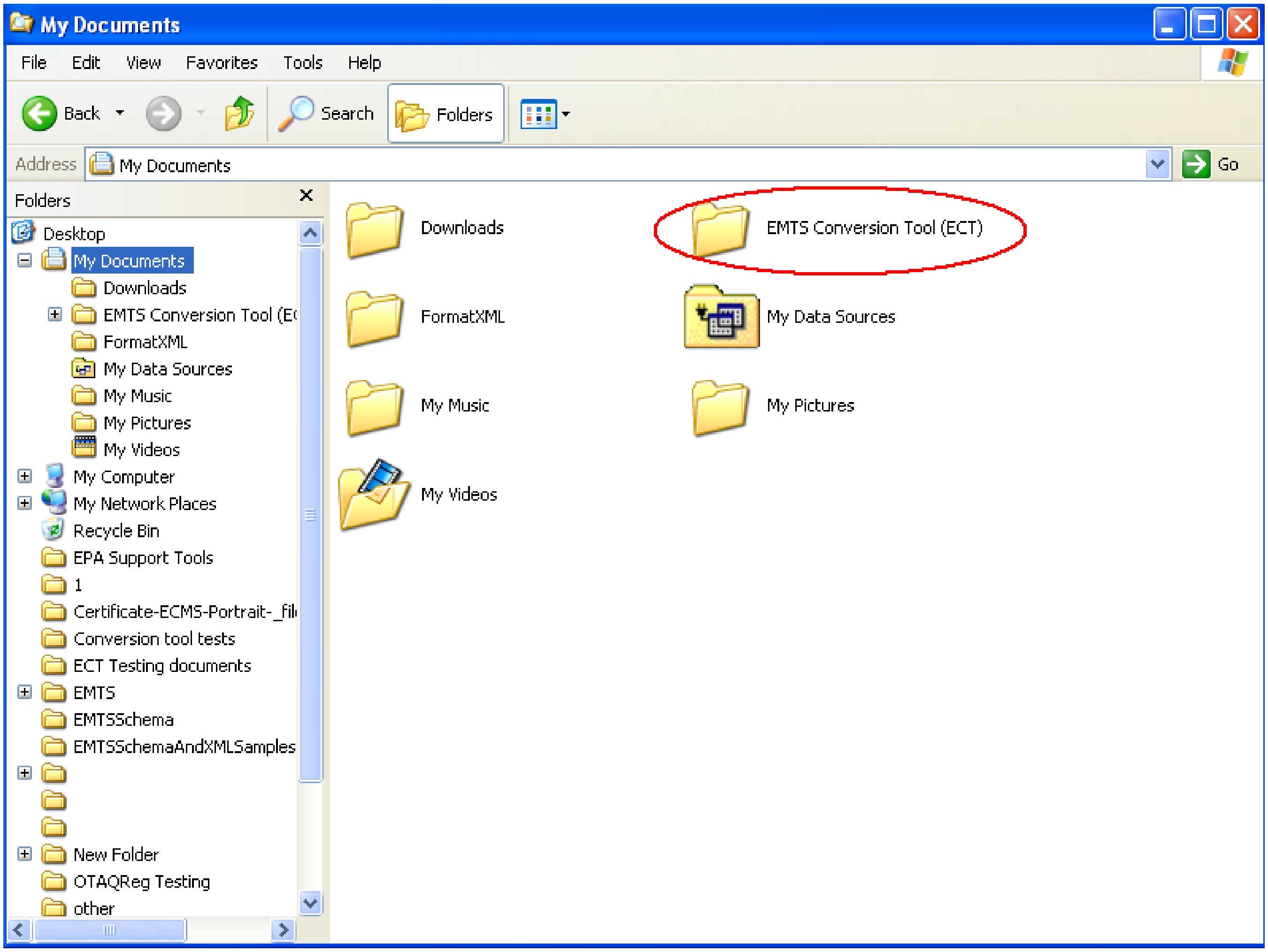


2.4 Setting Up the ECT

2.4.1 Directories

The installation will create a folder in the My Documents folder: "C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)" (see Figure 2-10).

Figure 2-10: Default ECT Directories



If the ECT has previously been installed and uninstalled, this folder should already be present and subsequent installations will not overwrite the folder.

The ECT will create a set of folders in the "EMTS Conversion Tool (ECT)" folder that are used by the ECT to process files. The following folders are created:

- Input_Files: Files to be converted;
- Good_Files: Successfully converted XML files;

- History_Files: "Build a File" data stored between processing;
- Bad_Files: Unsuccessfully processed files; and
- Val_Log: Activity logs from attempts to process files.

Figure 2-11 shows these folders in their default location under the "EMTS Conversion Tool (ECT)" folder.

Figure 2-11: The Default ECT Directories

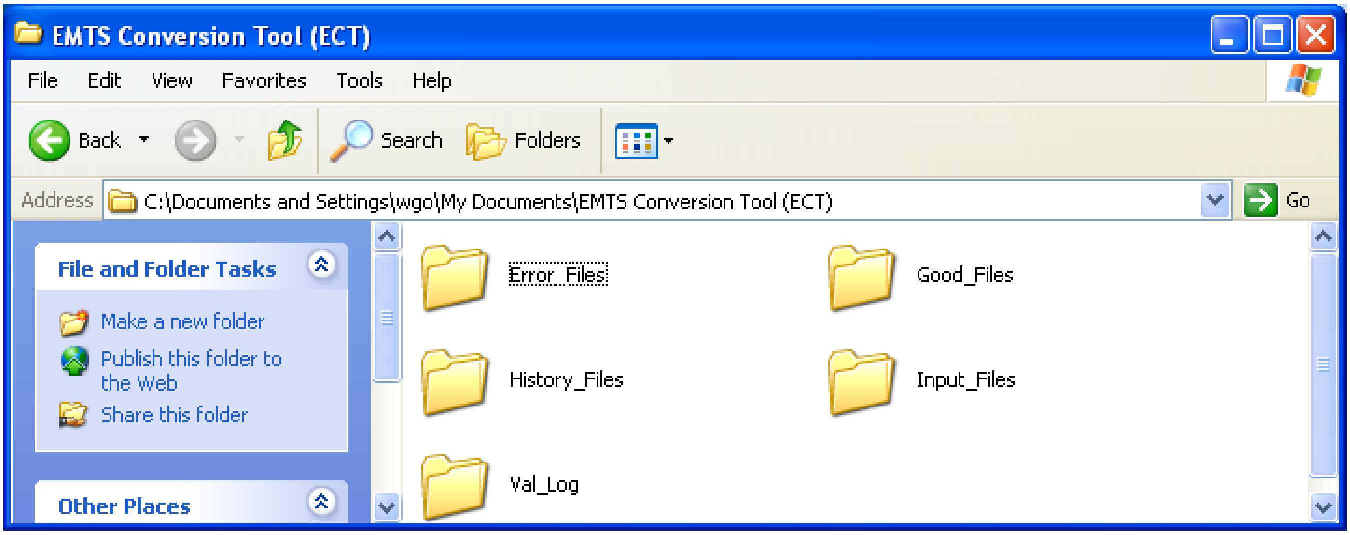
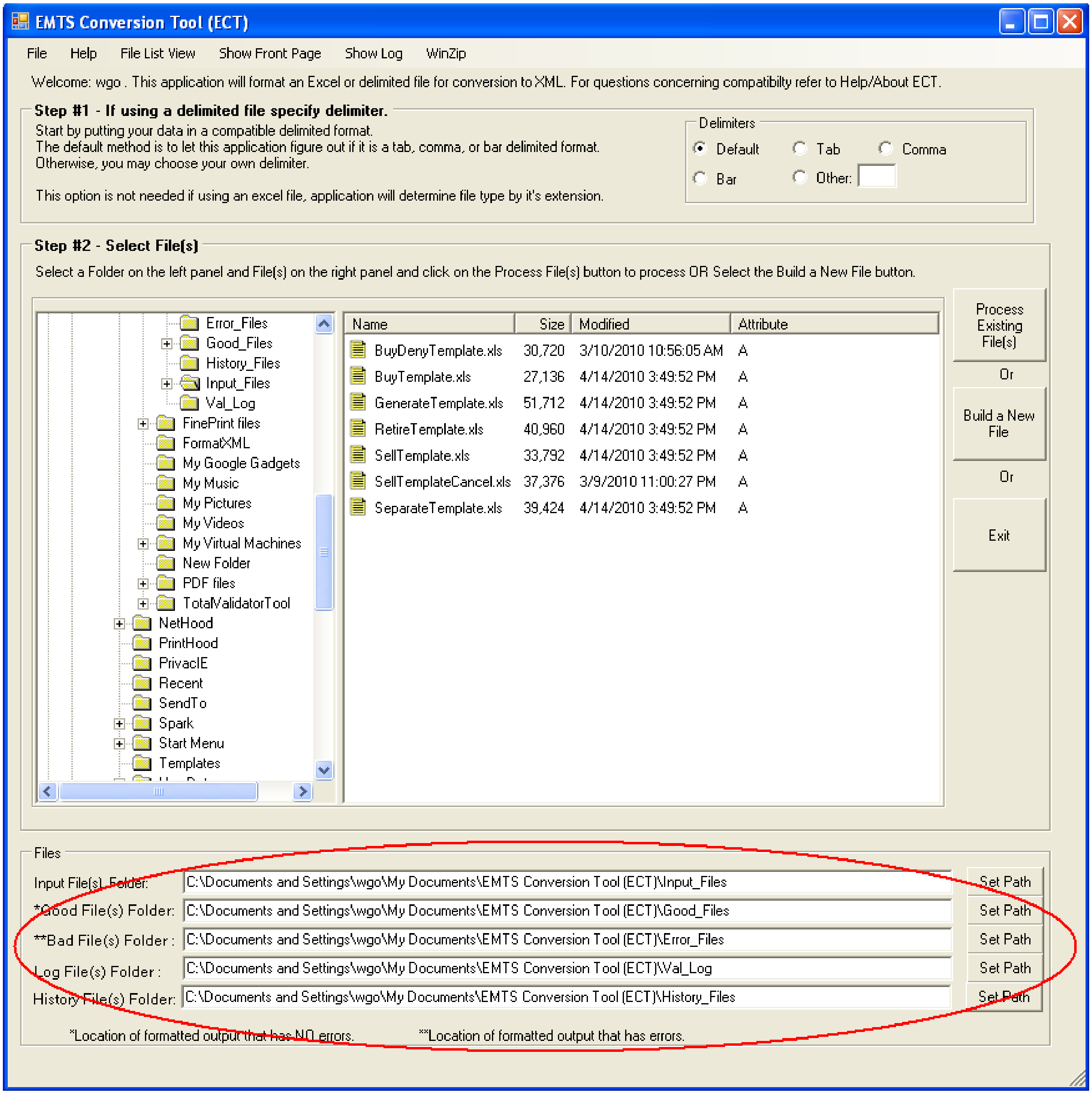


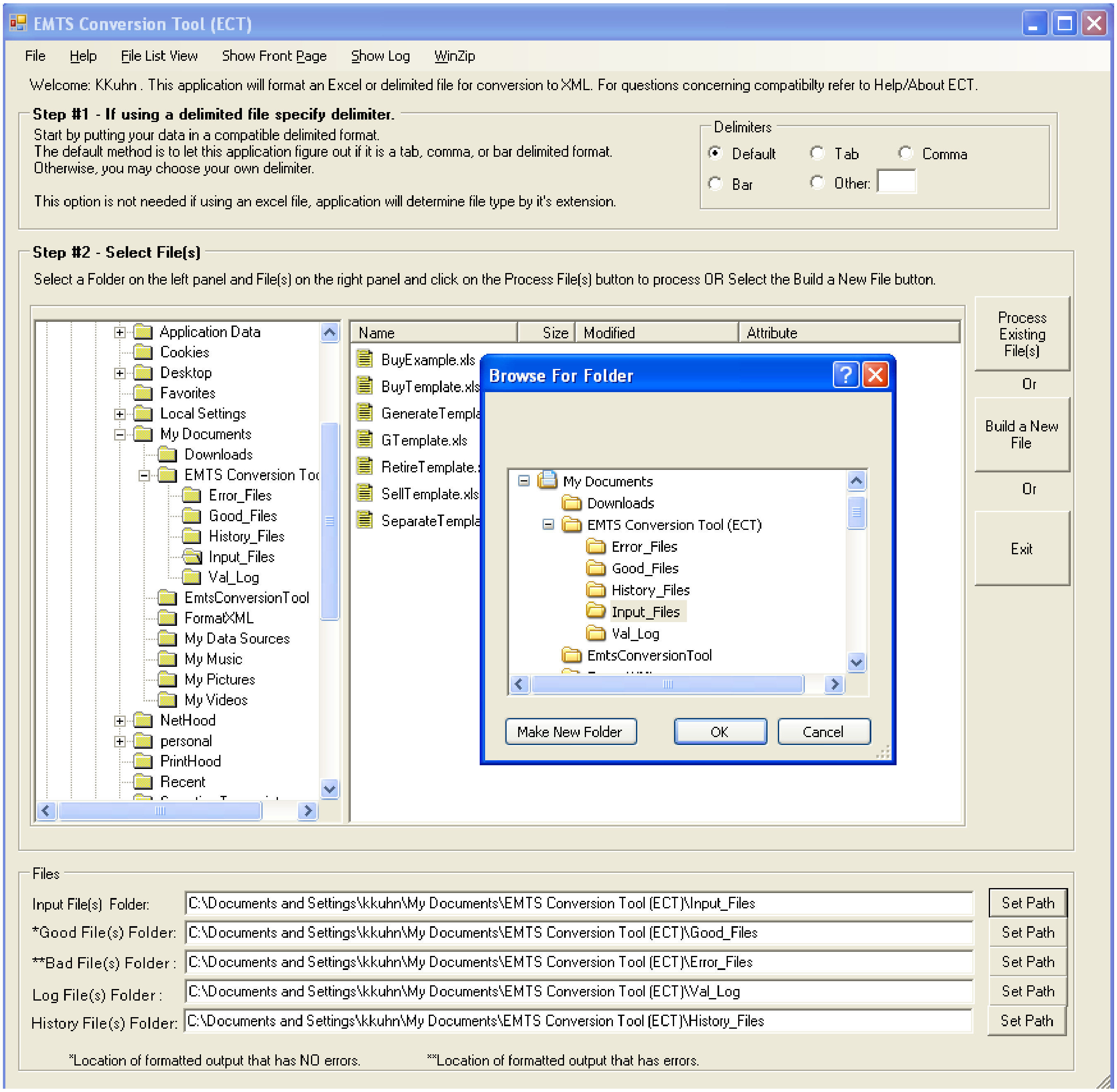
Figure 2-12 shows the File Selection Screen with the ECT folders indicated. The folders in this example are the default folders.

Figure 2-12: Location of the ECT Folders



Any of the default folders can be changed by clicking on the appropriate "Set Path" button. This will prompt the user to browse any permitted drive on the user's network to find and select the appropriate folder that will be set up for processing, as indicated in Figure 2-13.

Figure 2-13: Folder Set-up Screen



2.4.2 Folder: Files to Process Folder

The first folder, entitled "Input File(s) Folder," is where the input files should be stored. You cannot process files that are not saved in this folder.

2.4.3 Folder: Good File(s) Path

The second folder, entitled "Good File(s) Path," is where the files that the ECT was successful in processing and converting will be saved. These files have been converted to XML and checked for any major input errors (e.g., missing required fields) and deemed acceptable. The user can upload these converted files to the EMTS.

2.4.4 Folder: Bad File(s) Path

The "Bad File(s) Path" is where the ECT will save any files that the user has attempted to process that have some sort of major error and cannot be converted. Only data that has no major errors will be converted to XML and saved in this folder; all data with errors will not be converted to XML. The user can then use the comments provided by the ECT to amend the input file for re-processing.

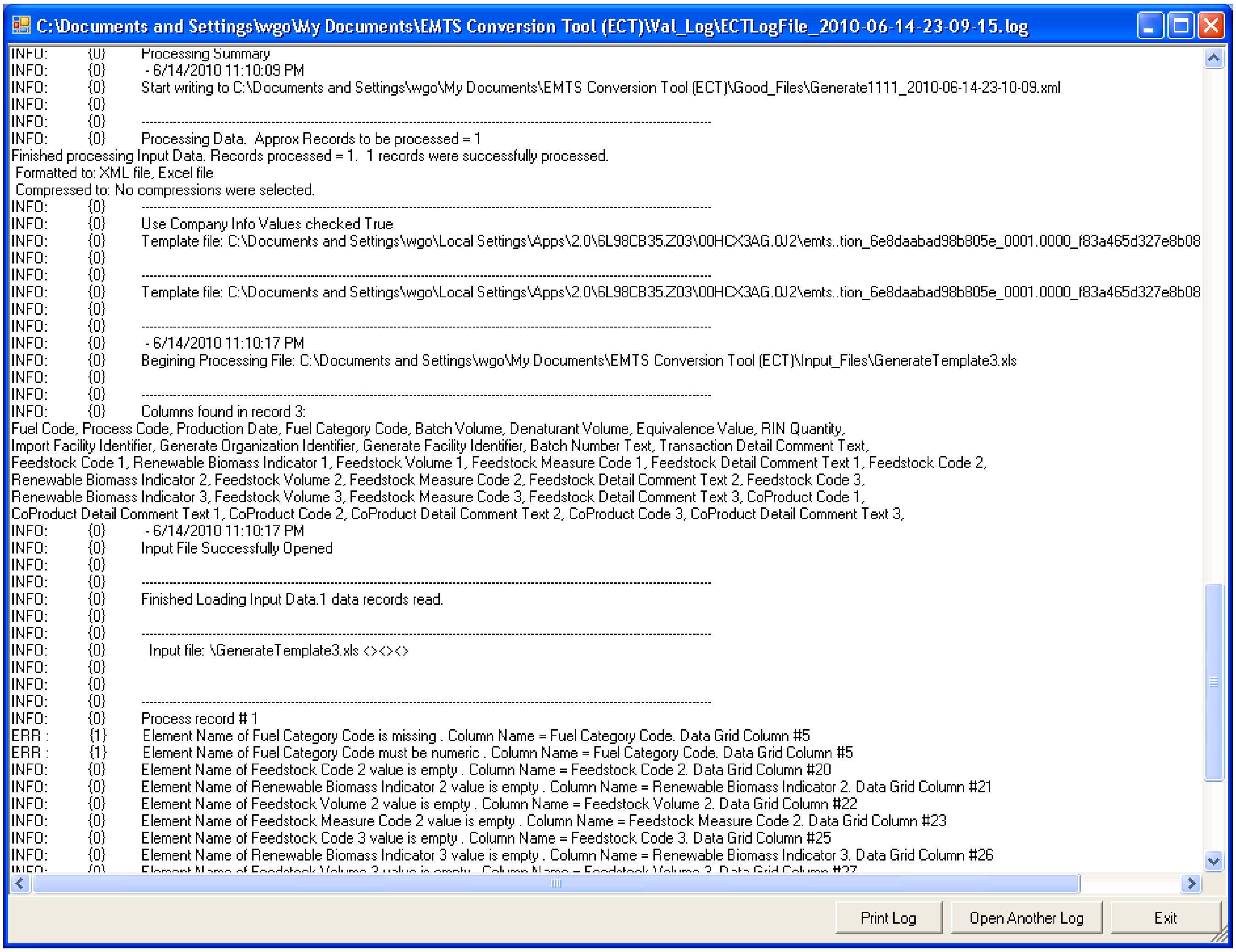
2.4.5 Folder: History File(s) Path

The "History File(s) Path" is where the ECT will save data from a Build a File execution. If a user creates an XML file using the ECT Build a File option that subsequently fails in EMTS, there will be an excel version of the data file in the "History File(s) Path" that the user can upload in the ECT and edit.

2.4.6 Folder: Log File(s) Path

The "Log File(s) Path" folder will contain a log that details all of the successful and unsuccessful conversions. The log captures the date, time, file that is being processed, and the outcome of the process. Figure 2-14 displays a sample log file.

Figure 2-14: ECT Log



The user can access the log by going through the C: drive to My Documents folder selecting the "EMTS Conversion Tool (ECT)" folder and then accessing the "val_log" folder. Additionally, the user can access the log under "Show Log" on the toolbar of the ECT at any point of the process (see Figures 2-15 and 2-16).

Figure 2-15: "Show Log" Function on the File Selection Screen

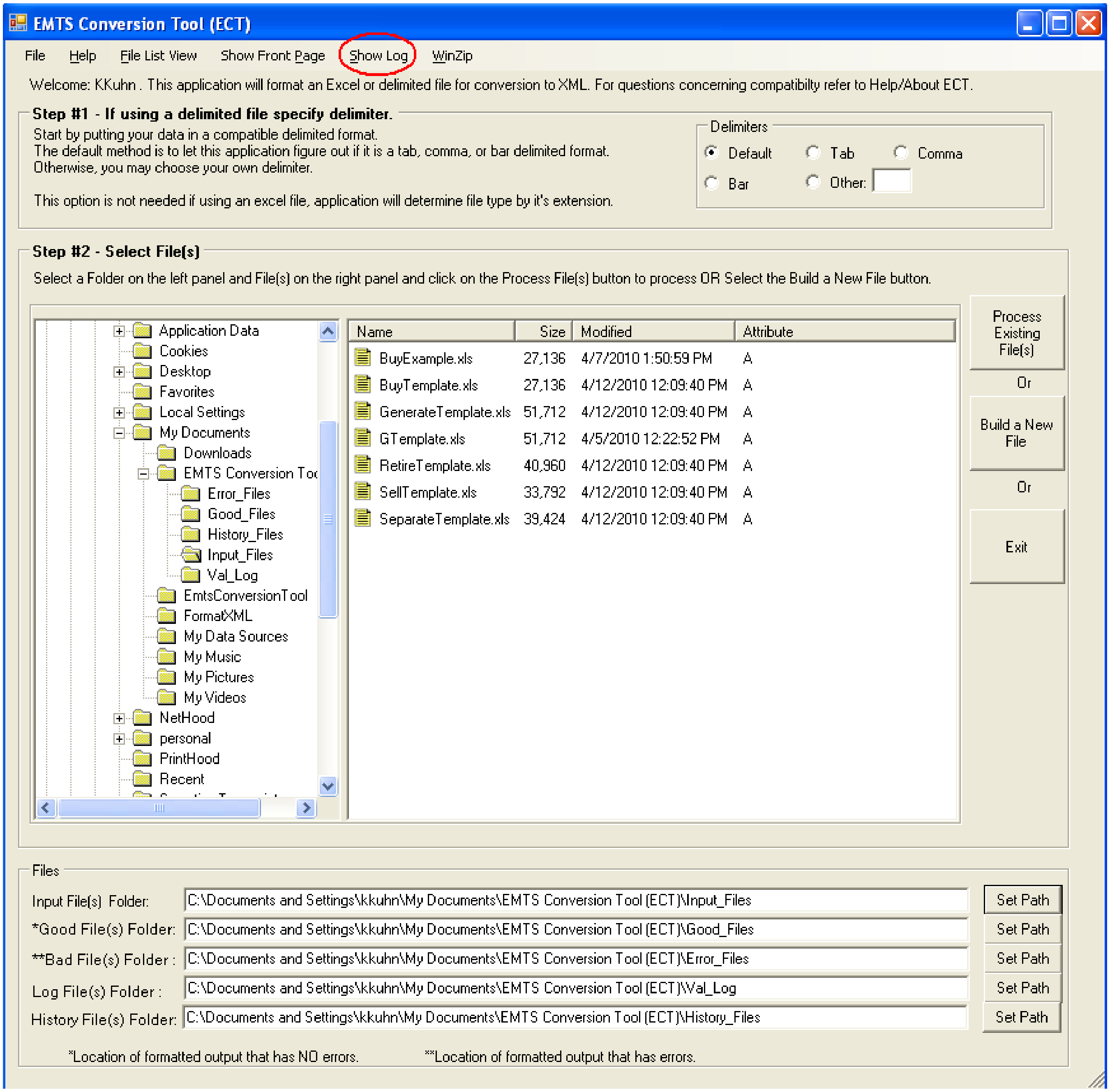
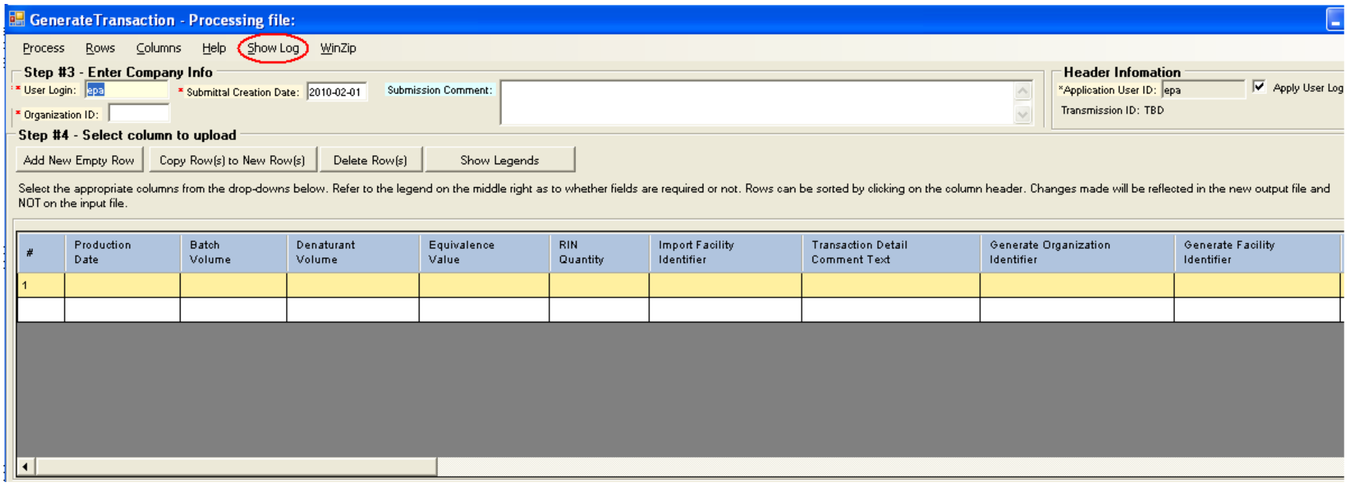


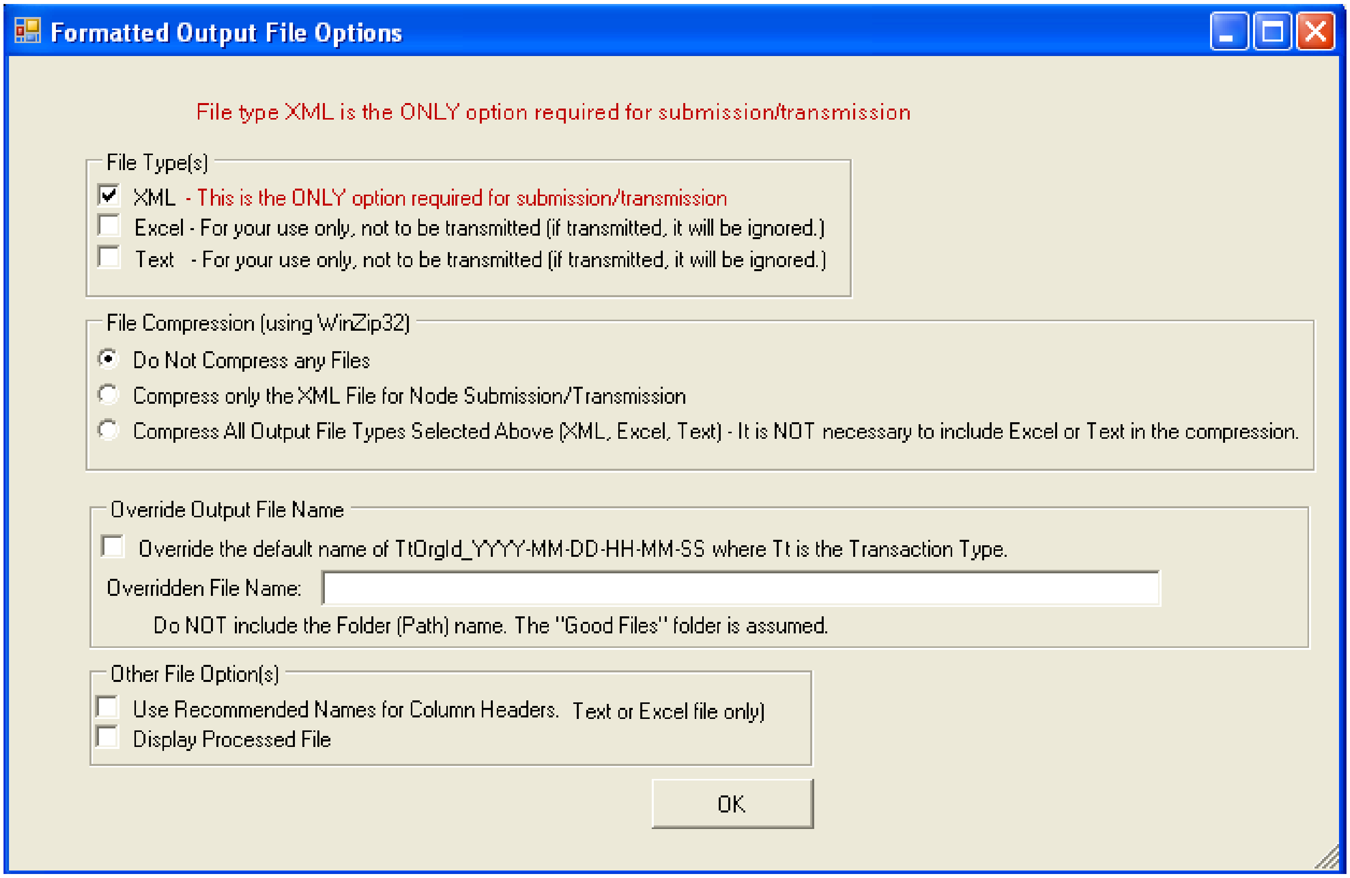
Figure 2-16: "Show Log" Function on the Processing Screen



2.5 Setting File Options

To set various output file options, click the "Output File Options" button on the File Processing screen (see Figure 2-17).

Figure 2-17: Output File Options Screen



Most options chosen and set by the user are saved between application executions. Those choices that are NOT saved will be noted; otherwise, the user can assume that all the settings will be saved. This includes the override output file name; if the user does not return to this screen and enter a new name for each file being processed, the file name previously entered by the user will be used for all files.

Section 3: Uninstalling the Conversion Tool

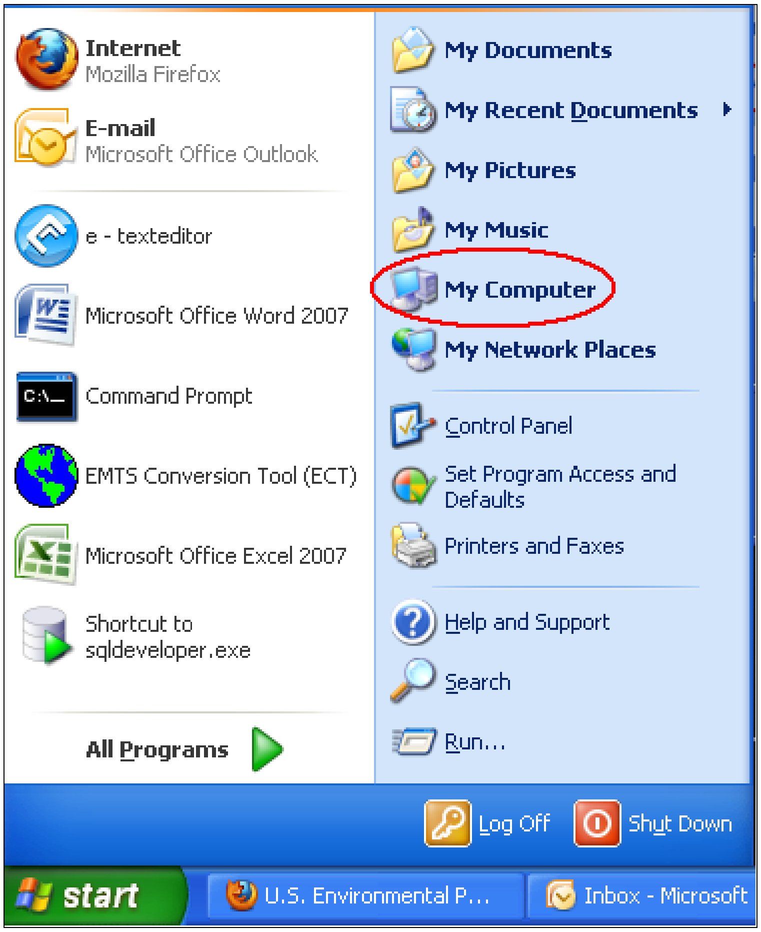
This guide will discuss how to uninstall the EMTS Conversion Tool (ECT). If a version of the Conversion Tool is already installed, the user must uninstall the existing version of the Tool before installing a new version.

Prior to installing the new version it is recommended that the user save a backup of the current version. If the ECT fails to completely uninstall, the new install will fail. Reinstalling the saved version, and then uninstalling again, will often fix this.

Please note that the user must completely exit the ECT application before attempting to uninstall the tool. If the user has not completely exited the tool (i.e., if there are still processing screens up), the tool will not completely uninstall even though the tool no longer appears in the "Add or Remove Programs" panel. In order to correct this, the user must re-install the version that was being used and uninstall it properly, as noted in the previous paragraph.

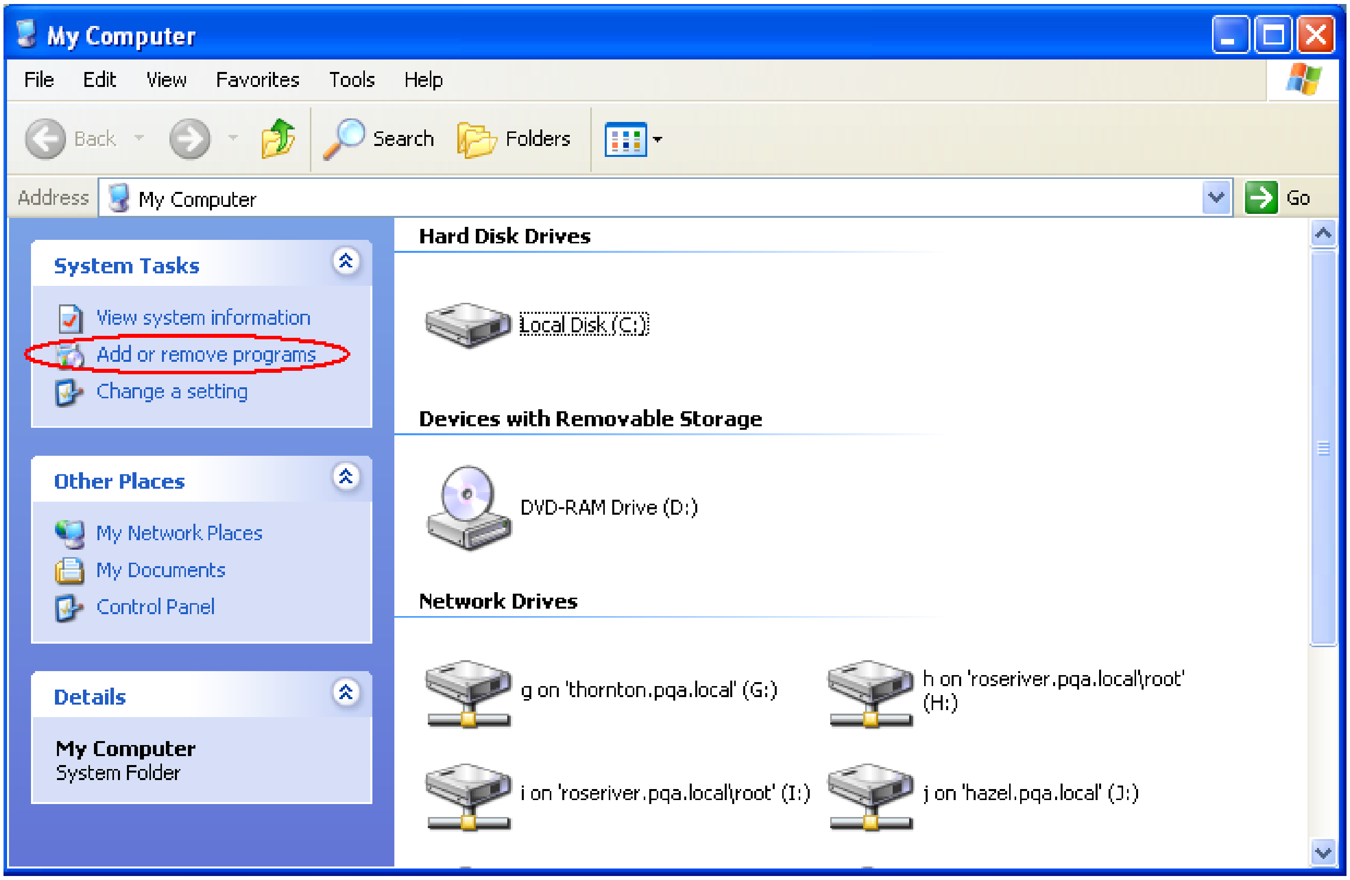
To begin uninstalling an existing version of the ECT, the user should access the "My Computer" link available on the Start Menu (see Figure 3-1).

Figure 3-1: "My Computer" link



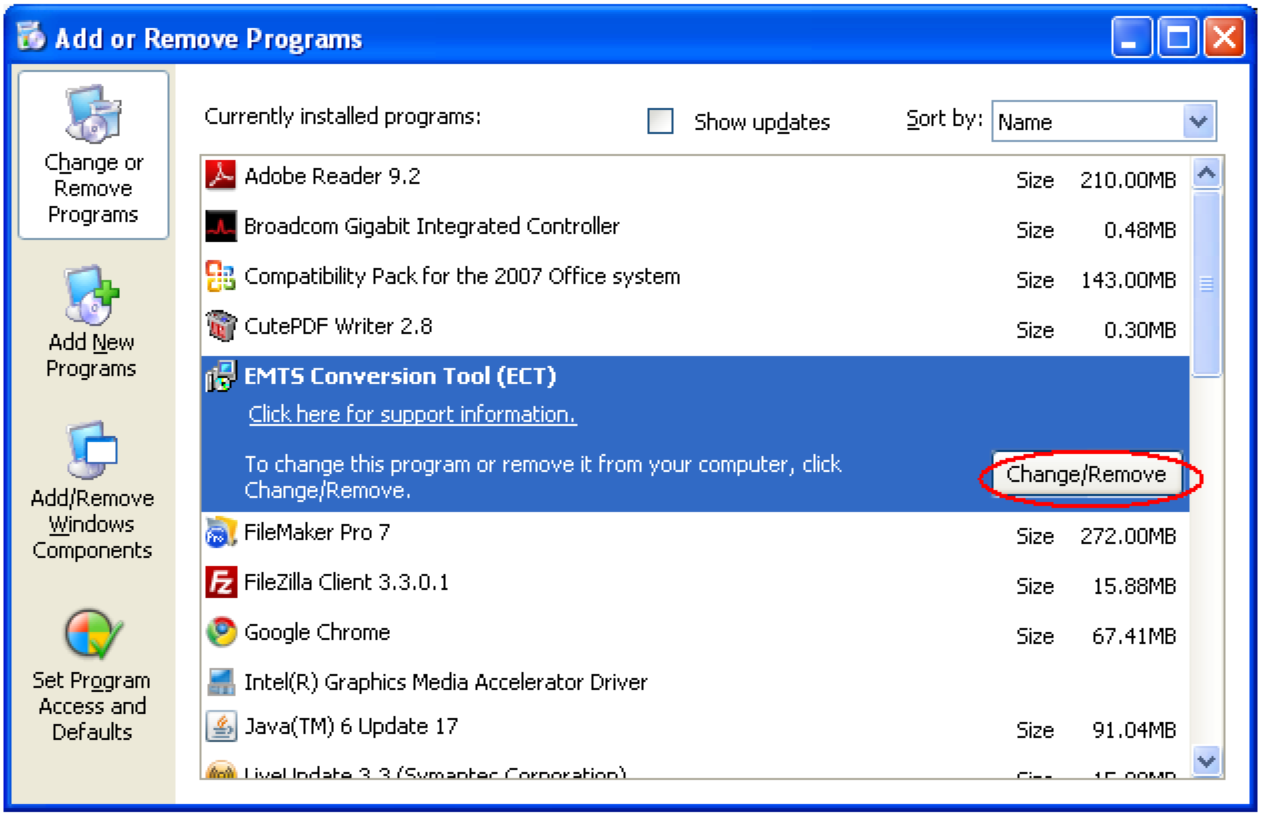
From "My Computer", the user should look under the "System Tasks" tab on the left side of the window and select "Add or remove programs" (see Figure 3-2).

Figure 3-2: "My Computer" Location



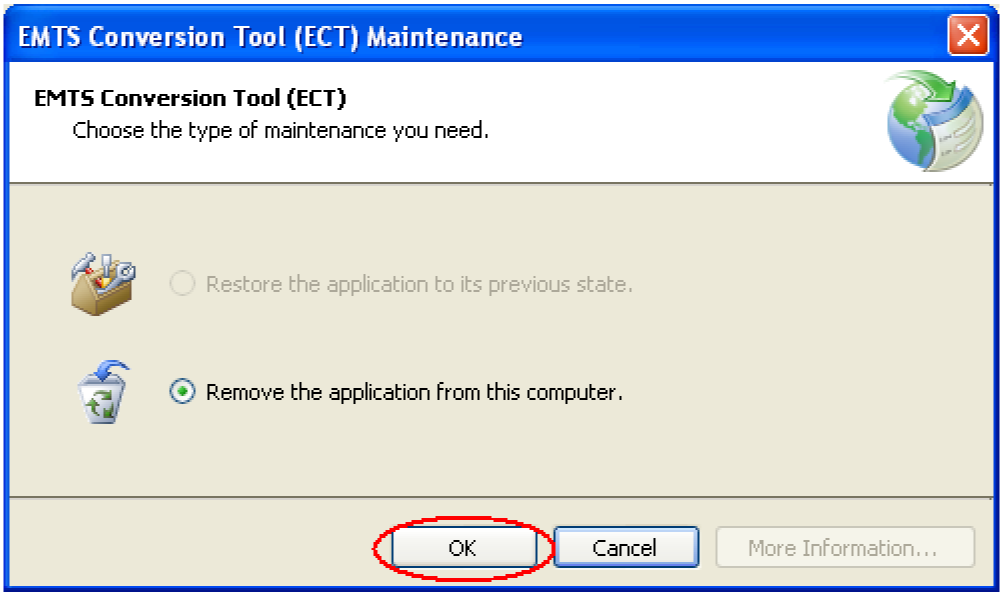
On the "Add or Remove Programs" window shown in Figure 3-3, the user should click on the record for the EMTS Conversion Tool (ECT) and then press the "Change/Remove" button within the record.

Figure 3-3: "Add or Remove Programs" Window



The resulting screen (see Figure 3-4) prompts the user to "remove the application from this computer" by clicking "OK". Doing so successfully uninstalls the EMTS Conversion Tool.

Figure 3-4: "EMTS Conversion Tool (ECT) Maintenance" Window



Note that uninstalling the ECT will not remove the "WRITE" folder or its contents, located by default at:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)

For instructions on changing the location of the "WRITE" folder, please see Section 2 "Installing and Setting Up the Conversion Tool".

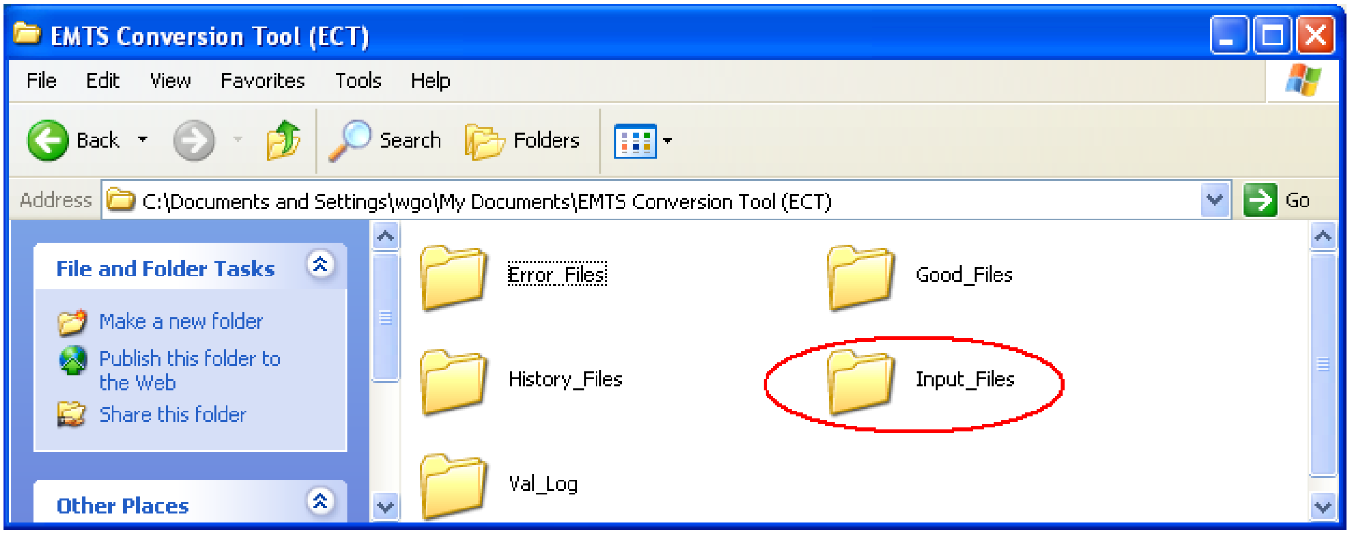
Section 4: Running the Basic Conversion Tool

Prior to starting the ECT, the user should place the input files "Input_Files" folder. By default, this folder is:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Input_Files

Figure 4-1 depicts this folder for a user "wgo". The "Input_Files" folder has been circled. See the guide "Installing and Setting Up the Conversion Tool" for instructions on changing the location of the "Input_Files" folder. Note that the extension for all Excel files saved in this folder should be .xls rather than .xlsx (the default for Excel 2007).

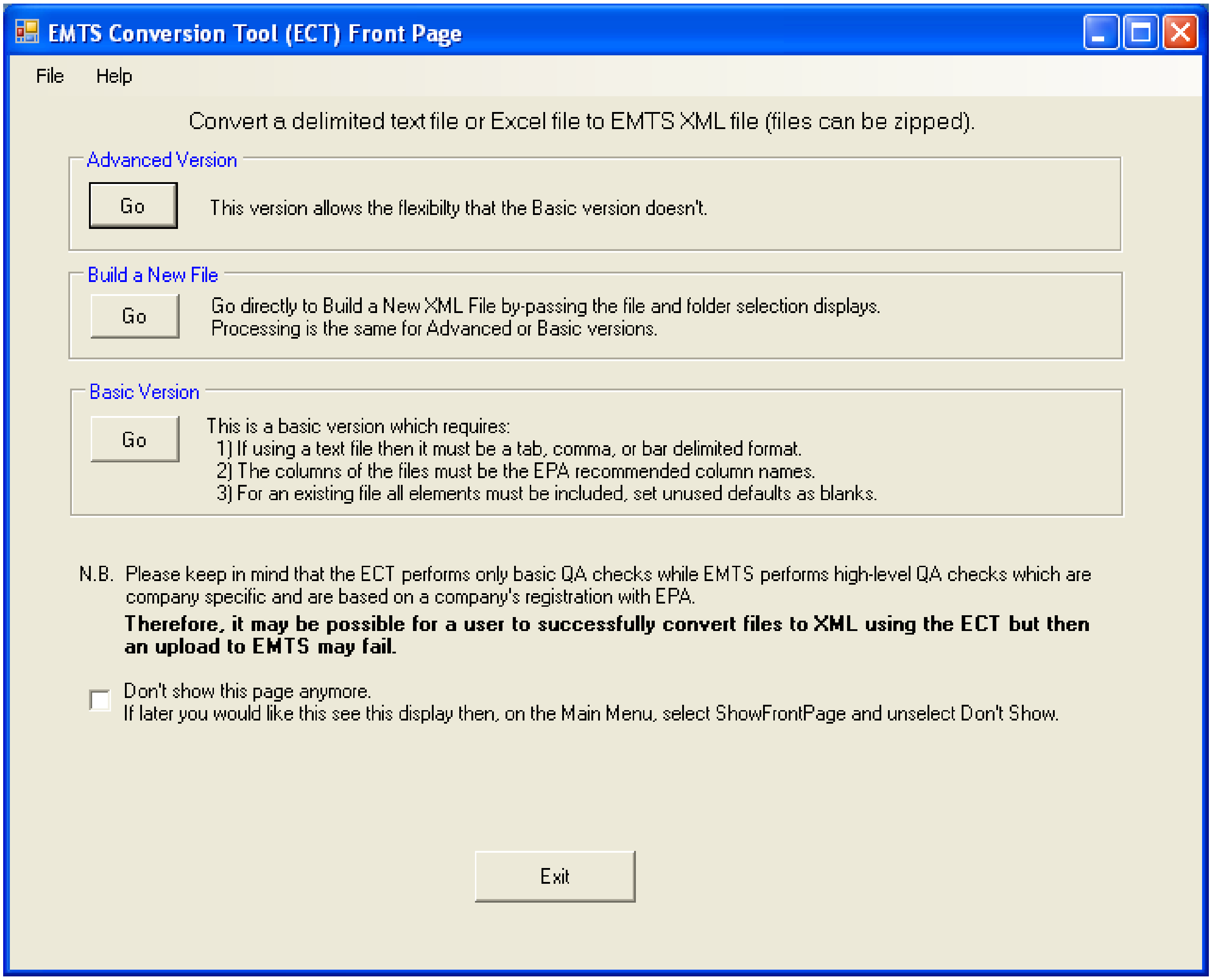
Figure 4-1: EMTS Conversion Tool Input File Directory



4.1 Opening the Basic ECT

The ECT can be opened from the Start Menu. Upon starting the ECT, the start-up screen is displayed (see Figure 4-2).

Figure 4-2: Start-up Screen

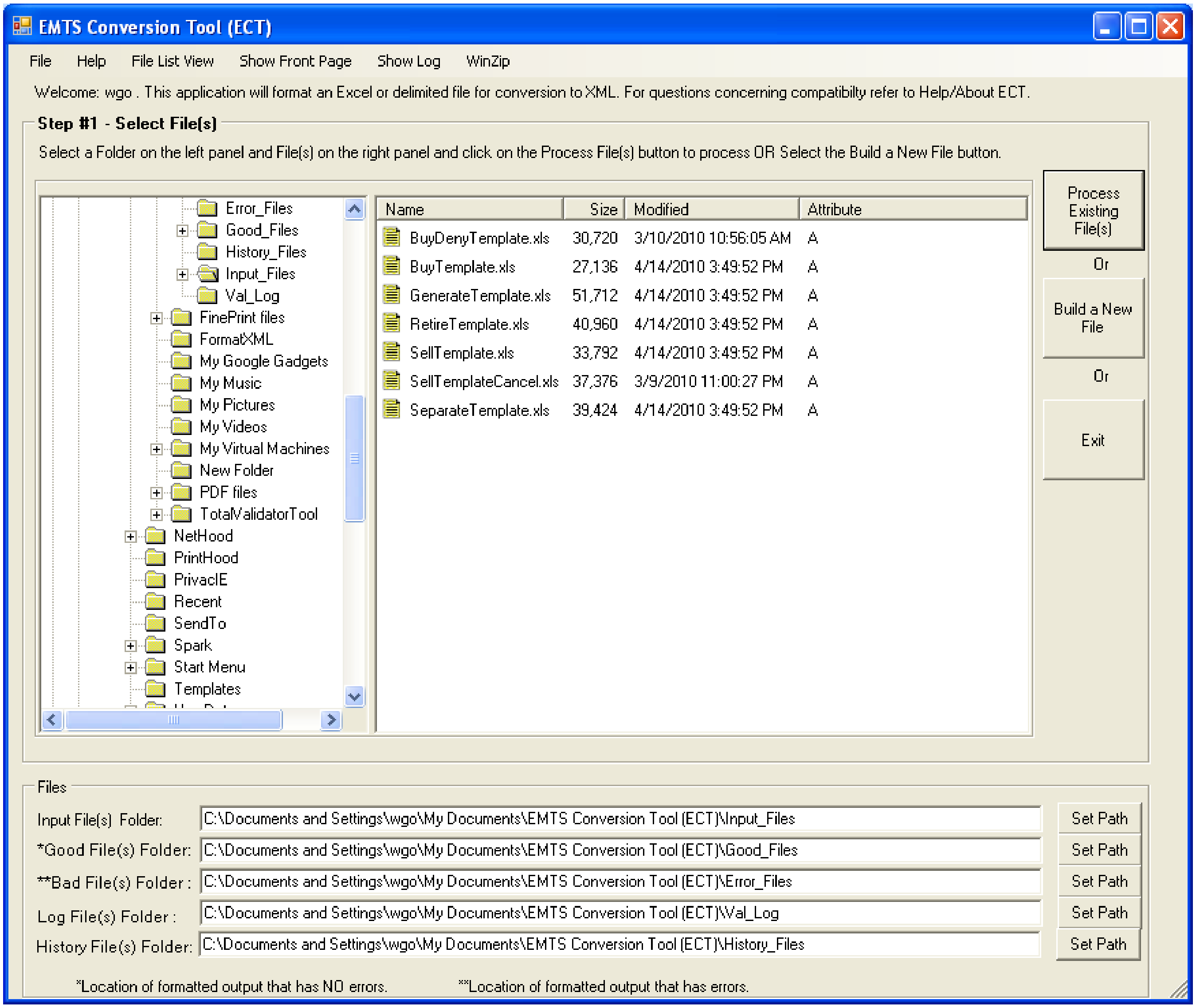


On the start-up screen, the user has the option to click the checkbox beside "Don't show this page anymore". This will cause the ECT to skip the start-up screen and open on the File Selection screen of the version (Basic or Advanced) previously selected. To start the Basic version, click the "Go" button under "Basic Version".

4.2 Selecting Files

After clicking the "Go" button, the File Selection Screen appears (see Figure 4-3).

Figure 4-3: File Selection Screen



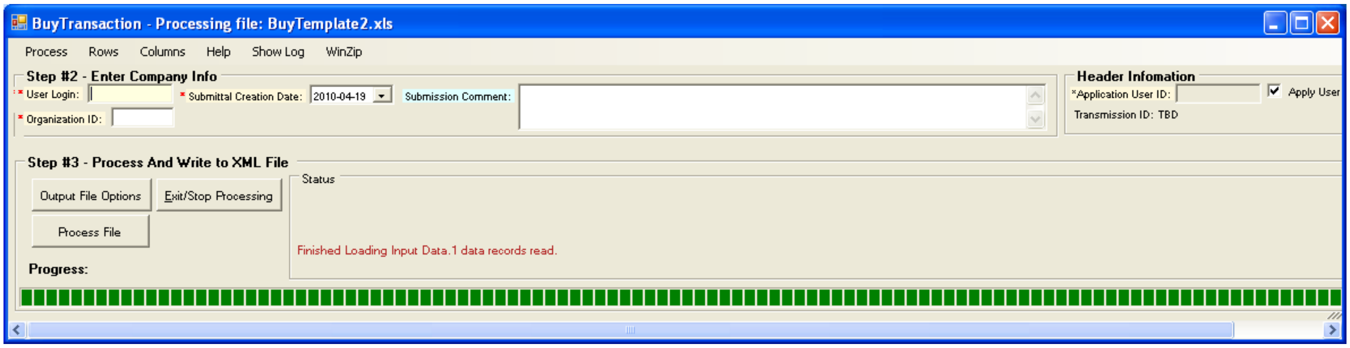
The user should select the desired file(s) and click the "Process Existing File(s)" button, or click the "Build a New File" button without selecting any files. To select multiple files, the user should press "Ctrl" on the keyboard and click on all of the files to be processed. If the file name contains the transaction type, the ECT will assume that the named transaction type is the type to process and will go immediately to the File Processing screen (Figure 4-4) when "Process Existing File(s)" is clicked. If the transaction type is not contained in the file name, the user will be asked to specify the transaction type (see Figure 4-8).

4.3 Processing Files

The File Processing screen is depicted in Figure 4-4. First, the user should complete Step #2, "Enter Company Info". The required company information includes:

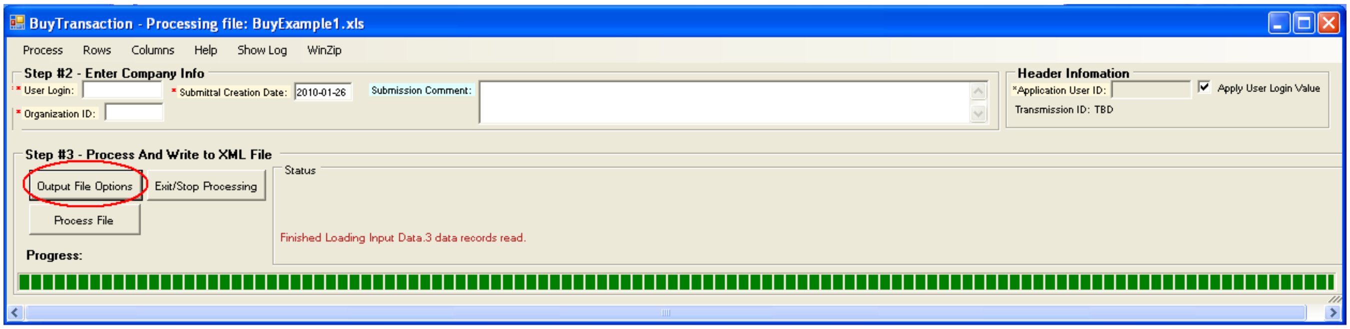
- User Login (case sensitive and must be the same as the EMTS login);
- Organization ID (EPA assigned, four-digit ID); and
- Submittal Creation Date.

Figure 4-4: File Processing Screen



The ECT uses the following default settings when processing files: the output file is an uncompressed XML file, and the output file name is formatted as "TtOrgId_YYYY-MM-DD-HH-MM-SS" where "Tt" is the transaction type (i.e., Generate) and "OrgId" is the four-digit ID entered in the "Organization ID" field. To change these default settings, the user should click the "Output File Options" button (see Figure 4-5).

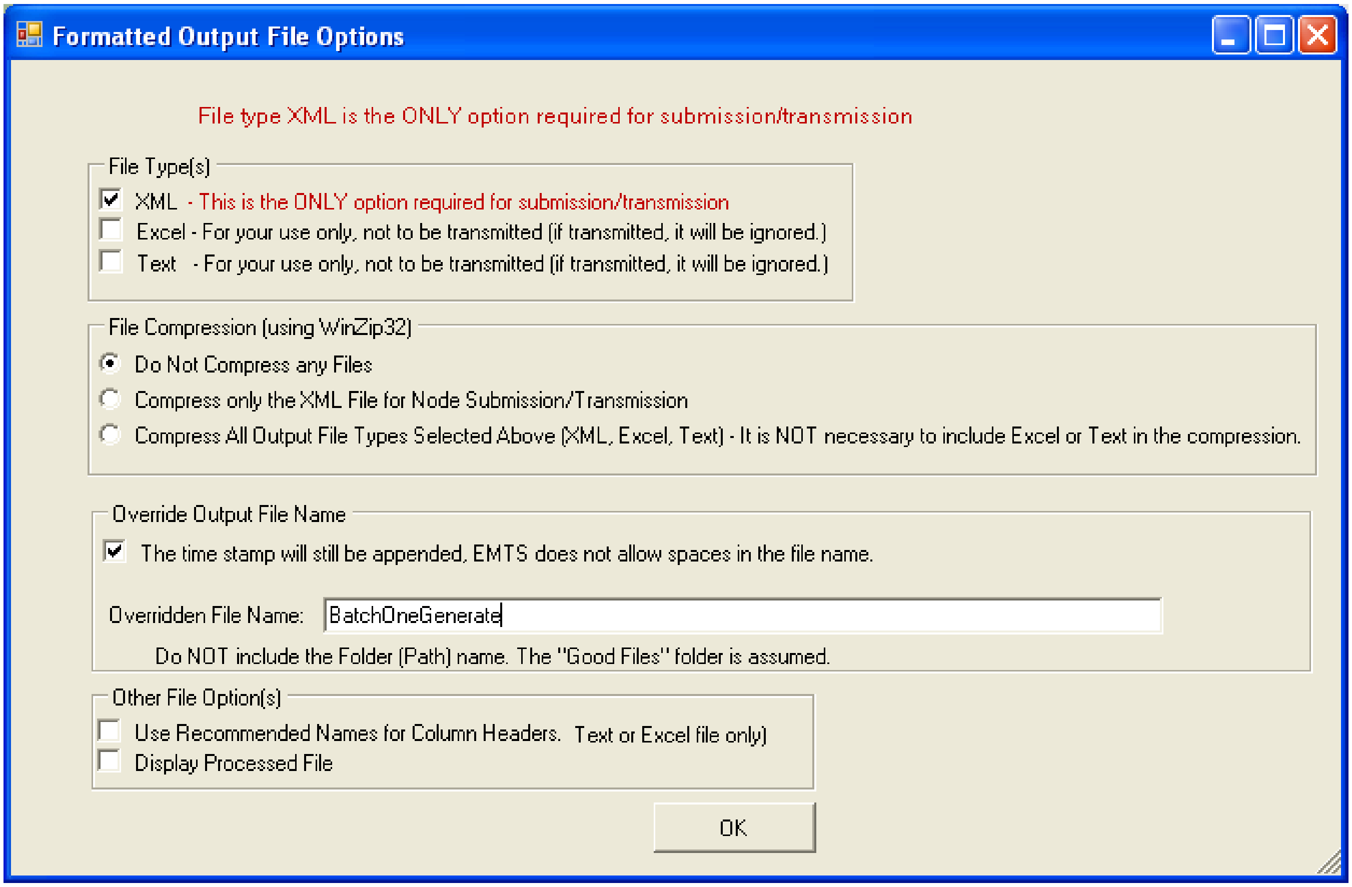
Figure 4-5: "Output File Options" Button



On the Formatted Output File Options screen (see Figure 4-6), the user can specify the output file type, compression, and file name. To specify the file name, the user should check the checkbox to override the default name and then enter a new file name. The ECT automatically appends the date and timestamp of the file being processed to the end of the new file name. Once a user updates the Formatted Output File

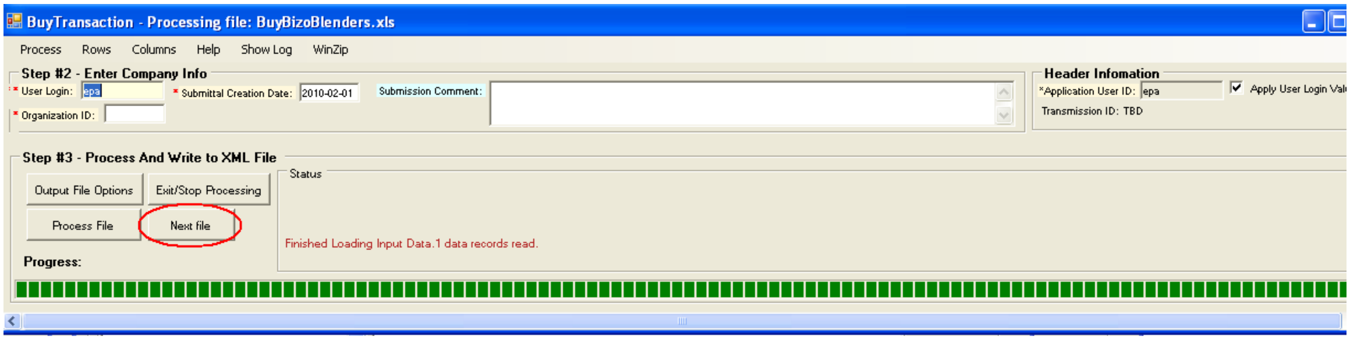
Options screen, the updates become the default setting for subsequent file conversions and remain so until the user goes back to the Formatted Output File Options screen and changes the settings.

Figure 4-6: Formatted Output File Options Screen



After specifying the output file options, the user should click the "Process File" button. Note that if multiple files have been selected for processing, only one file is processed at a time. In this case, a "Next file" button will be visible next to the "Process File" button (see Figure 4-7). The user should first click the "Process File" button, verify that the file processes successfully (see the Results of File Processing section in this guide), and then press the "Next file" button.

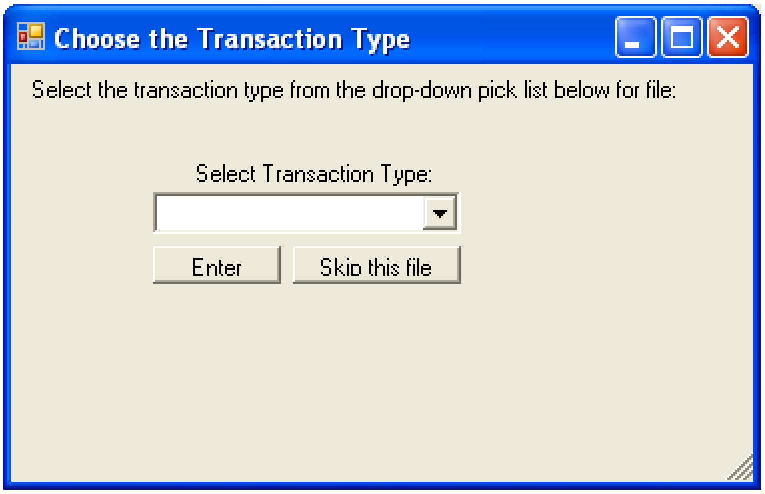
Figure 4-7: "Next file" Button



4.4 Creating New Files

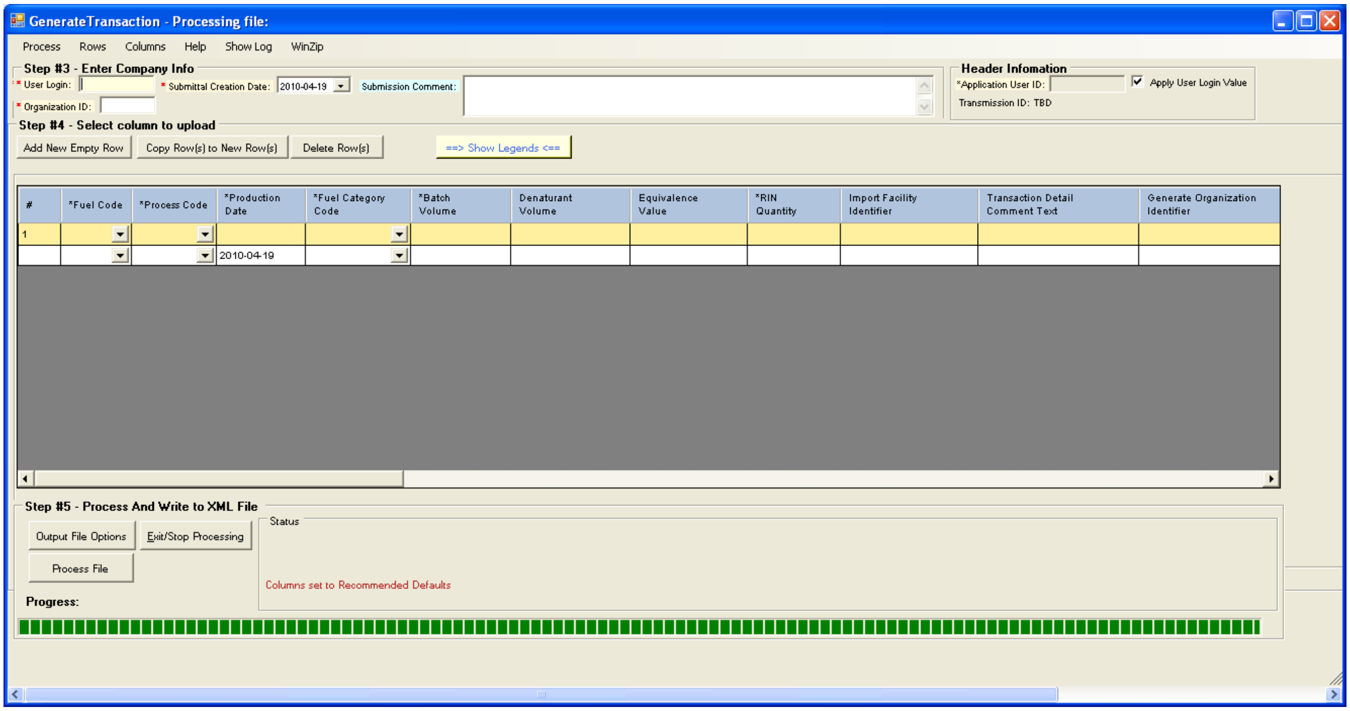
If the "Build a New File" button is clicked on the Start-up Screen (see Figure 4-2) or the File Selection Screen (see Figure 4-3), a screen will appear asking the user to specify the transaction type (see Figure 4-8). Note that the user can also click on the “Build a New File” button that is available on the start-up screen (see Figure 4-2).

Figure 4-8: Selecting the Transaction Type



Once the user selects the transaction type and clicks "Enter," the File Processing screen appears (Figure 4-9).

Figure 4-9: File Processing Screen



First, the user should complete Step #3, "Enter Company Info". The required company information includes:

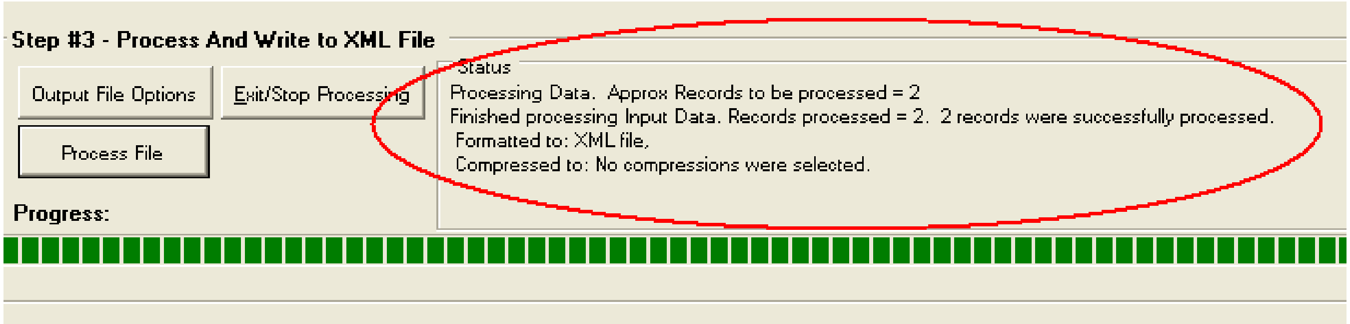
- User Login (case sensitive and must be the same as the EMTS login);
- Organization ID (EPA assigned, four-digit ID); and
- Submittal Creation Date.

Under the "Enter Company Info" section, a data grid is displayed. The user should enter the transaction data in the grid and click the "Process File" button.

4.5 Results of Processing

If processing is successful, the screen will display a message that reads "Records were successfully processed. Formatted to: XML file" (see Figure 4-10).

Figure 4-10: A Successfully Processed File

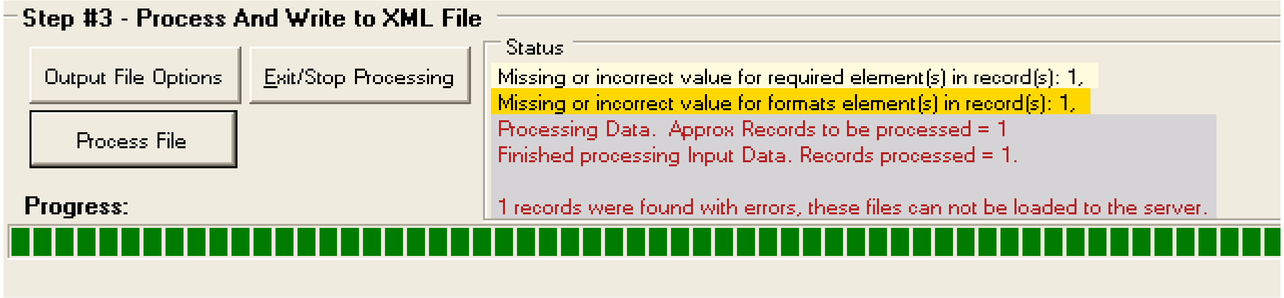


Upon successful processing, the output XML file is written to the following directory:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Good_Files

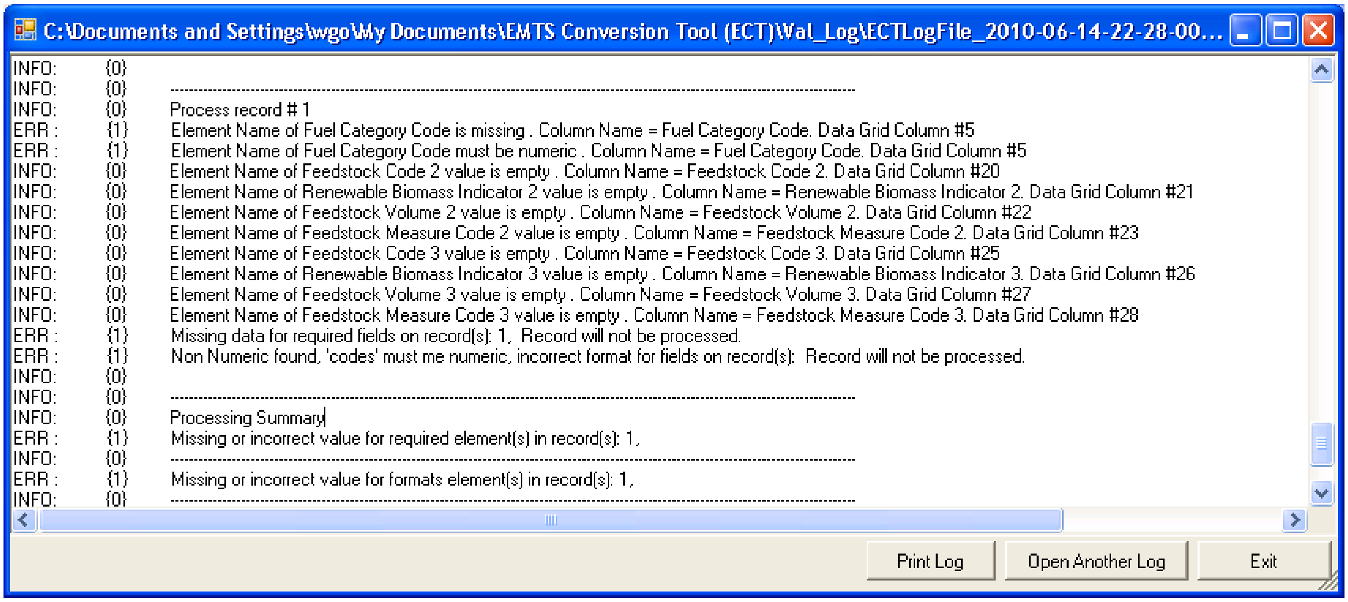
If processing is not successful, the screen will display a message that includes, "Missing or incorrect value for required element(s) in record(s):<…>,". Figure 4-11 depicts an example of this. If the user had previously selected the "Build a New File" option, a data grid will be visible and the appropriate cell(s) in this grid will change color to indicate where the error has occurred.

Figure 4-11: An Unsuccessfully Processed File



The ECT maintains a log file, which can be used to view additional descriptions of the errors if processing is unsuccessful. Clicking the "Show Log" button at the top of the File Processing screen displays the log file in the log viewer (see Figure 4-12). The log displays both informational messages (indicated by a label of "INFO" at the beginning of a row) and error messages (indicated by a label of "ERROR" at the beginning of a row). The log viewer includes buttons which allow the user to print the log and to select another log file for viewing. Clicking "Exit" closes the log viewer.

Figure 4-12: Errors Reported in Log File



If a selected input file is not successfully processed, the ECT will still attempt to create an output XML file. This file will be located in the following directory:

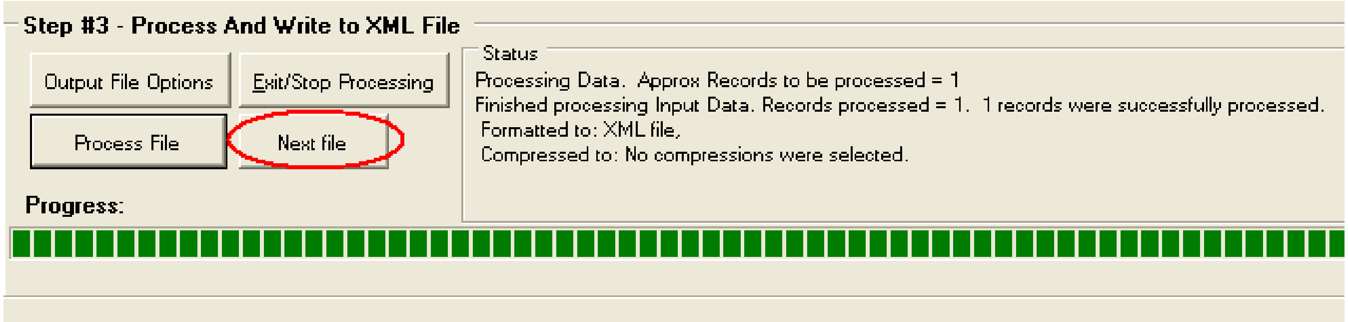
C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Error_Files

Only the data rows with no errors will be written to the output file. All data rows that contain errors will not be converted to XML.

4.6 Processing Multiple Files

If multiple files were selected for processing and the user wishes to process the next file in the batch, the user should click "Next file," as indicated in Figure 4-13. Before processing the next file, the user will have to re-enter the Organization ID and the Submittal Creation Date. Note that the "Next file" button will be present for all files except the last one in the batch.

Figure 4-13: Processing Next File



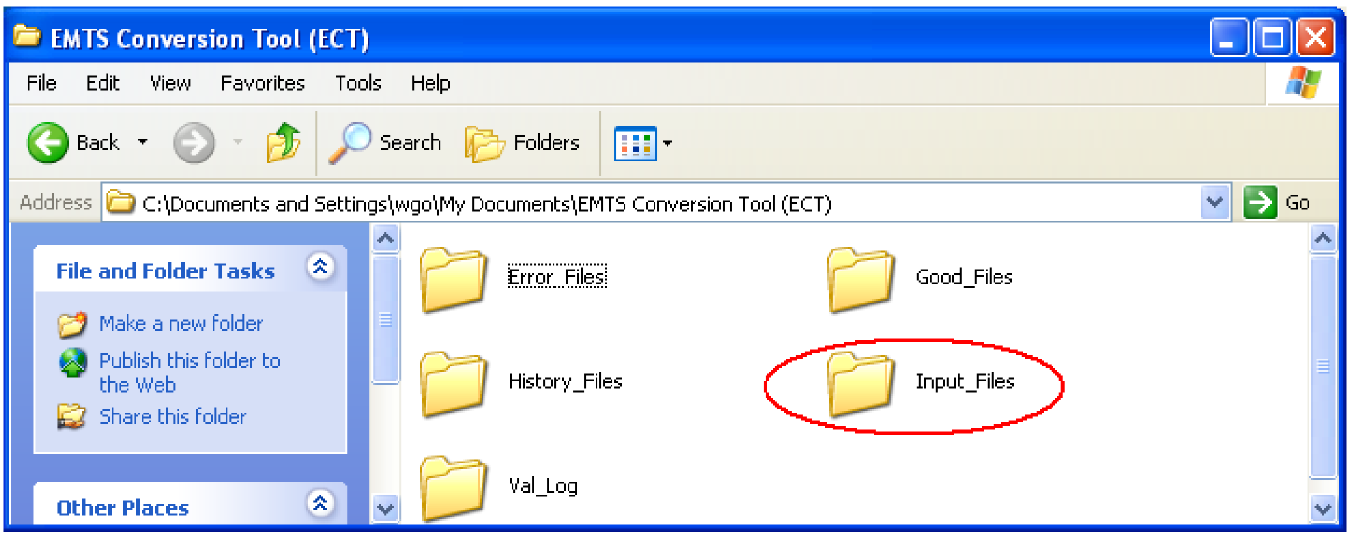
Section 5: Running the Advanced Conversion Tool

Prior to starting the ECT, the user should place the input files "Input_Files" folder. By default, this folder is:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Input_Files

Figure 5-1 depicts this folder for a user "wgo". The "Input_Files" folder has been circled. See the guide "Installing and Setting Up the Conversion Tool" for instructions on changing the location of the "Input_Files" folder. Note that the extension for all Excel files saved in this folder should be .xls rather than .xlsx (the default for Excel 2007).

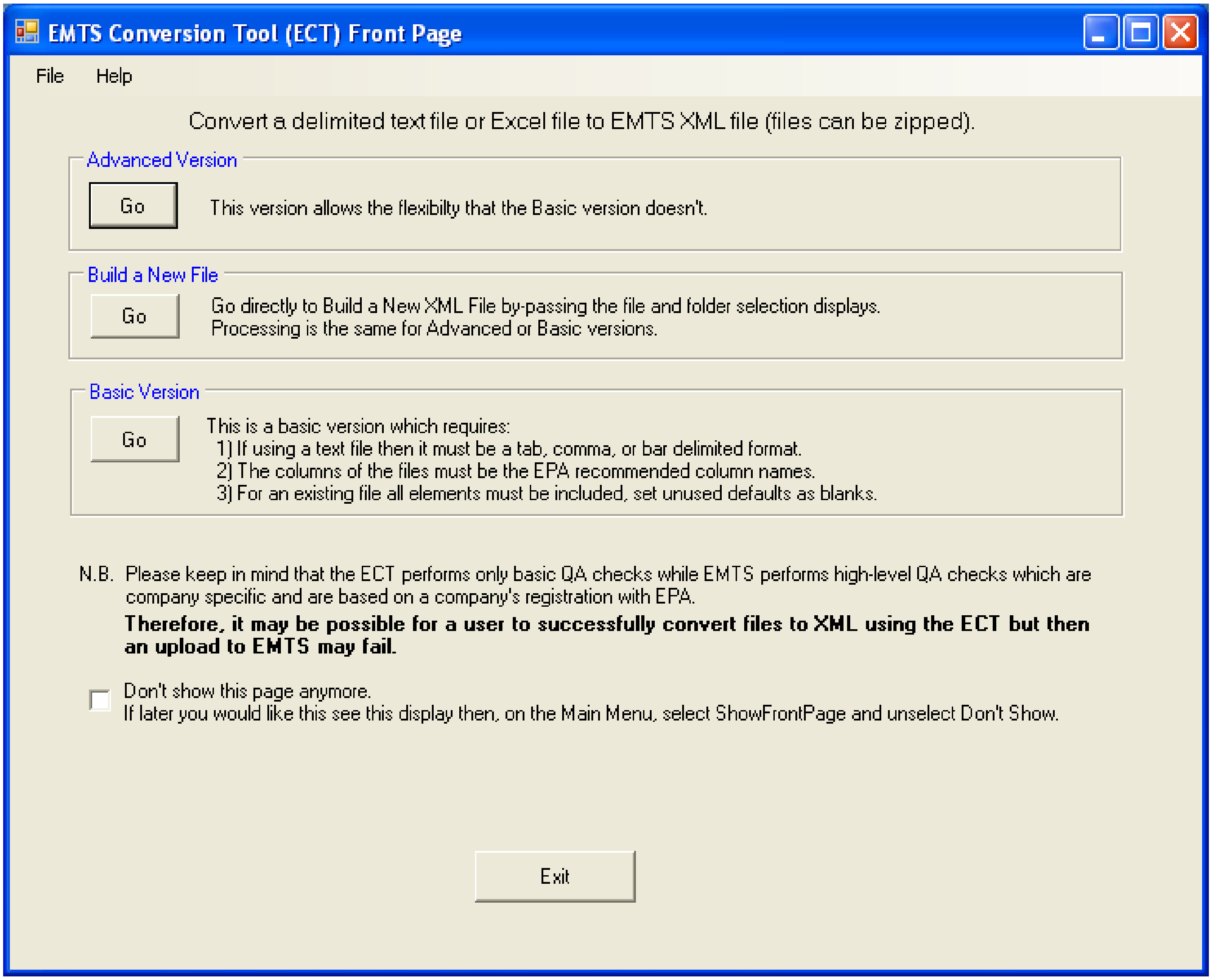
Figure 5-1: EMTS Conversion Tool Input File Directory



5.1 Opening the Advanced ECT

The ECT can be opened from the Start Menu. Upon starting the ECT, the start-up screen is displayed (see Figure 5-2).

Figure 5-2: Start-up Screen

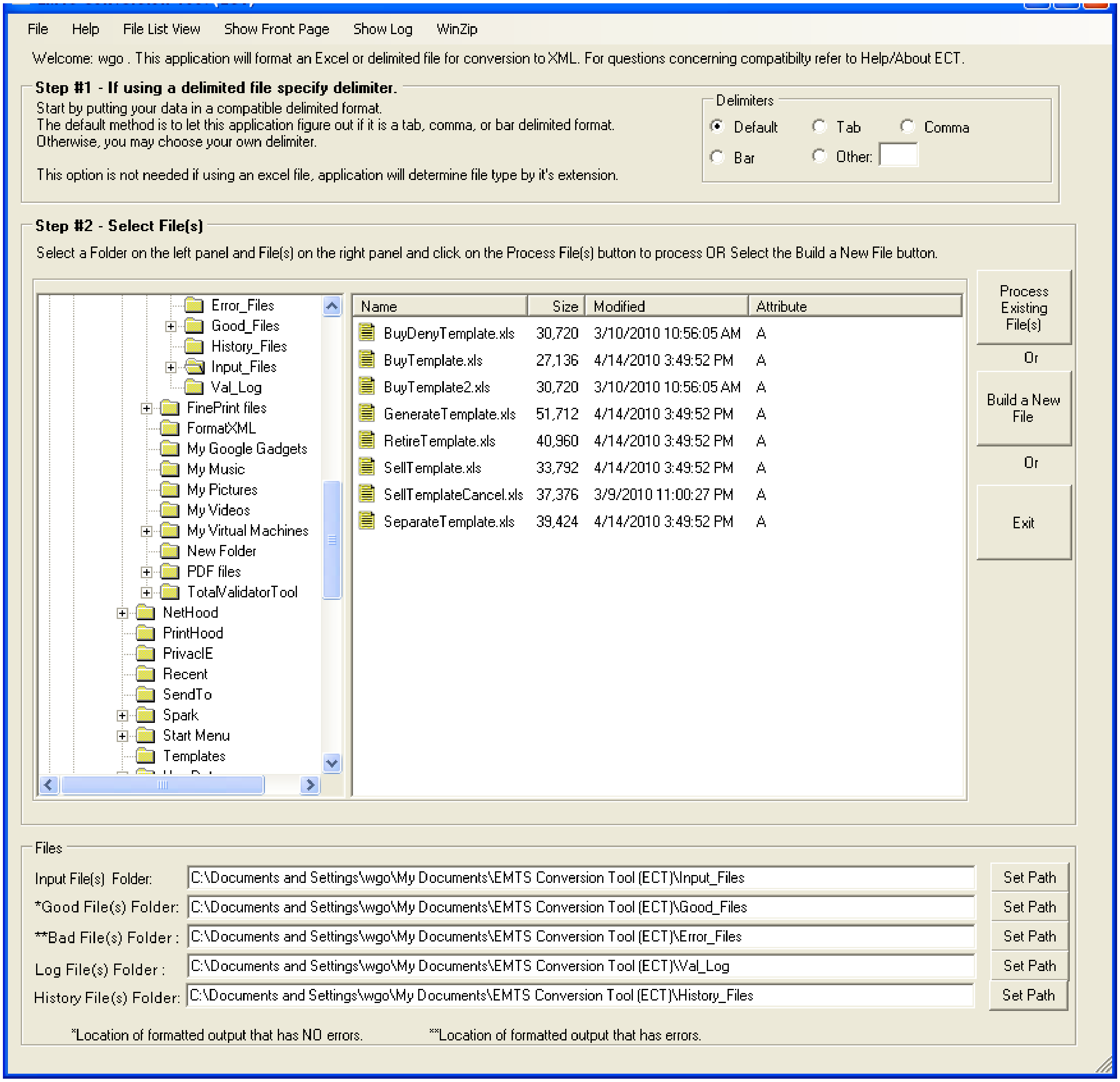


On the start-up screen, the user has the option to click the checkbox beside "Don't show this page anymore." This will cause the ECT to skip the start-up screen and open on the File Selection screen of the version (Basic or Advanced) previously selected. To start the Advanced version, click the "Go" button under "Advanced Version".

5.2 Selecting Files

After clicking the "Go" button, the File Selection Screen appears (see Figure 5-3).

Figure 5-3: File Selection Screen



The user should select the desired file(s) and click the "Process Existing File(s)" button, or click the "Build a New File" button without selecting any files. To select multiple input files, the user should press "Ctrl" on the keyboard and click on all of the files to be processed. The input files must be either Excel files or text files. If a text file is used as input, the delimiter should be specified (see "Step #1" in Figure 5-3 above). If the file name contains the transaction type, the ECT will assume that the named transaction type is the type to process and will go immediately to the File Processing Screen (Figure 5-4) when "Process Existing

File(s)" is clicked. If the transaction type is not contained in the file name, the user will be asked to specify the transaction type (see Figure 5-16).

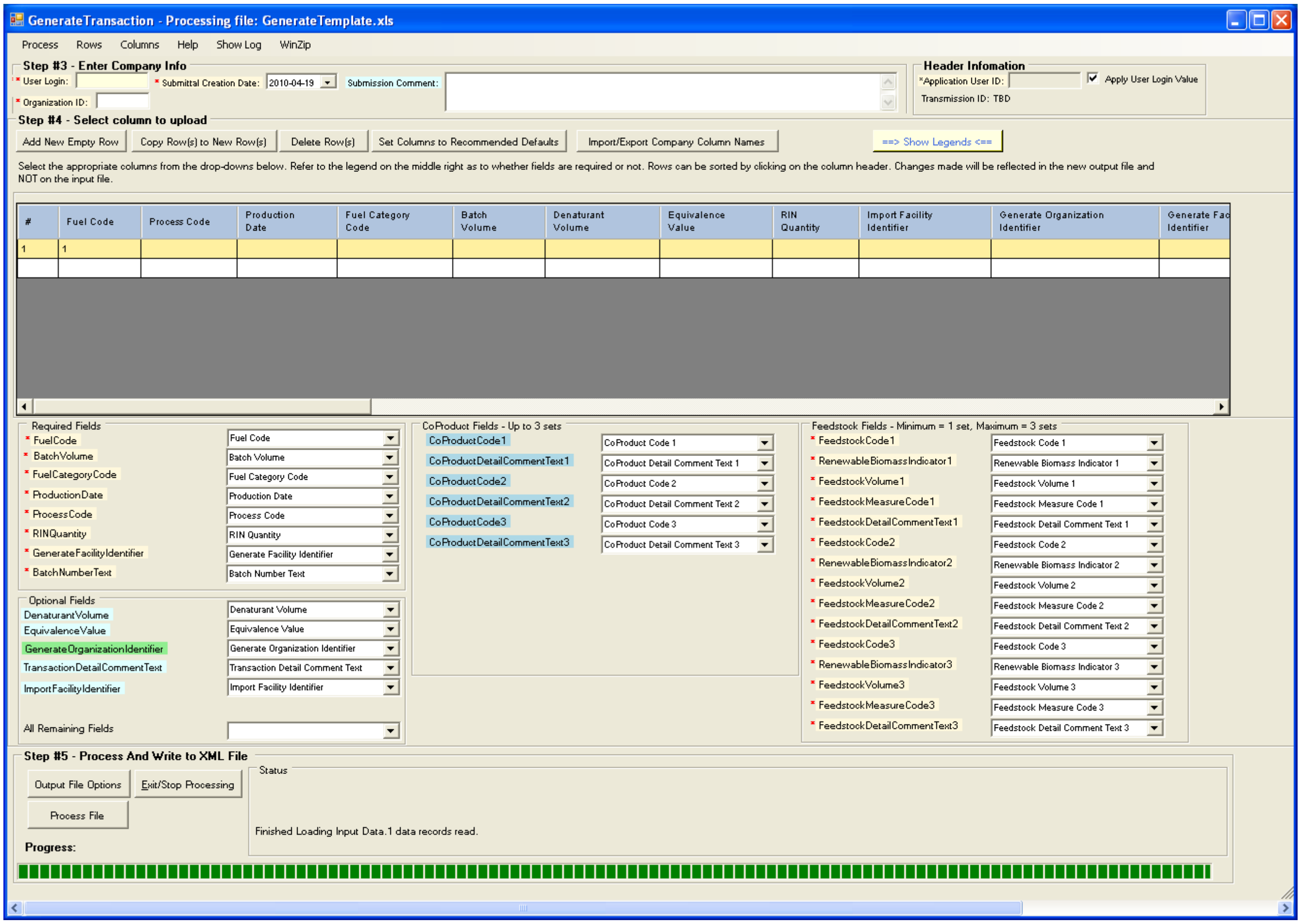
5.3 Processing Files

The File Processing Screen is depicted in Figure 5-4. First, the user should complete Step #3, "Enter Company Info". The required company information includes:

- User Login (case sensitive and must be the same as the EMTS login);
- Organization ID (EPA assigned, four-digit ID); and
- Submittal Creation Date.

In Step #4, a data grid displays the column headers and data from the input file.

Figure 5-4: File Processing Screen



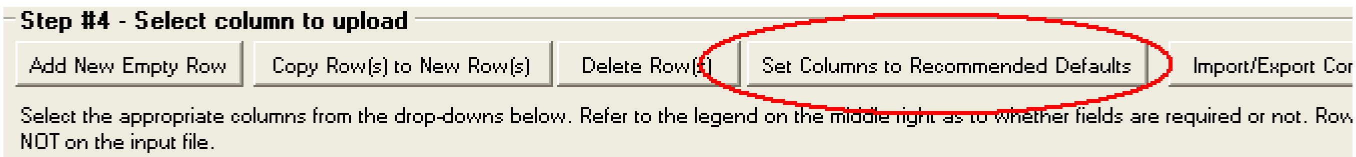
The File Processing screen indicates whether a field is required, conditional, or optional using color-coded labels (defined in the legend). Additionally, a set of drop-downs which display allowed values is included to the left of the legend. Due to space limitations while processing generate transactions, you must click the "Show Legends" button to display the legend and the allowed values.

5.4 Mapping User-specified Column Headers

Below the data rows, there is an area where the fields that will be written to the output XML as labels need to be mapped to the appropriate column headers. The tool has the ability to set these drop-downs to the "recommended defaults". These defaults are the column headers used in the basic templates provided by EPA. If the user is using these templates, setting the columns to the recommended defaults would be the easiest way to map the data.

First, click the "Set Columns to Recommended Defaults" button (see Figure 5-5).

Figure 5-5: Selecting Recommended Default Headers



The drop-downs will be populated with the recommended default headers (see Figure 5-6), and will match the column headers of input files that use the recommended defaults (see Figure 5-7).

Figure 5-6: Drop-downs that Must Match the Columns

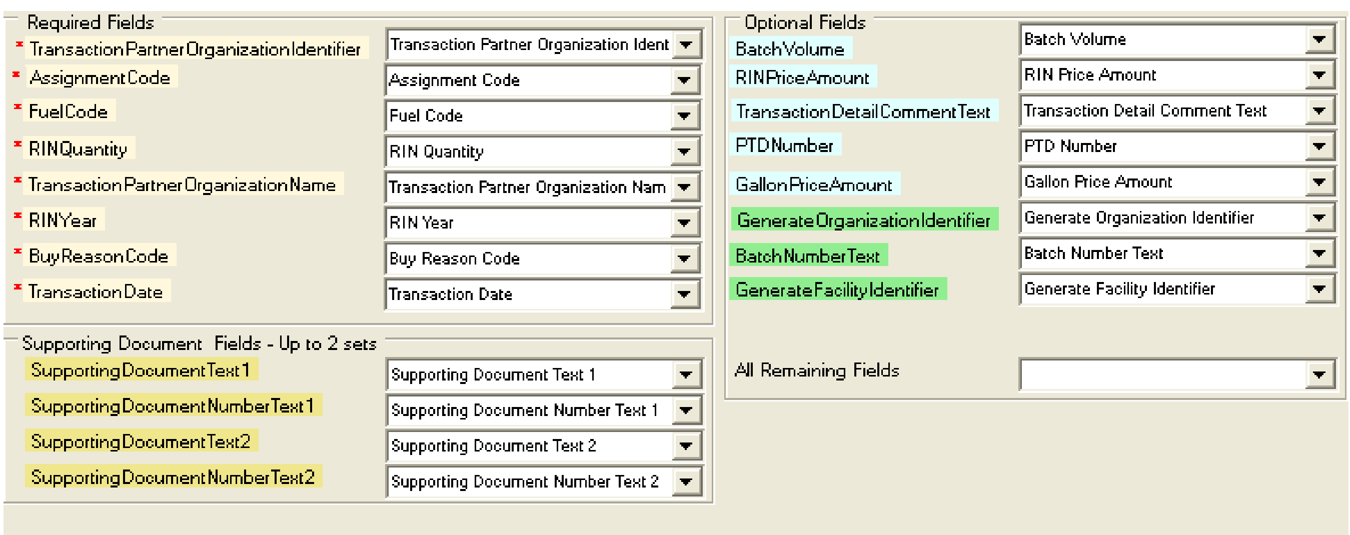
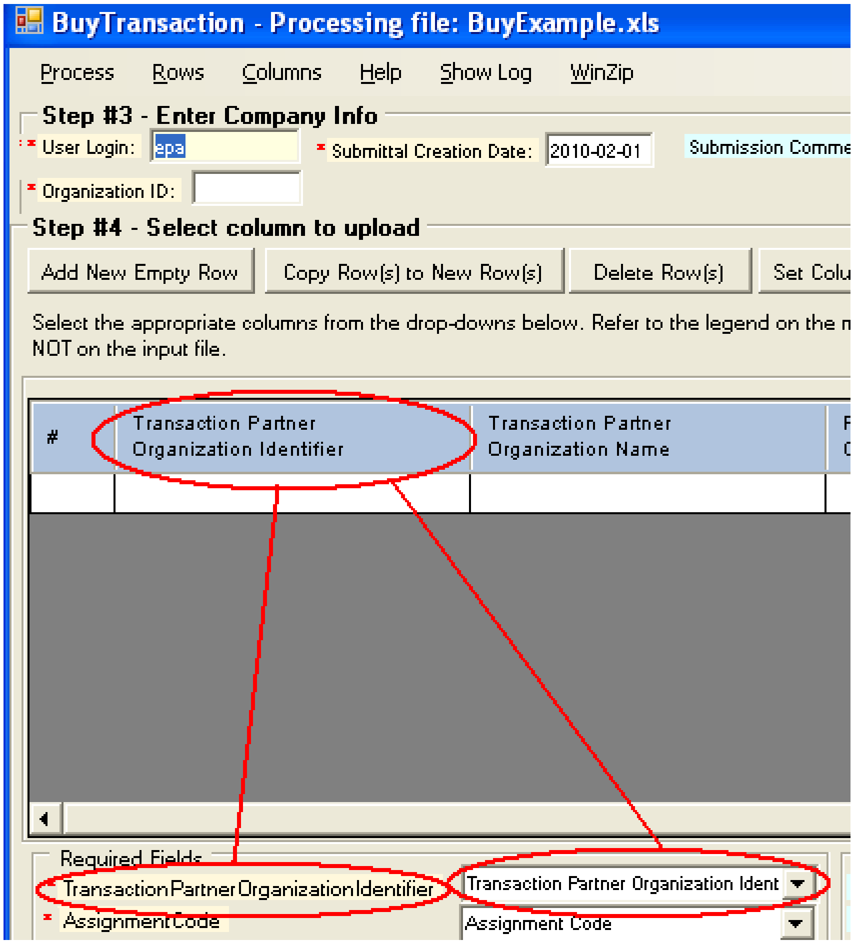
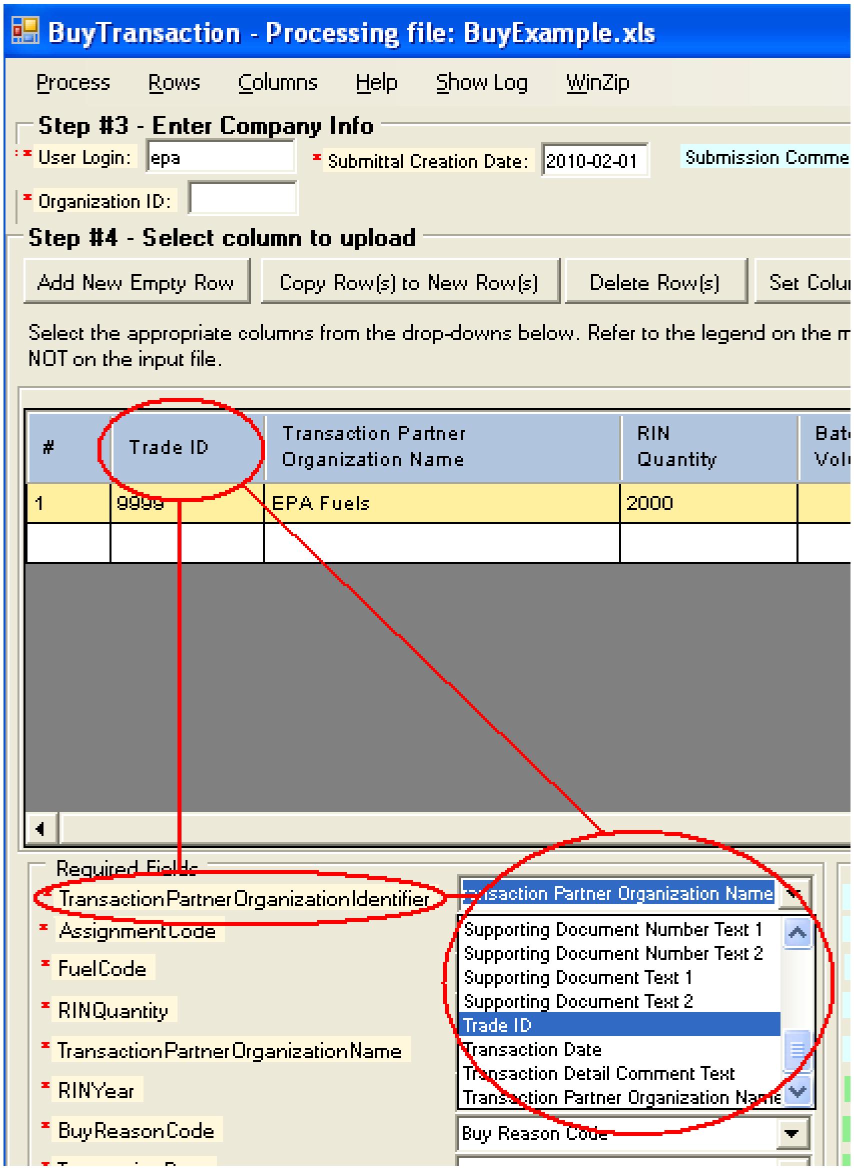


Figure 5-7: Matching Default Columns to Labels



If the recommended column headers are not used in the input file, the user will need to select the appropriate column headers in the drop-down menus. In Figure 5-8, a column header of "Trade ID" was used in the input file for the Transaction Partner ID. This value must be selected in the drop-down menu next to the "TransactionPartnerOrganizationIdentifier" field.

Figure 5-8: Matching User-Defined Column Headers to Labels



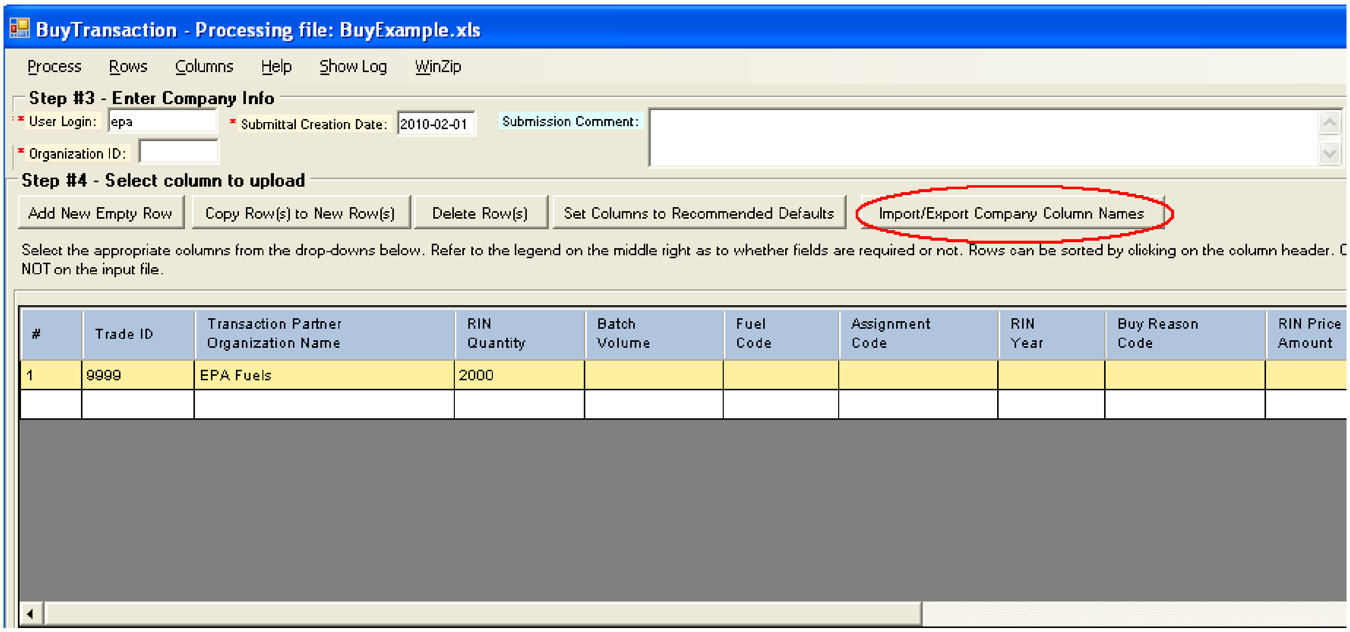
Note that information that is manually written into the data grid does not modify the input file. To save this information to an Excel spreadsheet, the user must select the Excel file type by selecting the "Output File Options" button under "Process and Write to XML File" near the bottom of the screen.

For required fields, a column name must always be chosen from the corresponding drop-down list. For conditional fields and optional fields, selecting a non-null column name from the corresponding drop-down list indicates that the field should be included in the output XML. Otherwise, the field will not be included in the output XML, even if data for this field is visible in the grid.

5.5 Importing/Exporting User Defined Column Names

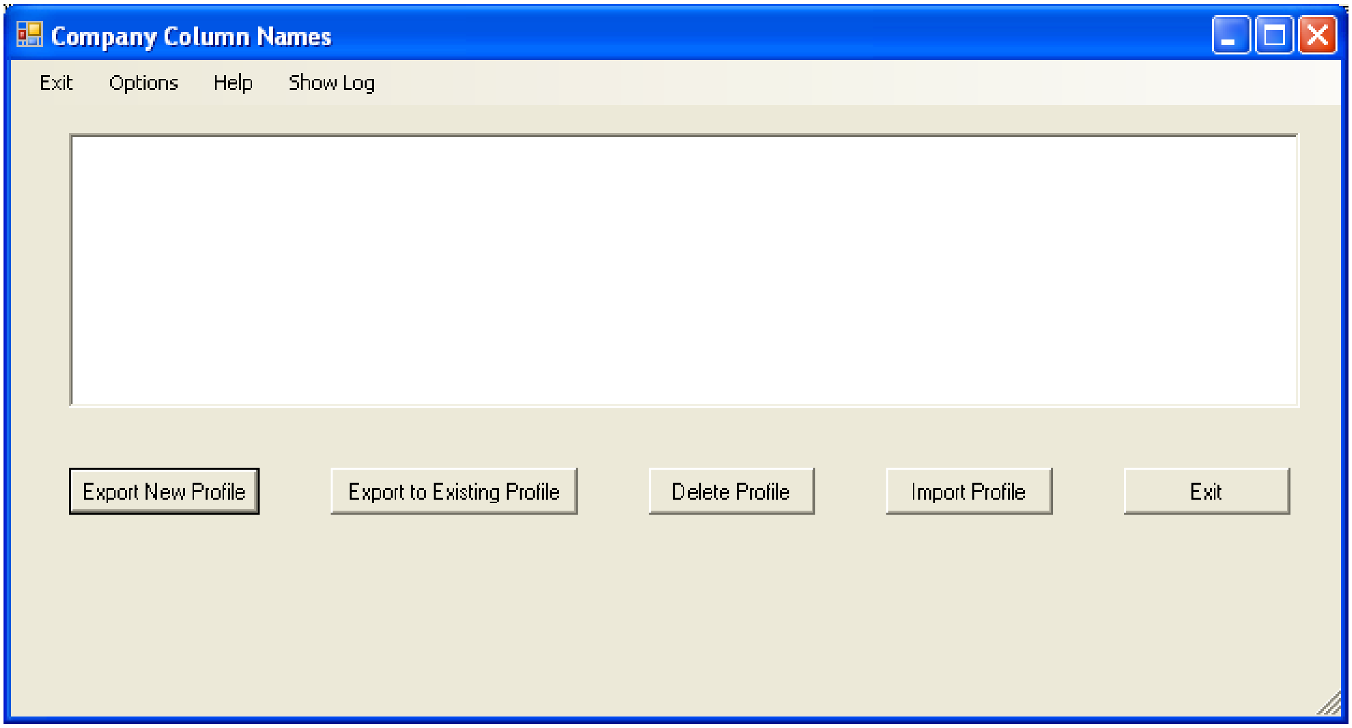
The user can optionally select to export the user-defined column names for later use. This can be done either before or after the "Process File" button has been clicked. To export the column names, click the "Import/Export Company Column Names" button (see Figure 5-9).

Figure 5-9: Import/Export Company Column Names Button



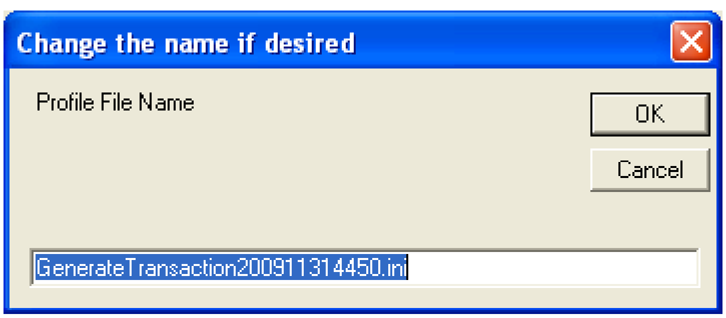
The Company Column Names dialog box will be displayed (see Figure 5-10).

Figure 5-10: Column Name Import/Export Screen



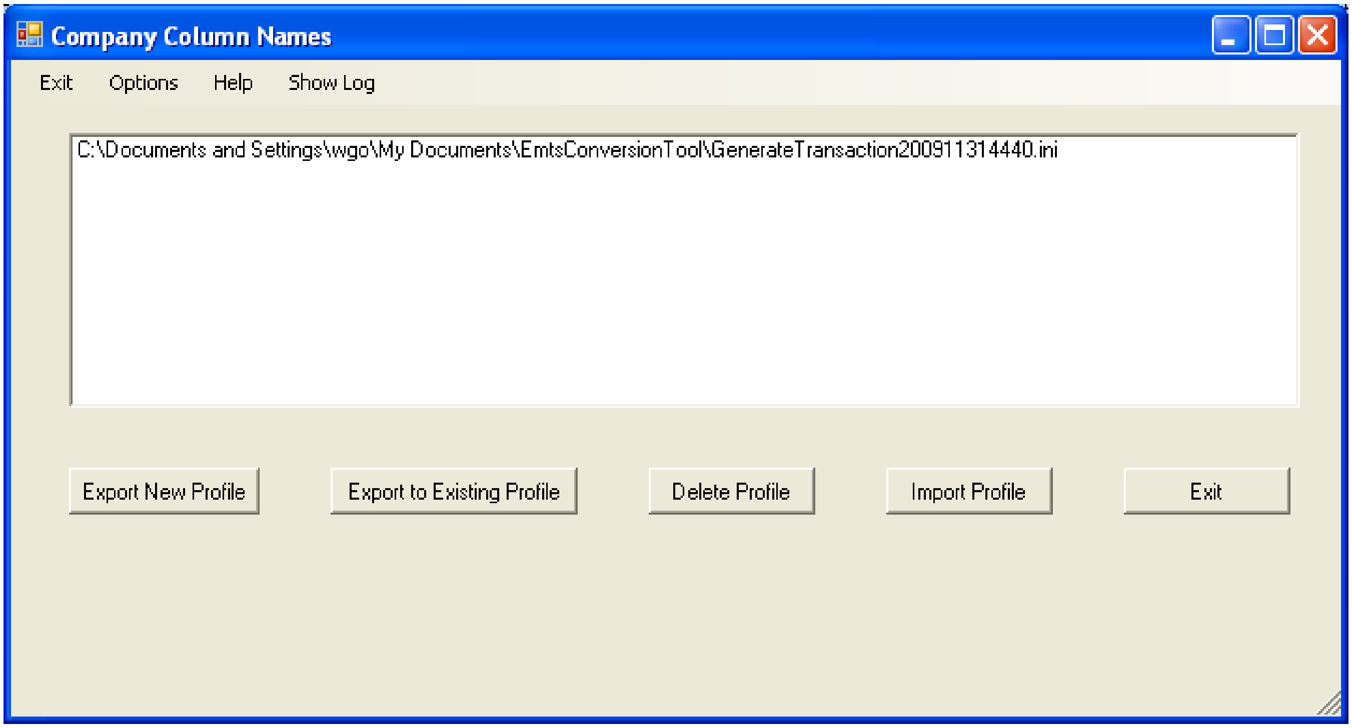
After clicking the "Export New Profile" button, the user will be prompted to specify a name and location for the profile (see Figure 5-11).

Figure 5-11: Saving Profile with User-Defined Column Names



Once this profile has been created, it can subsequently be imported by clicking the "Import/Export Company Column Names" button. The saved profile will be displayed on the Company Column Names screen (see Figure 5-12).

Figure 5-12: Company Column Names Screen with Saved Profile

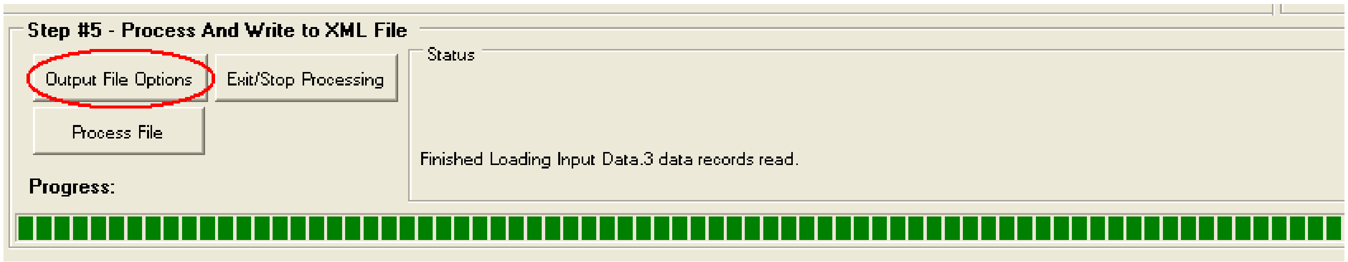


The user can then select the profile and click "Import Profile". This will load the saved column names into the drop-downs used for mapping. Alternatively, the user can click on "Export to Existing Profile" to overwrite the previously saved profile with new user-defined column headers.

5.6 Output File Options

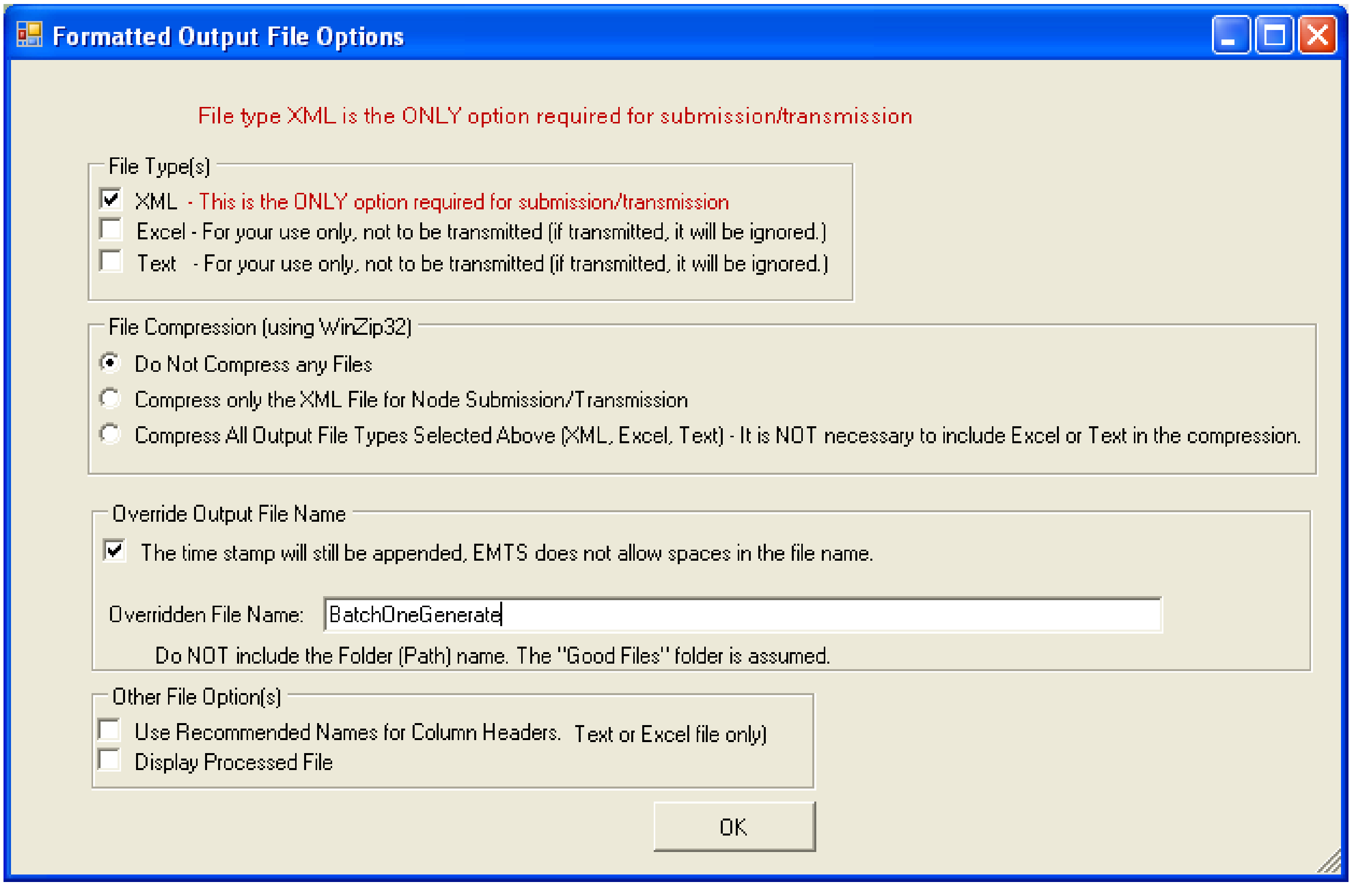
Once the column headers are selected and the user information is complete, the user can adjust the ECT default settings. The ECT uses the following default settings when processing files: the output file is an uncompressed XML file, and the output file name is formatted as "TtOrgId_YYYY-MM-DD-HH-MM-SS" where "Tt" is the transaction type (i.e., Generate) and "OrgId" is the four-digit ID entered in the "Organization ID" field. To change these default settings, the user should click the "Output File Options" button (see Figure 5-13).

Figure 5-13: "Output File Options" button



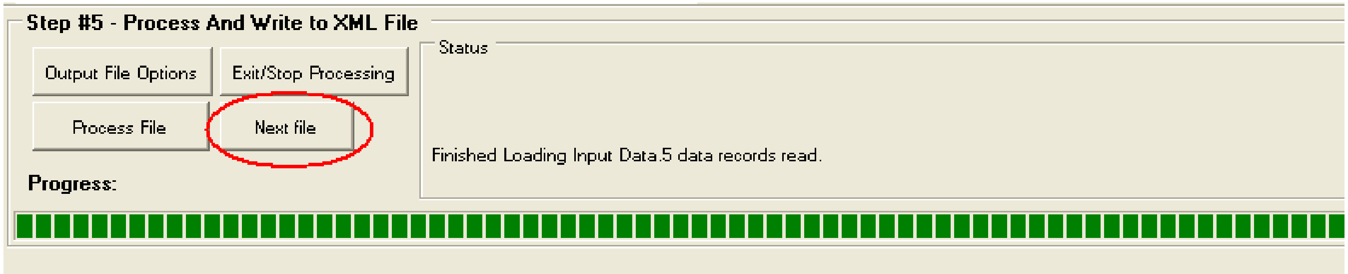
On the Formatted Output File Options screen (see Figure 5-14), the user can specify the output file type, compression, and file name. To specify the file name, the user should check the checkbox to override the default name and then enter a new file name. The ECT automatically appends the date and timestamp of the file being processed to the end of the new file name. Once a user updates the Formatted Output File Options screen, the updates become the default setting for subsequent file conversions and remain so until the user goes back to the Formatted Output File Options screen and changes the settings.

Figure 5-14: Formatted Output File Options Screen



After specifying the output file options, the user should click the "Process File" button. Note that if multiple files have been selected for processing, only one file is processed at a time. In this case, a "Next file" button will be visible next to the "Process File" button (see Figure 5-15). The user should first click the "Process File" button, verify that the file processes successfully (see the Results of File Processing section in this Quick Guide), and then press the "Next file" button.

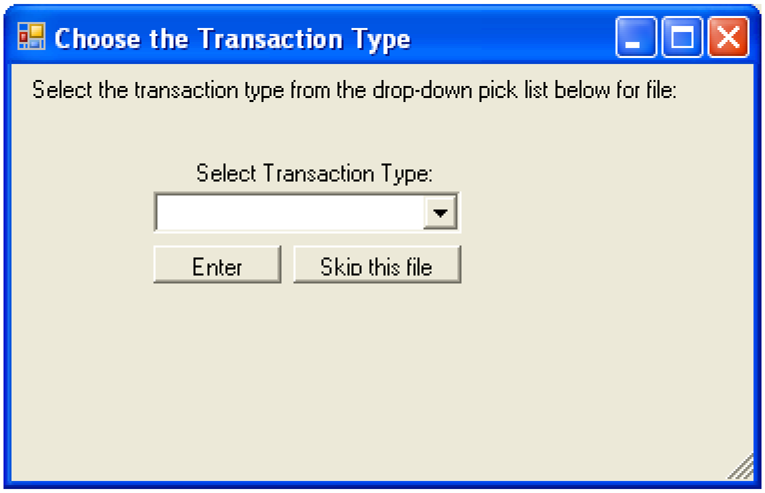
Figure 5-15: "Next file" Button



5.7 Creating New Files

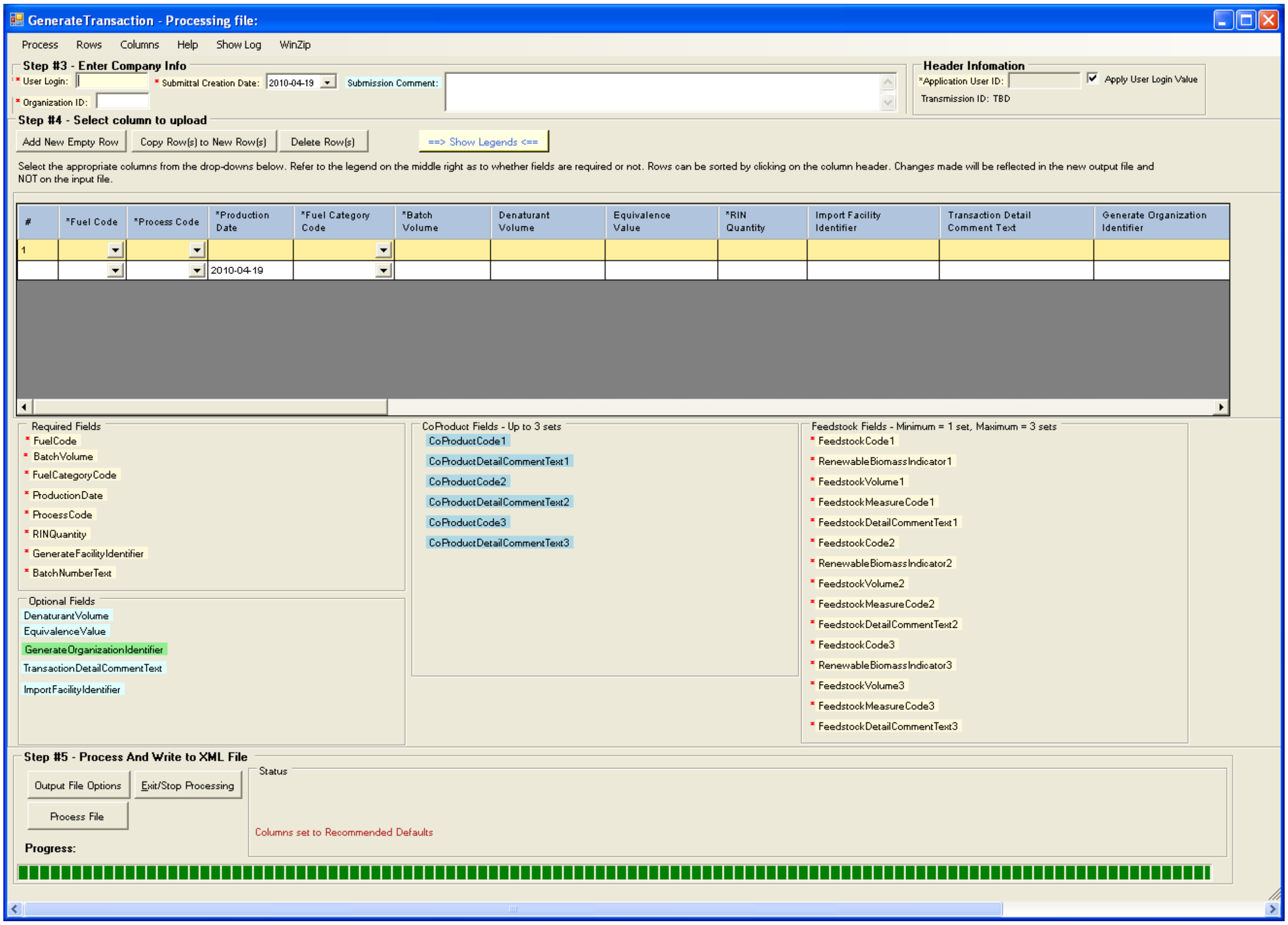
If the "Build a New File" button is clicked on the Start-up Screen (see Figure 5-2) or the File Selection Screen (see Figure 5-3), a screen will appear asking the user to specify the transaction type (see Figure 5-16).

Figure 5-16: Selecting the Transaction Type



Once the user selects the transaction type and clicks "Enter," the File Processing Screen appears (Figure 5-17).

Figure 5-17: File Processing Screen



Note that in this version of the File Processing Screen, there are no drop-down menus with column headers, since the default column headers will always be used when the user elects to build a new file.

The user should first fill in the "Enter Company Info" portion of File Processing Screen. The company information required includes:

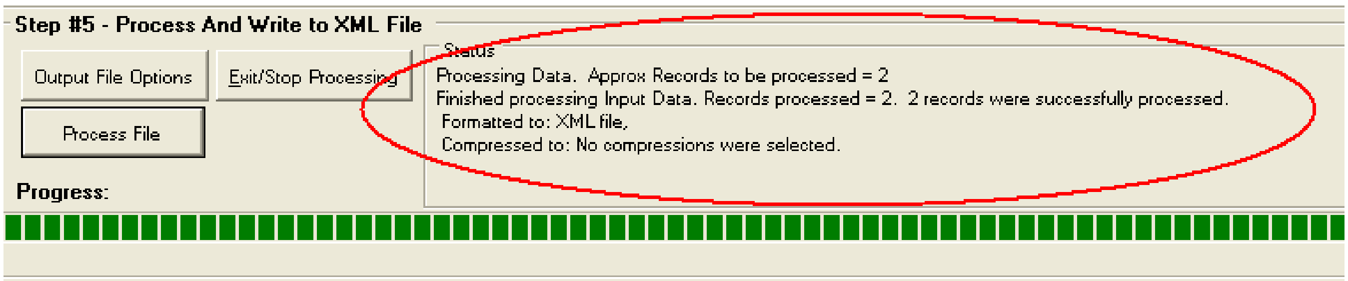
- User Login (case sensitive and must be the same as the EMTS login);
- Organization ID (EPA assigned, four-digit ID); and
- Submittal Creation Date.

Under the "Enter Company Info" section, a data grid is displayed. The user should enter the transaction data in the grid and click the "Process File" button.

5.8 Results of Processing

If processing is successful, the screen will display a message that reads "records were successfully processed. Formatted to: XML file" (see Figure 5-18).

Figure 5-18: A Successfully Processed File

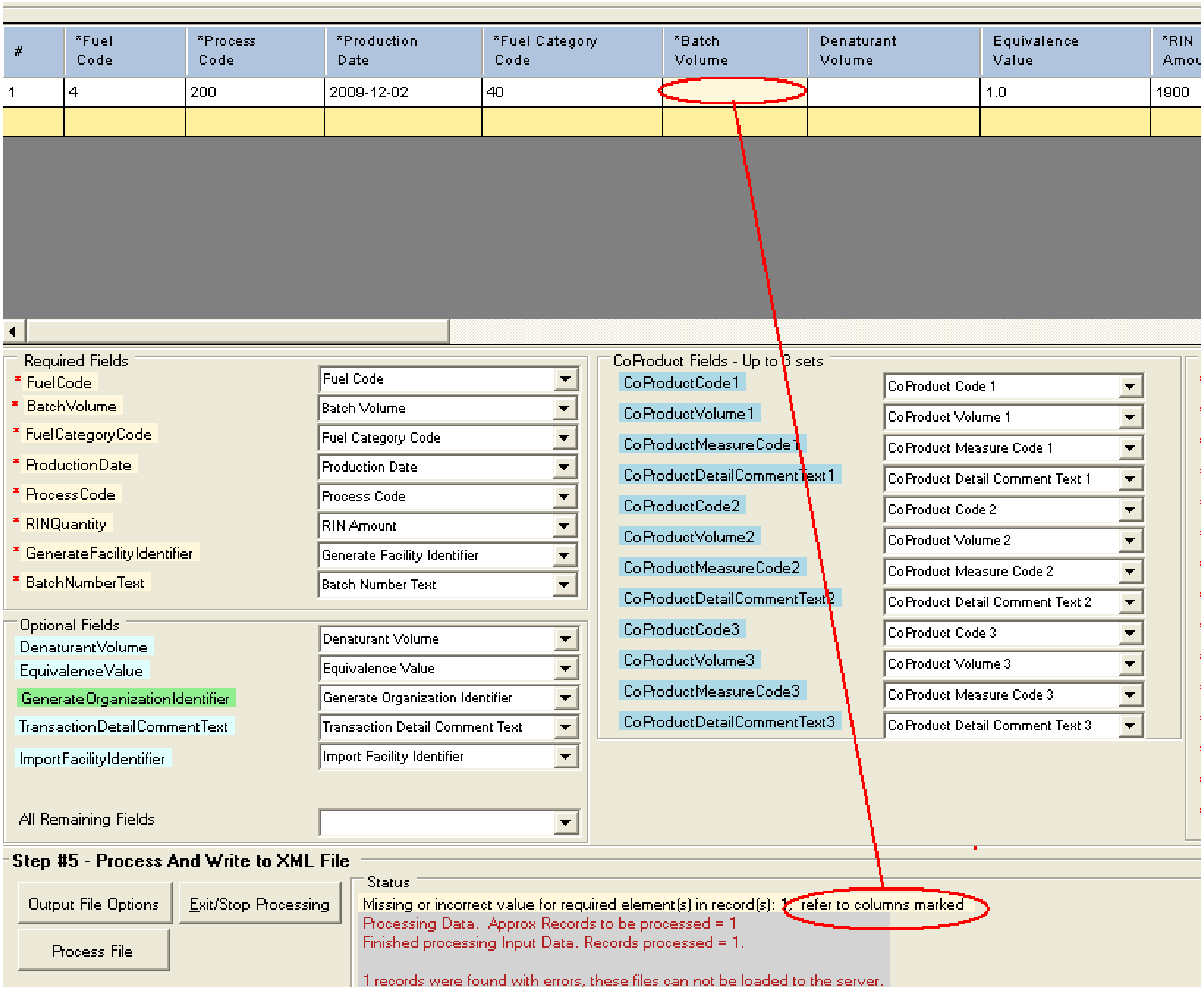


Upon successful processing, the output XML file is written to the following directory:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Good_Files

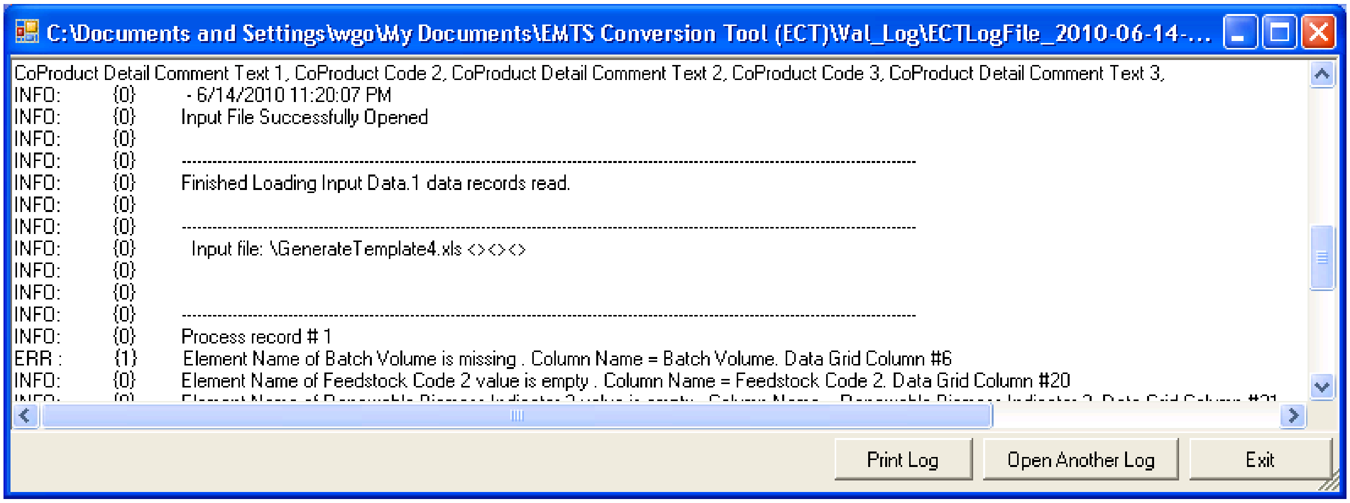
If processing is not successful, the screen will display a message that includes, "Missing or incorrect value for required element(s) in record(s): <…>, refer to columns marked". In addition, the appropriate cell(s) in the data grid will change color to indicate where the error has occurred (see Figure 5-19).

Figure 5-19: Indication of Error in File



The ECT maintains a log file, which can be used to view additional descriptions of the errors if processing is unsuccessful. Clicking the "Show Log" button at the top of the file processing screen displays the log file in the log viewer (see Figure 5-20).

Figure 5-20: Errors Reported in Log File



This viewer includes buttons which allow the user to print the log and to select another log file for viewing. Clicking "Exit" closes the log viewer.

If a selected input file is not successfully processed, the ECT will still attempt to create an output XML file. This file will be located in the following directory:

C:\Documents and Settings\<user>\My Documents\EMTS Conversion Tool (ECT)\Error_Files

Only the data rows with no errors will be written to the output file. Data rows that contain errors will not be converted to XML.

5.9 Processing Multiple Files

If the user chooses to process multiple existing files and wishes to process the next file in the batch, the user should click "Next file". as indicated in Figure 5-21. Before processing the next file, the user will have to re-enter the Organization ID and the Submittal Creation Date. Also, if the input files do not use the same column headers as the default Excel templates created by EPA, the user may have to re-specify the column headers in the dropdown menus. Note that the "Next file" button will be present for all files except the last one in the batch.

Figure 5-21: Processing Next File