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**Software Design Associates  
Computer Fencing System  
Enterprise Edition  
Manual**

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# Introduction

Enterprise customers have access to special tools, most of which have to do with exporting and importing data from and to CFS and an external source. The following documentation explains these tools and how to use them. This discussion will refer to the goal of interfacing CFS to an accounting program but users may interface to other programs within the specifications of the confidentiality agreement.

## Overview of Enterprise Tools

There are several avenues available for developers to export and import information from and to the Computer Fencing System (CFS). Each avenue is described in more detail below.

1. Command line capability in InterOp (defined below) for importing and exporting general item information.
  - (a) Possible uses:
    - (i) Populate accounting program inventory module
    - (ii) Transfer item retail prices from CFS to accounting
    - (iii) Transfer inventory counts from accounting to CFS
2. Ability to export an estimate or invoice to an XML file containing all customer and inventory information.
  - (a) Possible uses:
    - (i) To create invoices, sales orders, estimates, and/or purchase orders in an accounting program via a third party program.
    - (ii) To be read by the included sample SDA Apps or your Apps.
3. Command line capability in UPDATE.EXE.
  - (a) Possible use:
    - (i) This is a CFS program that can be accessed for transferring item prices into CFS. See the Remote Pricing window for available options. In CFS go to Update Master File>Change List Price> Remote Pricing File. The command line can be used to automate this process.
4. Command line capability in Data Miner.
  - (a) Possible use:
    - (i) Miscellaneous reports

# Installation & Setup

## InterOp

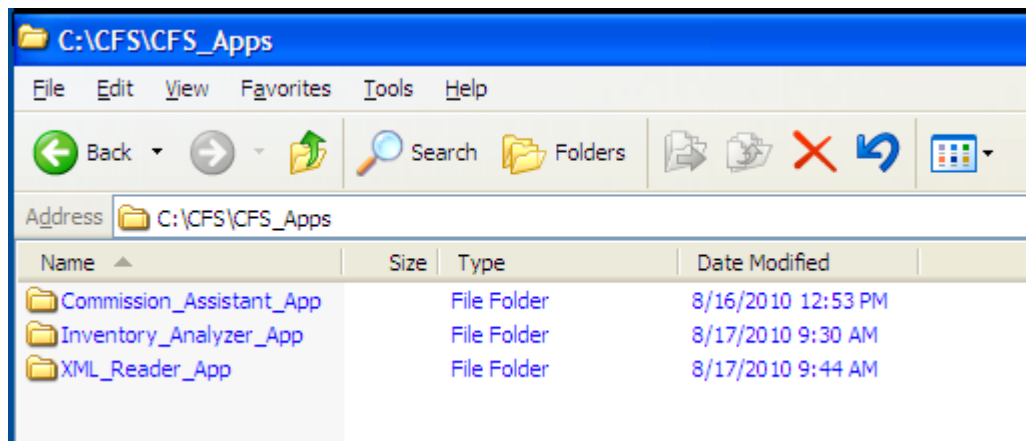
InterOp has to be installed in the root of the CFS folder. If you have a computer network it can be in the local or the server/host CFS folder, whichever you prefer. When you run InterOp and go to export the CFS master file to a .csv file, it will default to creating a folder within the CFS folder named InterOp\_Data where it will put the exported file. InterOp consists of one file named InterOp.exe. There is no installation routine other than just putting the file on your computer. Once it is downloaded, right click on it and choose to create a desktop icon for ease of use if you prefer.

## XML Export

Make sure you have the latest updates. To do this go to the Utilities window> Online Support> Locate the CFS folder if needed> go to the Online Services window> click the button labeled Check for Updates Now. The XML export function needs to be turned on in your CFS program. Please call technical support at 800-544-2536 or email [support@fencesoftware.com](mailto:support@fencesoftware.com) to get help.

## Copy the sample Apps to your computer

You can put the Apps wherever you desire but this example uses the following configuration with the appropriate executable file in each folder; CommissionApp.exe in the 1st folder, InventoryAnalyzerApp.exe in the 2<sup>nd</sup> folder, and cfs-xml.exe in the XML\_Reader\_App folder.



## Setting up the Enterprise.xml File

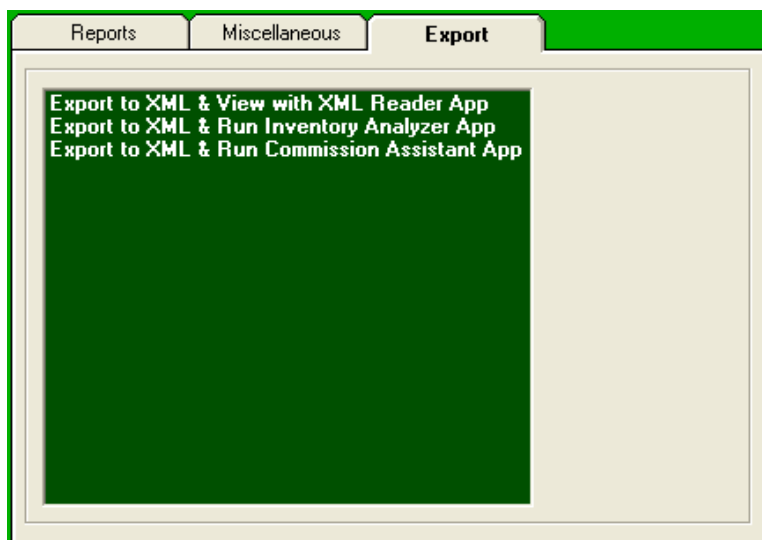
The Enterprise.xml file stores the user defined file names and locations. If CFS is being run on a network, this file can be in the CFS folder on the server and/or on a workstation with the local file taking precedence over the network copy if it is in both places. At either location, **it is required to be in the root of the CFS folder**. Using Notepad, you can change the file names and location paths. Right click on the file and choose Open

with Notepad, make the changes, and Save. The example below is configured with everything being run and saved on the local C drive.

The example below accommodates for three example Apps.

```
<settings>
<xmlfilepath>C:\CFS\CFS_Apps\XML_Reader_App\XMLReader.xml</xmlfilepath>
<xmlexecpath>C:\CFS\CFS_Apps\XML_Reader_App\cfs-xml.exe</xmlexecpath>
<sda_menu_name>Export to XML & View with XML Reader App</sda_menu_name>
<sda_icon_name></sda_icon_name>
</settings>
<settings>
<xmlfilepath>C:\CFS\CFS_Apps\Inventory_Analyzer_App\InventoryAnalyzer.xml</xmlfilepath>
>
<xmlexecpath>C:\CFS\CFS_Apps\Inventory_Analyzer_App\InventoryAnalyzerApp.exe</xmlexecpath>
<sda_menu_name>Export to XML & Run Inventory Analyzer App</sda_menu_name>
<sda_icon_name></sda_icon_name>
</settings>
<settings>
<xmlfilepath>C:\CFS\CFS_Apps\Commission_Assistant_App\CommissionAssist.xml</xmlfilepath>
<xmlexecpath>C:\CFS\CFS_Apps\Commission_Assistant_App\CommissionApp.exe</xmlexecpath>
<sda_menu_name>Export to XML & Run Commission Assistant App</sda_menu_name>
<sda_icon_name></sda_icon_name>
</settings>
```

There are three groups of lines above, bordered by the <settings> </settings> html tags, with one group for each sample App. The information between the html tags can be user defined. For each group the first line of this file determines where the exported file will be saved and what it will be named. The second line is the path to the executable file. The third line contains the words that will appear on the Reports menu in CFS as follows.



The fourth line is for future programming we may do and allows for associating an icon.

If you develop your own App you can replace the name of one of our sample Apps or you can add your App to the menu by creating another configuration group of lines to this file.

**If you want to have a space in the folder names (in this case instead of the underscore) you will need to put quote marks around the space. For example: CFS” “Apps**

To test your setup, create an estimate or invoice in CFS and proceed to the reports menu. You should have a tabbed window on the right titled “Export” with exporting options. Go ahead and run each choice and explore the example Apps.

# CFS Setup Recommendations

We have several recommendations regarding the condition of the data in CFS before enabling interaction with another program. The importance of this will vary depending on how you use the exported data but is especially significant if you plan to export the items to populate the item list in an accounting program

## Items in the CFS Inventory List

The Master File (CFS's list of items) should be customized to the needs of the company by adding needed parts, deleting unnecessary items, and running the scratch builder (estimating module) setup routines. After the customization is thought to be complete the program should be used for estimating fence jobs long enough to flush out any outstanding issues that may need to be addressed.

## Item Identification Number

The Master File also needs to be setup so that the records contain an identification number in the Part Number field and/or the Source Number field. The Part Number field is intended to be an in-house part number while the Source Number field is intended for the vendor's part number. **It would be a mistake to use the Record Number in CFS as the ID number in the accounting program. The Record Number is a temporary location of where the item happens to be at that moment and will change if the item is moved.**

There are two approaches you can take regarding the ID numbers for items that can be purchased from multiple vendors. Each approach has its own considerations with your needs determining which will be the best approach for you.

First, most of the vendor products that we make available in CFS contain the vendor's ID number in the CFS Source number field. You can use this number to be your ID number in your accounting program too. The advantage of using this number in both programs is that it is already established and minimizes how much setup work is involved. The potential disadvantage, depending on the options in your accounting program and how your interface is written, is this number could end up being the primary ID for the products in the accounting program even when you do not intend to buy from that vendor again.

A second approach is that you would enter your own in-house ID number in the Part Number field. You could have the vendor's number in the Source number field and your in-house ID number in the Part Number field with the Part Number being the ID number in the accounting program. The advantage is you would not be "stuck" with a particular vendor's number even if you don't buy from that company anymore. The disadvantage is the additional setup time of coming up with a part numbering system and entering them into CFS.

For items that are unique to one vendor using the vendor's ID number as the common ID number in the accounting program would be appropriate as long as the format fits the requirements of the accounting program. The Source Number can be copied into the Part Number field if necessary. (CFS has a utility to copy these numbers en masse.) The number in the CFS Part Number field, in some cases being the vendor's number and in other cases maybe an in-house number, would then become the common number shared by both programs.

# InterOp

## Introduction

InterOp can be used to export information from CFS, or, to export information from CFS, update most fields, and import it back into CFS. The ability to import updated information back into CFS is limited to updating existing records. Adding, rearranging, and deleting items should continue to be done within CFS Update Master File in order to preserve the integrity of the scratch builder and parts catalog setups. It must be located in the root of the CFS folder. When used to export the Master File it will default to creating a folder named InterOp\_Data within the folder it is in.

## About Exporting/Importing

InterOp exports to a CSV file the following CFS record fields: Record number (optional) Item, Description, Size, Unit, Part Number, Manufacturer (Vendor) ID, Source(Vendor) Number, Unit Divisor, Weight, Inventory Count, List Price, Selling (Retail) Price, Quantity Retail Price, Actual Cost, and In-Yard Cost. To view these fields in CFS, go to Update Master File, Open Record and load any record. Some of the fields are displayed on this window. Click inside the List Price field to see more pricing fields.

When used to import data back into CFS InterOp will import the Description, Part Number, Manufacturer ID, Source Number, Weight, Inventory Count, and List Price or Retail Price. It does not import the Record number, Item, Size, Unit, Unit Divisor, Actual Cost, In-Yard Cost, or Quantity Retail Price. The command line could be used to automatically import List Price or Retail price via a special program but we recommend using the command line in Update.exe for this purpose because it has more options for how the prices are imported.

## Suggested uses

1. To populate a database with items.
2. To populate a database with a specific item.
3. To import Inventory counts into CFS.
4. To export the Retail prices for all or groups of items.

## Example command line usage:

```
C:\CFS\InterOp.exe C:\CFS -export filename.txt  
C:\CFS\InterOp.exe C:\CFS -import filename.csv
```

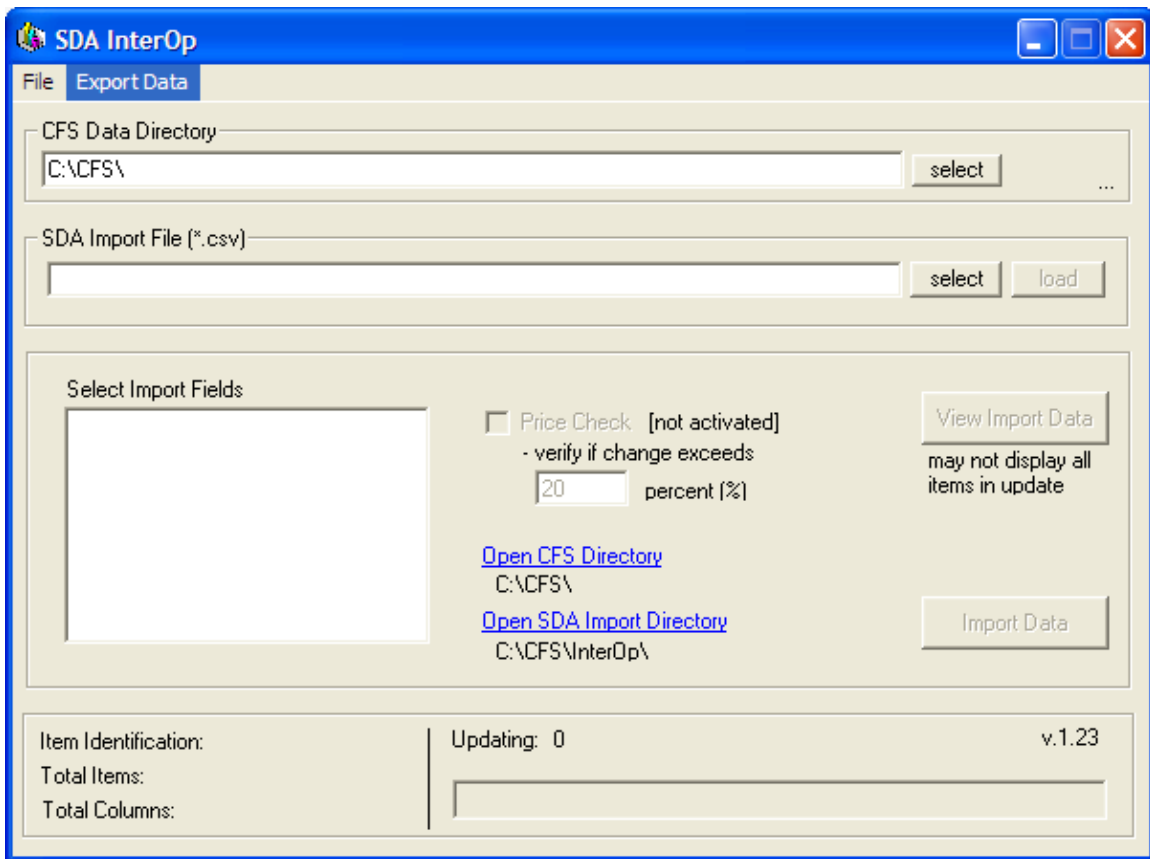
(Note: csv and txt extensions are interchangeable [as long as the data contained in the file is CSV formatted] and only affect what application opens the file)

## Running InterOp manually:

The following directions take the approach that the purpose of running InterOp manually is to export the data, make changes in the exported file, and then import it back into CFS. (The exported data could be used for any purpose you desire within the confines of our confidentiality agreement, so your purpose could be in exporting the data with no intention of bringing it back into CFS.)

### Exporting Data

When you run the InterOp program you will first be prompted for a password. Please contact us for the password. After entering it you will be at the Import window.



To export the master file (the CFS item list), click on “Export Data” on the top tool bar. Your choices are:

- Export to CSV
- Export to CSV (include Record Numbers)
- Export to CSV (hide suppressed Inventory)
- Export to Accounting CSV

Unless you have a reason to choose otherwise, it is recommended that your export include record numbers especially if not all items include a source or part number.

The program works as follows when importing data back into CFS:

1. If a Record Number field is included in the import file, the program will use this field as its Item Identification to identify the item and put the corresponding data into that record.
2. If the import file does not contain a Record Number field but does include a Source Number or Source Number and Part Number, it will use the Source Number as the Item Identification and put the corresponding data into that record
3. If the import file does not contain a Record Number or a Source Number, it will use the Part Number as the Item Identification and put the corresponding data into that record. The file must contain at least one of these fields to be importable by InterOp.

Consequently, you should not try to “uncheck” the Item Identification field when importing. Unless you have some compelling reason to handle the data differently, export with Record Numbers and do not move records around in the Master File until after importing the changes back in.

The third option has to do with the fact that items in CFS can be flagged as non-inventory items by checking the suppress inventory box in the record. If the purpose of exporting with InterOp was to update inventory counts then this option ignores non-inventory items for ease of use.

The fourth option, **Export to Accounting CSV** automatically combines the CFS Size, Description, and Item fields into one field named Description. Most accounting programs include all three of these CFS field into one product description field. This may be your preferable output option if your intent is to use this output to populate an item list in a different program, accounting or otherwise. Spreadsheet fields can be combined manually but this option does it for you. Do not use this option if you intend to change the data and import back in.

After the export file is created you will be prompted to open it in Excel. If you do not have any Source or Part Numbers starting with leading zeroes that you want to preserve, it is okay to click “Yes” to this prompt assuming you have Microsoft’s Excel installed on your computer. If you do have Source or Part Numbers beginning with leading zeroes and are not intending to change this situation, read the special direction below. If you would like to open it in a different database program simply click “No” and load it into your other program.

#### **Special export direction to deal with leading zeroes**

If the source or part numbers are made up of only numbers AND begin with leading zeroes Excel will automatically strip the leading zeroes when the file is loaded UNLESS it is loaded a particular way. Leading zeroes in these fields are part of the number so they need to remain if you are intending to preserve these numbers. To open it in Excel without losing the leading zeros do it like this:

When creating the export file change the extension on the file to be created from .csv to .txt. After choosing the CFS folder that your Master File is in for your data source and

clicking Export, click “No” when prompted if you want to open it in Excel. Close or minimize the current window. Run Excel, go to Load file and open the text file.

1. Choose Delimited and Next
2. Uncheck the delimited by Tab box and put a check in the Comma box and click Next.
3. Scroll over and select the field that has the numeric characters starting with zeroes. You do not need to do this with the Record Number field as leading zeroes are just placeholders created by CFS and will be recreated automatically by CFS.
4. Change the Column data format to Text.
5. Repeat steps 3 and 4 on another column, maybe the Part Number, if needed.
6. Choose Finish.

Regarding the following pictures notice how the columns from Excel are continued to the next picture since they cannot all fit horizontally on this page.

Master File exported to a Microsoft Excel file:

|    | A          | B                 | C                                 | D        | E    | F            |
|----|------------|-------------------|-----------------------------------|----------|------|--------------|
| 1  | Record Num | Item              | Description                       | Size STD | Unit | part_number  |
| 2  | 1          | CHAIN LINK FABRIC | ECONOMY GBW KK                    | 48"      | Ft.  |              |
| 3  | 2          | CHAIN LINK FABRIC | ECONOMY GBW KK                    | 60"      | Ft.  | CLECOGBW60KK |
| 4  | 3          | CHAIN LINK FABRIC | ECONOMY GBW KK                    | 72"      | Ft.  | CLECOGBW72KK |
| 5  | 11         | CHAIN LINK FABRIC | ECONOMY GBW KT                    | 72"      | Ft.  | CLECOGBW72KT |
| 6  | 14         | CHAIN LINK FABRIC | 12 1/2 GA. GBW I (2 3/8" Mesh) KK | 48"      | Ft.  | GBW122238KK  |
| 7  | 15         | CHAIN LINK FABRIC | 12 1/2 GA. GBW I (2 3/8" Mesh) KK | 60"      | Ft.  |              |
| 8  | 16         | CHAIN LINK FABRIC | 12 1/2 GA. GBW I (2 3/8" Mesh) KT | 72"      | Ft.  |              |
| 9  | 21         | CHAIN LINK FABRIC | 12 GA. GAW (2 1/4" Mesh) KK       | 36"      | Ft.  |              |
| 10 | 23         | CHAIN LINK FABRIC | 12 GA. GAW (2 1/4" Mesh) KK       | 48"      | Ft.  |              |
| 11 | 24         | CHAIN LINK FABRIC | 12 GA. GAW (2 1/4" Mesh) KK       | 60"      | Ft.  |              |
| 12 | 25         | CHAIN LINK FABRIC | 12 GA. GAW (2 1/4" Mesh) KK       | 72"      | Ft.  |              |

|    | G      | H             | I         | J      | K         | L          | M       | N          | O           | P            |
|----|--------|---------------|-----------|--------|-----------|------------|---------|------------|-------------|--------------|
| 1  |        |               |           |        | Inventory |            | Selling | Qty Retail |             |              |
| 2  | mfg_id | source number | Unit Divi | Weight | Count     | List Price | Price   | Price      | Actual Cost | In Yard Cost |
| 3  | JAM    | 300148KK      | 1         | 1.16   | 0         | 1.1234     | 1.4762  | 1.4762     | 1.0111      | 1.1071       |
| 4  | JAM    | 300160KK      | 1         | 1.47   | 10        | 1.13       | 1.8524  | 1.8524     | 1.017       | 1.1136       |
| 5  | JAM    | 300172KK      | 1         | 1.77   | 0         | 1.46       | 2.1582  | 2.1582     | 1.314       | 1.4388       |
| 6  | JAM    | 300172KT      | 1         | 1.76   | 0         | 1.46       | 2.1582  | 2.1582     | 1.314       | 1.4388       |
| 7  | JAM    | 300148SKK     | 1         | 1.16   | 0         | 0.92       | 1.36    | 1.36       | 0.828       | 0.9067       |
| 8  | JAM    | 300160SKK     | 1         | 1.46   | 0         | 1.18       | 1.7443  | 1.7443     | 1.062       | 1.1629       |
| 9  | JAM    | 300172SKT     | 1         | 1.76   | 0         | 1.41       | 2.0843  | 2.0843     | 1.269       | 1.3896       |
| 10 | JAM    | 301036KK      | 1         | 1.04   | 10        | 1.25       | 1.5     | 1.5        | 1.125       | 1.2319       |
| 11 | JAM    | 301048KK      | 1         | 1.42   | 0         | 0.99       | 1.4635  | 1.4635     | 0.891       | 0.9756       |
| 12 | JAM    | 301060KK      | 1         | 1.81   | 0         | 1.24       | 1.833   | 1.833      | 1.116       | 1.222        |
| 13 | JAM    | 301072KK      | 1         | 2.07   | 0         | 1.75       | 2.5869  | 2.5869     | 1.575       | 1.7246       |

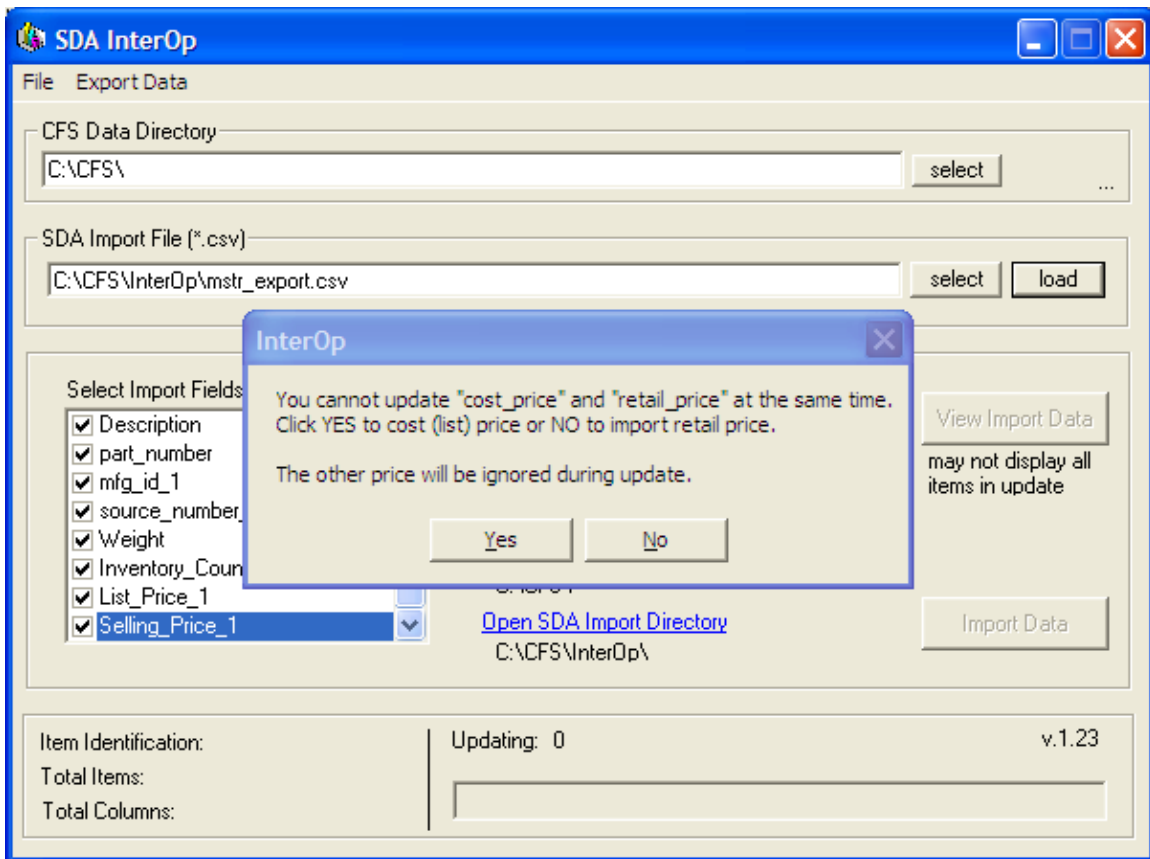
### Importing the data back into CFS

Because of the ease of making global changes to your CFS data using this feature it is recommended you make a backup of at least your Master.0 file and all the files starting with the word Save before proceeding.

Changes to the following fields will be updated in CFS if the data is brought back into CFS with the import function: Description, Part number, Manufacturer (Vendor) ID, Source (Vendor) number, Weight, Inventory Count, List Price, or Retail price. Save the file as a CSV file type.

**Remember to change the File Type to CSV if you had to export it as a text file. After saving, make sure you close the file to avoid an error when InterOp tries to read it during the import process.**

Be at the main window when running InterOp which is the import window. Select the correct CFS location where the information will be imported into the Master File. Select the .CSV file as the SDA file to import and click Open. Then click Load.



If you click YES to import the cost a new retail price will be calculated in CFS based on whatever markups are in the records. If you click NO to import the retail price, CFS will back figure whatever markup is necessary to reach your desired selling price without changing the cost. (Some selling prices may be off by pennies due to rounding differences.)

After choosing Yes or No you have the option to uncheck certain fields to import. You do not have to uncheck the List Price or Selling Price as your response to the previous question will handle how these prices import. You probably don't need to uncheck anything unless you have a specific reason. Clicking the Import Data button will import the changes into your Master File. Run CFS and go to Update Master File to confirm you received the results you desired.

**Post import:**

After importing the data the program will need to rebuild the Record Number, Source Number, and Part Number cross reference table. It will do this automatically if you go to Update Master File, Miscellaneous Estimator, Cash Register, or any of the Scratch Builders.

## **XML export file**

The .XML export file is created by the CFS user in the estimating and cash register modules of CFS. It contains all the relevant data for the job:

- a. Customer information
- b. The inventory detail
- c. Discount amount if listed separately
- d. Tax amounts
- e. Labor
- f. Freight
- g. Description of fence that includes the total footage and style of fence.
- h. The invoice number if exporting an invoice
- i. The payment if applicable
- j. The amount due

Suggested use:

- a. To export estimate or invoice information created in CFS.
- b. To create itemized reports in external programs.
- c. To create a summary report but with inventory accounted for separately.
- d. To be read by our sample Apps or an App you have written.

See examples of complete XML files on our webpage:

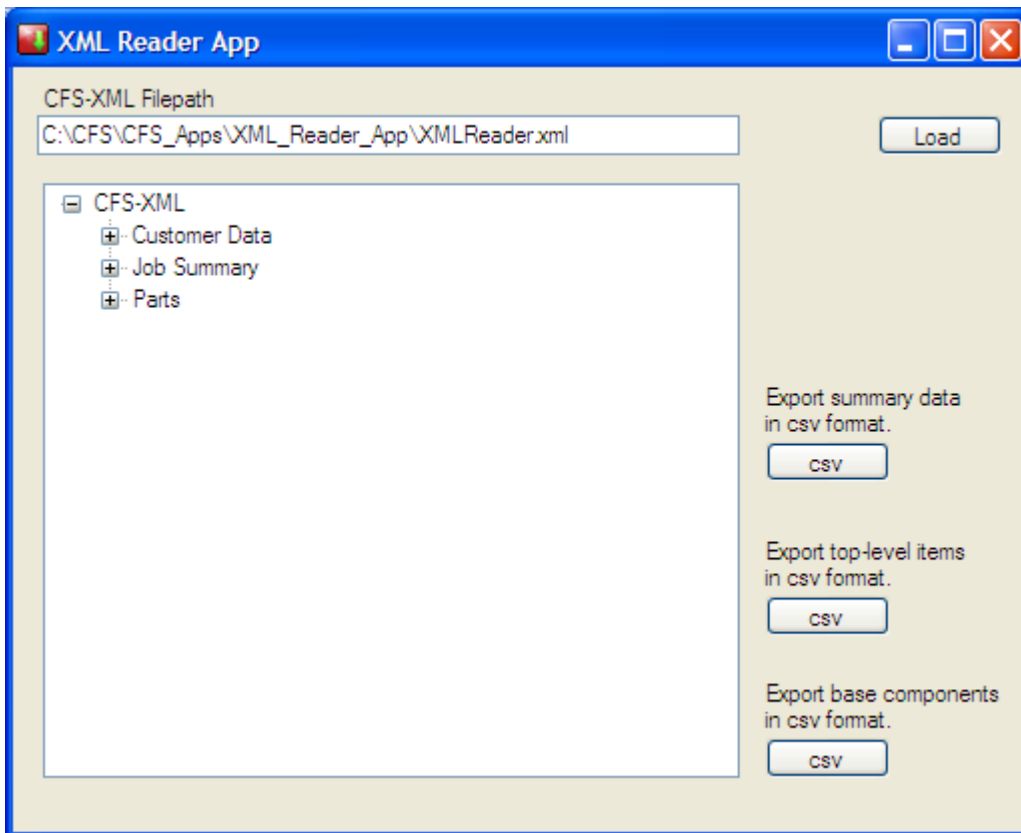
[www.fencesoftware.com/enterprise](http://www.fencesoftware.com/enterprise)

## Example Apps

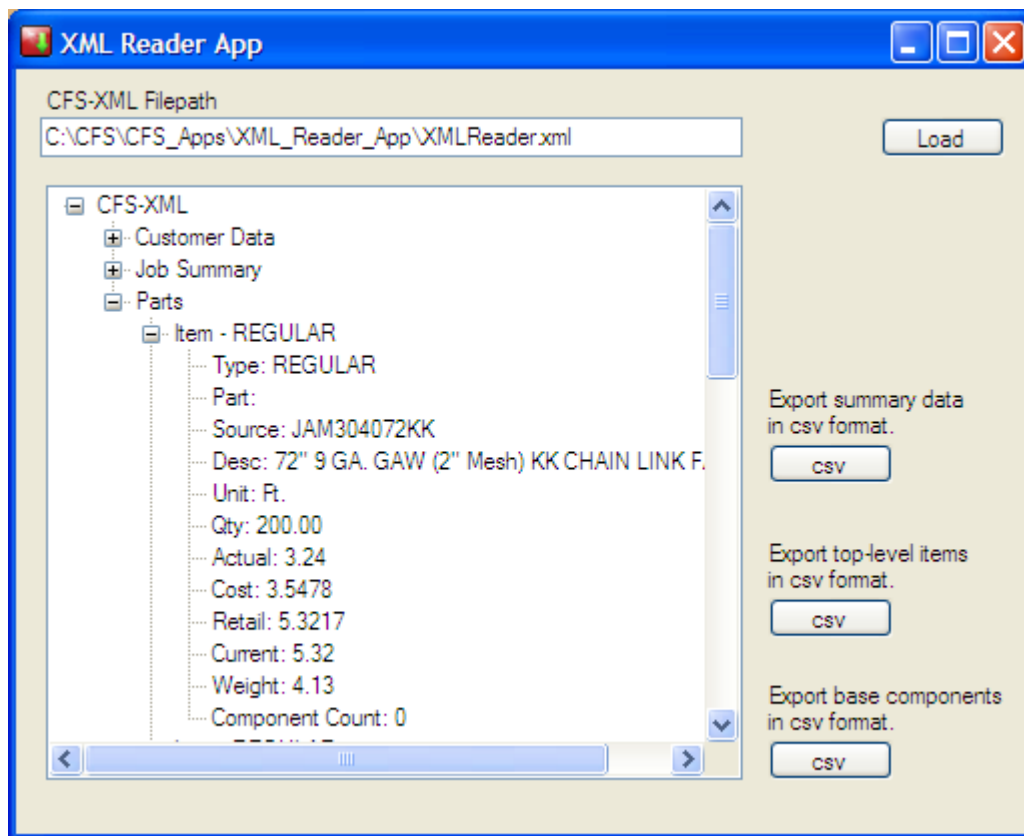
As of August 2010 there are three example Apps that can be launched from the Export window of the Reports Menu of any Scratch Builder, Miscellaneous Estimator, or Cash Register program in CFS. They are XML Reader App (cfs-xml.exe), Inventory Analyzer App (InventoryAnalyzerApp.exe), and the Commission Assistant App (CommissionApp.exe). They are written in VB.net and are open source. You can use them as they are, view them for a reference to writing another App, or you can build on them to change them to your own App. The source codes for these Apps are on our webpage [www.fencesoftware.com/enterprise](http://www.fencesoftware.com/enterprise). Microsoft has a free compiler program available for download from our webpage called VB.net Express or you can buy Visual Studio.

### XML Reader App

To run the XML Reader App double click on it on the Export window of the Reports Menu. You will be prompted for a codeword that you can obtain by contacting us. After entering the codeword and based on the way we originally provided the Enterprise.xml file, a file named XMLReader.xml will be created in the folder C:\CFS\CFS\_Apps\XML\_Reader\_App. In addition to creating the xml export file the App will read the file and display a window similar to the following:



You can click on the plus/minus signs to expand or contract the information in each group. If you view one of the example XML files on our webpage you will see it is very detailed and somewhat difficult to follow. This Reader makes it easier to view.



**Note:** In the Job Description area, if an overall discount has been applied to the job and the user chooses to not show the discount separately, meaning the discount is applied to each line item, the materials total in the XML file will be an after discount amount and consequently the discount line will not have an amount. The before and after discount amounts will be the same.

### **Inventory Analyzer App**

When you choose this App the program exports the data from the current estimate or invoice to an XML file under the name and at the location defined in the Enterprise.xml file. The Inventory Analyzer App then reads this file and extracts the item descriptions and quantities into a CSV file named invData.csv which will automatically open in your default spreadsheet program, usually Microsoft Excel.

Each time you choose this App it adds the data from the current job into that same csv file. The data accumulates. You can delete the invData.csv file or rename it to trigger the program to create and start a new file. You can use this report to analyze the raw material needed to build a certain fence, to see how much material has been sold over a period of time, to figure out how much material will be needed to build all the jobs sold but not installed yet, and more.

|    | A      | B           | C  | D    | E     | F      |
|----|--------|-------------|--|------|-------|--------|
| 1  | PART   | SOURCE      | DESC   | UNIT | QTY   | WEIGHT |
| 2  | NUMBER | NUMBER      |  |      |       |        |
| 3  |        | JAM304072KK | 72" 9 GA. GAW (2" Mesh) KK CHAIN LINK FABRIC | Ft.  | 223.5 | 4.13   |
| 4  |        | JAM428252   | 1 5/8" CS40 PIPE TOP RAIL                    | Ft.  | 194   | 1.84   |
| 5  |        | JAM449288BS | 2 3/8" BS40 PIPE                             | Ft.  | 50    | 3.1    |
| 6  |        | JAM439288BS | 1 7/8" BS40 PIPE                             | Ft.  | 96    | 2.3    |
| 7  |        | JAM478252   | 4" CS40 PIPE                                 | Ft.  | 22    | 6.1    |
| 8  |        | JAM459252BS | 2 7/8" BS40 PIPE                             | Ft.  | 10    | 4.64   |
| 9  |        | JAM111204   | 2 3/8" STEEL 7/8" HSB BRACE BAND             | Ea.  | 30    | 0.26   |
| 10 |        | JAM111207   | 4" STEEL 7/8" HSB BRACE BAND                 | Ea.  | 15    | 0.39   |
| 11 |        | JAM111205   | 2 7/8" STEEL 7/8" HSB BRACE BAND             | Ea.  | 5     | 0.29   |
| 12 |        | JAM110204   | 2 3/8" STEEL 7/8" HST TENSION BAND           | Ea.  | 30    | 0.31   |
| 13 |        | JAM110207   | 4" STEEL 7/8" HST TENSION BAND               | Ea.  | 5     | 0.45   |
| 14 |        | JAM110205   | 2 7/8" STEEL 7/8" HST TENSION BAND           | Ea.  | 5     | 0.34   |
| 15 |        | JAM220112   | 1 5/8" PRESSED STEEL PSRE RAIL-END           | Ea.  | 10    | 0.38   |

This App also creates a file named invLog.csv. You can open this in your spreadsheet program also. It records the name of the jobs the inventory quantities were exported from.

You can override the default location of the invData and invLog files by creating a text file in the root of the CFS folder. The file is required to have the name "invAnalyzerSavepath.txt". Simply type the path of where you want these files to be saved. For example, if my server was the N drive, N:\CFS\Inventory\_Analyzer\_files\.

### The Commission Assistant App

When you choose this App the program exports the data from the current estimate or invoice to an XML file under the name and at the location defined in the Enterprise.xml file. The Commission Assistant App then reads this file and extracts the summary job information including the In-Yard cost and selling price of the material, the installation labor, and taxes along with the salesperson for the job which the user associates during the export.

A file named commissionData.csv is created in the location configured in the Enterprise.xml file. This will also automatically launch in your default spreadsheet program where you can sort and otherwise manipulate the data to figure commissions.

As soon as the first salesperson's name is entered the program creates and stores the names in a file named commissionCodes.txt.

|   | A             | B              | C                                       | D              |
|---|---------------|----------------|---|----------------|
| 1 | EMPLOYEE      | CUSTOMER       | JOB DESCRIPTION                         | TOTAL          |
| 2 | NAME          |                |   | AFTER DISCOUNT |
| 3 |               |                |   |                |
| 4 | Salesperson A | JOHN WAKEFIELD | 186' - 72" 9 GA. GAW (2" Mesh) KK CHAIN | 4286.71        |
| 5 | Salesperson B | MARK WAHLBURG  | 26' 6' high WHITE CLOSED 3" PICKET Fer  | 1812.47        |
| 6 | Salesperson C | TOM NELSON     | 124' 6' high Fencing                    | 2078.56        |
| 7 |               |                |   |                |

| E     | F     | G     | H       | I       | J       | K       | L       | M        | N               |
|-------|-------|-------|---------|---------|---------|---------|---------|----------|-----------------|
| SALES | SALES | LABOR | FREIGHT | GRAND   | INVOICE | PAYMENT | BALANCE | IN-YARD  | DATE            |
| TAX1  | TAX2  |       |         | TOTAL   | NUMBER  | AMOUNT  | DUE     | COST     |                 |
|       |       | 942   |         | 5228.71 | UNSET   | 0       | 5228.71 | 3021.336 | 8/18/2010 10:52 |
| 81.56 |       |       |         | 1894.03 | UNSET   | 0       | 1894.03 | 1208.557 | 8/18/2010 10:54 |
| 93.54 |       |       |         | 2172.1  | UNSET   | 0       | 2172.1  | 1457.151 | 8/18/2010 10:57 |
|       |       |       |         |         |         |         |         |          |                 |

Column

- D Total After Discount This is the total selling price of the material
- I Grand Total This is the bottom line total including taxes & labor
- J Invoice number This example used estimates. If these had been invoices the invoice numbers would appear here.

## **XML file detail of elements available from CFS:**

Part Type: Reference as to what type of part is being reported. Each type of part is explained in more detail below.

- FABRICATED SECTION
- FABRICATED GATE
- FABRICATED POST
- FABRICATED PIECE
- REGULAR
  - APF REGULAR #
- WRITE ENTRY

Part: Part number stored in the file or special part number reference

Source: Source number stored in the file or special source number reference

Desc: Description of the line item entry or the description of the exact item when listed as a component.

Unit: unit of the line item entry

Quantity: quantity of current line as listed

Actual: Actual cost of current line item

Retail: Retail price of current line item

Cost: In-yard cost of current line item

Current: current price on the estimate

Weight: weight of the item

Componentlems: number of components if any

\*\*\*\*\*

Type - "FABRICATED SECTION"

Part & Source:"SECTION"

Other details come from the line item entry, has a breakout of the component pieces used in the section.

The quantity and prices are multiplied out to calculate the total labor rate which is the retail and cost information that is left over from the total on the SECTION line entries.

Components are listed as SECTION COMPONENTS #

Last SECTION COMPONENT # will be the labor information

Part & Source:"FAB-LABOR"

Price is the selling price / cost price less the multiplied out components

\*\*\*\*\*

Type - "FABRICATED GATE"

Part & Source:"FABRICATED"

Other details come from the line item entry, has a breakout of the component pieces used in the section.

The quantity and prices are multiplied out to calculate the total labor rate which is the retail and cost information that is left over from the total of the Fabricated Gate line entries.

Components are listed as GATE COMPONENT #  
Last GATE COMPONENT # will be the labor information  
Part & Source:"GATE-LABOR"  
Price is the selling price / cost price less the multiplied out components

\*\*\*\*\*

Type - "FABRICATED POST"  
Part & Source:"FAB-POST"  
Other details come from the line item entry, has a breakout of the component pieces used in the section.  
The quantity and prices are multiplied out to calculate the total labor rate which is the retail and cost information that is left over from the total of the Fabricated post pipe entry.

Components are listed as POST COMPONENTS #  
Labor Information  
Part & Source:"PIPE-LABOR"

\*\*\*\*\*

Type - "FABRICATED PIECE"  
Part & Source:"FAB-PIECE"  
Other details come from the line item entry, has a breakout of the component pieces used in the section.  
The quantity and prices are multiplied out to calculate the total labor rate which is the retail and cost information that is left over from the total of the Fabricated piece entry.

Components are listed as FABRICATED COMPONENTS #  
Labor Information  
Part & Source:"FAB-LABOR"

\*\*\*\*\*

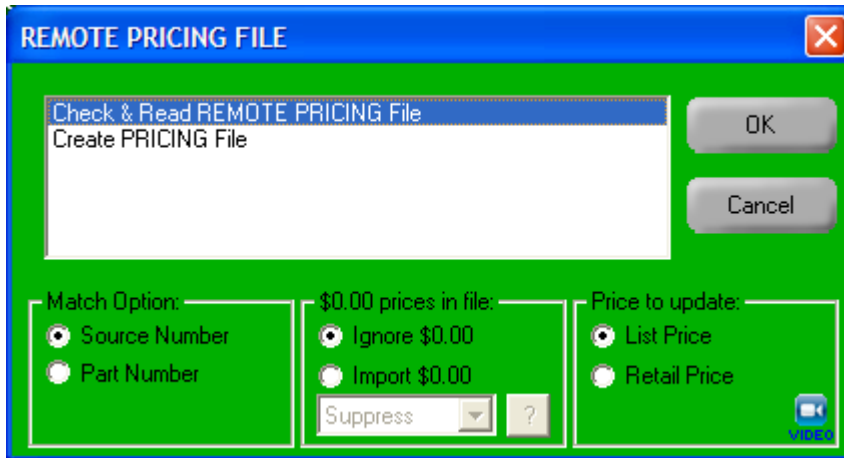
Type - "REGULAR"  
Part & Source: Report information stored in record  
Other details come from the line item entry. A REGULAR item can also be a pre-defined assembly. See APF REGULAR #1.

Type - "APF REGULAR #"  
This is the "type" designation for component parts of pre-defined assemblies.  
Part & Source: Report information stored in record  
No <current> price is reported as this information is not available.



# Automating Pricing Updates

Within the CFS program users can go Update Master File>Change List Price> Remote Pricing File to upload prices from a file.



By using the command line a programmer could make this an automated process triggered from outside CFS.

## Update Command Line options:

**/S** means that you use a Manufacturer's source number to put in prices. Follow this option by entering in the source code of MFG  
e.g.: /SMH or /SMMI

**/R** puts in the retail price instead of cost

**/FS** will flag a 0 price with an S flag (item lists on output with a price of zero)

**/FQ** will flag a 0 priced item with a Q flag (item lists on output with a 'call for quote')

**/FZ** will put no flag on 0 price items (item is suppressed from output)

**/O** leaves Update Master File open to the Pricing Report window after running the pricing file instead of automatically closing. CSV files will not automatically be opened.

**/D** automatically updates the prices on items that will have a drastically different price (3 times greater or 1/3 less then the original price) instead of ignoring those items and leaving them unchanged.

Example:

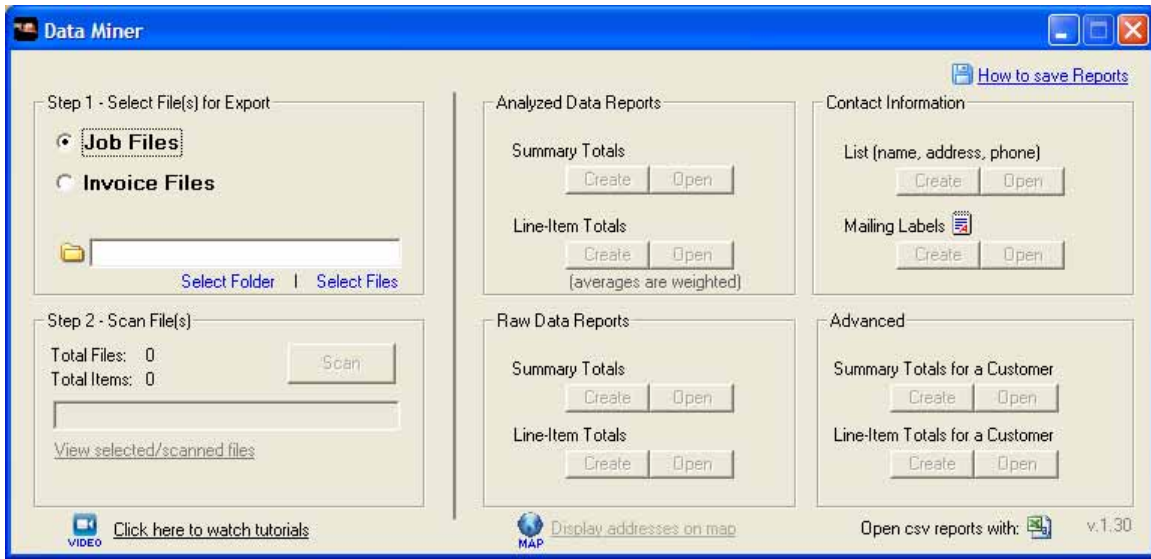
```
UPDATE.EXE c:\CFS\TEST.CSV /FS
```

This would open and run the TEST.CSV file in the CFS folder using Part Numbers, updating the cost of the items, and marking 0 priced items with an S Flag so they are shown on output with a zero price

Without options it will try to match the number in the Part Number field of the records and ignore the prices coming in of zero. Update Master File will close upon completion and display the pricing reports in the default program used to open CSV files.

# Data Miner

We have made Data Miner accessible with a command line for the option of automating special reports. Data can be extracted from previously saved jobs or the command line could be used to extract data in real time. (Standard accounting interface needs can be met with the other Enterprise tools.)



Example command line usage:

```
C:\CFS\ DataMiner.exe [-h][-m (JOB||INV)][-r 0-5][-o "output path"][-s "filepath 1", "filepath 2"]
```

-examples

```
C:\CFS\ DataMiner.exe -m INV -r 1 -o C:\outputFile.csv -s "C:\CFS\INV\0001.INV"
```

```
C:\CFS\ DataMiner.exe -m INV -r 0 -o C:\outputFile.csv -s "C:\CFS\INV\0001.INV",  
"C:\CFS\INV\0002.INV", "C:\CFS\INV\0003.INV", (...), "C:\CFS\INV\0009.INV"
```

```
C:\CFS\ DataMiner.exe -m JOB -r 4 -o C:\contactList.csv -s "C:\CFS\JOB\job1.JS0",  
"C:\CFS\JOB\job2.JS0", "C:\CFS\JOB\job3.JS0",
```