



Energy & Materials Flow and Cost Tracker (EMFACT) Procedure Guide

Fundamentals of EMFACT

EMFACT offers a comprehensive tool to assist the small and medium size enterprise in managing their fuel, water and materials usage. Using EMFACT, companies can track air emissions, wastewater, solid/hazardous waste, and related costs associated with the day-to-day operations of their business.

The purpose of this guide is to provide an overview of EMFACT, describe various maintenance requirements, as well as review EMFACT's standard features and functionality.

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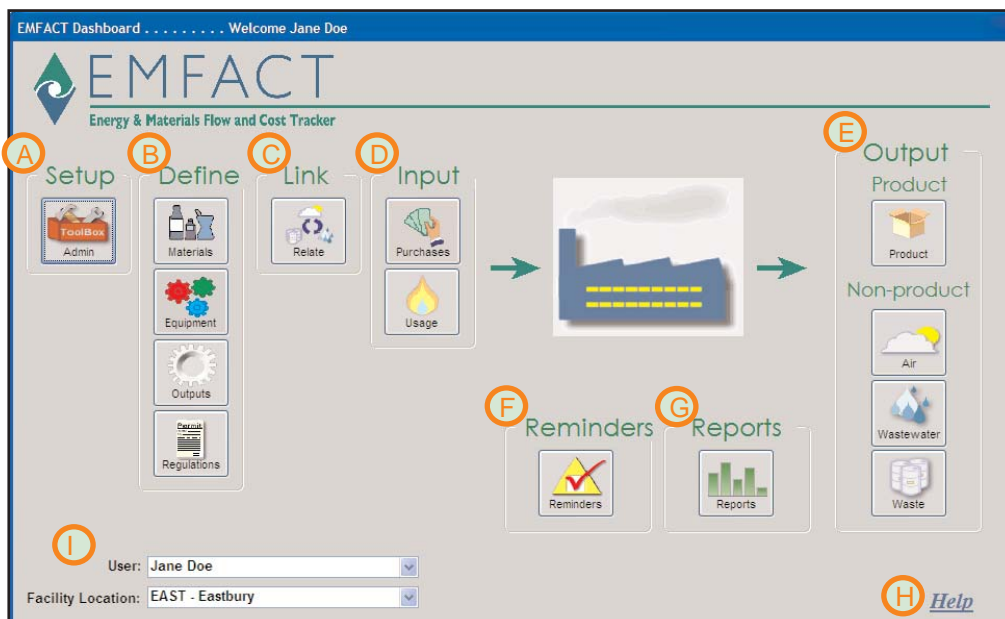
Dashboard Orientation

The **EMFACT Dashboard** window is the home page for EMFACT. The dashboard is divided into seven parts: Setup, Define, Link, Input, Output, Reminders and Reports.

1 Dashboard

The order of the dashboard coincides with the order of the business process. Users will begin at the left and then move across the window until product and non-product Output is computed.

- A. Setup** contains the following button:
- **Admin** allows you to edit user and facility information, and add your facility's buildings and departments. This is also where you maintain the drop down lists found throughout the application.
- B. Define** contains the following buttons:
- **EHS Objects** allows you to maintain the details related to equipment, production units, air emission sources, discharge points and waste types used in this application.
 - **Materials** is where you maintain the required details related to the Chemical Abstract Society (CAS) number listing, chemical constituents, synonyms/aliases, container sizes for this application.
 - **Permits** allows you to set up and maintain relevant permits, orders, registrations or certificates.
 - **Product** allows you to maintain distinct products produced by the company as well as distinct sub/intermediate products included in each product.
- C. Link** contains the following button:
- **Relate** allows you to describe the various inputs and outputs related to equipment and production units.
- D. Input** contains the following buttons:
- **Purchases** allows you to import purchased materials data from an electronic file or enter this data manually.
 - **Usage** allows you to input estimated chemical, water, paint and fuel usage.
- E. Output** contains the following buttons:
- **Product** allows you to allocate intermediate products to material data.
 - **Air, Wastewater** and **Waste** allow you to compute/document paint & fuel (air) emissions, compute/document wastewater discharge and document the details related to waste shipments.
- F & G. Reports and Reminders** buttons are available on this page to help you run reports and set up/view calendar events.
- H.** The **Help** link at the bottom of the window advances you to the **EMFACT Help** page, which provides the available documentation.
- I.** The bottom left corner of the **Dashboard** indicates the **User** and **Facility Location**.



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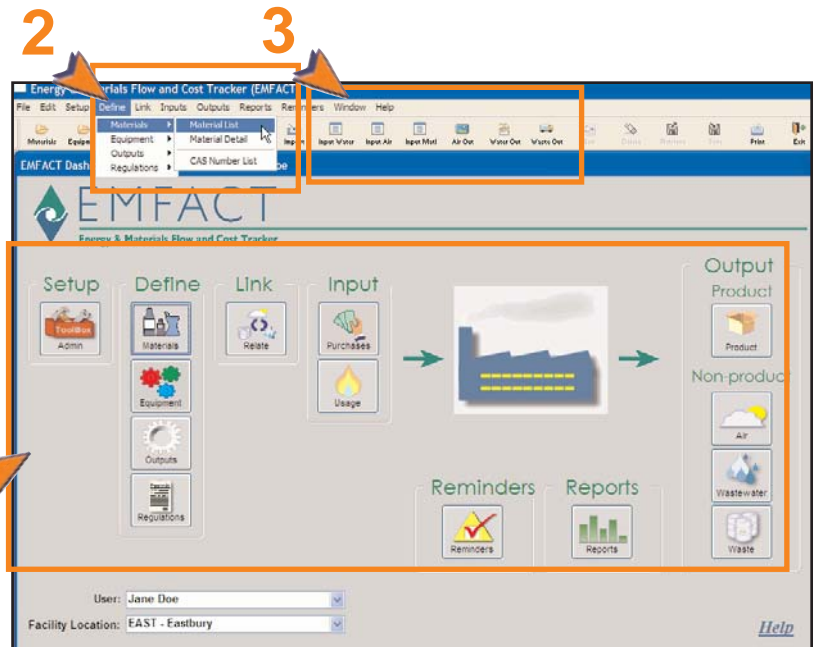
Accessing EMFACT Windows

Every EMFACT window can be accessed two (and in some cases three) ways.

2 Access to Windows

The following represents the various ways that EMFACT windows are accessed.

- 1 > The **EMFACT Dashboard** window has seven sections: Setup, Define, Link, Input, Output, Reports, and Reminders. Each section contains at least one button. When you click these buttons, it opens up either a Cue Card window (discussed on the next page) or a data entry window.
- 2 > Every window can be accessed from the main menu.
- 3 > The toolbar contains buttons for many of the key windows.



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Cue Cards

Most EMFACT sections have cue cards associated with them. Cue Cards are designed to guide users through the EMFACT process, and are used for maintenance as well as initial setup.

3 Cue Cards

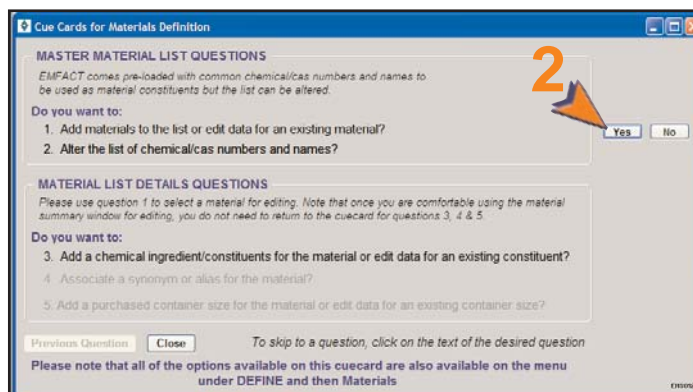
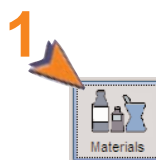
Each Cue Card contains a series of questions. Users click **Yes** or **No** to the questions. When answering **Yes**, the appropriate EMFACT window will display. If answering **No**, the prompt advances to the next question.

- 1 > Cue Cards are accessed by clicking an icon on the **EMFACT Dashboard**. The Cue Card for that function will display.

Note: If a Cue Card is not set up for a particular function, the appropriate window will display instead.

- 2 > Answering **Yes** or **No** to specific questions brings the user to the correct data entry window.

Using the Cue Card is optional, since every window available through the Cue Card is also accessed from the main menu. Users may elect to access windows directly from the main menu, instead of the Cue Card, once they are more experienced using the EMFACT application.



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Basic vs. Advanced User Fields

There are two permission levels in EMFACT: *Basic* and *Advanced*. The same windows are used for both permission levels, however only the required fields will be enabled for the Basic user, while required and optional fields are enabled for the Advanced user.

4 Basic vs. Advanced User Fields

Advanced Users have access to more fields on the EMFACT windows than the Basic User. However, Basic Users can temporarily enable themselves as an Advanced User.

- 1 > Click the **Enable Advanced Fields** checkbox. The advanced user fields will change from gray to white.

Material List

Filter Data

Material ID: Synonym:

Material Name: Manufacturer Name:

Material Type: CAS Number:

Refresh Data
Clear Filter
More Detail

Material ID	Material Name	Material Type	Manufacturer Name	Density	VOC %	Mfr Written Date	Mfr Re
FUEL	Sample Fuel Oil	Fuel		7.1	0.00	00/00/0000	00/00/0
OTHER	Sample Other Material	Composite	Unknown	19.0	0.00	00/00/0000	00/00/0
PAINT	Sample Paint	Paint	Unknown	10.84	0.00	00/00/0000	00/00/0
WATER	Water - Do Not Delete	Water		8.3	0.00	00/00/0000	00/00/0

Basic User

Enable Advanced Fields

1 of 4 Records
DEF001

Material List

Filter Data

Material ID: Synonym:

Material Name: Manufacturer Name:

Material Type: CAS Number:

Refresh Data
Clear Filter
More Detail

Material ID	Material Name	Material Type	Manufacturer Name	Density	VOC %	Mfr Written Date	Mfr Re
FUEL	Sample Fuel Oil	Fuel		7.1	0.00	00/00/0000	00/00/0
OTHER	Sample Other Material	Composite	Unknown	19.0	0.00	00/00/0000	00/00/0
PAINT	Sample Paint	Paint	Unknown	10.84	0.00	00/00/0000	00/00/0
WATER	Water - Do Not Delete	Water		8.3	0.00	00/00/0000	00/00/0

Advanced User

Enable Advanced Fields

1 of 4 Records
DEF001

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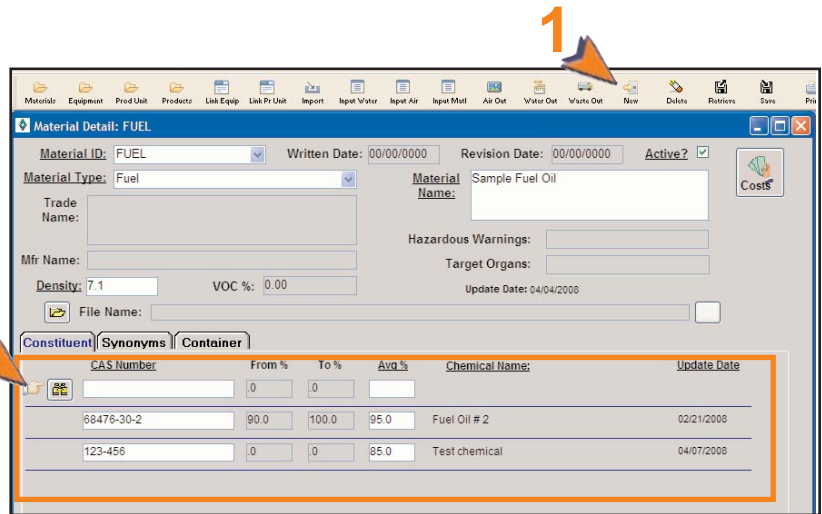
Creating New Rows of Data

Many of the EMFACT windows are designed so that data can be added and maintained in list form.

5 Creating New Rows of Data

Many of the EMFACT windows are made so that rows of data can be added, such as this example where rows of constituents are listed for this Material ID.

- 1 > When adding data, you must click **New** in the toolbar.
- 2 > Sometimes, this **New** button is disabled. To enable the button, simply click your cursor in the active window where you want to add the new row. In this example, you would click your cursor anywhere on the **Constituent** tab.



Dropdown Lists of Data

Many of the EMFACT windows are designed so that data can be added and maintained in list form.

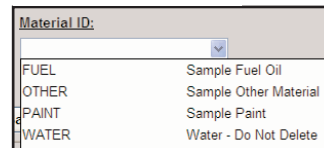
6 Standard Dropdowns

There are two types of dropdown lists.

User Defined List

EMFACT uses dropdown lists from which users select a choice. Some lists were defined during the Define process (e.g., Material ID, Production Unit/Equipment ID, etc.).

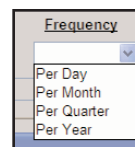
User Defined List



Standard EMFACT List

Other lists are standard lists within EMFACT (e.g., . Please refer to the separate document entitled, User Guide, (Admin Setup module) for adding to this list.

Standard List



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Access to the Documentation

EMFACT offers a comprehensive Procedure Flows and Procedure Guides to help users utilize EMFACT to its fullest potential.

7

Documentation

There are two types of EMFACT documentation:

Procedure Flows outline the steps within a procedure and identify the required fields for each step. Flows do not include optional steps, so consult the Procedure Guides for additional, optional details.

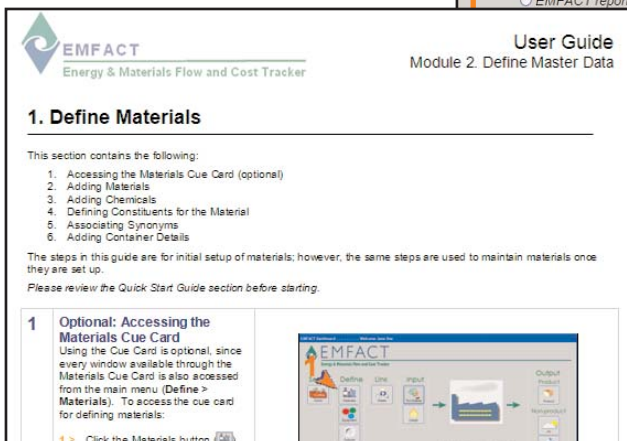
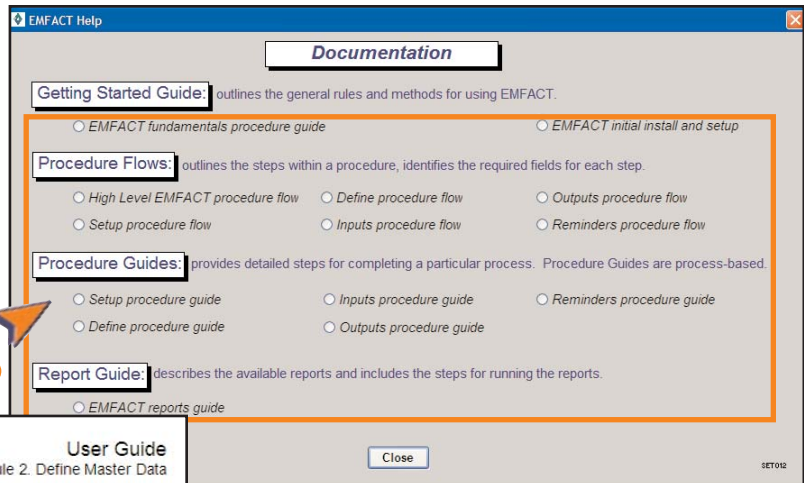
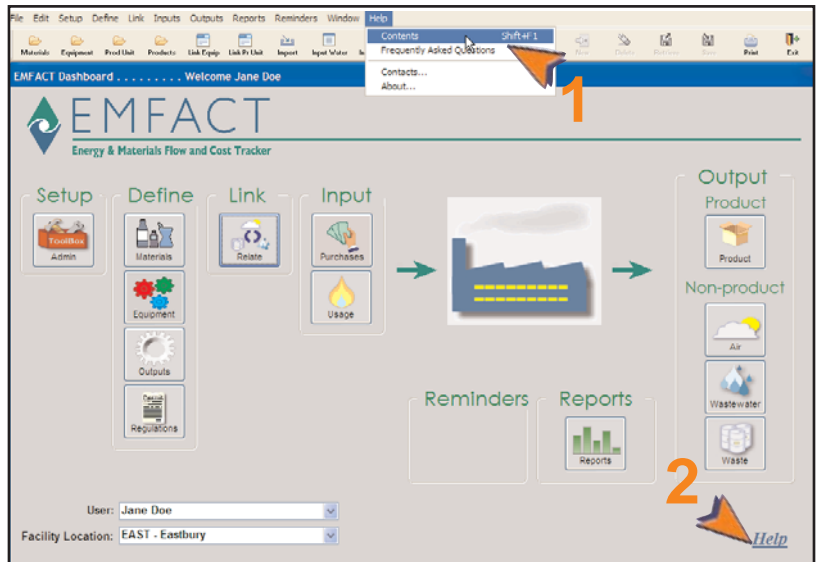
Procedure Guides provide the details steps for completing a particular process. They will sometimes include optional steps based on the business process.

To access the documentation:

- 1 > Select **Help > Contents** from the main menu. The **EMFACT Help** window will open.

or

- 2 > Click **Help** on the **EMFACT Dashboard**. The **EMFACT Help** window will open.
- 3 > Click on one of the links. The corresponding document in PDF format will display for you to either print or save.



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Types of Windows

There are two types of windows used for adding and maintaining data in EMFACT: (1) the List Window and (2) the Detail Window.

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Types of Windows

The “List” window displays a listing of information for that category. When opening this window, it will autopopulate with the data from your facility location.

It also provides a **Filter Data** section if you are searching for a particular set of data.

A **More Detail...** button is available, which opens a Detail window for the selected item.

Below: List Window

Air Source ID	State Source Id	Air Source Category	Exhaust Flow (ACFM)	Exit Direction	Permit No	Building Code	Air Source Height	Air
123	123A	Air Intake		1/Vertical		200	3.0	
ABC	ABC - Stack	Tank Breather Vents		1/Vertical			1.0	
STACK1	2007-01	Air Intake		1/Vertical	12345	100	1.0	
STACK2		Tank Breather Vents		5/Horizontal			5.0	

The “Detail” window provides additional fields to help you maintain the item. Detail windows will sometimes have tabs where you can add rows of data.

Below: Detail Window without “tabs”

Constituent	Synonyms	Container			
Chemical ID	From %	To %	Avg %	Chemical Name	Last Update
7664-41-7	20.0000	40.0000	30.0000	Ammonia	10/09/2007

Above: Detail Window with “tabs”



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Changing Your User Permission Level

There are two permission levels in EMFACT: *Basic* and *Advanced*. The same windows are used for both permission levels, however only the required fields will be enabled for the Basic user, while required and optional fields will be available for the Advanced user.

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Changing Your Permission

Each time a user logs on to EMFACT, he is granted the permission level specified during ADMIN setup.

There are two ways to change a permission level.

Temporary Change

To temporarily change your permission level on a window:

- 1 > Click **Enable Advanced Fields**. The optional fields will turn white to indicate they they are enabled (editable).

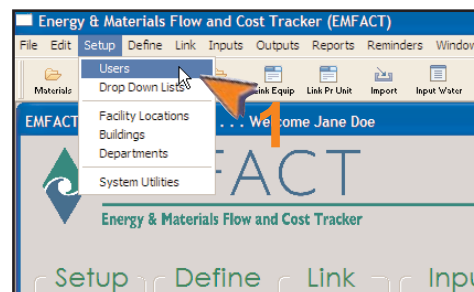
Note: This change applies to the current window only.

1

Permanent Change

When EMFACT was installed, you provided a User ID, User Name and User Type. That information can be edited using the following steps:

- 1 > Select **Setup > Users** from the main menu. The **User List** window will open.
- 2 > Click the appropriate radio button next to the **User Type** field.
- 3 > Click **Save**.



3

2

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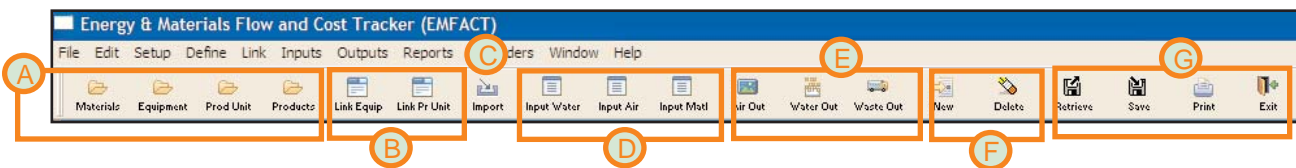
Standard Toolbar

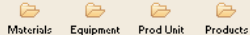


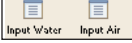



The EMFACT toolbar is similar to toolbars in other applications in that it provides shortcuts to common functions (e.g., save and delete). In addition, this toolbar provides shortcuts to commonly-used windows.

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Standard Toolbar Buttons

Below is a brief description of each button located on the toolbar (moving from left to right). Refer to the module's specific documentation for additional details.



- A > Yellow Folder Buttons** (): Clicking one of the yellow folder icons will open the corresponding **List** window (i.e., **Materials List**, **Equipment List**, **Production Unit List**, **Product List**) for that item. The windows are used to maintain a list of materials, equipment, production units, and products at your facility.
- B > Link Buttons** (): Clicking the **Link Equip** button or **Link Pr Unit** button opens the **Equipment Links** window or **Production Unit Links** window. These windows are used to characterize your equipment and production units by associating related materials, products, air sources, emission sources, pollutants and waste types.
- C > Import Button** (): Clicking on the **Import** button opens the **Import Data from a File** window. This window is used for importing electronic files of materials purchased data.
- D > Input Buttons** (): Clicking one of the **Input** buttons opens the corresponding data entry window (i.e., **Enter Water Usage**, **Enter Material Usage**, **Enter Material Usage with Air Emissions**) for entering usage.
- E > Out Buttons** (): Clicking one of the **Out** buttons opens the window for viewing/maintaining output data for that item (air emissions, wastewater discharge, waste management activity).
- F > New and Delete** (): Clicking **New** allows you to make a new row when entering lists of data. Clicking **Delete** allows you to delete a row of data.
- G > Typical Toolbar Buttons** (): There are also standard buttons on the toolbar, which are used for the following:
- Retrieve** is used to access data or records from the database.
 - Save** is used to commit your changes to the database
 - Print** is a shortcut used for printing data a report or window in EMFACT.
 - Exit** button closes all open windows within the module. If you have made any changes, you will be prompted to save your data.



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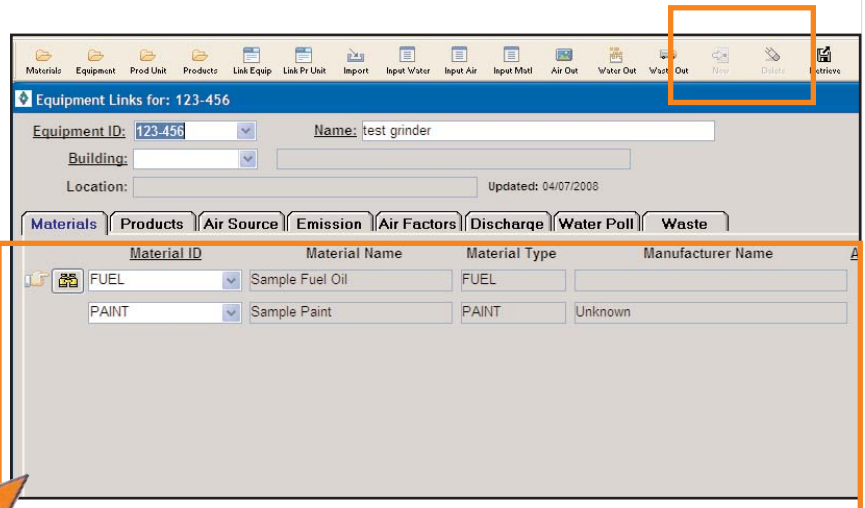
New and Delete Buttons

Almost every module contains **New** and **Delete** buttons. These buttons are located in the EMFACT toolbar and are used to add and remove rows of user-defined data related to a record.

11

Using the New & Delete Buttons

The **New** and **Delete** buttons are not always enabled. Subsequently, if you click on one of the buttons, it will not work. The image to the right shows the buttons when they are disabled and appear faded.



Activating the New & Delete Buttons

Follow these steps to activate the **New** and **Delete** buttons:

- 1 > Click anywhere in the window where you will be adding or deleting the row. The **New** and/or **Delete** buttons will change to color, indicating that they are enabled.

Adding a Row

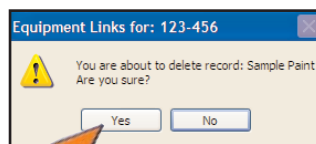
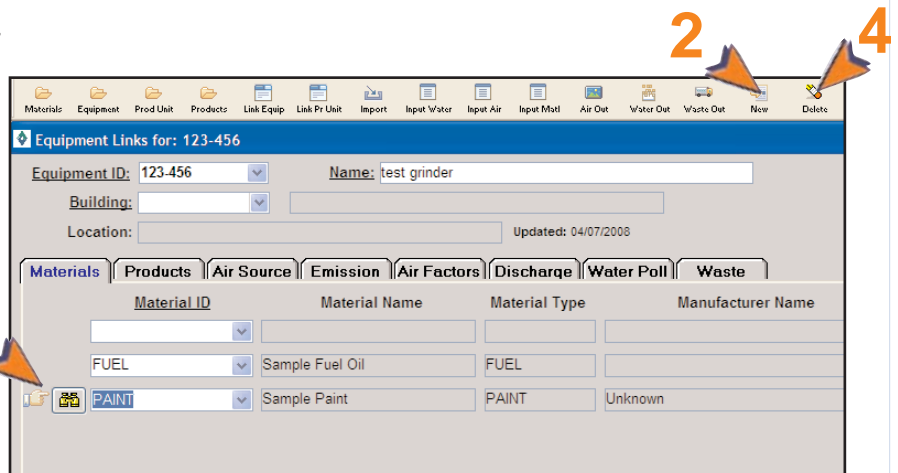
Most modules allow you to add multiple rows of data. To add a row:

- 2 > Click **New**. A blank row will display for you to complete. New rows display above the row that is currently selected.

Deleting a Row

You also have the option of deleting a row. To delete an unwanted row:

- 3 > Select the row you want to delete by clicking on it. The hand icon will point to the row once it has been selected.
- 4 > Click **Delete**.
- 5 > Click **Yes**. The row will disappear from the tab.





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Yellow Binoculars

The **Yellow Binoculars** icon is found throughout EMFACT. It allows you to search for a material or piece of equipment.

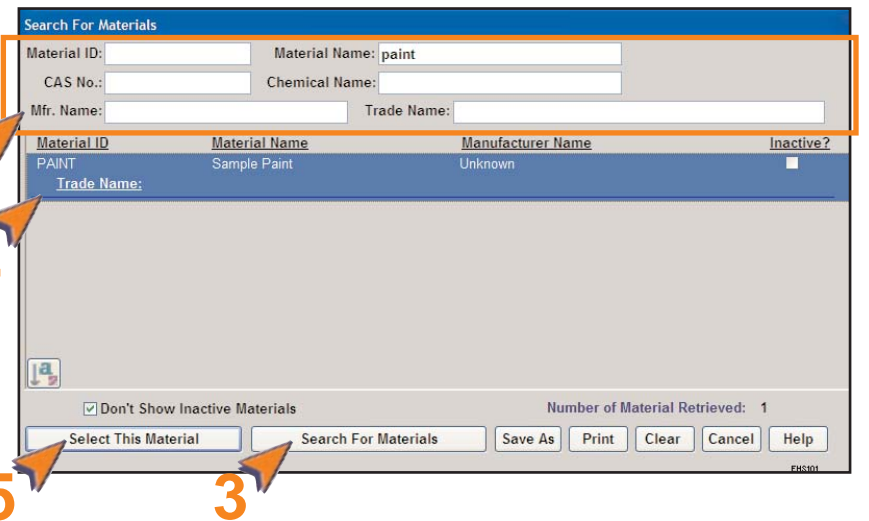
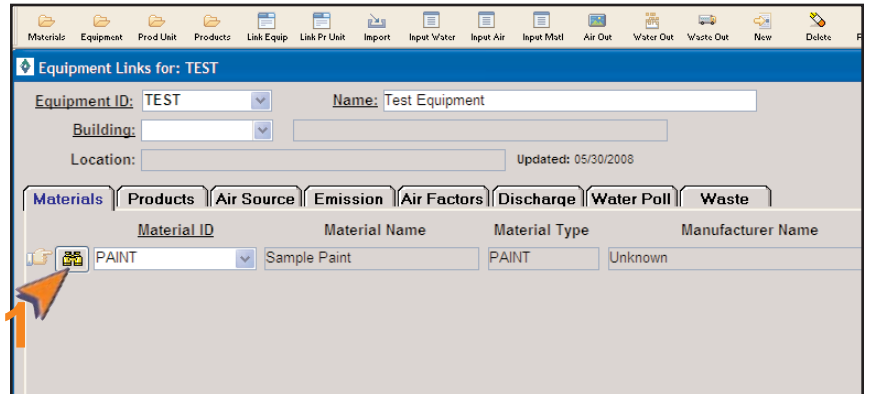
12

Using the Yellow Binoculars

Fields that are “searchable” will have the Yellow Binoculars icon () next to them.

To launch the search process:

- 1 > Click the **Yellow Binoculars** icon. The appropriate **Search** window will open. In this example, the **Search For Materials** window is launched.
- 2 > Complete at least one of the filter fields. Filter fields will vary depending on the type of search. Completing more fields will narrow your search, while fewer fields will broaden your search.
- 3 > Click the appropriate **Search** button. In this case, it is the **Search for Materials** button. The window will refresh listing the data within the search parameters.
- 4 > Click on and highlight the appropriate selection.
- 5 > Click the appropriate **Select** button. In this case, it is the **Select this Material** button. The **Search** window will close.



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Searching

EMFACT allows you to perform searches on your data. A flexible set of search criteria is available to help narrow the search results.

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Searching

Windows that have a **Filter**

Data section at the top indicate that you can perform a search.

- 1 > Complete at least one field in the **Filter Data** section. More fields will narrow your search, while fewer fields will broaden it.
- 2 > Click **Refresh Data** or **Retrieve**. A list matching the search parameters will display.
- 3 > To perform another search, click **Clear Filters**.

The screenshot shows the 'Material List' window in EMFACT. At the top, there is a 'Filter Data' section with the following fields: Material ID, Material Name (containing 'paint'), Material Type (a dropdown menu), Synonym, Manufacturer Name, and CAS Number. To the right of these fields are three buttons: 'Refresh Data', 'Clear Filter', and 'More Detail'. Below the filter section is a table with the following columns: Material ID, Material Name, Material Type, Manufacturer Name, Density, and VOC. The table contains one row with the following data: PAIN, Sample Paint, Paint, Unknown, 10.84, and 0.00/00/0000. Three orange arrows with numbers 1, 2, and 3 point to the Filter Data section, the Refresh Data button, and the Clear Filter button, respectively.

Material ID	Material Name	Material Type	Manufacturer Name	Density	VOC
PAIN	Sample Paint	Paint	Unknown	10.84	0.00/00/0000

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Sorting

The ability to sort your search results is located throughout EMFACT. Data can be sorted on only one field or multiple fields.

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Sorting Data

To use this feature you must have already performed a search and there must be search results in the bottom half of the window.


A. Sorting on One Field

This method is used when needing to sort on only one field (e.g., date, ID, etc.).

- 1 > Click the heading of the column you wish to sort by. The search results data will sort on that column in ascending order. Click the column heading again to sort in descending order.

B. Sorting on Multiple Fields

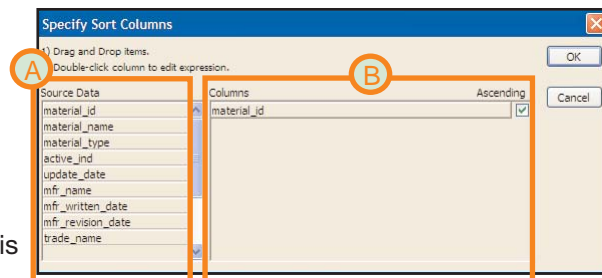
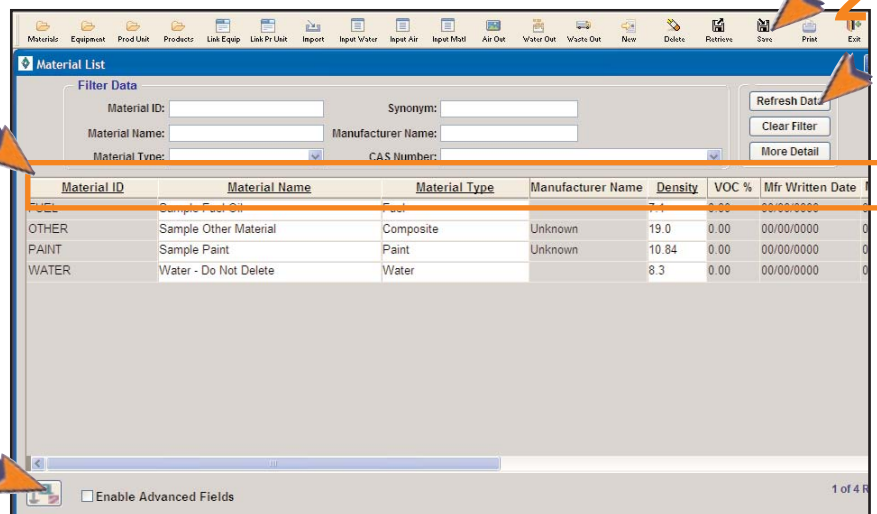
This method is used when needing to sort first on one field and then on another, and so on.

- 2 > Click the **Sort** button (). The **Specify Sort Columns** window will display.

A. The **Source Data** section displays every field on which the data can be sorted.

B. The **Columns** section displays the field(s) on which the data is currently sorted and defaults to ascending order. When there are multiple rows in this column, the sort order is first on the first row, secondarily on the second row, etc.

- 3 > Find the field you want to sort by. Click on, drag and drop the field into the **Columns** section.
- 4 > Click **OK**. The window will close and the data on the search window will display in the selected order.





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Comments Button

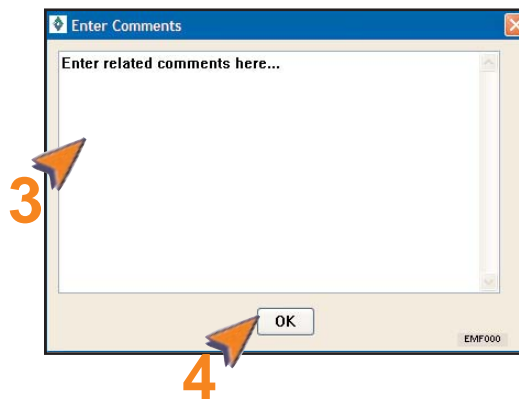
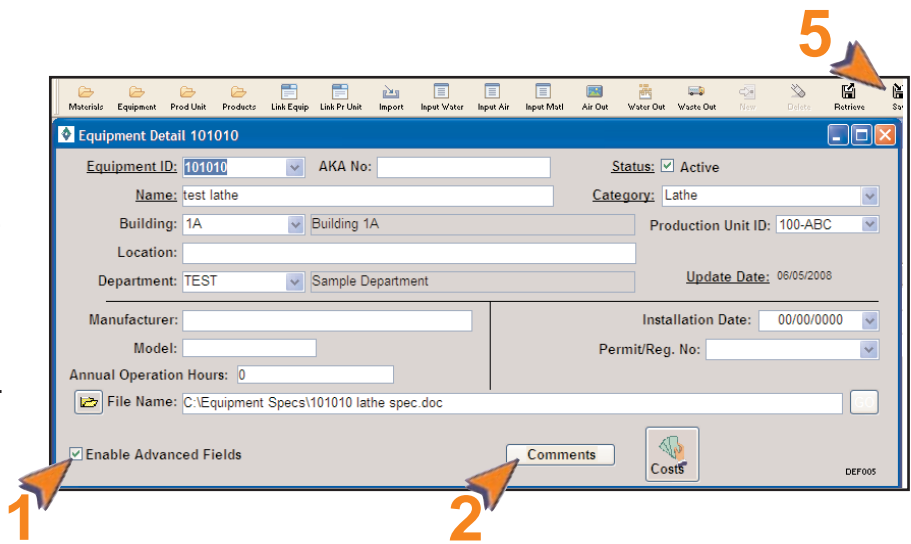
The **Comments** feature is located throughout the EMFACT application. It allows users to store large amounts of freeform text related a record.

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Adding Comments

The **Comments** button is generally located at the bottom of the window. To use this feature:

- 1 > If you are not an Advanced User, click the **Enable Advanced Fields** button.
- 2 > Click the **Comments** button. The **Enter Comments** popup will display.
- 3 > Enter freeform text into the window.
- 4 > Click the **X**. The popup will close.
- 5 > Click **Save**.





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Attaching Files

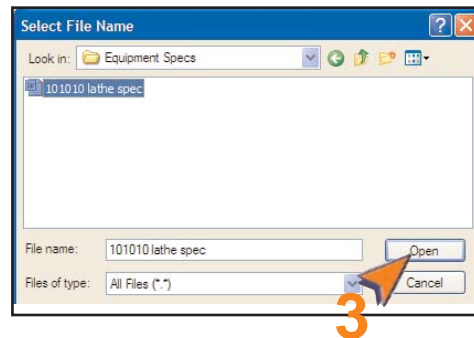
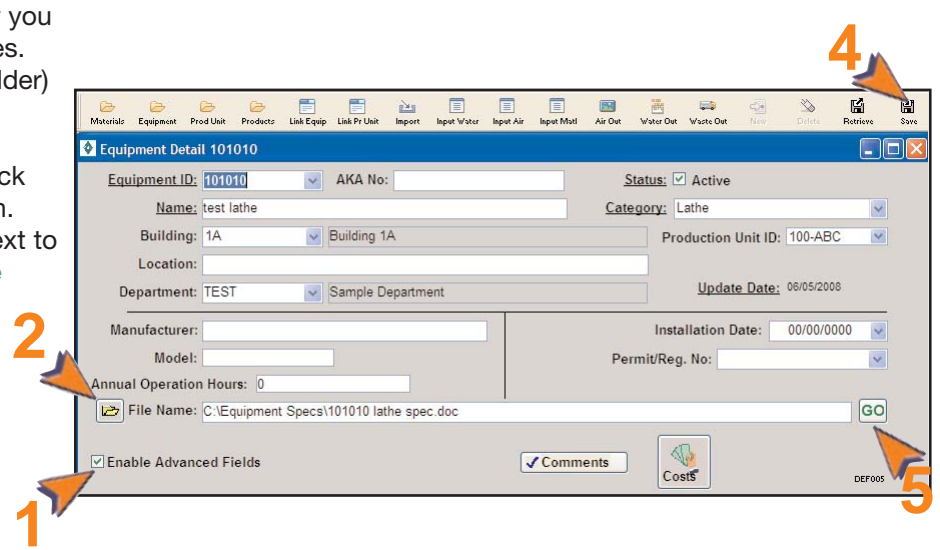
Some windows offer the option of identifying and linking electronic files (e.g., documents or pictures) to the record. When using this feature, files are not actually attached to the EMFACT record, rather the path is identified and there is a dynamic link to the file(s).

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Attaching Files

You have two choices when attaching files. You can attach one file or you can attach a folder containing several files. Before starting, ensure that the file (or folder) is located on a shared network drive.

- 1 > If you are not an Advanced User, click the **Enable Advanced Fields** button.
- 2 > Click the **yellow folder** icon (📁) next to the **File Name** field. The **Select File Name** popup will open.
- 3 > Navigate to and select the correct file, then click **Open**. The **File Name** field will fill with the file path.
- 4 > Click **Save**.
- 5 > To open an attached file, click **GO**.



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Printing and Saving

EMFACT offers a few options for printing and saving your data.

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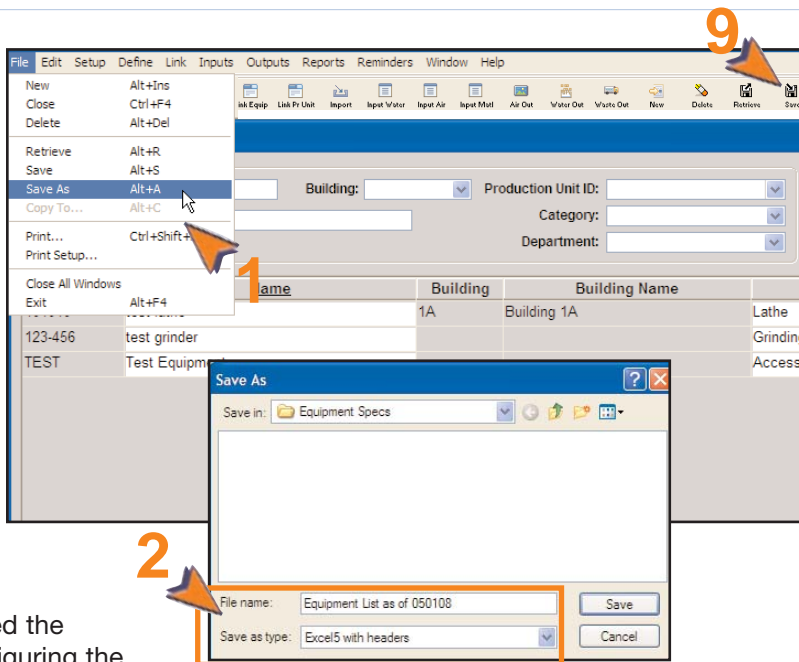
Saving & Printing

Saving

Most **List** windows allow you save your data to another format such as PDF*, Excel™ or a Text file. While on the **List** window:

- 1 > Select **File > Save As** from the main menu. The **Save As** popup will open.
- 2 > Complete the **Filename** field and make a selection from the **Save as type** dropdown. The most common choices are PDF, CSV (comma separated values), Excel with headers, and Text with headers.
- 3 > Click **Save**. The file will save in the designated directory.

* PDF is an option only if you have followed the steps in the Admin Setup Guide for configuring the Save-As-PDF feature.

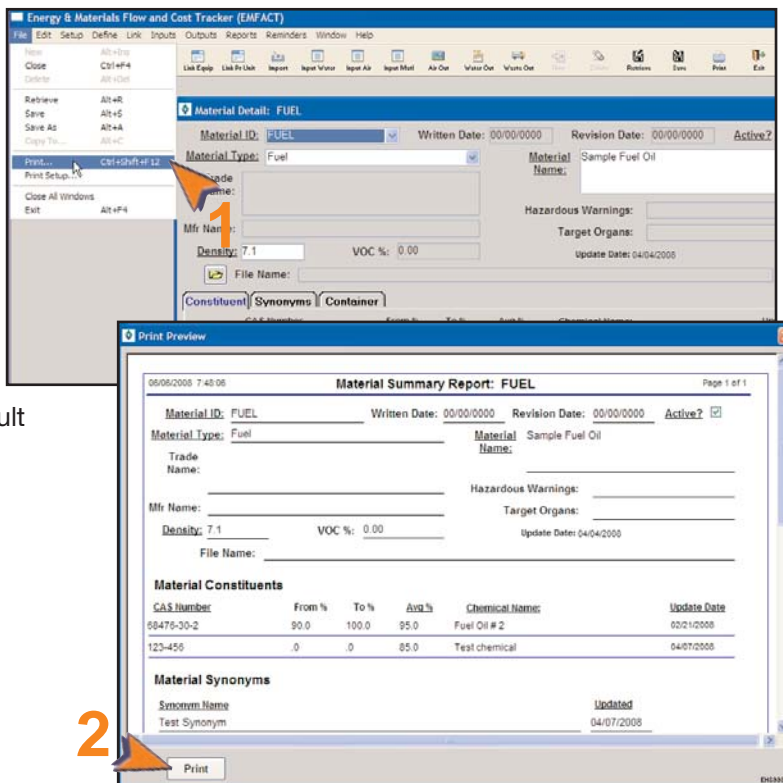


Printing

Some windows have summary reports that you can print. Windows offering summary reports are:

- Material Detail
- Equipment Links
- Production Unit Links

- 1 > Select **File > Print** from the main menu. A **Print Preview** window will display. Click the **Print** button.
- 2 > Click **Print**. The report will print to your default printer.



Energy & Materials Flow and Cost Tracker (EMFACT) Procedure Guide

Fundamentals of EMFACT

Backing Up and Restoring the Database

As with any software, there is a small possibility that the EMFACT program becomes corrupt, causing loss of data. To keep the amount of data loss to a minimum, backing up your data is recommended at least weekly and maybe even daily, depending on the amount of data entered in a particular day.

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Backing Up/Restoring

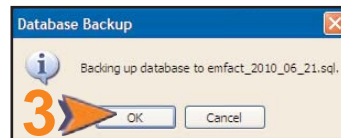
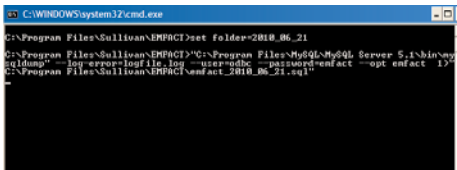
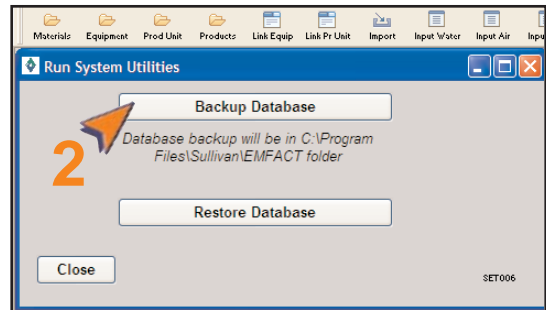
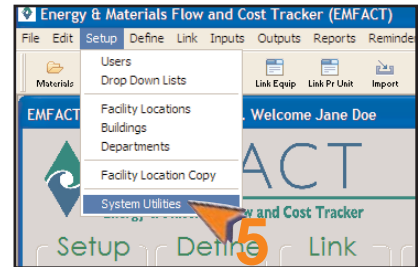
Backing up your data involves making a copy of your database and storing it on another computer or storage medium.

Note: When using this feature, it backs up and restores data for all Facility Locations. It is, therefore, not necessary to back up each Facility Location individually.

Part 1: Backing Up Data

Use the following steps to back up your database:

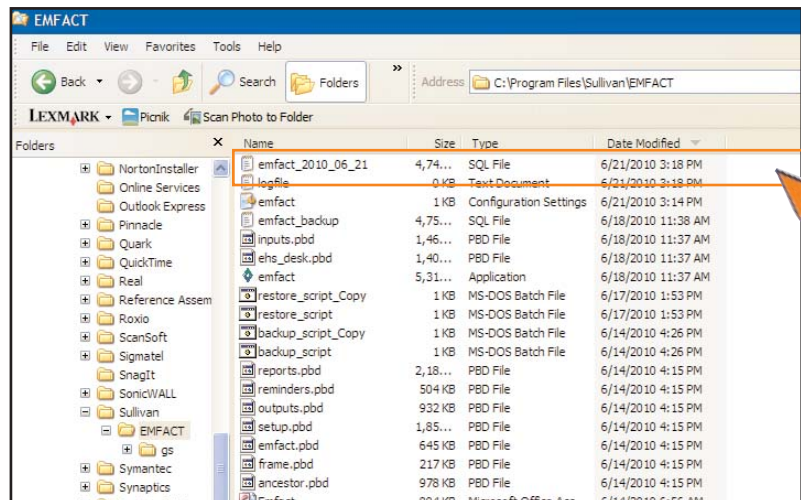
- 1 > Select **Setup > System Utilities** from the main menu. The **Run System Utilities** window will open.
- 2 > Click **Backup Database**. The **Database Backup** popup will display the file name. The file naming convention is "emfact" followed by the date of the backup *year__month__date*.
- 3 > Click **OK**. A black window will display (shown below). It may take several minutes, but this window will close on its own when the backup is complete.



- 4 > Using Windows Explorer, navigate to the correct file. Backup files are stored in the following directory:

c:\Program Files\Sullivan\EMFACT

- 5 > Copy the file onto another storage medium such as an external hard drive or rewritable CD or DVD.



Energy & Materials Flow and Cost Tracker (EMFACT) Procedure Guide

Fundamentals of EMFACT

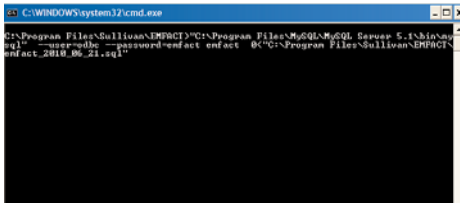
Backing Up/Restoring, continued

Part 2: Restoring the Database:

Use the following steps to restore the database.

Ensure that the backup file (.SQL file) is in the c:\Program Files\Sullivan\EMFACT directory.

- 1 > Select **Setup > System Utilities** from the main menu. The **Run System Utilities** window will open.
- 2 > Click **Restore Database**. The **Select Import File** popup will open directly to the EMFACT directory.
- 3 > Click on the restore file and click **Open**. A black window will display. The window will close on its own when the restore is complete.



- 4 > Click **Close** on the **Run System Utilities** window.

