TFG4000™

Professional Edition

Material Scheduling

Users Guide

Version 1.4.5

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Welcome

The TFG4000 Professional Edition Software Series is a set of business management software applications that offer the robust functionality of an advanced management tool, yet tailored to meet the needs and budget of your growing business. Each TFG4000 Professional Edition application is integrated with other TFG4000 Professional Edition applications to provide you the optimum benefits of business management software.

TFG4000 Professional Edition is an easy-to-learn, user-friendly system that requires only minimal keystrokes for entering information. There are customizable dropdowns, font sizes, and screen colors available, as well as powerful search capabilities and built-in help features to help guide you through the system. With TFG4000 Professional Edition, you have the ability to pull up various summary screens, enter as little or as much data as you need, process a variety of reports - all of which help you save both time and money, which will add directly to your bottom line. For added convenience, TFG4000 Professional Edition also allows you to run the system in either single or multi-user mode, whichever works best for your business. Other features include optional security, as well as data import and export features, which save you the work of re-keying information. In all, TFG4000 Professional Edition is the smart source for business management. A simple solution for a complex process.

System Requirements

Microsoft Windows XP®, Microsoft Windows 2003 Server®, or Microsoft Windows 2000 Server®, with the latest Service Pack applied.

Pentium® class processor, 1 ghz or greater.

100MB free disk space.

256MB of RAM (512MB or more recommended).

Network Interface Card configured to use TCP/IP if installing in multiple user mode (client / server)

Starting TFG4000 Professional Edition

Perform the following steps to start TFG4000 Professional Edition in either Single or Multiple User Mode:

Single User

1. Open the “Start” menu, and then select the “Program” or “All Programs” option.

2. Select “TFG4000 Professional V1.4" from the program list.

3. Select “TFG4000 Professional Single V.1.4" to start.

4. The TFG4000 Professional Edition “Welcome” screen is displayed with the “Tip of the Day”. You can select “Close” to continue the start up process or select “Next Tip” to view more tips. You can also choose not to have the “Tip of the Day” appear by selecting the check box next to “Don’t show Tip of the Day at Startup” located on the Welcome screen. Select the check box again at any time to reinstate the “Tip of the Day” feature.

5. If you see a “User” and “Password” field on your screen, enter the User ID and Password that your System Administrator provided you, and either press “Enter” or click “Sign On”.

6. If your screen only displays “Welcome” without any other fields, then click the plus sign (“+”) next to the application you want to perform in the “NavTree”.

7. Click on the screen you would like to use.

Multiple Users (Not available in the Demo Version)

Server Startup

At installation, the server component is put in the Startup folder of the Program List. It will automatically start at system start up. Perform this procedure only if necessary.

1. Open the “Start” menu, and then select the “Program” or “All Programs” option.

2. Select “TFG4000 Professional V1.4” from the program list.

3. Select “TFG4000 Professional Server V1.4" to start.

4. The “TFG Web Server” screen is displayed. It will display the INI file and the TCP/IP port number being used for the server. This window will display other server messages as needed.

Client Startup

1. Open the “Start” menu, and then select the “Program” or “All Programs” option.

2. Select “TFG4000 Professional V1.4" from the program list.

3. Select “TFG4000 Professional Client V1.4" to start.

4. The TFG4000 Professional Edition “Welcome” screen is displayed with the “Tip of the Day”. You can select “Close” to continue the start up process or select “Next Tip” to view more tips. You can also choose not to have the “Tip of the Day” appear by selecting the check box next to “Don’t show Tip of the Day at Startup” located on the Welcome screen. Select the check box again at any time to reinstate the “Tip of the Day” feature.

5. If you see a “User” and “Password” field on your screen, enter the User ID and Password that your System Administrator provided you, and either press “Enter” or click “Sign On”.

6. If your screen only displays “Welcome” without any other fields, click the plus ign (“+”) next to the application you want to perform in the “NavTree”.

7. Click on the screen you would like to use.

Built-in Help

Help is available at the screen, field, and column level, as well as built-in tool tips.

Screen Level Help

To select screen level help, click "Help" on the "Menu" bar, and then select "Screen Help". Help for the screen is then displayed.

Field Level Help

To select field level help, right click on the field, and then click "Help" from the pop-up. Help for the selected field is then displayed. You may also press the F1 key to get field help.

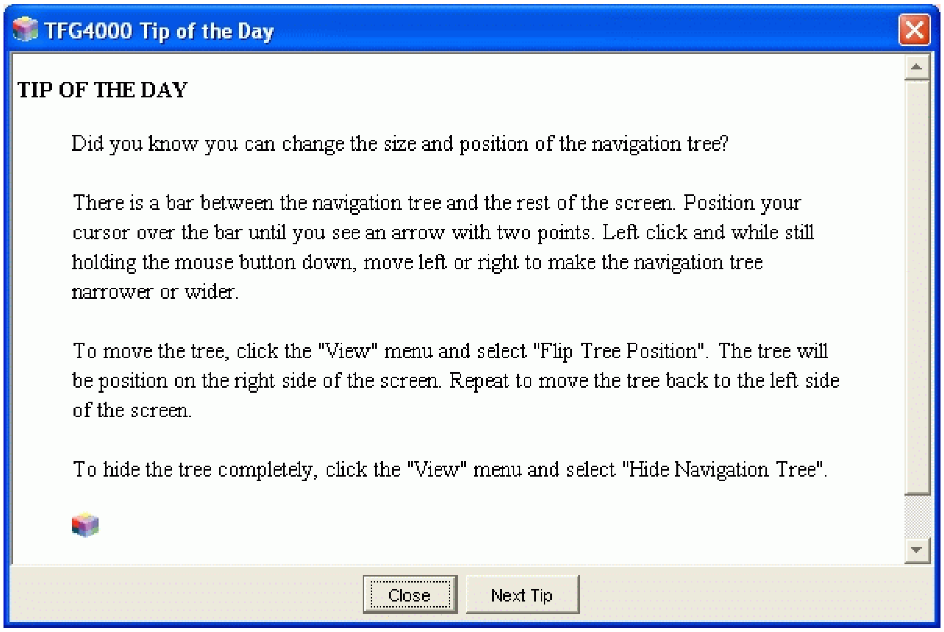
Column Level Help

To select column level help, right click on the column heading, and then click "Help" from the pop-up. Help for the selected column is then displayed.

Tip of the Day

Each time you start TFG4000 Professional Edition, there is a “Tip of the Day” pop-up displayed that describes some of the functionality that is available within the application. To close the “Tip of the Day” pop-up, click the “Close” button. To view another tip, click the “Next Tip” button. This feature can be turned off by clicking the box next to “Don’t Show Tip of the Day at Startup” on the Welcome screen. A check mark will appear in the box indicating the “Tip of the Day” should not be displayed during start up. To reinstate the “Tip of the Day” feature, click the box and the check mark will disappear indicating the “Tip of the Day” should be displayed during start up.

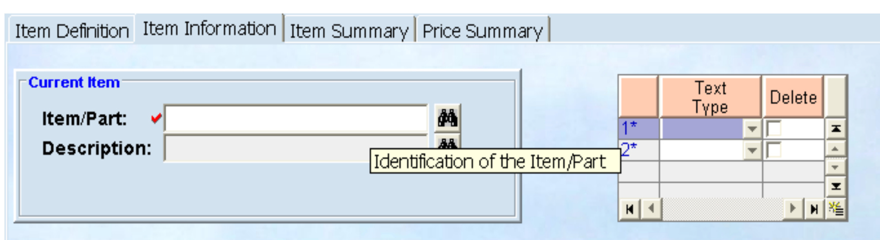
Example Only:



Tool Tips

Throughout TFG4000 Professional Edition, there are embedded tool tips that help describe certain areas on the screen. You simply roll your mouse (cursor) over the area in question, and a pop-up will describe that specific area. The tool tip pop-up will remain visible for a few seconds, then it will disappear automatically.

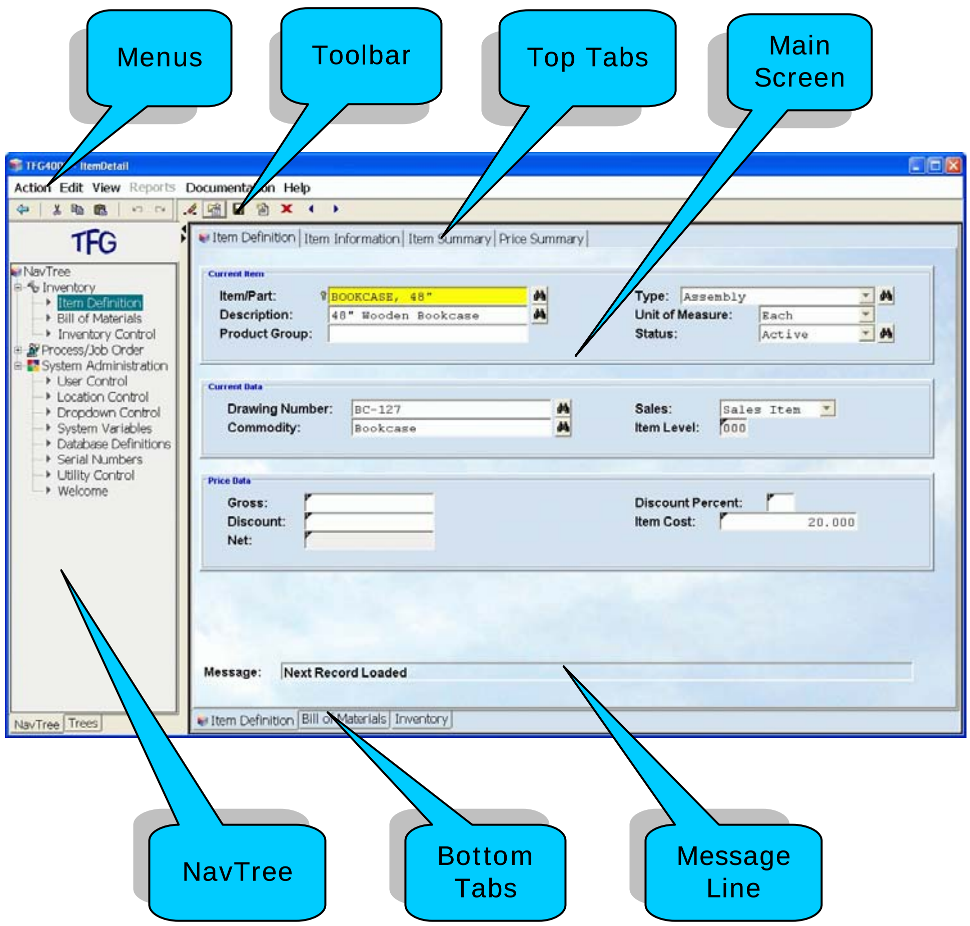
Example Only:



Using TFG4000 Professional Edition

You can navigate through the TFG4000 Professional Edition screens by using the “NavTree”, the “Goto Screen” section of the “View Menu”, and the tabs on the top and bottom of the screen. For easy use, the toolbar provides a variety of functions for you to choose from as you use the TFG4000 Professional Edition applications. There are buttons located on the toolbar that allow you to perform various functions from each screen, such as opening/displaying data, saving data, etc. The “Menu” provides useful functions as well, such as printing reports, documentation, help, etc.

Sample Screen



Menus

Each screen in TFG4000 Professional Edition has various menus available for working with your data. The following describes the purpose of each menu and special features.

Action

This menu is for printing screens and for exiting TFG4000 Professional Edition. It contains the following menu items:

Print	Prints the entire screen in either portrait or landscape mode.
Print Text	Prints only the text currently displayed on the screen in either portrait or landscape mode.
Exit	Terminates the TFG4000 Professional Edition session.

Edit

This menu is for performing cut, copy, and paste operations on data. It contains the following menu items:

Cut	When you highlight data and use this function, the data is removed from the screen and is available in a clipboard for pasting. Holding the “Ctrl” key and pressing the “X” key will perform the same operation.
Copy	When you highlight data and use this function, the data is copied into a clipboard and is available for pasting. Holding the “Ctrl” key and pressing the “C” key will perform the same operation.
Paste	When you position your cursor in a field and use this function, data you have previously put into the clipboard using the “Cut” or “Copy” operation will be pasted after your cursor. Holding the “Ctrl” key and pressing the “V” key will perform the same operation.

Note: If your keyboard is in “insert mode” the data will not overlay data that follows, but if it is not in “insert mode” it will. Press the Insert key on your keyboard to change your insert mode to whichever way you prefer.

View

This menu allows you to change the way the TFG4000 Professional Edition screens are presented and how you navigate the screens. It contains the following menu items:

Set Font Size — You can choose a font size from 10 to 18. With larger font sizes you may have to scroll to see the entire screen.

Hide Calendar Buttons — Toggles whether or not a Calendar button is displayed next to the date fields.

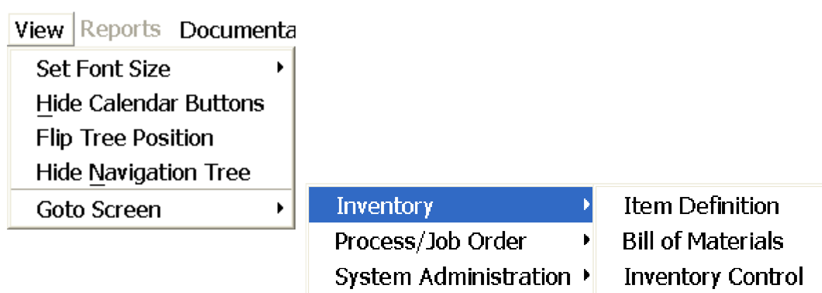
Flip Tree Position — Changes the position of the "NavTree" to either the left or the right side of the screen.

Hide Navigation Tree — Hides the "NavTree" from the screen. Click it a second time to display the "NavTree" on the screen.

Note: The dark arrows in the bar between the NavTree" and the main screen perform the same function.

Allow Word Wrap — Determines how text may be viewed. When it is checked, text may be displayed on multiple lines and can be viewed by scrolling up and down. When it is not checked, text may be viewed by scrolling right and left. Word wrap is allowed only if the system variable **Allow_Wrap** is set to **Yes**.

GoTo Screen — Displays the "NavTree" in menu format. You can use this method to navigate the screens at any time but it is particularly useful if you hide the "NavTree".



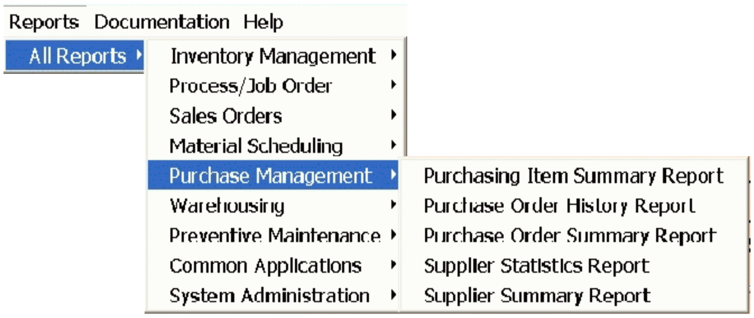
Reports

This menu shows you the reports or forms available for the screen you are on. There will be various menu items depending on the screen. There is also an “All Reports” menu available from any screen.

Note: Forms are structured documents such as Invoices, Packing Slips, Purchase Orders, etc. Though you will see forms in the Reports menu on some screens, you will not see forms in the All Reports menus.

Specific Reports Displays reports associated with the screen you are on.

All Reports Displays a menu of reports available for all the applications you have installed. This menu does not include Forms.



Documentation

This menu lets you select the TFG4000 Professional Edition manuals for viewing and printing.

Help

This menu provides help about the screen you are on and information about TFG4000 Professional Edition. It contains the following menu items:

Screen Help Displays information about the screen you are on.

About Displays information about TFG4000 Professional Edition.

Buttons & Icons

Each screen in TFG4000 Professional Edition has various buttons available for working with your data. The following describes the purpose of each button and special features. It also explains other icons you may see on the screens.

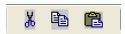
Toolbar Buttons

Use the following buttons to perform TFG4000 Professional Edition application tasks. The buttons displayed change with the screen you are working with.

Previous screens

Use this button to return to your previous screen. You can go back up to ten screens.

Cutting, copying and pasting text



You can use “Cut” and “Paste” to move selected text. You can use “Copy” and “Paste” to copy selected text and paste the copy in another place. “Cut”, “Copy”, and “Paste” can also be selected from the “Edit” menu.

Working with data

You can perform many different operations by using these buttons:

Erase	This button clears data from the screen. It does not update any data; it merely clears the data away to make it easier for you to enter something else. It is particularly useful for resetting summary screens for a new search and it may be required when adding new entries on some screens.
Open (Display)	This button retrieves data that has been previously saved for viewing and/or modifying. The **Enter** key executes this button by default.
Save	This button stores new data and modified data. If you enter new data or change existing data and do not click this button, the system prompts you to do so.
Cancel	This button reduces any remaining quantities to zero and changes statuses to “Cancelled”.
Delete	This button deletes previously saved data. On screens indicated as “definition” screens, the delete button deletes related data in addition to the data currently displayed. On all other screens only the data displayed is deleted.
Previous	This button retrieves data that alphabetically precedes the currently displayed data.

Next	This button retrieves data that alphabetically follows the currently displayed data.
Copy	This button copies data from one place to another. It can copy related data in addition to the data currently displayed.
Print	This button sends your document to the printer to be printed.
Build	This button extracts eligible data from one place to create a new definition in another place. For example, it can extract customer order data to build a new invoice.
Refresh	This button rebuilds the data on the screen.
Split	This button will take lines from one document to create a new document using the lines selected.

Screen Buttons

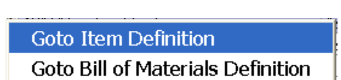
Throughout the screens are buttons that perform functions.

Search	This button is for finding data you have already entered. When you click this button a search box pops up.
Calendar	This button provides a pop-up calendar for selecting dates. You can choose the month and the year, and then double-click on the date you desire. Click “Today” to re-position the calendar on the current date. Click “Cancel” if you decide not to select a date. Dates can be entered without using the “Calendar” button if desired. Manually entered dates are verified so a pop-up appears prompting you to correct a date if it is invalid.
Dropdown	This button provides a “dropdown” list of pre-defined values from various fields that have this button next to it. If you click on one of the values from the dropdown list, that value will appear in the adjacent field.

Table Buttons

Throughout the tables are buttons that perform functions.

GoTo/Selection	This button is for either transferring to another screen or selecting data. When you right-click on this button, it displays a menu of related screens and/or a menu of selection activities. To transfer to another screen, click on the screen you desire and that screen is displayed with the appropriate keys already filled in. To select data, such as a component or inventory location, click the action you want.



Properties	This button is located at the lower left corner of each table. It allows you to edit the layout of the table. You can use this button to hide or display columns in the table and to restore the original table layout.
Add Rows	This button appears in the lower right corner of modifiable tables so that you can put more empty rows on the screen for adding data to the table. If you are trying to enter another row in a table and there are not any blank rows to use, click the “Add Rows” button.
Scroll to the Left	This button allows you to scroll to the left of the table.
Scroll to the Right	This button allows you to scroll to the right of the table.
Scroll Up	This button allows you to scroll up the table.
Scroll Down	This button allows you to scroll down the table.
Scroll Bottom	This button allows you to scroll to the very bottom of the table.
Scroll Top	This button allows you to scroll to the very top of the table.
Scroll Left	This button allows you to scroll to the very left of the table.
Scroll Right	This button allows you to scroll to the very right of the table.

Information Icons

Icons on the screen show properties about the field.

Numeric	This icon in the upper left corner of a field indicates that the field is for a numeric value. You are able to enter only numbers, commas, and decimals in fields containing this icon.
Key	This icon to the left of a field indicates that the field is a key field and is required for this screen.
Required	If you try to display or save data without entering a required field, this checkmark icon is displayed next to the missing field.

Field Colors

The fields on the screens and in screen tables have three different colors that have functional significance.

Gray	A gray field is display only, no entry allowed or necessary
White	A white field is open for entering data
Yellow	A yellow field indicates where the cursor is currently positioned

Changing Screen Table Properties

Tables that appear on screens can be modified. The columns can be re-sized, re-positioned, hidden, and un-hidden.

To re-size a column move your cursor over the column heading you want to re-size and move to the right until you see an arrow with two heads. Click, then still holding the mouse button down, move the cursor to the right until the column is as wide as you want or to the left until the column is as small as you want.

To re-position a column click on the column heading, then still holding the mouse down, move the column to the where you want it and release the mouse. Some columns are key columns and will not remain where you re-position them.

Note: Re-sizing and re-positioning remain in effect for the duration of the current session. The default sizing and positioning is restored when TFG4000 Professional Edition is restarted.

To hide or unhide a column click the Properties button  located in the lower left corner of the table. A red check mark next to the column name indicates the column will be displayed. If there is not red check mark next to the column name it will not be displayed in the table. There may be multiple tabs for the table, so you must click on the tab that contains the column(s) you want. To save the changes you have made, click the “OK” button. To discard the changes you have made, click the “Cancel” button. To reset the properties back to the default properties, click the “Restore Default Visibility” button. Another pop-up will appear asking the range you wish to restore. Use the dropdown provided to select either “All Tabs”, which will restore the defaults for the entire table, or “Currently Displayed Tab Only”, which will restore the default properties only for the portion of the table indicated by the tab you are viewing. Once you have made your selection click “OK” or “Cancel”. That pop-up will disappear and the column visibility properties are reset as requested or the reset action is cancelled. Then you may click either “OK” or “Cancel” to save or discard the property changes.

Note: Property changes remain in effect even after TFG4000 Professional Edition is restarted.

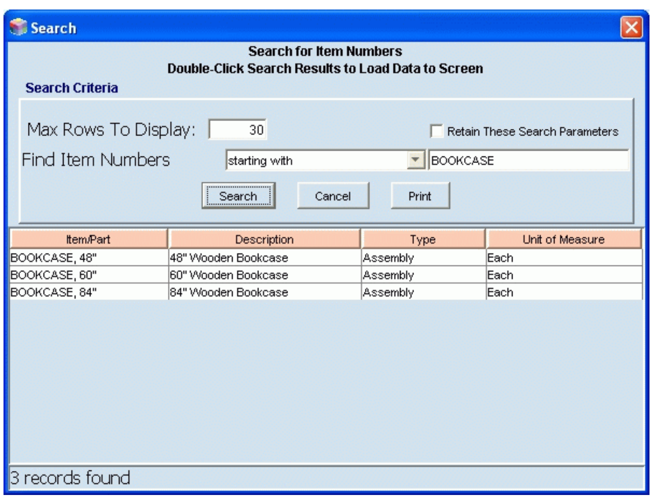
Performing Searches

There are two types of searches in TFG4000 Professional Edition that are similar in appearance, however they have different functionality. The first is a “Search” associated with a field on the screen. The second is a “Search Pop-up” which is found on tables. One of the differences between the two is that a “Search Pop-up” can load multiple table rows to the screen at one time but a “Search” will not. Another difference is that “Search” screen results can be printed but “Search Pop-up” results cannot.

Search Screen (Fields)

Below is an example of a search screen that may be used to locate information already entered into the system, and/or to automatically populate the fields on the screen that you are currently viewing or editing. When search results are displayed you can move the columns into different places on the search screen so that the values can be viewed in positions different from the default layout. Click the heading of the column you wish to move then drag and drop it into the desired position. Resize columns by moving the cursor over the heading until you see an arrow with two heads. Click, and with the mouse button still down, move the cursor right or left until the column is the desired width. The default layout is restored when the “Search” button is pressed and when you exit the search. In addition, you also have the option to retain search parameters by checking the box located next to “Retain Search Parameters”. This option allows you to save the search parameters you used for future searches.

Example Only:



Using the Search Screen

1. Click the Search button located directly next to the field you want to search.

2. Enter the maximum number of rows of data you want to display in your results. The default is “30”.

3. Select one of the search choices using the dropdown. The default is “starting with”.

4. Enter all or part of the value you want to search with. You may leave the search field blank to return all applicable records in the database. If there is a value in the screen field you are searching on, it will be copied to the search field. You can change the search field value on the “Search” screen.

5. Click the Search button .

6. Double click on the row you desire to load the information to the main screen.

Modifying the View of the Search Results

To modify the view of the search results, do the following:

1. To re-size a column move your cursor over the column heading you want to re-size and move to the right until you see an arrow with two heads. Click, then still holding the mouse button down, move the cursor to the right until the column is as wide as you want or to the left until the column is as small as you want.

2. To re-position a column click on the column heading, then still holding the mouse button down, move the column to where you want it and release the mouse. Some columns are key columns and will not remain where you re-position them.

3. To re-size the window move your cursor over the edges of the window until you see an arrow with two heads. Click, and then still holding the mouse button down, move the cursor to increase or decrease the size of the window.

Printing the Search Results

To print the search results, use these steps:

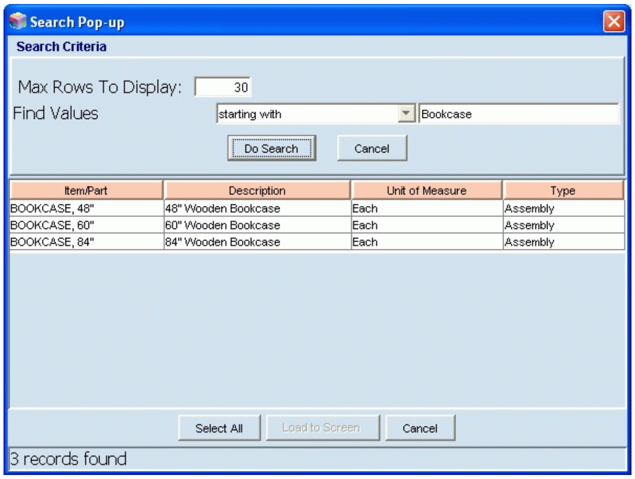
1. Click the Print button on the “Search” screen.

2. Type or select the appropriate formatting options in the dialog box and then click “OK” to print the report.

Search Pop-Up Screen (Tables)

Below is an example of a search pop-up screen that may be used to populate columns in the table on the screen that you are currently viewing or editing. When search results are displayed you can move the columns into different places on the search pop-up screen so that the values can be viewed in positions different from the default layout. Click the heading of the column you wish to move then drag and drop it into the desired position. Resize columns by moving the cursor over the heading until you see an arrow with two heads. Click, and with the mouse button still down, move the cursor right or left until the column is the desired width. The default layout is restored when the “Do Search” button is pressed and when you exit the search pop-up.

Example Only:



Using the Search Pop-Up Screen

1. Click the GoTo/Selection button in the row you want to search.

2. Enter the maximum number of rows of data you want to display in your results. The default is “30”.

3. Select one of the search choices using the dropdown. The default is “starting with”.

4. Enter all or part of the value you want to search with. You may leave the search field blank to return all applicable records in the database.

5. Click the “Do Search” button.

6. To select just one entry, double-click on it to populate the fields on your screen.

7. To select more than one entry, hold down the “Control” key while you click on the other selections with your mouse, then click “Load to Screen” to populate the information.

8. To load all of the entries to the screen table, click the “Select All” button and then click the “Load to Screen” button.

Modifying the View of the Search Results

To modify the view of the search results, do the following:

1. To re-size a column move your cursor over the column heading you want to re-size and move to the right until you see an arrow with two heads. Click, then still holding the mouse button down, move the cursor to the right until the column is as wide as you want or to the left until the column is as small as you want.

2. To re-position a column click on the column heading, then still holding the mouse button down, move the column to where you want it and release the mouse. Some columns are key columns and will not remain where you re-position them.

3. To re-size the window move your cursor over the edges of the window until you see an arrow with two heads. Click, and then still holding the mouse button down, move the cursor to increase or decrease the size of the window.

Printing the Search Results

To print the search results, use these steps:

1. Click the Print button on the “Search” screen.

2. Type or select the appropriate formatting options in the dialog box and then click “OK” to print the report.

Working with Reports

You can view, modify, and print reports by using the “Reports” menu located just above the toolbar.

To view a report, follow these steps:

1. Click on “Reports” above the toolbar. A menu will drop down indicating which reports can be generated from that screen and a selection for All Reports. Click on the report name that you want.
2. A status window will appear showing that the system is generating the report.
3. You will then see your report displayed on the screen.

To modify and/or print a report, follow these steps:

1. Click on “Reports” above the toolbar. A menu will drop down indicating which reports can be generated from that screen. Click on the report name that you want.
2. A status window will appear showing that the system is generating the report.
3. You will then see your report displayed on the screen with this toolbar at the top:

Printing Options — Allows you to set the Page Number Prefix, number of pages wide, and the Repeat Section Header/Footer settings. Adjust the settings to your specifications and then click “OK”.

Page Setup — Allows you to adjust page settings such as page orientation and margins. Once finished adjusting the settings, click “OK”.

Memorize — Allows you to save report settings under a report that you name yourself so you can run the report again with the same settings. You can save settings for a report under different names so you can have multiple versions of the same report formatted different ways. The new report names appear in the Report menu at the top of the main screen (after you go to another screen and come back) and they are available only to you, other users will not be able to see reports you memorized.

Print — Allows you to select printer settings and print your report. Once finished with settings, click “OK” to print the report.

Preview — Allows you to preview your report layout before you actually print. Once finished previewing, click “Close”.

Excel	Allows you to save your report as an Excel document. Once finished naming and specifying where to save your report, click “Save”.
Revert	Allows you to discard all layout changes and revert to default settings. Simply click either “Yes”, or “No”.
Help	Shows the Report Layout Instruction screen.
Close	Click this button to close the report and return to the main screen.

In some reports the selection criteria can be changed in the report window. Adjust the selection criteria as desired, and then click the “Refresh” button to reload the data. When you exit the report you will be asked if you want to update the screen with the refreshed data from the report. Click “Yes” to update the screen or “No” to leave the screen as it was when you started the report.

Report layouts can be modified. Columns can be re-sized, hidden, and un-hidden and sections can be hidden and un-hidden.

To re-size a column do the following:

1. Move your cursor over the column heading you want to re-size.
2. Move to the right until you see an arrow with two heads.
3. Click, then still holding the mouse button down, move the cursor to the right until the column is as wide as you want or to the left until the column is as small as you want.

To hide or unhide a column, do the following:

1. Right click in the report area or the long, thin “Edit” button on the left side of the report window to get the “Report Layout Options” window.
2. Click the “Column Visibility” tab. A red check mark next to the column name indicates the column will be displayed. If there is not red check mark next to the column name it will not be displayed in the report.

To hide or unhide a report section, do the following:

1. Click the tab for the section you want to hide or unhide.
2. Right click in the report area or the long, thin “Edit” button on the left side of the report window to get the “Report Layout Options” window.
3. Click “Do Not Print This Section”.

To save the changes you have made, click the “OK” button. To discard the changes you have made, click the “Cancel” button.

To reset the properties back to the default properties, click the “Revert” button located on the report toolbar. A dialog box will appear asking if you want to discard changes and revert back to default settings. Click either “Yes” to restore the defaults or “No” to keep the changes.

Note: Report layout changes remain in effect even after TFG4000 Professional Edition is re-started.

Logos on Forms and Reports

Special forms such as job order forms, customer order forms, packing slips, invoices, and purchase order forms have an area for a company logo. The logo is controlled by system variable **Form_Logo**.

Reports have an area for a company logo too. The logo is controlled by system variable **Report_Logo**.

See the System Administration Users Guide for more information about these system variables and how to set them.

Working with Summary Screens and Summary Reports

TFG4000 has many summary screens and reports available for locating data, listing data, and summarizing data. Each summary screen and report has various fields for search criteria that are used in combination with one another. The search criteria fields can use wildcards and other sophisticated SQL search techniques. For more information about wildcard characters that can be used for advanced searching, refer to the following Microsoft website:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/off2000/html/acconWildcardCharactersS.asp

Due to differences between Access and ANSI wildcard characters, when reading this website and using wildcards in TFG4000, substitute as follows:

% for *****
_ for **?**
is not used

Also note that these wildcards cannot be used in searches.

Initial Setup

Material Scheduling System Variables

The first thing you must do before using TFG4000 Material Scheduling is understand the system variables used by the application.

TFG4000 is installed with certain features that can be changed. The features are controlled with system variables. There are at least two system variables you need to understand before you start using Material Scheduling.

Material_Scheduling (default is “**Yes**”) – With this variable set to “**No**”, Material Scheduling will not run. With this variable set to “**Yes**”, Material Scheduling will process regularly based on the interval defined with system variable TFGMaterialScheduleTrigger.

TFGMaterialScheduleTrigger (installation default is “**5**”) – This variable indicates the interval in minutes between Material Scheduling processing. With this variable set to **0**, material scheduling will not run. Set it to **1** or higher to begin material schedule processing.

For more information about viewing and setting system variables see the System Variables screen in the System Administration User Guide included on the TFG4000 CD, which is available from the Windows “Start” menu or from the “Documentation” menu within TFG4000. The documentation is also available online.

Item Schedule Data

What is material scheduling?

Many items are either manufactured or purchased. As demand for an item exceeds the supply more must be built or purchased. The demand for an item is based on requirements and supply is either available inventory or pending orders such as job orders or purchase orders. TFG4000 Material Scheduling uses the information provided for an item to monitor supply and demand to generate plans when inventory and pending orders are not enough for the current demand.

Demand can be either independent or dependent requirements. An independent requirement is for a parent item or the top level of an assembly. This would be the item you sell. A dependent requirement is for a component needed by the parent item. This would be something you need to build the item you sell.

Supply is available inventory or pending orders. If an item is manufactured, pending job orders offer supply. If an item is purchased, purchase orders offer supply.

Scheduling Example

Company ABC builds bookcases. They use raw lumber to build frames and shelves for the bookcases and they buy screws and brackets to assemble the bookcases. They have job orders for bookcases as well as the frame and shelves. They have purchase orders for the screws and brackets. Their bill of material looks like this:

Parent Item – Bookcase-A
Components – Frame-A(1), Shelf-B(2), Screw-X(8), Bracket-Z(8)

Note: The number inside the parentheses indicates the quantity of each component needed to build one unit of Bookcase-A.

They have a sales order for 50 Bookcase-A, but they only have 40 in inventory. They need to build 10 more. A job order for 10 Bookcase-A is created. The job order represents an independent requirement of 10 for the parent item: Bookcase-A. It also represents dependent requirements for the components: Frame-A(10), Shelf-B(20), Screw-X(80), and Bracket-Z(80).

Note: The number inside the parentheses indicates the quantity of each component needed to complete the job order.

Next we check supply. In inventory they have Frame-A(2), Shelf-B(0), Screw-X(20), and Bracket-Z(25).

Note: The number inside the parentheses indicates the quantity of each component in inventory.

They need 8 more Frame-A (10 needed minus 2 already in inventory), and 20 Shelf-B (20 needed and none in inventory). Since they build these there may be job orders already pending so we check there first and find they have job orders to build 5 Frame-A, but none for Shelf-B. So now they need only 3 more Frame-A because the other 5 already have a job order to build them, but they still need 20 more Shelf-B.

They need 60 more Screw-X (80 needed minus the 20 already in inventory) and 55 Bracket-Z (80 needed minus the 25 already in inventory). Since these components are purchased we check purchase orders and find there is a purchase order for 100 Screw-X and 10 Bracket-Z. Since the purchase order will bring in more than 60 Screw-X they do not need to plan for more Screw-X, but even with the purchase order for 10 Bracket-Z they need 45 more Bracket-Z (55 more needed but only 10 more ordered).

Material scheduling will generate planned orders as follows:

Frame-A, quantity 3

10	originally needed
-2	in inventory
-5	on pending job orders

3	not satisfied by existing supply

Shelf-B, quantity 20

20	originally needed
-0	in inventory
-0	pending job orders

20	not satisfied by existing demand

Screw-X, no planned order

80	originally needed
-20	in inventory
-100	on pending purchase orders

-40	excess supply

Bracket-Z, quantity 45

80	originally needed
-25	in inventory
-10	on pending purchase orders

45	not satisfied by existing demand

Converting a Planned Order into a Job Order or Purchase Order

Planned orders can be converted into job orders or purchase orders. The order information is referenced back to the original requirement.

For example, a planned order was generated to satisfy demand for item XYZ on customer order ABC-CO line number 005.

The planned order is used to generate purchase order ABC-PO line number 001. In TFG4000 Purchase Order Management, on the purchase order screen there is a tab called "Order Links". On ABC-PO line 001, the order link shows customer order ABC-CO line 005 as the reference to the original requirement.

If a job order ABC-JO was generated instead of a purchase order, in TFG4000 Job Order Management, on the job order screen, job order ABC-JO would have customer order ABC-CO and line number 005 as the reference to the original requirement.

It is important to note that the quantity on the job order or purchase generated using the planned order may not be the same quantity as the requirement reference. This happens when part of the demand quantity is satisfied by existing supply.

For example, job order JO-123 needs 200 pieces of ITEMX to complete the order. If ITEMX has 10 pieces in inventory, those pieces will be used to satisfy part of the demand for job order JO-123. A pending purchase order PO-222 has another 40 pieces of ITEMX. Only 150 pieces to do not have any supply. So the planned order would be generated for 150 pieces:

200 required by JO-123
-10 already in inventory
-40 on pending purchase order PO-222
----
150 not satisfied by existing supply

A new purchase order generated using the planned order would have a line for ITEMX for a quantity of 150 with a reference back to job order JO-123 where we would see the component quantity is 200. We will know material scheduling found 50 pieces in existing supply.

How Inventory is used in Material Scheduling

Inventory is the first type of supply to be considered during material scheduling. Each warehouse, zone, and inventory location has a field called “MSP Usage” indicating whether or not it may be used for material scheduling. If MSP Usage is “No”, inventory in that warehouse, zone, or location is not considered for material scheduling supply.

Note: If MSP Usage is “No” for a warehouse, none of the inventory in any of the zones or locations within that warehouse will be used for material scheduling even if MSP Usage is “Yes” for the zones and locations. This is also the case if MSP Usage is “No” for a zone. None of the inventory in any of the locations within that zone will be used for material scheduling even if MSP Usage is “Yes” for the locations.

Only available inventory can be used, so if an item has any allocations against its on hand inventory, the allocations are deducted first.

Next, safety stock must be deducted from available inventory. If there is not enough inventory for safety stock, a planned order will be generated. The reference to the safety stock is not displayed on the job order or purchase generated using the planned order, but there is a reference there that is used internally.

Any available inventory after safety stock is satisfied is used to satisfy remaining demand for the item.

Item Schedule Data

Material Scheduling needs various pieces of information to know how an item should be planned. Items can be planned using supply (inventory, purchase orders, job orders) versus demand (customer orders and job orders) or it can be planned based on a pre-determined inventory level called the “order point”. Planning parameters for an item include how inventory for an item is acquired (manufactured or purchased), the quantity to set aside to prevent outages (safety stock), and how long it takes to manufacture or purchase the item.

Item Data

This screen allows you to define if an item should be planned at all and if so, how it should be planned and the planning parameters to be used during planning.

Item Schedule Data Screens Explained

Item Data Screen

Use this screen to define how an item should be planned including planning parameters.

Item to Plan

Field	Explanation
Item/Part	A unique identifier assigned to each item. It is the main key for all other item data. The identifier can be a number, a name, or some combination of numbers and characters.
Type	The type helps further define an item by giving it a classification. Some examples of types are: "Assembly" something you build, "Service" for a service you provide, "Tool" for something you use in your operation.
Description	Contains information describing the item. This description can be as short as an abbreviation or a long detailed description of the item.
Unit of Measure	Defines how the item is counted or measured. Some examples of units of measure are "Ounce", "Pound", and “Hour".
MS Plan	Indicates if this item should be planned by material scheduling or not (Yes or No)

Item Scheduling Parameters

Field	Explanation
Order Policy	Indicates how requirements are generated and how planned orders are built for this item. Available policies are:

None	Generate requirements from customer orders and job orders. No planning is desired
Order Point	Generate a requirement when inventory falls below the Order Point Quantity defined (see below). Build the planned order using the Fixed Order Quantity defined.
Requirement	Generate requirements when customer orders are entered and when job orders are created. Build planned orders based on the requirement quantities.

Sourcing	Indicates if the item is purchased, manufactured, or if supply can come from any source. Material scheduling will use purchase orders to satisfy demand for items with source "Purchase", job orders for items with source "Manufacture", and purchase orders as well as job orders for source "Any". **Note:** Purchase orders and job orders built specifically for a customer order will be used to satisfy the requirement for the customer order regardless of the source type.
Fixed Order Quantity	The quantity that should be ordered when item inventory falls below the order point quantity.
Safety Stock	The minimum quantity that should be maintained in inventory to prevent critical outages. The safety stock quantity is satisfied before considering any other requirements.
Order Point Quantity	The quantity used to determine whether or not an order point requirement should be generated. If the Order Policy is "Order Point" and the item inventory falls below this quantity, an order point requirement will be generated.
Purchase Time	The lead time needed to acquire this item via purchasing channels. This information is used to determine release dates for purchase orders so item will be received in time to meet required due dates.
Order Point IM Address	The instant messenger address to which a message should be sent when order point activity occurs. Multiple addresses can be entered with a semi-colon between addresses.
Manufacturing Time	The number of days needed to build this item. This information is used to determine release dates for planned orders so manufacturing can begin in time to meet required due dates.
Order Point Email	The email address to which a message should be sent when order point activity occurs. Multiple addresses can be entered with a semi-colon between addresses.

Schedule Controls

Field	Explanation
Minimum Order Quantity	The smallest quantity of this item that should be planned on a single order. Default is 1. Currently not used.
Days Between Orders	The minimum number of days that should be planned

	between orders. Currently not used.
Maximum Order Quantity	The largest quantity of this item that should be planned on a single order. Default is no limit. Currently not used.
Days Supply	The maximum number of days of supply to be ordered at one time for this item. Currently not used.
Multiple Order Quantity	Order quantities for this item should be in multiples of this quantity. Currently not used.

Message Line

Field	**Explanation**
Message	Displays information about the current status of the screen including error messages.

Accessing the Item Schedule Data Screen

1. Click the plus ("+") next to "Material Scheduling" or double-click "Material Scheduling" in the "NavTree".

   -or-

   Click on the "View" menu. Select "Goto Screen", then select "Material Scheduling".

2. Click "Item Schedule Data". The "Item Schedule Data" screen is displayed.

3. If there is an item or part number in the "Item/Part" field, the scheduling data for that item or part number is displayed on the main screen.

Using the Item Schedule Data Screen

Use these procedures to erase the screen, display, update, add, delete, display previous, and display the next item schedule data.

Erasing the Screen

To erase the data from the screen click the Erase button located on the toolbar.

Note: Erasing the screen does not cause any data to be lost; it is merely a way to clean the screen in preparation for another operation.

Displaying Scheduling Data for an Item

To display scheduling data for an item, perform the following steps:

1. Enter an item or part number in the “Item/Part” field.
2. Click the Open (Display) button located on the toolbar or hit the Enter key.
3. The scheduling is displayed on the main screen.

-or-

1. Use the Search button next to the “Item/Part” field or the “Description” field to select an item number.
2. Double-click on the “Item/Part” you would like to display in the “Search” screen table.
3. The scheduling data is displayed on the main screen.

Adding Scheduling Data for an Item

To add scheduling data for an item, perform the following steps:

1. Enter or select the item for which you wish to add scheduling data. See “Displaying Scheduling Data for an Item” above.
2. Enter or select data as desired (see field descriptions to learn more about scheduling data)
3. When done, click the Save button located on the toolbar.

Updating Scheduling Data for an Item

To update scheduling data for an item, perform the following steps:

1. Display the item you wish to change. See “Displaying Scheduling Data for an Item” above.

2. Change data as desired.

3. When done, click the Save button located on the toolbar.

Changes are processed as follows:

When MS Plan is changed from **Yes** to **No**, all planned orders are deleted and requirements not linked to a purchase order or job order are deleted. Pegged requirements remain and are processed until the demand is satisfied but no planning is performed and no new planned orders are generated.

When MS Plan is changed from **No** to **Yes**, requirements are generated based on the Order Policy defined as follows:

Order Point	Inventory is evaluated to determine if it has fallen below the order point quantity defined
Requirement	Requirements are generated from outstanding customer orders and job orders.
None	Requirements are generated from outstanding customer orders and job orders, but no planning is performed.

When Order Policy is changed from **Order Point** to either **Requirement** or **None**, any outstanding order point requirements are deleted and requirements are generated from outstanding customer order and job orders.

When Order policy is changed from **Requirement** or **None** to **Order Point**, all planned orders are deleted and requirements not linked to a purchase order or job order are deleted. Pegged requirements remain and are processed until the demand is satisfied. Regardless of outstanding requirements, inventory is evaluated to determine if has fallen below the order point quantity defined and an order point requirement is generated as needed.

Deleting Scheduling Data for an Item

To delete scheduling data for an item (including all requirements and planned orders for the item), perform the following steps:

1. Display the bill of materials you wish to delete. See “Displaying Scheduling Data for an Item” above.
2. Click the Delete button located on the toolbar.
3. Click the “Yes” button on the “Confirm Action” pop up message. If you do not want to delete the scheduling data, click “No” on the “Confirm Action” pop up message.

Note: Once scheduling data is deleted, it can no longer be displayed or updated.

Displaying Scheduling Data for the Previous Item

To display scheduling data for the item that precedes the item currently displayed, perform the following steps:

1. Click the Previous button located on the toolbar.
2. The scheduling data for the previous item is displayed on the main screen.

Displaying Scheduling Data for the Next Item

To display scheduling data for the item that follows the item currently displayed, perform the following steps:

1. Click the Next button located on the toolbar.
2. The scheduling data for the next item is displayed on the main screen.

Tip: You can use the Next button as a convenient way to locate the first record in the database. Start by erasing the screen using the Erase button, then click the Next button.

Requirements

What is a Requirement?

A requirement represents demand for an item. Requirements can come from customer orders or job orders or they can be entered manually. Also, material scheduling will generate a requirement for Safety Stock if current supply cannot satisfy the safety stock quantity defined for the item on the Item Data screen. Safety stock is the quantity you want to have on hand at all times to prevent shortages and outages.

The release date and due date on a requirement may be adjusted if the date is in the Material Scheduling calendar as a Holiday, Vacation, Day Off, or Weekend. Release dates are adjust back a day at a time until valid date is found and due dates are adjusted forwards a day at a time until a valid date is found (a valid date is a date that is not in the Material Scheduling calendar). For more information about calendars, see the Shared Applications Users Guide.

The requirements screens allow you to view and process requirements.

Requirements Screens

"Requirements" consists of two tabbed screens that are used to view and maintain requirement data.

Requirements

This screen allows you to view the requirements (demand) for a particular item.

Summary

This screen allows you to view requirements for multiple items based on the selection criteria used.

Requirements Screen

Use this screen to display all of the outstanding requirements for an item.

Item Data

Field	**Explanation**
Item/Part	A unique identifier assigned to each item. It is the main key for all other item data. The identifier can be a number, a name, or some combination of numbers and characters.
Type	The type helps further define an item by giving it a classification. Some examples of types are: "Assembly" something you build, "Service" for a service you provide, "Tool" for something you use in your operation.
Description	Contains information describing the item. This description can be as short as an abbreviation or a long detailed description of the item.
Status	Current status of the item (Active or Inactive)
Total Onhand	The total quantity of this item currently on hand in all inventory locations.
Item Level	The lowest level at which this item appears on any Bill of Materials.
Safety Stock	The quantity of stock that should be considered before all other requirements. Safety Stock is defined for the item on the Item Data screen under Item Schedule Data.

Requirements Table (Requirements, Orders, and Description tabs)

Column	**Explanation**
Row	The line number of the row in the table.
Due Date	Date by which this requirement must be fulfilled.
Release Date	Date by which a planned order for this item must be released in order for it to be fulfilled by the due date.
Type	Type of requirement – Independent is a top level item not needed by another assembly; Dependent is a component of a higher level item.
Quantity	Quantity required.
Priority	Relative priority of this requirement (1 is highest 9 is lowest)

Source	Indicates where the requirement came from, e.g. Customer Order, Order Point, Manual (manually inserted using this screen)
Status	Current status of this requirement, either Active or Inactive.
Customer Order #	The customer order number represented by this requirement.
Customer Line #	The line number on the customer order number represented by this requirement.
Job Order #	The job order built specifically for this requirement.
Description	Information explaining why or how this requirement was created.
Parent Item	The item that caused this dependent requirement to be generated. The parent item is the item directly above this item in a bill of materials.

Message Line

Field	Explanation
Message	Displays information about the current status of the screen including error messages.

Accessing the Requirements Screen

1. Click the plus ("+") next to "Material Scheduling" or double-click "Material Scheduling" in the "NavTree".

   -or-

   Click on the "View" menu. Select "Goto Screen", then select "Material Scheduling".

2. Click "Requirements". The "Requirements" screen is displayed.

3. If there is an item or part number in the "Item/Part" field, the requirements for that item are displayed on the main screen.

Using the Requirements Screen

Use these procedures to erase the screen, display requirements for an item, add requirements for an item, update requirements for an item, delete requirements for an item, display the requirements for the previous item, and display the requirements for the next item.

Erasing the Screen

To erase the data from the screen click the Erase button located on the toolbar.

Note: Erasing the screen does not cause any data to be lost; it is merely a way to clean the screen in preparation for another operation.

Displaying Requirements for an Item

To display requirements for an item, perform the following steps:

1. Enter an item or part number in the “Item/Part” field.
2. Click the Open (Display) button located on the toolbar or hit the Enter key.
3. The requirements are displayed on the main screen.

-or-

1. Use the Search button next to the “Item/Part” field, the “Description” field, the “Type” field, or the “Status” field to select an item number.
2. Double-click on the “Item/Part” you would like to display in the “Search” screen table.
3. The requirements are displayed on the main screen.

Adding Requirements for an Item

To add requirements for an item, perform the following steps:

1. Enter or select the item for which you wish to add a requirement. See “Displaying Requirements for an Item” above.
2. In an empty row, enter or select a Due Date or a Release Date or both dates. If a date is not entered it will default to current date and may be adjusted later by material scheduling. If there are no lines displayed you may have to use the add rows button in the lower right corner of the table.
3. Enter the quantity needed for the new requirement.
4. Enter a description for the requirement if desired. This is optional.
5. Repeat steps 2 through 4 for each requirement you wish to add.
6. When done, click the Save button located on the toolbar.

Updating Requirements for an Item

To update requirements for an item, perform the following steps:

1. Display the item you wish to change. See “Displaying Requirements for an Item” above.

2. Change data as desired.

4. When done, click the Save button located on the toolbar.

Updating Requirements for an Item

To update requirements for an item, perform the following steps:

1. Display the item you wish to change. See “Displaying Requirements for an Item” above.

2. In the Requirements table, change the Quantity and/or the Description for each requirement you want to update.

3. When done, click the Save button located on the toolbar.

Note: Only manually entered requirements can be updated.

Deleting Requirements for an Item

To delete requirements for an item, perform the following steps:

1. Display the item you wish to change. See “Displaying Requirements for an Item” above.

2. In the Requirements table, click the checkbox in the “Delete” column on the requirement row you wish to delete.

3. When done, click the Save button located on the toolbar.

Note: Some requirements may be added back by the material scheduling process.

Displaying Requirements for the Previous Item

To display requirements for the item that precedes the item currently displayed, perform the following steps:

1. Click the Previous button located on the toolbar.

2. The requirements for the previous item are displayed on the main screen.

Displaying the Requirements for the Next Item

To display the requirements for the item that follows the item currently displayed, perform the following steps:

1. Click the Next button located on the toolbar.

2. The requirements for next item are displayed on the main screen.

Tip: You can use the Next button as a convenient way to locate the first record in the database. Start by erasing the screen using the Erase button , then click the Next button .

Requirements Summary Screen

Use this screen to view the requirements currently outstanding for items based on the selection criteria used.

Selection Criteria Group

Field	Explanation
Item/Part	Enter a full or partial item to search requirements by item number. Use the percent sign (%) for wildcards.
Type	Select a requirement type to limit the summary to only the requirement type selected or leave this field blank for all requirement types.
Source	Select a requirement source to limit the summary to only the requirement source selected or leave this field blank for all requirement sources.
Status	Select a requirement status to limit the summary to only the requirement status selected or leave this field blank for all requirement statuses.
Number of Rows to Display	Controls the number of requirements to retrieve and display.

Summary Table (Requirements, Description, Order, and Parent Item tabs)

Column	Explanation
Row	The line number of the row in the table.
Item/Part	The item the requirement is for.
Release Date	Date by which a planned order for this item must be released in order for it to be fulfilled by the due date.
Due Date	The date by which this requirement must be fulfilled.
Type	Type of requirement – Independent is a top level item not needed by another assembly; Dependent is a component of a higher level item.
Quantity	Quantity required.
Priority	Relative priority of this requirement (1 is highest 9 is lowest)
Item Description	Description of the item the requirement is for.
Requirement Description	Information explaining why or how this requirement was created.

Customer Order #	The customer order number represented by this requirement.
Customer Line #	The line number on the customer order number represented by this requirement.
Purchase Order #	The purchase order built specifically for this requirement.
Purchase Line #	The line number on the purchase order built for this requirement.
Job Order #	The job order built specifically for this requirement.
Source	Indicates where the requirement came from, e.g. Customer Order, Order Point, Manual (manually inserted using the Requirements screen)
Status	Current status of this requirement, either Active or Inactive.
Parent Item	The item that caused this dependent requirement to be generated. The parent item is the item directly above this item in a bill of materials.

Message Line

Field	**Explanation**
Message	Displays information about the current status of the screen.

Accessing the Requirements Summary Screen

1. Click the plus ("+") next to "Material Scheduling" or double-click  "Material Scheduling" in the "NavTree".

   -or-

   Click on the "View" menu. Select "Goto Screen", then select "Material Scheduling".

2. Click "Requirements". The "Requirements" screen is displayed.

3. If there is an item or part number in the "Item/Part" field, the requirements for that item are displayed on the main screen.

4. Click the "Summary" tab at the top of the main screen.

Using the Requirements Summary Screen

Use these procedures to erase the screen and display item requirements.

Erasing the Screen

To erase the data from the screen click the Erase button located on the toolbar.

Note: Erasing the screen does not cause any data to be lost; it is merely a way to clean the screen in preparation for another operation.

Displaying Requirements Using Selection Criteria

To view requirements using selection criteria, perform the following steps:

1. Enter all or part of an item number in the "Item/Part" field, or use the Search button next to the "Item/Part" field to select an item number.

2. Enter or select any of the other optional selection fields or leave them blank so the summary is not limited by those selections.

3. Click the Open (Display) button located on the toolbar.

4. View the Requirements Summary displayed on the screen.

5. If the record you are looking for is not displayed in the table, either increase the "Number of Rows to Display" or change the selection criteria.

Displaying Planned Orders for All Items

To display planned orders for all items, perform the following steps:

1. Click the Erase button located on the toolbar

2. Click the Open (Display) button located on the toolbar or hit the Enter key.

3. The requirements for all items are displayed on the main screen. If you do not see the item you are looking for you may have to adjust the value in the "Number of Rows to Display" field at the top of the screen.

Planned Orders

What is a Planned Order?

Material scheduling processes all of the demand for an item against all of the supply for an item. When demand exceeds supply a planned order is generated for the item with the date and quantity needed.

The planned order screens allow you to view and process the planned orders generated by material scheduling.

Planned Order Screens

“Planned Orders” consists of two tabbed screens that are used to view and maintain planned order data.

Planned Orders
This screen allows you to view the planned orders generated by material scheduling for a particular item. It also allows you to turn a planned order into a job order or a purchase order.

Summary
This screen allows you to view the planned orders generated by material scheduling for multiple items based on the selection criteria used.

Planned Order Screens Explained

Planned Orders Screen

This screen allows you to view and delete planned orders for an individual item. It also provides a way to build job orders and purchase orders from the planned orders.

Item Data

Field	**Explanation**
Item/Part	A unique identifier assigned to each item/part. It is the main key for all other item/part data.
Type	The type helps further define a line by giving it a classification. Some examples of types are: "Assembly" something you build, "Service" for a service you provide.
Description	Contains information describing the item/part.
Status	Specifies whether the item/part is active or inactive.
Order Policy	The order policy determines how requirements will be generated and how material scheduling will build planned orders for an item: **None** Requirements are generated from customer orders but no planned orders are generated **Order Point** A requirement is generated when inventory falls below the Order Point Quantity defined. Planned orders are generated using the Fixed Order Quantity defined for the item **Requirement** Requirements are generated from customer orders and job orders. Planned orders are generated based on requirements -- for each unit required one will be planned, i.e. planned order quantities match requirement quantities
Item Level	Indicates the lowest level on which this item appears on all bills of materials.
Sourcing	Indicates how the item is normally acquired: **Purchase** The item is purchased **Manufacture** The item is manufactured
On Hand	Total quantity in inventory for this item.

Planned Orders Table (Planned Orders and Order Links Tabs)

Field	Explanation
Release Date	Date by which the planned order must be released for the item to be in inventory by the due date.
Due Date	Date by which the planned order must be fulfilled to satisfy the demand for which it was generated.
Status	Current status of this planned order e.g. Active
Source	Indicates where the original requirement came from, e.g. Customer Order, Order Point, Manual (manually added using the Requirements screen)
Quantity	The quantity required based on the requirement for which this planned order was generated. It may be less than the original requirement if part of the requirement quantity could be satisfied by other supply.
Delete	Check this box then click Save button located on the toolbar to delete this planned order.
Customer Order #	The customer order number associated with the requirement for which this planned order was generated.
Customer Line #	The line number of the customer order number associated with the requirement for which this planned order was generated.
Job Order #	The job order number associated with the requirement for which this planned order was generated.

Message Line

Field	Explanation
Message	Displays information about the current status of the screen including error messages.

Accessing the Planned Orders Screen

1. Click the plus ("+") next to "Material Scheduling" or double-click "Material Scheduling" in the "NavTree".

   -or-

   Click on the "View" menu. Select "Goto Screen", then select "Material Scheduling".

2. Click "Planned Orders". The "Planned Orders" screen is displayed.

3. If there is an item or part number in the "Item/Part" field, the planned orders for that item are displayed on the main screen.

Using the Planned Orders Screen

Use these procedures to erase the screen, display, delete, build job orders, build purchase orders, display the previous, and display the next item's planned orders.

Erasing the Screen

To erase the data from the screen click the Erase button located on the toolbar.

Note: Erasing the screen does not cause any data to be lost; it is merely a way to clean the screen in preparation for another operation.

Displaying an Item's Planned Orders

To display an item's planned orders, perform the following steps:

1. Enter an item/part number in the "Item/Part" field.
2. Click the Open (Display) button located on the toolbar or hit the Enter key.
3. The item/part planned orders are displayed on the main screen.

-or-

1. Use the Search button next to the "Item/Part" field, the "Type" field, the "Description" field, or the "Status" field to select an item/part number from a list of items regardless of whether or not they have planned orders.
2. Double-click on the "Item/Part" you would like to display in the "Search" screen table.
3. The item/part planned orders are displayed on the main screen.

Deleting a Planned Order

To delete a planned order, perform the following steps:

1. Display the item planned order you wish to delete. See "Displaying an Item's Planned Orders" above.
2. Click the Check box in the delete column of the planned order you want to delete. You may select more then one planned order to be deleted at one time. Click the checkbox again to remove the deletion flag.
3. Once finished, click the Save button located on the toolbar.

Note: Planned orders may be generated again by material scheduling.

Building a Job Order

To build job orders from selected planned orders for this item, perform the following steps:

1. Click the **Build Job Order** button located on the toolbar. A pop-up screen will appear.
2. Enter or select the criteria you want to use for displaying planned orders.
3. Click the Open (Display) button located at the top of the pop-up screen.
4. Planned orders based on the selection criteria used are displayed.
5. Check the box in the column “Build” for each planned order you want.
6. Enter a job order number and job order type or leave these columns blank for the next job order number available and job order type “Production”
7. Click the **Build** button located at the top of the pop-up screen

A new job order will be built for each planned order selected. Job orders can be located and viewed with the Job Order screen under Job Order Management.

Note: This feature is available only if TFG4000 Job Order Management is installed.

Building a Purchase Order

To build a purchase order from selected planned orders, perform the following steps:

1. Click the **Build Purchase Order** button located on the toolbar.
2. Enter or select the criteria you want to use for displaying planned orders.
3. Click the Open (Display) button located at the top of the pop-up screen.
4. Planned orders based on the selection criteria used are displayed.
5. Enter or select the Supplier you want to use for the purchase order.
6. Enter a purchase order number or leave it blank and the system will generate one for you.
7. Select a purchase order type or leave this field blank and it will default to “Purchase Order”
8. Enter Release Date and Due Date.
9. Check the box in the column “Build” for each planned order you want.

   Note: If an item has a sole source supplier, the “Sole Source” column will be checked and the supplier chosen for the purchase order must match the supplier for the item. If they do not match you must uncheck “Build” for that line, uncheck “Sole Source” for that line, or change the supplier for the purchase order.

10. Click the **Build** button located at the top of the pop-up screen

A new purchase order will be built with a purchase order line for each planned order selected. Purchase orders can be located and viewed with the Purchase Order screen under Purchasing Management.

Note: This feature is available only if TFG4000 Purchasing Management is installed.

Displaying the Previous Item

To display planned orders for the item that precedes the one currently displayed, perform the following steps:

1. Click the Previous button located on the toolbar.

2. The planned orders for previous item are displayed on the main screen.

Displaying the Next Item

To display planned orders for the item that follows the one currently displayed, perform the following steps:

1. Click the Next button located on the toolbar.

2. The planned orders for the next item are displayed on the main screen.

Tip: You can use the Next button as a convenient way to locate the first record in the database. Start by erasing the screen using the Erase button or blanking out the "Item/Part" field, then click the Next button .

Planned Order Summary Screen

Use this screen to view planned orders for items based on the selection criteria used.

Selection Criteria Group

Field	Explanation
Item/Part	Enter a full or partial item to search planned orders by item number. Use the percent sign (%) for wildcards.
Type	Select a planned order type to limit the summary to only the planned order type selected or leave this field blank for all planned order types.
Source	Select a requirement source to limit the summary to planned orders generated for only the requirement source selected or leave this field blank for all requirement sources.
Status	Select a requirement status to limit the summary to only the planned order status selected or leave this field blank for all planned order statuses.
Number of Rows to Display	Controls the number of planned orders to retrieve and display.

Summary Table (Plan Orders and Description tabs)

Column	Explanation
Row	The line number of the row in the table.
Item/Part	The item the planned order is for.
Release Date	Date by which this planned order must be released for it to be completed by the due date.
Due Date	The date by which this planned order must be fulfilled to satisfy the requirement for which it was generated.
Status	Current status of this planned order, e.g. Open
Quantity Released	The quantity required based on the requirement for which this planned order was generated. It may be less than the original requirement if part of the requirement quantity could be satisfied by other supply.
Item Description	Description of the item the planned order is for.

Message Line

Field	Explanation
Message	Displays information about the current status of the screen.

Accessing the Planned Order Summary Screen

1. Click the plus (“+”) next to “Material Scheduling” or double-click “Material Scheduling” in the “NavTree”.

   -or-

   Click on the “View” menu. Select “Goto Screen”, then select “Material Scheduling”.

2. Click “Planned Orders”. The “Planned Orders” screen is displayed.

3. If there is an item or part number in the “Item/Part” field, the planned orders for that item are displayed on the main screen.

4. Click the “Summary” tab at the top of the main screen.

Using the Planned Order Summary Screen

Use these procedures to erase the screen and display planned orders.

Erasing the Screen

To erase the data from the screen click the Erase button located on the toolbar.

Note: Erasing the screen does not cause any data to be lost; it is merely a way to clean the screen in preparation for another operation.

Displaying Planned Orders Using Selection Criteria

To view planned orders using selection criteria, perform the following steps:

1. Enter all or part of an item number in the "Item/Part" field, or use the Search button next to the "Item/Part" field to select an item number.
2. Enter or select any of the other optional selection fields or leave them blank so the summary is not limited by those selections.
3. Click the Open (Display) button located on the toolbar.
4. View the Planned Orders Summary displayed on the screen.
5. If the record you are looking for is not displayed in the table, either increase the "Number of Rows to Display" or change the selection criteria.

Displaying Planned Orders for All Items

To display planned orders for all items, perform the following steps:

1. Click the Erase button located on the toolbar
2. Click the Open (Display) button located on the toolbar or hit the Enter key.
3. The planned orders for all items are displayed on the main screen. If you do not see the item you are looking for you may have to adjust the value in the "Number of Rows to Display" field at the top of the screen.

Trigger Log

When item scheduling data is updated and when activity occurs that affects demand (customer orders and job orders) or supply (inventory transactions, purchase orders, and job orders), a record is written so material scheduling will know and item must be re-planned. The record is called a “trigger” because it triggers the material scheduling process.

The Trigger Log screen allows you to display and maintain trigger records written from various places within the TFG4000 applications. Some triggers have not been processed yet, some may have errors that may be corrected and the trigger can be re-processed, and some may have errors that prevent processing.

Trigger Log Screen

Items in need of material scheduling are added to a list (log) where they can be processed. This screen displays items that have not been processed yet, items that had errors, and it allows you to re-process and delete items from the log.

Selection Criteria Group

Field	Explanation
Type	Use this field to select the type of triggers you want to view or leave it blank for all trigger types.
Status	Use this field to display triggers based on trigger status or leave this field blank to view all triggers regardless of status.
Number of Rows to Display	Controls the number of log records to retrieve.

Trigger Table (Trigger, Error, and Description tabs)

Column	Explanation
Row	The line number of the row in the table.
Level	The lowest level at which this item appears on any bill of materials
Priority	Relative priority of this item for materials scheduling process (1 is highest and 9 is lowest)
Item	Item in need of material scheduling.
Type	Type of item this is relative to the planning needed (Independent or Dependent)
Status	Current status of the log record.
RP	Reprocess check box. A check in this box indicates this item must be re-processed during the next material scheduling cycle.
Error Type	If an error was encountered while trying to process this item, this column will indicate the type of error it was.
Error Description	Description of the error encountered if applicable.
Description	Additional information describing why the item is in need of material schedule processing.
Delete	This is a checkbox to indicate you want to delete an item from the log.

Message Line

Message	Displays information about the current status of the screen.

Accessing the Trigger Log Screen

1. Click the plus ("+") next to "Material Scheduling" or double-click "Material Scheduling" in the "NavTree".

   -or-

   Click on the "View" menu. Select "Goto Screen", then select "Material Scheduling".

2. Click "Item Schedule Data". The "Item Schedule Data" screen is displayed.

3. If there is an item or part number in the "Item/Part" field, the scheduling data for that item or part number is displayed on the main screen.

4. Click the "Trigger Log" tab at the top of the main screen.

Using the Trigger Log Screen

Triggers are written to start material scheduling automatically; then they are processed at intervals defined by System Variables. The variable **Material_Scheduling** must be set to "Yes" to allow material schedule processing to be run. Variable **TFGMaterialScheduleTrigger** indicates the number of minutes the system will wait between processing. It should be set to a number greater than 0 for processing to begin.

If an error is encountered during trigger processing the trigger is updated to indicate an error was found and a description of the error is added to the trigger. Some errors can be corrected so the trigger can be processed successfully while other errors are so severe the trigger cannot be processed.

If an error was encountered and the error was corrected, individual triggers can be flagged for reprocessing or all triggers can be reprocessed. If the error could not be corrected you may want to delete the trigger until the error can be corrected.

Use these procedures to display pending triggers, reprocess individual triggers, reprocess all triggers, and delete triggers.

Displaying Triggers

Perform the following steps to display triggers:

1. Enter or select any of the selection criteria fields as desired.

2. Click the Open (Display) button located on the toolbar.

Reprocessing Individual Triggers

Perform the following steps to reprocess triggers individually:

1. Click the RP (Reprocess) checkbox for each trigger you want to reprocess. You may select more then one trigger to be reprocessed at one time. Click the checkbox again to remove the reprocess flag.

2. Repeat step 1 as necessary for each additional trigger you wish to update.

3. Once finished, click the Save button located on the toolbar.

Reprocessing All Triggers

Perform the following steps to reprocess all triggers displayed:

1. Display the triggers you want to reprocess (see Displaying Triggers above).

2. Click the Reprocess button located on the toolbar.

Deleting Triggers

To delete unit of measure conversions, do the following:

1. Click the Delete checkbox ☐ for each trigger you want to delete. You may select more then one value to be deleted at one time. Click the checkbox again to remove the deletion flag.

2. Once finished, click the Save button located on the toolbar.

Advanced Installation

TFG4000 Professional Edition provides some advanced installation functionality such as: font sizes, system variables, server start up options, BAT file options for single user and multi user modes.

Please refer to the System Administration User Guide for more information.

Documentation

TFG4000 documentation (in PDF format) is available online at www.tfg4000.com, through the "Documentation" menu on each screen, and from the Windows "Start" menu. Simply click "Start", then "Programs", then "TFG4000 Professional V1.4", and then "Documentation".

Note: PDF files require Adobe® Acrobat® Reader. The reader is available at www.adobe.com free of charge.

Registration

Quick & Easy Online: After installation, you can go to our web page at www.tfg4000.com to register the product. Click on "Register" and follow the instructions.

Suggestions

We are eager to improve TFG4000 Professional Edition, and we urge you to tell us what you think of the software and how it could be improved to better suit your needs. We have taken many suggestions from our customers and incorporated them into our products. If you have suggestions or comments, please send an e-mail to tfg4000@fredrickgroup.com. We want to hear from you!

Services

The Fredrick Group, Inc. offers assistance in data conversion. For more information, contact The Fredrick Group, Inc. directly by either:

E-mail Send an e-mail to tfg4000@fredrickgroup.com, with 'Services' in the subject line.

Phone Call **770-844-8516** between 9:00 AM - 5:00 pm Eastern Time Monday through Friday (except holidays)

Support

Note: You must be registered in order to receive support.

Initial Installation Support

The Fredrick Group, Inc. provides free initial installation support via e-mail. Installation support is available for 30 days, and is activated when you send your first message. You may also receive installation support by calling, but you must pay the cost of the call. Technicians are available on a limited basis Monday through Friday (except holidays) from 9:00 am to 5:00 pm Eastern time. The TFG4000 Professional Edition product technical support number is **770-844-8516**.

Pay-As-You-Go Support

Additional fee-based support is available. You pay the cost of the call plus an additional fee. Credit card information must be provided and confirmed before a call is accepted. Technicians are available on a limited basis Monday through Friday (except holidays) from 9:00 am to 5:00 pm Eastern time. The TFG4000 Professional Edition product technical support number is **770-844-8516**.

Contact The Fredrick Group, Inc. at tfg4000@fredrickgroup.com for more details.

Other Support Options

Other support options are available.

Contact The Fredrick Group, Inc. at tfg4000@fredrickgroup.com for more details.

Note: Support plans and fees are subject to change without notice.

For more information go to www.tfg4000.com.