
QuickBooks Compatible Software

CCRQBOM

By CCRSoftware



Updated 5/5/2009

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CCRQBOM



QuickBooks® is an excellent accounting system for small businesses. The user is provided with a comprehensive accounting program that provides most of the features that a small business owner needs to manage the company's accounts, and provides a variety of features that can be used to fine tune the program to fit your specific business. You will find, though, that the program doesn't always provide the features that many manufacturing businesses need to manage the manufacturing process.

CCRQBOM enhances the manufacturing capabilities of QuickBooks ® by providing the ability to work with multi-level Bills of Material (inventory assemblies, BOM's). This program adds the ability to:

- Display an indented view of an assembly, to as many levels as you wish.
- Print an indented Bill of Material report.
- Issue multiple-level jobs, where in a single operation you can issue "builds" for a high level assembly and each of its sub-assemblies.
- Generate a shortage list that will show you the quantity of materials that you need to purchase before you can issue a build at either a single level, or full level.
- Generate a list of assembly items found in a range of sales orders (or invoices) and generate a requirements report showing the component items you need to build or purchase to be able to fulfill those orders.
- Generate a requirements list for a collection of assembly items, and issue build transactions for the entire list.
- Print a *where used* report, listing component items and which assemblies they are used in.

CCRQBOM is a *QuickBooks Compatible Software* application that will work with the US edition of QuickBooks® Premier, 2006 version or later, or QuickBooks® Enterprise version 6.0 or later. QuickBooks® Pro is not supported. Contact us for compatibility with certain Canadian releases of QuickBooks.

The program works closely with QuickBooks® data files without having to synchronize your data with an external application. When you first install the application on a computer it will allow you to access all features on a trial basis – for 30 days. After that trial period you can license the program for a very low fee.

Please note the following restrictions.

- To be able to issue a “pending build” you must have the US 2008 (or later) edition of Premier or Enterprise.
- You cannot set a BUILD DATE at this time. The build will always be issued for the current computer system date. That means you cannot post-date the build. It also means that you may have problems if you use the sample data files that QuickBooks provides, since those files are set to use a date several years in the future.
- CCRQBOM cannot manage the “unit of measure” feature in QuickBooks. All quantities will be displayed in the base unit of measure.

CCRSoftware is the software development division of **Computer Consulting Resources** and is a Gold member of the Intuit Developer Network, specializing in developing software products that work closely with your QuickBooks® data files. **CCRQBOM** is based on our long experience (over 30 years) of working with accounting and inventory software for small businesses.

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Installing CCRQBOM

Operating Requirements

CCRQBOM requires the following:

- **QuickBooks Edition/Version:**
 - **US Edition:** This program works with the US edition of QuickBooks Premier, 2006 version or later, and the US edition of QuickBooks Enterprise, version 6 or later. Every workstation (computer) that will run a copy of this program must have the appropriate version of QuickBooks® installed.

The ability to issue “pending builds” requires the 2008 or later editions.
 - **Canadian Edition:** This program works with the Canadian edition of QuickBooks Premier 2009 and later, and the single currency version of QuickBooks Premier 2008. Compatibility with the Canadian 2009 version of QuickBooks Enterprise has not been determined but it is very likely. If you have an older version contact our technical support staff for information.
 - **UK Edition:** This program works with the UK edition of QuickBooks Premier 2008 and later.
 - Other Non-US versions are not supported
- **Microsoft Windows:** This program has been tested with **Microsoft Windows XP Pro** and **Windows Vista**. Vista is only supported with a 2007 or later version of QuickBooks. Please note that with Vista you must have **User Account Control (UAC)** enabled in Vista, which is required by QuickBooks.
- **Microsoft .NET Framework 2.0:** If you have a 2008 (or later) US version of QuickBooks, or are using Windows Vista, this should already be installed on your computer. If you do not have this installed already our installer will install that for you.
- **Computer Display Resolution:** Your computer should have a display resolution of at least 800 X 600 (if you are running QuickBooks you have this, or better).

Installing the Application

Quick Setup Instructions

Installing the application involves several steps. Note that you must install QuickBooks® on your computer prior to installing this application.

1. **Application Installation:** Run the **Setup** program to install the application on your computer. Please install the program in a local directory on your workstation.

IF YOU ARE UPGRADING FROM AN EARLIER VERSION
please read the note about this in the detailed instructions below.

Start QuickBooks® and open your company file as the administrator in single user mode. Run the application (found in the *CCRSoftware* folder of the Windows Program menu).

2. **Program Setup:** If this is the first time you have run a CCRSoftware application on this computer you will be asked for a location to save a parameter file – **choose the location where your data file resides.**
3. **Company Setup:** QuickBooks® will ask you if it is OK for this application to access your data – say “*Yes, whenever this QuickBooks company file is open*”.
4. **Registration:** When you first install the application it will run in a trial mode, which will allow you to use the application at no charge for up to 30 days. You can select “Don’t Register” to start with (you can register the application later).

Application Installation

Prior to installing this application you must install QuickBooks on the computer workstation that you wish to use.

If you are **upgrading from version 3.0.1** (or older) the upgrade process is a bit tricky. You do not want to uninstall the older version, because this may erase some components that your system will need. Install the new version, then delete any links to the old version that you have on your desktop or your start menu. If you have a late version this is not a problem – the installer will ask if you want to uninstall the prior version, and you should say “yes”.

Run the **Setup** program that you have been provided. The setup program will lead you through the simple steps necessary. Please note the following:

- **You should install the program while logged in as the “administrative user” of your computer system.**
- **The installation program requires that you have the “Microsoft .NET Framework version 2.0” installed on your computer.** If you are using Microsoft Vista, or if you have installed a 2008 (or later) US version of QuickBooks then this has already been taken care of. If you have an older version of QuickBooks you may need to install it (the installation program will tell you if you need it or not).

You may need to reboot your computer after installing the .NET Framework.

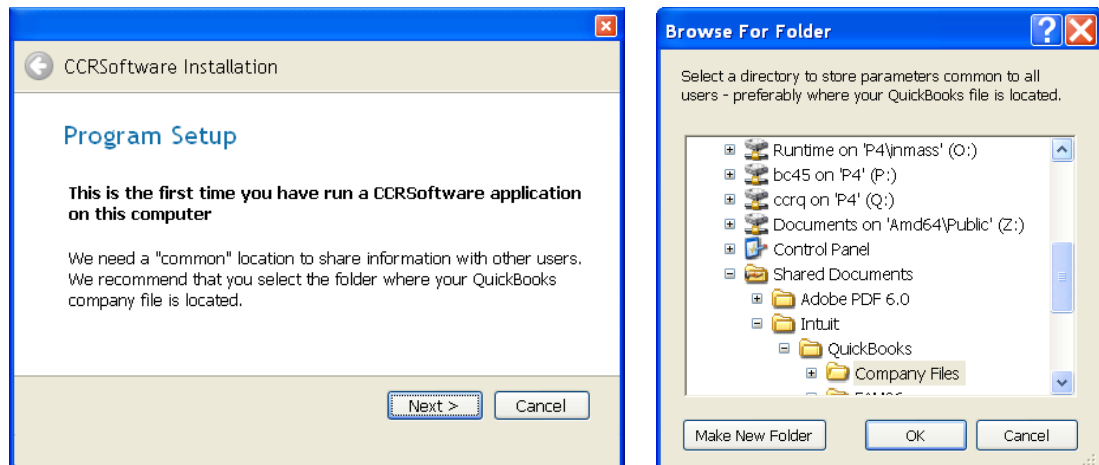
- **Please install this application in its own subdirectory** – it is best to not install CCRQBOM to the same directory as other applications.
- **Install the application on your local disk drive** – don’t install this to a shared network drive, or a *mapped drive*. The application should be run from a local drive to avoid security warnings.

If you are upgrading from a prior release we recommend that you install the new version in the same directory as before.

- **Start QuickBooks® and log in to the company file as the Administrative User:** You must have QuickBooks® running, with the company file open, and you must be logged in as the “administrative user” in **single user mode**.
- **Start CCRQBOM:** The application can be found in the Windows program menu in the *CCRSoftware* folder.

Program Setup

The first time that you run any CCRSoftware application on a computer you will see the *Program Setup* wizard. This will only be done one time per computer, AND if you are running in a multi user situation it will occur on each computer you use.



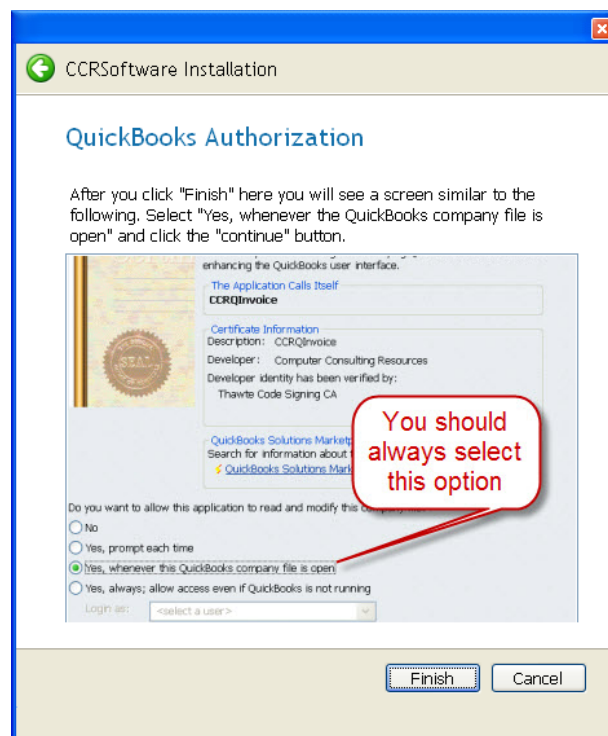
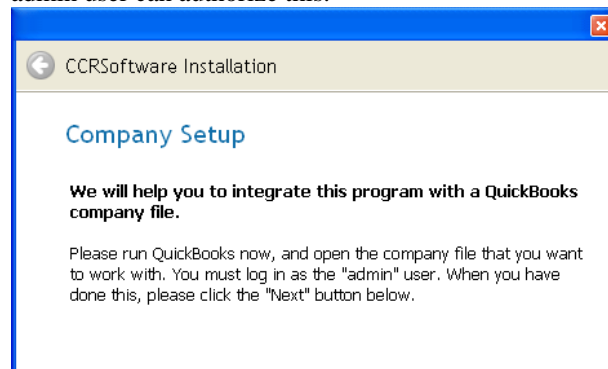
The *program setup* step asks you for a place to store some “common” information. **It is important that you select a location that is accessible to all QuickBooks® users** if you are running in a multi-user environment. The location where your QuickBooks® data files are stored is a good choice. The default that is shown is where your version of QuickBooks® would store the data files in a local folder on your workstation, which isn’t always the best place if you have a multi user installation.

Note that you may see this each time you install the application on a new computer workstation. It is important that you specify the same location from each workstation, so that they all have access to the same folder.

Company Setup

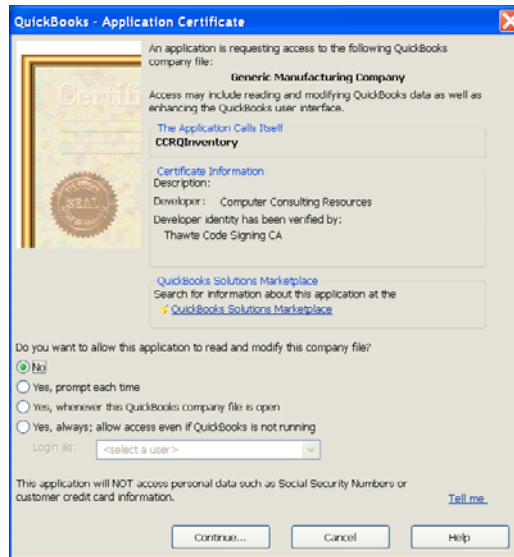
The first time that you use a particular CCRSoftware application with a QuickBooks® company file you will be asked to “authorize” access to your data.

This is why you must have the company file open as the “admin” user – only the admin user can authorize this.



Click the *finish* button in the wizard.

QuickBooks® won't allow an outside application to access your company data without you giving explicit approval, as a security measure. This is a good thing! Applications cannot get to your information without you knowing what is going on.



When the application first accesses your QuickBooks company data (as a part of the installation process), QuickBooks will open an authorization screen similar to what is shown here. You must give the program permission to access your company data.

Select **Yes, whenever this QuickBooks company file is open**.

This is usually the most appropriate setting. There are other variations but this generally works the best. You can change these settings later in your QuickBooks *preference* settings.

Registration

When you install this application on a computer for the first time, it will be set up with a “trial period”. You will have access to all features for a period of 30 days from the time that you install the application. This allows you to evaluate the application to determine if it fits your needs.

The very first time that you run the application on a computer you will see a Registration screen similar to the following:

If you have been provided with a serial number please enter your name, company name, and serial number in the appropriate locations. Then press the *Register* key. This will unlock the application for use on this computer.

Do not click on the link that says “I already have a license” – that is for a special situation that won’t normally apply to you.

Please note that when you enter the registration information you should be logged in to Windows as an administrative user.

If you do not have a serial number you can run the application for 30 days after installation. Select *Don't Register*, and a screen similar to the following will appear:



Click the *Try* button to continue as a trial application. Each time that you start the application this screen will appear, until you enter a serial number.

If you have decided to purchase the application and have been provided with a serial number, click the *Register* button on this screen, and you will be shown the Registration screen.

Ready to Go!

At this point you are ready to start working with the application.

Access Even If QuickBooks Is Not Running

This section describes an alternate way of handling the QuickBooks® authorization process, which allows the application to run even if a copy of QuickBooks is not actually running.

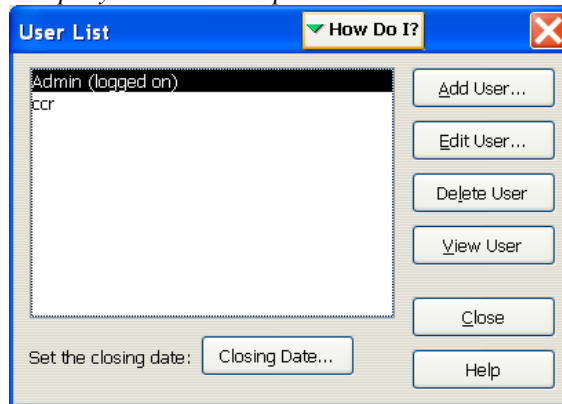
Note that only one user can run in this mode at a time, so it is of limited use.

In the QuickBooks Authorization screen there are several options that you can choose to control how QuickBooks will handle requests from outside applications for access to company data. Most people will choose **Yes, whenever this QuickBooks company file is open** – that will allow you to run the application any time that you have the company file open in QuickBooks®.

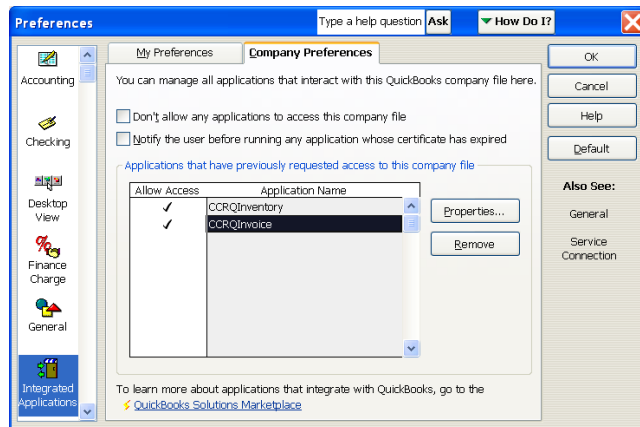
Another option is **allow access even if QuickBooks is not running**. If you choose this option then you don't have to start QuickBooks first before running our application. To ensure that your data is secure and protected from unauthorized access by someone using your computer, we recommend that you take some additional installation steps.

You should create a *user* specifically for this kind of access. With this approach the application will automatically log in as this special user, and you can control access to your company information. The example shown here is based on *Premier*, but the process is essentially the same in *Enterprise*.

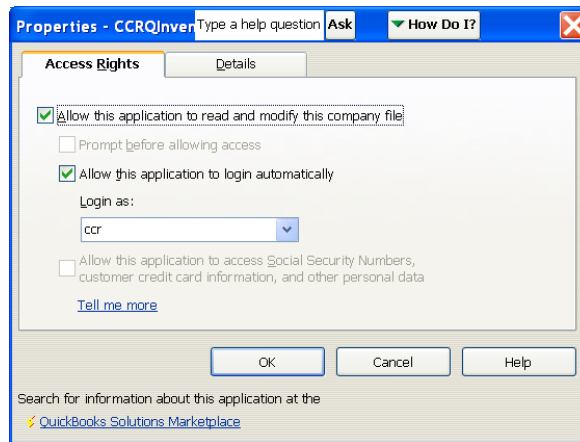
1. While logged in to the company as a QuickBooks administrator, select *Company* and then *Set Up Users*.



2. Click on *Add User* and follow the prompts to add a new user. You can name this “CCR”, or any other user name that you wish.
3. When you get to the screens that talk about Access permissions you have a choice. If you say that this user will have access to *all areas of QuickBooks* then you are assured that this program will be allowed to access your files. You may decide that you want to place limits on this user, however. If you do, please note that you must provide access to certain features. The list of features depends on the plug-in program that you are using (see the documentation for each plug-in for details).
4. Now that you have established a special user, you need to set the properties for this application to use that user. Select *Edit* from the main menu, and then *Preferences*. Click on the *Integrated Applications* icon at the left, and then select the *Company Preferences* tab. You should see a screen similar to the following:



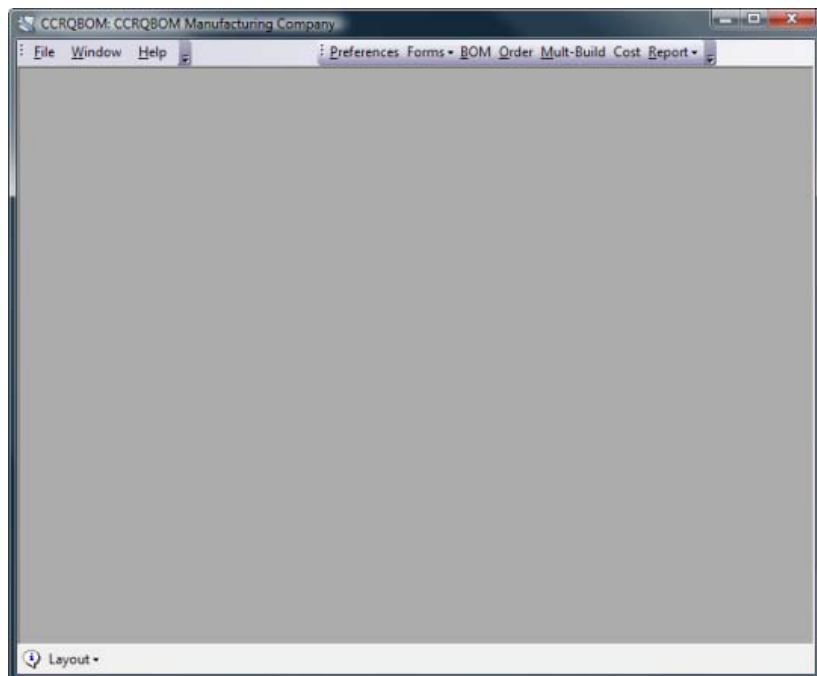
5. Click on the application to highlight it, and then click on the *Properties* button. Place a check on the *Allow this application to read and modify this company file* option, and then place a check on the *Allow this application to login automatically* option, as shown below.



5. In the *Login as:* dropdown box select the user that you added for this application. Then click the *OK* button.

Working with CCRQBOM

The main window for CCRQBOM serves as a container for the windows that represent the various functions of the program.



Preferences lets you change various settings that affect how the program works.

Forms is used to edit the layout of any of the reports in this program.

BOM provides functions to display and print a bill of material, generate requirements reports, and issue single or multiple level builds.

Order lets you work with estimates, sales orders or invoices to generate a list of required assemblies and generate requirements reports from the orders.

Multi-Build can be used to work with multiple assemblies at the same time, so you can enter a list of assemblies to build and see a combined requirements report.

Cost is used to update the “cost” field (not the “average cost” field) of inventory assemblies based on the cost of the components, including sub assemblies

Report is a menu that provides a variety of QuickBooks reports, such as the *where used* report.

File is used to select a different company file to work with (as explained in the *Program Management* chapter).

Help lets you access the on line help file as well as make changes to the appearance of the program, and set various operating parameters (as explained in the *Program Management* chapter).

Window lets you change the way that the various windows are managed in the program (as explained in the *Program Management* chapter).

CCRQBOM Functions

The primary functions provided by CCRQBOM are:

- **BOM:** This is used to print a Bill of Material, view a multiple level BOM structure, issue builds for individual inventory assembly items, and generate shortage/requirements reports for individual inventory assembly items.
- **Order:** You can use this to list the inventory assemblies that are included in a range of Invoices, Sales Orders or Estimates. From this list of required assemblies you can generate shortage and requirements lists.
- **Mult-Build:** This is a more sophisticated function (compared to the BOM function) for generating shortage/requirement reports and building assemblies. This will work with multiple assembly items at one time (providing aggregate requirements/shortage reports). You can also use this function to print Bill of Material reports for multiple items.
- **Cost:** Use this to update the *cost* field in assembly items based on the aggregate cost of subassemblies and lower level items.
- **Report:** This includes manufacturing related reports, such as the *Where Used* report.

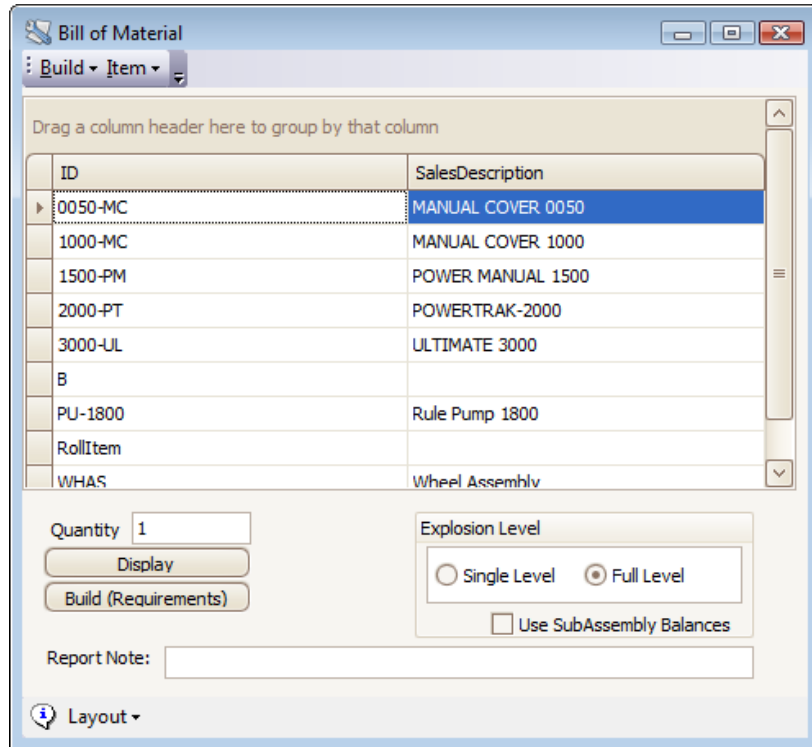
BOM – Working with a Bill of Materials

The **BOM** function provides you with a number of features that are based on your bill of materials (or BOM), as defined in your QuickBooks company file. When you first select this function there may be a momentary delay while CCRQBOM retrieves all of the assembly items from your file.

There are three primary functions that can be performed with CCRQBOM:

- Displaying and printing an indented **Bill of Material**.
- Generating **Requirement** listings that help you determine if you can issue a Build.
- Issuing a single level or multiple level **Build**.

When you select **BOM** from the menu the following window opens. All of the Inventory Assembly items from your QuickBooks company file are listed. You can scroll through the list to locate the Inventory Assembly that you want to work with.



You also can click on any column that is displayed and start typing a value, the program will locate the item that matches what you are entering.

To illustrate how to use CCRQBOM we will work with assembly **0050-MC**. This is a pool cover, and it has several subassemblies: **WHAS** (a wheel assembly), **TUCA-4X2** (a power track), **PU-1800** (a pump assembly), and several screws.

The **WHAS** wheel assembly has two components, a **RORO-4** roller and some more screws.

The **PU-1800** pump consists of a **PUBP** pump base, a **PUHC** clamp, another **WHAS** assembly, and some screws.

Note that there are several “levels” to this assembly, some sub-assemblies are used in several places, and some low level items (screws) are used in multiple places.

Viewing a multiple level assembly like this in QuickBooks is difficult – there isn’t a way to see the entire product structure at one time. You have to print individual reports for each level of the assembly.

Using QuickBooks we can see the following:

- Highest level assembly **0050-MC**

Inventory Assembly/Bill of Materials						12/4/2008 11:35 AM	
Item Name/Number 0050-MC							
Manufacturers Part Num							
Is Purchased No							
Purchase Description MANUAL COVER 0050							
Sales Description MANUAL COVER 0050							
Sales Price		1,000.00	Income Account		Pool Cover & Equipment Sales		
Cost		0.00	COGS Account		Cost of Goods Sold		
Total Value		1,479.00	Asset Account		Materials Inventory		
Qty On Hand	3	Avg. Cost	493.00	On Purch Order	0	On Sales Order	4
Pending Builds	0	Build Point		0			
Bill of Materials							
Item Name/Num	Description	Type	Cost	Qty	Total		
WHAS	Wheel Assembly	Assembly	15.00	2	30.00		
TUCA-4x2	PowerTank, Tube Castings 4x2	Inv Part	90.00	2	180.00		
PU-1800	Rule Pump 1800	Assembly	175.00	1	175.00		
Screws SC-12	Screw, #12 Drill Flex HWH #3 Tek	Inv Part	11.00	4	44.00		
Total Bill of Materials				9	429.00		

- Subassembly WHAS

Inventory Assembly/Bill of Materials						12/4/2008 11:37 AM
Item Name/Number WHAS						
Manufacturers Part Num						
Is Purchased No						
Purchase Description Wheel Assembly						
Sales Description Wheel Assembly						
Sales Price		40.00	Income Account		Pool Cover & Equipment Sales	
Cost		15.00	COGS Account		Materials	
Total Value		0.00	Asset Account		Materials Inventory	
Qty On Hand	0	Avg. Cost	32.00	On Purch Order	0	
Pending Builds	0	Build Point		0		
Bill of Materials						
Item Name/Num	Description	Type	Cost	Qty	Total	
Screws SC-12	Screw, #12 Drill Flex HWH #3 Tek	Inv Part	11.00	2	22.00	
ROBO-4	Rocky Roller #4	Inv Part	10.00	1	10.00	
Total Bill of Materials				3	32.00	

- Subassembly PU-1800

Inventory Assembly/Bill of Materials						12/4/2008 11:40 AM
Item Name/Number PU-1800						
Manufacturers Part Num						
Is Purchased No						
Purchase Description Rule Pump 1800						
Sales Description Rule Pump 1800						
Sales Price		500.00	Income Account		Pool Cover & Equipment Sales	
Cost		175.00	COGS Account		Materials	
Total Value		0.00	Asset Account		Materials Inventory	
Qty On Hand	0	Avg. Cost	205.00	On Purch Order	0 On Sales Order 0	
Pending Builds		0	Build Point		0	
Bill of Materials						
Item Name/Num	Description	Type	Cost	Qty	Total	
Pumps PUNC	Rule Pump, House Clamps	Inv Part	25.00	1	25.00	
Pumps PUSB	Rule Pump, Base Plate	Inv Part	50.00	1	50.00	
WHAS	Wheel Assembly	Assembly	15.00	2	30.00	
Screws SC-12	Screw, #12 Drill Flex HWH #3 Tek	Inv Part	11.00	6	66.00	
Total Bill of Materials				10	171.00	

As you can see, we have to print three separate reports to see the product, and even then it is difficult to see exactly what is included. Also note that this report cannot be modified in QuickBooks – so if you want to hide cost information, or COGS account information, you can't!

Using CCRQBOM and the *BOM* function, we can display the product structure in several ways. Here is a screen representation (which can be modified):

Component	Level	Quantity	Quantity Extended
WHAS	1	2	2
Wheel Assembly			
Scre...	2	2	4
Screw, #12 Drill Flex HWH #3 Tek			
ROR...	2	1	2
Rocky Roller #4			
TUCA-4x2	1	2	2
PowerTrak, Tube Castings 4'x2'			
PU-1800	1	1	1
Rule Pump 1800			
Pump...	2	1	1
Rule Pump, House Clamps			
Pump...	2	1	1
Rule Pump, Base Plate			
WHAS	2	2	2
Wheel Assembly			
S...	3	2	4
Screw, #12 Drill Flex HWH #3 Tek			
R...	3	1	2
Rocky Roller #4			
Scre...	2	6	6
Screw, #12 Drill Flex HWH #3 Tek			
Screws:S...	1	4	4
Screw, #12 Drill Flex HWH #3 Tek			

You can clearly see the subassemblies and their relation to the main assembly.

You can also print this information – and CCRQBOM includes a report designer that lets you modify this report (adding fields, changing titles, moving things around and so forth).

MultiLevel BOM

Assembly 0050-MC

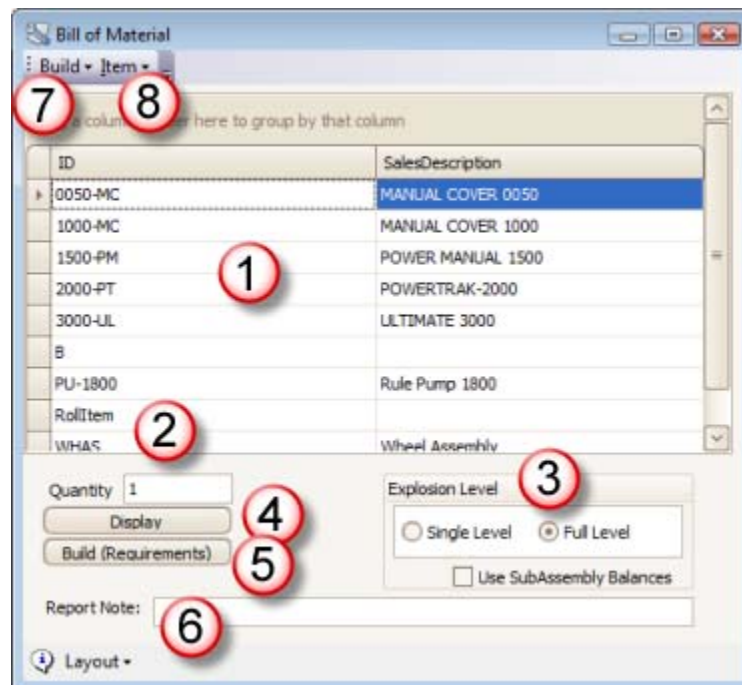
MANUAL COVER 0050

Level	Component	Description	Quantity	Qty Extended
.1	WHAS	Wheel Assembly	2	2
..2	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	2	4
..2	RORO-4	Rocky Roller #4	1	2
.1	TUCA-4x2	PowerTrak, Tube Castings 4x2'	2	2
.1	PU-1800	Rule Pump 1800	1	1
..2	Pumps:PUHC	Rule Pump, House Clamps	1	1
..2	Pumps:PUBP	Rule Pump, Base Plate	1	1
..2	WHAS	Wheel Assembly	2	2
...3	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	2	4
...3	RORO-4	Rocky Roller #4	1	2
..2	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	6	6
.1	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	4	4

Note that if you want to print this BOM report for multiple assemblies at one time, select the *Multi-Build* function.

Assembly Window Features

The Assembly window provides you with the following features, which will be discussed in greater detail later.



1. **Assembly Grid:** The assembly items found in the currently open QuickBooks® company file will be listed here. Select an assembly to work with by clicking on it. You can sort the items and modify the appearance of the grid (including adding and deleting columns) as described in the *Working with Grids* chapter. If you change the layout you can save it with the *Layout* button at the bottom of the screen.
2. **Quantity:** If you issue a Build, or just want to see a list of requirements, you can enter the quantity of the selected assembly to include in the process.

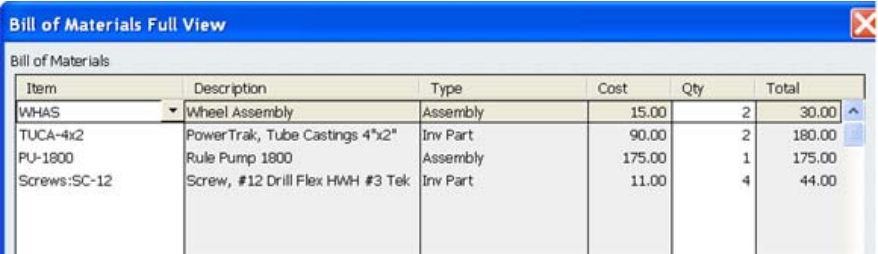
3. **Explosion Level:** If you have an assembly that in turn includes another assembly as a component, a *single level* build or display (“explosion”) will treat that component assembly (sub-assembly) as if it were an inventory item. If you select a *full level* build or display then the program will expand any sub assemblies that are found.

The *Use Subassembly Balances* box is important if you are using a full level explosion. If you have a multiple level assembly you may have a balance on hand for some of the subassemblies. If you issue a build for an assembly and you have a subassembly, if this box is checked then the program will use the available subassemblies before it will issue a build to make more of the subassembly. If this box is not checked, then any on hand balance of the subassembly is ignored, and the program will always explode all subassemblies.

4. **Display:** This button will display the bill of material (BOM) for the selected assembly.
5. **Build (Requirements):** This button will take the selected assembly and prepare a list of the component items that would be required to build that assembly (based on the Quantity field). If you select *Full Level* then the components of every sub assembly will be listed. You will have the option of issuing a Build for the selected assembly.
6. **Report Note:** Any text that you enter here will show on the bottom of a BOM listing or requirements report.
7. **Build Menu:** The *Build* menu option contains several functions. The *Count* option is a quick way to tell how many of the selected assembly you can build, to a single level explosion only (this is the same feature that you find in QuickBooks®). The *Build* option performs the same operation as the *Build* button.
8. **Item Menu:** If you add assembly items to the item list in QuickBooks® at the same time that the assembly list is shown on the CCRQBOM screen, those items are not automatically added to the screen. Select the *Refresh Assembly List* option in the Item menu to update the list on screen.

Displaying a Bill of Material

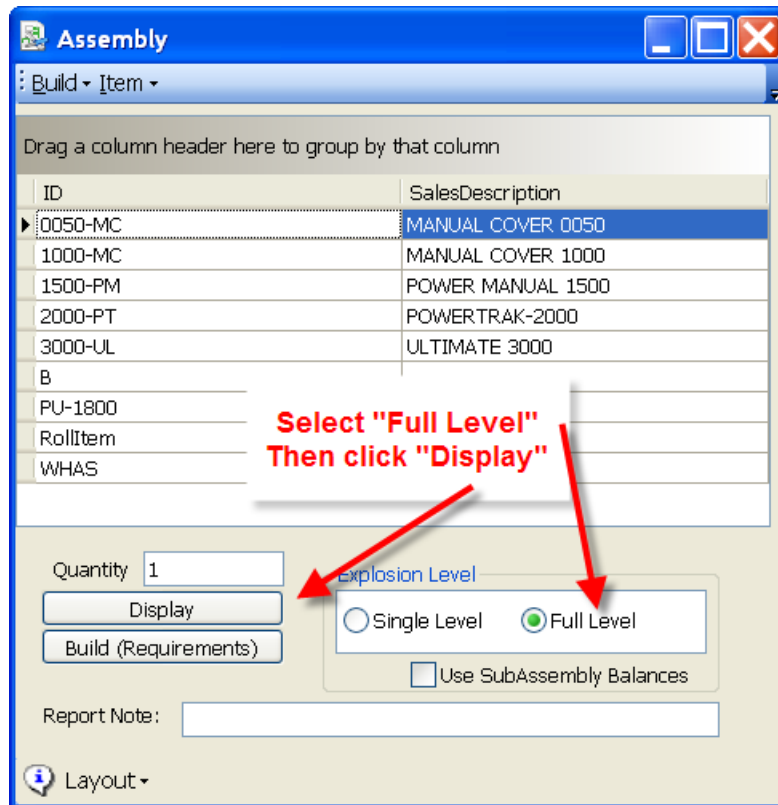
Looking at the highest level assembly (0050-MC) in QuickBooks, you would see something similar to the following:



Item	Description	Type	Cost	Qty	Total
WHAS	Wheel Assembly	Assembly	15.00	2	30.00
TUCA-4x2	PowerTrak, Tube Castings 4"x2"	Inv Part	90.00	2	180.00
PU-1800	Rule Pump 1800	Assembly	175.00	1	175.00
Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	Inv Part	11.00	4	44.00

You can only see a “single level” view of the inventory assembly. There are two assembly items listed as components here, but you can only show those products in a separate screen. There is no way to show the lower level items (components of those assemblies) in this view.

From the CCRQBOM screen click once on the listing of the assembly to highlight it, select the *Full Level* option, and then click the *Display* button.



A window will open that will display the selected assembly, showing the fully expanded (or “exploded”) assembly. You can clearly see the relationship of the parts to each other.

Bill of Materials: 0050-MC

Quick Print Print

Component	Level	Quantity	QuantityExtended
WHAS	1	2	2
Wheel Assembly			
Screws:...	2	2	4
Screw, #12 Drill Flex HWH #3 Tek			
RORO-4	2	1	2
Rocky Roller #4			
TUCA-4x2	1	2	2
PowerTrak, Tube Castings 4"x2'			
PU-1800	1	1	1
Rule Pump 1800			
Pumps:P...	2	1	1
Rule Pump, House Clamps			
Pumps:P...	2	1	1
Rule Pump, Base Plate			
WHAS	2	2	2
Wheel Assembly			
Scre...	3	2	4
Screw, #12 Drill Flex HWH #3 Tek			
ROR...	3	1	2

Layout ▾ Activities ▾

Changing the Appearance

You can resize this window by clicking on the lower right corner and dragging it to where you want. If you want to save this setting, click the *Layout* button in the lower left and select *Save Layout*. These changes will be saved on the local workstation (and so will not affect other users).

There are a number of other changes you can make, which we will briefly review here. The methods that you can use to change the appearance of this window are described in detail in the *Working with Grids* chapter.

- Clicking on a column heading will sort the components by the value in that column within the level of the assembly. A small arrow will appear next to the column heading. The example below sorts the items by component.

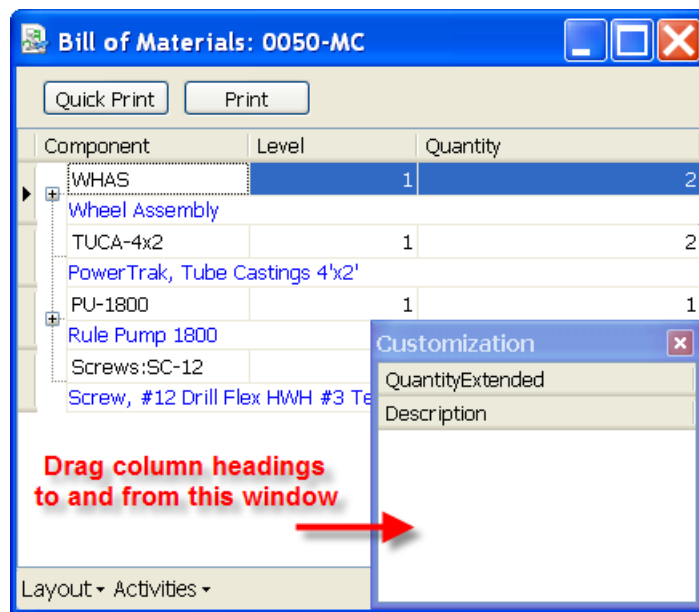
Component	Level	Quantity	QuantityExtended
0050-MC	0	1	1
MANUAL COVER 0050			
PU-1800	1	1	1
Rule Pump 1800			
Screws:S...	1	4	4
Screw, #12 Drill Flex HWH #3 Tek			
TUCA-4x2	1	2	2
PowerTrak, Tube Castings 4"x2"			
WHAS	1	2	2
Wheel Assembly			

- You can change the width of the columns by dragging the column separators in the heading.

- You can change the order of the columns by dragging the column headings to the new location.
- You can select which columns to display by right clicking on the headings to open a menu, and then selecting the *Column Chooser*.

Component	Level	Quantity	QuantityExtended
0050-MC	0		1
MANUAL COVER 0050			
PU-1800	1		1
Rule Pump 1800			
Screws:S...	1		4
Screw, #12 Drill Flex HWH #3 Tek			
TUCA-4x2	1		2
PowerTrak, Tube Castings 4"x2"			
WHAS	1	2	2
Wheel Assembly			

When you select the *Column Chooser* a “Customization” window will appear. You can drag headings to this window to remove them from the display, or drag them from this window to the display to add them.



Printing

There are two methods you can use to print the bill of material that is displayed – a **Quick Print** which prints the BOM in the format that you see in the grid, and a standard **Print** which takes a few more steps, but allows you to have greater control over the appearance of the report via a report designer.

Quick Print

Click on the *Quick Print* button to print the Bill of Material as displayed.

Component	Level	Quantity	QuantityExtended
0050-MC	0	1	1
MANUAL COVER 0050			
WHAS	1	2	2
Wheel Assembly			
Screws-SC-12	2	2	4
Screw, #12 Drill Flex HWH #3 Tel			
RORO-4	2	1	2
Rocky Roller #4			
TUCA-4x2	1	2	2
PowerTrak, Tube Castings 4"x2"			
PU-1800	1	1	1

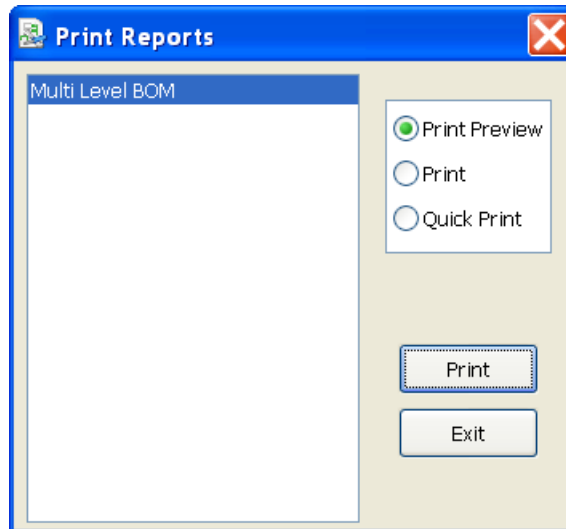
Any changes that you implement in the Bill of Materials grid will be reflected here, so you can rearrange the order of the columns, expand and contract the “explosion” of items, add or delete columns, and so forth (as described in the *Working with Grids* chapter).

If you have entered a message in the *Report Note* field on the first window it will appear at the bottom of the page.

A description of the features in the report *Preview* window can be found in the *Report Preview* chapter.

Standard Print

If you click on the *Print* button a list of available reports will display:



Initially there will be one report, *Multi Level BOM*. You can create modified versions of this report by using the *Forms* option in the main menu. If you create a modified report it will be listed here.

Select the print option that you want, select the report to print, then click the *Print* button.

- *Print Preview* will open a print preview window. You can see what the report would look like, and you have a number of options such as selecting the printer to use, printing to a PDF file, exporting to Excel, and so forth. The options here are described in detail in the *Print Preview* chapter.

- *Print* will open a standard Windows printer selection dialog, allowing you to select the printer to use.
- *Quick Print* will print the report directly to the default Windows printer without giving you any options.

The following is a sample report in the *Print Preview* screen.

MultiLevel BOM

Assembly 0050-MC MANUAL COVER 0050

Level	Component	Description	Quantity	Qty Extended
.1	WHAS	Wheel Assembly	2	2
..2	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tak	2	4
..2	RORO-4	Rodky Roller #4	1	2
.1	TUCA-4x2	PowerTrak, Tube Castings 4x2	2	2
.1	PU-1800	Rule Pump 1800	1	1
..2	Pumps:PUHC	Rule Pump, House Clamps	1	1
..2	Pumps:PUBP	Rule Pump, Base Plate	1	1
..2	WHAS	Wheel Assembly	2	2
...3	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tak	2	4
...3	RORO-4	Rodky Roller #4	1	2
..2	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tak	6	6
.1	Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tak	4	4

Current Page No: 1 Total Page No: 1 Zoom Factor: 58%

Report Customization

Note that you can customize the report in the *Forms* menu – select the *Bill of Materials* option. In addition, we post report editing tips and sample reports on our CCRSoftware product blog at <http://ccrqblog.ccrsoftware.info/> as well as on our CCRQBOM information page at <http://www.ccrsoftware.com/CCRQBOM/CCRQBOM.htm>.

Requirements/Shortages

One of the critical processes that a manufacturer must perform is a requirements/shortage analysis. If I want to build a certain number of an inventory assembly, what do I need and what parts do I have to purchase or build?

QuickBooks® by itself can only analyze this to a single level. If you want to work with multiple level assemblies you must use CCRQBOM.

Working with the **0050-MC** assembly item, if we wish to issue a build for quantity 1 with QuickBooks® you can see that we cannot issue the build as we are short of some subassemblies.

Build Assemblies Type a help question Ask How Do I?

Previous Next

Assembly Item: 0050-MC

Quantity on Hand: 0 Build Point: 0
 Quantity on Sales Order: 0
 Quantity Reserved for Other Assemblies: 0
 Quantity Available: 0

Components Needed to Build 0050-MC

Component Item	Description	Type	Qty On Hand	Qty Needed
WHAS	Wheel Assembly	Assembly	0	2
TUCA-4x2	PowerTrak, Tube Castings 4"x2"	Inv Part	5	2
PU-1800	Rule Pump 1800	Assembly	0	1
Screws:SC-12	Screw, #12 Drill Flex HWH #3 Tek	Inv Part	200	4

PENDING (non-posting)

Maximum number you can build from the quantity on hand: 0
 Quantity to Build: 1

Date: 01/23/2007 Build Ref. No.: 1

Memo:

Remove Pending Status Build & Close Build & New Clear

Before we can build this assembly we must build some number of the WHAS and PU-1800 sub assemblies. Unfortunately, from this screen, it is not clear how many of each we need to build. It appears that we need 2 of WHAS and one of PU-1800, but that is misleading. Recall that in our example the PU-1800 itself requires a WHAS assembly, which isn't apparent here.

To resolve this we will use CCRQBOM. Starting at the Assembly window:

Assembly

Build Item

Drag a column header here to group by that column

ID	SalesDescription
0050-MC	MANUAL COVER 0050
1000-MC	MANUAL COVER 1000
1500-PM	POWER MANUAL 1500
2000-PT	POWERTRAK-2000
3000-UL	ULTIMATE 3000
B	
PU-1800	Rule Pump 1800
RollItem	
WHAS	Wheel Assembly

Quantity: 1

Display Build (Requirements)

Explosion Level: ☐ Single Level ☒ Full Level

☐ Use SubAssembly Balances

Report Note:

Layout

To generate a requirements/shortage report for an assembly in CCRQBOM you must first select the assembly from the assembly window. Click the *Full Level* option, enter the quantity you want to assemble in the *Quantity* field, then click the *Build (Requirements)* button.

The following screen shows that there are no shortages of parts – we can actually build this assembly if we build the sub assemblies.

ItemID	Quantity	Descrip...	Available	Type	Shortage	Build
▶ WHAS	4	Wheel As...	0	Assembly	0	4
Screws:...	18	Screw, #...	146	Inventory	0	0
RORO-4	4	Rocky Ro...	18	Inventory	0	0
TUCA-4x2	2	PowerTr...	2	Inventory	0	0
PU-1800	1	Rule Pum...	0	Assembly	0	1
Pumps:P...	1	Rule Pum...	2	Inventory	0	0
Pumps:P...	1	Rule Pum...	2	Inventory	0	0

Note that this report lists the Assembly items as well as the Inventory items. Since this is a full-level explosion, a *shortage* is not listed for the assembly items themselves. Instead you will see a value in the *build* column that specifies how many of the subassembly items will be built.

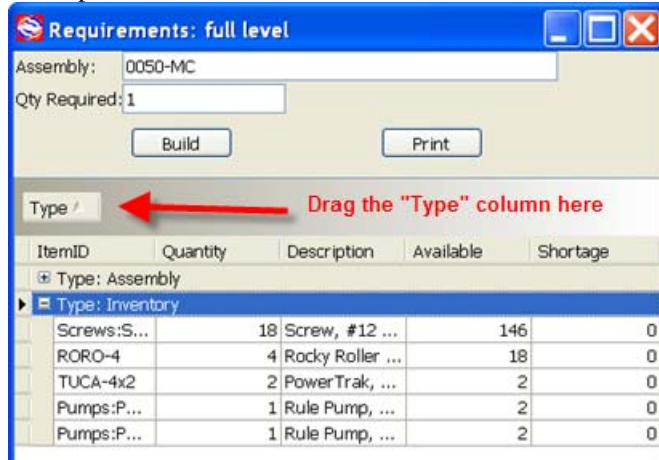
You can modify this grid in several ways to make it fit your needs. Note that this is described in detail in the *Working with Grids* chapter later.

- You can choose which columns to display
- You can resize the screen by dragging the lower left corner. You can also resize any columns by dragging the separator bar in the column headings.
- You can sort the items by clicking on the item header. This sample is sorted by Item ID, as shown by the arrow in the heading.

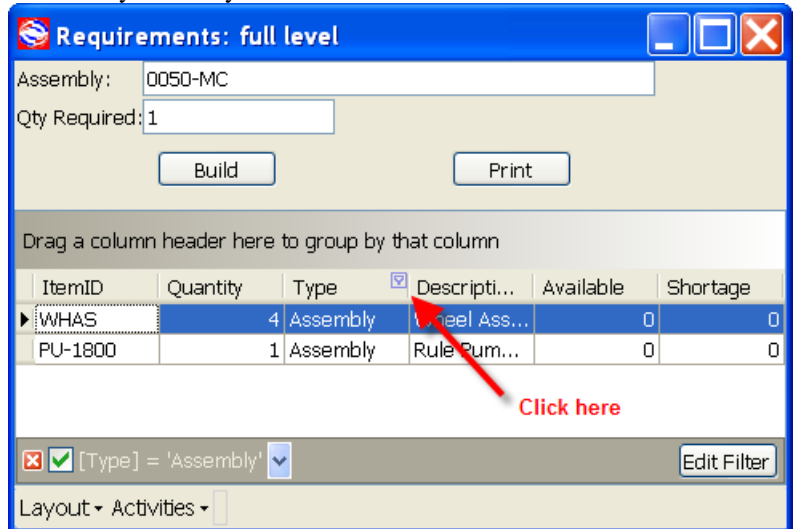
Drag a column header here to group by that column

ItemID ▲	Quantity ▼	Available ▼	Type ▼	Shortage ▼
▶ 0050-MC	1	0	Assembly	0
PU-1800	1	0	Assembly	0
Pumps:PUBP	1	17	Inventory	0
Pumps:PUHC	1	17	Inventory	0
RORO-4	4	59	Inventory	0
Screws:SC...	18	290	Inventory	0
TUCA-4x2	2	10	Inventory	0
WHAS	4	0	Assembly	0

- You can “group” the items by any of the columns by dragging the column header to the “drag” area as shown on the screen. In this sample we dragged the *type* column, which groups the items by the inventory item type. You can click on the “-“ and +” buttons to hide and expand the levels.



- Filtering can be a very useful feature. This allows you to filter the items shown by the values of a column. Click on the check mark next to the column heading and select the filter that you wish to use. In this sample we are filtering by the *Type* column – we selected “Assembly” items, so that only assembly items show.



This shows us that we need to build one PU-1800 and four WHAS assemblies (they don’t show as “short” because we asked for a full level explosion – these items will be built).

You can click on the *Layout* button to save the changes that you make. Note that this saves the layout for only the current workstation, it will not affect other users.

Negative Inventory and Subassembly Balances

There are two issues relating to the balance of subassembly items that you will want to consider.

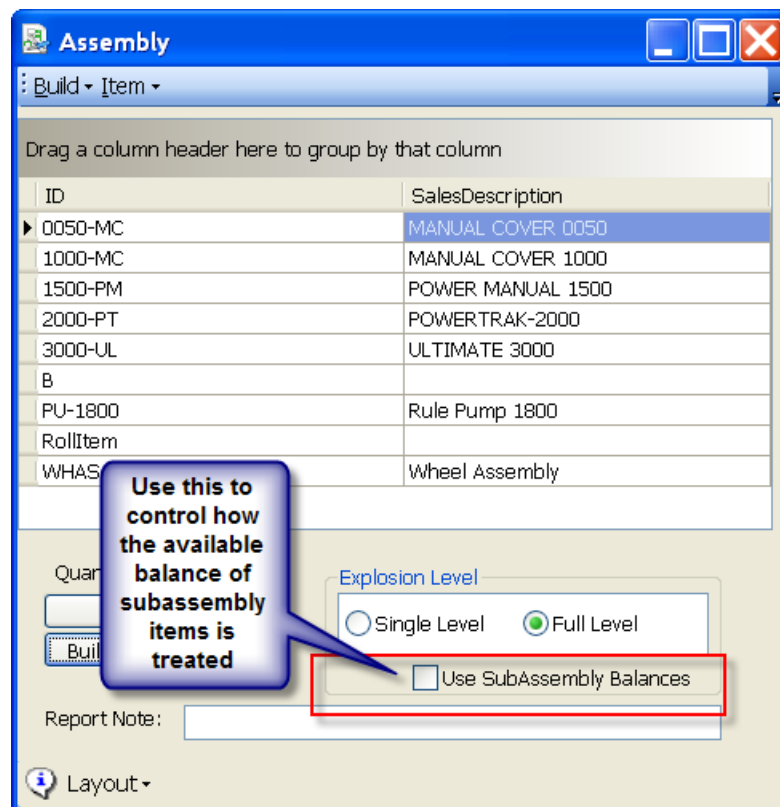
Negative on hand balances of subassemblies: QuickBooks allows you to make adjustments to inventory that can drive the on hand balance negative. This is a situation that should be avoided if at all possible, as QuickBooks does not handle it well. This could create problems with your COGS calculations and certain reports (there are several knowledgebase articles on this in the QuickBooks support web site).

If you have a negative on hand balance of a subassembly and you issue a full level build in CCRQBOM, the program will try to build enough subassembly items to make up for that negative balance. For example, if the program needs 2 subassembly items, but the on hand balance is -1, the build will be issued for 3. Without this, CCRQBOM cannot issue the high level build. If it only built two you would not have enough on hand to build the higher level assembly.

Subassembly balances: This is the opposite problem to the negative on hand balance issue. If you need two of a subassembly, but you already have one on hand, how many should the program build? There are two trains of thought here.

1. Some businesses will not want to use that available item. The build should be for two subassembly items in our example. That available balance may be an item that was built to fulfill a repair order, for example.
9. Other businesses will want to use that available item. It is there, use it! So CCRQBOM should just issue a build for one subassembly in our example.

To address this issue CCRQBOM has added a check box titled *Use SubAssembly Balances*.



If this box is checked, the program will use any available balance of a subassembly it finds.

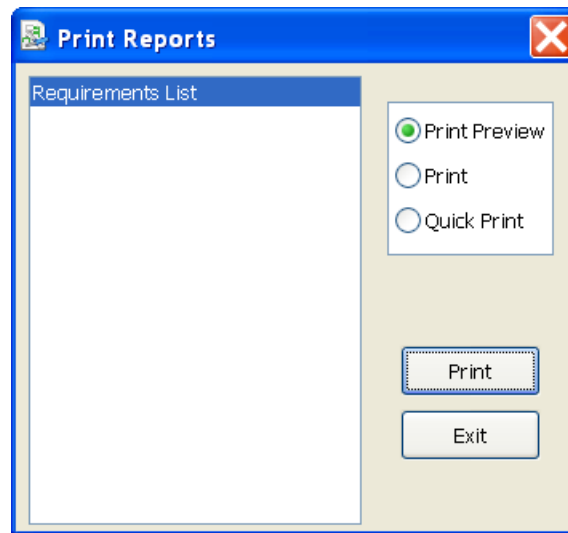
If the box is not checked, the program will ignore the available balance of subassembly items.

The default value for this check box can be set in the *Preferences* function.

Printing the Requirements Report

There are two methods you can use to print the requirements listing that is displayed. Click on the ***Print*** button, or use the ***Activities*** button at the bottom of the screen.

If you click on the *Print* button a list of available reports will display. Initially there will be one report, *Requirements List*. You can create modified versions of this report by using the *Forms* option in the main menu. If you create a modified report it will be listed here.



Select the print option that you want, select the report to print, then click the *Print* button.

- *Print Preview* will open a print preview window. You can see what the report would look like, and you have a number of options such as selecting the printer to use, printing to a PDF file, exporting to Excel, and so forth. The options here are described in detail in the *Print Preview* chapter.
- *Print* will open a standard Windows printer selection dialog, allowing you to select the printer to use.
- *Quick Print* will print the report directly to the default Windows printer without giving you any options.

The following is a sample of the report in the *Preview* screen:

Requirements List

Assembly 0050-MC MANUAL COVER 0050

Item	Quantity	Description	Available	Type	Shortage
0050-MC	1	MANUAL COVER 0050	0	Assembly	0
WHAS	4	Wheel Assembly	0	Assembly	0
Screws-SC-12	18	Screw, #12 Drill Flex HWH #3 Tek	200	Inventory	0
RORO-4	4	Rocky Roller #4	30	Inventory	0
TUCA-4x2	2	PowerTrak, Tube Castings 4x2	5	Inventory	0
PU-1800	1	Rule Pump 1800	0	Assembly	0
Pumps-PUHC	1	Rule Pump, House Clamps	5	Inventory	0
Pumps-PUBP	1	Rule Pump, Base Plate	3	Inventory	0

Current Page No: 1 Total Page No: 1 Zoom Factor: 100%

Alternately, you can click on the **Activities** button to print the requirements information as it is displayed in the grid.

ItemID	Quantity	Type	Description	Available	Shortage
WHAS	4	Assembly	Wheel Assembly	0	0
Screws-SC-12	18	Inventory	Screw, #12 Drill Flex	146	0
RORO-4	4	Inventory	Rocky Roller #4	18	0
TUCA-4x2	2	Inventory	PowerTrak, Tube Cast	2	0
PU-1800	1	Assembly	Rule Pump 1800	0	0
Pumps-PUHC	1	Inventory	Rule Pump, House Clai	2	0
Pumps-PUBP	1	Inventory	Rule Pump, Base Plate	2	0

Current Page No: 1 Total Page No: 1 Zoom Factor: 63%

A description of the features in the report *Preview* window can be found in the *Report Preview* chapter.

Report Customization

Note that you can customize the report in the *Forms* menu – select the *Requirements* option. In addition, we post report editing tips and sample reports on our CCRSoftware product blog at <http://ccrqblog.ccrsoftware.info/> as well as on our CCRQBOM information page at <http://www.ccrsoftware.com/CCRQBOM/CCRQBOM.htm>.

Issue Builds

CCRQBOM can issue both single level and multiple level builds. Select the *Explosion Level* and enter the *Quantity* to build. Pay attention to the *Use Subassembly Balances* check box as described above. Then click on the *Build (Requirements)* button.

Assembly

Build ▾ Item ▾

Drag a column header here to group by that column

ID	SalesDescription
▶ 0050-MC	MANUAL COVER 0050
1000-MC	MANUAL COVER 1000
1500-PM	POWER MANUAL 1500
2000-PT	POWERTRAK-2000
3000-UL	ULTIMATE 3000
B	
PU-1800	Rule Pump 1800
RollItem	
WHAS	Wheel Assembly

Quantity

Display

Build (Requirements)

Explosion Level

☐ Single Level ☒ Full Level

☐ Use SubAssembly Balances

Report Note:

Layout ▾

First, the program will display a requirements/shortage list (as discussed earlier).

Requirements: full level

Assembly:

Qty Required:

Build Print

Drag a column header here to group by that column

ItemID	Quantity	Descrip...	Available	Type	Shortage	Build
▶ WHAS	4	Wheel As...	0	Assembly	0	4
Screws:S...	18	Screw, #...	146	Inventory	0	0
RORO-4	4	Rocky Rol...	18	Inventory	0	0
TUCA-4x2	2	PowerTr...	2	Inventory	0	0
PU-1800	1	Rule Pum...	0	Assembly	0	1
Pumps:P...	1	Rule Pum...	2	Inventory	0	0
Pumps:P...	1	Rule Pum...	2	Inventory	0	0

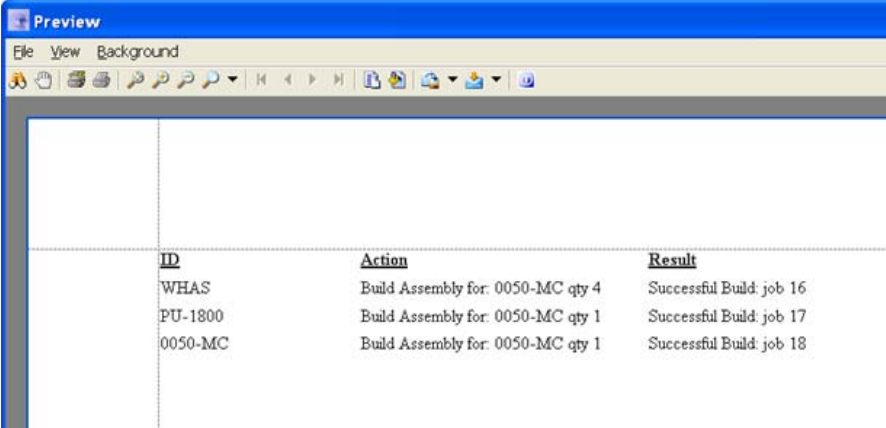
Layout ▾ Activities ▾

If you don't have enough low level parts to build the required quantity of the high level assembly then the *Build* button will be "grayed out" – you won't be able to click on it.

If you have issued a single level build the screen will list the assembly to issue and the single-level "explosion" of that assembly. That presumes that you will have enough of any sub-assemblies on hand to use. Please note that CCRQBOM cannot issue a "pending build".

If you have issued a full level build then the screen will list the assembly to issue, the components of that assembly (both subassemblies and component items), and the components of any subassemblies. IF an item is used in multiple places (multiple lines in one assembly, or multiple times in multiple subassemblies), then only one line for that item will show in the listing, with the aggregated requirements for that item.

Once the build is completed you will get a listing similar to what is shown below:



The screenshot shows a window titled "Preview" with a menu bar (File, View, Background) and a toolbar. Below the toolbar is a table with three columns: ID, Action, and Result. The table contains three rows of build data.

ID	Action	Result
WHAS	Build Assembly for: 0050-MC qty 4	Successful Build: job 16
PU-1800	Build Assembly for: 0050-MC qty 1	Successful Build: job 17
0050-MC	Build Assembly for: 0050-MC qty 1	Successful Build: job 18

In this sample, we are issuing a full level build for 0050-MC. That requires a build for WHAS, and a build for PU-1800. CCRQBOM will issue the builds for the required subassemblies prior to issuing the highest level build. This report lists the job numbers that were issued by QuickBooks®.

If there is an error of some sort and the builds cannot all be issued the report will list the builds that have been rescinded, and any error messages.

PLEASE NOTE THE FOLLOWING LIMITATIONS WITH THE CURRENT RELEASE OF THIS PROGRAM:

- CCRQBOM cannot issue a "pending build" in this function. If you wish to work with pending builds you must use the *Multi-Build* function..
- Builds can only be issued if you have QuickBooks Premier 2006 (any US edition) or Enterprise 6.0, or later. You may find limitations with non-US editions older than 2009. You cannot issue a build with versions older than what is listed here.
- You cannot set a BUILD DATE at this time. The build will always be issued for the current computer system date. That means you cannot post-date the build. It also means that you may have problems if you use the sample data files that QuickBooks provides, since those files are set to use a date several years in the future.
- If you are updating inventory levels from another workstation it may interfere with job issues. For example – you may create a requirements

report that says you do not have a shortage. If prior to pressing the “build” button another user adjusts inventory levels so that you don’t have enough items to complete the build, CCRQBOM won’t see that change. It will let you issue the build, but the build will fail. An error will be shown that says you cannot issue the build. NOTE that no data errors occur – the program will back out any partial builds. You just have to start over with a new requirements report.

- CCRQBOM will ignore any balance on hand that you have of any subassemblies in a full level explosion if you do not check the *Use Subassembly Balances* box.
- All transactions are issued in the base unit of measure.

Order – Working with Estimates, Sales Orders and Invoices

The *Order* function in the main CCRQBOM window allows you to build requirements lists and other reports based on assembly items in estimates, sales orders or invoices.

As an overview, the process will be:

1. Select the orders to work with.
2. View the list of required assemblies from the orders.
3. Generate component requirements.

To illustrate how the program works we have the following orders in QuickBooks. Note that item 0050-MC and 1000-MC are assembly items which share some common parts, and that item 0050-MC is found on several of the sales orders.

1:55 PM 01/09/08		CCRQBOM Manufacturing Company Open Sales Orders by Customer All Transactions				
Type	Date	Num	Ship Date	Item	Amount	
Dunning's Pool Depot, Inc.						
Angel City Store #112						
Sales Order	01/09/2008	1	01/09/2008	AN-12x1	-0.75	
Sales Order	01/09/2008	1	01/09/2008	0050-MC	-750.00	
Total Angel City Store #112					-750.75	
Total Dunning's Pool Depot, Inc.					-750.75	
Peacock Home Builders						
Arroyo Road						
Sales Order	01/09/2008	2	01/12/2008	0050-MC	-1,700.00	
Sales Order	01/09/2008	2	01/12/2008	1000-MC	-2,550.00	
Total Arroyo Road					-4,250.00	
Total Peacock Home Builders					-4,250.00	
Pete Harbin Contractor						
Bell River Road						
Sales Order	01/09/2008	3	01/10/2008	Installation Labor	-11,220.00	
Sales Order	01/09/2008	3	01/10/2008	AN-12x1	-4.25	
Sales Order	01/09/2008	3	01/10/2008	0050-MC	-850.00	
Total Bell River Road					-12,074.25	
Total Pete Harbin Contractor					-12,074.25	
TOTAL					-17,075.00	

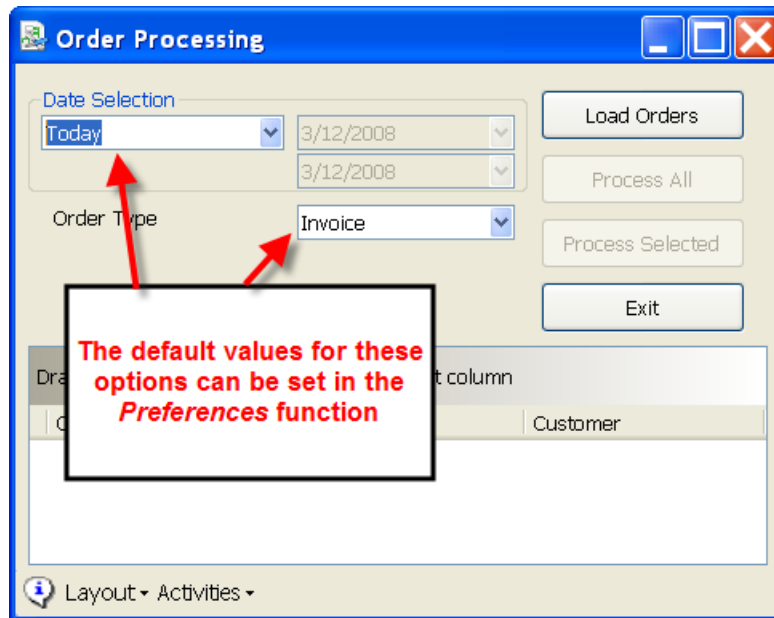
This is a full level explosion of item 0050-MC:

Bill of Materials: 0050-MC			
<div>Quick Print</div> <div>Print</div>			
Component	Level	Quantity	QuantityExtended
WHAS	1	2	2
Wheel Assembly			
Screws:SC-12	2	2	4
Screw, #12 Drill Flex HWH #3 Tek			
RORO-4	2	1	2
Rocky Roller #4			
TUCA-4x2	1	2	2
PowerTrak, Tube Castings 4'x2'			
PU-1800	1	1	1
Rule Pump 1800			
Pumps:PUHC	2	1	1
Rule Pump, House Clamps			
Pumps:PUBP	2	1	1
Rule Pump, Base Plate			
WHAS	2	2	2
Wheel Assembly			
Screws:SC-12	3	2	4
Screw, #12 Drill Flex HWH #3 Tek			
RORO-4	3	1	2
Rocky Roller #4			
Screws:SC-12	2	6	6
Screw, #12 Drill Flex HWH #3 Tek			
Screws:SC-12	1	4	4
Screw, #12 Drill Flex HWH #3 Tek			
Layout ▾ Activities ▾			

This is a printed copy of a full level explosion of item 0050-MC:

Component	Level	Quantity	QuantityExtended
Labor		1	1
Direct Labor per build			
Utilities		1	1
Utility charge per build			
Grease		1	1
Grease per build			
Pumps:PLBP		1	1
Rule Pump, Base Plate			
GR-#4-BR		1	50
Grommet, #4 Brass			
ANPI-BL		1	1
Anchor Pin, Black			
ANSP		1	50
Anchor Spring			
HETO		1	2
T Style Hex Tool			
Screws:SC-10x.5-SS		1	8
Screw, 10x1/2 phil pan SS			
ANAD		1	1
Adhesive, Anchor			
Pumps:PUKH		1	4
Pump, Key Hole Panel River			
PU-1800		1	1
Rule Pump 1800			
Pumps:PUHC		2	1
Rule Pump, House Clamps			
Pumps:PLBP		2	1
Rule Pump, Base Plate			
WHAS		2	2
Wheel Assembly			
Screws:SC-12		3	2
Screw, #12 Drill Flex HWH #3 Tek			
RORO-4		3	1
Rocky Roller #4			
Screws:SC-12		2	6
Screw, #12 Drill Flex HWH #3 Tek			
Pumps:PUHC		1	1
Rule Pump, House Clamps			
Screws:SC-12		1	1
Screw, #12 Drill Flex HWH #3 Tek			
ANBA-BL		1	1
Anchor Base, Black			
REHO		1	4
Retainer Hook, Manual Strap			
SNHO		1	4
Snap Hook, Manual Strap			
WA-RJ		1	50
Washer, Rubber			
ROPE		1	100
Rope			

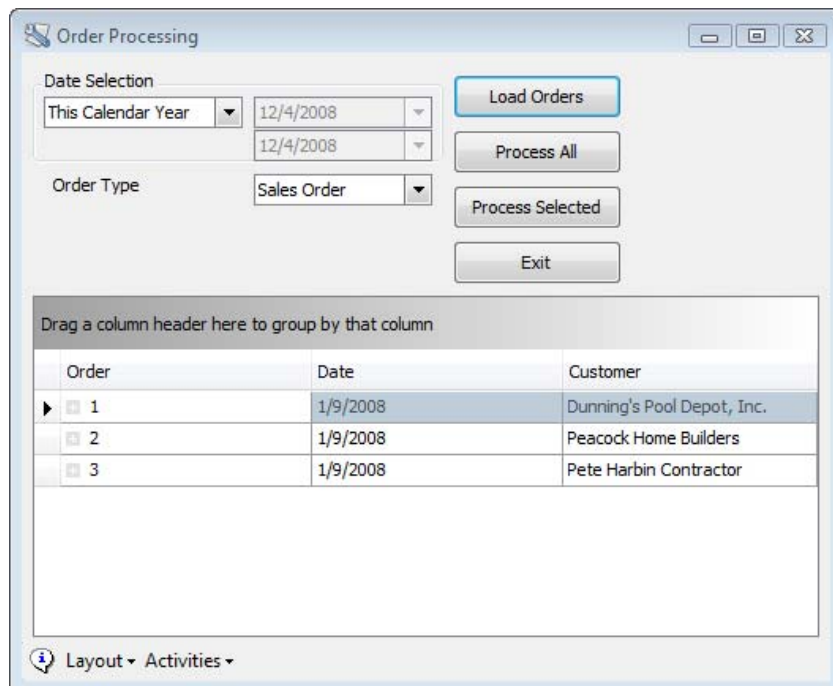
When you select *Order* from the main menu you will see the following screen:



Select the date range and type of order to work with. We suggest that you do not use *All* as the date selection – if you have been using QuickBooks for several years the program will bring in every order that you have on file, and that can take a significant amount of time. Usually you only want to look at fairly recent orders. Note that you can refine your selection after the orders have been loaded into the grid.

Select the Orders to work with

Click the *Load Orders* button to retrieve the orders from QuickBooks. The following screen shows that three sales orders have been retrieved (loaded).



As we have seen earlier (and is described in more detail in the *Grid* chapter) you can modify the grid display to include the fields that you want, and to sort by any column. In the following example we have added the *Ship Date* column by right clicking on the column headers and dragging *Ship Date* to the grid, and then we clicked on the *Ship Date* column header to sort by ship date.

The screenshot shows the 'Order Processing' window with the following controls and data:

Date Selection: This Calendar Year, 12/4/2008, 12/4/2008

Order Type: Sales Order

Buttons: Load Orders, Process All, Process Selected, Exit

Grid:

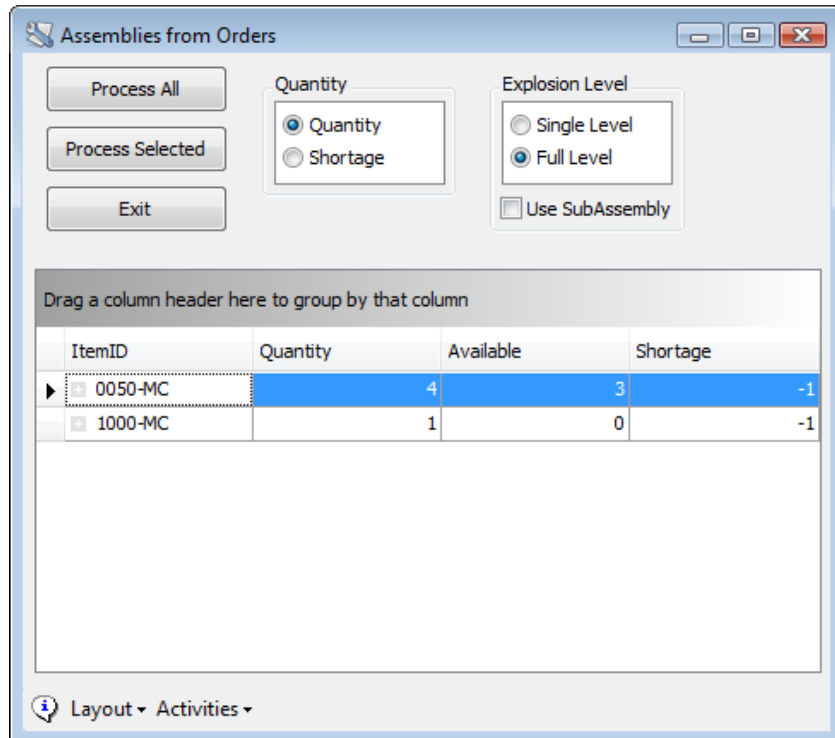
Order	Date	Ship Date	Customer
1	1/9/2008	1/9/2008	Dunning's Pool Depot...
3	1/9/2008	1/10/2008	Pete Harbin Contractor
2	1/9/2008	1/12/2008	Peacock Home Builders

A red arrow points to the 'Ship Date' column header. Below the grid is a status bar with 'Layout' and 'Activities' dropdowns.

If you wish to process only certain orders you can select those orders by clicking on them (see the *Grid* chapter for details on how to select multiple lines) and clicking the *Process Selected* button. If you wish to work with all of the orders displayed, click *Process All*.

View Assembly Requirements

The next window that will open will list all of the assembly items that were found in the selected orders. As you can see there is one row per assembly item, showing the aggregate quantity of the items from all of the selected orders. Note that we have a shortage of both assembly items.



This listing is very useful, as it shows all of the assembly items that you have on the selected orders, the number of each across all the orders, and it gives you an idea of how many you need to build to be able to fulfill those orders. Please note that this is not a comprehensive MRP or ERP system – the program isn’t looking at open purchase orders (if you sometimes purchase those assemblies from another source), it is not “time phasing” the items (which would tell you when these items are needed, or how long it takes to build them).

If you want to print this information, select the *Activities* button at the bottom of the window.

The next step is to see how many component items you need to be able to build these items.

Component Requirements

As shown above, the *Requirements* window lists the assemblies that are found on the selected orders, with the required quantity and shortage quantity. If you want to build these items you need to see a list of the components that you need to have on hand.

As with other features of CCRQBOM you have the option of doing a single level or full level explosion. Full level will “explode” any subassemblies into their component parts, single level will not. Typically you will look at the full level explosion.

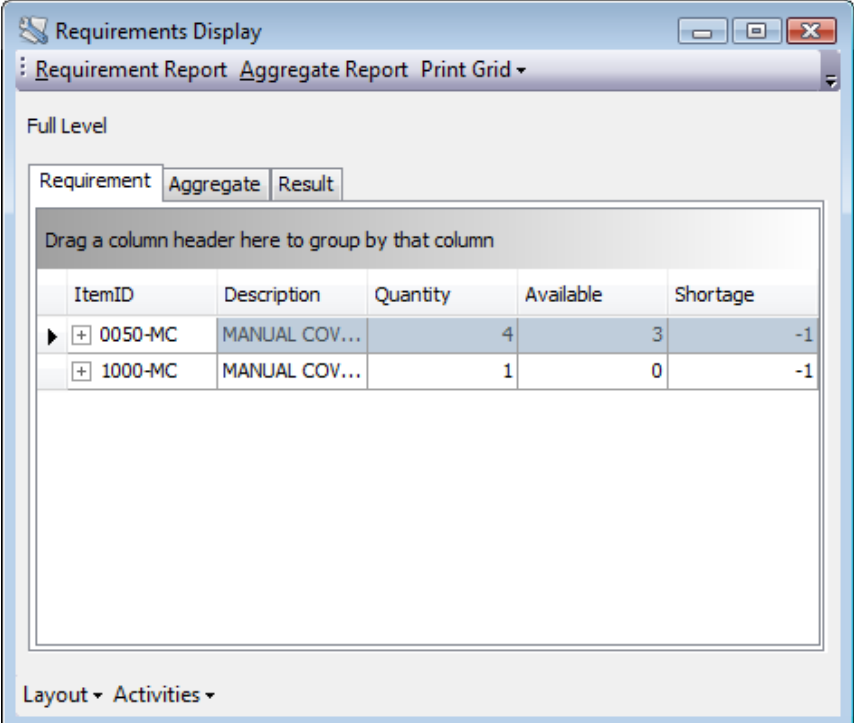
Note the box titled *Use SubAssembly*. If this is not checked then the application will ignore any on hand quantity that you have for subassemblies that will be used, if you do a *full level* explosion. If you check the box then if a quantity of a subassembly is required, the application will consume those before it will “explode” the subassembly BOM to make more.

The *Quantity* option lets you pick the column to work with for the quantity used to generate the requirements. *Quantity* uses the quantity column - four of assembly

0050-MC in our example. *Shortage* uses the shortage column – one of assembly 0050-MC in our example. Typically you would be using the *shortage* value, which represents the number of assemblies that you don’t have on hand already. In some cases you may want to use the *quantity* value, if you want to see the number of parts needed to build ALL of the required assemblies, even if you have some on hand.

You can choose to work with just some of the assembly items listed by selecting the assemblies in the list and clicking *Process Selected* button. Typically you will want to see the aggregate requirements from all assemblies listed, so you would click the *Process All* button.

For our example we will click *Process All*, with the *Quantity* option selected. The program will make its calculations and display the following window:



Requirements Display

Requirement Report Aggregate Report Print Grid ▾

Full Level

Requirement Aggregate Result

Drag a column header here to group by that column

ItemID	Description	Quantity	Available	Shortage
▶ [+ 0050-MC	MANUAL COV...	4	3	-1
[+ 1000-MC	MANUAL COV...	1	0	-1

Layout ▾ Activities ▾

This looks very similar to the prior screen, but there are several differences. Note that there are several tabs on the grid (*Requirement*, *Aggregate* and *Result*), and two reports listed in a menu at the top.

If you click on the *Result* tab you will see a listing of the high level assemblies that were processed. Normally you will see a status of “OK” by each item – you should take a quick look here to see if there were any problems. In some cases there may be a problem with processing an item, and the problem will be listed here. This should not be a common occurrence, but it is always best to check.

Aggregate Requirements

The “Aggregate” requirements list shows each component item one time, with the required quantity of each item based on ALL of the assemblies that were processed. If an item is used in several different assemblies, it will be listed once here.

You can view this in a grid by clicking the *Aggregate* tab. If you look at the sample BOM’s for the two assemblies, you will see that item “Screws: SC-12” are used in multiple assemblies and subassemblies. In this screen you can see that there is one listing for this item – the quantity of 83 is the aggregate from all of the assemblies.

Requirements Display

Requirement Report Aggregate Report Print Grid

Full Level

Requirement Aggregate Result

Drag a column header here to group by that column

ItemID /	Quantity	Available	Type	Shortage	Build
Pumps:PUHC	6	2	Inventory	-4	0
Pumps:PUKH	4	0	Inventory	-4	0
REHO	4	0	Inventory	-4	0
ROPE	100	0	Inventory	-100	0
RORO-4	18	18	Inventory	0	0
Screws:SC-...	8	0	Inventory	-8	0
► Screws:SC-12	83	146	Inventory	0	0
SNHO	4	0	Inventory	-4	0
TUCA-4x2	8	2	Inventory	-6	0
Utilities	1	0	OtherCharge	0	0
WA-RU	50	0	Inventory	-50	0
WHAS	18	0	Assembly	0	18

Layout Activities

If you click on the *Aggregate Report* menu option you will be able to print the same information in a report format (and you can edit this report in the *Forms* function in the main menu).

<i>Aggregate Order Requirements</i>			
<i>Item</i>	<i>Description</i>	<i>Quantity Required</i>	<i>Shortage</i>
ANAD	Adhesive, Anchor	1	-1
ANBA-BL	Anchor Base, Black	1	-1
ANPI-BL	Anchor Pin, Black	1	-1
ANSP	Anchor Spring	50	-50
GR-#4-BR	Grommet, #4 Brass	50	-50
Grease	Grease per build	1	0
HETO	T Style Hex Tool	2	-2
Labor	Direct Labor per build	1	0
PU-1800	Rule Pump 1800	5	0
Pumps:PUBP	Rule Pump, Base Plate	6	-4
Pumps:PUHC	Rule Pump, House Clamps	6	-4
Pumps:PUKH	Pump, Key Hole Panel River	4	-4
REHO	Retainer Hook, Manual Strap	4	-4
ROPE	Rope	100	-100
RORO-4	Rocky Roller #4	18	0
Screws:SC-10x 5-SS	Screw, 10x1/2 phl pan SS	8	-8
Screws:SC-12	Screw, #12 Drill Flex HWH #3	83	0
	Tek		
SNHO	Snap Hook, Manual Strap	4	-4
TUCA-4x2	PowerTrak, Tube Castings 4x2'	8	-6
Utilities	Utility charge per build	1	0
WA-RU	Washer, Rubber	50	-50
WHAS	Wheel Assembly	18	0

Requirements

The *Requirement* tab shows the list of required items – the list that is the basis for the reports, as shown above. If you click on the *Requirement Report* menu option, you find three basic reports (plus any custom reports that you add):

- *Requirements*
- *Requirements w-break*
- *Assembly Listing*

The *Requirements* report is a listing of each assembly and the required components for the specific quantity of that assembly. NOTE that you have to use this with caution – the *shortage* column can be misleading in this report. This figure, in this report, does not take into account the requirements of all assemblies, just of the one it is listed with. The best place to see a total requirement for a part is the *Aggregate* report.

This particular report is very useful as a pull list – you can give this to your manufacturing shop so that they know who many parts to pull for each assembly to manufacture.

Requirements List				
Assembly	0050-MC	4	MANUAL COVER 0050	
<i>Item</i>	<i>Quantity</i>	<i>Description</i>	<i>Available Type</i>	<i>Shortage</i>
PU-1800	4	Rule Pump 1800	0 Assembly	0
Pumps:PUBP	4	Rule Pump, Base Plate	2 Inventory	-2
Pumps:PUHC	4	Rule Pump, House Clamps	2 Inventory	-2
RORO-4	16	Rocky Roller #4	18 Inventory	0
Screws:SC-12	72	Screw, #12 Drill Flex HWH #3 Tek	146 Inventory	0
TUCA-4x2	8	PowerTrak, Tube Castings 4x2'	2 Inventory	-6
WHAS	16	Wheel Assembly	0 Assembly	0
Assembly	1000-MC	1	MANUAL COVER 1000	
<i>Item</i>	<i>Quantity</i>	<i>Description</i>	<i>Available Type</i>	<i>Shortage</i>
ANAD	1	Adhesive, Anchor	0 Inventory	-1
ANBA-BL	1	Anchor Base, Black	0 Inventory	-1
ANPI-BL	1	Anchor Pin, Black	0 Inventory	-1
ANSP	50	Anchor Spring	0 Inventory	-50
GR-#4-BR	50	Grommet, #4 Brass	0 Inventory	-50
Grease	1	Grease per build	0 NonInventory	0
HETO	2	T Style Hex Tool	0 Inventory	-2
Labor	1	Direct Labor per build	0 Service	0
PU-1800	1	Rule Pump 1800	0 Assembly	0
Pumps:PUBP	2	Rule Pump, Base Plate	2 Inventory	0
Pumps:PUHC	2	Rule Pump, House Clamps	2 Inventory	0
Pumps:PUKH	4	Pump, Key Hole Panel River	0 Inventory	-4
REHO	4	Retainer Hook, Manual Strap	0 Inventory	-4
ROPE	100	Rope	0 Inventory	-100
RORO-4	2	Rocky Roller #4	18 Inventory	0
Screws:SC-10x5-SS	8	Screw, 10x1/2 phl pan SS	0 Inventory	-8
Screws:SC-12	11	Screw, #12 Drill Flex HWH #3 Tek	146 Inventory	0
SNHO	4	Snap Hook, Manual Strap	0 Inventory	-4
Utilities	1	Utility charge per build	0 OtherCharge	0
WA-RU	50	Washer, Rubber	0 Inventory	-50
WHAS	2	Wheel Assembly	0 Assembly	0

The *Requirements w-break* report is similar to the *Requirements* report. There are two differences - there is a page break between each assembly, and we have added an *original* column, which contains the quantity of the item needed to make a single assembly.

Requirements List (orders)				
Assembly	0050-MC	4	MANUAL COVER 0050	
<i>Item</i>	<i>Quantity Description</i>	<i>Available Type</i>	<i>Shortage</i>	<i>Original</i>
PU-1800	4 Rule Pump 1800	0 Assembly	0	1
Pumps:PUEP	4 Rule Pump, Base Plate	2 Inventory	-2	1
Pumps:PUHC	4 Rule Pump, House Clamps	2 Inventory	-2	1
RORO-4	16 Rocky Roller #4	18 Inventory	0	4
Screws:SC-12	72 Screw, #12 Drill Flex HWH #3 Tek	146 Inventory	0	18
TUCA-4x2	8 PowerTrak, Tube Castings 4x2'	2 Inventory	-6	2
WHAS	16 Wheel Assembly	0 Assembly	0	4

The *Assembly Listing* is simply a listing of the required assemblies that are the basis of the report.

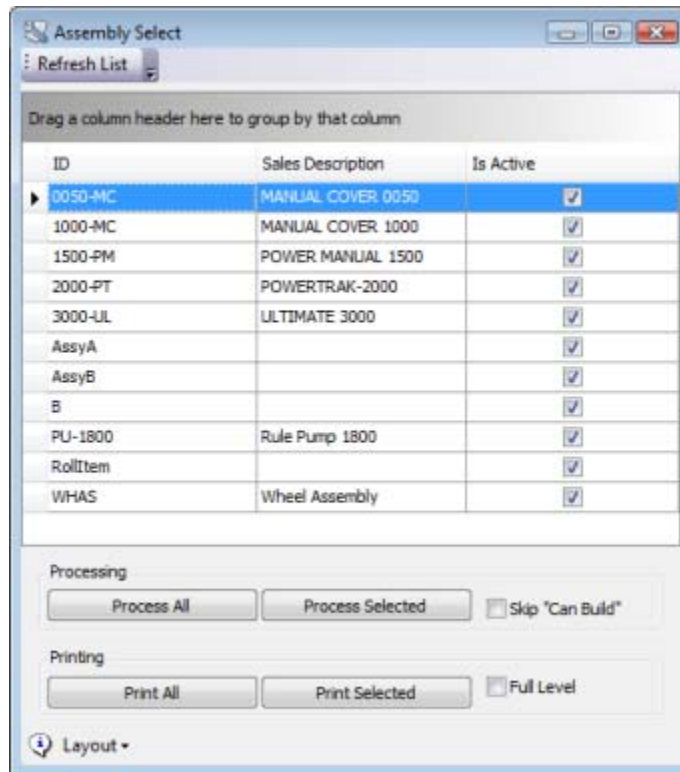
Report Customization

Note that you can customize the report in the *Forms* menu – select the *Order Requirements* and *Order Aggregate* options. In addition, we post report editing tips and sample reports on our CCRSoftware product blog at <http://ccrqblog.ccrsoftware.info/> as well as on our CCRQBOM information page at <http://www.ccrsoftware.com/CCRQBOM/CCRQBOM.htm>.

Multi-Build

This function is a more powerful version of the “build” operation in the *BOM* function. It allows you to work with multiple assemblies, combining the “requirements” from multiple assemblies into one listing. It also allows you to generate a “pending build” if you have QuickBooks 2008 or later.

When you select *Multi-Build* the application will show you a list of the assembly items in your QuickBooks file.



This is simply a list of the assemblies. There are two sets of buttons that you can use, for *Processing* and *Printing*.

Printing Multiple BOM's

The *Printing* buttons allow you to print BOM reports, similar to the Print function in the BOM function. This will use the same report templates as used there. The advantage here is that you can print BOM's for multiple items at one time.

The *Full Level* button will control if the subassemblies are exploded to include their components.

Print All will print a report for all inventory assembly items listed.

Print Selected will let you print a report for the items that you select. There are several ways that you can select the items to print – detailed descriptions of these features can be found in the *Working with Grids* chapter

- Select a single item to print it.
- Select a range of items by clicking on the first item, holding the shift key down and clicking on the last item.
- Select multiple items by clicking on the first item, holding the ctrl key down and clicking on the next item to select.
- Use the “filter” feature by right clicking on a column heading and selecting the *filter editor* from the menu. Note that if you filter the view you can click on *print all* to print all the items that are displayed, as filtered.

Processing Multiple BOM's

When you click one of the *Process* buttons the application will generate a list of the selected assemblies along with some detailed information about the current inventory status of these assemblies.

Process All will include all of the inventory assembly items that are shown in the grid. *Process Selected* will include the items that you select, as described above in the *Print* section.

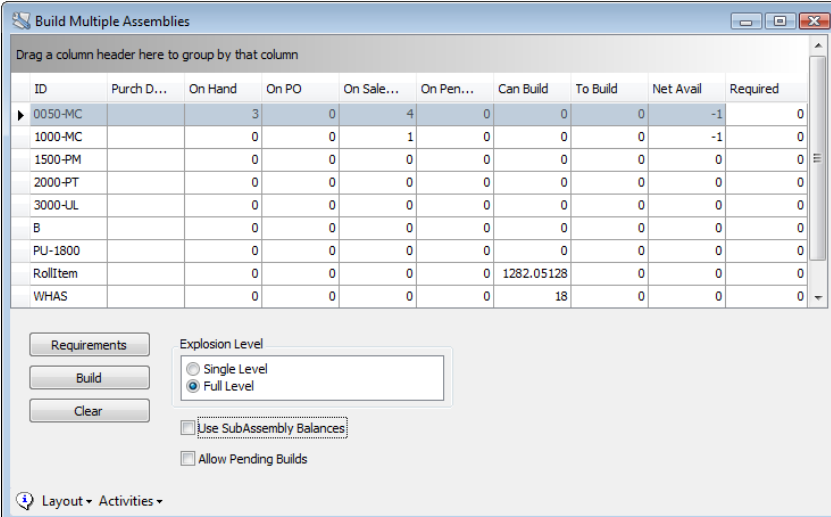
Can Build

One of the columns (as we will show later) is “Can Build” – a calculation for each assembly of the quantity that you could build given the current inventory status. This can be a bit misleading – this calculated figure assumes that only this one assembly would be built. Note that calculating this figure can take a noticeable amount of time. If you find that your computer responds slowly, there are two things you can do to speed things up:

- Select only a limited number of assemblies to work with. Select the assemblies in the list and click the *Process Selected* button. The fewer assemblies to work with, the faster the program will respond.
- Check the “Skip Can Build” box before clicking on a *Process* button. If you do this then the “Can Build” calculation is not performed, but the application responds much more quickly.

Processing

Clicking on a *Process* button will generate the following report:



The screenshot shows a window titled "Build Multiple Assemblies" with a table of assembly data. The table has columns: ID, Purch Desc, On Hand, On PO, On Sale..., On Pen..., Can Build, To Build, Net Avail, and Required. The data rows include items like 0050-MC, 1000-MC, 1500-PM, 2000-PT, 3000-UL, B, PU-1800, RollItem, and WHAS. Below the table are buttons for Requirements, Build, and Clear. There are also checkboxes for Explosion Level (Single Level, Full Level), Use SubAssembly Balances, and Allow Pending Builds.

ID	Purch Desc	On Hand	On PO	On Sale...	On Pen...	Can Build	To Build	Net Avail	Required
0050-MC		3	0	4	0	0	0	-1	0
1000-MC		0	0	1	0	0	0	-1	0
1500-PM		0	0	0	0	0	0	0	0
2000-PT		0	0	0	0	0	0	0	0
3000-UL		0	0	0	0	0	0	0	0
B		0	0	0	0	0	0	0	0
PU-1800		0	0	0	0	0	0	0	0
RollItem		0	0	0	0	1282.05128	0	0	0
WHAS		0	0	0	0	18	0	0	0

The columns in the grid are:

- **ID:** The item ID for the selected assemblies.
- **Purch Desc:** The purchasing description for the item.
- **On Hand:** The quantity on hand.
- **On PO:** The quantity on purchase orders.
- **On Sales Order:** The quantity on open sales orders.

- **On Pend Build:** The quantity of this assembly on pending build transactions (as a subassembly or component).
- **Can Build:** The quantity of this assembly that you can build with the current inventory status, ASSUMING that only this assembly would be built.
- **To Build:** The quantity of this assembly to be built with existing pending build transactions (as the assembly to be built).
- **Net Avail:** A calculated column, “On Hand” – “On Sales Order” – “On Pend Build” + “On PO” + “To Build” + “Required”. Essentially this is the quantity you would have as “available” if all of your supply and demand transactions were to complete. Add the supply (quantity on hand, items to be built on pending builds, items you are purchasing, items you say you want to build now) and subtract the demand (items on sales orders, items to be used in pending builds). Note that this is not a hard figure, and it does NOT include any “time phasing”. It assumes all sales orders will be invoiced and all PO’s will be received, immediately. Note also that this does not include supply/demand from subassemblies in multiple level BOM’s – it can only look (as QuickBooks does) at a single level of the BOM for this item.
- **Required:** This is the quantity that you would LIKE to build. It is the only column you can edit. Enter the quantity that you want to build. Note that the “Net Available” column adjusts to include this figure.

You could, for example, review the “Net Avail” column to find any items with a negative quantity. Enter that quantity as a positive number in the “Required” column to represent the quantity of the items you want to build to fulfill current demand.

There are three buttons available:

1. **Clear:** This will clear any values from the *Required* column, if you wish to start over.
2. **Requirements:** This will generate a report that will show you how many component items you will require to build your “required” list. **We recommend that you always run this before doing a “build”** to be sure that you have enough items on hand.
3. **Build:** This will build the items in your “required” list.

You should always run the *Requirements* reports prior to building. This will generate reports that will show you how many component items that you will need to build the list of “required” items.

If you find that you have enough to build all of the required assemblies you can return to this screen and click the “build” button to build the items.

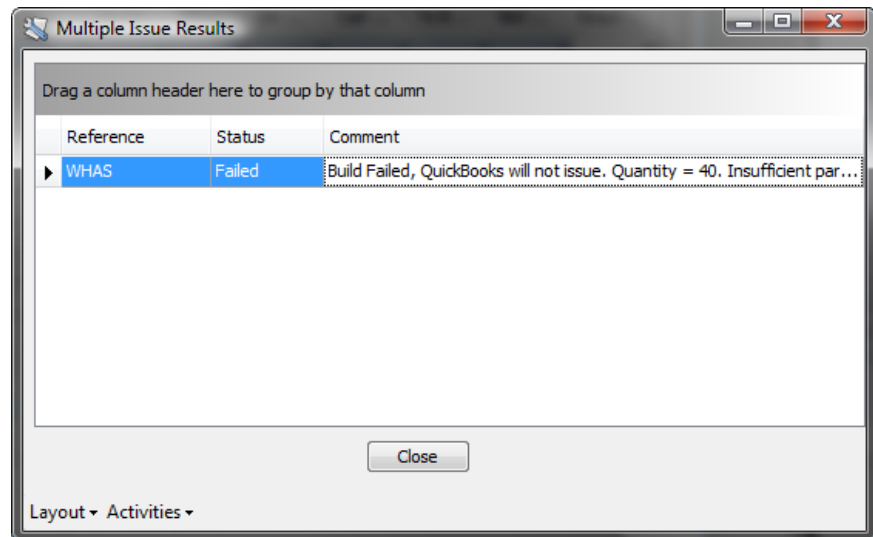
- The *Explosion Level* option will select if you want to use a single level explosion (subassembly items are treated as components, just as QuickBooks does for a “build”) or a multiple level explosion (where subassembly items will in turn have a “build” issued).
- If you select a “full level” explosion then you can check the *Use SubAssembly Balances* box. If it is not checked then the program will not use available balances of subassembly items.
- *Allow Pending Builds* – if this is not checked then the program will not issue “pending” builds if you have a shortage of items for an assembly.

If it is checked, then if you have a shortage the program will generate a pending build.

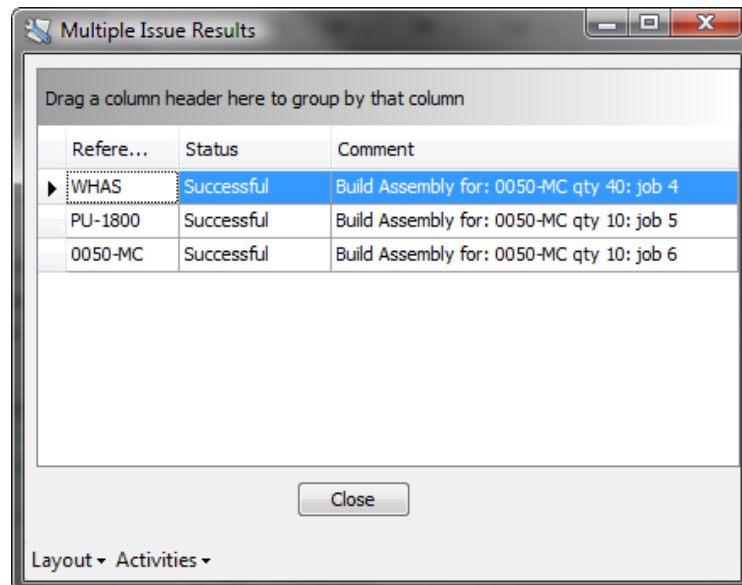
Note that the program will always use the current date for the build, and the current date when determining what the quantities are in the grid.

The *Requirements* reports are identical to what you will see with the *Order* option, and are described earlier in this chapter.

If you do not check *Allow Pending Builds* and you have a shortage for one of the assemblies to be built, the program will warn you that some builds did not complete and will list those that failed.



Any builds that are successful will be listed.



Report Customization

Note that you can customize the report in the *Forms* menu. This function shares the report layouts with the *BOM* and *Order* functions. In addition, we post report editing tips and sample reports on our CCRSoftware product blog at

Cost

The *Cost* function in CCRQBOM can be used to update the cost of assembly items based on the component costs, even when you have multiple level assemblies.

Please note that this process must be done in single user mode and it can take a very long time to complete, if you have a large and/or complicated assembly structure.

Cost in QuickBooks

When you edit an *Inventory Assembly* item in QuickBooks you will see three “cost” values:

The screenshot shows the 'Edit Item' window in QuickBooks. The 'Type' is set to 'Inventory Assembly'. The 'Cost: What is the cost?' field is highlighted with a red box and a circled '1', showing a value of 3.00. The 'Avg. Cost' field in the 'Inventory Information' section is highlighted with a red box and a circled '2', showing a value of 1.00. The 'Total Bill of Materials Cost' field at the bottom right is highlighted with a red box and a circled '3', showing a value of 3.00. The 'Bill of Materials' table lists two items: B (Inv Part) with a cost of 1.00 and C (Assembly) with a cost of 2.00.

1. **Cost:** This cost value shows as the default when you purchase an item, and is used in inventory valuation only when you add a new item and you enter an on-hand quantity. IN ADDITION, if you are using any QuickBooks function that adjusts the “sales price”, the calculation will use this cost.
2. **Avg. Cost:** This is the average cost of the item, which is used in inventory valuation. When you adjust the value of the item in adjustments, or issue a “build” transaction, QuickBooks updates this cost. You cannot directly edit this value.
3. **Total Bill of Materials Cost:** This value only shows on this screen. It represents the total cost of the components as shown in the *Bill of Materials* listing above. These are based on the “cost” field of the component items.

It can be confusing, and QuickBooks has complicated this by calling the first field simply “cost” instead of something like “standard cost” or “purchase cost”.

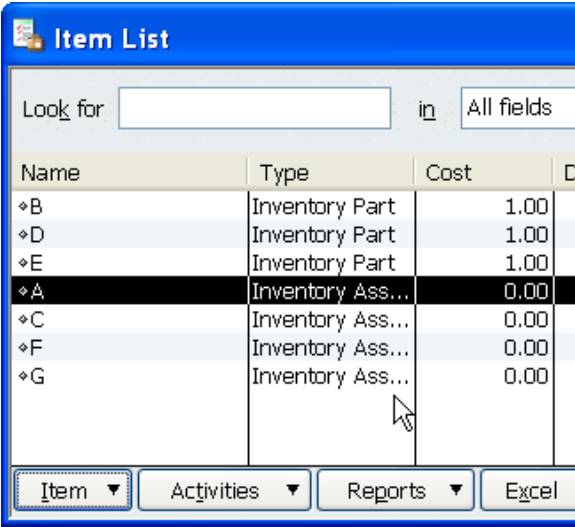
Updating “Cost”

CCRQBOM will update the “cost” field in the inventory assembly item based on the cost of the items in the Bill of Materials (BOM), using the “cost” field of the components. On the surface this may seem simple, but if you use inventory assembly items as components of another assembly (subassemblies) it can be complicated. We have to update the costs of the lower level assemblies before we update the cost of the higher level assemblies. The process can be complicated further if you use some subassemblies in multiple BOM’s, at varying levels. It is important that the lowest level assemblies be updated first.

To do this CCRQBOM first analyzes the structure of all of the assemblies to determine a “low level code” – an indication of the level of indentation of each particular assembly. In addition, the program watches for “circular BOM’s” – such as having assembly A with subassembly B, which has a subassembly C, which in turn has a subassembly A (therefore creating an never ending loop). After this analysis the program “bubbles the costs” up from the lowest level to the highest.

Using CCRQBOM

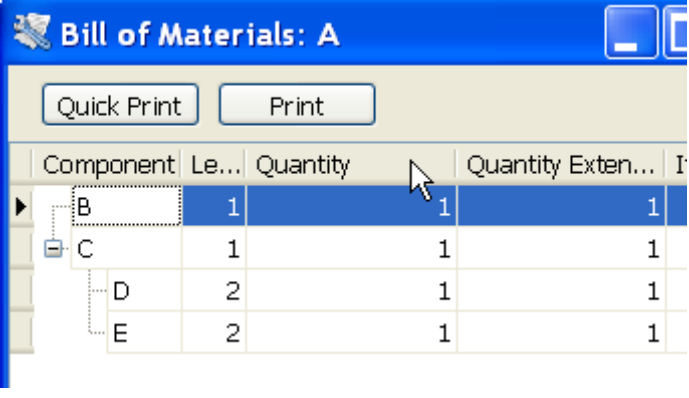
Let’s look at a contrived and fairly simple product structure. Here is our simple item list:



Name	Type	Cost
♦B	Inventory Part	1.00
♦D	Inventory Part	1.00
♦E	Inventory Part	1.00
♦A	Inventory Ass...	0.00
♦C	Inventory Ass...	0.00
♦F	Inventory Ass...	0.00
♦G	Inventory Ass...	0.00

Items “B”, “D” and “E” are inventory parts, the rest are assemblies.

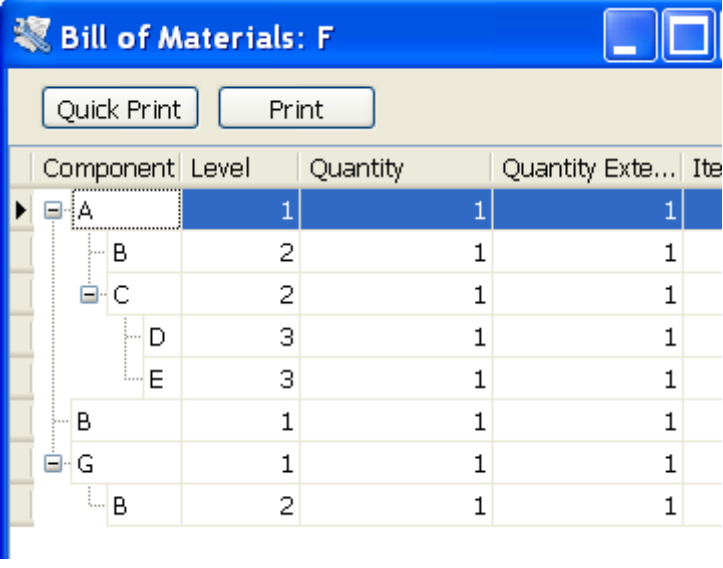
At this point, for purpose of simple illustration, the “cost” values for the inventory parts are 1.00 each, and the inventory assemblies have a cost of 0.00.



The screenshot shows a window titled "Bill of Materials: A". It has two buttons: "Quick Print" and "Print". Below the buttons is a table with columns: Component, Le..., Quantity, Quantity Exten..., and I. The table lists components B, C, D, and E. Component B is at level 1 with a quantity of 1. Component C is at level 1 with a quantity of 1. Component D is at level 2 with a quantity of 1. Component E is at level 2 with a quantity of 1.

Component	Le...	Quantity	Quantity Exten...	I
B	1	1	1	
C	1	1	1	
D	2	1	1	
E	2	1	1	

Assembly “A” has two components, B and C, with C being a subassembly composed of components D and E.



The screenshot shows a window titled "Bill of Materials: F". It has two buttons: "Quick Print" and "Print". Below the buttons is a table with columns: Component, Level, Quantity, Quantity Exte..., and Ite. The table lists components A, B, C, D, E, G, and B. Component A is at level 1 with a quantity of 1. Component B is at level 2 with a quantity of 1. Component C is at level 2 with a quantity of 1. Component D is at level 3 with a quantity of 1. Component E is at level 3 with a quantity of 1. Component G is at level 1 with a quantity of 1. Component B is at level 2 with a quantity of 1.

Component	Level	Quantity	Quantity Exte...	Ite
A	1	1	1	
B	2	1	1	
C	2	1	1	
D	3	1	1	
E	3	1	1	
B	1	1	1	
G	1	1	1	
B	2	1	1	

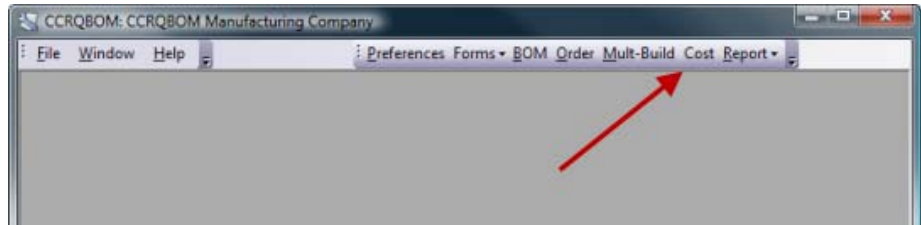
Assembly “F” has three components, A, B and G. We’ve described “A” above. Note that item “G” is an assembly with one component.

This is a fairly simple structure, although it is a bit difficult to show clearly here. In each case the quantity for the component in a BOM is 1, to make it simple. Can you determine what the cost of the four assemblies should be? It isn’t difficult with a simple structure like this, but it can be very complicated in a real world situation.

Note that to insure that costs are updated correctly CCRQBOM requires that you be logged in to QuickBooks in **single user mode** with a user account that has full inventory access. You might also want to make a backup of your company file the first time you try this, just for security.

The process can take a considerable amount of time, so be sure avoid running this when people are anxious to get back into the program. We cannot predict how long it will take to run for any given company file.

To start, select **COST** from the main menu:



The Cost Rollup screen will display if you are in single user mode. If not, a warning will display and you will not be allowed to proceed.

BOM Cost Rollup

Use this function to update the "cost" value of your Inventory Assembly items to be the sum of the component costs.

This may be a time consuming process, if you have a large number of inventory assembly items and a complicated product structure. The program will "bubble up" the costs starting with the lowest level assemblies, if you are using subassemblies.

- o This may take a long time, be patient
- o This will work faster if you close your item list in QuickBooks
- o You may get better performance if you run from the server

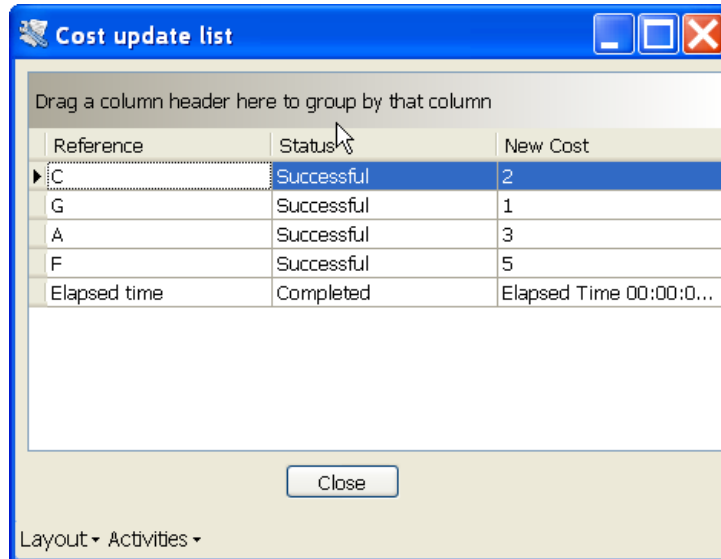
☐ Skip Inactive Items
☐ Skip Inactive Assemblies

☐ Assembly List Loaded
☐ Item List Loaded
☐ Low Level List Built
☐ Sort Low Level List
☐ Update Completed

There are several options that you can select – normally you would not select any of these options:

- **Skip Inactive Items:** QuickBooks allows you to include an inactive item in a bill of material, and when you issue a “build” that item will be included. Since QuickBooks works this way the cost of those inactive items should be included in the cost of the assembly. However, if you do not want the cost of these items included, check this box.
- **Skip Inactive Assemblies:** If you have assembly items that you have marked as inactive the cost rollup will still (normally) update their cost. If you wish to skip these items then check this box. If you have a large number of inactive assemblies this can speed the process. However, if these inactive assemblies are used as subassemblies in other, active assemblies, their cost is being used in the higher level assembly.

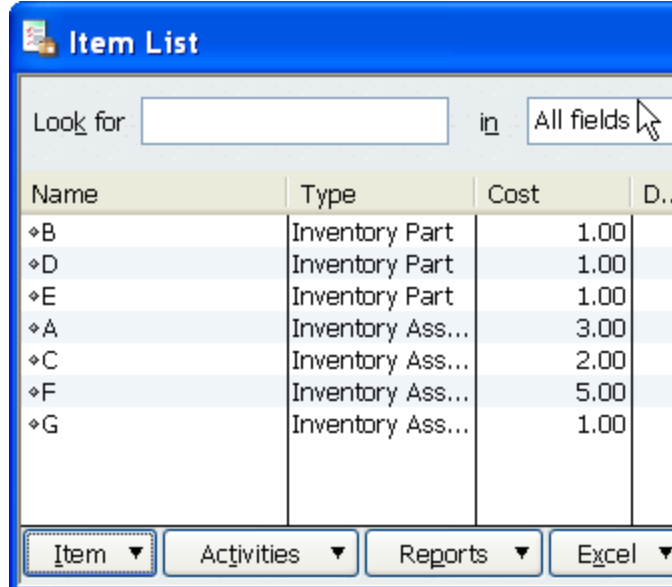
Simply click the *Update Assembly Cost* button. The application will display the progress of the function at the bottom of the screen. When the program is finished a “results” screen will display:



If any errors occur they will be displayed here. The updated cost is shown in the cost column. You can add a column to this display (as described in the “grids” section of the manual) that will show the prior cost. You can export this list to Excel, or print it, by using the “activities” button in the lower left.

In some cases the *Status* column will display the word “skipped” – this means that the new cost was the same as the prior cost and the record was not updated. This helps the program work faster.

Here is our item list, showing the results of the cost rollup.

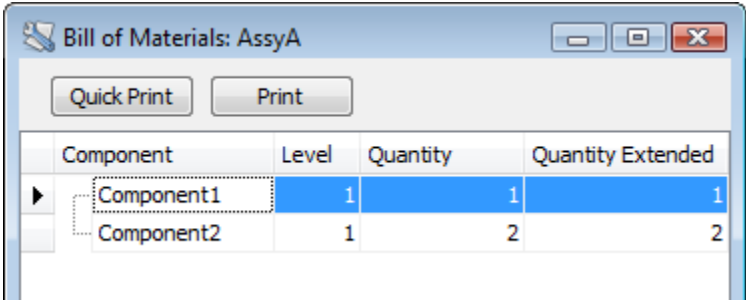


Where Used Report

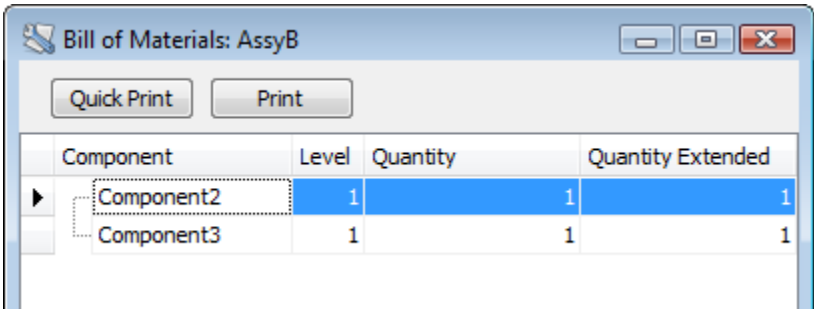
The traditional way to look at inventory assembly items is top down – you look at the inventory assembly item and see what items are used as components. This is the “bill of material” or BOM for the assembly.

Another way to look at your products is bottom up – look at the component item, see which assemblies use it. This is a “where used” view. QuickBooks does not provide this kind of view. You can see this in CCRQBOM by selecting *Reports* from the main menu, then *Where Used*.

If, for example, we have two assemblies, “AssyA” and “AssyB”, with components:




Component	Level	Quantity	Quantity Extended
Component1	1	1	1
Component2	1	2	2



Component	Level	Quantity	Quantity Extended
Component2	1	1	1
Component3	1	1	1

The *where used* report for this would show the components, and the assemblies that use them:



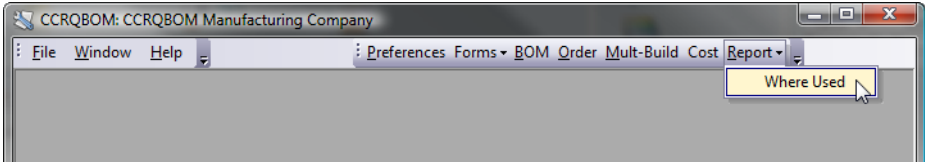
Assembly	Description	Quantity Used
Component: Component1 AssyA		1.00
Component: Component2 AssyA AssyB		2.00 1.00
Component: Component3 AssyB		1.00

You see that *Component1* is used just in *AssyA*, while *Component2* is used in both *AssyA* and *AssyB*.

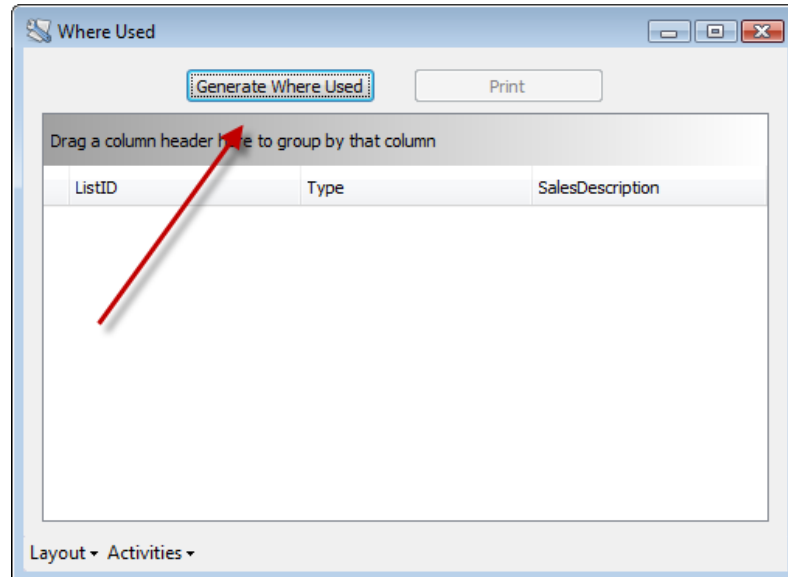
This is very useful if you have to make a substitution for a part due to a shortage or changing requirements – it lets you find each assembly that has to be modified.

Running the Report

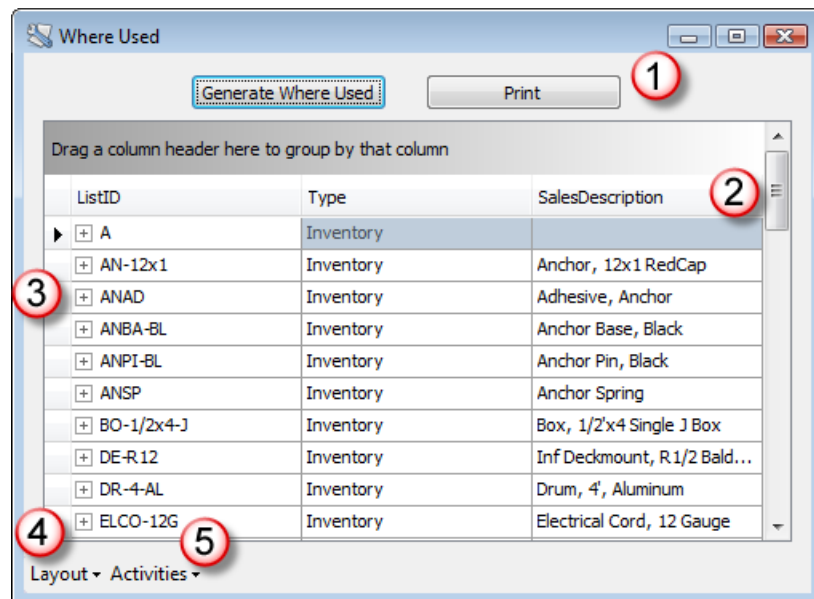
From the *Report* menu select *Where Used*.



In the *Where Used* window click the *Generate Where Used* button. This starts the process of building the list of components and their assemblies. This may take a noticeable amount of time if you have a large number of assembly items.



When the program has completed building the report, the information will be displayed. This is a list of all components that are used in any inventory assembly. From here you can print the *where used* report, take a quick look at the assembly information for any component, or filter the list for a subset of your components.



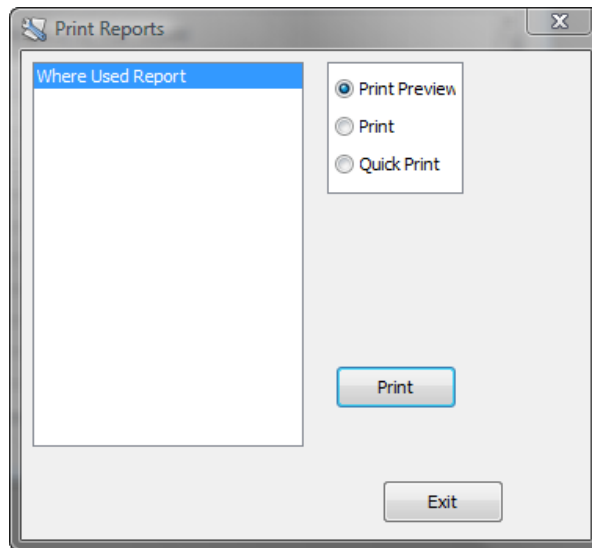
From this window, you can:

1. Click the *print* button to print the report.
2. Change the columns that display, and create a filter to show selected items.
3. Click on the + symbol to see which assemblies use a particular part (so you don't have to print the report).

4. Save your changes to how the component list displays
5. Save the item list to Excel, or print it (this will just include the component items).

Print report

When you click the *print* button the report window opens. Select the report to print (it will include just *Where Used Report* unless you create your own custom reports, as described later).



This is a sample of the basic report. You can modify this to fit your needs, as described later.

Assembly	Description	Quantity Used
Component A		
B		1.00
Component AN-12x1	Anchor, 12x1 RedCap	
1500-PM	POWER MANUAL 1500	50.00
Component ANAD	Adhesive, Anchor	
1000-MC	MANUAL COVER 1000	1.00
Component ANBA-BL	Anchor Base, Black	
1000-MC	MANUAL COVER 1000	1.00
1500-PM	POWER MANUAL 1500	1.00
2000-PT	POWERTRAK-2000	1.00
3000-UL	Reduced Labor from 2 to 1 (Qty) ULTIMATE 3000	1.00
Component ANPI-BL	Anchor Pin, Black	
1000-MC	MANUAL COVER 1000	1.00
1500-PM	POWER MANUAL 1500	1.00
2000-PT	POWERTRAK-2000	1.00
3000-UL	Reduced Labor from 2 to 1 (Qty) ULTIMATE 3000	1.00
Component ANSP	Anchor Spring	
1000-MC	MANUAL COVER 1000	50.00
Component BO-1/2x4-J	Box, 1/2"x4 Single J Box	
3000-UL	ULTIMATE 3000	1.00
Wednesday, February 18, 2009		1/7

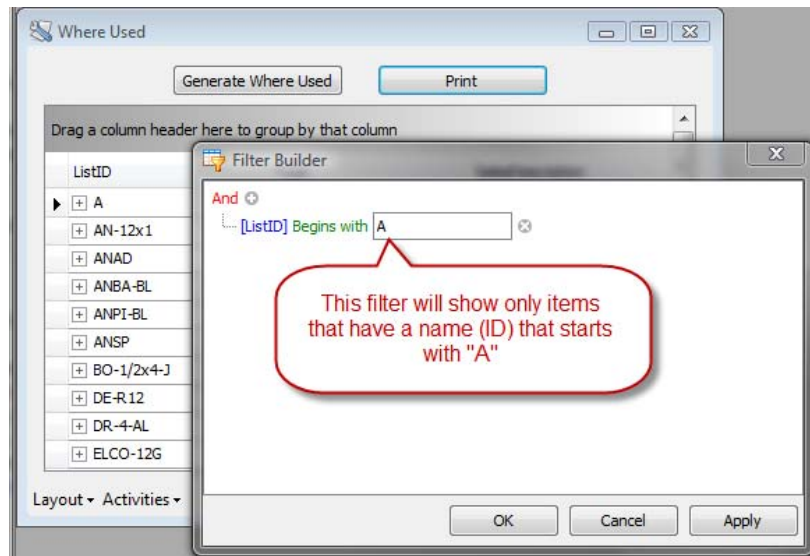
Modifying the screen listing

You can modify the list of component items shown on the screen, as described in other sections of the CCRQBOM manual.

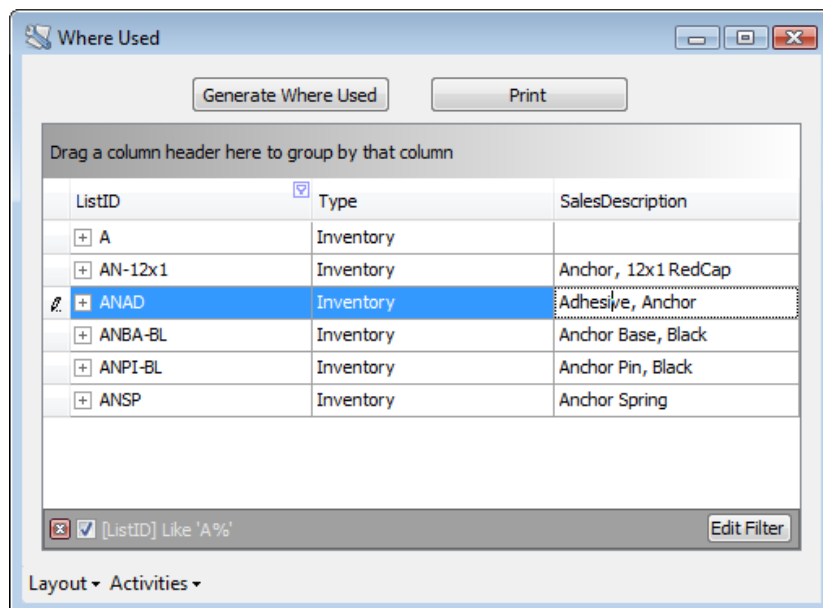
Right click on the column heading section of the display and select the “column chooser”. Drag titles from the window onto the display to add the columns. Note that this only affects what you see on the screen, not what is included in the report.

Of more interest is the ability to create a “filter”. If you pick the “filter editor” you can change which items are shown on the display, and when you print the report it will only print those component items that are displayed.

For example, you can select all components that start with the letter “A”:

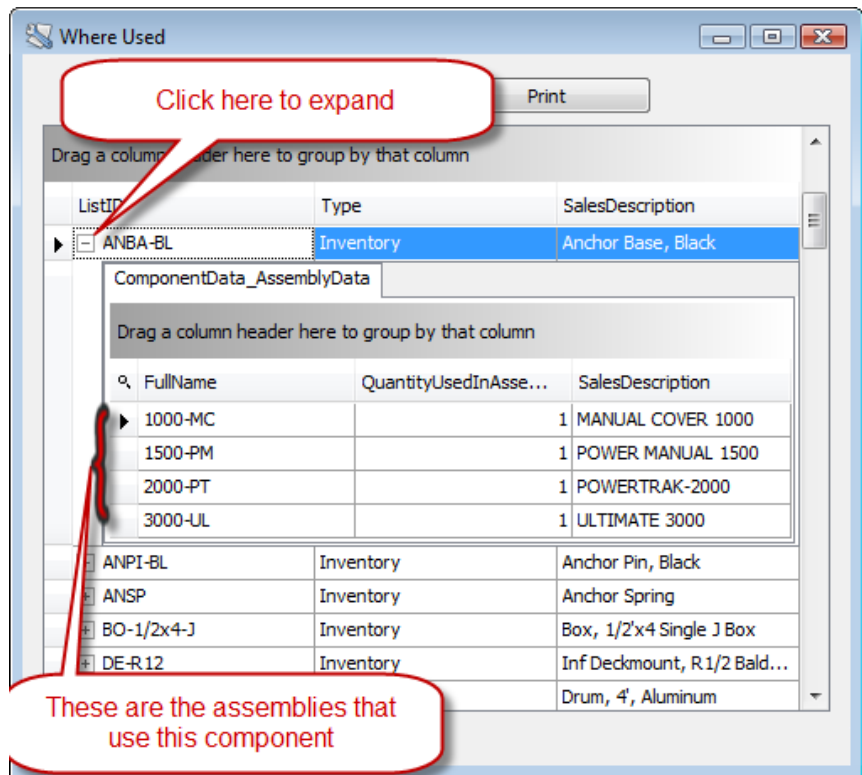


This would show you the following items – and the report that you print would only include these items:



Expanding detail items

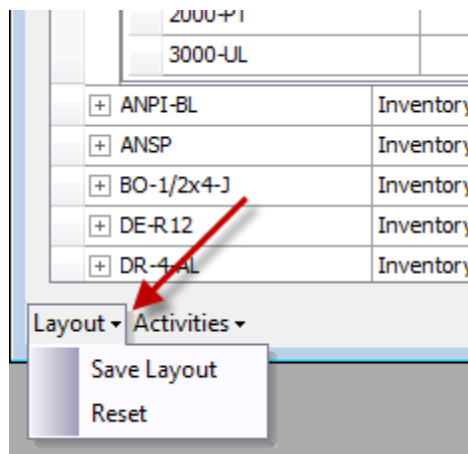
If you want to look at the assemblies that use a particular component, rather than printing a report, you can expand the listing for the selected component.



Note that you can edit this view just like you could adjust the main view – adding columns, etc.

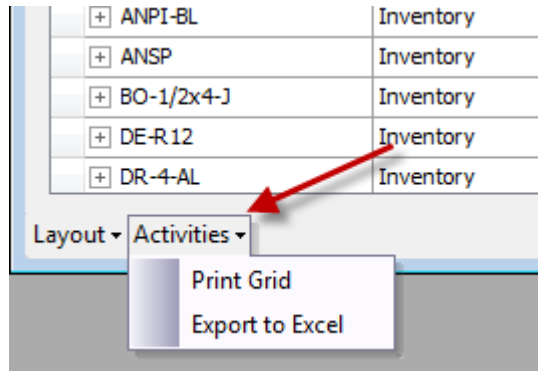
Layout

As with all windows, you can click the *layout* button in the lower corner to save your settings. This saves the size of the window, the columns you choose, and any filters. *Reset* will set things back to the “factory specified” settings.



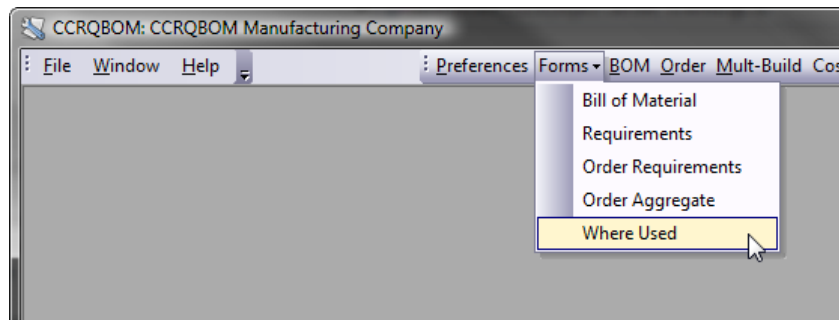
Activities

The *activities* button can be used to save the display to Excel, or to print it. Note that this just shows the component items. You can print or export the printed report by clicking *print*, selecting the *print preview*, and using one of the options there to export the report in a different format.

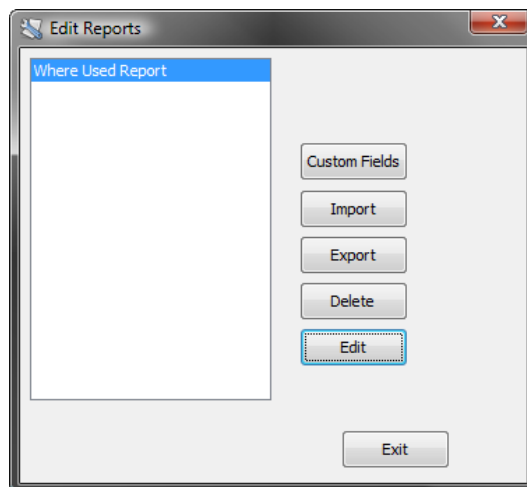


Creating your own report

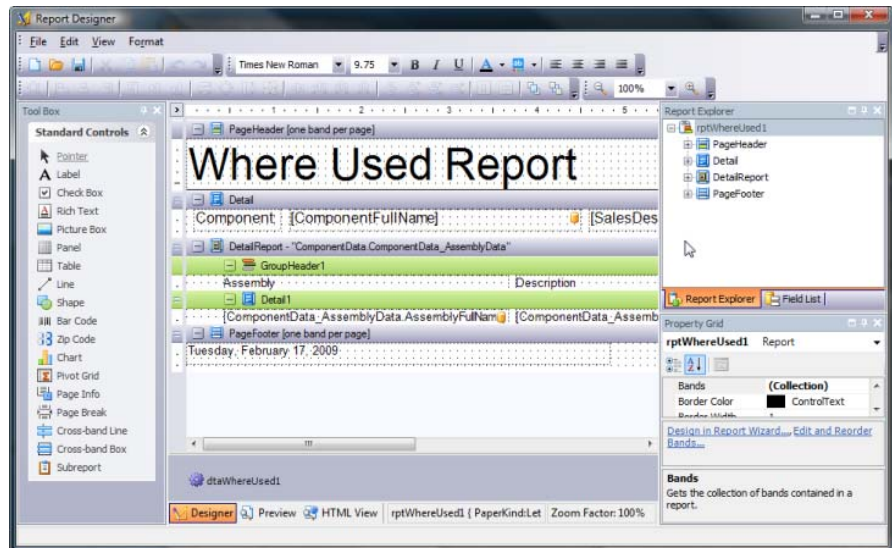
You can create your own report based on the *where used* data. In the main CCRQBOM menu, select *Forms* and then *Where Used*.



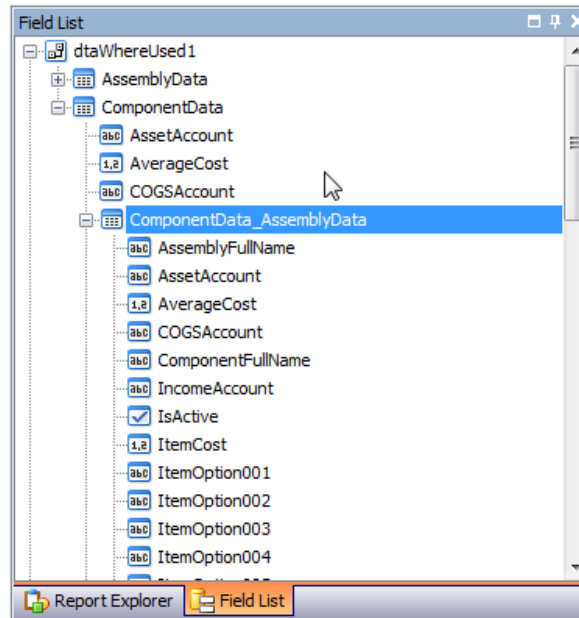
From the *edit reports* window click on the report to start with (only one will show the first time) and click *edit*.



The *report designer* is described in detail in the CCRQBOM manual.



In the *field list* tab you will find a listing of the fields. We recommend that you use the *ComponentData* section, not the *AssemblyData* section.

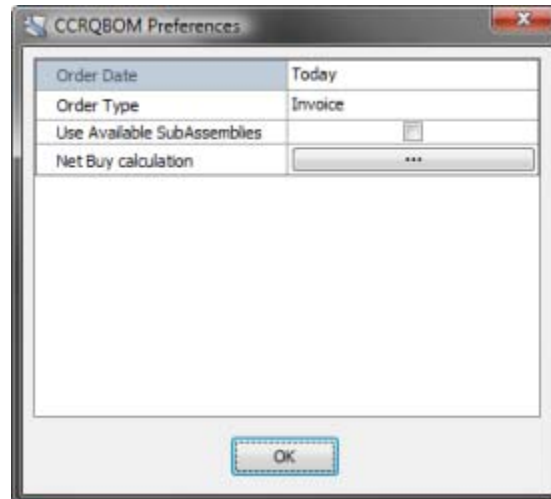


The first level of fields under *ComponentData* represent the component items. In that section you will see *ComponentData_AssemblyData*, which contains the fields for the assemblies associated with the components.

In the initial report there are several sections. The *Detail* section is where you would normally place fields that relate to the component. The *DetailReport* section relates to the assemblies that are a part of the component – you would place your fields in the *Detail1* section.

Preferences

If you select the *Preferences* function from the main window you will be able to set the default values for the *Date Selection* and *Order Type* fields of the *Order Processing* window, as well as the *Use Available Subassembly* check box.



Click on the field in the right column to be able to select from the available options. When you click *OK* these choices will be saved as the default values.

Net Buy Calculation

QuickBooks has a “reorder point” field for inventory part items, and a “build point” field for inventory assembly items. CCRQBOM can use this value in two ways, when calculating the *net buy* value:

1. This can be a “reorder point” in the traditional QuickBooks sense. The *net buy* value will be a suggested amount that you purchase (for inventory part items) or manufacture (for inventory assembly items) to bring the quantity on hand up to this reorder point. You can consider this to be a “minimum stocking level”.
2. This value can alternately be used as a “minimum order quantity” value. The *net buy* value will show the quantity you should build or manufacture if you either have a shortage or a build quantity – this would be the added quantity you need to round out the bought or built amount to be at least the minimum level required for an order/build.

This is a “calculated field” that can be used in the “Order Aggregate” report. It represents a recommendation on the quantity of the item that you should buy (or build).

Net Buy Calculation

Minimum Stocking Level or Minimum Reorder Quantity

The "Net Buy" calculation can be used in several ways.

- 1) It can be a "minimum stocking level" calculation, suggesting an order amount that will bring stock levels back to the "reorder" point.
- 2) It can be a "minimum reorder quantity" calculation, saying that if you need to order more, you must order AT LEAST the minimum quantity specified in the "reorder point" field of the item.

☒ Minimum stocking level
☐ Minimum reorder quantity

Next > Cancel

Select the calculation method that you prefer.

Net Buy Calculation

Supply and Demand Calculations in Net Buy

When calculating the Net Buy figure, we compare "Supply" with "Demand". Normally this is simply comparing On Hand versus the required amount.

☐ Include the "On Purchase Order" quantity in the Supply value.
☐ Include the "On Sales Order" quantity in the Demand value.

Finish Cancel

This screen lets you set some preferences as to how the *net buy* figure is calculated. If you want the calculation to take sales orders and/or purchase orders for the item into account, check the appropriate box.

PLEASE NOTE that there is no "time phasing" of these values – a purchase order that is scheduled to arrive next year will be counted just like a purchase order scheduled to arrive tomorrow.

This field is described in the CCRQBOM Reports chapter that follows.

Forms

Each of the reports that you find in CCRQBOM has a "report template" that controls how the report is formatted. We provide you with a way to make copies of these report templates that you can modify to fit your needs. You can add or delete

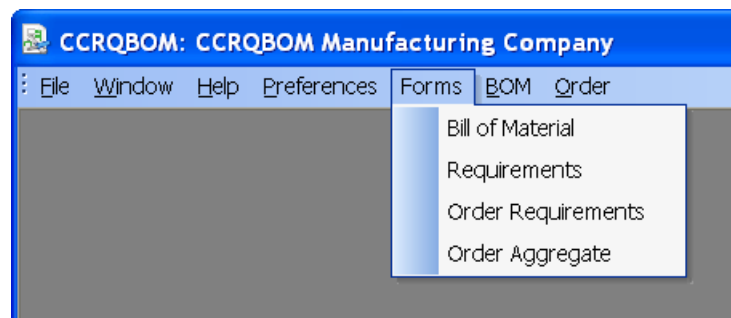
columns, change headings, rearrange fields, and more. The following chapter, “CCRQBOM Reports”, has specific information on how to work with these reports.

CCRQBOM Reports

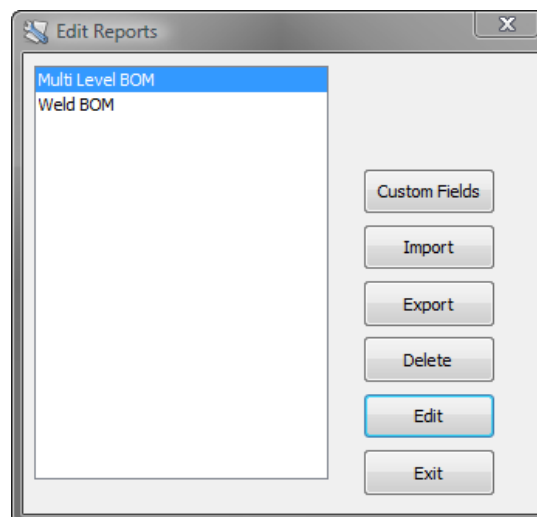
CCRQBOM produces a number of reports, and you have the ability to modify these reports with the *Report Designer* that we describe in another chapter. In this chapter we will discuss some specific features of the reports in CCRQBOM. We assume that you have reviewed the *Report Designer* chapter.

Each of the reports that you find in CCRQBOM has a “report template” that controls how the report is formatted. We provide you with a way to make copies of these report templates that you can modify to fit your needs. You can add or delete columns, change headings, rearrange fields, and more.

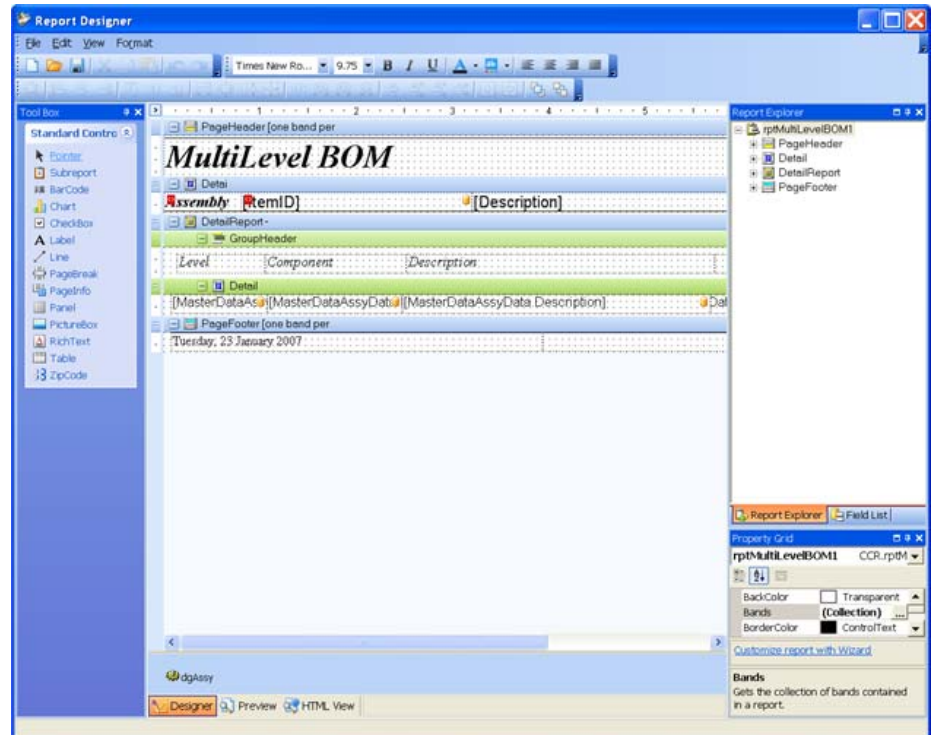
When you select *Forms* from the main menu, you see a menu that lists the general classes of reports in the program:



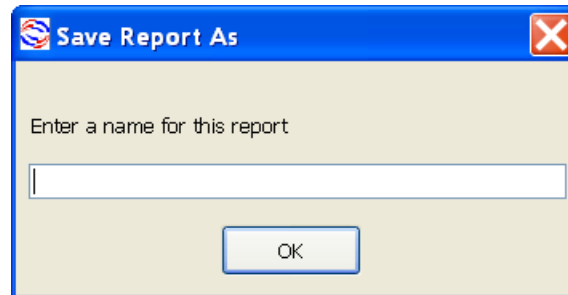
When you select one of these options the program opens the *Edit Reports* window. This is similar to the *Print Reports* window that you have seen before.



The “built in” reports show first, and if you create any new reports they will be listed at the bottom. “Multi Level BOM” is a built in report in this example, “Weld BOM” is a customized report.



After you make your changes click on the *Save* or *Save As* options to save your modified report. If you are editing one of the built in reports you can only use the *Save As* option. In this case you will be asked for a name for the report.



This report will be saved in the shared directory that you established when you installed this program, so that all users can access it.

Bill of Material Report

This section assumes that you have read the *Report Designer* chapter.

BOM Report Tables

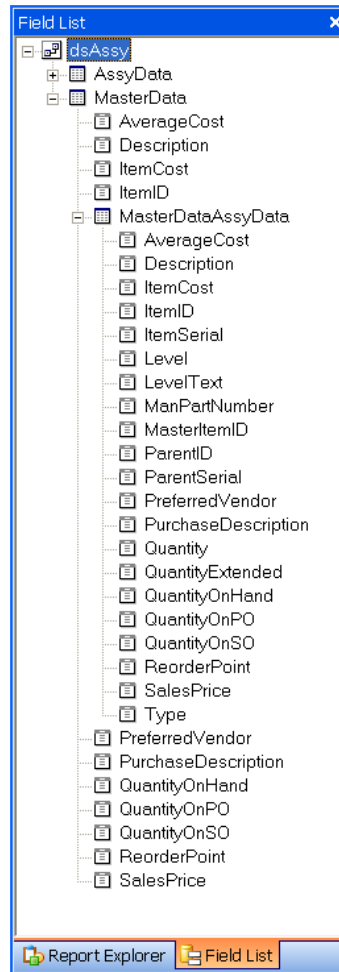
There are two “tables” of data available in the BOM report, *AssyData* and

MasterData. This can be a bit confusing.

MasterData represents fields from the assembly item. *AssyData* contains information from the component items and subassemblies. If you expand *MasterData* you will see a sub-element, *MasterDataAssyData* which represents the component items as linked to the main assembly.

Use *AssyData* if you want to generate a report that has only information from the component items by themselves.

Use *MasterData* when you want to generate a report that has assembly information as well as component information. To add component information use the fields found in *MasterDataAssyData*.



BOM Report Bands

A report is divided into different “bands”, and for a multiple-table report this can be a bit complicated.

The screenshot displays a report titled "MultiLevel BOM" with several distinct bands. At the top is a blue "PageHeader" band. Below it is a "Detail" band containing the text "Assembly: [ItemID]" and "[Description]". This is followed by a "DetailReport-" band, which includes a green "GroupHeader" band. The main body of the report is a table with columns "Level", "Component", and "Description". Below the table is another "Detail" band containing the text "[MasterDataAssyData]" and "[MasterDataAssyData Desc]". At the bottom is a blue "PageFooter" band with the date "Tuesday, 23 January 2007".

The **Page Header** band has information that will show at the top of each page of the report.

The **Page Footer** band has information that will show at the bottom of each page of the report.

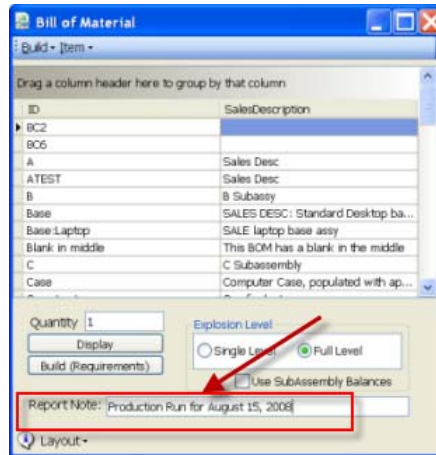
The **Detail** band (in this case) is where you will typically place information about the assembly item itself. You would use fields from the *MasterData* table – but not anything found in *MasterDataAssyData*. In the sample above you see that we have fields *ItemID* and *Description*.

The **Detail Report** band will have information that repeats multiple times for each record in the *MasterData* table – which in this case will be the component items. The Detail Report has several bands itself.

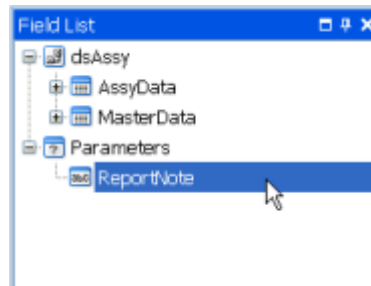
- The **Group Header** band has the title information that applies to all records of the detail.
- The **Detail** band of the **Detail Report** will contain information from each component record – fields that are found in the *MasterDataAssyData* portion of the *MasterData* table.

Report Parameters

In the *Bill of Material* window there is a field titled *Report Note*.



The information that you enter here is available in the BOM report in the *Parameters* section of the field list. You can add this to a label item anywhere on the report.

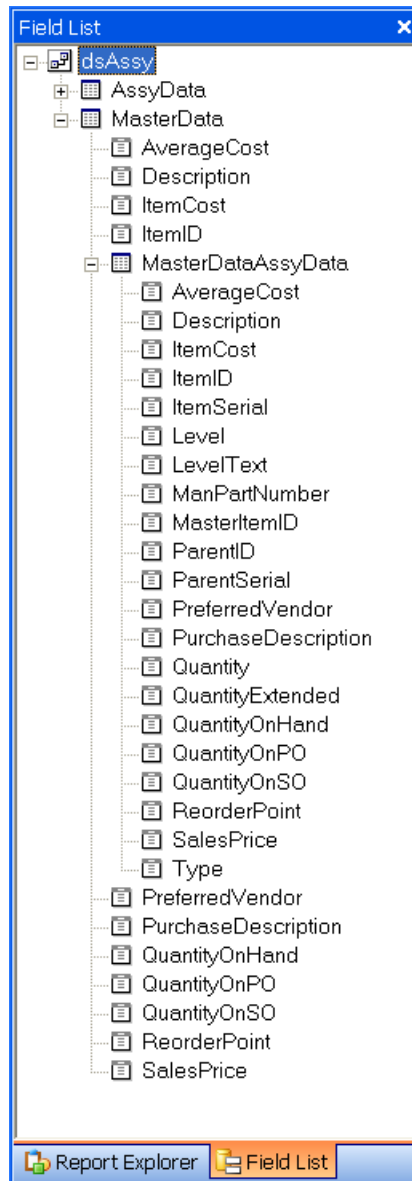


Requirements Report

This section assumes that you have read the *Report Designer* chapter.

Requirements Report Tables

There are two “tables” of data available in the BOM report, *RequiredData* and *MasterData*. This can be a bit confusing. *MasterData* represents the assembly information, *RequiredData* contains information from the components and subassemblies. If you expand *MasterData* you will find an element *MasterDataRequiredData* which represents the component items as related to the assembly.



Use *RequiredData* if you want to generate a report that has only information from the component items by themselves.

Use *MasterData* when you want to generate a report that has assembly information as well as component information. If you want to include component information here use the fields in *MasterDataRequiredData*.

A limited number of fields are available at this time. If there is information that you would like to see here please let us know and we will see if we can add them in future releases.

Requirement Report Bands

A report is divided into different “bands”, and for a multiple-table report this can be a bit complicated.

PageHeader [one band per		
Requirements List		
Detail		
Assembly	[ItemID]	[Description]
DetailReport-		
GroupHeader		
Item	Quantity	Description
Detail		
[MasterDataRequired]	[MasterData]	[MasterDataRequiredData Description]
PageFooter [one band per		
Tuesday, 23 January 2007		

The **Page Header** band has information that will show at the top of each page of the report.

The **Page Footer** band has information that will show at the bottom of each page of the report.

The **Detail** band (in this case) is where you will typically place information about the assembly item itself. You would use fields from the *MasterData* table – but not anything found in *MasterDataRequiredData*. In the sample above you see that we have fields *Item* and *Description*.

The **Detail Report** band will have information that repeats multiple times for each record in the *MasterData* table – which in this case will be the component items. The Detail Report has several bands itself.

- The **Group Header** band has the title information that applies to all records of the detail.
- The **Detail** band of the **Detail Report** will contain information from each component record – fields that are found in the *MasterDataRequiredData* portion of the *MasterData* table.

Order Requirements

There are three report templates here.

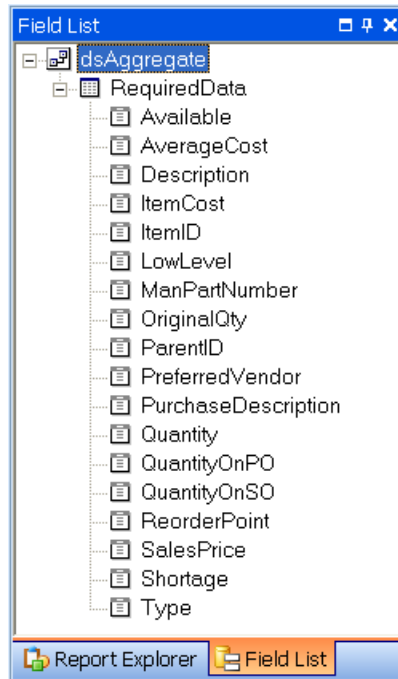
Requirements and *Requirements w-break* represent the requirements reports as created from the *Order* menu function. The fields here are identical to those described in the *Requirements* section above.

Assembly Listing represents the assembly listing report related to orders. It uses the same fields as the *Bill of Material* report listed above.

Order Aggregate

This section assumes that you have read the *Report Designer* chapter.

This represents the *Aggregate* report in the *Order* menu function. This is a simpler report, with a single table.



This report includes the *Net Buy* field, as defined below.

Special Fields

There are a number of special fields that are defined in the *Field List* of the report designer that should be explained in more detail

ReorderPoint / ReorderBuildPoint

We use both of these names for the same value in different reports.

In QuickBooks you can define a *reorder point* for an Inventory Part item. This is essentially a minimum stocking level for the item, and if your quantity on hand falls below this point some QuickBooks inventory reports will flag this item.

Inventory Assembly items, on the other hand, have a *build point*. It's not clear why they have this, as it is not used in any reports. Conceptually it should be the same as the *reorder point* for inventory parts – a minimum stocking point that should flag an item if you need to build more. However, QuickBooks ignores this field.

In CCRQBOM we use either the *ReorderPoint* or *ReorderBuildPoint* field to show the appropriate value for the item. If the item is an inventory part, the value shows the *reorder point*. If the item is an inventory assembly, the value shows the *rebuild point*.

Net Buy

This is a “calculated field” that is found in the “Order Aggregate” report. It represents a recommendation on the quantity of the item that you should buy (or build).

USE CAUTION when using this field. CCRQBOM is not a comprehensive ERP planning system (yet) and the recommendation in this field is based on a fairly

simple calculation. It does not take into account many issues that you, as a planner/buyer, must consider. It doesn't know about the timing of the "demand" for this item, it doesn't know about your business practices, lead times, scheduled PO delivery dates, and more. Don't blindly order this quantity without careful consideration.

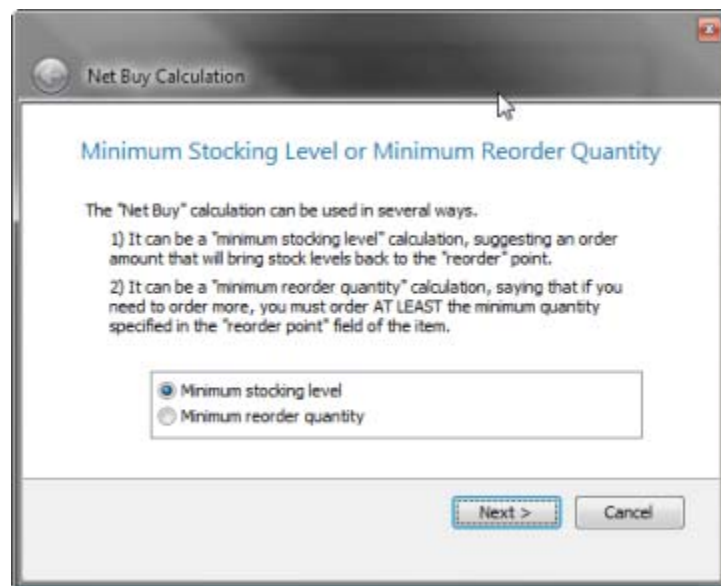
QuickBooks has a "reorder point" field for inventory part items, and a "build point" field for inventory assembly items. CCRQBOM can use this value in two ways, when calculating the *net buy* value:

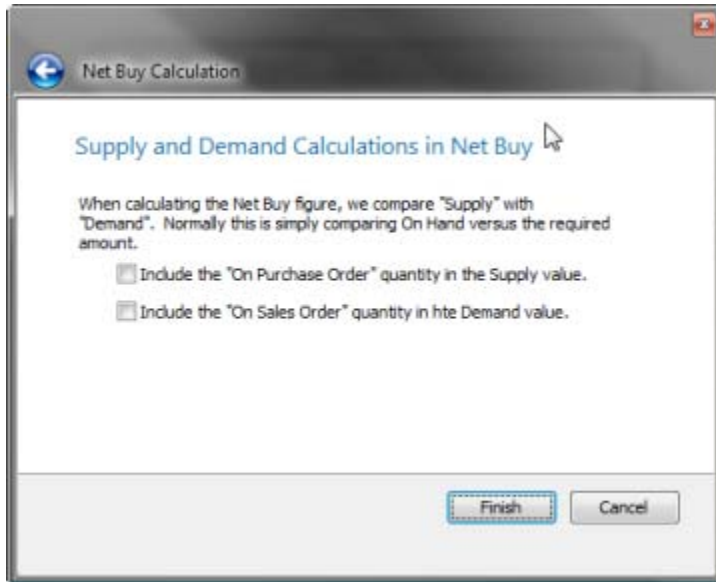
1. This can be a "reorder point" in the traditional QuickBooks sense. The *net buy* value will be a suggested amount that you purchase (for inventory part items) or manufacture (for inventory assembly items) to bring the quantity on hand up to this reorder point. You can consider this to be a "minimum stocking level".
2. This value can alternately be used as a "minimum order quantity" value. The *net buy* value will show the quantity you should build or manufacture if you either have a shortage or a build quantity – this would be the added quantity you need to round out the bought or built amount to be at least the minimum level required for an order/build.

This is a "calculated field" that can be used in the "Order Aggregate" report. It represents a recommendation on the quantity of the item that you should buy (or build).

You also can control how the calculation is affected by sales orders and purchase orders.

The *Net Buy* calculation is controlled by the settings of the *Net Buy Calculation* preferences set in the *Preferences* menu.

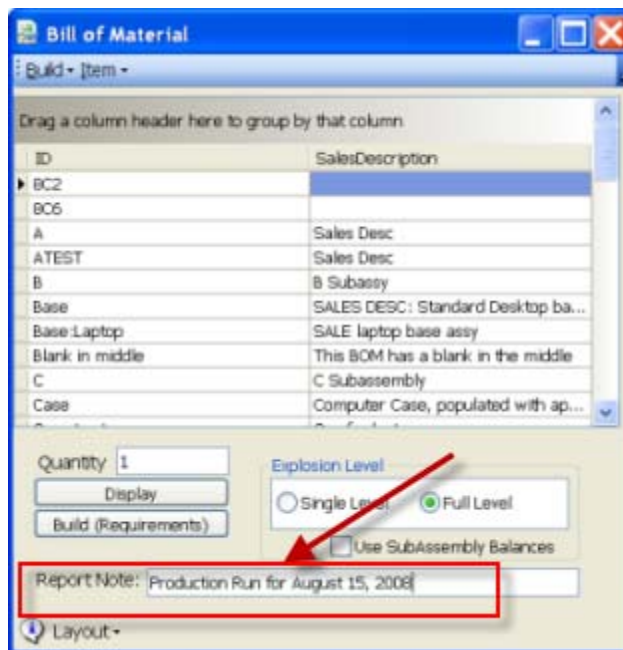




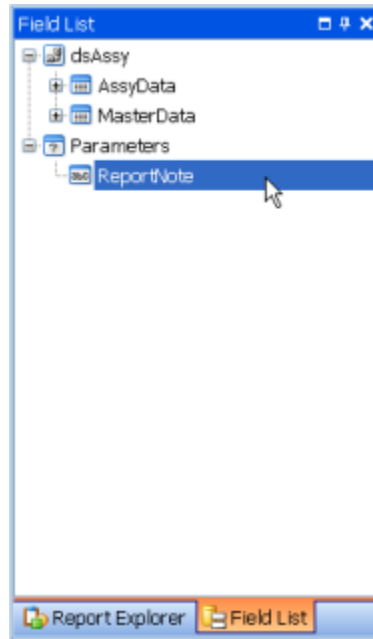
PLEASE NOTE that there is no “time phasing” of these values – a purchase order that is scheduled to arrive next year will be counted just like a purchase order scheduled to arrive tomorrow.

Report Parameters

In the *Bill of Material* window there is a field titled *Report Note*. In prior versions this note would print in the footer of the BOM when you click *Display* and then *Quick Print*. It was not available in the designed report you get when you clicked the *Print* button.



With this release the report note is available in the report designer for the “BOM” form. It shows in the *field list* tab in the *Parameters* section. You can add this to a label item anywhere on the report.



Custom Fields

Custom Fields are a special feature in QuickBooks that allow you to add your own defined information to the item list (with limits). Custom fields can be added to reports if you enable the feature in CCRQBOM. See the *Custom Fields* section of the *Report Designer* chapter for details.

Program Management

This chapter describes features that are common to all CCRSoftware applications. The details may vary from program to program. You will find specifics on your application in the *Working With* chapter.

Selecting a Company File

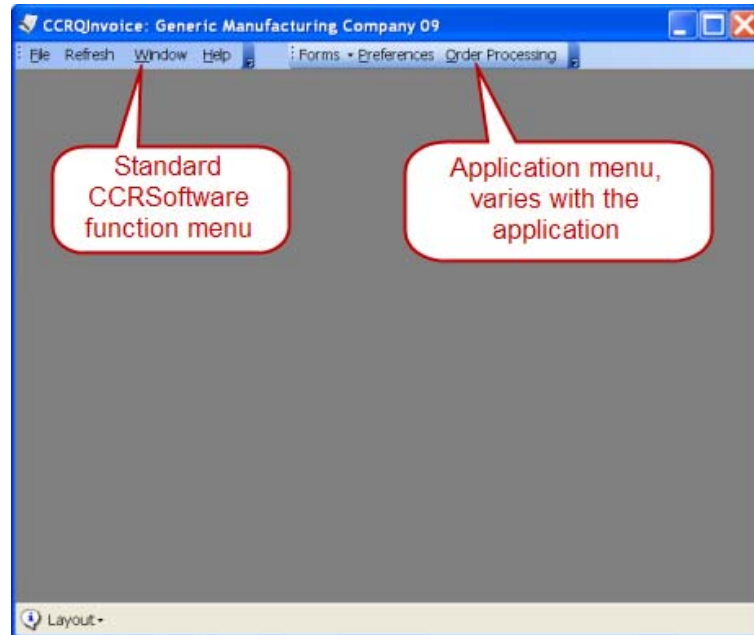
After you have installed the program, if you run it with a QuickBooks company file open then the program will immediately start to work with that company file.

If you don't have a QuickBooks company file open you will be presented with the following screen:



- **Currently Open Company:** You can start QuickBooks and open a company file, then select this option to proceed.
- **Select Company:** If you do not have QuickBooks® running, and you have set up the application to access your company data file even if QuickBooks® is not running (as described in the *Installation* chapter), click this button. You will be asked to select the company file to work with in a *open file* dialog.
- **Skip:** This option will not open a company file. It allows you to run any utility option on the main application menu.
- **Exit:** Exits the program without accessing your company file.

Main Menu



This is a typical main menu screen. Each application will be similar to this. There are three menu items that are common to all CCRSoftware applications: *File*, *Help* and *Window*.

File

Open Company File

Selecting this will close the currently open QuickBooks® company file, and open the *Open QuickBooks Company File* window as shown above.

Install New Company

Some CCRSoftware applications have an “installation wizard” that will lead you through several steps needed to set up a new company file to work with the application. This menu option will start that wizard. Note that in some applications this will not be available.

Refresh

You won’t see this option in all CCRSoftware applications.

QuickBooks maintains a number of “lists”. These include major lists such as the item list, customer list and vendor list, as well as smaller lists such as the sales rep list, terms list, and so forth.

To improve performance, CCRSoftware applications often make a copy of various lists into memory when the application starts or begins a particular process. These copies are made every time that you start the program (or possibly the first time the program needs the information). If you have the CCRSoftware application open, and then you make a change or addition to a list in QuickBooks itself, the CCRSoftware application might not be aware of the change right away.

If you make changes in the QuickBooks lists while this is open, you can click the *Refresh* menu to “refresh” or re-load the list into the application from the QuickBooks company file. In some cases you will have the option of selecting the list to refresh.

You only need to do this if you leave the CCRSoftware application open while you are making changes to lists in QuickBooks, and you want those changes to come through to the application right away.

Window

The main application window serves as a container to hold the feature windows that you will work with (in most cases). The *Window* menu option allows you to reorganize the open function windows within the application window, to either *Cascade* or *Tile* the windows.

Note that if you close the main application window it will close all of the feature windows.

Normally the majority of the windows will open within the confines of the main application window. This keeps some control over the many windows that can be open. However, in some cases, you may want the ability to move the various windows to different locations on your screen. This is particularly useful if you have dual monitors – you can “park” some windows off on a side screen. To enable this feature you should close all windows except the main one, and un-check the *MDI Enabled* option in the *Window* menu.

Help

About

This function displays the version of the program, as well as the name of the registered user and serial number (if this program has been registered).

Contents

This opens the help file to the table of contents.

Index

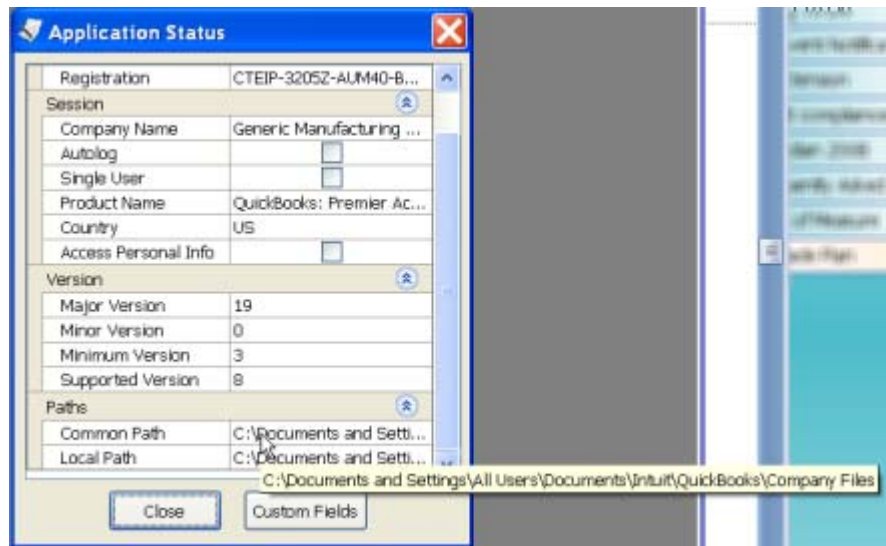
This opens the help file to the index.

Status

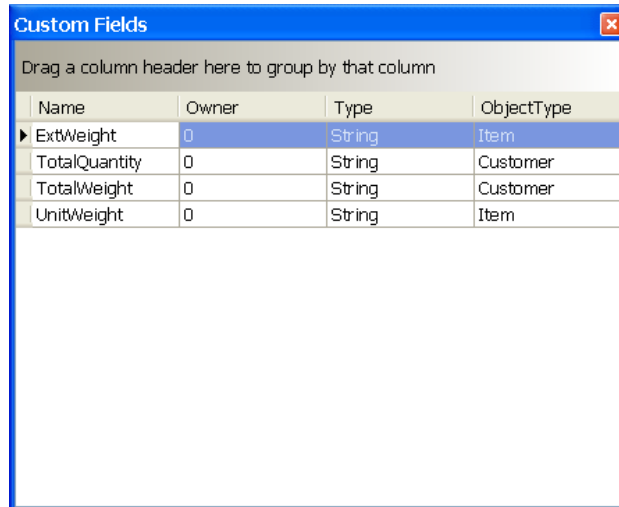
This option opens a window that displays a variety of information concerning the registration status of your installed program, the QuickBooks company file that you have open, and the locations of the various parameter files. If the information in a particular line cannot be seen clearly just hold your mouse cursor over the field, and the entire contents will be displayed.



If you scroll down through the list, two fields are of particular interest. The *Common Path* setting shows the location that this workstation is using for the common parameter file, which should be the same location for all workstations in a multi-user situation. This is the location of the *CCRQ.XML* file, as described in the *Technical Information & Specifications* chapter. The *Local Path* setting shows the location that this workstation uses to hold local information that applies only to this workstation. This is the location of the *CCRQUSER.XML* file as described in the *Technical Information & Specifications* chapter.



If you click on the *Custom Fields* button the program will open a dialog that shows all custom fields that you have enabled in this QuickBooks company file.



Appearance

You can use this function to alter the appearance of the visual elements of the program windows.



If you check the *Use Windows XP Theme* box then the appearance of the program windows are set by Windows itself (this is available only if you are using Windows XP or Vista).

If you do not check the Windows XP Theme box then you can choose from one of the other options listed.

These settings are set for each individual installation of the program.

Tech Support

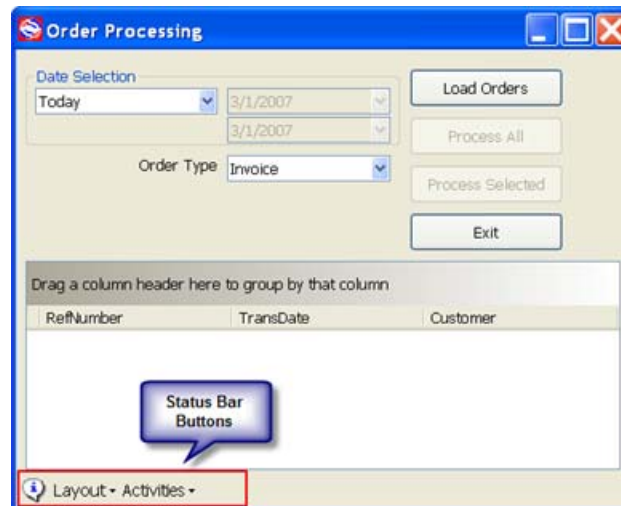
These options should only be selected at the direction of the CCRSoftware technical support staff. You can't hurt anything, BUT if these are enabled the program will perform much slower and could display a number of annoying messages.

- *Save Support Files:* The program has a number of support files that it manages – preference settings, form templates, error logs and more. These are stored in a variety of locations, some of which may be hidden to you. This option will copy all of these files into one folder in your *My Documents* folder so that you can email them to our support staff, if necessary.


- *XML Display*: Don't choose this unless you really want to be annoyed. This will open a window with information about the conversation between this program and QuickBooks. It is used primarily to diagnose problems that may be occurring. It slows things down immensely.
- *Logging*: This program maintains a log of activity. Usually it will only record significant major error information. You can set this to record a greater degree of information. Usually this is only done if we need to see more detail about what is going on in your system. Avoid changing this, as it can slow down your program.
- *View Log*: This will open a window that will display your log.
- *Clear Log*: DON'T USE THIS unless told to – it will erase your log.
- *Reset Common Location*: When you first installed this program you were asked for a “common location”. Sometimes people make a bad choice. If you select this you will be asked for that location again. Generally it is a bad idea to use this unless we tell you to.
- *Clear All Saved Grid Layouts*: If you use the *Layout* feature to save your settings for a window or grid, this information is stored in a preference setting. Selecting the *Clear* option will erase all of these preference settings. Usually you will only do this if we tell you to – if a number of windows or grids have been changed in a new release you may need to use this option to see some of the new features.

Common Program Elements

At the bottom of most windows in a CCRSoftware application you will find a “status bar”. This will contain buttons and other information that relate to the open window. The options that appear here will vary from one window to the next. We will describe some of the common features.

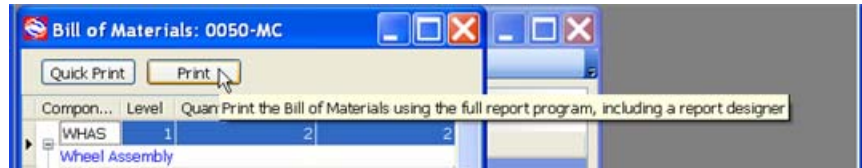


Information

If you see the information icon  in the lower left corner you can click on it to see a description of what the current window can do for you.

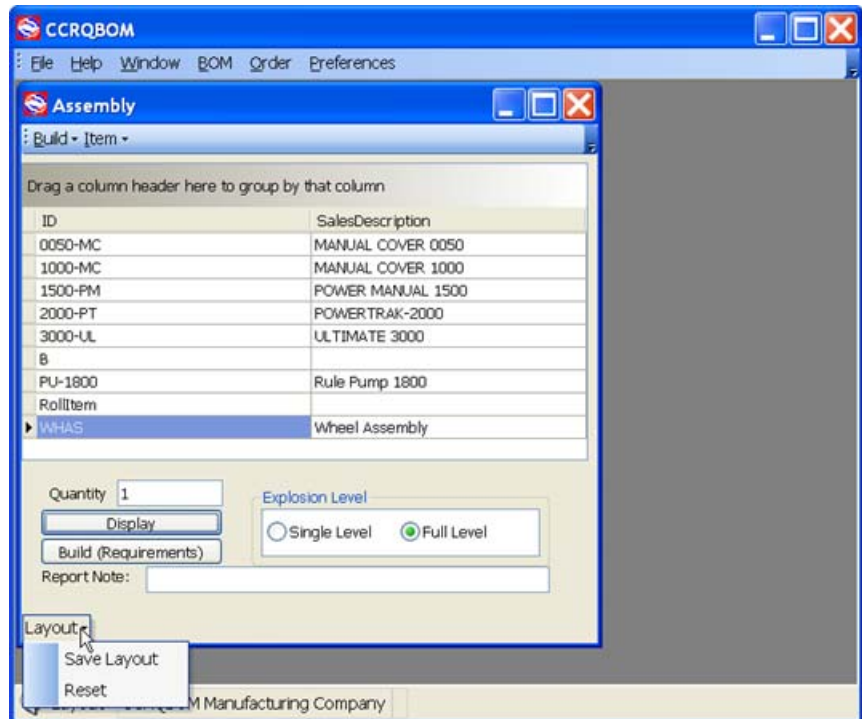
Tool Tips

If you hold the cursor over a feature of a window (such as a button or input box) and wait a moment, you may see a popup explanation of the feature (called a “tool tip”).



Layout

If the *Layout* button shows in the window you have the ability to save any changes in the window size that you make. You can drag a window to a convenient size and then select *Save Layout*. The next time you run the application on this computer workstation the window will display in the same size. *Reset* will cause the window layout to revert to the standard size the next time you open this window. Note that these changes are specific to the computer workstation that the application is running on – the changes won’t affect other users



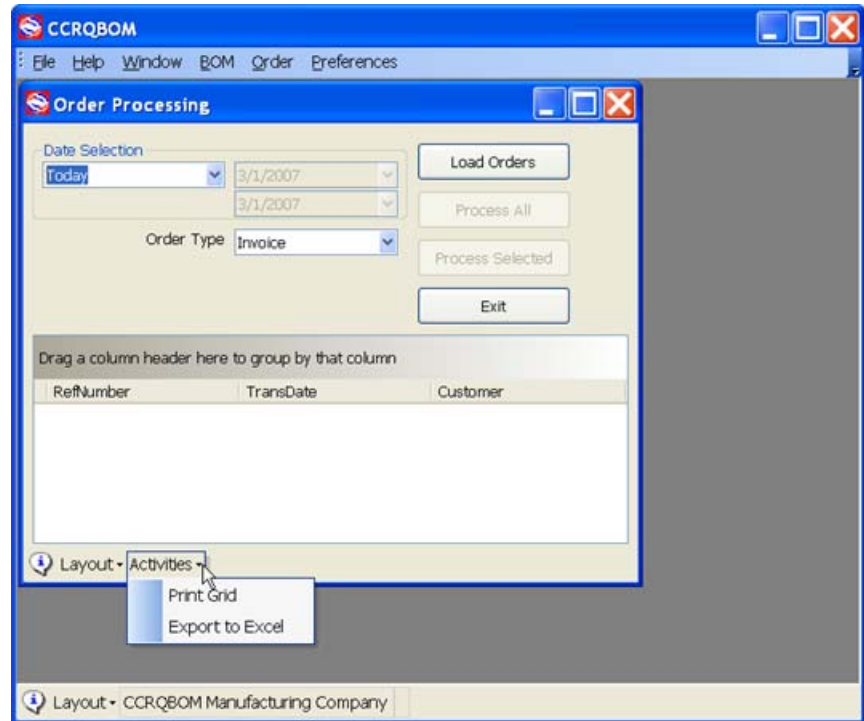
If the window includes a “grid” the *Save Layout* button will save any changes you make to the grid layout as well.

Activities

The *Activities* button will sometimes appear when the window includes a Grid.

Print Grid will open a Print Preview screen that shows the contents of the grid, formatted the way the grid shows on the screen. This is a way to get a quick printout of the grid contents.

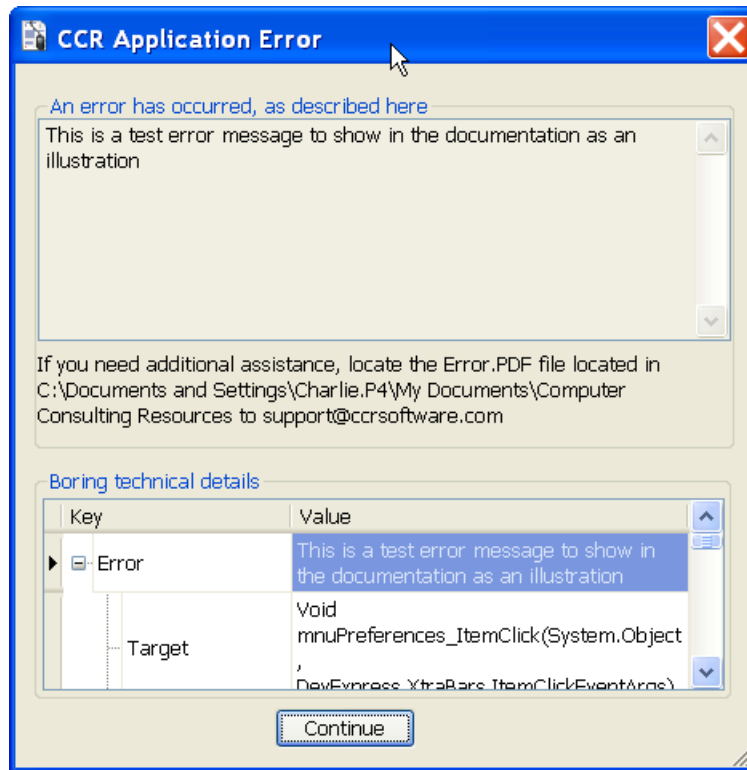
Export to Excel will save the grid to an Excel spreadsheet (just data, no formulas). Note that Microsoft Excel does NOT need to be installed on this computer workstation for this export to work.



Error Dialogs

There may be times when the program runs into an error that it cannot handle by itself. There could be a problem with QuickBooks®, such as a company file not being open, or a dialog window being open in QuickBooks® that prevents the CCRQ program from proceeding. It could be a problem with the information in your company file, or that you don't have adequate permission levels to perform the selected operation. It could be (gasp!) a programming problem with the CCRQ application itself.

If an error occurs you will see an error dialog window similar to the following:



The message gives you a brief description of the problem in the top part, and in some cases some cryptic information that has meaning to our technical support staff. The bottom portion of the screen has some very technical detailed information that would help our support staff if they are looking at the information.

If you are confronted with an error dialog like this and the message does not describe the problem clearly enough, you can contact our technical support department via email at support@ccrsoftware.com. The details of the error are saved in a file named "Error.PDF" that is stored in the location noted in the window. It would be very helpful if you can provide us with a detailed description of what you were doing at the time, and send a copy of this PDF file.

You can click the *Continue* button to proceed – the program may tell you that it cannot perform the required operation.

Working with Grids

Grid View

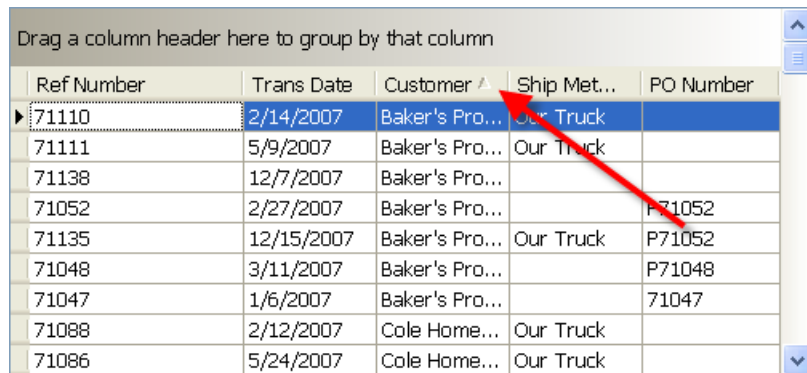
Software by CCRSoftware will often display information in a **Grid**, which is similar to a spreadsheet in that it displays information in rows and columns. Grids allow you to sort and filter the information presented, to make it easier to view and find information. The Grid feature of our software provides you with a number of ways to customize the view of the information to suit your needs.

Modifying the Grid View

There are a number of ways that you can alter how the orders are displayed in the grid.

Working with Columns

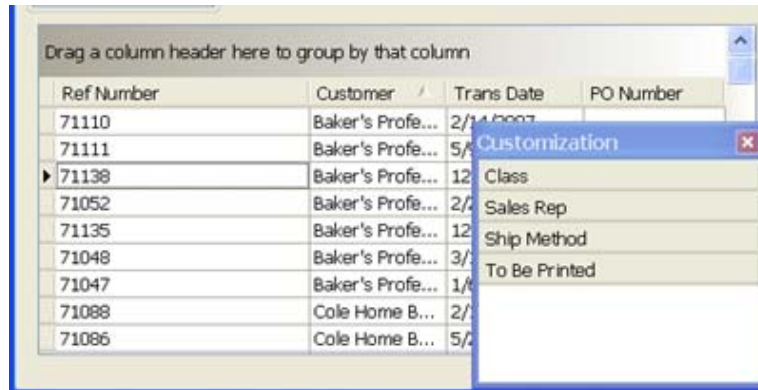
You can sort the Grid by any column shown. Just click on the title in the heading of the column and the program will sort by that column. An arrow appears in the column to show that it is sorted (click a second time to sort in reverse order). In the sample below, the orders are sorted by customer.



Drag a column header here to group by that column

Ref Number	Trans Date	Customer	Ship Met...	PO Number
71110	2/14/2007	Baker's Pro...	Our Truck	
71111	5/9/2007	Baker's Pro...	Our Truck	
71138	12/7/2007	Baker's Pro...		
71052	2/27/2007	Baker's Pro...		P71052
71135	12/15/2007	Baker's Pro...	Our Truck	P71052
71048	3/11/2007	Baker's Pro...		P71048
71047	1/6/2007	Baker's Pro...		71047
71088	2/12/2007	Cole Home...	Our Truck	
71086	5/24/2007	Cole Home...	Our Truck	

You can rearrange and select the columns in the grid. Drag a column heading to the location that you wish, to rearrange the order. You can also remove some of the columns (or add others). Right click on the headers to open a menu and select *Column Chooser*. A “Customization” window appears – you can drag column headings to this window to remove them, or drag them from the window to the grid to add them.



Selecting Multiple Lines

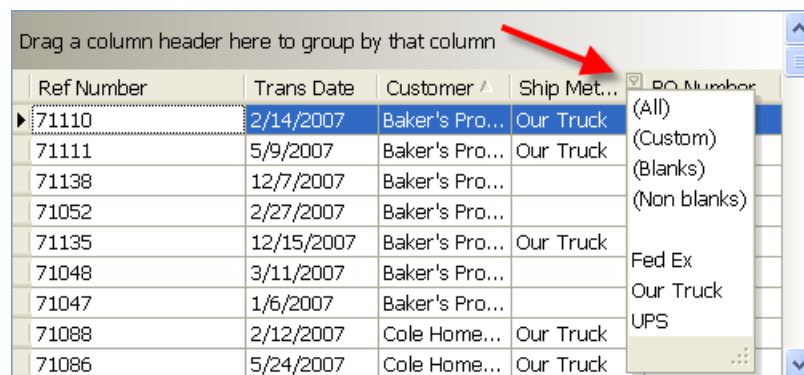
In some CCRSoftware programs you will have an option to “process” *all* or *selected* items in the grid. You can select items in the grid by:

- Clicking on a single line to select it (the line is highlighted)
- Clicking on a single line, holding the shift key down, then clicking on another line to select all lines in that range.
- Clicking on a single line, holding the ctrl key down, then clicking on another line to select each line that you click on.

Grid Filtering

A very powerful feature to select certain lines is to use *filtering* to show only specific rows. There are two ways you can filter.

If you hold the cursor over a column heading you will see a small mark appear next to the heading. If you click on this it will open a window that will show a listing of the values that are found in that column.



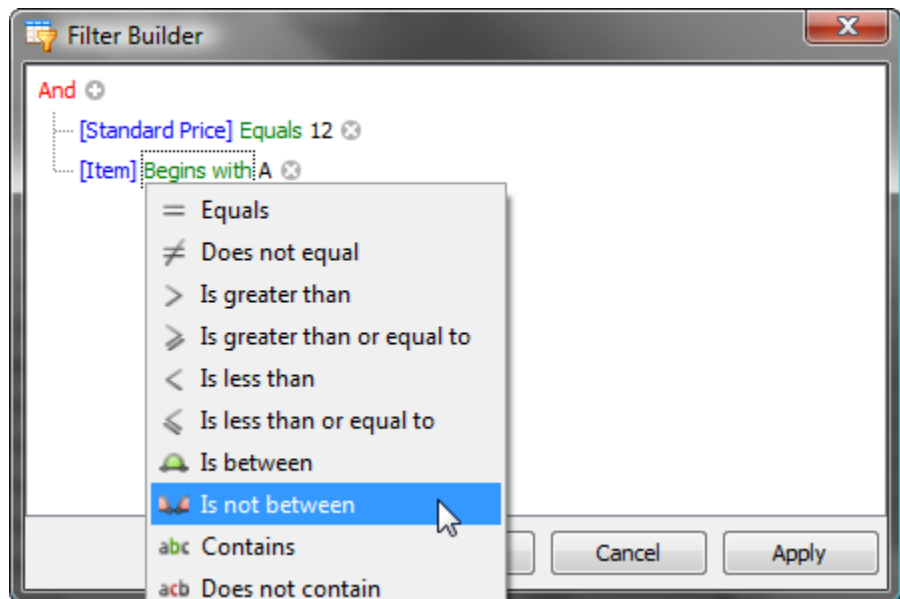
If you select one of the options from that list, this will apply a “filter” to the grid, showing only those items that match. In the sample below we have selected “Our Truck” as the filter. Note that the filter value shows at the bottom of the grid – you can click on the red “X” there to remove the filter.

Drag a column header here to group by that column

Ref Number	Trans Date	Customer ^	Ship Met... ▾	PO Number
71110	2/14/2007	Baker's Pro...	Our Truck	
71111	5/9/2007	Baker's Pro...	Our Truck	
71135	12/15/2007	Baker's Pro...	Our Truck	P71052
71088	2/12/2007	Cole Home...	Our Truck	
71086	5/24/2007	Cole Home...	Our Truck	
71087	4/16/2007	Cole Home...	Our Truck	
71084	5/18/2007	Cole Home...	Our Truck	
71085	6/7/2007	Cole Home...	Our Truck	

✕ ✓ ([Ship Method] = 'Our Truck')

If you want a more complicated filter, right click on the column headings to get a menu and select the *filter editor*. This opens a window that lets you create more complicated filters.



Grouping

You can group the orders based on the values of a column by dragging the column header to the top portion of the grid.

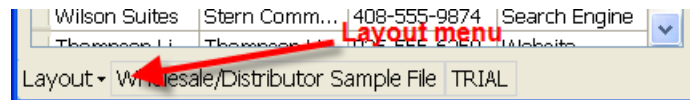
Ship Method ▲			
Ref Number	Trans Date	Customer ▲	PO Number
▶ + Ship Method:			
+ Ship Method: Fed Ex			
+ Ship Method: Our Truck			
+ Ship Method: UPS			

In this example we dragged the “ship method” column heading to the group bar. The records are grouped by ship method – each value shows in the left column. You can expand the list by clicking on the + symbol.

Saving the Grid Layout

If you modify a grid layout and then exit the program, the next time that you run the program the grid layout will revert to the normal setting.

You can save the grid layout as the “default” layout if the *Layout* menu shows in the lower left of the program window. If this is visible, click *Layout* and then *Save Layout*. The current layout is saved *for this workstation* and will be used the next time you open this window.



You can also select *Reset* to set the layout back to the original setting.

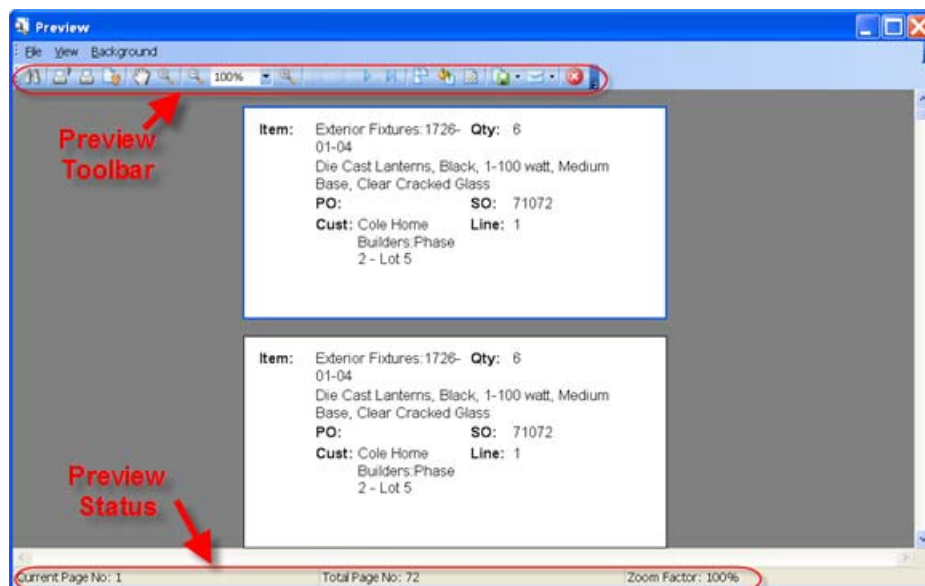
Resetting Grid Layouts

There are times when you will want to “reset” the grid layout. For example, you may have made a number of changes but want to start over. To do this, open the window and select *Layout*, and then *Reset*. Close the window, and the next time you open it the window/grid will be set to the “factory” settings.

Sometimes you will want to reset all of the grid/window settings for the program. If you install an updated version of the program that has a number of new features you might not be able to see all of the new features if you have saved a window/grid layout before you updated. In this case you would want to reset all of the settings. Select *Help* from the main menu, then *Tech Support*. From this menu select *Clear all saved grid layouts*, which resets all of the layouts for this particular workstation.

Report Preview

All CCRSoftware programs use a common printing function. When you print a report the *Preview* screen opens. This provides you with a view of the report before it is printed, and provides a number of options.









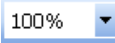












From this screen you can print your report. For the most part you will be using the *Print* and *Print Direct* options. *Print Direct* will send the report to the Windows default printer without asking any questions. *Print* will open a print control dialog that lets you select the printer, set preferences, and select the pages to print. Another useful option is *Export Document*, which allows you to send the report to an external format such as a PDF file (without requiring that you add a PDF printer driver to your workstation).

Please be sure that you are printing the report to a printer that matches the report you have selected. For example, if your Windows default printer is a laser printer, and you select a Zebra formatted label, you should use the *Print* icon and select your Zebra printer.

Note that the icons shown in the program may vary slightly from what is shown in this table.



Button	Description
 Print	This will open the Windows Print dialog, where you can select the printer to use and set various options (such as limiting the pages to print).
 Print Direct	Prints the report directly to the default Windows printer, without letting you set any options
 Page Setup	Invokes the Page Setup dialog, where you can specify printer options. It is usually best to use the <i>Print</i> option and set the printer options there.
 Find	Invokes the Find dialog used to find text in the document's preview.
 Hand Tool	Enables the hand tool which allows pages to be moved in the document's preview.
 Magnifier	If pressed, enables autozoom mode, where clicking on the report will set the zoom factor to display an entire page.
 Zoom In	Increases the current zoom factor.
 Zoom Out	Decreases the current zoom factor.
 Zoom	Specifies the current zoom factor from a popup menu.
 First Page	Moves selection to the first page within the range of report pages and scrolls to it if necessary.
 Previous Page	Moves selection to the previous page within the range of report pages and scrolls to it if necessary.
 Next Page	Moves selection to the next page within the range of report pages and scrolls to it if necessary.
 Last Page	Moves selection to the last page within the range of report pages and scrolls to it if necessary.
 Multiple Pages	Invokes the Multiple Pages dialog, which allows you to specify the number of pages shown in the preview window.
 Background	Invokes the Color system dialog to specify a report's background color.
 Watermark	Invokes the Watermark dialog to specify the document's watermark. You can enter text, or use a picture, to print as a “background” to the information.
 Export Document	Specifies the exporting method and exports the document to the format specified. You can export the document as a PDF file, a text document, a CSV (comma separated text) file, an Excel document, a Rich Text document, or as a graphic file.
 Send Document	Exports the document to the specified format, creates a new e-mail in the default system mailer and attaches

Button	Description
	the exported document to the e-mail.
 Close Preview	Closes the preview form

At the bottom of the screen you will find the *Preview Status*.

Field	Description
Current Page No: Current Page	Contains the number of currently selected report pages.
Total Page No: 7 Total Page Count	Contains the number of pages in the previewed report.
Zoom Factor: 10% Zoom Factor	Contains the zooming factor which is currently applied to the previewed report.

Special Notes About Printers

Zebra Label Printers

Zebra label printers such as the LP 2844 are very commonly used in small businesses to print labels for a variety of situations. This printer is often used, for example, to print UPS shipping labels. There are a few “issues” with this printer, however.

It is not clear if these problems are due to problems in the printer itself, the Windows printer driver, or the preview/printing program.

When you use the *Print* button in the preview window (as opposed to the *Print Direct* button) and select a Zebra printer, there is a *Preferences* button that you can click on to set a variety of printer preferences. We recommend that you do not click this button. If you do so, even if you don’t change any preferences, you may find that the labels that you print may not print correctly. We believe that there is a problem in the Zebra Windows printer driver (as of 8/15/2006) that interferes with the program. Typically you will see the labels printing in the wrong orientation with the wrong margins.

If you want to change printer preferences we suggest that you do so through the Windows control panel.

Report Designer

We welcome feedback on this document – if there is a feature that is not clear, let us know!

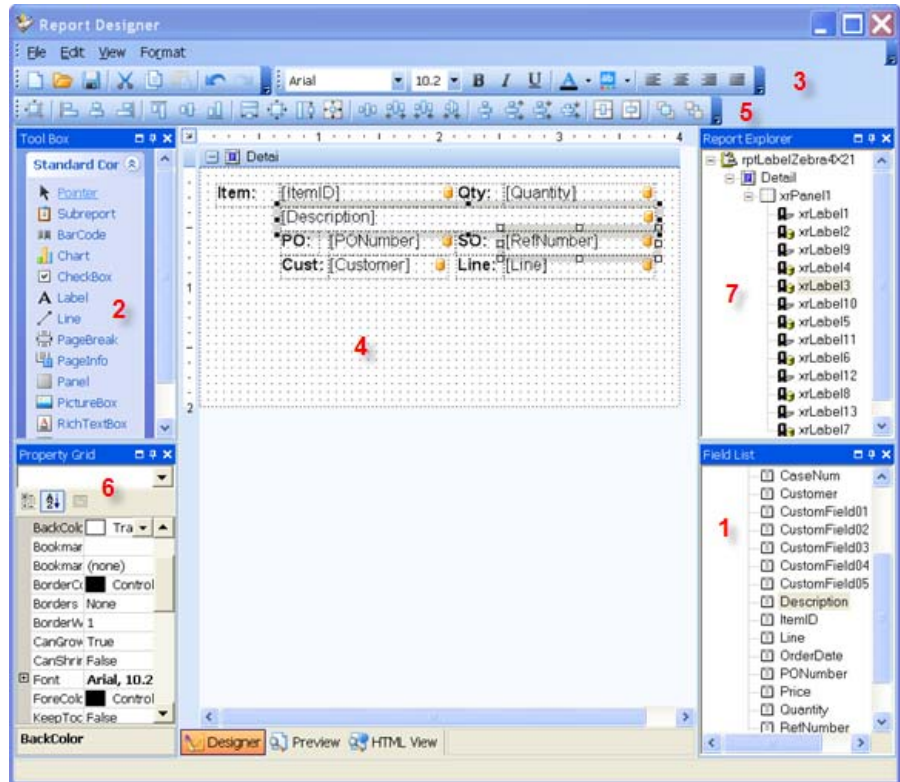
CCRSOFTWARE programs use a standard report generation feature which provides you with the ability to modify the format of the reports. This chapter describes how to use the designer.

When you modify a report you can save the new layout to a disk file, with a file type of *repx*. Once saved, you can open the report by selecting *Custom* as a report type, and then *Print*.

In addition, you can have CCRSoftware design an custom report layout for you. Contact our sales department for details. You would be supplied with a custom *repx* file that you can use to generate reports.

The report designer is a complicated program to work with. The following instructions give you a general overview of how to design custom reports.

Designing a report from scratch is a complicated process. It is much easier to take an existing report and modify it to your needs.



The basics are to:

1. Describe the layout of the label page (size, number of columns, etc.).
2. Describe the layout of the label itself (this will be referred to as a “panel”).
3. Add “controls” to the report (labels for the most part, or other features).
4. “Bind” the controls to a field in the database.

The report designer has a number of elements that you can use to design the report.

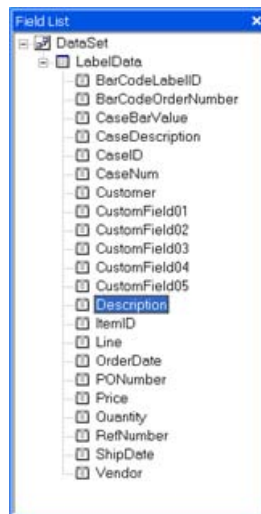
Designer Elements

#	Designer Element	Short Description
1.	Field List	The Field List tree shows the structure of the data source which is bound to the report currently being edited in the Designer, and is used to bind report controls to data.
2.	Toolbox	The toolbox contains all the report controls and is used to drag and drop new controls onto the report's area.
3.	Formatting Toolbar	This contains buttons for manipulating text. Note that this toolbar can also be used when a control's text is edited via the In-Place editor.
4.	Design Panel	The main element in the Designer which allows a report's layout to be edited. It contains two rulers, design and preview tabs, a status panel and the current report's surface, including its bands and controls.

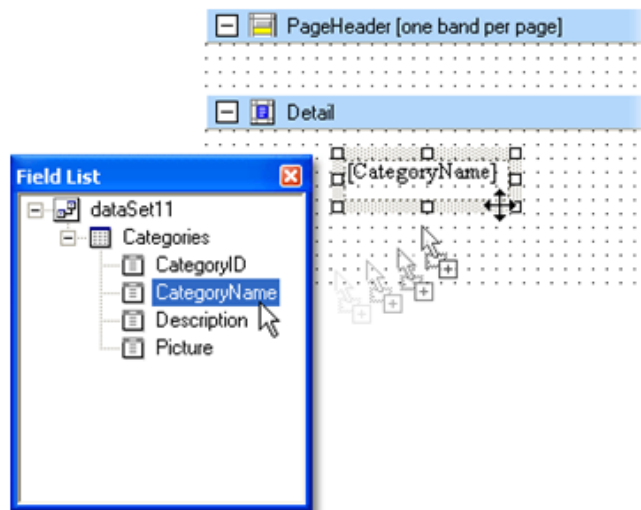
5.	Design Toolbar	This allows the size and location of groups of controls to be changed. Also this toolbar contains buttons which provide the ability to save and load report layouts.
6.	Property Grid	This window is used to change some of the properties of the report elements (bands and controls).
7.	Report Explorer	The Report Explorer shows a report's structure in a tree form and provides easy navigation through the report.

Field List

The Field list can be used for two purposes: adding new controls to the report that are “bound” to fields in the data record, or binding existing controls to database fields.

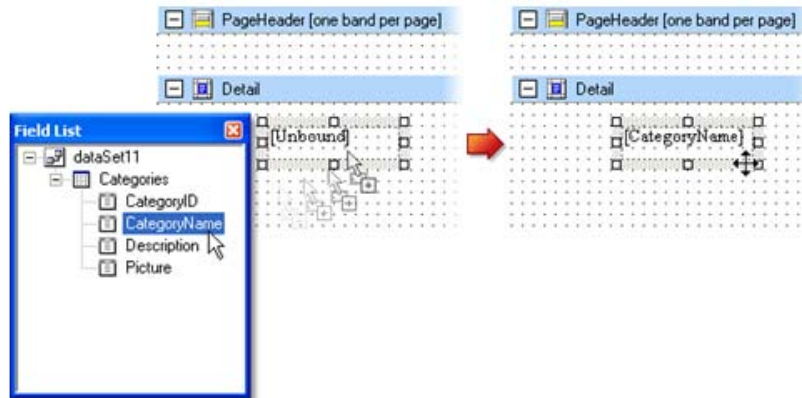


To add a new bound report control simply click the desired field item in the Field List window, and then drag and drop it onto the report panel. Then a Label control bound to the selected data field will appear. A **Label** control is the most commonly used – it will display the data in the database field that it is bound to.



If you *right* click on the field item and drag it to the report panel, you will be given a choice of the type of control to add.

To bind an existing report control click the desired field item in the Field List window, and then drag and drop it onto the report control. This control will then be bound to the selected data field.

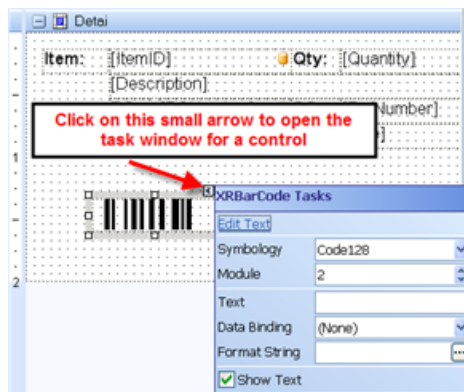


Toolbox

The Toolbox provides you with a number of “controls” that you can add to a report by dragging them to the panel. The Report Designer provides a number of controls, many of which you will not be able to use in simple reports.



When a control is selected (by clicking on it) you can display the “task window” by clicking on the small arrow at the upper right corner of the control. The task window allows you to set various features of the control.



The primary controls that you will use are:

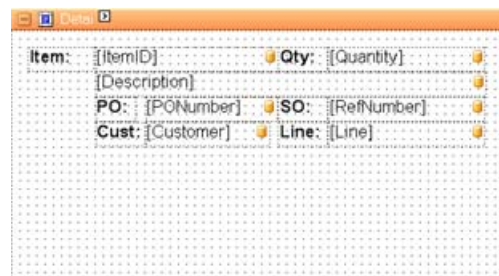
- **Label:** This displays text. If you bind it to a data field, it will display the value of that field. If you leave it “unbound” then you can enter any text that you wish. This is useful to put a title to any fields that you display.
- **BarCode:** You can use this to add a bar coded representation of any field in the database. Be sure to make the size of the bar code control large enough to handle the data that you will be displaying. See the discussion of bar code controls at “[Bar Codes](#)” on page 100.
- **Line:** This allows you to draw lines on the report/label.

Formatting Toolbar



You can use this to change the font properties of a selected control.

Design Panel



This is the where you will be placing the controls to design the report/label.

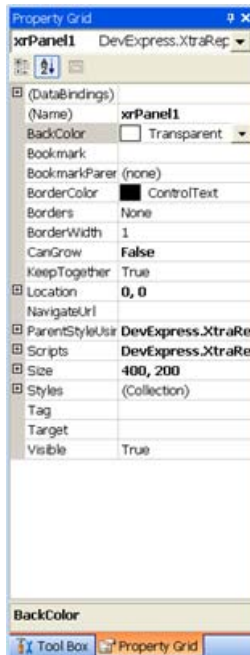
Design Toolbar



This allows you to control the alignment of groups of controls.

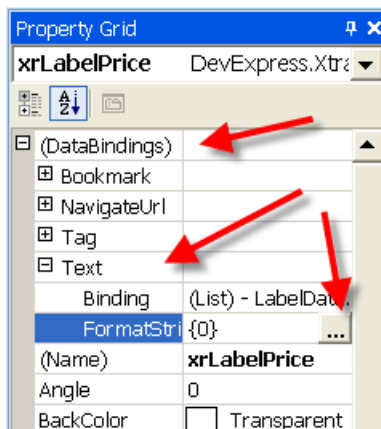
Property Grid

Every feature in the report has “properties” – settings that control it’s format and appearance. Click on a report, panel or control, and you can see the properties of the selected feature.

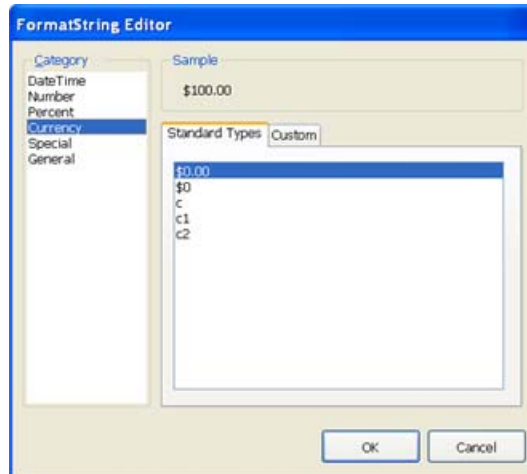


Field Formatting

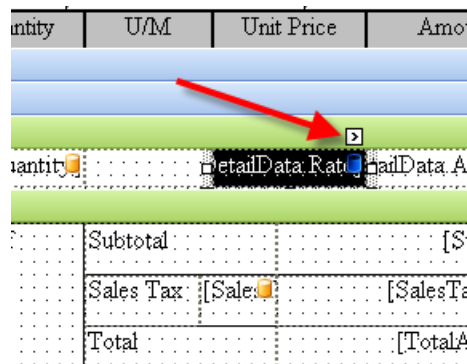
You can apply special formatting to fields, such as changing a numeric field to display in currency format. Click on the field in the *Report Explorer*, then look at the *Property Grid*. Locate the *DataBindings* option and expand it by clicking on the +. Within *DataBindings* select *Text* and expand that. Look for *FormatString* – click on that line and click on the ellipsis icon (...).



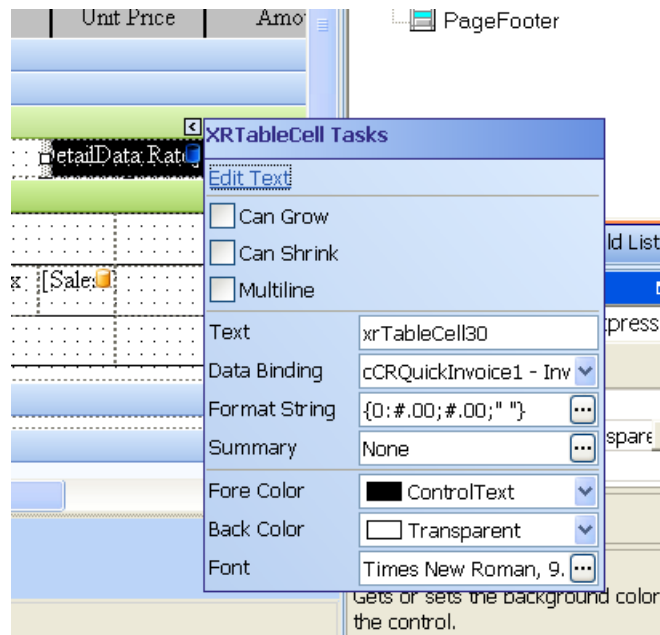
This will open a *FormatString Editor* that allows you to specify the format of the field. There are a number of standard formats already prepared that you can select from, or you can create your own. In the sample below we have selected the Currency option.



You can also click on the individual field as show on the report designer - select the field and click the “>” sign that appears in the upper right corner.

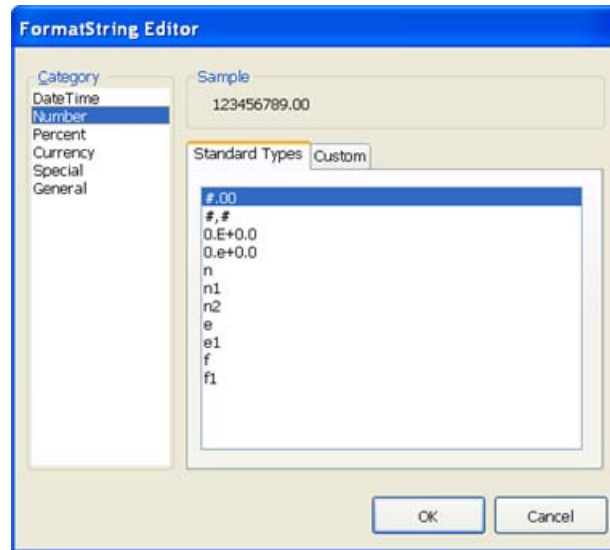


A menu of field formatting tasks will open.



The *Format String* field controls how values will display. This can be blank for a normal text field. Usually you will use this for numeric fields.

Click the ellipsis (...) next to the field to get a dialog that will let you pick common field formats.



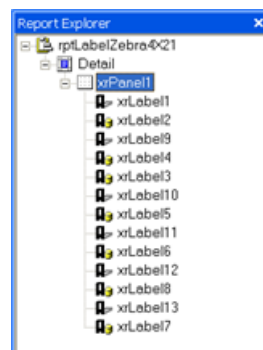
Special Formatting

There are times when you want to have a numeric field only print if there is a non-zero value. To do that, enter the following format string:

`{0:#.00;#.00;" "}`

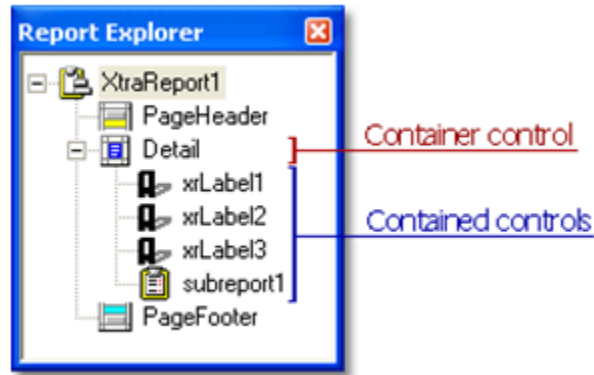
Report Explorer

The Report Explorer lists the elements that are included in the report or label.

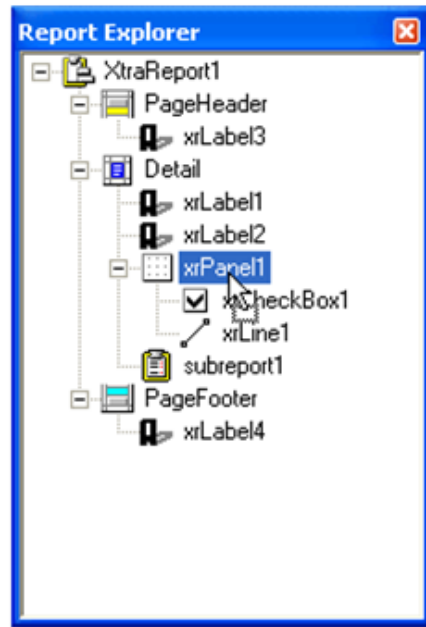


The Report Explorer displays a created report's structure using a tree view. Report elements in the tree view are displayed in a vertical order which corresponds to their vertical position on the report. When you choose an element in the Report Explorer tree the selected report element receives focus, so you can edit this element and its properties.

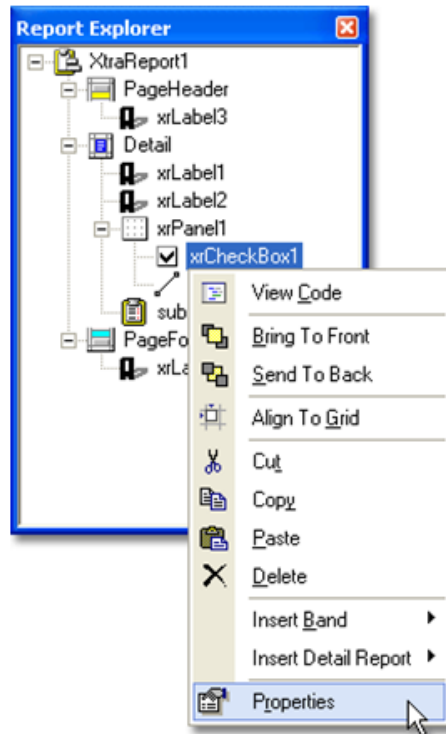
Usually a standard report consists of several “bands” containing some report controls. For most labels there will be a single band named “Detail”. All child nodes in the tree view of the Report Explorer window are contained in their corresponding parent nodes. The picture below illustrates these relations.



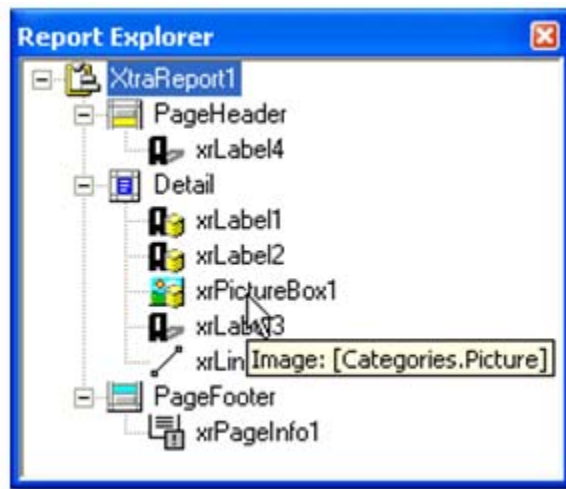
The Report Explorer supports drag&drop. This means that items representing report controls can be dragged and dropped either onto band or panel items. Hence, the corresponding report control will then be moved in the report.



Also any item in the **Report Explorer** tree can be right clicked to invoke the context menu for this report element. Use this menu to quickly perform some commonly used functions for the report element. An example of this menu is shown in the image below.



If there are any bound controls in a report then they will be marked in the **Report Explorer** with the yellow database icon as shown in the image below. Note, that when a mouse pointer hovers over a bound item a tooltip displaying the binding information is shown.



Custom Fields

QuickBooks provides a feature called “custom fields” that allows you to define a number of data fields in certain places in the QuickBooks database that you can use in certain lists, and sometimes in various forms. You can add fields like a “bin

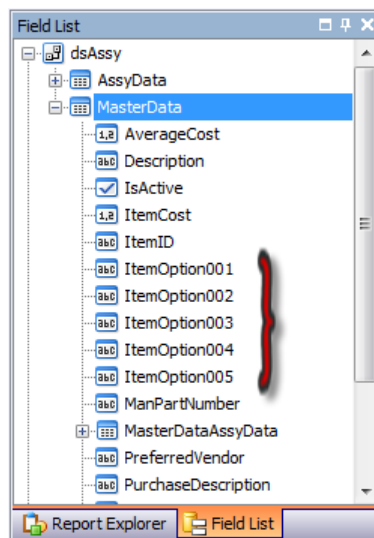
number” field to the item list, for example. Once there you can add that field as a column in a purchase order or invoice.

For a detailed explanation of how to work with custom fields in QuickBooks see our “Practical QuickBooks” blog article at <http://qbblog.ccrsoftware.com/2008/07/custom-fields-i.html>.

CCRSoftware products allow you to work with custom fields in our report designer. Unfortunately the fields will not show up in the *field list* with the names that you have assigned in QuickBooks. Depending on the CCRSoftware product you are using, custom fields will be shown with one (or more) of the following names – numbered “001” and higher:

- **ItemOption:** Custom fields found in the item list
- **CustomerOption:** Custom fields found in the customer list.
- **VendorOption:** Custom fields found in the vendor list.
- **OrderOption:** Custom fields found in the header of a purchase orders, sales order, invoice or estimate. These are the fields that you have established in the customer or vendor list but have included in the order header (or footer).
- **DetailOption:** Custom fields used as a column in a purchase order, sales order, invoice or estimate. These are the fields you have established in the item list but have included as a column in the order.

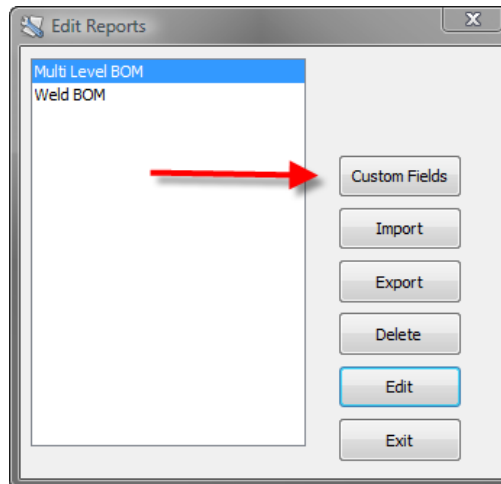
The fields will be numbered sequentially. For example, “ItemOption001” through “ItemOption005”.



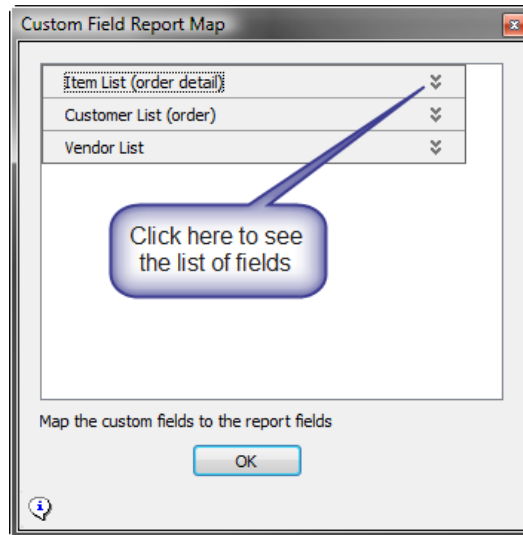
Mapping Custom Fields

Since we have used “generic” names in the report designer for the custom fields, how do you know which report field matches the custom fields you have defined? To resolve this problem we have created a “custom field mapping” feature.

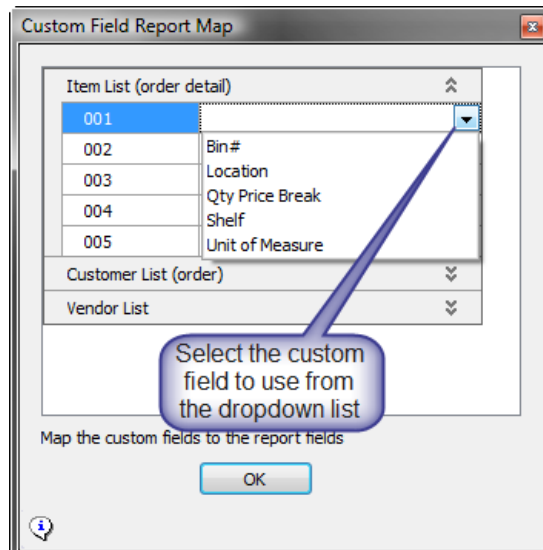
In each CCRSoftware product main menu there is a *Forms* selection which will open the *Edit Reports* window for each type of report the program supports. This window has a *Custom Fields* button that lets you map the custom fields in your QuickBooks company file with the field names in the report designer.



There are three lists of custom fields: *Item List*, *Customer List* and *Vendor List*.



When you expand the list you want to work with you will see the numbered fields, and you can assign each numbered field to a custom field from the dropdown list.

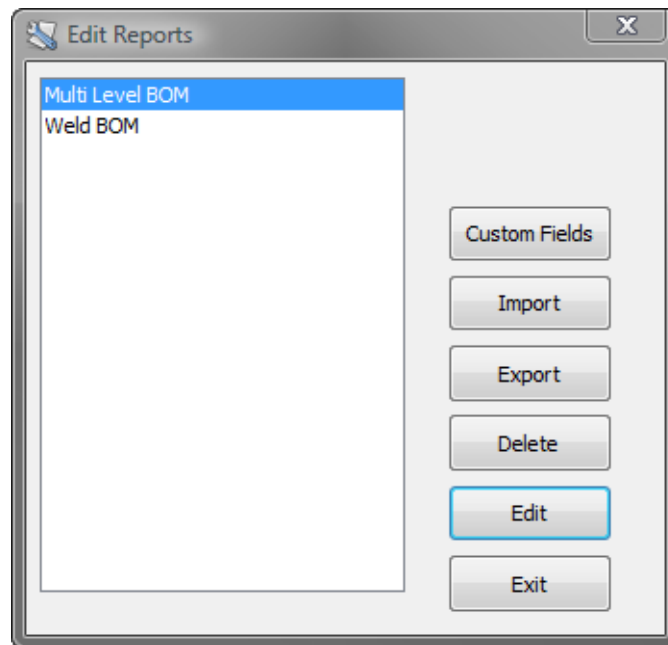


Keep in mind that if you change your custom field list in your QuickBooks company file you must also make the change here.

This mapping is used by all reports in this specific CCRSoftware application for this specific QuickBooks company file. Each company file will have its own mapping, each CCRSoftware product will have its own mapping, but every report in this combination of CCRSoftware product and QuickBooks company file will share the same mapping.

Managing Reports

In the *Edit Reports* window you have several functions that can be used to manage your reports.



Custom Fields

This button allows you to “map” the custom fields in your QuickBooks company file to the field names provided in the report designer, as described in the prior section.

Import

Modified reports are saved in a file with a file type of “repx”. CCRSoftware can provide you with customized reports, and may provide modified reports that can be downloaded from our web page or product blog. For these reports to be accessible in your program they must be copied to the *common* folder. The easiest way to do this is to use the *Import* button – this opens a file dialog that lets you locate the “repx” file that you have downloaded to your computer, and then moves the file to the appropriate location.

Export

If you have created a modified report and you want to send it to another company, or to CCRSoftware, you can use the *Export* button. This will copy the report files (with

a file type of “repx”) to a folder in your “My Documents” folder on your local computer. Note that this will copy all customized reports.

Delete

If you have created a report that shows on the *Edit Reports* list but you wish to delete it, select it in the report list and click the *Delete* button. Please be sure that you really want to delete this report! Note that the “built in” reports cannot be deleted.

Edit

This function allows you to edit a report definition, as described in the *Report Designer* chapter. If the report is one of the “built in” reports you must use the *save as* feature to save the report with a new name.

Bar Codes

Bar codes can be tricky to implement on a report or label. There are many considerations, such as the “symbology” to use (the kind of bar code), the size and spacing, the content of the field, and so forth.

There are two ways that a bar code can be added to a report or label – using a *BarCode* control, or using specially formatted data fields.

Some fields in the Field List are prepared for bar code use. These will have names that start with “BarCode”, such as *BarCodeLabelID*. These are bar code images that have been prepared by the program in a special way. When you add one of these fields to a report or label you must define it as a *PictureBox* control to display it correctly. You can stretch the field to an appropriate size. Fields that are prepared in this format are usually setup up to use the “Code 39 Extended” symbology. You cannot change the symbology of this field.

You can also bar code any other field in the database by using a *BarCode* control. You can select the symbology of the control. Be careful which symbology you use – some cannot display lower case letters or special symbols. We recommend that you use “Code 39 Extended”, which is a very flexible symbology.

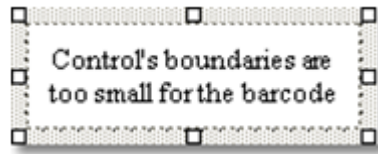
While a *BarCode* control provides you with flexibility in specifying the various parameters of the bar code, you may find that it is better to use the specially formatted data fields when possible. The quality of the image, and the ability to resize it to fit the label, are an advantage.

Please note that a full description of bar code symbologies, and the hardware to work with bar codes, is beyond the scope of this document.

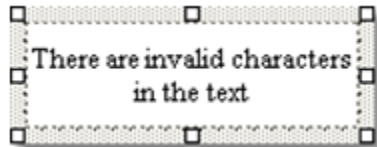
Bar Code Properties

If you use a *BarCode* control there are a number of properties in the *Property Grid* that control the appearance of the bar code.

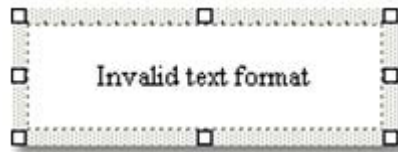
When adjusting a barcode some errors can occur due to incorrect parameters being specified. For instance, if a barcode control is too small to represent the barcode type specified, the following error message will be shown in place of the barcode.



If there any characters in the barcode's text that are not allowed by this barcode type, then the following exception will be shown.



Also, it's necessary to ensure that the text characters meet the text format rules required by the barcode's type. When these characters do not satisfy the required text formatting then the following message will be shown.



Module

This sets the width of the narrowest bar or space, which cannot be less than or equal to 0. The default is 2. Note that this is usually measured in hundredths of an inch, BUT you can change the unit of measure in the Report property *ReportUnit*.

Padding

This sets the size of the spaces between the bar code and the left and right edges of the control. The value cannot be less than or equal to zero. The default is 10. Note that this is usually measured in hundredths of an inch, BUT you can change the unit of measure in the Report property *ReportUnit*. If the size of the spaces between the bar code and the control's left and right edges is set to a value too large, such that it causes the spaces to overlap the bar code or each other, a warning message will appear.

ShowText

If you set this to *true* then the text of the field will be displayed along with (usually under) the bar code itself.

Symbology

There are different ways of encoding information into a bar code. These are referred to as the bar code "symbology". Different symbologies have different characteristics and uses. In some cases they can only display certain characters. You may find that your application requires a particular kind of symbology. NOTE also that some bar code scanning equipment can only work with specific symbologies.

With QuickBooks we often recommend that you use *Code 39 Extended*. This is a fairly common symbology and many scanners work with it. In addition, it has the capability of working with lower case letters and punctuation, which some symbologies won't support. This is important, because the information you encode from QuickBooks will often include these kinds of characters.

The *Symbology* property allows you to specify the format of the bar code. Note that when you select a particular symbology in the property grid, there may be different sub-properties that appear that give you detailed control over the bar code appearance.

Making Compact Bar Codes

If you are trying to print a bar code that takes the smallest amount of room possible, check the following:

- Set *Module* to 1.
- Set *Padding* to 0.
- Set *ShowText* to *false*.
- Look for additional parameters under the *Symbology* parameter for the code symbology you have selected. For example, if you are using *Code 39* or *Code 39 Extended*, there is an additional property *WideNarrowRatio*, which has a significant effect on code density (set it to the smallest value, 2.2).

Bar Code Symbology

Code 39

Code 39, the first alpha-numeric symbology to be developed, is still widely used particularly in non-retail environments. It is the standard bar code used by the United States Department of Defense, and is also used by the Health Industry Bar Code Council (HIBCC). Code 39 is also known as "3 of 9 Code" and "USD-3".

This symbology can only code upper case letters, numbers, and a limited set of punctuation characters.



The following properties should be set to specify a particular barcode of the **Code 39** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or between **2.2** and **3**.

Code 39 Extended

This is a commonly used symbology that is an extension of Code 39, and supports upper and lower case letters, numbers, and all symbols.

It is possible, using the Code 39's "Full ASCII Mode" to encode all 128 ASCII characters. This is accomplished by using the \$, /, %, and + symbols as "shift"

characters. These characters combined with the single character that follows indicate which Full ASCII character is to be used.



The following properties should be set to specify a particular barcode of the **Code 39 Extended** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or between **2.2** and **3**.

Codabar

The Codabar was developed in 1972 by Pitney Bowes, Inc. It is a discrete, self-checking symbology that may encode 16 different characters, plus an additional 4 start/stop characters. This symbology is used by U.S. blood banks, photo labs, and on FedEx air bills. This code supports numbers, the letters A through D (upper case), and a few symbols.



The following properties should be set to specify a particular barcode of the **Codabar** type:

- **StartStopSymbols:** This property is used to specify the first (start) and last (stop) symbols used to code the **Codabar** barcode's structure.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or between **2** and **3**.

Code 11

Code 11, also known as USD-8, was developed as a high-density numerical-only symbology. It's used primarily in labeling telecommunications equipment. The symbology is discrete and is able to encode the numbers **0** through to **9**, the dash symbol (-), and start/stop characters.



Code 93

Code 93 was designed to supplement and improve upon Code 39. Code 93 is similar in that it, like Code 39, can represent the full ASCII character set by using combinations of 2 characters. It differs in that Code 93 is a continuous symbology and produces denser code. It also encodes 47 characters compared to Code 39's 43 characters.



The following properties should be set to specify a particular barcode of the **Code 93** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.

Code 93 Extended

This is an extension of Code 93 that supports all upper and lower case letters, numbers and punctuation.

It is possible, using Code 93's "Full ASCII Mode" to encode all 128 ASCII characters. This is accomplished by using the (\$), (/), (%), and (+) symbols as "shift" characters. These characters combined with the single character that follows indicate which Full ASCII character is to be used.



The following properties should be set to specify a particular barcode of the **Code 93 Extended** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.

Code 128

Code 128 is a very effective, high-density symbology which permits the encoding of alphanumeric data. The symbology includes a checksum digit for verification, and the barcode can also be verified character-by-character allowing the parity of each data byte to be verified. This symbology has been widely implemented in many applications where a relatively large amount of data must be encoded in a relatively small amount of space. It's specific structure also allows numerical data to be encoded at, effectively, double-density.



The following properties should be set to specify a particular barcode of the **Code 128** type:

- **CharSet:** This property is used to specify the character set, from the following choices:

Member Name	Description
CharsetA	The "A" character set will be used for coding a barcode. Generally this is upper case letters, numbers, and some symbols.
CharsetAuto	The character set will be chosen automatically according to the text assigned to the barcode.
CharsetB	The "B" character set will be used for coding a barcode. This should include all printable characters (including lower case letters and symbols).
CharsetC	The "C" character set will be used for coding a barcode. This is limited to numbers and a very limited set of symbols

EAN 8

EAN-8 is the EAN equivalent of UPC-E in the sense that it provides a "short" barcode for small packages. This is primarily used in Europe. This code supports numbers only.



EAN 13

EAN-13, based upon the UPC-A standard, was implemented by the International Article Numbering Association (EAN) in Europe. This code supports numbers only.



EAN 128 (UCC)

UCC/EAN-128 was developed to provide a worldwide format and standard for exchanging common data between companies. While other barcodes simply encode

data with no respect for what the data represents, UCC/EAN-128 encodes data and encodes what that data represents.



The following properties should be set to specify a particular barcode of the **EAN 128** type:

- **CharSet:** This property is used to specify the character set. Please refer to the table under **Code 128**.
- **FNC1Substitute:** This property is used to specify the symbol (or set of symbols) in the **EAN 128** barcode's text which will be replaced with the **FNC1** functional character when the barcode's bars are drawn.
- **HumanReadableText:** This property indicates whether parenthesis should be included in the **EAN 128** barcode's text.

Industrial 2 of 5

Standard 2 of 5 is a low-density numerical symbology that was introduced in the 1960s. It has been used in the photofinishing and warehouse sorting industries, as well as to sequentially number airline tickets. This code supports numbers only.



The following properties should be set to specify a particular barcode of the **Industrial 2 of 5** type:

- **CalcCheckSum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or greater than **2.5**.

Interleaved 2 of 5

Interleaved 2 of 5 is a higher-density numerical symbology based upon the Standard 2 of 5 symbology. It is used primarily in the distribution and warehouse industry. This code supports numbers only.



The following properties should be set to specify a particular barcode of the **Interleaved 2 of 5** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or greater than **2.5**.

Matrix 2 of 5

Matrix 2 of 5 is a linear 1D barcode. Matrix 2 of 5 is a self-checking numerical-only barcode. Unlike the Interleaved 2 of 5, all of the information is encoded in the bars; the spaces are of a fixed width and used only to separate the bars. Matrix 2 of 5 is used primarily for warehouse sorting, photo finishing, and airline ticket marking.



The following properties should be set to specify a particular barcode of the **Matrix 2 of 5** type:

- **CalcChecksum:** This property is used to specify whether to calculate a checksum for the barcode or not. The default value is **true**.
- **WideNarrowRatio:** This property is used to specify the density of a barcode's bars. The value assigned should be equal to or greater than **2.5**.

MSI/Plessey

MSI was developed by the MSI Data Corporation, based on the original Plessey Code. MSI, also known as Modified Plessey, is used primarily to mark retail shelves for inventory control. MSI is a continuous, non-self-checking symbology. While the length of an MSI barcode can be of any length, a given application usually implements a fixed-length code. This code supports numbers only.



The following properties should be set to specify a particular barcode of the **MSI** type:

- **Checksum:** This property is used to specify a checksum for the barcode. It should be set to an appropriate value per the following chart.

Member Name	Description
DoubleModulo10	The checksum is calculated with respect to base 10 twice.

Modulo10	The checksum is calculated with respect to base 10.
None	The checksum is not calculated.

UPC-A

The "UPC-A barcode" is by far the most common and well-known symbology, at least in the United States. An UPC-A barcode is the barcode you will find on virtually every consumer good on the shelves of your local supermarket, as well as books, magazines, and newspapers. It is commonly called simply a "UPC barcode" or "UPC Symbol." This code supports numbers only, and has very specific requirements as to how the information is formatted.



UPC-E0

UPC-E is a variation of UPC-A which allows for a more compact barcode by eliminating "extra" zeros. Since the resulting UPC-E barcode is about half the size as an UPC-A barcode, UPC-E is generally used on products with very small packaging where a full UPC-A barcode couldn't reasonably fit.



UPC Supplemental 2

2-digit supplemental barcodes should only be used with magazines, newspapers and other such periodicals. The 2-digit supplement represent the issue number of the magazine. This is useful so that the product code itself (contained in the main barcode) is constant for the magazine such that each issue of the magazine doesn't have to have its own unique barcode. Nevertheless, the 2-digit supplement can be used to track which issue of the magazine is being sold, perhaps for sales analysis or restocking purposes.



UPC Supplemental 5

5-digit supplemental barcodes are used on books to indicate the suggested retail price.



Additional Bar Code Options

There may be cases where you require a bar code symbology other than what is listed here, or in some cases you need to modify these bar codes with features that the symbology supports but is not supported here. In this case please contact CCRSoftware to discuss your special needs.

In addition to the codes that are listed above, it is possible to generate the following codes on a special basis for specific data fields:

- Code 16K



- DataMatrix ECC200



- ISBN (Bookland EAN)



- PDF417



- Planet



- Postnet



Technical Information & Specifications

Operating Requirements

These requirements apply to the general CCRSoftware family of products. Individual applications may have more restrictive requirements – please refer to the installation section.

- **QuickBooks Version:** Unless specified otherwise in the introductory chapter, all CCRSoftware programs work with the US version of QuickBooks Pro and Premier, 2006 edition or later, and the US version of QuickBooks Enterprise 6 or later. If you have an older edition please contact us for information about compatibility.

Some features of the program might not be available in some versions of QuickBooks. For example, even though the *unit of measure* feature is supported by Premier 2007, that feature cannot be accessed by third party programs until Premier 2008.

Contact us for information on compatibility with Canadian versions of QuickBooks.

Other Non-US versions are not currently supported

- **QuickBooks Edition/Version:**
 - **US Edition:** Unless specified otherwise in the introductory chapter, all CCRSoftware programs work with the US edition of QuickBooks Pro and Premier, 2006 version or later, and the US edition of QuickBooks Enterprise, version 6 or later. Every workstation (computer) that will run a copy of this program must have the appropriate version of QuickBooks® installed.

Some features of the program might not be available in some versions of QuickBooks. For example, even though the *unit of measure* feature is supported by Premier 2007, that feature cannot be accessed by third party programs until Premier 2008.
 - **Canadian Edition:** CCRSoftware applications generally support the Canadian edition of QuickBooks Pro and Premier 2009 and later, and the single currency version of QuickBooks Premier 2008. Compatibility with the Canadian 2009 version of QuickBooks Enterprise has not been determined but it is very

likely. If you have an older version contact our technical support staff for information. Note that some CCRSoftware applications might not support PST/GST tax information.

- **UK Edition:** CCRSoftware applications generally support the UK edition of QuickBooks Premier 2008 and later. UK QuickBooks Pro compatibility has not been tested but it is very likely. Note that some CCRSoftware applications might not support VAT tax information.

Other Non-US versions are not supported

- **Microsoft Windows:** This program has been tested with **Microsoft Windows XP Pro** and **Windows Vista**. Vista is only supported with a 2007 or later version of QuickBooks.
- **Microsoft .NET Framework 2.0:** If you have a 2008 (or later) US version of QuickBooks, or are running on Windows Vista, the proper version of the .NET Framework is already installed on your computer, as QuickBooks requires it. If you do not have this installed already our installation program will install it for you.
- **Computer Display Resolution:** Your computer should have a display resolution of at least 800 X 600 (if you are running QuickBooks you should have this, or better).

Parameter Files

CCRSoftware applications maintain several XML based parameter files to retain various preferences and settings. The locations of these parameter files may depend on the version of QuickBooks® that you are using, as well as decisions that you make when installing the programs.

Note that these are simple text files, BUT we caution you to not edit them directly. Improperly formatted changes could interfere with the proper operation of the program.

The location of these parameter files can be found by selecting the *Status* option in the *Help* menu, and scrolling down to the *Paths* section.

CCRQ.XML

This is the main CCRSoftware parameter file. When you run the program for the first time it will ask you where to create this file. This should be stored in a location that is accessible by ALL users in a multi-user system, as the information here should be shared by all. This is the *Common Path*.

Typically you will place this file in the same location as the QuickBooks® company data file. The program will suggest a location, but you can change this as you wish.

- **If you are using QuickBooks® 2007 (US) or later:** The default location will be “C:\Documents and Settings\All Users\Documents\Intuit\QuickBooks\Company Files”
- **If you are using a version of QuickBooks® older than the 2007 release:** The default location will be “C:\Program Files\Intuit”

CCRQUSER.XML

This parameter file contains information specific to a particular workstation. The file is stored at C:\Documents and Settings\All Users\Application Data\Computer Consulting Resources, typically. You will not have an option to select the location of this file.

This will contain a reference to the location of the CCRQ.XML file, as well as parameter information for any program window preferences that you save. This is the *Local Path*.

Custom Fields

QuickBooks provides a facility for storing additional information in various records, referred to as *custom fields*. There are two ways that custom fields can be established in your company records – by explicitly creating them yourself, or by the actions of a program that can create the fields that it needs.

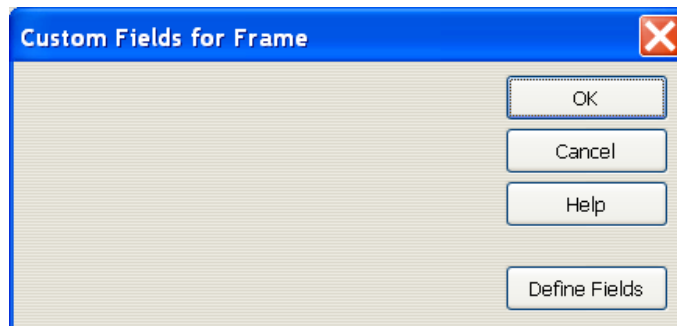
This chapter describes how to set up custom fields manually.

Custom Fields In The Item List

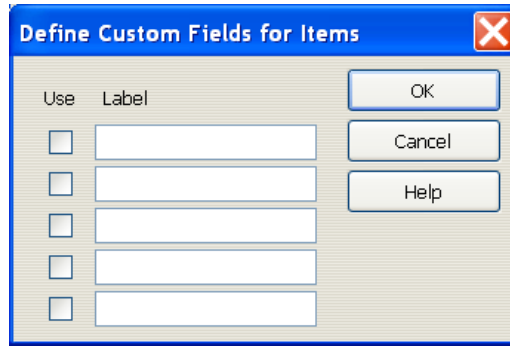
You can create custom fields for records in the item list, which then are available for transactions such as invoice details.

Note that there is a restriction on the number of custom fields that you can add to the item list. This may be a problem for some users, if you have already used all of the custom fields that are available. If you run into this problem, please contact the CCRSoftware technical support department.

Select *Item List* from the *Lists* menu in QuickBooks. Double click on any inventory item. From the *Edit Item* window, click on the *custom fields*. You will see a dialog box similar to the following:



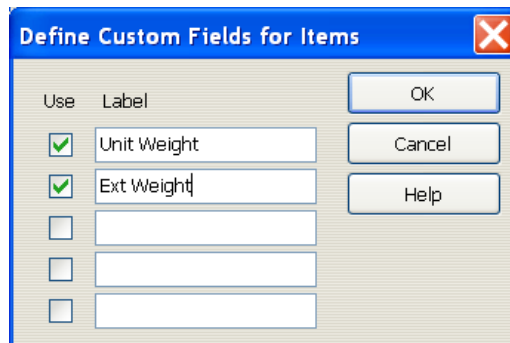
Click on *define fields*. You should see something like the following:



DO NOT change labels on existing fields unless you are CERTAIN that you are not using them for another purpose

It is possible that some of these fields will already have values set in them. Hopefully you will have enough unused fields. If you do not have two unused fields, contact the CCRSoftware technical support department for assistance.

Put a check mark in the *Use* box by one of the unused fields, and enter a *Label* for the field – the name that will be used to refer to this field. For example, “Unit Weight”. If you are adding a field needed by a program, the spelling must be precisely the same as the documentation lists.



Click on *OK* to save the field definitions.

Item List Custom Fields in Templates

Once you have defined a custom field in the Item List, you can now add this field as a column in the detail section of a purchase order, invoice, sales order or estimate.

When you enter information in the custom field in the *item* record, that information is associated with the item record itself. When you create a detail line in an order that uses this item record, that value serves as a default value for the custom column in the order. You can change this value in the order, it does not change that value in the item record itself. Note also that if you subsequently change the value of the custom field in the item record, it does not change the value of that custom field in any orders that already exist.

QuickBooks is very picky in how it treats custom fields – if you add the custom field as a column in the order template after the order was created, that field will not contain any information from the custom field in the associated item record.

Custom Fields In The Customer List

You can create custom fields for records in the customer list, which then are available for transactions such as invoices. Select *Customer: Job List* from the *Lists* menu in QuickBooks. Double-click on any customer. At the *Edit Customer* window

click on the *Additional Info* tab, and then click on the *Define Fields* button. You will see a dialog box similar to the following:

Label	Customers:Jobs	Vendors	Employees
Last Review Date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Birthday	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pager Number	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ship Method	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ship Vendor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ship Account #:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DO NOT change labels on existing fields unless you are CERTAIN that you are not using them for another purpose

It is possible that some of these fields will already have values set in them. Hopefully you will have enough unused fields. If you do not have two unused fields, contact the CCRSoftware technical support department for assistance.

Add a field label, and place a check in the *Customers: Jobs* column. If you are adding a field needed by a program, the spelling must be precisely the same as the documentation lists. We have added “Total Weight” in the example below.

Label	To be used for		
	Customers:Jobs	Vendors	Employees
Last Review Date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Birthday	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pager Number	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ship Method	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ship Vendor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ship Account #:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Weight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Buttons: OK, Cancel, Help

Click on *OK* to save the field definition. You will see the field on the screen for the customer record.

Customer List Custom Fields in Templates

Once you have defined a custom field in the Customer List, you can now add this field as a field in the main section of an invoice, sales order or estimate.

When you enter information in the custom field in the *customer* record, that information is associated with the customer record itself. When you create an order that uses this customer record that value serves as a default value for the custom field in the order. You can change this value in the order, it does not change that value in the customer record itself. Note also that if you subsequently change the value of the custom field in the customer record, it does not change the value of that custom field in any orders that already exist.

QuickBooks is very picky in how it treats custom fields – if you add the custom field to the order template after the order was created, that field will not contain any information from the custom field in the associated customer record.

Custom Fields In The Vendor List

You can also create custom fields in the vendor list, suitable for use in Purchase Orders. The information here is essentially the same as what was shown in the Customer List section above.

Displaying the Custom Fields

From the *Help* menu in this application, select *Status*, and then click the *Custom Fields* button at the bottom. You will see a listing of the custom fields currently set up in the currently open QuickBooks company file.

Custom Fields

Drag a column header here to group by that column

Name	Owner	Type	ObjectType
▶ ExtWeight	0	String	Item
TotalQuantity	0	String	Customer
TotalWeight	0	String	Customer
UnitWeight	0	String	Item

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CCRSoftware



Who We Are

CCRSoftware is the software development division of Computer Consulting Resources. We are an “ISV” or “Independent Software Vendor” specializing in software solutions on computers running versions of the Microsoft Windows operating environment. We focus primarily on inventory control and accounting solutions for small businesses, with a special interest in manufacturing firms. We have been involved in the software industry (focusing on software for inventory control and small business accounting) since 1977.

In recent years we have focused our efforts on software that is compatible with the QuickBooks® product line from Intuit. Our firm is a Gold Developer member of the Intuit Developer Network. Our staff includes at least one **Advanced Certified QuickBooks ProAdvisor**, as a part of our commitment to the QuickBooks® product line.



With our detailed understanding of business accounting and inventory related issues for small businesses and manufacturers, and our long experience in producing user-friendly software, our goal is to help **you** focus on your business rather than fighting with the computer to make it do what you need.

Contact Us

The best way to contact us is via email at sales@ccrsoftware.com. We are always willing to answer questions about our products, as well as to discuss custom software solutions to business problems you may face.

You can also reach us by phone or by fax at (530) 231-5076. Please note that you may find that you will get a quicker response via email.

Glossary of Terms

Assembly

See the description of *Inventory Assembly* below.

Bill of Materials

In the simplest sense, a Bill of Materials (or BOM) is a list of items that are used to manufacture another item, or an Assembly.

Build

In QuickBooks you assemble an item by issuing a "Build". This is a process by which the program will take the component list for an inventory assembly, decrement the appropriate quantity of each component, and increase the quantity of the inventory assembly itself. QuickBooks itself can only perform a "single level" build, just issuing the first level components of the inventory assembly. CCRQBOM can also perform a "multiple level" build, where a build is issued for the inventory assembly, and if any components are themselves inventory assemblies then an additional build is issued for that assembly.

Build Point

In QuickBooks you can define a *build point* for an Inventory Assembly item. This is essentially a minimum stocking level for the item, and if your quantity on hand falls below this point you should build more to keep you stock to this level.

Unlike the *Reorder Point* for an Inventory Part item, QuickBooks does not flag these items in the stock reports if the quantity on hand falls below the *build point*. It is not clear why they ignore this.

Our CCRQBOM product treats the *build point* in the same manner as the *reorder point*.

Component

This is an item that is included in the part list (BOM) for an Inventory Assembly. There will be a quantity associated with this.

Custom Fields

QuickBooks provides this as a way of adding your own information to customers, vendors, and items. You can define the fields in QuickBooks, or the *integrated application* can define them.

There are limits to the number of custom fields that can be added.

First Level Component

An Inventory Assembly can be composed of Inventory Part items or other Inventory Assembly items. These items, directly a part of the Inventory Assembly, are called *first level components*. If one of these items is an Inventory Assembly, including component items, then you have an additional level.

Grid

A “Grid” is a spreadsheet-like view of information with columns and rows. You can modify the layout (appearance) of a Grid, as described in the *Working with Grids* chapter, and save that layout as the default view of the information by clicking on the *Save Options* button.

Group

This is another kind of item which is similar to an Inventory Assembly, except that it will always be broken down into its component parts when you add it to an invoice. It can include other item types other than Inventory Assemblies and Inventory Items.

Inventory Assembly

An Inventory Assembly is one kind of item that you can manipulate in your QuickBooks inventory list. This is a manufactured or purchased item that is composed of multiple inventory part items or other inventory assemblies. It contains a list of component items, which can also be called a Bill of Materials. In QuickBooks the component items can only be inventory items or other inventory assemblies.

Inventory Part

This would be a basic item that can be bought and sold, or used as a part of an Inventory Assembly.

ISV

An “ISV” is an “Independent Software Vendor”. That is, a company that writes software but that is independent of the major corporations like Microsoft. In the context of QuickBooks, this would be a company that writes software that either integrates with QuickBooks, or shares information with it in some fashion.

Mapped Drive

In Windows you can assign a drive letter to a folder on your local computer, or on another computer or storage device. This is called “mapping” the drive. It is a simple way to create a shortcut to a particular location.

You should not install any CCRSoftware programs to a “mapped” drive, as you may find that the program will not run correctly. The Microsoft .NET Framework has built-in security features that require you to adjust your computer settings to allow certain programs to run on a “mapped” drive.

Microsoft .NET Framework

This is a set of files that need to be installed on your computer to be able to run QuickBooks and any application created by CCRSoftware. It is a common framework that many computer applications are built on. If you have installed a 2008 or later US version of QuickBooks on your computer, the Microsoft .Net Framework version 2.0 has already been installed. If you are installing a CCRSoftware application on a computer that has an older version of QuickBooks installed you may be told that this version of the .NET Framework must be installed. Our installation program will take care of this for you.

QuickBooks Compatible Software

Your QuickBooks® company data is key to your business and contains information that must be safeguarded. Intuit (the maker of QuickBooks®) protects your information in several ways. One way is to limit how non-Intuit products can access your company data file. A *QuickBooks Compatible Software* application is one that is developed according to the standards set by Intuit, and that uses the programming interface (the “SDK”) that they provide. This ensures that the application has the appropriate permission to access your data. When a *QuickBooks Compatible Software* application first tries to access your company data the QuickBooks program will ask you if this is allowed, and under what circumstances.

Reorder Point

In QuickBooks you can define a *reorder point* for an Inventory Part item. This is essentially a minimum stocking level for the item, and if your quantity on hand falls below this point some QuickBooks inventory reports will flag this item.

SDK

This is a “Software Development Kit” – when talking about a QuickBooks® application, this is a tool that a software developer uses to gain access to your QuickBooks® company file.

SubAssembly

An item that is an inventory assembly itself, with a bill of materials, but that can also be included as a part of a higher level assembly. For example, if you are building a car from the ground up, the engine would be a subassembly. You have to build the engine, and then add it when you build the car. QuickBooks allows you to add an assembly as a component of another assembly, but it will treat it as just another component part.

Symbology

The “format” of a bar code – the characteristics of the bar code and how the information is encoded into symbols that can be scanned by a bar code reader. You will see names like “Code 39” or “Interleaved 2 of 5”. Each symbology has it’s

differences in what kinds of characters they can encode (some can work with only numbers, for example) and what rules govern their formation (some are restricted to the length of the characters, for example). Some industries require certain symbologies. Scanners may only be able to read certain symbologies, so it is important to match the hardware with the code being scanned.

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