

## **Bill of Material (Product Build Report)**

### **Welcome**

Thank you for your recent purchase of BSoft Integrators' Product Build Report. We take pride in our products as well as our customer service, so if you have any questions regarding the operation of your new software application that has not been addressed in this manual, please feel free to contact us at [ken@bsoftintegrators.com](mailto:ken@bsoftintegrators.com) .

Welcome to the Product Build Report!

### **Overview**

The Product Build Report is a tool used to provide your company with an accurate picture of the inventory/parts required to build a specific product or its subassemblies. Product Build Report also provides detailed inventory information for all necessary part/build components, such as: current amount in stock, amounts on order, amounts short of requirements, suggested order amounts, last cost, and extended cost. In addition to the material requirements, Product Build Report also provides a detailed build tree broken down by levels of the build and the required materials/parts for each level.

### **Installation**

Please refer to the BSoft Installation Instructions document, for step by step instructions on the downloading and installation process for this application. The instruction manual is available on the BSoft Integrators' website, at [www.bsoftintegrators.com](http://www.bsoftintegrators.com)

## Setup

Once the software has been installed on your computer, the installer will put a shortcut into your startup items folder, so the application will launch when you start up your computer. If you wish to launch it manually – the default install puts a shortcut into the Start→All Programs→Menu.

Once the application is installed and (if necessary) registered – you will be prompted to log into BW



**You must login using the Manager username and password.** *This information is saved in encrypted form on your computer, so that reentry of the information is not required on this computer.*

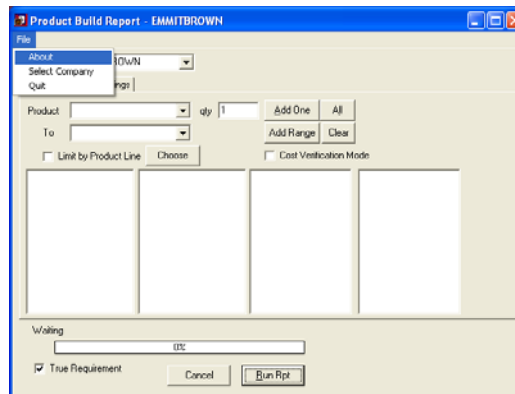
Because the Manager username is used during the initial login, access to all Business Works' companies will be available for use in the Product Build Report, on the computer which has been logged in.

Once the system is connected, you can open the application in your any one of your specified companies and begin the process of building your report.

## File Menu

Once you have opened the application, take note of the file menu. The file menu shows three options, the two relevant options are:

- **About** →
- **Quit** →



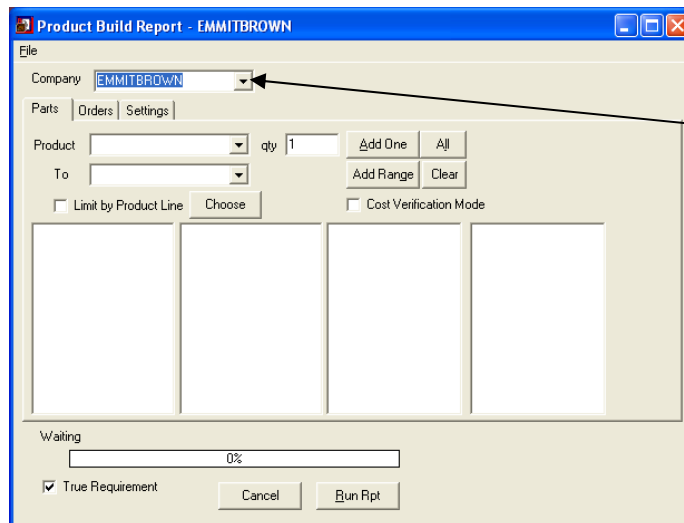
- **About:** This screen will give you your product information including the Build Report version, Business Works version, product license status, and product activation date.



- **Quit:** This option will log you out of the company that you are currently working and close the Product Build Report application.

## Getting Started

Once you have opened the Product Build application, you must select the appropriate company. Simply select the appropriate company from the “Company” drop down list. After selecting the company, you are ready to start creating your build report.



## Tools for Creating Build Reports

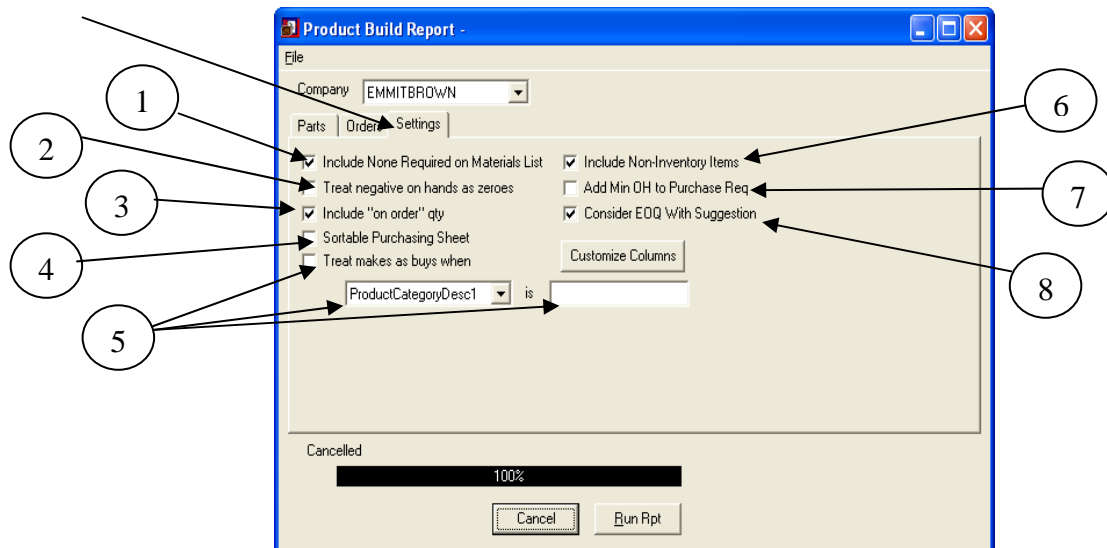
Product Build provides two methods of selecting the products to include in the report. The first option is to create a list of parts/stock that you want to build and their desired quantities. The second option is to create the report for parts/stock from a list of specified invoices. Each option is demonstrated below.

In addition to the standard default settings, there are also some optional settings that you need to address prior to running a report. The optional settings can be used to provide specific inventory/part information on the report, such as; including “on order quantity”, providing a sortable purchasing sheet, treating “makes” as “buys” when they meet specified criteria, etc.

In addition to the default and addition settings mentioned above, Product Build provides two additional modes of operation for running your report; “cost verification” and “true requirements” modes. Each of these modes of reporting yields a different type of report and therefore requires additional instruction for accurate use. These modes are individually addressed later in the manual.

### Report Settings

Before creating your report, you should select or verify the report settings. Simply open the “Settings” tab. There are several optional settings for information that can be included in the Product Build Report. In order to include the specified information, check the boxes for the items you wish to be included. Each optional setting is described below.



1. “Include None Required on Materials List” – When this option is selected, the output will show parts with a “zero” purchase/build requirement to be listed on

- the “Material Requirement” report with a shortage value of “0”. This setting enables changes in the “Build Tree worksheet” *quantity field* to be reflected in the required materials worksheet.
2. “Treat negative on hands as zero” – Selecting this option allows the build report to view any Business Works’ negative inventory balances as “0” when calculating the material quantity “short”.
    - a. *Example: If your current Business Works inventory shows a required part with a -200 quantity and your current build reports shows a quantity requirement of 400, the material requirement will show a shortage of 600 (200 to make up for the negative balance in inventory and 400 to meet the build needs). If the “treat negative on hands as zero” is selected than the material requirement sheet will show a shortage of 400.*
  3. “Include “on order” quantity” – Selecting this option allows the build report to consider all “on order” quantities when calculating the material requirements “short” amount.
    - a. *Example: If your current build report calculates a material requirement of 140 and you currently have 40 on order, it will calculate a “short” of 100. If this option is not selected, the quantity on order will not be considered and the “short” will be calculated as 140.*
  4. “Sortable Purchasing Sheet” – Selecting this option will create a Material Requirement sheet that can be sorted, filtered, etc. because all of the formulas have been replaced with the calculated values.
    - a. **Be aware:** *selecting this option eliminates the link between the Build Tree and the Material Requirements sheets, therefore any quantity changes in the Build Report will not be reflected in the Material Requirements sheet.*
  5. “Treat makes as buys when” – When this option is selected the report will ignore subassemblies on parts where the Product/Category description field (1 – 5; whichever you have selected) has the value you designate.
    - a. *Example: If you currently produce your own “widgets” and their product/category description in M- for make and you have found a widget manufacturer that is willing to sell you his finished inventory, simply change the product/category description to –P for purchase and then select “treat makes as buys” when Product/category description “P.” When the Bill of Materials report is run, it will no drill down into your production requirements for the “widget” it will simply show the amount required and any shortage so that they may be purchased.*
  6. “Include Non Inventory Items” – Selecting this option will allow the Product Build Report to include materials/parts that are categorized as “Non Inventory” in both the Build Tree and Material Requirement sheets.

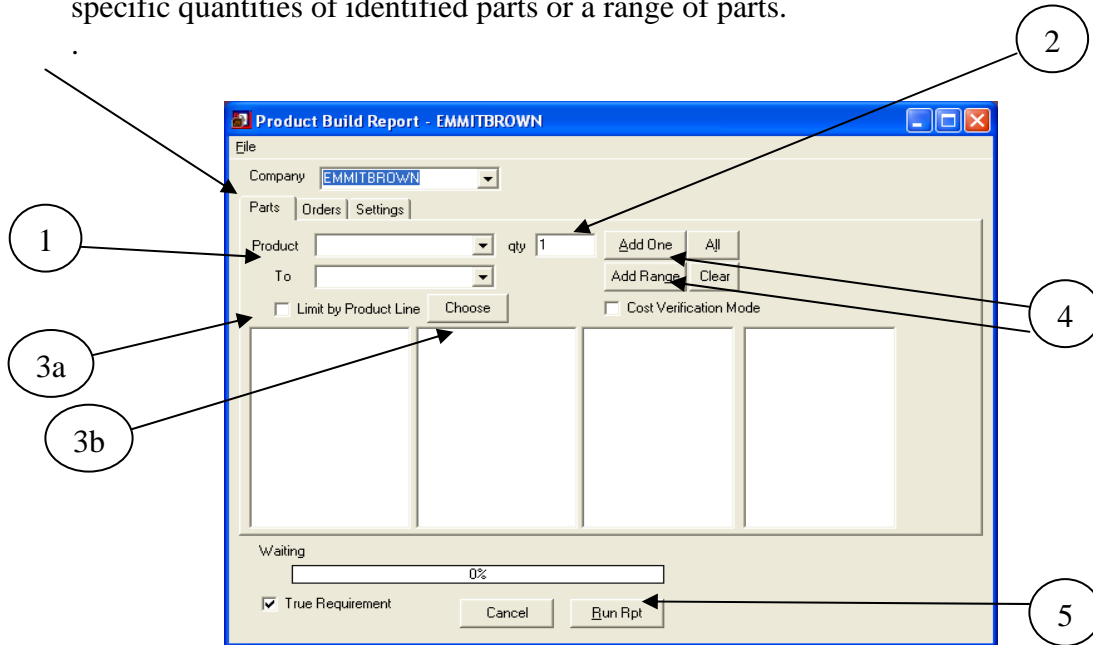
7. **“Add Min OH to Purchase Req”** – Selecting this option allows the Build Report to consider any specified “minimum on hand” requirements when calculating the “short” amount.
  - a. *Example: If your current build report calculates a material requirement of 140, you currently have 0 on hand and a designated “minimum on hand” of 200, it will calculate a “short” of 340 (the 140 required to build and the minimum on hand quantity of 200). If this option is not selected, the “minimum on hand” quantity will not be considered and the “short” will be calculated as 140.*
  
8. **“Consider EOQ with Suggestion”** – Selecting this option allows the Material Requirement sheet to consider the Economic Order Quantity (EOQ) when calculating a suggested order quantity.
  - a. *Example: If the Material Requirement calculates a “short” value of 2 and the EOQ is 7, the suggested order is a quantity of 7. If this option has not been selected or no EOQ has been established, the suggested order quantity will be 2.*

### **Options for Creating Build Reports**

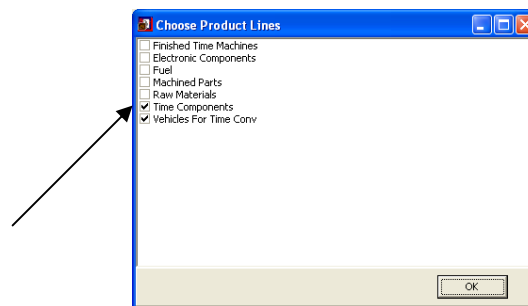
The Product Build Report has two options by which product subassembly information can be gathered; “Parts” and “Orders”. The first option “Parts” allow you to select specific parts or product lines for which the subassembly requirements are desired. The second option “Orders” is used to create product subassemblies for products needed to fill sales orders, by pulling the required parts directly from the specific sales orders. Each option is addressed individually in the sections that follow.

### **Create Build Reports from Parts (Stock) List**

The first option for creating a Build Report is through the “Parts” tab; using this option allows you to create a build tree and material requirement report for specific quantities of identified parts or a range of parts.



1. Select the product (or range of products) for which the Build Tree is desired
2. Enter the appropriate quantity desired
3. You may choose to limit the products/parts by “Product Line” if you check the “limit by Product Line”
  - a. When you select “Limit by Product Line,” you must then choose the desired product line(s)
  - b. Simply click on the “choose” button and a pop up screen will appear with all of the product lines established in Business Works



- i. Select the desired product lines
4. Select “Add One” for single part or “Add Range” for a range of products; this will add the selected parts and their desired quantities to the screen
5. Once the desired parts have been selected and added; run report

### **The Report**

Once you run the report, the software gathers all of the requested data and exports it into an Excel workbook containing two components to the report; “Build Tree” and “Material Requirements”.

**“Build Tree”**

The first worksheet in the report is titled “Build Tree”. The build tree worksheet displays a nested down report showing you the different items required to make the product(s) that you selected in the Product Build Report screen. This report lists the products you selected and displays their nested build tree (required components). The report also calculates and displays the required quantity, quantity on hand, vendor, unit cost, and build cost.

Part Description	Cat	Level1	Level2	Level3	Level4	Qty Req	Qty I/S	Qty On Ord	EOQ	Total Order	Vendor
The original DeLorean Time Machine	M	TM DELOREAN				3		68			
DeLorean Automobile	M		DELOREAN			3		9			
3/8th inch Sheet Steel	P			SHEET STL 3/8		225	37850				BETHS
Wires	P			WIRES		1500	2604				ROME
Tempered Auto Glass	P			GLASS		75	3200				GLASS
Tubular Chassis Steel	P			TUBULAR STEEL 2"		525.75	98579.5				BETHS
Blanks for milling engine	P			BLOCK STL		33.69	46681.14				BETHS
Time Controller Buttons	P			BUTTONS		45	40230				SPACE
Misc Auto Parts	P			AUTOPARTS		6000	27870	30000			DELPH
Flux Capacitor	M		FLUX CAPACITOR			3		8			
Glass Tubing	P			GLASS TUBES		5.25	1020495.5				GLASS
Flux for flux capacitor	P			FLUX		45	4890				WESTE
Flux Chamber	M			FLUX CHAMBER		3	4962				
Blanks for milling engine	P				BLOCK STL	2.25	46681.14				BETHS
Control panel for	M		TIME CONTROLLER			3	207				
Time controller Button Panel	M			BUTTON PANEL		3	145223				
3/8th inch Sheet Steel	P				SHEET STL 3/8	2.25	37850				BETHS
Wires	P			WIRES		105	2604				ROME
Time Controller Buttons	P			BUTTONS		60	40230				SPACE
L.E.D Numerical Displays	P			LED DISPLAY		54	14				RADIO
Nuclear Fuel	P		FUEL RODS			3	231				ADV A
Time Machine built on the	M	TM HUMMER				10	56				
Hummer	P		HUMMER			10	26	1	20		GM
Flux Capacitor	M		FLUX CAPACITOR			10	8				
Glass Tubing	P			GLASS TUBES		17.5	1020495.5				GLASS
Flux for flux capacitor	P			FLUX		150	4890				WESTE
Flux Chamber	M			FLUX CHAMBER		10	4962				
Blanks for milling engine	P				BLOCK STL	7.5	46681.14				BETHS
Control panel for	M		TIME CONTROLLER			10	207				

The “Build Tree” worksheet above shows the nested report of the various levels of material that are required to complete the “Level 1” Product/part. You now have bill of material for the desired products/parts.

**“Materials Required”**



The second worksheet in the report is titled “Materials Required.” The materials required worksheet displays a summary of all the parts that are necessary to complete the desired build(s), *based on the quantities specified in the build tree*. The “Materials Requirement” worksheet also provides the user with other pertinent information such as: quantity in stock, on order, the number short, EOQ, suggested order amount, and a list price.

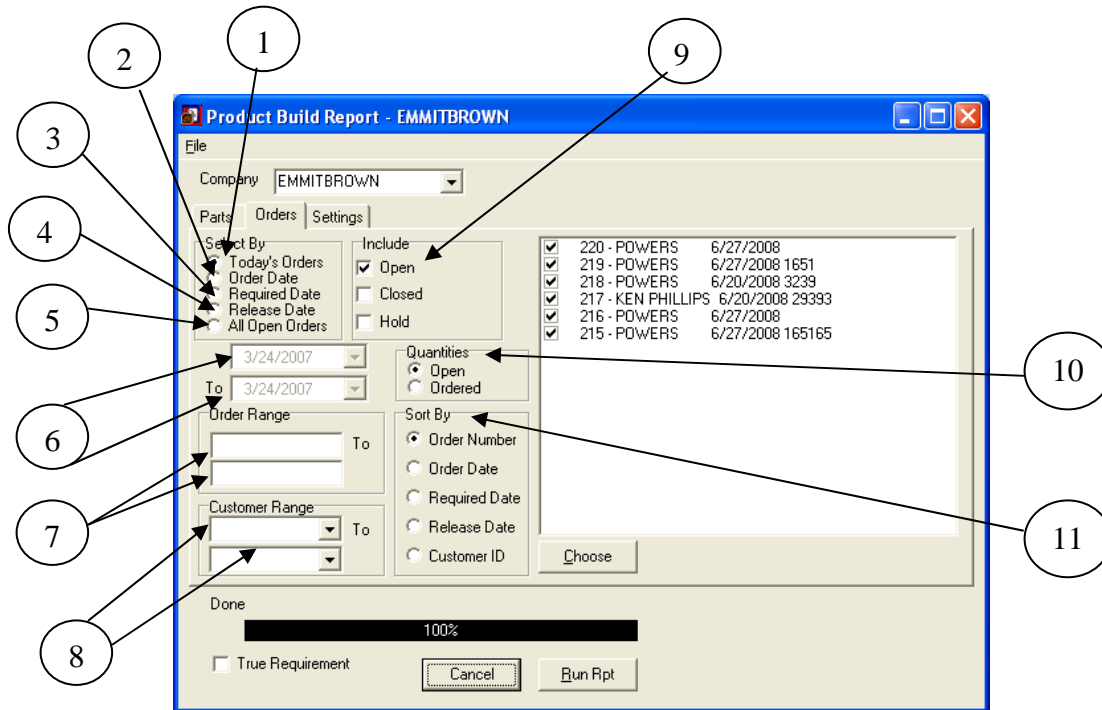
	A	B	C	D	E	F	G	H	I	J	K	L
	Vendor	Part	Description	Total Req	In Stock	On Order	Min on Hand	Short	EOQ	Suggested	Override	Last Price
2	DELPHI	AUTOPARTS	Msc Auto Parts	6000	27870	0	5000	0	30000			\$ 11.95
3	SPACEBT	BUTTONS	Time Controller Buttons	365	40230	0	3000	0	0			\$ 0.31
4	BETHSTEEL	BLOCK STL	Blanks for milling engine	47.94	46681.14	0	3000	0	0			\$ 95.00
5	BETHSTEEL	TUBULAR STEEL 2"	Tubular Chassis Steel	525.75	98579.5	0	3000	0	0			\$ 0.45
6	GLASS PRO	GLASS	Tempered Auto Glass	75	3200	0	3000	0	0			\$ 45.00
7	ROMEX	WIRES	Wires	2060	2804	0	3000	2256	0	2256		\$ 0.75
8	BETHSTEEL	SHEET STL 3/8	3/8th inch Sheet Steel	237	37850	0	3000	0	0			\$ 0.77
9	WESTERN FLUX	FLUX	Flux for flux capacitor	265	4890	0	2000	0	0			\$ 95.00
10	GLASS PRO	GLASS TUBES	Glass Tubing	33.25	1020495.5	0	0	0	0			\$ 0.10
11	RADIO SHACK	LED DISPLAY	LED Numerical Displays	288	14	0	2000	2274	0	2274		\$ 0.95
12	ADV ATOM	FUEL RODS	Nuclear Fuel	25	231	0	70	0	0			\$ 11,000.00
13	GM	HUMMER	Hummer	10	26	1	3	0	20			\$ 41,000.00
14	GM	SPCH ENG	Custom Supercharged Marine	6	61	0	0	0	0			\$ 11,500.00
15	REINELL	SPEEDBOAT	Reinell Speedboat	3	0	0	0	3	0	3		\$ -
												Total Build Buy
												Sum=\$ 7,704.60

The “Materials Required” worksheet can be used for determining part shortages, necessary order quantities, and projecting cash requirements for the orders’ associated purchases.

**TIP:** It is important for you to remember that the two worksheets are linked; this linkage enables you to make quantity changes in the “Build Tree” worksheet that are then carried over into the “Materials Requirement” worksheet. This allows for the manipulation of the build tree to meet alternate requirements.

*Example:* After running the Product Build Report you find out about a large order that has just been placed for an item on the report. To account for this new order simply go to the “Build Tree” tab and change the quantity for the product. The changes made will carry-over into the “Material Requirements” sheet and update your requirements.

**Create a Build Report from Orders:** The second way to create your product build report is to specify that sales orders that you will want to fill by clicking on the Orders tab. There is different sales order information that you have to choose from which include: Today's Date, Order Date, Required Date, Release Date or All Open Orders. This way of report building will sort your products by sales orders. Each of these options works as a filter to reduce the amount of gather information to the specifications you provide. The secondary filters are those that require selection of an order range, customer range, including open, closed or hold orders, and quantities open or ordered. The use of multiple filters will refine the search to a more targeted selection.



1. **Today's Date:** This filter selects only the orders that are scheduled to be released on the current day.
2. **Order Date:** This filter gives you the orders that are scheduled to be released in your specified date range. *This selection requires the use of a selected date range, reference 6.*
3. **Required Date:** This filter gives you the orders that are have a “required date” within your specified date range. *This selection requires the use of a selected date range, reference 6.*
4. **Release Date:** This filter gives you the orders that are scheduled to be released within your specified date range. *This selection requires the use of a selected date range, reference 6.*
5. **All Open Orders:** This filter shows all open orders that the company needs to fill, regardless of order date, release date, or required date.
6. **Date Range:** This additional filter is used with three of the previous filters addressed: order date, required date, and release date. This additional filter allows

- you to refine your report details to the time frame that accurately addresses your current bill of materials needs.
7. ***Order Range***: This filter can be used in conjunction with each of the previously mentioned filters to select a specific range of order numbers.
  8. ***Customer Range***: This filter can be used in conjunction with each of the previously mentioned filters to refine your search to a specific customer or range of customers.
  9. ***Include(open, closed, hold)***:
  10. ***Quantities (open/ordered)***: This filter allows you to have the entire order quantity included on the report or only the open quantity
    - a. ***Example***: If one of the orders that have met your other filter requirements, has an ordered quantity of 20 units but 7 of those units were already completed and submitted to the client, there is currently an open quantity of 13. If you have selected “ordered” in the quantities filter than the entire ordered quantity (20 units) will show on the build tree. If you have selected “open” in the quantities filter than only the remaining 13 units will show on the build tree.
  11. ***Sort By***: Choose which criteria you’re going to use to sort the order. This is especially useful in “True Requirement” mode so that you can identify the point when you run out of materials for your open orders.

After you made all of the relevant filter selections, select the “choose” button. At this time all of the orders that match your criteria will be displayed on the right side of the screen. At this time you may deselect any of the orders that you don not want included in the build tree and material requirement reports. After you have deselected any unwanted orders, run the report. This will then generate the same two reports that were discussed earlier; the “Build Tree” and the “Material Requirements”. These two reports will encompass all of the products and or parts that are required in order to fill the orders you selected.

**Building Reports in Cost Verification Mode**: The Product Build Report offers an additional cost verification mode which allows for the calculation of current finished product costs, as compared to current inventory carrying costs. This feature allows for instant verification of current sales pricing short falls in relation to current product costs.

The “build tree” and “materials requirements” reports both derived the part cost from the last vendor cost for the part, which can be easily updated on the *Vendor* setup option in *Maintain Parts*.

**Building Reports in True Requirements Mode**: “True requirements” mode provides reports similar to those discussed above, “build tree” and “material requirements” however when the reports are run in ‘true requirements’ mode the report will only drill down into (expand into detail) orders that cannot currently be filled do to

shortages of either finished product or materials required to build the finished product. In addition to focusing on orders that require additional materials/builds, the true requirements mode also generates a “smart” report which keeps a running total of on-hand inventory as you move through the report, making adjustments for consumption as each order is addressed. This feature facilitates production management and purchasing requirements for production.

**USER TIPS**

\*As a point of interest, please disregard the two empty columns and the final column as they are used for lookup purposes in the formulas used between the worksheets.

Part Description	Cat	Level 1	Level 2	Level 3	Level 4	Qty Req	Qty W/S	Qty On Ord	EOQ	Total Order	Vendor	Unit Cost	Built Cost	Est. Cost	PartIDHold
Hummer	M	TM HUMMER	HUMMER			6	28		20		GM	\$38,000.00	\$321,969.53	0	TM HUMMER
Flux Capacitor	M		FLUX CAPACITOR			6	202					\$4,343.50	0	0	FLUX CAPA
Glass Tubing	P			GLASS TUBES		10.5	1022084				GLASS PRO	\$0.10	0	0	GLASS TUBE
Flux for flux capacitor	P			FLUX		90	1510				WESTERN FLUX	\$19.75	0	0	FLUX
Flux Chamber	M			FLUX CHAMBER		6	224					\$427.50	0	0	FLUX CHAM
Blanks for milling engine	P				BLOCK STL	4.5	2727				BETHSTEEL	\$95.00	0	0	BLOCK STL
Control panel for	M		TIME CONTROLLER			6	536					\$318.09	0	0	TIME CONTI
Time controller Button Panel	M			BUTTON PANEL		6	0					\$5.47	0	0	BUTTON PA
3/8th inch Sheet Steel	M				SHEET STL 3/8	4.5	109500				BETHSTEEL	\$0.77	0	0	SHEET STL:
Wires	P			WIRES		210	20999				ROMEX	\$0.75	0	0	WIRES
Time Controller Buttons	P			BUTTONS		120	58200				SPACEBT	\$0.31	0	0	BUTTONS
LED Numerical Displays	P			LED DISPLAY		108	4000				RADIO SHACK	\$0.99	0	0	LED DISPLA
Nuclear Fuel	P		FUEL RODS			6	323				ADV ATOM	\$110,000.00	0	0	FUEL RODS
The original DeLorean Time	M	TM DELOREAN	DELOREAN			6	14					\$105,198.158	0	0	TM DELORE
DeLorean Automobile	M		DELOREAN			6	0		20			\$153,648.68	0	0	DELOREAN
3/8th inch Sheet Steel	P			SHEET STL 3/8		450	109500				BETHSTEEL	\$0.77	0	0	SHEET STL:
Wires	P			WIRES		3000	20999				ROMEX	\$0.75	0	0	WIRES
Tempered Auto Glass	P			GLASS		150	2100				GLASS PRO	\$45.00	0	0	GLASS
Tubular Chassis Steel	P			TUBULAR STEEL 2"		1051.5	126370				BETHSTEEL	\$0.45	0	0	TUBULAR S
Blanks for milling engine	P			BLOCK STL		67.38	2727				BETHSTEEL	\$95.00	0	0	BLOCK STL
Time Controller Buttons	P			BUTTONS		30	58200				SPACEBT	\$0.31	0	0	BUTTONS
Misc Auto Parts	P			AUTOPARTS		12000	46020	30000			DELPHI	\$1.95	0	0	AUTOPART
Flux Capacitor	M		FLUX CAPACITOR			6	202					\$4,343.50	0	0	FLUX CAPA
Glass Tubing	P			GLASS TUBES		10.5	1022084				GLASS PRO	\$0.10	0	0	GLASS TUBE
Flux for flux capacitor	P			FLUX		90	1510				WESTERN FLUX	\$19.75	0	0	FLUX
Flux Chamber	M			FLUX CHAMBER		6	224					\$427.50	0	0	FLUX CHAM
Blanks for milling engine	P				BLOCK STL	4.5	2727				BETHSTEEL	\$95.00	0	0	BLOCK STL
Control panel for	M		TIME CONTROLLER			6	536					\$318.09	0	0	TIME CONTI
Time controller Button Panel	M			BUTTON PANEL		6	0					\$5.47	0	0	BUTTON PA
3/8th inch Sheet Steel	P			SHEET STL 3/8		4.5	109500				BETHSTEEL	\$0.77	0	0	SHEET STL:
Wires	P			WIRES		210	20999				ROMEX	\$0.75	0	0	WIRES

