

# Manufacturing Plus – Enhancement Guide



## Manufacturing Plus - Enhancement Guide

### 48 Awesome Enhancements

Designed for Microsoft Dynamics 365 Business Central –  
Premium Edition with Manufacturing

Dynamics 365 | Business Central

CRONUS International Ltd. | Inventory | Product Design | Capacities | Journals | Posted Documents |

Customers | Vendors | Items | Resources | Work Centers | Machine Centers | Locations

ACTIONS  
> Tasks > General > Tracking Planning Availability Subcontractor - Dispatch List

Insights

MFG Plus Activities

PRODUCTION

SIMULATED 0	PLANNED 1	FIRM PLANNED 2	RELEASED 6
----------------	--------------	-------------------	---------------

SALES

SALES QUOTES 0	SALES ORDERS 42	SALES INVOICES 1	SALES OR MEMOS 1
-------------------	--------------------	---------------------	---------------------

PURCHASES

PURCHASE QUOTES 0	PURCHASE ORDERS 21	PURCHASE INVOICES 0	PURCHASE OR MEMOS 0
----------------------	-----------------------	------------------------	------------------------

My Production Orders

STATUS	PRODUCTION ORDER NO.	DESCRIPTION
Released	1011002	Bicycle
Released	1011004	Bicycle

My Items

ITEM NO.	DESCRIPTION	UNIT PRICE
1000	Bicycle	4,000.00
1001	Touring Bicycle	4,000.00
1100	Front Wheel	1,000.00
1150	Front Hub	500.00
1200	Back Wheel	1,200.00

My Customers

**Granule ID: 14004520**

**Produced and Distributed by:**  
**Cost Control Software, Inc.**  
**12409 Old Meridian Street**  
**Carmel, IN 46032**

**Phone: (317) 846-6025**

## Table of Contents

Application Description.....	3
Enhancement List .....	8
Role Center.....	8
Inventory.....	10
Product Design - Production BOM.....	17
Product Design - Routings.....	21
Capacities - Work Centers & Machine Center....	24
Journals.....	26
Worksheets.....	28
Production Order Enhancement.....	31
History.....	36
Reporting.....	38
Flow Charts.....	38
Support.....	41

## Application Description

### Objectives

Before we look at “Manufacturing Plus”, let’s be sure we know what problems we are trying to solve. Below is a list of the typical problems we hear from Manufacturing Companies. If you could solve 85% of this list, your business would run smoother and more efficiently.

#### Problems to be solved:

**1. Quicker Access to Information**

Customers tell us all the time that they know the information must be in there, but they just can’t get it out.

**2. Better Reporting**

Most Manufacturing Software comes with reports from the Author of the software. Microsoft Dynamics 365 Business Central comes with over 500 reports, but even then, customers want reports specific to their business. Excellent Reporting Tools are a must have.

**3. Works the way we do business.**

Adaptability to specific business needs are critical to a successful launch of a new software installation. Be sure you know how to use the tools embedded in the application and development environment to ensure the software workflow matches your processes.

**4. Auditability**

There must be no guess work as to how the numbers are calculated. This includes: Financials and Production Orders too.

**5. Control**

Don’t let the software be too automatic. Insist MRP makes a “recommendation” that a human must approve. Same for AP Check Runs, Invoice Generation, Broadcast E-Mails, and Imports of CAD created BOM.

# Manufacturing Plus – Enhancement Guide

## 6. Growth

If you start with a 10-user system, it will still work when you have 100 users. Make sure you put processes in place that will work just as easily for 10 users as 100 users.

You may not need these advanced features now, but you will someday:

- Visual Drag and Drop Scheduling
- Mobile Devices
- Scanners
- Business Intelligence reporting
- UPS World Ship Interface
- Pack Line Scanning
- Cross Docking
- Web Services for remote connectivity
- Seasonal Procurement or Budgeting
- Customer Relationship Management (CRM)
- Job Cost Accounting
- Advanced Security
- Automatic Report Generation
- SharePoint Client

Manufacturing Plus is a first step to reaching your goals of a fine-tuned Manufacturing Solution. It is built within the Microsoft Dynamics 365 Business Central Development Environment.

**Microsoft Dynamics 365 Business Central brings to End-Users the following ability:**

- Financial Reporting
- Customer Billing and Cash Management
- Vendor Invoice Processing and Procurement
- Inventory Management
- Manufacturing with Router and BOM Management
- Customer Relationship Management (CRM)
- Auditing of all of the above

# Manufacturing Plus – Enhancement Guide

Manufacturing Plus provides clear views into Production Standard Costing, Current Costing, Future Costing, Estimating, and Pricing. Many end-user oriented usability enhancements have been added to Inventory, Product Design, Daily Execution, History, and Reporting.

Manufacturing Plus is designed to quickly launch a new Customer's Installation of Dynamics 365 Business Central Manufacturing with an "out of the box" solution for accurate costing and clear visibility to Work Center or Machine Center activities.

**Manufacturing Plus is ideally suited for "Standard Cost Manufacturing".**

**See the comparison to "Job Cost Manufacturing" below:**

<i><b>Job Cost Manufacturing (Job Manager)</b></i>	<i><b>Standard Cost Manufacturing (Manufacturing Plus)</b></i>
<b>Make to order</b>	<b>Build to stock</b>
<b>No finished goods inventories</b>	<b>Finished goods inventories/SKU's</b>
<b>Different/Custom products</b>	<b>Standard products</b>
<b>Sell to other companies</b>	<b>Sell to distributors or end users</b>
<b>Customer order driven</b>	<b>MRP demand forecast driven</b>
<b>Bid on RFQ's to get work</b>	<b>No RFQ's</b>
<b>Estimating is critical</b>	<b>Standard costing</b>
<b>Customer pricing (quotes)</b>	<b>Market pricing</b>
<b>Lead time required</b>	<b>Fill orders from finished goods inventory</b>
<b>Many schedule changes</b>	<b>Few schedule changes</b>

# Manufacturing Plus – Enhancement Guide

Set ups/changeovers frequent	Set ups/changeovers less frequent
Direct contact with customer	Indirect contact with remote customer
Smaller companies	Larger companies
Owner managed	Professionally managed
Variable overhead allocation	Labor-based overhead allocation
Variable volume	More stable volume
Order backlog is good	Order backlog is bad (stockouts)
More dynamic	More static
More skilled labor (variable tasks)	Less skilled labor (repetitive tasks)
Dynamic scheduling	Static scheduling
Long Duration Jobs	Longer runs
Improve by reducing lead time	Improve by reducing inventories

# Manufacturing Plus – Enhancement Guide

## Benefits of Manufacturing Plus:

- Saves time configuring your new database.
- Statistical Analysis on all data.
- Quick and Easy views into your critical data.
- “Actual Cost” reporting now available on Production Orders. (Vs. Expected Costing only)

## Dependencies:

- Dynamics 365 Business Central Extended Edition (for Manufacturing)

We highly recommend adding the following Granules to compliment the Manufacturing Plus Objects:

- **Production Scheduler** – Visual Gantt Chart View of your Schedule
- **Manufacturing Time Entry** – Clock In/Out for Remote Employee Time Entry
- **Quality Control** – Laboratory Product Testing
- **Manufacturing Reports Pack** – 23 Most Requested Mfg. Reports
- **Business Snapshot Plus** – Financial Cash Analysis and Business Ratios
- **Pop-up Notes** – Internal Notes that pop-up to remind the operators of issues.
- **Reports Pack** - 60 Must Have New Reports and Documents

**Note: This is NOT a training guide for Manufacturing. This IS a list of the key features that enhance the Microsoft Dynamics 365 Business Central – Premium Edition with Manufacturing capability.**

# Manufacturing Plus – Enhancement Guide

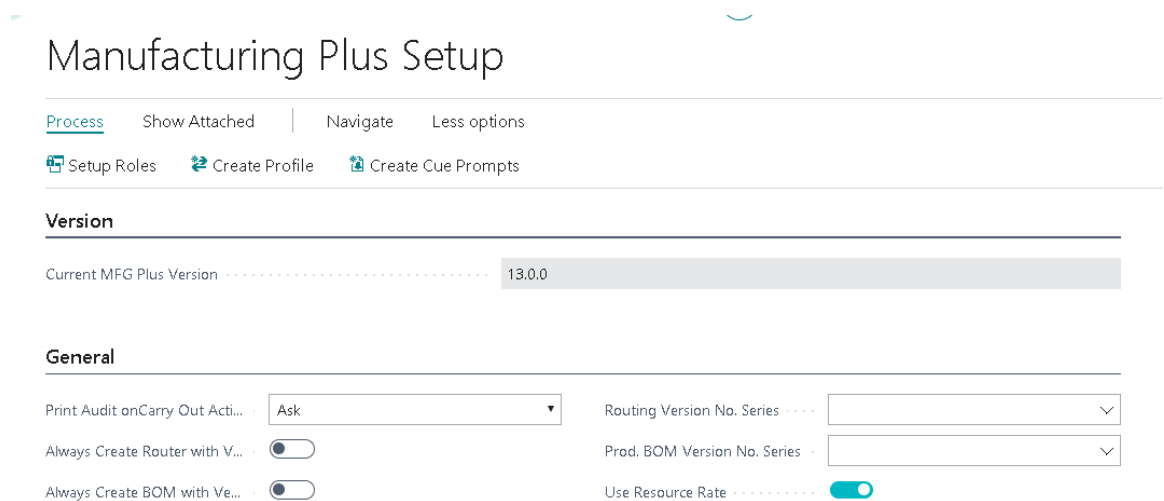
## Enhancement Guide

### “Manufacturing Plus” Product Design

This document will refer to the embedded enhancements of Manufacturing Plus for Microsoft Dynamics 365 Business Central’s Manufacturing.

### Manufacturing Plus Setup and Role Center

1. Be sure you have completed the Manufacturing Plus Setup:  
(See Manufacturing Plus Setup Guide for full details)



Manufacturing Plus Setup

Process | Show Attached | Navigate | Less options

Setup Roles | Create Profile | Create Cue Prompts

**Version**

Current MFG Plus Version ..... 13.0.0

**General**

Print Audit on Carry Out Action ..... Ask

Routing Version No. Series ..... ▾

Always Create Router with Versions ..... ☐

Prod. BOM Version No. Series ..... ▾

Always Create BOM with Versions ..... ☐

Use Resource Rate ..... ☒

#### Ribbon:

- Auto Setup Roles (for Security)
- Auto Create Profiles - for making MP your Default Role Center
- Auto Create Cue Prompts – Tile Cue Defaults only, you can change as needed.

#### General Tab:

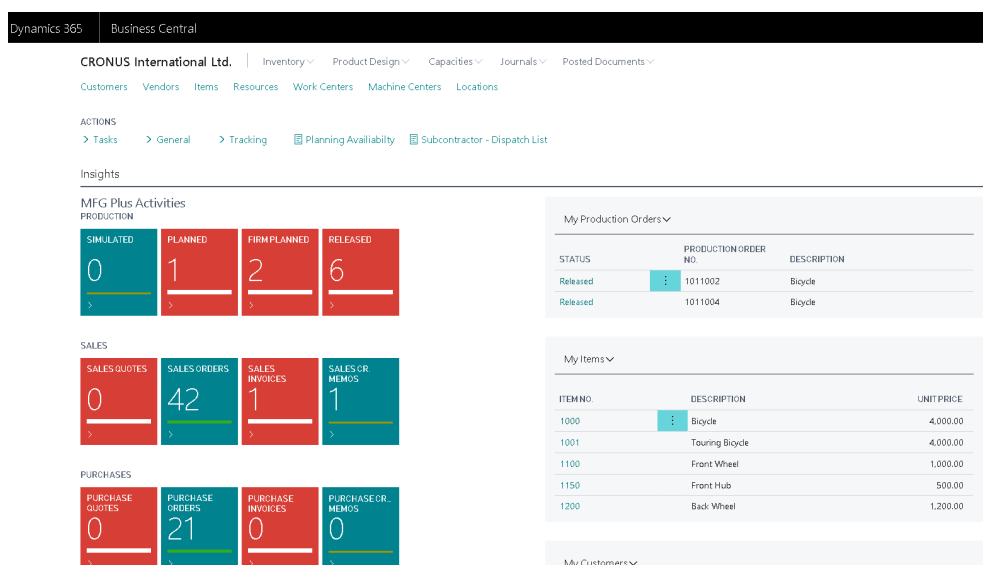
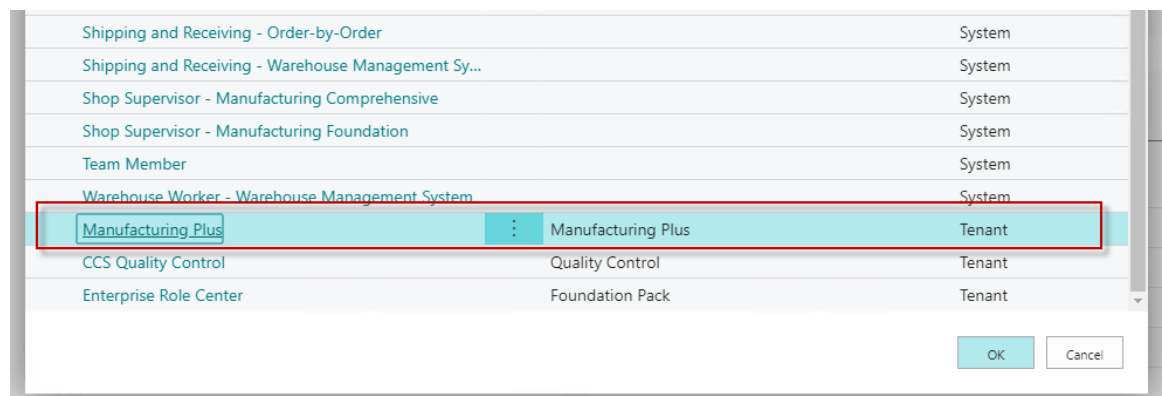
- Options to Print Audit on MRP Carry Out Action.
- Options to Always Create Router with Versions



# Manufacturing Plus – Enhancement Guide

- Option to Always Create BOM with Versions
- Set your Routing and BOM Version No. Series (optional)
- Option to use the “Resource” Rate, not the WC or MC Rate in Cost Calculations.

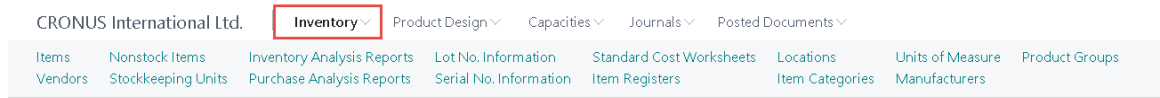
2. You can now choose the “MFG PLUS” Profile for Users. This selects the new Role Center for Manufacturing. This Role Center is designed for efficient manufacturing operations. It enables quick access to all Manufacturing critical functionality.



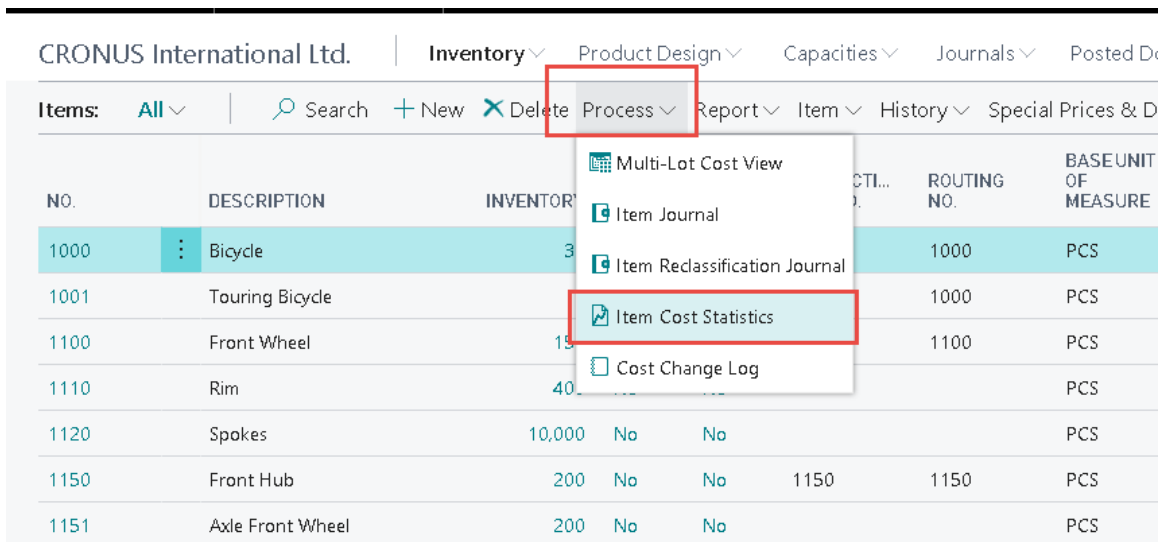
# Manufacturing Plus – Enhancement Guide

## Inventory

3. **“Inventory” option added to the Manufacturing Plus Role Center.**  
**Inventory Management is key to Manufacturing, so we place it front and center.**



4. **Item Cost Statistics** - From the Item List and Card, there is a new **Item Cost Statistics** for: **Standard Cost, Current Cost, and Future Cost** information. This is ideal for projecting (calculating) future costs.



5. From this “Item Cost Statistics” Page you now can **Re-Calc Current and Future Cost** without effecting Standard Cost.

# Manufacturing Plus – Enhancement Guide

ITEM COST STATISTICS

1000

Process Report Show Attached Actions Navigate Less options

Calc. Current Cost View Current Co... Production BOM Update Items Standard Cost

View Calc Error Log View Std Cost Production BOM Quick Edit

**Parameters**

Item No. ....	1000	PARAMETERS FOR CURRENT/FUTURE COSTS	
Description .....	Bicycle	New Lot Size .....	0.00
Lot Size .....	10.00	New Overhead Rate ...	0.00
Overhead Rate .....	0.00	New Indirect Cost % ...	0.00
Indirect Cost % .....	0	New Scrap % .....	0.00
Scrap % .....	0	New Production BOM...	▼
Production BOM .....	1000	New Routing No. ....	▼
Routing No. ....	1000	New Cost Factor .....	0.00
		New Calculation Date ..	📅

**Item Cost Statistics**

	UNIT/STANDARD COST	CURRENT/FUTURE COST	VARIANCE
Cost	0.00	350.59	350.59
Single-Lev Material Cost	0.00	322.994	322.99

# Manufacturing Plus – Enhancement Guide

5. You have the ability **Re-Calc Current and Future Cost** with user defined parameters. This enables “what if” calculations.

Try it: Enter 1.12 and press “Re-Calc”.

PARAMETERS FOR CURRENT/FUTURE COSTS	
New Lot Size .....	<input type="text" value="0.00"/>
New Overhead Rate ....	<input type="text" value="0.00"/>
New Indirect Cost % ...	<input type="text" value="0.00"/>
New Scrap % .....	<input type="text" value="0.00"/>
New Production BOM... ..	<input type="text" value="v"/>
New Routing No. ....	<input type="text" value="v"/>
New Cost Factor .....	<input type="text" value="1.12"/>
New Calculation Date ..	<input type="text" value="11/11"/>

6. You can view **Variance Statistics** between Standard Cost and Current/Future Cost.

After “Re-Calc”, check out Current/Future Cost column and the Variance Column too.

## Item Cost Statistics

	UNIT/STANDARD COST	CURRENT/FUTURE COST	VARIANCE
Cost	355.48	355.48	0.00
Single-Lev Material Cost	327.8804	327.8804	0.00
Single-Lev Capacity Cost	27.60	27.60	0.00
Single-Lev Subcon. Cost	0.00	0.00	0.00
Single-Lev Cap. Ovhd Cost	0.00	0.00	0.00
Single-Lev Mfg. Ovhd Cost	0.00	0.00	0.00
Rolled-up Material Cost	279.1604	279.1604	0.00
Rolled-up Capacity Cost>	76.32	76.32	0.00
Rolled-up Subcontrl Cost	0.00	0.00	0.00
Rolled-up Cap. Overhd Cost	0.00	0.00	0.00
Rolled-up Mfg. Ovhd Cost	0.00	0.00	0.00

# Manufacturing Plus – Enhancement Guide

## 7. Multi Lot Cost View -

From the Process option, Select “Multi-Lot Cost View”. A new page opens. Enter the desired Quantity Breaks. See it instantly calculate the Current Cost. You can even add Margins to calculate suggested Prices.

Dynamics 365

Business Central

Items

CRONUS International Ltd.

Inventory

Product Design

Capacities

Journals

Posted Documents

Items: All

Search

+ New

X Delete

Process

Report

Item

History

Special Prices & Discounts

Request Approva

NO.	DESCRIPTION	INVENTOR	CTI..	ROUTING NO.	BASE UNIT OF MEASURE	CO... IS AD...	UNIT COST
1000	Bicycle	3		1000	PCS	<input type="checkbox"/>	350.594
1001	Touring Bicycle			1000	PCS	<input checked="" type="checkbox"/>	350.594
1100	Front Wheel	15		1100	PCS	<input type="checkbox"/>	129.671
1110	Rim	40			PCS	<input checked="" type="checkbox"/>	1.05
1120	Spokes	10,000	No No		PCS	<input checked="" type="checkbox"/>	2.00

Multi-Lot Cost View

Item Journal

Item Reclassification Journal

Item Cost Statistics

Cost Change Log

### Item Lot Qty. Costs

Search + New Edit List X Delete Process Report Show Attached Open in Excel Actions Navigate Less options							
MINIMUM QUANTITY	ITEM UNIT PRICE	DISCOUNT %	DISCOUNTED PRICE	CURRENT UNIT COST	MARGIN %	SUGGESTED PRICE	
	4,000.00	0	0.00	469.39	40.00	782.32	
50	4,000.00	0	0.00	340.03	42.00	586.27	
100	4,000.00	0	0.00	338.71	44.00	604.85	
500	4,000.00	0	0.00	337.66	46.00	625.29	
1,000	4,000.00	0	0.00	337.53	48.00	649.09	

Lot Size Levels have been added which shows Current Cost/Price at different Lot Sizes. You also can add “Margin %” to calculate Suggested Price. (Great for Estimating) (see picture above)

This will assist in identifying your “Economic Order Quantity” too.

# Manufacturing Plus – Enhancement Guide

## 8. Transfer Prices to the Contract Price Table

Transfer Prices, shown below, will transfer the “Suggested Price” to the “Contract Price Table”. The “View Sales Prices” option gives you a quick access to the contract price table.

Transfer Prices (see above) will transfer the “Suggested Price” to the “Contract Price Table”. The “View Sales Prices” gives you a quick access to the contract price table.

### Item Lot Qty. Costs

<a href="#">Search</a> <a href="#">+ New</a> <a href="#">Edit List</a> <a href="#">Delete</a> <a href="#">Process</a> <a href="#">Report</a> <a href="#">Show Attached</a> <a href="#">Open in Excel</a> <a href="#">Actions</a> <a href="#">Navigate</a> <a href="#">Less options</a>									
<a href="#">Update All Items</a> <a href="#">Transfer Prices</a> <a href="#">View Sales Prices</a>									
MINIMUM QUANTITY	ITEM	UNIT PRICE	DISCOUNT %	DISCOUNTED PRICE	CURRENT UNIT COST	DISCOUNT	DISCOUNTED UNIT COST	UNIT PRICE	SUGGESTED PRICE
1		4,000.00	0	0.00	469.39	40.00			782.32
50		4,000.00	0	0.00	340.03	42.00			586.27
100		4,000.00	0	0.00	338.71	44.00			604.85
500		4,000.00	0	0.00	337.66	46.00			625.29
1,000		4,000.00	0	0.00	337.53	48.00			649.09

Use “**View Sales Prices**” to see the Sales Prices Page. This enable you to have Price Contracts with your customer based on Quantities they purchase.

### Sales Prices

<a href="#">Search</a> <a href="#">+ New</a> <a href="#">Edit List</a> <a href="#">Delete</a> <a href="#">Show Attached</a> <a href="#">Open in Excel</a> <a href="#">Actions</a> <a href="#">Less options</a>									
<b>General</b>									
Sales Type Filter			None			Starting Date Filter			
Sales Code Filter						Currency Code Filter			
Item No. Filter			1000						
SALES TYPE	SALES CODE	ITEM NO.	UNIT OF MEASURE CODE	MINIMUM QUANTITY	UNIT PRICE	STARTING D			
All Customers		1000	PCS	1	782.32				
All Customers		1000	PCS	50	586.27				
All Customers		1000	PCS	100	604.85				
All Customers		1000	PCS	500	625.29				
All Customers		1000	PCS	1,000	649.09				

# Manufacturing Plus – Enhancement Guide

**9. “Update All Items” - This handy choice will re-calculate (refresh) the cost based on the current cost of your items.**

The “Contract Price” table in Dynamics 365 Business Central can be updated with the Suggested Price from the Multi-Lot price calculations at any time.

## Item Lot Qty. Costs

Search	+ New	Edit List	Delete	Process	Report	Show Attached	Open in Excel	Actions	Navigate
Update All Items	Transfer Prices	View Sales Prices							
MINIMUM QUANTITY		ITEM UNIT PRICE		DISCOUNT %		DISCOUNTED PRICE		CURRENT UNIT COST	
	1		4,000.00		0		0.00		469.39
	50		4,000.00		0		0.00		340.03
	100		4,000.00		0		0.00		338.71
	500		4,000.00		0		0.00		337.66
	1,000		4,000.00		0		0.00		337.53

## 10. Quick Create of a BOM or Router (One of our favorite features)

**From the Item Card find the Item Prod. Design Fact Box. (See Picture below)**

**You can Create New or just View your Router or BOM Instantly!**

If no Routing No. exists, click the field to add it.

If no Production BOM No. exists, click the empty field to add it.

If they exist, click the link to view the BOM or Router or even or Versions.

ITEM CARD

1000 · Bicycle

Process Item History Special S

Item

Description ..... Bicycle

Blocked ..... ☐

Type ..... Inventory

Inventory

Shelf No. .... F4

Created From Catalog Item ..... ☐

Search Description ..... BICYCLE

Inventory ..... 32

Qty. on Job Order ..... 0

Qty. on Assembly Order ..... 0

Qty. on Asm. Component ..... 0

Stockout Warning ..... Default (Yes)

Use this area to:

1. Add NEW Router or BOM
2. Edit Router or BOM if it exists
3. Edit Versions if they exist

Item Prod. Design

Routing No. .... 1000

Routing Curr Version ..... -

Production BOM No. .... 1000

Prod BOM Curr Ver... .. -

Picture

# Manufacturing Plus – Enhancement Guide

## 11. The Location List now comes with Item Ledger Entries

Location List now has quick access to “Location Item Ledger Entries”. Entries are available on the Location List and Card. It adds easy access to Location specific Ledger Entries.

Dynamics 365

Business Central

Locations

CRONUS International Ltd

Inventory

Product Design

Capacities

Journals

Posted Documents

Locations:

All

Search

New

Delete

Process

Report

Show Attached

Open in Excel

Actions

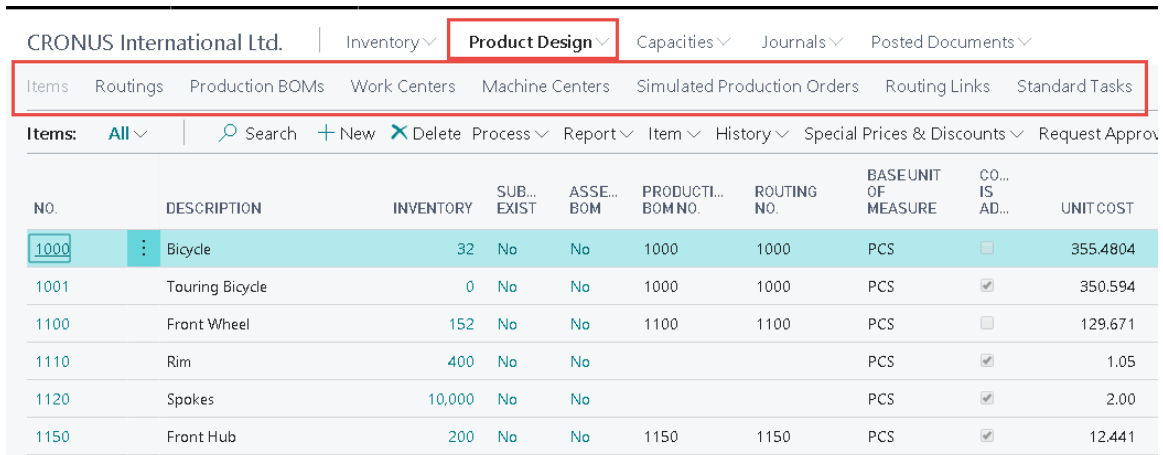
CODE	NAME
BLUE	Blue Warehouse
GREEN	Green Warehouse
OUT. LOG.	Outsourced Logistics
OWN LOG.	Own Logistics
RED	Red Warehouse
SILVER	Silver Warehouse
WHITE	White Warehouse
YELLOW	Yellow Warehouse



# Manufacturing Plus – Enhancement Guide

## Product Design – Production BOM

12. We have improved the “Product Design” section with easier access to critical areas. See image below. (Routings, BOMs, Work Centers, Machine Centers, Simulated Production Orders, Routing Like Codes, and Standard Tasks)



CRONUS International Ltd. | Inventory ▾ **Product Design ▾** Capacities ▾ Journals ▾ Posted Documents ▾

Items Routings Production BOMs Work Centers Machine Centers Simulated Production Orders Routing Links Standard Tasks

Items: All ▾ | 🔍 Search + New ✕ Delete Process ▾ Report ▾ Item ▾ History ▾ Special Prices & Discounts ▾ Request Approv

NO.	DESCRIPTION	INVENTORY	SUB... EXIST	ASSE... BOM	PRODUCTL... BOM NO.	ROUTING NO.	BASEUNIT OF MEASURE	CO... IS AD...	UNIT COST
1000	Bicycle	32	No	No	1000	1000	PCS	<input type="checkbox"/>	355.4804
1001	Touring Bicycle	0	No	No	1000	1000	PCS	<input checked="" type="checkbox"/>	350.594
1100	Front Wheel	152	No	No	1100	1100	PCS	<input type="checkbox"/>	129.671
1110	Rim	400	No	No			PCS	<input checked="" type="checkbox"/>	1.05
1120	Spokes	10,000	No	No			PCS	<input checked="" type="checkbox"/>	2.00
1150	Front Hub	200	No	No	1150	1150	PCS	<input checked="" type="checkbox"/>	12.441

13. The Production BOM Card now comes with instant view of Sub-Assemblies.

From Production BOM Card; select “View BOM” to view that Line Item’s Sub-Assembly. (Shown below)

# Manufacturing Plus – Enhancement Guide

← PRODUCTION BOM ✎ + 🗑

## 1000 · Bicycle

Process Show Attached Page Actions Navigate Less options

### General

No.	1000	Version Nos.	
Description	Bicycle	Active Version	
Unit of Measure Code	PCS	Last Date Modified	
Status	Certified	Comments Exist	
Search Name	BICYCLE		

**Lines** [Manage](#) More options

[New Line](#) [Delete Line](#) [View BOM](#) [View Routing](#)

TYPE	NO.	DESCRIPTION	COM...	QUANTITY	UNIT OF MEASURE	SCRAP %	ROUTING LINK CODE	BOM NUMBER
Item	1100	Front Wheel	No	1	PCS	0		1100
Item	1200	back wheel	No	1	PCS	0		1200
Item	1300	Chain Assy	No	1	PCS	0		1300
Item	1400	Mudguard front	No	1	PCS	0		—
Item	1450	Mudguard back	No	1	PCS	0		—
Item	1500	Lamp	No	1	PCS	0		—
Item	1600	Bell	No	1	PCS	0		—

**Also, Try the Link Access**

# Manufacturing Plus – Enhancement Guide

## 14. The Production BOM Card now comes with an option to view the Line Item's Routing.

From the Production BOM you can now drill to the Component's Routing.  
(Quick Access to Sub-Assemblies)

← PRODUCTION BOM

1000 · Bicycle

Process Show Attached Page Actions Navigate Less options

**General**

No. 1000 Version Nos. Active Version Last Date Modified Comments Ex No

Description Bicycle

Unit of Measure Code PCS

Status Certified

Search Name BICYCLE

**Lines** | Manage More options

New Line Delete Line View BOM View Routing

Also, Try the Link Access

TYPE	QUANTITY PER	UNIT OF MEASURE CODE	SCRAP %	ROUTING LINK CODE	BOM NUMBER	ROUTING NUMBER	ITEM FLUSHING METHOD	REPLENIS... SYSTEM
Item	1	PCS	0	1100	1100	1100	Manual	Prod. Order
Item	1	PCS	0	1200	1200	1200	Manual	Prod. Order
Item	1	PCS	0	1300	—	—	Manual	Prod. Order
Item	1	PCS	0	—	—	—	Manual	Purchase
Item	1	PCS	0	—	—	—	Manual	Purchase
Item	1	PCS	0	—	—	—	Manual	Purchase
Item	1	PCS	0	—	—	—	Manual	Purchase

## 15. The Production BOM Card now shows: Item's Flushing Method, Replenishment System, and Manufacturing Policy.

M View Routing

%	ROUTING LINK CODE	BOM NUMBER	ROUTING NUMBER	ITEM FLUSHING METHOD	REPLENIS... SYSTEM	MANUFAC... POLICY
0	1100	1100	1100	Manual	Prod. Order	Make-to-Stock
0	1200	1200	1200	Manual	Prod. Order	Make-to-Stock
0	1300	—	—	Manual	Prod. Order	Make-to-Stock
0	—	—	—	Manual	Purchase	Make-to-Stock
0	—	—	—	Manual	Purchase	Make-to-Stock
0	—	—	—	Manual	Purchase	Make-to-Stock
0	—	—	—	Manual	Purchase	Make-to-Stock

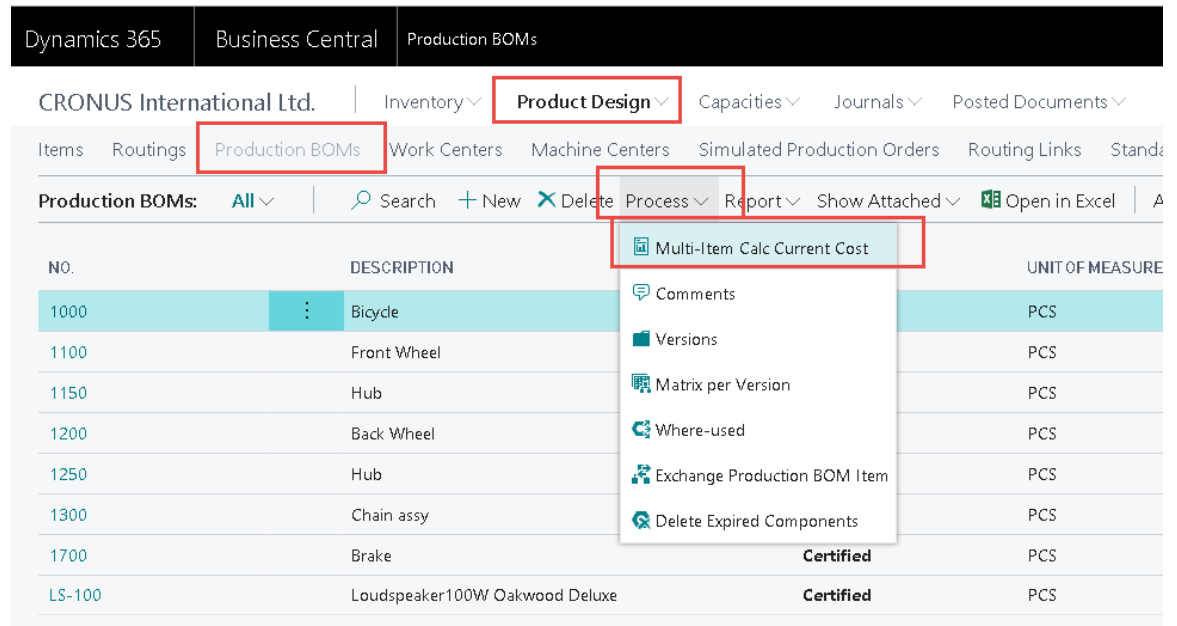
# Manufacturing Plus – Enhancement Guide

## 16. Calculate Standard Cost on Multiple Items at once.

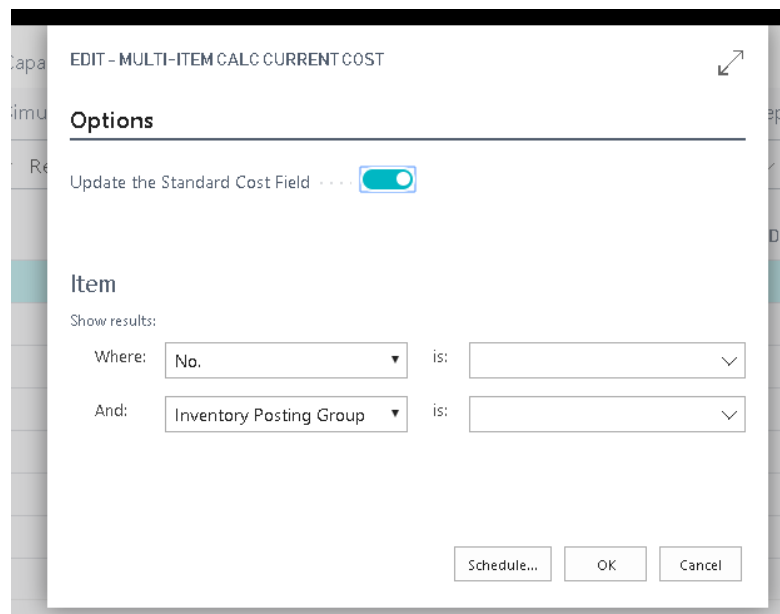
### “Multi-Item Calc Current Cost”

#### From Production BOM List, Process, Multi-Item Calc Current Cost:

This feature enables a global re-calculation of the current cost as well as optional update of the Item(s) “standard” cost.



NO.	DESCRIPTION	UNIT OF MEASURE
1000	Bicycle	PCS
1100	Front Wheel	PCS
1150	Hub	PCS
1200	Back Wheel	PCS
1250	Hub	PCS
1300	Chain assy	PCS
1700	Brake	PCS
LS-100	Loudspeaker100W Oakwood Deluxe	PCS



**EDIT - MULTI-ITEM CALC CURRENT COST**

**Options**

Update the Standard Cost Field ☒

**Item**

Show results:

Where: No. is:

And: Inventory Posting Group is:

Schedule... OK Cancel

# Manufacturing Plus – Enhancement Guide

## Product Design - Routings

17. We have an enhanced Routing List Page:

Visible: Comments Exists, Type, and Status

Dynamics 365

Business Central

Routings

CRONUS International Ltd.

Inventory

Product Design

Capacities

Journals

Posted Documents

Items

Routings

Production BOMs

Work Centers

Machine Centers

Simulated Production Orders

Routing Links

Standard Tasks

Families

Stockkeeping Units

Routings:

All

Search

New

Delete

Process

Show Attached

Open in Excel

Navigate

Report

Less options

NO.	DESCRIPTION	COMMENT EXISTS	TYPE	STATUS
1000	Bicycle	No	Serial	Certified
1100	Front Wheel	No	Serial	Certified
1150	Hub	No	Parallel	Certified
1200	Back Wheel	No	Serial	Certified

18. Routing Link Codes: Go to Router, Router Lines

Routing Link Codes are clearly shown on the Routing Lines.  
Link your Routing Line to all or a portion of your BOM.

Lines

Manage

More options

New Line

Delete Line

OPERATI... NO.		TYPE	NO.	ROUTING LINK CODE	DESCRIPTION	COM...	SETUP TIME	UNIT OF MEAS. CODE
10		Work Center	100	100	Wheel assembly	No	110	MINUTES
20		Machine Cent	120		Chain assembly	Yes	15	MINUTES
30		Machine Cent	130		Final assembly	No	10	MINUTES
40		Machine Cent	110	300	Control	No	10	MINUTES

# Manufacturing Plus – Enhancement Guide

## 19. A new Tool(s) Table is added.

Router Master, Routing Line, “Tools” has new lookup to a new “Tool” Table for easy lookups.

### General

No. ....	1000 ...	Search Description .....
Description .....	Bicycle	Version Nos. ....
Comment Exists .....	No	Active Version .....
Type .....	Serial ▼	Last Date Modified .....
Status .....	Certified ▼	

Lines | Manage | **Operation** | Less op  
Comments | **Tools** | Personnel | Quality Measures

**Tools is per Operation!**

OPERATI... NO.	TYPE	NO.	ROUTING LINK CODE	DESCRIPTION	COM...	SETUP
10	Work Center	100	100	Wheel assembly	No	
20	Machine Cent	120		Chain assembly	Yes	
30	Machine Cent	130		Final assembly	No	
40	Machine Cent	110	300	Control	No	

← 1000 BICYCLE10

## 1000 Bicycle 10

Search + New Edit List Delete Show Attached Open in Excel

TOOL NO.	NO.	DESCRIPTION
T302	T302	Tool 302

TOOL ID	TOOL DESCRIPTION
T302	Tool 302
+ New Select from full list	

# Manufacturing Plus – Enhancement Guide

## 20. “Personnel” Improvement

From your Router’s Line you can now select a Resource from you Resource Master File.

1000 BICYCLE 20

1000 Bicycle 20

Search + New Edit List Delete Show Attached Open in Excel

RESOURCE NO.	NO.	DESCRIPTION
MARK	MARK	Mark Hanson
TIMOTHY	TIMOTHY	Timothy Sneath

NO.	NAME	TYPE	BASE UNIT OF MEASURE
LIFT	Lift for Furniture	Machine	HOURL
LINDA	Linda Martin	Person	HOURL
MARK	Mark Hanson	Person	HOURL
MARY	Mary A. Dempsey	Person	HOURL
TIMOTHY	Timothy Sneath	Person	HOURL

+ New Select from full list

## 21. Run Time Calculation

From your Router Line, Run Time field, you can now has a reciprocal “Units/Time” displayed and it has a backward and forward calculation capability.

Personnel Quality Measures

SETUP TIME	SETUP TIME UNIT OF MEAS. CODE	RUN TIME	RUN TIME UNIT OF MEAS. CODE	UNITS/TIME	WAIT TIME
110	MINUTES	15	MINUTES	0.0667	0
15	MINUTES	18	MINUTES	0.0556	0
10	MINUTES	3	MINUTES	0.3333	0
10	MINUTES	0.5	MINUTES	2.00	0

# Manufacturing Plus – Enhancement Guide

## Capacities – Work Centers and Machine Centers

### 22. Work Center List

Your Work Center List now has W/C Statistics showing in a new Fact Box.

CRONUS International Ltd. | Inventory | Product Design | Capacities | Journals | Posted Documents

Customers | Vendors | Items | Resources | Work Centers | Machine Centers | Locations

Work Centers: All | Search | + New | X Delete | Report | Work Ctr. | Planning | Show Attached | Open in Excel | Actions | Navigate | Report | Less options

NO.	NAME	WORK CENTER GROUP CODE	DIRECT UNIT COST	INDIRECT COST %	UNIT COST	UNIT OF MEASURE CODE	CAPACITY	EFFICIENCY	SHOP CALENDAR CODE	OVERHEAD RATE	FLUSHING METHOD	STATUS
100	Assembly department	1	1.20	0	1.20	MINUTES	3	100	1	0.00	Manual	
200	Packing department	1	1.50	0	1.50	MINUTES	1	100	1	0.00	Manual	
300	Painting department	2	1.70	0	1.70	MINUTES	1	100	2	0.00	Manual	
400	Machine department	2	2.50	0	2.50	MINUTES	1	100	2	0.00	Manual	

**Work Center Statistics**  
  
THIS PERIOD  
Expected January  
Total Capacity 33,120  
Effective Capacity 33,120  
Efficiency % 100  
Total Cost 0  
Need 0  
Efficiency % 0  
Total Cost 0  
  
PROD. ORDER  
Need (Qty.) 3,310  
  
Notes +

### 23. Work Center Card

Your Work Center Card now has new fields to show “Current Capacity Need”, Allocated Time, and Machine Center Counts.

100 · Assembly department

Report | Work Ctr. | Planning | Show Attached | Navigate | Report | Less options

**General**

No. 100 Blocked ☐ Last Date Modified

Name Assembly department

Work Center Group Code 1

Alternate Work Center

Search Name ASSEMBLY DEPARTMENT

**Posting**

**Work Center Statistics**  
  
THIS PERIOD  
Expected January  
Total Capacity 33,120  
Effective Capacity 33,120  
Efficiency % 100  
Total Cost 0  
Need 0  
Efficiency % 0  
Total Cost 0  
  
PROD. ORDER  
Need (Qty.) 3,310

**ALL Drillable**  
  
Current Capacity Need 1,548.00  
Allocated Time 2,196.00  
Machine Center Count 3



# Manufacturing Plus – Enhancement Guide

## 24. Machine Center List

The Machine Center List now has a new M/C Statistics Fact Box

CRONUS International Ltd. | Inventory | Product Design | Capacities | Journals | Posted Documents

Customers Vendors Items Resources Work Centers Machine Centers Locations

Machine Centers: All | Search | + New | X Delete | Report | Mach. Ctr. | Planning | Show Attached | Open in Excel | Navigate | Report | Less options

NO.	NAME	WORK CENTER NO.	CAPACITY	EFFICIENCY	DIRECT UNIT COST	INDIRECT COST %	UNIT COST	OVERHEAD RATE	FLUSHING METHOD
110	Mike Seamans	100	1	100	0.00	0	0.00	0.00	Manual
120	Bryan Walton	100	1	100	0.00	0	0.00	0.00	Manual
130	Linda Mitchell	100	1	100	0.00	0	0.00	0.00	Manual
210	Packing table 1	200	1	100	0.00	0	0.00	0.00	Manual
220	Packing table 2	200	1	100	0.00	0	0.00	0.00	Manual
230	Packing Machine	200	1	100	0.00	0	0.00	0.00	Manual
310	Painting Cabin	300	1	100	0.00	0	0.00	0.00	Manual
320	Painting Robot	300	1	100	0.00	0	0.00	0.00	Manual
330	Drying Cabin	300	1	100	0.00	0	0.00	0.00	Manual
340	Painting inspection	300	1	100	0.00	0	0.00	0.00	Manual
410	Drilling machine	400	1	100	0.00	0	0.00	0.00	Manual

**Machine Center Statistics**  
  
THIS PERIOD  
Expected January  
Total Capacity 11,040  
Effective Capacity 11,040  
Efficiency % 100  
Total Cost 0  
Need 0  
Efficiency % 0  
Total Cost 0  
  
PROD. ORDER  
Need (Qty.) 780  
  
Notes +

## 25. Machine Center Card

Your Machine Center Card now has a new Statistics Fact Box, Drillable Current Capacity Need, and Allocated Time. (Similar to Work Center design)

← MACHINE CENTER CARD

120 · Bryan Walton

Mach. Ctr. Planning Show Attached | Navigate | Less options

**General**  
No. 120  
Name Bryan Walton  
Work Center No. 100  
Search Name BRYAN WALTON  
Blocked  
Last Date Modified  
Current Capacity Need 1,200.00  
Allocated Time 780.00

**Posting**  
Direct Unit Cost 0.00  
Indirect Cost % 0  
Unit Cost 0.00  
Flushing Method Manual

**Machine Center Statistics**  
  
THIS PERIOD  
Expected January  
Total Capacity 11,040  
Effective Capacity 11,040  
Efficiency % 100  
Total Cost 0  
Need 0  
Efficiency % 0  
Total Cost 0  
  
PROD. ORDER  
Need (Qty.) 780  
  
Notes +

# Manufacturing Plus – Enhancement Guide

## Journals

### 26. Journals

Manufacturing Plus provides easier access to the many Manufacturing Oriented Journals. (IE: Consumption Journal and Output Journal.)

Dynamics 365 | Business Central | Consumption Journals

CRONUS International Ltd. | Inventory | Product Design | Capacities | **Journals** | Posted Documents

Item Journals | Item Reclassification Journals | **Consumption Journals** | Recurring Consumption Journals | Capacity Journals  
Phys. Inventory Journal | Revaluation Journals | **Output Journals** | Recurring Output Journals | Recurring Capacity Journals

Consumption Journals: | Search | + New | Manage | Process | Show Attached | Open in Excel | Actions | Less options

NAME	DESCRIPTION	NO. SERIES
DEFAULT	Default Journal	

### 27. Consumption Journal

Manufacturing Plus added a new Fact Boxes.

1. Item Journal Totals

2. Supply Fact Box with Total Supply

3. Demand Fact Box with Total Demand and Net Available.

← CONSUMPTION JOURNALS

DEFAULT · Default Journal

Batch Name: DEFAULT

Manage | Process | Actions | Navigate | Less options

POSTING DATE	ITEM NO.	DESCRIPTION	QUANTITY	UNIT OF MEASURE CODE	UNIT AMOUNT	APPLIES-TO ENTRY	APPLIES-FROM ENTRY	AMOUNT
1/23/2020	1700	Brake	4	PCS	9.765	0	0	39.06
1/23/2020	1120	Spokes	2	PCS	2.00	0	0	4.00

**Item Jnl. Totals**

Total Quantity	6.00
Total Amount	43.06

**Supply**

Inventory	10,000
Qty. on Req. Worksheet	0
Qty. on Purch. Order	0
Qty. on Prod. Order	0
Qty. on Transit Order	0
Qty. on Assembly Order	0
Net Supply	10,000

**Demand**

Qty. on Component Lines	0
Qty. on Sales Order	10
Qty. on Service Order	0
Qty. on Job Order	0
Qty. on Asm. Component	0
Net Demand	10
Net Available	9,990

PROD. ORDER NAME  
Bicycle

# Manufacturing Plus – Enhancement Guide

## 28. Output Journal

**Manufacturing Plus added a new column for entry of the “Resource” that actually did the work. This makes it easier to allocate specific employee’s time to a Production Order.**

OUTPUT JOURNALS

DEFAULT · Default Journal

Batch Name: ..... DEFAULT

Manage Process Actions Navigate Less options

POSTING DATE	ORDERLINE NO.	TYPE	NO.	DESCRIPTION	RESOURCE NO. ↑	RUN TIME	CAP. UNIT OF MEASURE CODE	OUTPUT QUANTITY	SCRAP QUANTITY	Output Jnl Factbox
1/23/2020	10000	Machine Cent	130	Final assembly	MARY	50	MINUTES	0	0	Total Setup Time 0.00
1/23/2020	10000	Machine Cent	130	Final assembly	LINDA	90	MINUTES	0	0	Total Run Time 140.00
										Total Output Qty 0.00
										Total Amount 0.00

This Resource No. field is separate from the Machine Center and flows all the way through to the Production Order Audit Reports.

Also, a Totals Fact Box has been added for Total Output Quantity.

Output Journal has “Resource No.” added to enable posting of Employee’s Time against Production Orders. Details are posted to the Capacity Ledger Entries and Value Entries. This enables true “Activity Based Costing” for those that need a higher level of detail.

# Manufacturing Plus – Enhancement Guide

## Worksheets

### 29. Requisition Worksheet –

Access your Requisition Worksheet from Actions: Tasks, Requisition Worksheet.

A total Fact Box has been added to the Requisition Worksheet and a Fact Box for Supply and a Fact Box for Demand Information.

CRONUS International Ltd. | Inventory ▾ Product Design ▾ Capacities ▾ Journals ▾ Posted Documents ▾

Customers Vendors Items Resources Work Centers Machine Centers Locations

**ACTIONS**

- > Tasks ▾
- > General
- > Tracking
- Planning Availability
- Subcontractor - Dispatch List

Production Forecasts

**Requisition Worksheet**

Planning Worksheet

Subcontracting Worksheet

Standard Cost Worksheet

Order Planning

My Production Orders ▾

STATUS

Released

Released

← REQUISITION WORKSHEETS

DEFAULT · Default Journal Batch

Name: DEFAULT

Manage Process Report Actions Navigate Report Less options

TYPE	NO.	ACTION MESSAGE	AC... AC... ME...	DESCRIPTION	LOCATION CODE	ORIGINAL QUANTITY	QUANTITY	UNIT OF MEASURE CODE	DIRECT UNIT COST	ORIGIN DUE
Item	LS-10PC	New	✓	Black	WHITE		100	BOX	25.00	
Item	LS-120	New	✓	Loudspeaker, Black, 120W	WHITE		36	PCS	45.00	
Item	LS-120	New	✓	Loudspeaker, Black, 120W	SILVER		36	PCS	45.00	
Item	LS-150	New	✓	Loudspeaker, Cherry, 150W	SILVER		32	PCS	72.00	
Item	LS-150	New	✓	Loudspeaker, Cherry, 150W	WHITE		54	PCS	72.00	
Item	LS-150	New	✓	Loudspeaker, Cherry, 150W	WHITE		32	PCS	72.00	
Item	LS-2	New	✓	Cables for Loudspeakers	WHITE		20	BOX	15.00	
Item	LS-2	New	✓	Cables for Loudspeakers	WHITE		10	BOX	15.00	
Item	LS-2	New	✓	Cables for Loudspeakers	WHITE		2	BOX	15.00	
Item	LS-2	Cancel	✓	Cables for Loudspeakers	WHITE	100	0	BOX	0.00	
Item	LS-75	New	✓	Black	SILVER		2.5	PALLET	576.00	
Item	LS-75	New	✓	Black	WHITE		2.5	PALLET	576.00	
Item	LS-MAN-10	New	✓	Manual for Loudspeakers	SILVER		1,000	PCS	12.00	
Item	LS-MAN-10	New	✓	Manual for Loudspeakers	WHITE		1,000	PCS	12.00	
Item	LS-MAN-10	Change Qty.	✓	Manual for Loudspeakers	WHITE	100	60	PCS	12.00	
Item	LS-MAN-10	Cancel	✓	Manual for Loudspeakers	WHITE	50	0	PCS	0.00	

DESCRIPTION BUY-FROM VENDOR NAME

Service Electronics Ltd.

**Item Supply Factbox**

Inventory

Qty. on Req. Worksheet

Qty. on Purch. Order

Qty. on Prod. Order

Qty. on Transit Order

Qty. on Assembly Order

Net Supply

**Item Demand Factbox**

Qty. on Component Lines

Qty. on Sales Order

Qty. on Service Order

Qty. on Job Order

Qty. on Asm. Component

Net Demand

Net Available

**Worksheet Totals**

Worksheet Total 45,176.00

# Manufacturing Plus – Enhancement Guide

Optional: A hard copy report of the Requisition Worksheet is available in our “Manufacturing Reports Pack”. The totals act as a Cash Requirements Rpt. (Ask for a Quote on this Granule)

Requisition Line Report MR

CRONUS Manufacturing Plus 2013

Requisition Line

Type	No.	Description	Action Message	Accept Action Message	Due Date	Vendor No.	Original Quantity	Quantit
Worksheet Template Name PLANNING								
Journal Batch Name DEFAULT								
Item	1110	Rim	New	False	1/8/2013	01587796	0	
Item	1110	Rim	New	False	1/8/2013	01587796	0	
Item	1310	Chain	New	False	1/8/2013	32466123	0	
Item	1320	Chain Wheel Front	New	False	1/8/2013	32466123	0	
Item	1330	Chain Wheel Back	New	False	1/8/2013	32466123	0	
Total for Journal Batch Na						DEFAULT		
Worksheet Template Name REQ								
Journal Batch Name DEFAULT								
Item	LS-10PC	Black	New	True	10/4/2012	40000	0	
Item	LS-10PC	Black	New	True	10/4/2012	40000	0	
Item	LS-120	Loudspeaker, Black, 12	New	True	10/4/2012	40000	0	
Item	LS-120	Loudspeaker, Black, 12	New	True	10/4/2012	40000	0	
Item	LS-150	Loudspeaker, Cherry, 1	New	True	10/1/2012	50000	0	
Item	LS-150	Loudspeaker, Cherry, 1	New	True	1/15/2014	50000	0	
Item	LS-150	Loudspeaker, Cherry, 1	New	True	1/17/2014	50000	0	
Item	LS-2	Cables for Loudspeaker	New	True	1/15/2014		0	
Item	LS-2	Cables for Loudspeaker	New	True	1/15/2014		0	
Item	LS-2	Cables for Loudspeaker	New	True	1/15/2014		0	
Item	LS-2	Cables for Loudspeaker	Cancel	True	1/21/2014	30000	100	
Item	LS-75	Black	New	True	10/1/2012	30000	0	

## 30. Planning Worksheet -

A Supply and Demand Fact Boxes have been added to the Planning Worksheet.

Actions Navigate Report Less options

AC...	AC...	DESCRIPTION	LOCATION CODE	ORIGINAL QUANTITY	QUANTITY	UNIT OF MEASURE CODE	DIRECT UNIT COST	ORIGIN DUE...
<input checked="" type="checkbox"/>		Black	WHITE		100	BOX	25.00	
<input checked="" type="checkbox"/>		Loudspeaker, Black, 120W	WHITE		36	PCS	45.00	
<input checked="" type="checkbox"/>		Loudspeaker, Black, 120W	SILVER		36	PCS	45.00	
<input checked="" type="checkbox"/>		Loudspeaker, Cherry, 150W	SILVER		32	PCS	72.00	
<input checked="" type="checkbox"/>		Loudspeaker, Cherry, 150W	WHITE		54	PCS	72.00	
<input checked="" type="checkbox"/>		Loudspeaker, Cherry, 150W	WHITE		32	PCS	72.00	
<input checked="" type="checkbox"/>		Cables for Loudspeakers	WHITE		20	BOX	15.00	
<input checked="" type="checkbox"/>		Cables for Loudspeakers	WHITE		10	BOX	15.00	
<input checked="" type="checkbox"/>		Cables for Loudspeakers	WHITE		2	BOX	15.00	
<input checked="" type="checkbox"/>		Cables for Loudspeakers	WHITE	100	0	BOX	0.00	
<input checked="" type="checkbox"/>		Black	SILVER		2.5	PALLET	576.00	
<input checked="" type="checkbox"/>		Black	WHITE		2.5	PALLET	576.00	
<input checked="" type="checkbox"/>		Manual for Loudspeakers	SILVER		1,000	PCS	12.00	
<input checked="" type="checkbox"/>		Manual for Loudspeakers	WHITE		1,000	PCS	12.00	
<input checked="" type="checkbox"/>		Manual for Loudspeakers	WHITE	100	60	PCS	12.00	
<input checked="" type="checkbox"/>		Manual for Loudspeakers	WHITE	50	0	PCS	0.00	

**Item Supply Factbox**

Inventory 8

Qty. on Req. Worksheet 0

Qty. on Purch. Order 60

Qty. on Prod. Order 0

Qty. on Transit Order 0

Qty. on Assembly Order 0

Net Supply 68

**Item Demand Factbox**

Qty. on Component Lines 0

Qty. on Sales Order 74

Qty. on Service Order 0

Qty. on Job Order 0

Qty. on Asm. Component 0

Net Demand 74

Net Available -6

**Worksheet Totals**

Worksheet Total 45,176.00

BUY-FROM VENDOR NAME

Service Electronics Ltd.

# Manufacturing Plus – Enhancement Guide

## 31. Planning Worksheet -

**Planning Worksheet Total Amounts have been added to the Planning Worksheet in a new Fact Box:**

1/17/2020	1/16/2020 8:00 A...	1/16/2020 11:00 ...	Loudspeaker, Cherry, 150W	
1/15/2020	1/14/2020 8:00 A...	1/15/2020 11:00 ...	Cables for Loudspeakers	
1/15/2020	1/14/2020 8:00 A...	1/15/2020 11:00 ...	Cables for Loudspeakers	
1/15/2020	1/14/2020 8:00 A...	1/15/2020 11:00 ...	Cables for Loudspeakers	
1/21/2020	1/20/2020 12:00 ...	1/20/2020 12:00 ...	Cables for Loudspeakers	100
12/9/2018	12/8/2018 8:00 A...	12/8/2018 11:00 ...	Black	
12/9/2018	12/8/2018 8:00 A...	12/8/2018 11:00 ...	Black	
12/9/2018	12/8/2018 8:00 A...	12/8/2018 11:00 ...	Manual for Loudspeakers	
12/9/2018	12/8/2018 8:00 A...	12/8/2018 11:00 ...	Manual for Loudspeakers	
1/21/2020	1/20/2020 12:00 ...	1/20/2020 12:00 ...	Manual for Loudspeakers	100

ROUTING DESCRIPTION	

<b>Demand</b>	
Qty. on Component Lines	0
Qty. on Sales Order	74
Qty. on Service Order	0
Qty. on Job Order	0
Qty. on Asm. Component	0
Net Demand	74
Net Available	-6

<b>Plan. Worksheet Totals</b>	
Production Orders	0.00
Purchase Orders	44,869.00
Transfer Orders	1,560.00
Worksheet Total	46,429.00

# Manufacturing Plus – Enhancement Guide

## Production Order Enhancements

Go to your Released Production Order List: (Drill on the “Released” Tile)

CRONUS International Ltd. | Inventory ▾ Product Design ▾ Capacities ▾ Journals ▾ Posted Documents ▾  
Customers Vendors Items Resources Work Centers Machine Centers Locations

### ACTIONS

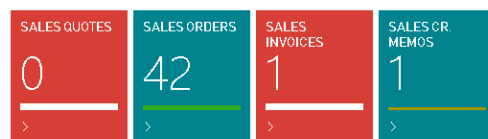
> Tasks > General > Tracking  Planning Availability  Subcontractor - Dispatch List

### Insights

#### MFG Plus Activities PRODUCTION



#### SALES



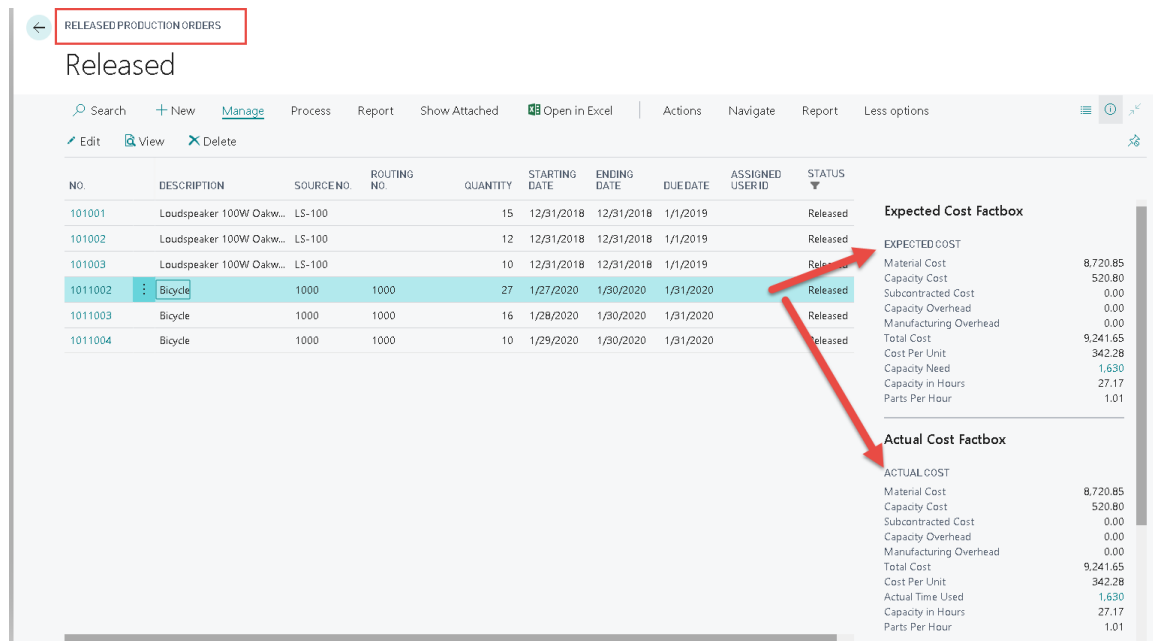
#### My Production Orders ▾

STATUS	PRODUCTION ORDER NO.
Released	1011002
Released	1011004

#### My Items ▾

ITEM NO.	DESCRIPTION
1000	Bicycle
1001	Touring Bicycle

**33. Production Order List and Card. Now shows Expected Cost and Actual Cost Fact Box. This way you have real time data on your production.**



RELEASED PRODUCTION ORDERS

Released

NO.	DESCRIPTION	SOURCE NO.	ROUTING NO.	QUANTITY	STARTING DATE	ENDING DATE	DUE DATE	ASSIGNED USER ID	STATUS
101001	Loudspeaker 100W Oakw...	LS-100		15	12/31/2018	12/31/2018	1/1/2019		Released
101002	Loudspeaker 100W Oakw...	LS-100		12	12/31/2018	12/31/2018	1/1/2019		Released
101003	Loudspeaker 100W Oakw...	LS-100		10	12/31/2018	12/31/2018	1/1/2019		Released
1011002	Bicycle	1000	1000	27	1/27/2020	1/30/2020	1/31/2020		Released
1011003	Bicycle	1000	1000	16	1/28/2020	1/30/2020	1/31/2020		Released
1011004	Bicycle	1000	1000	10	1/29/2020	1/30/2020	1/31/2020		Released

**Expected Cost Factbox**

EXPECTED COST	
Material Cost	8,720.85
Capacity Cost	520.80
Subcontracted Cost	0.00
Capacity Overhead	0.00
Manufacturing Overhead	0.00
Total Cost	9,241.65
Cost Per Unit	342.28
Capacity Need	1,630
Capacity in Hours	27.17
Parts Per Hour	1.01

**Actual Cost Factbox**

ACTUAL COST	
Material Cost	8,720.85
Capacity Cost	520.80
Subcontracted Cost	0.00
Capacity Overhead	0.00
Manufacturing Overhead	0.00
Total Cost	9,241.65
Cost Per Unit	342.28
Actual Time Used	1,630
Capacity in Hours	27.17
Parts Per Hour	1.01

# Manufacturing Plus – Enhancement Guide

## 34. Released Production Order, Production Order Line

Manufacturing Plus added columns for Estimated and Actual Material Cost and Estimated and Actual Capacity Cost to Production Order Lines. (4 new columns)

ITEM NO.	REMAINING QUANTITY	UNIT COST	COST AMOUNT	EST. MATERIAL COST	ACT MATERIAL COST	EST. CAPACITY COST	ACT CAPACITY COST
1000	0	350.594	9,466.04	8,720.85	8,720.85	520.80	520.80

## 35. Production Order Card has improved field positions to display BOM and Routing Information.

Lines   <a href="#">Manage</a>   More options							
<a href="#">New Line</a> <a href="#">Delete Line</a> <a href="#">MP Routing</a> <a href="#">MP Components</a> <a href="#">Calc Material Constraint</a>							
ITEM NO.	DESCRIPTION	PRODUCTI... BOM NO.	ROUTING NO.	MATERIAL CONSTRAINT DATE	STARTING DATE-TIME	ENDING DATE-TIME	QUANTITY
1000	Bicycle	1000	1000		1/27/2020 12:50 ...	1/30/2020 4:00 P...	27

## 36. TIP: Production Order Card, Line, Pin the choices for easy access to Router and Components.

Quantity

27

Lines

Manage

Functions

Line

Less options

Item Availability by

Routing

Production Journal

Reservation Entries

Components

Dimensions

Item Tracking Lines

ITEM NO.	DESCRIPTION	PRODUCTI... BOM NO.	ROUTING NO.	STARTING DATE-TIME	ENDING TIME
1000	Bicycle	1000	1000	1/27/2020 6:50 AM	1/30/2020



# Manufacturing Plus – Enhancement Guide

## 37. Production Order, Line, Components:

The “Unit Cost” is now visible for better information.

1011002 BICYCLE1000

1011002 Bicycle 1000

Search + New Edit List Delete Process Availability Production Show Attached Open in Excel Actions Navigate Less options

ITEM NO.	EARLIEST AVAILAB... DATE	DUE DATE	DESCRIPTION	QUANTITY PER	UNIT OF MEASURE CODE	BOM NO.	FLUSHING METHOD	EXPECTED QUANTITY	ACT. CONSUMPTION (QTY)	REMAINING QUANTITY	UNIT COST	SUB... AVAIL...
1100		1/27/2020	Front Wheel	1	PCS	1100	Manual	27	27	0	129.671	No
1200		1/27/2020	Back Wheel	1	PCS	1200	Manual	27	27	0	129.6815	No
1300		1/27/2020	Chain Assy	1	PCS	1300	Manual	27	27	0	13.1565	No
1400		1/27/2020	Mudguard front	1	PCS	—	Manual	27	27	0	3.90	No
1450		1/27/2020	Mudguard back	1	PCS	—	Manual	27	27	0	3.90	No
1500		1/27/2020	Lamp	1	PCS	—	Manual	27	27	0	5.20	No
1600		1/27/2020	Bell	1	PCS	—	Manual	27	27	0	2.70	No
1700		1/27/2020	Brake	1	PCS	1700	Manual	27	27	0	9.765	No
1800		1/27/2020	Handlebars	1	PCS	—	Manual	27	27	0	2.12	No
1850		1/27/2020	Saddle	1	PCS	—	Manual	27	27	0	7.20	No
1900		1/27/2020	Frame	1	PCS	—	Manual	27	27	0	15.70	No

## 38. Released Production Order’s Routing

Manufacturing Plus adds actual Output Qty and Remaining Qty per Operation for better information per Operational Step.

Search + New Edit List Delete Process Show Attached Open in Excel Actions Navigate Less options

Comments Tools Personnel Quality Measures

EDIT - PROD. ORDER ROUTING - 1011002 BICYCLE1000 + New

OPERATL. NO.	TYPE	NO.	DESCRIPTION	MATERIAL CONSTRAINT DATE	STARTING DATE-TIME	ENDING DATE-TIME	INPUT QUANTITY	ACTUAL OUTPUT QTY	REMAINING QUANTITY	SETUP TIME	RUNTIME	WAI
10	Work Center	100	Wheel assembly		1/27/2020 12:50 ...	1/28/2020 12:04 ...	27	27.00	0.00	110	12	
20	Machine Cent	120	Chain assembly		1/28/2020 12:04 ...	1/29/2020 11:04 ...	27	27.00	0.00	15	15	
30	Machine Cent	130	Final assembly		1/29/2020 11:04 ...	1/30/2020 12:14 ...	27	27.00	0.00	10	20	
40	Machine Cent	110	Control		1/30/2020 12:14 ...	1/30/2020 4:00 P...	27	27.00	0.00	10	8	

**39. TIP: Navigate to your Routing Line’s “Allocated Capacity” from the “Line” option shown below. You get more details from this view.**

ics 365 Business Central 1011002 · Bicycle

Search + New Edit List Delete Process Show Attached Open in Excel Actions Navigate Less options

Line

Comments Tools Personnel Quality Measures Allocated Capacity

Tip: View Capacity Need

LINE	DESCRIPTION	STARTING DATE-TIME	ENDING DATE-TIME	QUANTITY	OUTPUT QTY	QUANTITY	SETUP TIME	UNIT COST PER	RUNTIME	WAITTIME
20	12:50 ...	1/28/2020 12:04 ...		27	27.00	0.00	110	1.20	12	0
20	12:04 ...	1/29/2020 11:04 ...		27	27.00	0.00	15	0.00	15	0
30	11:04 ...	1/30/2020 12:14 ...		27	27.00	0.00	10	0.00	20	0
40	12:14 ...	1/30/2020 4:00 P...		27	27.00	0.00	10	0.00	8	0

# Manufacturing Plus – Enhancement Guide

## 40. Production Order Statistics has been enhanced (From List or Card)

Use “Production Order Statistics”. The Manufacturing Plus version shows: Capacity in Hours, Parts per Hour, and Variance to Expected Cost.

RELEASED PRODUCTION ORDERS

Released

Use this Stats

🔍 Search

+ New

Manage

Process

Report

Show Attached

📄 Open in Excel

Actions

Navigate

Report

Less options

📋 Item Ledger Entries

📋 Capacity Ledger Entries

🔄 Change Status...

🔄 Update Unit Cost...

📊 Statistics

📊 Production Order Statistics

101001	Loudspeaker 100W Oak...	LS-100	15	12/31/2018	12/31/2018	1/1/2019	Released	
101002	Loudspeaker 100W Oak...	LS-100	12	12/31/2018	12/31/2018	1/1/2019	Released	
101003	Loudspeaker 100W Oak...	LS-100	10	12/31/2018	12/31/2018	1/1/2019	Released	
1011002	Bicycle	1000	1000	27	1/27/2020	1/30/2020	1/31/2020	Released
1011003	Bicycle	1000	1000	16	1/28/2020	1/30/2020	1/31/2020	Released
1011004	Bicycle	1000	1000	10	1/29/2020	1/30/2020	1/31/2020	Released

Expect

EXPECTE

Material

Capacity

Subcontr

Capacity

Manufac

Total Cos

Cost Per

Capacity

RELEASED PRODUCTION ORDER

1011002 · Bicycle

Process Show Attached Actions Navigate Report Less options

Order ▾

Entries  
Dimensions  
Planning  
Statistics  
Production Order Statistics  
Comments  
Put-away/Pick Lines/Movement Lines  
Registered Pick Lines  
Registered Invt. Movement Lines

From Prod. Order Card, use this Stats

1/31/2020

Blocked

Creation Date 9/19/2018

Last Date Modified

Status Released

# Manufacturing Plus – Enhancement Guide

PRODUCTION ORDER STATISTICS

1011002 · Bicycle

Report | Report | Less options

Standard Lot Size	10.00
Prod. Order Qty.	27

**General**

	STANDARD COST	EXPECTED COST	ACTUAL COST	DEV %	STD COST VARIANCE	STD COST DEV %	EXP. COST VARIAN.	EXP. COST DEV %
Material Cost	9,597.97	8,720.85	8,720.85	-9	-877.12	-9	0.00	0
Capacity Cost	0.00	520.80	520.80	0	520.80	0	0.00	0
Subcontract	0.00	0.00	0.00	0	0.00	0	0.00	0
Capacity Over	0.00	0.00	0.00	0	0.00	0	0.00	0
Manufacturing	0.00	0.00	0.00	0	0.00	0	0.00	0
Total Cost	9,597.97	9,241.65	9,241.65	-4	-356.32	-4	0.00	0
Capacity Need	MINUTES			0				
Cost Per Unit	0.00	0.00	0.00			0		0
Capacity Need		1,630	1,630		0.00		0.00	
Capacity in Hours		0.00	0.00		0.00		0.00	
Parts Per Hour		0.00	0.00		0.00		0.00	

Much more statistical information provided in this view.

# Manufacturing Plus – Enhancement Guide

## History

### 41. Finished Production Orders

Access your “Finished Production Orders” from the “Posted Documents” (first choice)

Manufacturing Plus enhances the List and Card Page with all the same data access as a Released Production Order with Expected and Actual Fact Boxes too.

The screenshot shows the Dynamics 365 Business Central interface. The top navigation bar includes 'Dynamics 365', 'Business Central', and 'Finished Production Orders'. The 'Posted Documents' menu is highlighted, and the 'Finished Production Orders' option is selected. The list shows a production order for 'Bicycle' with status 'Finished'. The 'Expected Cost Factbox' and 'Actual Cost Factbox' are displayed on the right side of the page.

NO.	DESCRIPTION	SOURCE NO.	ROUTING NO.	QUANTITY	STARTING DATE	ENDING DATE	DUE DATE	ASSIGNED USER ID	STATUS	SEARCH DESCRIPTION
1011001	Bicycle	1000	1000	5	1/30/2020	1/30/2020	1/31/2020		Finished	BICYCLE

**Expected Cost Factbox**

EXPECTED COST	
Material Cost	1,614.98
Capacity Cost	204.00
Subcontracted Cost	0.00
Capacity Overhead	0.00
Manufacturing Overhead	0.00
Total Cost	1,818.98
Cost Per Unit	363.80
Capacity Need	420
Capacity in Hours	7.00
Parts Per Hour	1.40

**Actual Cost Factbox**

ACTUAL COST	
Material Cost	1,614.98
Capacity Cost	204.00
Subcontracted Cost	0.00
Capacity Overhead	0.00
Manufacturing Overhead	0.00
Total Cost	1,818.98
Cost Per Unit	363.80
Actual Time Used	420
Capacity in Hours	7.00
Parts Per Hour	1.40

### 42. Production Order “Audit” Report = “Estimate vs Actual Details”

Manufacturing Plus includes this Audit Report for your reporting needs.

The screenshot shows the Dynamics 365 Business Central interface. The top navigation bar includes 'CRONUS International Ltd.', 'Inventory', 'Product Design', 'Capacities', 'Journals', and 'Posted Documents'. The 'Finished Production Orders' list page is displayed. The 'Report' button is highlighted, and the 'Estimate vs Actual Detail' report is selected from the dropdown menu.

**Finished Production Orders:** All Search Delete Process Report Show Attached Open in Excel

NO.	DESCRIPTION	SOURCE NO.	ROUTING NO.	DUE DATE	DUI
1011001	Bicycle	1000	1000	10/2020	1/3

**Report Menu:**

- Production Order Job Card
- Estimate vs Actual Detail
- Production Order - Comp. and Routing
- Production Order List
- Production Order - Shortage List
- Production Order Statistics

# Manufacturing Plus – Enhancement Guide

CRONUS International Ltd.		Production Order - Expected and Actual Cost Details					CCSNETRICK		December 8, 2018		7:21:31 PM		Page	1
Production Order:		Report Prod. Order - Expected Actual (14004543)												
No.	Status	Description		Source No.	Quantity	Starting Date	Ending Date	Due Date						
1011001	Finished	Bicycle		1000	5	1/30/2020	1/30/2020	1/31/2020						
Line No.	Item No.	Description		Quantity	Finished Quantity	Remaining Quantity		Indirect Cost %		Overhead Rate				
10000	1000	Bicycle		5	5	0		0		0				
Operation No.	Type	Starting Date	No.	Description	Routing Link Code	Setup Time	Run Time	Unit Cost per	Overhead Rate	Expected Operation C	Expected Capacity	Expected Sub Cost	Expected Cap OH	
10	Work Center	1/30/2020	100	Wheel assembl	100	110	12	1.20	0	20.400	204.00	0.00	0.00	
Operation No.	Posting Date	No.	Description	Document No.	Type	Resource No.	Setup Time	Run Time	Quantity	Direct Cost	Subcontracting	Overhead Cost		
Actuals: 10	9/4/2020	100	1011001	Work Center	Wheel assembly			0	170	170	204.00	0.00	0.00	
SubTotal:										170.00	204.00	0.00		
20	Machine Ce	1/30/2020	120	Chain assembly		15	15	0.00	0	0.00	0.00	0.00	0.00	
Operation No.	Posting Date	No.	Description	Document No.	Type	Resource No.	Setup Time	Run Time	Quantity	Direct Cost	Subcontracting	Overhead Cost		
Actuals: 20	9/4/2020	120	1011001	Machine Center	Chain assembly			0	90	90	0.00	0.00	0.00	
SubTotal:										90.00	0.00	0.00		
30	Machine Ce	1/30/2020	130	Final assembly		10	20	0.00	0	0.00	0.00	0.00	0.00	
Operation No.	Posting Date	No.	Description	Document No.	Type	Resource No.	Setup Time	Run Time	Quantity	Direct Cost	Subcontracting	Overhead Cost		
Actuals: 30	9/4/2020	130	1011001	Machine Center	Final assembly			0	110	110	0.00	0.00	0.00	
SubTotal:										110.00	0.00	0.00		
40	Machine Ce	1/30/2020	110	Control	300	10	8	0.00	0	0.00	0.00	0.00	0.00	
Operation No.	Posting Date	No.	Description	Document No.	Type	Resource No.	Setup Time	Run Time	Quantity	Direct Cost	Subcontracting	Overhead Cost		
Actuals: 40	9/4/2020	110	1011001	Machine Center	Control			0	50	50	0.00	0.00	0.00	
SubTotal:										50.00	0.00	0.00		
Expected										204.00	204	0.00	0	
										Expected	Actual			
Capacity Cost										204	204.00			
Subcontract										0.00	0.00			
Capacity OH										0.00	0.00			
Time										2520.0000	420			

## 43. Posted Documents

This Role Center Choice gives you quick access to your key Posted Documents:

Dynamics 365

Business Central

Posted Sales Invoice Lines

CRONUS International Ltd.

Inventory

Product Design

Capacities

Journals

Posted Documents

Finished Production Orders

Posted Sales Invoice Lines

Posted Purchase Invoice Lines

Posted Sales Credit Memo Lines

Posted Purchase...edit Memo Lines

Sales Quote Archives

Sales Order Archives

Posted Sales Shipments

Posted Sales Invoices

Posted Purchase Quote Archives

Posted Purchase Order Archives

Posted Purchase Receipts

Posted Service Invoices

Posted Service Credit Memos

Posted Sales Invoice Lines:

All

Search

Show Attached

Open in Excel

Navigate

Less options

DOCUMENT NO.

SELL-TO CUSTOMER NO.

TYPE

NO.

DESCRIPTION

Line

Quantity

UNIT OF MEASURE CODE

103001

10000

Resource

TIMOTHY

Assembling Furniture, January

25

HOUR

103001

10000

Resource

TIMOTHY

Assembling Furniture, January

120

MILES

103002

20000

Resource

TIMOTHY

Assembling Furniture, January

25

HOUR

103002

20000

Resource

TIMOTHY

Assembling Furniture, January

96

MILES

103003

30000

Resource

TIMOTHY

Assembling Furniture, January

25

HOUR

Show Document

Dimensions

Item Tracking Lines

# Manufacturing Plus – Enhancement Guide

## Reporting

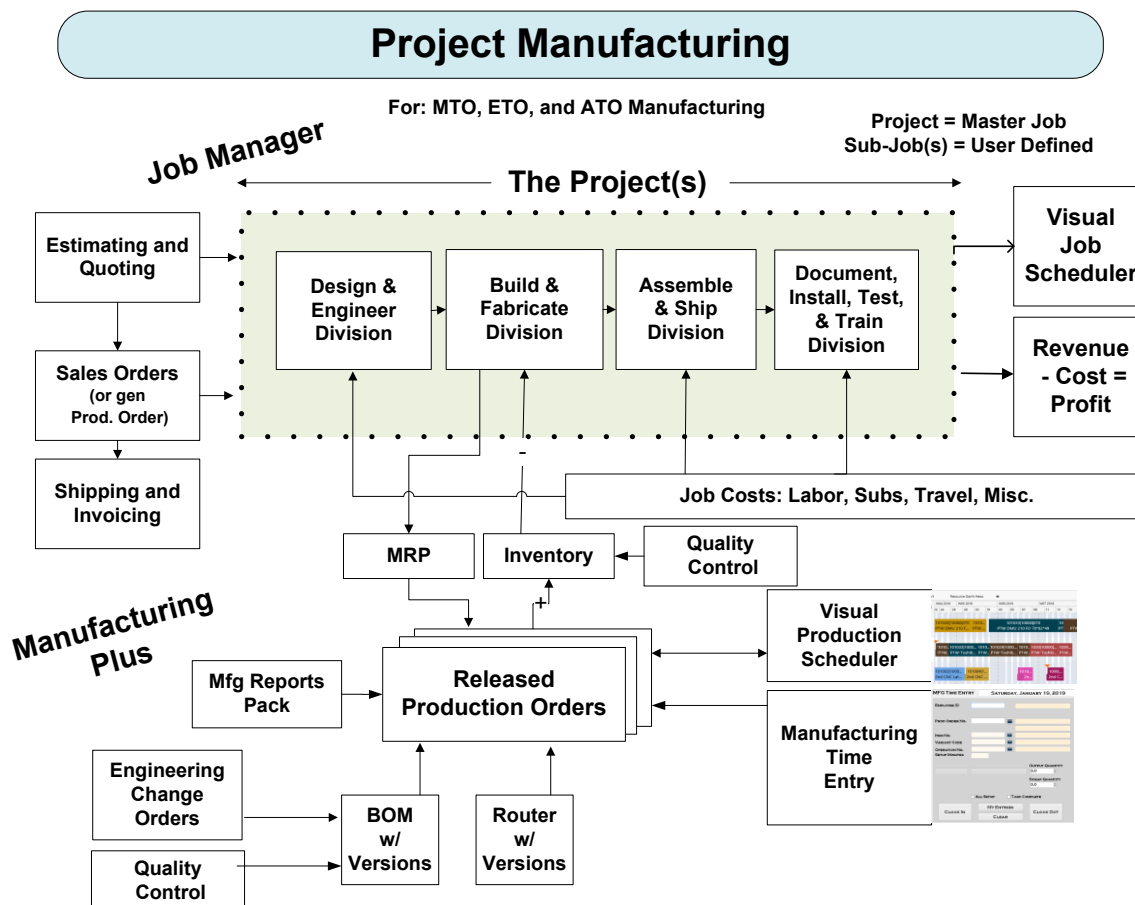
“Manufacturing Reports Pack” is now an optional Granule.

Please request a Brochure to see samples of the available Reports.

## Product Roadmap – Fall of 2019

“Project Manufacturing” - Integration of Job Manager and Manufacturing Plus.

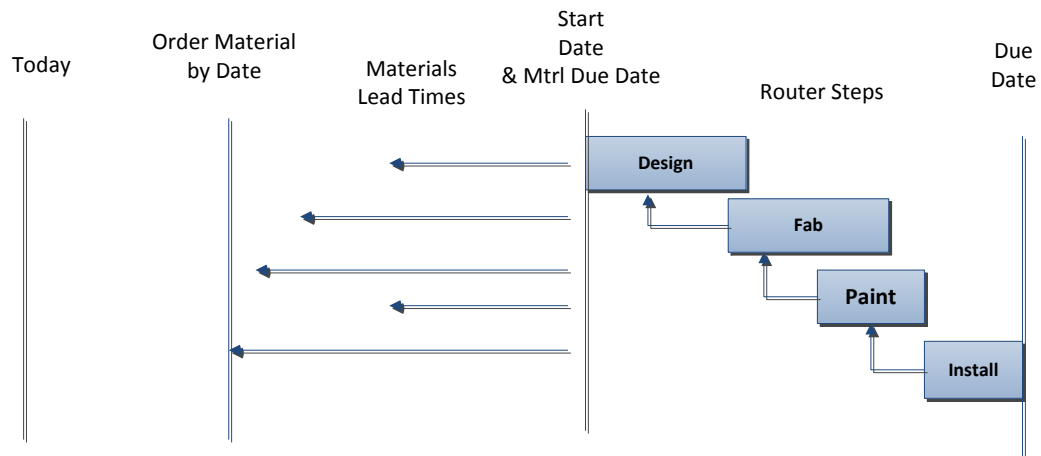
- Be sure this applies to your business.  
Spend time with Cost Control Software to discuss this concept.



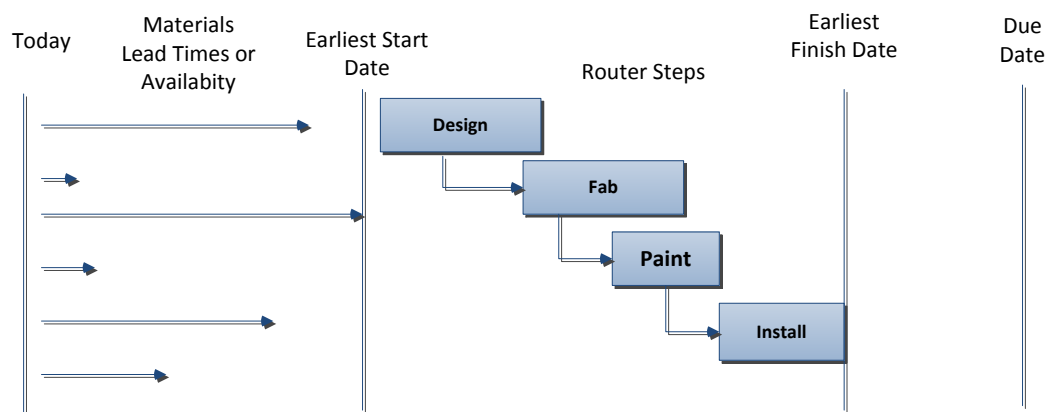
# Manufacturing Plus – Enhancement Guide

## Scheduling Options

### A. Backward Scheduling from the Due Date to Order Material by Date

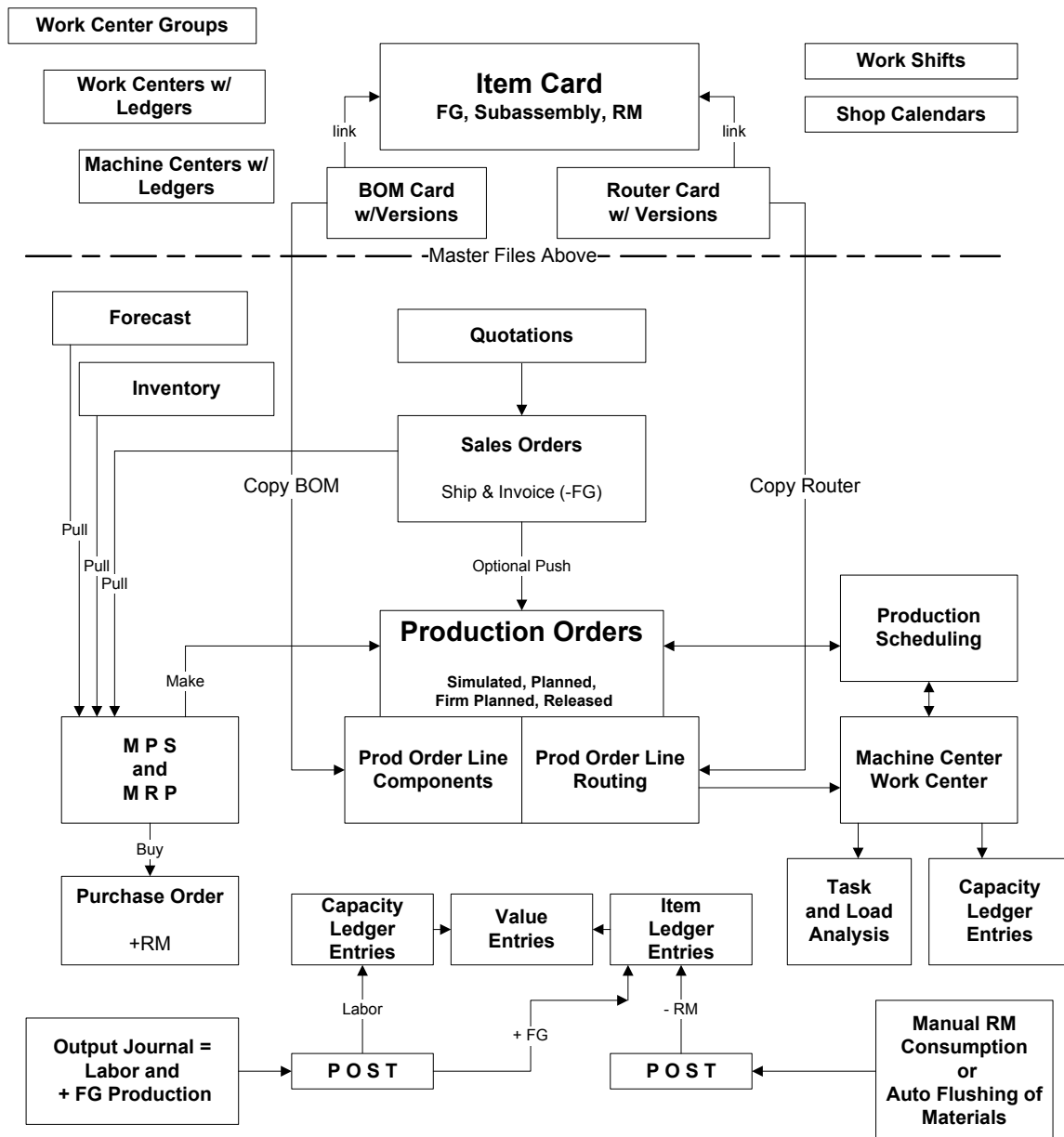


### B. Forward Scheduling from Today – with Mfg Plus and Production Scheduler



# Manufacturing Plus – Enhancement Guide

## Manufacturing Components





# Manufacturing Plus – Enhancement Guide

## Support

Congratulations on your purchase of Manufacturing Plus! We couldn't be more thrilled for you. Soon, you will be on your way to enjoying and utilizing the features and functionality of this product.

Most importantly, Cost Control Software sincerely appreciates your trust in our products.

Should you have any questions, comments, or training requirements we encourage you to contact us immediately. Also, if you are considering modifications or seeking new software functionality, please contact us.

Cost Control Software provides many add-on products that may be just the solution you were looking for. We would be glad to provide you with a full Catalog of our products. You may also check out our website to see available add-on products as well.

Visit: [www.costcontrolsoftware.com](http://www.costcontrolsoftware.com) for more information.

**Produced and Distributed by:**  
**Cost Control Software, Inc.**  
**12409 Old Meridian Street**  
**Carmel, IN 46032**

**Phone: (317) 846-6025**