

Manager Reference: Manufacturing

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.1 Job Shop

.1.1 Discussion - Production Runs and Tasks

A Production Run is composed of Production Run Tasks that are performed one after the other. When the last Production Run Task is completed, the Production Run can be closed. <P> A Production Run is done in a Facility; its start date is equal to the start date of the first of its Production Run Tasks; its end date equals the end date of the last of its Production Run Tasks.<P> Each Production Run Task is performed in a fixed asset (also called a workcenter).<P> You can see all these events in the WorkEffort's calendar pages. Select a Facility and you will see all the Production Runs that will take place in that Facility. Select a Fixed Asset and you will see all the Production Run Tasks that will take place in the Fixed Asset. <P> For further discussion of Production Runs and the Manufacturing process, see under Shipment Plans, below.

.1.2 Find Production Run

.1.2.1 FindProductionRun

id:[DOCMNU8] image:

The screenshot shows the 'Manufacturing Manager Application' interface. At the top, there is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a sub-navigation bar with tabs for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout. The main content area is titled 'Find Production Run' and includes a 'Create a Production Run' button. The search form contains several fields: 'Production Run ID', 'Status', 'Product ID', 'ProductionRun Name', 'Start Date', and 'ProductFacilityId'. Each field has associated radio buttons for search criteria like 'Equals', 'Begins With', 'Contains', 'Is Empty', and 'Ignore Case'. There are also calendar icons for the 'Start Date' field. A 'Lookup' button is located below the 'ProductFacilityId' field. Below the form is a table with the following data:

	ProductionRun Name	Product ID	Quantity	Current Status Id	Start Date	Description	ProductFacilityId
10040	Emergency production	GZ-2002	12	Closed	2005-12-12 11:44:22.574	Need 12 Square Gizmos for Christmas orders	WebStoreWarehouse
10050	New Year Rainbow	GZ-1004	12	Created	2006-01-03 12:05:26.281	Create 12 Gizmos for January sales	WebStoreWarehouse

At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'.

The first screen under the Manufacturing application. Find a production run or choose another tab.

.1.2.2 link buttons

[Create a Production Run] [Lookup]

.1.2.3 Search tool

.1.2.3.1 Production Run ID

Enter known parts of the ID, then select an appropriate radio button: Equals / Begins With / Contains / Is Empty. Check the box to disregard the UPPER or lower Case of the entry.

.1.2.3.2 Status (drop-down box)

By invoking a status parameter in the search, you will be excluding all Production Runs that are not of that status. Therefore, this should not be used unless you are very sure of the status. Possible Status from the drop-down box includes: <p> Created
 Confirmed
 Running
 Completed
 Closed
 Cancelled

.1.2.3.3 Product ID (popup search box)

Either enter the Product ID or use the search popup to specify which Product the Production Run was to include.

.1.2.3.4 ProductionRun Name

Enter known parts of the name, then select an appropriate radio button: Equals / Begins With / Contains / Is Empty. Check the Ignore Case box to prevent incorrect case entry from skewing the search.

.1.2.3.5 Start Date (popup calendars)

.1.2.3.5.1 (First date)

Enter a date with the popup calendar, then select an appropriate radio button: Equals / Same Day / Greater Than From Day Start / Greater Than.

.1.2.3.5.2 (Second date)

Enter a date with the popup calendar, then select an appropriate radio button: Less Than / Up To Day / Up Thru Day / Is Empty.

.1.2.3.6 Product Facility ID (drop-down box)

Use the drop-down box to identify which Facility is involved, if there is more than one facility which could be used for production runs.

.1.2.4 Table Production Runs

.1.2.4.1 (production run ID)

Click on the ID number to view or edit the Production Run.

.1.2.4.2 ProductionRun Name

What the Production Run was named at the time it was created.

.1.2.4.3 Product ID

Which Product is being produced in the Production Run.

.1.2.4.4 Quantity

How many will be produced.

.1.2.4.5 Current Status ID

Possible Status conditions might be: <p> Created
 Confirmed
 Running
 Completed
 Closed
 Cancelled

.1.2.4.6 Start Date

When the Production Run is scheduled to begin.

.1.2.4.7 Description

What the Production Run is intended to accomplish.

.1.2.4.8 Product Facility ID

Which Facility will be performing the Production Run.

.1.3 Create a Production Run

.1.3.1 CreateProductionRun

id:[DOCMNU36] image:

The screenshot shows the 'Create a Production Run' form in the Manufacturing Manager Application. The form includes the following fields and controls:

- Product ID:** Text input with value 'GZ-1004' and a popup search icon.
- Quantity:** Text input with value '12'.
- Start Date:** Date-time input with value '2006-01-03 12:05:26' and a calendar icon.
- ProductFacilityId:** Drop-down menu with selected value 'Web Store Warehouse [WebStoreWarehouse]'.
- Routing Id:** Text input with value 'DEFAULT_ROUTING' and a popup search icon.
- ProductionRun Name:** Text input with value 'New Year Rainbow'.
- Description:** Text input with value 'Create 12 Gizmos for January sales'.
- Submit:** A blue button to submit the form.

At the bottom of the form, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'.

Only these 7 items of information are needed to create a production run; add details in the next screen.

.1.3.2 link buttons

[Submit]

.1.3.3 Product ID (popup search box)

Enter the Product ID to be produced; use the popup search tool to identify the product, if needed.

.1.3.4 Quantity

How many are to be produced.

.1.3.5 Start Date (popup calendar)

When the Production Run is to begin.

.1.3.6 Product Facility ID (drop-down box)

Which Facility will be performing the production? Use the drop-down box to identify.

.1.3.7 Routing ID (popup search box)

The Routing ID to be followed with this Production Run. Use the popup search box to identify it.

.1.3.8 ProductionRun Name

Give the Production Run a descriptive name to distinguish it from any other.

.1.3.9 Description

Here you can elaborate on the Production Run Name and give more details about the purpose or reason for this Production Run.

.1.4 Edit Production Run

.1.4.1 ShowProductionRun

id:[11343] image:



Welcome THE ADMINISTRATOR!
2005-12-31 08:51:51.421

English (United States)

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application
JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

[Edit Production Run](#) [Assoc](#)

[ID:10070]

[Create a Production Run](#)

Production Run ID: 10070 [Confirm](#) [Quick Complete](#) [Quick Close](#) [Cancel](#)

Product ID [GZ-1000]/Tiny Gizmo
ProductFacilityId Web Store Warehouse [WebStoreWarehouse]
Quantity 20
Start Date 2006-01-09 08:49:13.5
Calculated Completion Date 2006-01-09 08:49:13.578
ProductionRun Name Tiny January Run
Description Replenish stock of Tiny

List Of ProductionRun RoutingTasks [Add a RoutingTask](#)

Sequence Num	Routing Task Name	Fixed Asset	Start Date	Calculated Completion Date	Estimated Setup Time	Estimated Run Time		
10	Default Routing Task [10071]		2006-01-09 08:49:13.578	2006-01-09 08:49:13.578	0	0	Edit	Delete

List Of ProductionRun Components [Add ProductComponent to ProductionRun](#)

Routing Task Id	Product Name	Quantity		
Default Routing Task [10071]	[GZ-KIT]	20	Edit	Delete



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Make changes or additions to an existing Production Run from this screen. Confirm, Complete, Close or Cancel as needed.

.1.4.2 link buttons

[Update] [Edit] [Delete] [Create a Production Run] [Edit Production Run] [Assocs] [Confirm] [Quick Complete] [Quick Close] [Cancel] [Add a Routing Task] [Add Product Component to Production Run]

.1.4.3 Production Run details

.1.4.3.1 Product ID

Cannot change without creating a new Production Run.

.1.4.3.2 ProductFacility ID (drop-down box)

Where, or in which facility, will the production be accomplished.

.1.4.3.3 Quantity

How many products are going to be produced.

.1.4.3.4 Start Date (popup calendar)

Use popup calendar to change.

.1.4.3.5 Calculated Completion Date

When the Production should be finished. This cannot be edited because it is calculated using information from many sources, using an algorithm to derive the estimation. It assumes starting exactly when the start date shows, so you must be accurate to the time entered under Start Date.

.1.4.3.5.1 Calculated Completion Date - a discussion

There is an **algorithm** that computes the time needed to complete the task, for every task in the production run, in the following way: $\text{totalTaskTime} = \text{setupTime} + \text{taskTime} * \text{neededQuantity}$ where:
 * setupTime and taskTime are set in the Routing Task definition
 * neededQuantity is the quantity you enter when you create the production run.
 Then, the total estimated time needed to complete the production run is the sum of all the totalTaskTimes of its tasks.
 If the Estimated Completion Date is EQUAL to the start date it might be because you have not set the setupTime or taskTime .
 About start and end dates: the above algorithm only computes the time needed to run tasks (and the whole production run as well); to set the estimated start/end dates there is another algorithm that, for every task:
 * goes to the fixed asset to which the task is assigned
 * takes the calendar assigned to the fixed asset
 * based on the capacity of the calendar and on the start date, it computes an end date.
 For example:
 - I have a fixed asset, 'painting workcenter', associated with the standard calendar.
 - The calendar states that the asset is available from 8:00 to 18:00 from Monday thru Friday.
 - I have a production run with two tasks, 'paint' and 'test', both assigned to the 'painting workcenter'
 - the start date is 17:00 Friday, December 16th.
 Let's say that the first algorithm (based on qty, setup and task time) has determined that:
 a) for the first task, 'paint', the time needed will be 2 hours
 b) for the second task, 'test', the time needed will be 1 hour
 The result is that:
 A) paint task:
 A1) Start date is 17:00 Friday, December 16.
 A2) End date is 9:00 Monday, December 19.
 B) test task:
 B1) Start date is 9:00 Monday, December 19.
 B2) End date is 10:00 Monday, December 19.
 C) Entire production run:
 C1) Start date is 17:00 Friday, December 16.
 C2) End date is 10:00 Monday, December (which is the estimated completion date you should see after you have created a production run if all the parameters exist).
 When you change the start date (after you have created the production run) all the tasks' start/end dates are recomputed and this will change the estimated completion date of the production run as well.

.1.4.3.6 Production Run Name

What this Production Run will be called. This field may be edited at this screen.

.1.4.3.7 Description

General details or information about the Production Run. This field may be edited at this screen.

.1.4.4 List Of ProductionRun RoutingTasks

.1.4.4.1 Sequence Number

Sequencing will progress from the smallest through the largest number.

.1.4.4.2 Routing Task Name

What the Routing Task is known as.

.1.4.4.3 Fixed Asset

If a Fixed Asset is needed to accomplish the Routing Task, it is identified here.

.1.4.4.4 Start Date (popup calendar)

When the work will begin.

.1.4.4.5 Calculated Completion Date

When the work is calculated to be finished.

.1.4.4.6 Estimated Setup Time

Expressed in milli-seconds, approximately how long it will take to setup material, equipment and personnel to accomplish this routing task for the production run.

.1.4.4.7 Estimated Run Time

Expressed in milli-seconds.

.1.4.4.8 Add a Routing Task

.1.4.4.8.1 EditProductionRun-AddRoutingTask

id:[11368] image:

Add a RoutingTask

Routing Task Id

Sequence Num

Routing Task Name

Description

Start Date

Calculated Completion Date

Estimated Setup Time

Estimated Run Time

Submit Query

This working section pops into the screen above; complete it by pressing [Submit Query] and the new Task appears in the table.

.1.4.4.8.2 link buttons

[Submit Query]

.1.4.4.8.3 Routing Task ID (popup search box)

Use popup search box to specify which Routing Task is being added here.

.1.4.4.8.4 Sequence Num

Sequencing will progress from the smallest through the largest number.

.1.4.4.8.5 Routing Task Name

What the Routing Task is known as.

.1.4.4.8.6 Description

Describe the nature of work accomplished by this Routing Task.

.1.4.4.8.7 Start Date (popup calendar)

When the work will begin.

.1.4.4.8.8 Calculated Completion Date

When the system calculates the Routing Task will be complete. This field cannot be edited. If empty, that is because no data exists upon which the system can calculate the Completion Date.

.1.4.4.8.9 Estimated Setup Time

Expressed in milli-seconds, approximately how long it will take to setup material, equipment and personnel to accomplish this routing task for the production run.

.1.4.4.8.10 Estimated Run Time

Enter amount in milli-seconds.

.1.4.5 List Of ProductionRun Components

.1.4.5.1 Routing Task ID

Name and [ID] of the Routing Task. Use the [Edit] link at the end of the row to view or modify the Routing Task.

.1.4.5.2 Product Name

The Product being added to the Production Run Routing Task.


.1.4.5.3 Quantity

How many.

.1.4.5.4 Tool to Add ProductComponent to ProductionRun

.1.4.5.4.1 EditProductionRun-addProductComponent

Add ProductComponent to ProductionRun

Product Id 

Routing Task Id ▼

Quantity

Use popin to add Product Component.

.1.4.5.4.2 link buttons

[Submit Query]

.1.4.5.4.3 Product ID (popup search)

Select the ID using the popup search tool.

.1.4.5.4.4 Routing Task ID (drop-down box)

Select the Routing Task from the drop-down box.

.1.4.5.4.5 Quantity

How many will be added.

.1.5 Status Report

.1.5.1 Discussion

When the Production Run has been completed, estimated items are changed to actual amounts. The screen changes as shown below.

.1.5.2 quickChangeProductionRunStatus



Manufacturing Manager Application

Production Run Declaration

[ID:10050]

Production Run ID: 10050

ProductionRun Name	New Year Rainbow
Description	Create 12 Gizmos for January sales
Estimated Start Date	2006-01-03 12:05:26.281
Start Date	2005-12-30 19:50:40.171
Calculated Completion Date	2006-01-03 12:05:26.281
Completion Date	2005-12-30 19:50:42.062
Product ID	[GZ-1004]/Rainbow Gizmo
Qty To Produce	12
Stock in	<input type="text" value="12"/>
	<input type="button" value="Submit Query"/>
Produced	0
Rejected	0
Status	Completed

List Of ProductionRun RoutingTasks

Sequence Num	Routing Task Name	Status	Fixed Asset	Calculated Completion Date	Actual Setup Time	Actual Time	Produced
10	Default Routing Task [10051]	Completed		2006-01-03 12:05:26.281			12

List Of ProductionRun Components

Routing Task Id	Product Name	Quantity	Issued
Default Routing Task [10051]	[GZ-1001]	12	12



Report screen after the Production Run is completed.

.1.6 Assocs

.1.6.1 ProductionRunAssocs



Manufacturing Manager Application

[Production Run Declaration](#) [Assoc's](#)

[ID:10050]

[Create a Production Run](#)

Mandatory Production Runs

Work Effort Name	Quantity To Produce	Quantity Produced	Estimated Start Date	Estimated Completion Date	Actual Start Date	Actual Completion Date
------------------	---------------------	-------------------	----------------------	---------------------------	-------------------	------------------------

Dependent Production Runs

Work Effort Name	Quantity To Produce	Quantity Produced	Estimated Start Date	Estimated Completion Date	Actual Start Date	Actual Completion Date
------------------	---------------------	-------------------	----------------------	---------------------------	-------------------	------------------------



When other Production Runs are associated with this one, either Mandatory or Dependent, they are reported here.

.1.6.2 link buttons

[Create Production Run] [Production Run Declaration] [Assoc's]

.1.6.3 Mandatory Production Runs

.1.6.3.1 (Production Run ID)

Click on the ID number in this first column to edit or view the Mandatory Production Run.

.1.6.3.2 Work Effort Name

The name by which the Production Run is known.

.1.6.3.3 Quantity to Produce

Total amount expected from this Production Run.

.1.6.3.4 Quantity Produced

If the Production Run is completed, how many were actually produced.

.1.6.3.5 Estimated Start Date

When the Production when is or was expected to begin.

.1.6.3.6 Estimated Completion Date

When the Production Run is expected to be completed.

.1.6.3.7 Actual Start Date

If the Production Run has been completed, when did it actually begin.

.1.6.3.8 Actual Completion Date

If the Production Run is completed, when was it actually finished.

.1.6.4 Dependent Production Runs

.1.6.4.1 Discussion of the fields

Each of the fields is identical with the Mandatory Production Run fields, discussed above.

.2 Routing

.2.1 Find a Routing

Click on the Work Effort ID to go to the Edit Routing screen; there you can see details or make changes to the Routing.

.2.1.1 FindRouting

id:[DOCMNU47] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-30 20:24:26.75
English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Routings
New Routing

Routing Id Equals Begins With Contains Is Empty Ignore Case

Routing Name Equals Begins With Contains Is Empty Ignore Case

Lookup

Routing Id	Routing Name	Description	Quantity To Produce
ROUT01	PC assembly	PC Assembly	0
DEFAULT_ROUTING	Default Routing	Default Routing	0

W3C CSS W3C XHTML 1.0

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Powered By OFBiz

Search for an established Routing. Search tool results limit the returns in the table.

.2.1.2 link buttons

[New Routing] [Lookup]

.2.1.3 Search tool

.2.1.3.1 Routing ID

Enter known data and select the applicable radio button:
 Equals
 Begins With
 Contains
 Is Empty
 To have the search ignore the UPPER or lower case of the entry, check the box.

.2.1.3.2 Routing Name

Enter known data and select the applicable radio button:
 Equals
 Begins With
 Contains
 Is Empty
 To have the search ignore the UPPER or lower case of the entry, check the box.

.2.1.4 Table of current Routings

.2.1.4.1 Routing ID

Click on the Routing ID to be taken to an edit screen for viewing or editing the Routing.

.2.1.4.2 Routing Name

The common name for this Routing.

.2.1.4.3 Description

Brief description of what the Routing is supposed to accomplish.

.2.1.4.4 Quantity To Produce

How many are expected to be produced with this Routing.

.2.2 Create New Routing

.2.2.1 EditRouting-New

id:[11281] image:

The screenshot displays the 'Manufacturing Manager Application' interface. At the top left is the 'OPEN FOR BUSINESS OFBiz.org' logo. At the top right, it says 'Welcome THE ADMINISTRATOR!' with the date '2005-12-30 20:55:38.312' and a language dropdown set to 'English (United States)' with a 'Set' button. A navigation bar contains tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a sub-navigation bar for the Manufacturing Manager Application with tabs for JobShop, Routing (selected), Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout. The main content area shows a form titled '[ID:] New Routing'. The form has three input fields: 'Routing Name', 'Description', and 'Quantity To Produce', each with a 'Submit' button below them. At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'. A message box at the bottom of the screenshot contains the text: 'A new Routing is initiated and named at this screen.'

.2.2.2 link buttons

[New Routing] [Submit]

.2.2.3 Routing Name

What you choose to call the Routing. Should be concise yet clear.

.2.2.4 Description

What the Routing is intended to accomplish. Keep it short.

.2.2.5 Quantity To Produce

How many items will be produced.

.2.3 Edit Routing

Same screen used to create a New Routing except that existing fields are populated and the processing tabs are shown.

.2.3.1 EditRouting

id:[DOCMNU59] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-30 21:15:03.89
English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Edit Routing Edit RoutingTask Assoc Edit Routing Product Link

[ID:ROUT01] PC assembly
New Routing

Routing Name PC assembly
Description PC Assembly
Quantity To Produce 0
Submit

W3C CSS W3C XHTML 1.0

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You can change anything except the Routing ID.

.2.3.2 link buttons

[New Routing] [Submit] [Edit Routing] [Edit Routing Product Link] [Edit Routing Task Assoc]

.2.3.3 Routing Name

What you call this Routing.

.2.3.4 Description

What the Routing is expected to do.

.2.3.5 Quantity To Produce

How many will be produced.

.2.4 Edit Routing Task Assoc

.2.4.1 EditRoutingTaskAssoc



Manufacturing Manager Application

[Edit Routing](#) | [Edit RoutingTask Assoc](#) | [Edit Routing Product Link](#)

[ID:ROUT01] PC assembly

Routing Task Id <input type="text"/>	From Date <input type="text"/>
Sequence Num <input type="text"/>	Thru Date <input type="text"/>

[Add a existing RoutingTask](#) - [Copy a routingTask and Add it](#)

Routing Task Name	Sequence Num	From Date	Thru Date	Estimated Setup Time	Estimated Run Time	
[TASK01] Stock out	10	2004-09-24 15:09:38.736		0	600,000	Delete
[TASK02] Assembly	20	2004-09-24 15:09:47.338		0	900,000	Delete
[TASK03] Test	30	2004-09-24 15:09:55.279		20,000	450,000	Delete



Routing Tasks are associated with the Routing from this screen. Existing associations can be deleted.

.2.4.2 link buttons

[Add a existing Routing Task] [Copy a routingTask and Add it] [Delete] [Edit Routing] [Edit Routing Task Assoc] [Edit Routing Product Link]

.2.4.3 Tool to add Routing Task

.2.4.3.1 Routing Task ID (popup search box)

Identify the Task with the popup search tool.

.2.4.3.2 Sequence Number

When the tasks need to be sequenced, indicate the appropriate Sequence Number here.

.2.4.3.3 From Date (popup calendar)

This would be the creation date of the Task association with this Routing. Default is Now. Use the popup calendar to indicate a different date and time.

.2.4.3.4 Thru Date (popup calendar)

This would be the expiration date of the Task association with this Routing, if any. Use the popup calendar to specify the date and time.

.2.4.4 Table of associated tasks

The displayed Setup Time and Running Time are actually introduced under the Routing Task tab. Click on the Routing Task name to be taken into the Edit Routing Task window for that Task.

.2.4.4.1 Routing Task Name

What the Routing Task is called.

.2.4.4.2 Sequence Num

If tasks are sequenced, this is the number assigned to this task.

.2.4.4.3 From Date

When this Task was associated with the Routing.

.2.4.4.4 Thru Date

If the association of this Task with the Routing is to expire, this is the anticipated expiration date and time.

.2.4.4.5 Estimated Setup Time

How long (in milliseconds) it is estimated to take to setup this Task.

.2.4.4.6 Estimated Run Time

Approximately how long the Task will take to accomplish, expressed in milliseconds.

.2.5 Edit Routing Product Link

To edit an existing Routing Link, click on the item in the table. The editing fields will populate with data for you to edit.

.2.5.1 EditRoutingProductLink

id:[DOCMNU70] image:

The screenshot shows the Manufacturing Manager Application interface. At the top, there is a logo for 'OPEN FOR BUSINESS OFBiz.org' and a user greeting: 'Welcome THE ADMINISTRATOR! 2005-12-30 21:39:27.609'. A language dropdown menu is set to 'English (United States)' with a 'Set' button. Below this is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. The main content area is titled 'Manufacturing Manager Application' and contains sub-tabs for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout. The 'Edit Routing Product Link' tab is active, showing a form for '[ID:ROUT01] PC assembly'. The form includes input fields for Product ID, Quantity, Estimated Cost, From Date, and Thru Date, along with an 'Update' button. Below the form is a table with columns for Product Name, From Date, Thru Date, Quantity, and buttons for Edit and Delete. The table contains one row for 'PC001' with a 'From Date' of '2004-09-24 15:10:14.227'. At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'.

Associate the related Product ID with the Routing; indicate Quantity, Cost and schedule.

.2.5.2 link buttons

[Update] [Edit] [Delete] [Edit Routing] [Edit Routing Task Assoc] [Edit Routing Product Link]

.2.5.3 Tool to add product link

.2.5.3.1 Product ID (popup search box)

Use the popup search tool to specify the Product.

.2.5.3.2 Quantity

How many.

.2.5.3.3 Estimated Cost

How much in currency this process will cost.

.2.5.3.4 From Date (popup calendar)

When this association of Product to Routing is to begin; default is now.

.2.5.3.5 Thru Date (popup calendar)

When the association of the Product to the Routing is set to expire, if ever.

.2.5.4 Table of current Links

.2.5.4.1 Product Name

What the Product is known as.

.2.5.4.2 From Date

When the association was made effective.

.2.5.4.3 Thru Date (popup calendar)

When the association is expected to expire, if ever.

.2.5.4.4 Quantity

How many.

.3 Routing Task

.3.1 Find Routing Task

.3.1.1 FindRoutingTask

id:[11292] image:

The screenshot shows the 'Manufacturing Manager Application' interface. At the top, there is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a sub-navigation bar with links for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout. The main content area is titled 'Routing Tasks' and includes a 'New Routing Task' link. There are three search fields: 'Routing Task Id', 'Routing Task Name', and 'Fixed Asset Id'. Each search field has radio buttons for 'Equals', 'Begins With', and 'Contains', and a checkbox for 'Ignore Case'. A 'Lookup' button is positioned below the search fields. Below the search area is a table with the following data:

Task ID	Routing Task Name	Description	Task Type	Fixed Asset Id	Estimated Setup Millis	Estimated Milli Seconds
TASK01	Stock out	Components	Assembling	DRIER Machining	0	600,000
TASK02	Assembly	Assembly	Assembling	DRIER Machining	0	900,000
TASK03	Test	Test	Assembling	DRIER Machining	20,000	450,000
DEFAULT_TASK	Default Routing Task	Default Routing Task	Assembling		0	0

At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'.

Identify existing Routing Tasks from this screen. Search results will reduce the number of Tasks displayed in the table.

.3.1.2 link buttons

[New Routing Task] [Lookup]

.3.1.3 Tool to find Routing Tasks

.3.1.3.1 Routing Task ID

Enter known data, then select appropriate radio button: Equals; Begins With; Contains; Is Empty. Check the box to ignore UPPER or lower case restrictions.

.3.1.3.2 Routing Task Name

Enter known data, full or partial, then select an appropriate radio button: Equals; Begins With; Contains; Is Empty. Check the box to ignore UPPER or lower case restrictions.

.3.1.3.3 Fixed Asset ID (drop-down box)

Generally used to identify facilities (shops, clean rooms), machines, etc., which need to be reserved or assigned for particular tasks. If the Routing Task depends upon one of these, this could be a useful search parameter.

.3.1.4 Table of found Routing Tasks

This table first appears with all existing Routing Tasks presented, up to its display capacity; you can select from it by clicking on the Task ID to be taken to the Routing Task edit screen.<p> As criteria or parameters are entered into the search tool and the [Lookup] link engaged, only those Routing Tasks matching the entered criteria will appear in this table. If no results are returned, try entering less data; the search method is exclusionary and you might have been too restrictive in your entry.

.3.1.4.1 Task ID

Click on the Task ID number to view or edit the Task.

.3.1.4.2 Routing Task Name

Name by which the Routing Task is known.

.3.1.4.3 Description

What the Routing Task involves.

.3.1.4.4 Task Type

Assembling, manufacturing, or subcontracting are the default types listed; others could be added.

.3.1.4.5 Fixed Asset ID

Any one of the Fixed Assets you have identified in the system could be here, especially if its use in this task needs to be scheduled through the Calendar.

.3.1.4.6 Estimated Setup Millis

How long it will take (in milliseconds) to setup the equipment, material and personnel to prepare for the task.

.3.1.4.7 Estimated Milli Seconds

How long the process requires for each unit of production, stated in milliseconds.

.3.2 Edit Routing Task

.3.2.1 EditRoutingTask



Manufacturing Manager Application

[Edit RoutingTask](#) [List Routings](#)

[ID:TASK02] **Assembly**
[New Routing Task](#)

Routing Task Name:

Task Type:

Description:

Fixed Asset Id:

Estimated Setup Millis:

Estimated Milli Seconds:

Estimate Calc Method:



Edit an existing Routing Task from this screen.

.3.2.2 link buttons

[New Routing Task] [Submit] [Edit Routing Task] [List Routings]

.3.2.3 Routing Task Name

What the Routing Task is called. This name can be changed here in this field at this screen.

.3.2.4 Task Type (drop-down box)

Select from the drop-down box. Initial types with OFBiz include the following:

 Assembling
 Manufacturing
 Sub-contracting

.3.2.5 Description

More information about what the Routing Task is or does.

.3.2.6 Fixed Asset ID (drop-down box)

Select an existing Fixed Asset from the list on the drop-down box.

.3.2.7 Estimated Setup Millis

Enter value in milli-seconds.

.3.2.8 Estimated Milli Seconds

Task completion time in milli-seconds.

.3.3 Manufacturing List Routing Task Routings

.3.3.1 ListRoutingTaskRoutings

id:[11312] image:

The screenshot shows the Manufacturing Manager Application interface. At the top left is the logo for 'OPEN FOR BUSINESS OFBiz.org'. At the top right, it says 'Welcome THE ADMINISTRATOR!' with the date '2005-12-31 15:51:00.024' and a language dropdown set to 'English (United States)' with a 'Set' button. Below this is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. The main content area has a blue header 'Manufacturing Manager Application' and a sub-header with tabs for JobShop, Routing (selected), Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout. Under the Routing tab, there are buttons for 'Edit RoutingTask' and 'List Routings'. Below these is the heading '[ID:TASK02] Assembly Step 1'. A table displays routing information:

Routing	Sequence Num	From Date	Thru Date	
[ROUT01] PC assembly	20	2004-09-24 15:09:47.338		Edit Routing

At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'. A text box at the very bottom contains the instruction: 'Locate, and then choose to view or edit an existing Routing from this screen.'

.3.3.2 link buttons

[Edit Routing] [Edit Routing Task] [List Routings]

.3.3.3 Routing

Contains both the ID (in brackets) and the Name of the Routing. To edit, you must click on the [Edit] link in the RH column.

.3.3.4 Sequence Num

When the processes are in a sequence, this is the assigned Sequence Number for this Routing.

.3.3.5 From Date

When the Routing becomes active, or when it was created.

.3.3.6 Thru Date

When the Routing or its association with the Task expires, if ever.

.3.4 Edit Routing

Returns you to the Edit Routing sub-tab of the Routing Tab to edit the selected Routing.

.4 Calendar

There are two options under the Calendar tab - Calendar and Week. The default opening sub-tab is Calendar as shown below. <p/> You have a list of current Calendars presented here. You can choose to [Edit] or [Delete] any of them, or you can select [New Calendar] to create a new one.</p>

.4.1 Calendar sub-tab

This is the default opening screen.

.4.1.1 FindCalendar

id:[DOCMNU162] image:

WELCOME THE ADMINISTRATOR!
2005-12-31 18:09:20.993
English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Calendar Week

New calendar

Calendar ID	Description	Calendar Week ID	
SUPPLIER	Calendar used for Re-Order date calculation for bought product	SUPPLIER	Edit Delete
DEFAULT	Default calendar used when no specific calendar is defined	DEFAULT	Edit Delete
MACHINING	Machining Workshop calendar	STD8H-5D	Edit Delete
DRYING	Drying Workshop calendar	STD24H-7D	Edit Delete

W3C CSS W3C XHTML 1.0

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Calendar tab opens with a list of existing Calendars from which to choose.

.4.1.2 link buttons

[New calendar] [Edit] [Delete]

.4.1.3 Calendar ID

What the Calendar is called, and how it is referenced by the system. To edit, you must click on the [Edit] link in the RH column.

.4.1.4 Description

Describes the purpose and nature of the Calendar.

.4.1.5 Calendar Week ID

Pre-defined in the Work Effort Manager.

.4.1.6 Edit - Update Calendar

When you select an existing calendar to edit, you are taken to this screen.

.4.1.6.1 Calendar

.4.1.6.1.1 EditCalendar

id:[10536] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-31 18:47:47.321
English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task **Calendar** Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Calendar Exception Day Exception Week Week

Update Calendar

Calendar ID **DRYING** (cannot change without re-creating)

Description

Calendar Week ID

Update New calendar

W3C CSS W3C XHTML 1.0

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Upon selecting a Calendar to Edit, this screen is presented. Note the tabs to work in other topics.

.4.1.6.1.2 link buttons

[Update] [New Calendar] [Calendar] [Exception Day] [Exception Week] [Week]

.4.1.6.1.3 Calendar ID

As it says, you cannot change without re-creating.

.4.1.6.1.4 Description

Describes the purpose or nature of this Calendar.

.4.1.6.1.5 Calendar Week ID (drop-down box)

If you do not want to continue with the originally-assigned kind of Calendar Week, select another from the drop-down box. These are created and defined under the Week tab, discussed below.

.4.1.6.2 Exception Day

.4.1.6.2.1 EditCalendarExceptionDay



Manufacturing Manager Application

Edit Calendar Exception day for "Drying Workshop calendar" [ID:DRYING]

Description	Date and Time of exception day	ManufacturingCalendarCapacity		
Christmas Day celebrated	2005-12-26 00:00:01.0	0	<input type="button" value="selected"/>	<input type="button" value="Delete"/>

Description

Date and Time of exception day

ManufacturingCalendarCapacity



Special or Exception days (such as holidays) are listed and created here.

.4.1.6.2.2 link buttons

[Selected] [Delete] [Add] [Calendar] [Exception Day] [Exception Week] [Week]

.4.1.6.2.3 Table of existing exception days

.4.1.6.2.3.1 Description

Describe the day being labeled an Exception.

.4.1.6.2.3.2 Date and Time of exception day

What day and from what time the day becomes unavailable for scheduling.

.4.1.6.2.3.3 Manufacturing Calendar Capacity

If the manufacturing continues through this day, what level of capacity will be provided. If none, indicated by '0'.

.4.1.6.2.4 Tool for adding exception days

.4.1.6.2.4.1 Description

Describe the day being labeled an Exception.

.4.1.6.2.4.2 Date and Time (popup calendar)

What day and from what time the day becomes unavailable for scheduling. Use the popup calendar. You might need to edit the Time portion to display midnight in the format 0:00:01.0 before the input is accepted.

.4.1.6.2.4.3 Manufacturing Calendar Capacity

If the manufacturing continues through this day, what level of capacity will be provided. If none, indicated by

'0'.

.4.1.6.3 Exception Week

.4.1.6.3.1 EditCalendarExceptionWeek

id:[DOCMNU183] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-31 19:17:30.883
English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application
JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Calendar Exception Day **Exception Week** Week

Edit Calendar Exception week for "Drying Workshop calendar" [ID:DRYING]

Description	Star of Exception Date	Week		
Annual Workshop Cleanup	2006-01-01	8hours/days	selected	Delete

Star of Exception Date: 2006-01-01 Description: Annual Workshop Cleanup Calendar Week ID: 8hours/days

Update

Description: Annual Workshop Cleanup

Star of Exception Date: 2006-01-01

Calendar Week ID: 8hours/days

Add

W3C CSS W3C XHTML 1.0

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Powered By OFBiz

Exception weeks are listed and defined at this screen.

.4.1.6.3.2 link buttons

[Selected] [Delete] [Update] [Add] [Calendar] [Exception Day] [Exception Week] [Week]

.4.1.6.3.3 Table of existing Exception Weeks

.4.1.6.3.3.1 Description

What the Exception Week is about.

.4.1.6.3.3.2 Start of Exception Week

The date and time when the Exception Week begins.

.4.1.6.3.3.3 Week

What type of week.

.4.1.6.3.4 Tool for adding an exception week

.4.1.6.3.4.1 Description

What the exception is about.

.4.1.6.3.4.2 Start of Exception Date (popup calendar)

You might need to completely remove all digits (including 0) for the Time component of the date before this date is accepted.

.4.1.6.3.4.3 Calendar Week ID (drop-down box)

Weeks are created and maintained under the Week tab, discussed below.

.4.1.6.4 Week

Takes you to the Week tab, below.

.4.1.7 New Calendar

Create a new calendar starting with this screen.

.4.1.7.1 EditCalendar-new

id:[DOCMNU195] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-31 20:19:05.68

English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Create calendar

Calendar ID

Description

Calendar Week ID 8hours/days, currently the Re-Order Process convert day to mms with 8h/days

Update

New calendar

W3C CSS W3C XHTML 1.0

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Create a new Calendar from this screen.

.4.1.7.2 link buttons

[Update] [New Calendar]

.4.1.7.3 Calendar ID

What you want to call the Calendar.

.4.1.7.4 Description

What the calendar is for or about.

.4.1.7.5 Calendar Week ID (drop-down box)

Select from the drop-down box. These Calendar Week types are created and maintained under the Week tab,

discussed below.

.4.2 Week

.4.2.1 ListCalendarWeek

id:[DOCMNU200] image:

OPEN FOR BUSINESS
OFBiz.org

Welcome THE ADMINISTRATOR!
2005-12-31 20:34:12.149

English (United States) Set

Accounting Catalog Content Example Facility **Manufacturing** Marketing Order Party Shark WebTools WorkEffort

Manufacturing Manager Application

JobShop Routing Routing Task Calendar Bill Of Materials MRP Shipment Plans Approve Requirements Reports Logout

Calendar **Week**

List of weeks
New Week

Calendar Week ID	Description		
SUPPLIER	8hours/days, currently the Re-Order Process convert day to mms with 8h/days	Update	Delete
DEFAULT	8hours/days	Update	Delete
STD24H-7D	Standard calendar open 24h per day 7days per week	Update	Delete
STD8H-5D	Standard calendar 8-hour days, 5 days/week starting at 8:30 from Monday to Friday	Update	Delete
HOLIDAY	Calendar for holiday period, 0hours/days 0days/week	Update	Delete

W3C CSS W3C XHTML 1.0

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Weeks are pre-defined for use in building calendars. This screen is where the definition starts.

.4.2.2 link buttons

[New Week] [Update] [Delete]

.4.2.3 Table of weeks

.4.2.3.1 Calendar Week ID

What the Week is called.

.4.2.3.2 Description

what the week consists of in days and hours.

.4.2.4 Update Week

.4.2.4.1 EditCalendarWeek



Manufacturing Manager Application

Update Week

Calendar Week ID **STD24H-7D** (cannot change without re-creating)

Description

Monday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Tuesday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Wednesday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Thursday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Friday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Saturday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>
Sunday	Start Time	<input type="text" value="12:00:00 AM"/>	ManufacturingCalendarCapacity	<input type="text" value="86,400,000"/>



Here you set the daily production start time and the daily manufacturing capacity in milliseconds.

.4.2.4.2 link buttons

[Update] [Back To List] [New Week]

.4.2.4.3 Calendar Week ID

Cannot change without recreating.

.4.2.4.4 Description

Describes the days and hours comprising this specific Week.

.4.2.4.5 Monday - Sunday Start Time

Enter the time in the 24-hour clock format (00:00:00.0). The update will enter the AM or PM designation.

.4.2.4.6 Manufacturing Calendar Capacity

Enter the daily productivity in milliseconds: manpower X [productive daily hours] X 60 minutes X 60 seconds X 1000.

.4.2.5 New Week

Create a new Calendar Week from this screen. <p/>NOTE: When entering the Start Time, use the format HH:MM:SS or an error message will be returned.</p>

.4.2.5.1 EditCalendarWeek-new

id:[DOCMNU206] image:



Welcome THE ADMINISTRATOR!
2005-12-31 20:13:55.743

English (United States)

Accounting | Catalog | Content | Example | Facility | **Manufacturing** | Marketing | Order | Party | Shark | WebTools | WorkEffort

Manufacturing Manager Application

JobShop | Routing | Routing Task | Calendar | Bill Of Materials | MRP | Shipment Plans | Approve Requirements | Reports | Logout

Create Calendar Week

Calendar Week ID	<input type="text"/>		
Description	<input type="text"/>		
Monday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Tuesday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Wednesday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Thursday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Friday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Saturday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
Sunday Start Time	<input type="text"/>	ManufacturingCalendarCapacity	<input type="text"/>
	<input type="button" value="Update"/>		



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Screen for creating a new Calendar. Use the proper format for the Start Time.

.4.2.5.2 link buttons

[Update] [Back To List] [New Week]

.4.2.5.3 Calendar Week ID

Descriptive name to distinguish this calendar from all others.

.4.2.5.4 Description

What days and hours are available under this calendar.

.4.2.5.5 Monday - Sunday

.4.2.5.5.1 Start Time

Enter the start time in 24-hour clock time format (00:00:00.0). After you press [Update], the application will present the AM or PM designation.

.4.2.5.5.2 Manufacturing Calendar Capacity

Enter the daily productivity in milliseconds: manpower X [productive daily hours] X 60 minutes X 60 seconds X 1000.

.5 Bill of Materials

.5.1 BOM Simulation

.5.1.1 Find the Bill Of Materials

A Bill of Materials (BOM) is the listing of all the subassemblies, component parts, raw materials (including quantities), etc., that go into a parent item.

.5.1.1.1 BomSimulation

id:[11396] image:

The screenshot shows the 'Manufacturing Manager Application' interface. At the top, there is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a blue header bar with sub-tabs: JobShop, Routing, Routing Task, Calendar, Bill Of Materials (selected), MRP, Shipment Plans, Approve Requirements, Reports, and Logout. The main content area contains a 'Bom Simulation' form with the following fields and options:

- Product Id:** Text input field containing 'WG-9943-B3' with a search icon.
- Bom Type:** Drop-down menu showing 'Manufacturing Bill of Materials'.
- From Date:** Text input field containing '2006-01-05 06:03:43.4' with a calendar icon.
- Quantity:** Text input field containing '1'.
- Amount:** Text input field containing '0'.
- Type:** Drop-down menu showing 'Explosion'.
- Submit:** A button to execute the simulation.

At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: 'Copyright (c) 2001-2006 The Open For Business Project - www.ofbiz.org Powered By OFBiz'.

Opening screen under the BOM tab; enter parameters for your desired BOM simulation

.5.1.1.2 link buttons

[Submit] [BOM Simulation] [Edit BOM] [Manufacturing Rules]

.5.1.1.3 Product ID (popup search tool)

This determines which BOM you will be finding.

.5.1.1.4 Bom Type (drop-down box)

Selections here might include:
 Manufacturing Bill of Materials
 Engineering Bill of Materials

.5.1.1.5 From Date (popup calendar)

Enter the effective date.

.5.1.1.6 Quantity

How many units.

.5.1.1.7 Amount

How much cost.

.5.1.1.8 Type (drop-down box)

Typical types would include:<P> Explosion
 Single Level Explosion
 Explosion (only for products needing manufacturing)
 Implosion

.5.1.2 Bill of Materials Found

Click on the Part ID to be taken to the Edit BOM screen. Click on [Show Lookup Fields] to bring back the Find Bill Of Materials search tool.

.5.1.2.1 runBomSimulation

id:[11407] image:

The screenshot shows the Manufacturing Manager Application interface. At the top, there is a navigation menu with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below the menu is a blue header bar with the text "Manufacturing Manager Application" and a sub-menu with tabs for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements, Reports, and Logout.

The main content area is titled "Bom Simulation" and contains a form with the following fields:

- Product Id: WG-9943-B3
- Bom Type: Manufacturing Bill of Materials
- From Date: 2006-01-05 07:05:19.3
- Quantity: 1
- Amount: 0
- Type: Explosion

A "Submit" button is located below the form. Below the form, there is a section titled "ManufacturingSelectedFeatures" with the following text:

COLOR = Black [9000]
 SIZE = 3-Wheel [9002]

Below this, there is a table showing the Bill of Materials:

Product Level	Product ID	---	Product Name	Quantity
	WG-9943	Virtual	Giant Widget	1

At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: "Copyright (c) 2001-2006 The Open For Business Project - www.ofbiz.org Powered By OFBiz".

Treated as a successful BOM Simulation, this screen returns with the basic Bill Of Materials.

.5.1.2.2 link buttons

[Submit] [BOM Simulation] [Edit BOM] [Manufacturing Rules]

.5.2 Edit BOM

A click on the Part ID or the Part Name in the table takes you to this Edit BOM screen with that Part in the Product ID window.

.5.2.1 UpdateProductBom



Manufacturing Manager Application

The Following Occurred:

- The action was performed successfully.

[Bom Simulation](#) | [Edit BOM](#) | [Manufacturing Rules](#)

Bill Of Materials Giant Widget B3[ID:WG-9943-B3]

[Bill Of Materials](#)

Bom Type: Product ID:
 To Product Id:

Bom Type:
 Product ID:
 Product ID To:
 From Date: (will be set to now if empty)
 Thru Date:
 Sequence Num:
 Reason:
 Instruction:
 Quantity:
 Scrap Factor %:
 ManufacturingFormula:
 Routing Task:

Components of this Product

Product ID	Product Name	From Date	Thru Date	Sequence Num	Quantity	Scrap Factor %	ManufacturingFormula	Routing Task		
GZ-7000	Massive Gizmo	2006-01-03 07:58:43.059	2006-01-06 07:58:05.294	1	1	50	6002	DEFAULT_TASK	<input type="button" value="Delete"/>	<input type="button" value="Edit"/>

This Product is a Component of

Product ID	Product Name	From Date	Thru Date	Quantity
------------	--------------	-----------	-----------	----------

NOTE: **Red** date/time entries denote that the current time is before the From Date or after the Thru Date. If the From Date is **red**, association has not started yet; if Thru Date is **red**, association has expired (and should probably be deleted).



Relationship shown here is to demonstrate the function only and is not true to the components as shown.

.5.2.2 link buttons

[Bill of Materials] [Edit] [Add] [Delete] [Show BOM] [Copy BOM] [BOM Simulation] [Edit BOM] [Manufacturing Rules]

.5.2.3 Bill of Materials worksheet

.5.2.3.1 Discussion of the Worksheet

This is where you are relating one product ID to another as a component of the other. The subordinate items become part of the Bill Of Materials of the master ID.<p> Other data regarding when and why this happening is also collected here. <p> A similar screen is shown when you choose to Edit one of the component parts.</p>

.5.2.3.2 BOM Type (drop down box)

Types might include:
 Manufacturing Bill of Materials
 Engineering Bill of Materials

.5.2.3.3 Product ID (popup search tool)

Enter directly or use the popup search tool to identify the Product ID.

.5.2.3.4 Product ID To (popup search tool)

Enter directly or use the popup search tool to identify the Product ID which the subject Product is related TO.

.5.2.3.5 From Date (popup calendar)

Will be set to the present date and time if left blank.

.5.2.3.6 Thru Date (popup calendar)

If the relationship is to expire, enter that date here.

.5.2.3.7 Sequence Num

If a sequencing system is in place, enter the number for this item here.

.5.2.3.8 Reason

Why the Bill of Materials is being generated.

.5.2.3.9 Instruction

What additional steps or procedures need to be taken.

.5.2.3.10 Quantity

How many.

.5.2.3.11 Scrap Factor

If a part is consumed in the process, what is the scrap factor remaining, in per cent of original value.

.5.2.3.12 Manufacturing Formula (drop-down box)

Use the drop-down box to select. Typical formulas might be: Bom formula for linear components
 Example Bom formula (qty*k)

.5.2.3.13 Routing Task (popup search tool)

If a Routing Task applies, select it from the popup search tool.

.5.2.4 Components of this Product

.5.2.4.1 Product ID

Click on the Product ID here to go to the BOM Editing page of its related Product.

.5.2.4.2 Product Name

Click on the Product Name here to go to the BOM Editing page of its related Product.

.5.2.4.3 From Date

The date from which the association was made or will be made effective.

.5.2.4.4 Thru Date

The date after which the association will expire.

.5.2.4.5 Sequence Num

If applicable, the sequencing number will be given here.

.5.2.4.6 Quantity

How many.

.5.2.4.7 Scrap Factor

The remaining value, in a percentage, following the process.

.5.2.4.8 Manufacturing Formula

Typical formulas might be: **Bom formula for linear components** Example Bom formula (qty*k)

.5.2.4.9 Routing Task

If a Routing Task is related, it could be shown here.

.5.2.5 This Product is a Component of:

.5.2.5.1 Product ID

Click on the Product ID here to go to the BOM Editing page of its parent Product.

.5.2.5.2 Product Name

Click on the Product Name here to go to the BOM Editing page of its parent Product.

.5.2.5.3 From Date

When the product was associated its parent.

.5.2.5.4 Thru Date

If the association will expire, this is the date.

.5.2.5.5 Quantity

How many.

.5.3 Manufacturing Rules

.5.3.1 EditProductManufacturingRules



Manufacturing Manager Application

Bom Simulation | **Edit BOM** | **Manufacturing Rules**

Rule Id 10000

Product Id

Product Id For

Product Id In

From Date

Product Id In Subst

Product Feature

Rule Operator

Quantity

Thru Date

Rule Id	Product Id	Product Id For	Product Id In	From Date	Product Id In Subst	Product Feature	Rule Operator	Quantity	Thru Date	Rule Seq Id	Description		
10000	HD4GB_BRAND	RAM256_BRAND	GZ-1006-1	2005-12-27 09:59:38.731	PC001	8003	AND	1	2006-02-03 10:33:51.528			<input type="button" value="Select"/>	<input type="button" value="Delete"/>



Find or select Manufacturing Rule for editing or deletion from this screen. (Fictitious example shown for illustration only.)

.5.3.2 link buttons

[Select] [Delete] [Update] [BOM Simulation] [Edit BOM] [Manufacturing Rules]

.5.3.3 Add or edit Manufacturing Rule

When the Rule ID field is empty, you are creating a new Rule at this screen. If the Rule ID is populated (you having selected an existing Rule), you will be updating or editing the Rule from this screen. The fields are the same, whether creating or updating them here.

.5.3.3.1 Rule ID

This number is assigned by the system when the Rule is created.

.5.3.3.2 Product ID (popup search tool)

Whether creating a new Rule or editing an existing one, you can select the Product ID using the popup search tool.

.5.3.3.3 ProductID For (popup search)

Which product this Rule is For is selected at this field.

.5.3.3.4 Product ID In (popup search)

If the Rule is about a product which is part of another, the Parent is given in this field.

.5.3.3.5 From Date (popup calendar)

The Rule is effective from this Date. Use the popup calendar to declare or change the date.

.5.3.3.6 ProductID In Subst (popup search tool)

The Product 'In Subst' is selected with the popup search tool here.

.5.3.3.7 Product Feature (popup search tool)

Select the Feature with the popup search tool.

.5.3.3.8 Rule Operator (drop-down box)

Select AND, OR or another choice from the drop-down box.

.5.3.3.9 Quantity

How many.

.5.3.3.10 Thru Date (popup calendar)

The conclusion of the applicability; the expiration date of this Rule.

.5.3.4 Table of existing Manufacturing Rules

.5.3.4.1 Rule ID

This number is assigned by the system when the Rule is created.

.5.3.4.2 Product ID

Which Product this Rule applies to in the Manufacturing thereof.

.5.3.4.3 Product ID For

Which product this Rule is For.

.5.3.4.4 Product ID In

If the Rule is about a product which is part of another, the Parent is given in this field.

.5.3.4.5 From Date

When the Rule was made effective.

.5.3.4.6 Product ID In Subst

The Product 'In Subst' is identified here.

.5.3.4.7 Product Feature

Which Feature is to be incorporated under this Rule.

.5.3.4.8 Rule Operator

Logical Operator (AND, OR) or none if none apply.

.5.3.4.9 Quantity

How many.

.5.3.4.10 Thru Date (popup calendar)

If the Rule is to expire, this will be the date.

.5.3.4.11 Rule Seq ID

If there is a sequencing system in place, here is the number for this Rule.

.5.3.4.12 Description

The Rule could be described here.

.6 MRP

.6.1 Run MRP

.6.1.1 RunMrp

id:[11386] image:

The screenshot shows the Manufacturing Manager Application interface. At the top left is the logo for 'OPEN FOR BUSINESS OFBiz.org'. At the top right, it says 'Welcome THE ADMINISTRATOR!' with the date '2005-06-03 08:18:26.375' and a language dropdown set to 'English (United States)'. A navigation bar contains tabs for Accounting, Catalog, Content, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a sub-navigation bar for the Manufacturing Manager Application with tabs for Main, JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP (selected), Approve Requirements, and Logout. The main content area displays a message: 'The Following Occurred:' followed by a bullet point: '• The action was performed successfully.' Below this are two buttons: 'Run MRP' and 'Inventory Event Planned'. Underneath is a 'Run MRP' section with a text input for 'Mrp Name', a dropdown for 'ProductFacility' (currently showing 'Web Store Warehouse [WebStoreWarehouse]'), and a 'Submit' button. At the bottom of the page, there are logos for 'W3C CSS' and 'W3C XHTML 1.0', and a copyright notice: 'Copyright (c) 2001-2005 The Open For Business Project - www.ofbiz.org Powered By OFBiz'. A footer box contains the text: 'Enter the MRP name, select the Product Facility, click [Submit], and this report is given.'

.6.1.2 link buttons

[Submit] [Run MRP] [Inventory Event Planned]

.6.1.3 Product Facility

Using the drop-down box, select the facility for MRP.

.6.2 Inventory Event Planned

.6.2.1 FindInventoryEventPlan



Welcome THE ADMINISTRATOR!
2006-01-04 06:29:50.875

English (United States)

Accounting | Catalog | Content | Example | Facility | **Manufacturing** | Marketing | Order | Party | Shark | WebTools | WorkEffort

Manufacturing Manager Application

JobShop | Routing | Routing Task | Calendar | Bill Of Materials | MRP | Shipment Plans | Approve Requirements | Reports | Logout

Inventory Event Planned

[Lookup](#)

ManufacturingProductId:

From Date:



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Tool for finding the Inventory Event.

.6.2.2 link buttons

[Lookup] [Run MRP] [Inventory Event Planned]

.6.2.3 Manufacturing Product ID

Use the popup search tool to assign the Product for inventory. When a ProductID is selected, the name will populate the RH box.

.6.2.4 From Date (popup calendar)

This is a filter date. No IEP before this date will be displayed.

.6.2.5 Inventory Found

.6.2.5.1 FindInventoryEventPlan-found



Manufacturing Manager Application

[Hide Fields](#) | [Lookup](#)

ManufacturingProductId:

From Date:

Elements Found

[Previous](#) | [1 - 7 of 7](#) | [Next](#)

Description	EventDate	Quantity	ManufacturingTotalQuantity
[GZ-1000] /&nbsp;Tiny Gizmo			0
Purchase Order receipt	2006-01-04 06:48:29.937	6.0	6
[GZ-1001] /&nbsp;Nan Gizmo			-12
Purchase Order receipt	2006-01-04 06:48:29.937	6.0	-6
[GZ-1005] /&nbsp;NIT Gizmo			0
Purchase Order receipt	2006-01-04 06:48:29.937	6.0	6
[GZ-KIT] /&nbsp;Gizmo Kit			0
Manufacturing Order requirement	2006-01-09 08:49:13.578	-20.0	-20
[GZ-1004] /&nbsp;Rainbow Gizmo			0
Manufacturing Order receipt	2006-01-03 12:05:26.281	12.0	12
[WG-1111] /&nbsp;Micro Chrome Widget			52
Manufacturing Order receipt	2006-02-01 18:13:15.46	1.0	53
[GZ-1000] /&nbsp;Tiny Gizmo			0
Manufacturing Order receipt	2006-01-09 08:49:13.578	20.0	26



All elements are found when searching on empty lookup fields.

.6.2.5.2 link buttons

[Lookup] [Hide / Show Fields] [Run MRP] [Inventory Event Planned]

.6.2.5.3 Lookup tool

Fields same as discussed above.

.6.2.5.4 Table of Elements Found

.6.2.5.4.1 Description

Describes the Inventory Event.

.6.2.5.4.2 Event Date

When it happened or was scheduled to happen.

.6.2.5.4.3 Quantity

How many units of the product were involved.

.6.2.5.4.4 ManufacturingTotalQuantity

Balance of inventory following the event.

.7 Shipment Plans

.7.1 Correlation with other managers

.7.1.1 What is a Shipment Plan?

Shipment plans are created like a normal shipment (thru the shipment screens in the Facility Manager), and they ARE normal shipments, but they exist only in the 'Scheduled' status.<P> In a shipment plan you usually put more than one order (but this is not mandatory). In fact Shipment Plans are used to group together orders for products that will be manufactured within the same end date.<P> For this reason, in a shipment plan you list Order Items, but you don't issue the products from the Warehouse to Shipping until you have produced them, either from vendors, through assembly or by the manufacturing process.

.7.1.2 Shipments Process

.7.1.2.1 Create the Shipment

Step 1 - In the Facility Manager: an empty shipment is created.

.7.1.2.2 Assign items to the Shipment

Step 2 - In the Facility Manager: order items (also from different orders) are assigned to the shipment. These are all the products that we want to produce within a given period to meet the shipment's estimated ship date.

.7.1.2.3 Status changed to Scheduled

Step 3 - Facility Manager: when the shipment plan is complete (i.e. all the products that we want to group together have been added) the shipment's status is changed to 'Scheduled'.

.7.1.2.4 Scheduled Shipments displayed

Step 4 - Manufacturing manager: under the 'Shipment Plans' tab, all the scheduled shipments are shown. This is what is described in the Manufacturing Reference under Shipment Plans - Table.

.7.1.2.5 Analyze needs for manufacturing

Step 5 - Manufacturing Manager: from the Shipment Plan > Detail page, you can generate a PDF report to help analyze the amount of materials (products) needed. From this you are better able to manufacture or assemble all the products in the shipment plan against the inventory levels of materials in the warehouse.

.7.1.2.6 Resource adjustments

Step - 6 Manufacturing Manager: if there are not enough materials in the warehouse, the manufacturing process must be placed on hold. Through Purchase Orders (using the Order Manager) you should order any of the materials needed. <P> If material or components are not available, adjust the schedule to exclude the affected products from the shipment plan.

.7.1.2.7 Create Production Runs

Step - 7 Manufacturing Manager: when you are sure that you have enough materials in your Warehouse to complete the manufacturing process, go to the JobShop screens and click on [Create all Production Runs]. All the production runs will be automatically created and they will have the same name SP_{shipmentPlanId} to make it easier to group them. At least one production run for each Shipment Plan item will be created.

.7.1.2.8 Monitor from the Job Shop

Step - 8 Manufacturing Manager: monitor and control each Production Run in the JobShop screens as usual.

.7.1.2.9 Manufactured products moved to Warehouse

Step-9 Manufacturing Manager: when a production run is completed, the finished (manufactured) products are put into the warehouse.

.7.1.2.10 Completion

Step - 10 Manufacturing Manager: when all the production runs linked to the shipment plan are completed, the shipment plan is finished.

.7.1.2.11 Release shipments

Step - 11 Facility Manager: in the shipment page, issue all products from the Warehouse as a normal shipment. Do this with confidence that all the products are in the warehouse, having been manufactured by the Production Runs.

.7.2 Shipment Plans

.7.2.1 WorkWithShipmentPlans

id:[11320] image:

The screenshot shows the 'Manufacturing Manager Application' interface. At the top left is the 'OPEN FOR BUSINESS OFBiz.org' logo. At the top right, it says 'Welcome THE ADMINISTRATOR!' with the timestamp '2006-01-06 18:33:59.078' and a language dropdown set to 'English (United States)' with a 'Set' button. A navigation bar contains tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a sub-navigation bar for the Manufacturing Manager Application with tabs for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans (selected), Approve Requirements, Reports, and Logout. The main content area is titled 'Shipment Plans' and contains a table:

Shipment Id	Status Id	Estimated Ship Date	
10010	Scheduled		View

Below the table are two icons: 'W3C CSS' and 'W3C XHTML 1.0', both with checkmarks. At the bottom, it says 'Copyright (c) 2001-2006 The Open For Business Project - www.ofbiz.org Powered By OFBiz'. A text box at the bottom of the screenshot contains the instruction: 'To edit or view the Shipment Plan, click on the [View] link.'

.7.2.2 link buttons

[View]

.7.2.3 Shipment ID

Click on the [View] link to the right to view or update.

.7.2.4 Status ID

Current status of this Shipment.

.7.2.5 Estimated Ship Date

When the Shipment is expected to be sent.

.7.3 Shipment Plan - View

.7.3.1 WorkWithShipmentPlans-view



Manufacturing Manager Application

Shipment Plan: 10010

ProductOrderID	ProductOrderItem	Product ID	ProductQuantity	Issued Quantity	Tot Ordered Quantity	ProductNotAvailable	Tot Planned Quantity	Tot Issued Quantity	Production Run
----------------	------------------	------------	-----------------	-----------------	----------------------	---------------------	----------------------	---------------------	----------------

[CreateProductionRuns](#)

[ManufacturingShipmentPlanStockReport](#)
[ManufacturingPackageLabelsReport](#)



If the Shipment involves a manufacturing step to be completed, details of that are given here.

.7.3.2 link buttons

[[Create Production Runs](#)] [[ManufacturingShipmentPlanStockReport](#)] [[ManufacturingPackageLabelsReport](#)]

.7.3.3 ProductOrderID

The original Order number assigned to the order from the customer.

.7.3.4 ProductOrderItem

Each of the different 'things' requested in an order is treated as an 'Item'; this column identifies which of the Items this Product Order is dealing with.

.7.3.5 Product ID

The specific Product which needs to be assembled, produced, manufactured or obtained in order to complete this Shipment.

.7.3.6 ProductQuantity

For this particular Production Run, how many are going to be produced.

.7.3.7 Issued Quantity

Up to this moment, how many have already been issued, released from inventory, etc., to fulfill this Shipment.

.7.3.8 Tot Ordered Quantity

Total number requested in this Order. This is how many needs to be accounted for to completely fulfill the Shipment.

.7.3.9 Product Not Available

How many units are needed but not available.

.7.3.10 Tot Planned Quantity

How many are planned in total to be produced with this Production Run.

.7.3.11 Tot Issued Quantity

Total quantity actually issued with this Shipment for this Production Run.

.7.3.12 Production Run

Click on this number to view or edit the Production Run associated with this Shipment.

.8 Approve Requirements

.8.1 Find existing Requirements

.8.1.1 ApproveRequirements

id:[11242] image:

The screenshot shows the 'Approve Requirements' search interface. At the top, there is a navigation bar with tabs for Accounting, Catalog, Content, Example, Facility, Manufacturing (selected), Marketing, Order, Party, Shark, WebTools, and WorkEffort. Below this is a blue header for 'Manufacturing Manager Application' with sub-tabs for JobShop, Routing, Routing Task, Calendar, Bill Of Materials, MRP, Shipment Plans, Approve Requirements (selected), Reports, and Logout. The main form contains several search criteria: ManufacturingRequirementId (text input with radio buttons for Equals, Begins With, Contains, Is Empty, Ignore Case), ManufacturingRequirementTypeId (drop-down menu), Product ID (text input with a popup search icon), Description (text input with radio buttons for Equals, Begins With, Contains, Is Empty, Ignore Case), ManufacturingRequirementStartDate (calendar icon with radio buttons for Equals, Same Day, Greater Than From Day Start, Greater Than, Less Than, Up To Day, Up Thru Day, Is Empty), and ManufacturingRequirementByDate (calendar icon with radio buttons for Equals, Same Day, Greater Than From Day Start, Greater Than, Less Than, Up To Day, Up Thru Day, Is Empty). A 'Lookup' button is located below the date fields. Below the form is a table with columns: Requirement Id, Requirement Type Id, Product Id, Requirement Start Date, Required By Date, Quantity, and Select. A 'Submit Button' is located below the table. At the bottom of the page, there are logos for W3C CSS and W3C XHTML 1.0, and a copyright notice: Copyright (c) 2001-2006 The Open For Business Project - www.ofbiz.org Powered By OFBiz.

Use the search tool and the sought-for Requirement(s) will appear in the table of Requirements.

.8.1.2 link buttons

[Lookup] [Submit Button] [View]

.8.1.3 Search tool

.8.1.3.1 ManufacturingRequirement ID

Enter as much of the Requirement ID as you can recall, then select the appropriate radio button: Equals; Begins With; Contains; Is Empty.

.8.1.3.2 Manufacturing Requirement Type ID (drop-down box)

Select from the drop-down box: **Production Run proposed by the MRP process** **Purchase Order proposed by the MRP process** **Customer Requirement** **Internal Requirement** **Product Requirement** **Work Requirement**

.8.1.3.3 Product ID (popup search box)

Either enter the ID number or use the popup search box.

.8.1.3.4 Description

Enter what portion of the Description you are sure of, then select an appropriate Radio Button. Check the box to disregard UPPER or lower case in the characters.

.8.1.3.5 Manufacturing Requirement Start Date

Powerful search parameters to bring in both the 'greater than', and the 'less than' range of dates. Use combinations of the popup calendars and one of the following radio buttons to bracket or pinpoint the assumed Start Date for your search: <p> Equals
 Same Day
 Greater Than From Day Start
 Greater Than <p> ----- <p> Less Than
 Up To Day
 Up Thru Day
 Is Empty

.8.1.3.6 Manufacturing Requirement By Date

Powerful search parameters to bring in both the 'greater than', and the 'less than' range of dates. Use combinations of the popup calendars and one of the following radio buttons to bracket or pinpoint the assumed By Date for your search: <p> Equals
 Same Day
 Greater Than From Day Start
 Greater Than <p> ----- <p> Less Than
 Up To Day
 Up Thru Day
 Is Empty

.8.1.4 Table of existing requirements

.8.1.4.1 Requirement ID

Click on the ID number in this column to view or edit the requirement.

.8.1.4.2 Requirement Type ID

Will probably be one of the following: <p> Production Run proposed by the MRP process
 Purchase Order proposed by the MRP process
 Customer Requirement
 Internal Requirement
 Product Requirement
 Work Requirement

.8.1.4.3 Product ID

Which Product is subject of the Requirement.

.8.1.4.4 Requirement Start Date

When the Requirement was generated.

.8.1.4.5 Requirement By Date

The date by which the Requirement needs to be fulfilled.

.8.1.4.6 Quantity

How many are Required.

.8.1.4.7 Select

Click on [View] to view or edit the Requirement.

.8.1.4.8 Submit Button link

Click on the [Submit Button] link to approve the Requirement.

.8.2 Edit Requirement

.8.2.1 EditRequirement

Order Manager Application

OrderEditRequirement

Requirement

[New Requirement]

Requirement Type Id

Facility Id

Deliverable Id

Fixed Asset Id

Product Id

Status

Description

Requirement Start Date

Required By Date

Estimated Budget

Quantity

Use Case

Reason

Created Date

Created By User Login

Last Modified Date

Last Modified By User Login



When a Requirement is selected for Editing, you are taken to the Order Manager - Requirements tab, here.

.8.2.2 Discussion about Edit Requirements

When a Requirement is selected for Editing, you are taken to the Order Manager - Requirements tab. Perform the edit processing, including change of Status, there in the Order Manager.

.9 Reports

This section is under development.