

**A Guide
to
Oracle Process Manufacturing
System Setup**

*An Oracle White Paper
July, 2004*

A Guide to Oracle Process Manufacturing System Setup

If something is in me, which can be called religious, then it is the unbounded admiration for the structure of the world so far as our science can reveal it.

- Albert Einstein

1. Abstract

This paper introduces the reader to the concepts enshrined in Oracle Process Manufacturing (OPM) System Administration module. These concepts are explained and then demonstrated with the aid of a fictitious business case. We take the case of a process industry spread across two major cities in southern India – Bangalore and Hyderabad. There are warehouses in each of these cities following different costing methods. These are therefore associated with OPM Companies following different Fiscal Policies. The paper also dwells on some setups that help store and manage textual data that is required for repetitive use in other OPM modules. This involves a demonstration of defining and using Paragraphs and Text Tokens.

2. Scope

In terms of content this paper adheres to the boundary established by the Oracle Process Manufacturing System Administration User's Guide Release 11i (Part No. A77222-07). This paper restricts itself to the specifics of OPM System Setup and is not a guide to the larger domain of OPM System Administration, which is why topics such as Purge and Archive and Workflow Setup are not covered in this paper. Intended for foundation and intermediate level users, this paper walks the reader through the major concepts in setting up the OPM organization structure and making it operational thereby creating the foundation for the other OPM modules to build upon. This paper would also be of assistance to users of discrete manufacturing seeking an insight into the OPM System Setup.

3. The Organization Setup: Discrete versus Process

The structure that we are going to set up is displayed in **Fig 1**. The process and the steps required to define the Set of Books, Legal Entity and the Operating Unit are no different in Oracle Process than those in Discrete Manufacturing. However, the moment we descend from the operating unit, down the organizational hierarchy the differences become apparent. Whereas, in Discrete Manufacturing we have Inventory Organizations beneath the Operating Unit and subinventories beneath the Inventory Organizations, in OPM we have Companies or OPM Organizations beneath the operating unit. There is no entity in Discrete Manufacturing that corresponds to an OPM Company or an OPM Organization. Thereafter, we have the OPM Warehouse, which is analogous to the Inventory Organizations in Discrete Manufacturing. The concept of subinventories is non-existent in OPM. However, OPM Warehouses can have locators just as subinventories do in Discrete Manufacturing.

4. Which Responsibilities to use

We can either use the **OPM System Administrator** responsibility or the **OPM All** responsibility, which is a super set of all responsibilities that an OPM Super User would need.

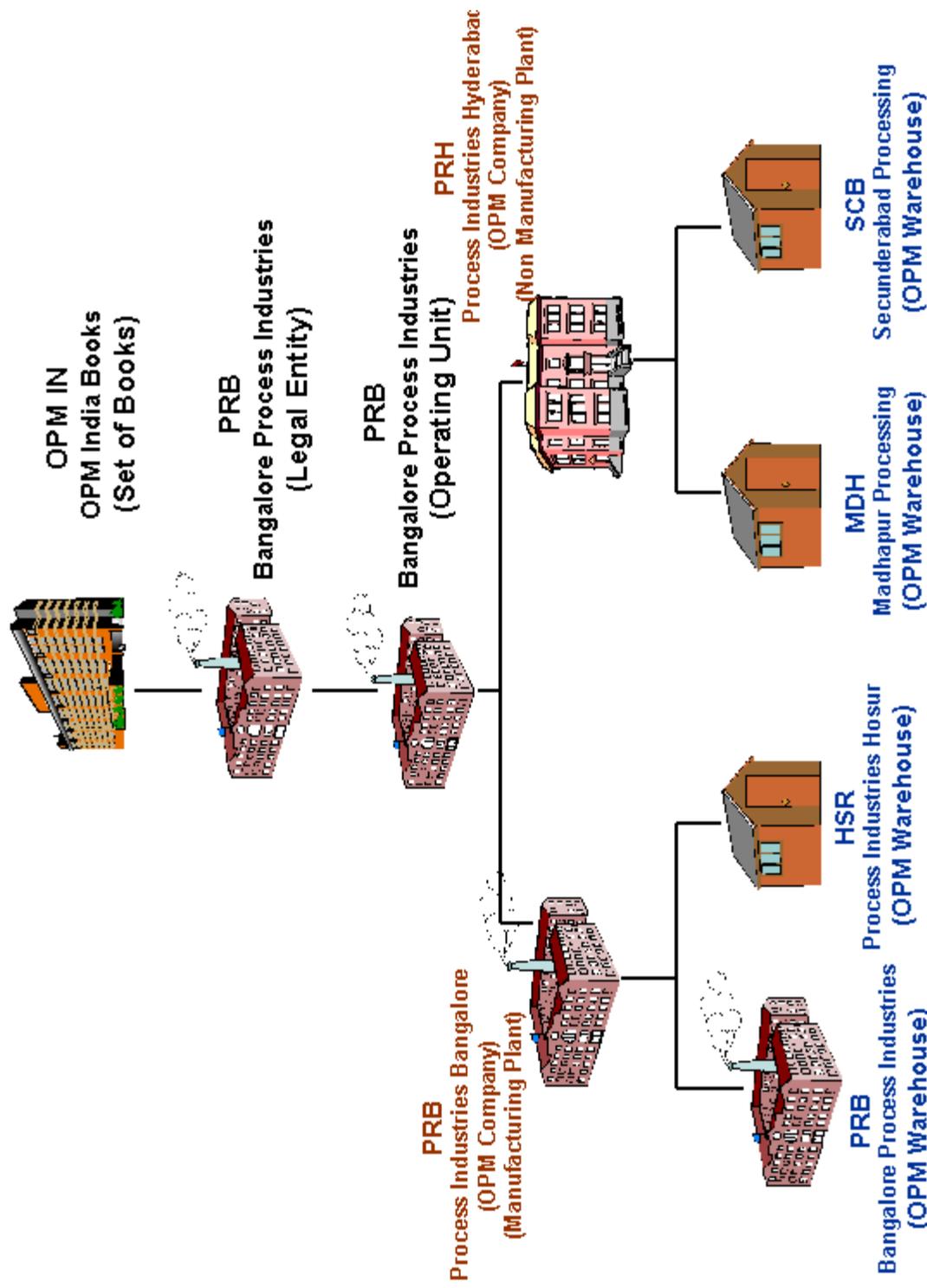


Fig 1. The Organization Structure for this paper

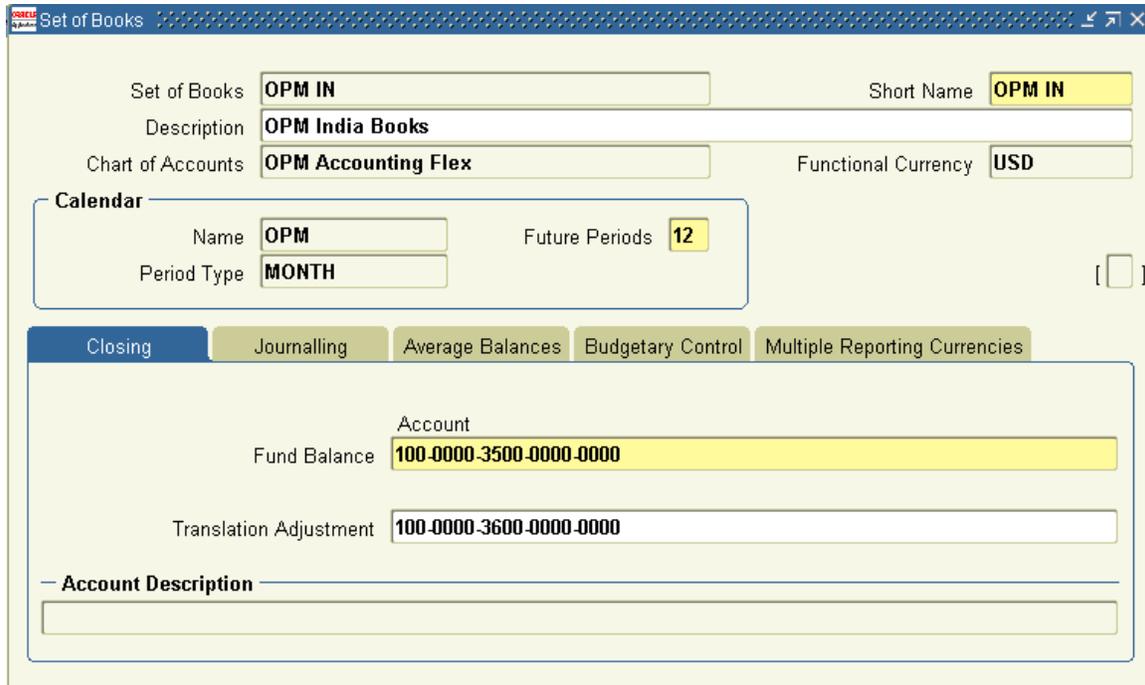
We begin our construction with the Set of Books OPM IN and conclude with the warehouses.

5. Defining the Set of Books – OPM IN

Select the responsibility **General Ledger Super User (Process Operations)**. The responsibility – **General Ledger Super User** can also be used.

Setup > Financials > Books > Define

We have defined our set of books as shown in **Fig 2**.



The screenshot shows the 'Set of Books' configuration window in Oracle. The window title is 'Set of Books'. The main configuration area includes the following fields:

- Set of Books: **OPM IN**
- Short Name: **OPM IN**
- Description: **OPM India Books**
- Chart of Accounts: **OPM Accounting Flex**
- Functional Currency: **USD**

Below these fields is a 'Calendar' section with the following details:

- Name: **OPM**
- Future Periods: **12**
- Period Type: **MONTH**

At the bottom, there are several tabs: 'Closing', 'Journalling', 'Average Balances', 'Budgetary Control', and 'Multiple Reporting Currencies'. The 'Closing' tab is selected. Under this tab, there are two input fields:

- Fund Balance: **100-0000-3500-0000-0000**
- Translation Adjustment: **100-0000-3600-0000-0000**

Below these fields is a section for 'Account Description' with an empty text area.

Fig 2. Defining our Set of Books

6. Defining our Legal Entity and Operating Unit

Before we define our legal entity, we need to define a location for our legal entity. This has been detailed in **Fig 3** and **Fig 4**. In the **Address Style** field, we select from the LOV, **Oracle Process Manufacturing**.

Responsibility: OPM System Administration
OPM System Setup > HR Locations

Location

Scope
 Global Local

Name **PR-Bangalore**

Description **Process Industries Bangalore Location**

Inactive Date Legal Address

Address Details Shipping Details Other Details

Address Style **Oracle Process Manufacturing**

Address **Process Industries Technology Park.1919, Bannerghatta**

Timezone **(GMT +05:30) Calcutta**

Fig 3. Location for the Legal Entity

Location Address

Scope
 Global Local

Name **PR-Bangalore**

Address Line 1 **Process Industries Technology Park**

Address Line 2 **1919, Bannerghatta Road**

Address Line 3

Address Line 4

City **Bangalore**

Province

County

State

Postal

Country **India**

OK Cancel Clear Help

Fig 4. Location Address for our Legal Entity

We are now ready to define our Legal Entity and Operating Unit.

Responsibility: OPM System Administration
 System Admin > OPM System Setup > HR Organizations

Enter **Organization** = PRB:Process Industries Bangalore
 (Select from the LOV) **Location** = PR-Bangalore

Organization

Name **PRB:Bangalore Process Industrie** Type

Dates

From **11-MAY-2004** To

Location **PR-Bangalore** Internal or External **Internal**

Location Address **Process Industries Technology Park.1919, Bannerghatta Road...Bangalore..**

Internal Address

Organization Classifications

Name	Enabled
GRE / Legal Entity	<input checked="" type="checkbox"/>
Operating Unit	<input checked="" type="checkbox"/>
	<input type="checkbox"/>

Others

Fig 5. Defining PRB as our Legal Entity and Operating Unit

When defining PRB as our Legal Entity, in **Additional Organization Information**, under **Legal Entity Accounting**, we associate PRB with our pre-defined Set of Books OPM IN (Fig 6).

Organization

Additional Organization Information

Legal Entity Accounting

OK

Internal

Legal Entity Accounting

Organization

Set of Books **OPM IN** OPM IN

Name

VAT Registration Number

OK Cancel Clear Help

Open

Fig 6. Associating the Legal Entity PRB with the S.O.B OPM IN

When defining PRB as our Operating Unit in **Additional Organization Information**, under **Operating Unit Information**, we associate PRB with our pre-defined Legal Entity and Set of Books, as shown below.

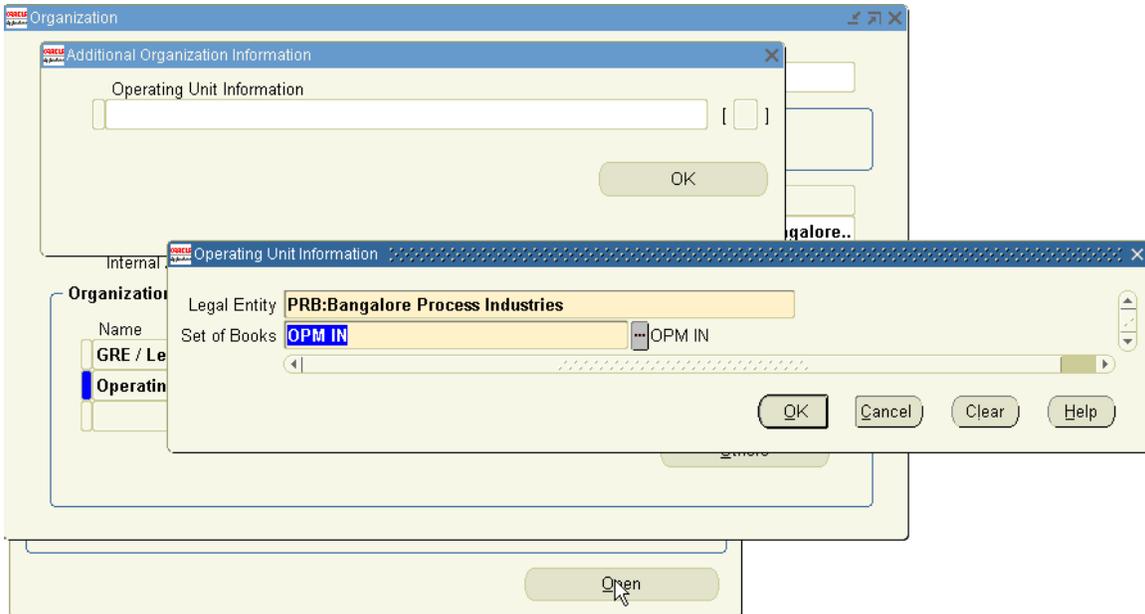


Fig 7. Associating the Operating Unit PRB with the Legal Entity (PRB) and Set of Books (OPM IN)

Having defined our Legal Entity and Operating Unit, do we go ahead and define PRB as our process-enabled organization?

To do that, we will have to classify PRB as an Inventory organization (besides a Legal Entity and an Operating Unit). We will be required to enter the Accounting Information for this Inventory Organization.

Thereafter, we need to select Inventory Information.

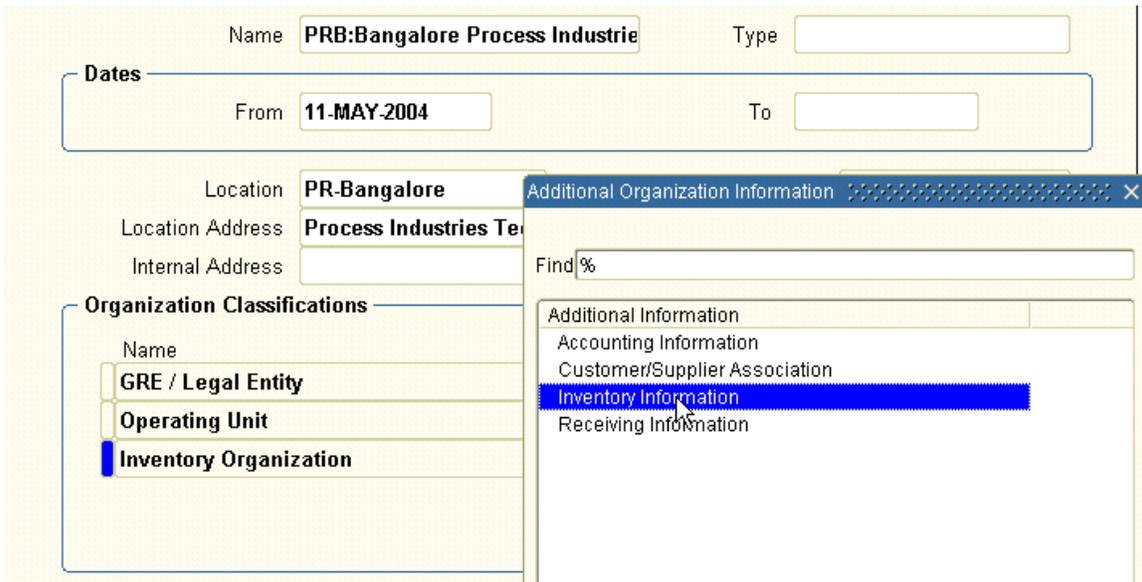


Fig 8. Selecting Inventory Information

This opens the **Organization Parameters** form.

In order to make PRB a process enabled Inventory Organization, also known as an OPM Warehouse in OPM terminology, we need to check the **Process Enabled** checkbox. Once we do that, the **Process Organization** field becomes mandatory as shown in **Fig 9**.

The screenshot shows the Oracle Organization Parameters (PRB) form. The title bar reads "Organization Parameters (PRB)". The tabs include "Inventory Parameters", "Costing Information", "Revision, Lot, Serial", and "ATP, Pick, Item-Sourcing". The form contains the following fields and values:

- Organization Code: PRB
- Item Master Organization: PRB:Bangalore Process Industries
- Calendar: Vision01
- Process Enabled:
- Process Organization: (empty)
- Demand Class: (empty)
- Move Order Timeout Period: (empty) Days
- Move Order Timeout Action: Approve automatically
- Locator Control: None
- Allow Negative Balances:
- WMS Enabled:
- Quality Skipping Inspection Control:
- EAM Enabled:
- EAM Organization: (empty)
- Capacity section:
 - Load Weight: (empty) UOM: (empty)
 - Volume: (empty) UOM: (empty)

Fig 9. What if we try to define PRB as an OPM Warehouse at this stage?

However, if we now try to enter any value in this field (there are no values in the LOV), we get the following error:

FRM-40212: Invalid value for field PROCESS_ORGN_CODE.

Note: This error comes up because we have an Operating Unit (PRB) to which this OPM Warehouse is associated. This Operating Unit (PRB) has not yet been associated with a Fiscal Policy of a company in Oracle Financials under **Manufacturing Accounting Controller (MAC)**. Once we associate the Operating Unit with a Fiscal Policy, all OPM organizations (whether Manufacturing Plant or Non-Manufacturing Plant) that come under this Operating Unit, will appear in the LOV for the Process Organization field. Therefore, the next three immediate steps to be taken are:

- (1) Define PRB as an OPM Organization
- (2) Assign OPM Organization PRB to the user who needs to access it
- (3) Define a Fiscal Policy with which to associate the Operating Unit PRB

7. Of OPM Organizations and OPM Companies

7.1 Defining the first OPM Organization - PRB

Responsibility: OPM System Administration
OPM System Setup > Organizations

OPM Organizations (as opposed to OPM Warehouses) are entities to which you can assign resources, warehouses, General Ledger accounts and other cross-application items. There are **three dimensions** to defining an OPM Organization.

Dimension 1: Parent

An OPM Organization needs to be associated to a Parent. The **Parent** field determines the organization to which the current OPM Organization is a child. Child organizations can have independent resources and warehouses that are accounted for on the parent general ledger. The OPM organization hierarchy is built in this manner. Specifying the Parent helps us locate as to where this OPM organization is placed in the Organization chart.

Dimension 2: Company

An OPM Organization can either be a Company of it's own or be associated to a Company. What is a **Company** in OPM? A Company is a pre-defined OPM Organization against which a Fiscal Policy has been defined in OPM Financials under Manufacturing and Accounting Controller.

Note: Oracle Financials Release 11i provides the user with the ability to define multiple organizations and the relationships among them in a single installation of Oracle Applications. In order to support multiple organizations, any number of OPM Companies can be mapped to a Set of Books and Operating Unit. So if two OPM Companies are assigned to the same Operating Unit, as has been done in this paper (OPM Companies PRB and PRH are assigned to the Operating Unit PRB), then the data synchronization process in OPM must be run twice (once for each Company) in order to integrate the data between OPM and Financials.

Dimension 3: Plant

An OPM Organization would be either a Manufacturing Plant or a Non Manufacturing Plant or a Laboratory.

For this paper, we shall be defining two OPM Organizations PRB and PRH (refer **Fig 1**). Both these OPM Organizations would also be defined as Companies (the reason for doing that would become clear as we proceed further).

The screenshot shows the 'Organizations' form in Oracle Applications. The form is titled 'Organizations' and has a search icon on the right. The fields are as follows:

Organization	PRB	[]
Name	Process Industries Bangalore	
Parent	PRB	
Company	PRB	
Plant	Manufacturing Plant	
Resource Whse Code		
Tax Location	NONE	Default
Manufacturing Calendar	CURRENT	Current Shop Calendar

Fig 10. PRB as our first OPM Organization

We shall define PRB as our first OPM organization, as shown in **Fig 10**.

Enter **Organization** = PRB

Enter **Name** as shown above.

The **Parent** field will display a LOV comprising pre-defined OPM Organization codes.

Enter PRB in this field and tab out.

As soon as we tab out from the **Parent** field, the **Company** field also gets populated with the value PRB. The OPM Organization PRB will have its own Fiscal Policy and therefore, we prefer to retain the value PRB in the **Company** field.

Note: The description fields against the **Parent** and the **Company** fields will not get populated as of yet. These fields will not display any value now. These fields will get populated from the value we have entered in the **Name** field, once we complete entering data in this form, save our work, and then requery the organization PRB (refer **Fig 11**).

Select **Plant** = Manufacturing Plant as we intend PRB to be an organization which has resources to undertake manufacturing activities.

To keep our case simple, we shall select (from the LOV) **Tax Location** = NONE

Once we save our work and requery, PRB in the Organizations definition form we get what we see in **Fig 11**.

Organization	PRB	[]
Name	Process Industries Bangalore	
Parent	PRB	Process Industries Bangalore
Company	PRB	Process Industries Bangalore
Plant	Manufacturing Plant	
Resource Whse Code		
Tax Location	NONE	Default
Manufacturing Calendar	CURRENT	Current Shop Calendar

Fig 11. The description fields against "Parent" and "Company" now have a value

7.2 Assigning PRB to the relevant user

The **User Organization** window is used to assign any number of organizations to a user. Once assigned, a user can work only with an organization from among these authorized organizations. I have logged into applications as the user SAUMIT. I shall therefore assign PRB to the user SAUMIT.

Note: Only after PRB has been assigned to the user SAUMIT, will this user be able to log in and find this org (PRB) in the LOV of the **Company** field in the **Fiscal Policy** definition form in **OPM Financials**. Thus, without the user-organization association, Fiscal Policy definition (and many other features) will not be available to this user.

OPM System Setup > User Organizations

Query for the user SAUMIT.

In the **Organizations** region place the cursor in the **Code** field and select PRB from the LOV (**Fig 12**).

Note: PRB appears in this LOV because it has already been defined as an OPM Organization.

Save your work.

7.3 Defining the Fiscal Policy for PRB

Select OPM Financials as the Responsibility.

Mfg. Acctg Controller > Setup > Fiscal Policies

We have defined the Fiscal Policy as shown in Fig 13.

User Organizations

User Name SAUMIT

— Organizations —

Code	Description
PRB	Process Industries Bangalore

Fig 12. Associating the User with the Organization

In Fig 13, we associate Company PRB with the OPM IN Set of Books. In the next field, we select PRB as the Operating Unit from the LOV. PRB is the only value in the LOV as we have defined only one Operating Unit under OPM IN.

Fig 13. Fiscal Policy for Company PRB

Note: In defining the Fiscal Policy for PRB, we have selected Standard Costing as the **GL Cost Method**. Though costing issues are beyond the scope of this paper, this setup does have certain ramifications. We shall shortly be defining two OPM Warehouses (PRB and HSR) under OPM Organization PRB. For these warehouses we intend to use Standard Costing. It is therefore imperative that we define our Fiscal Policy for PRB such that the **GL Cost Method** is also chosen as Standard.

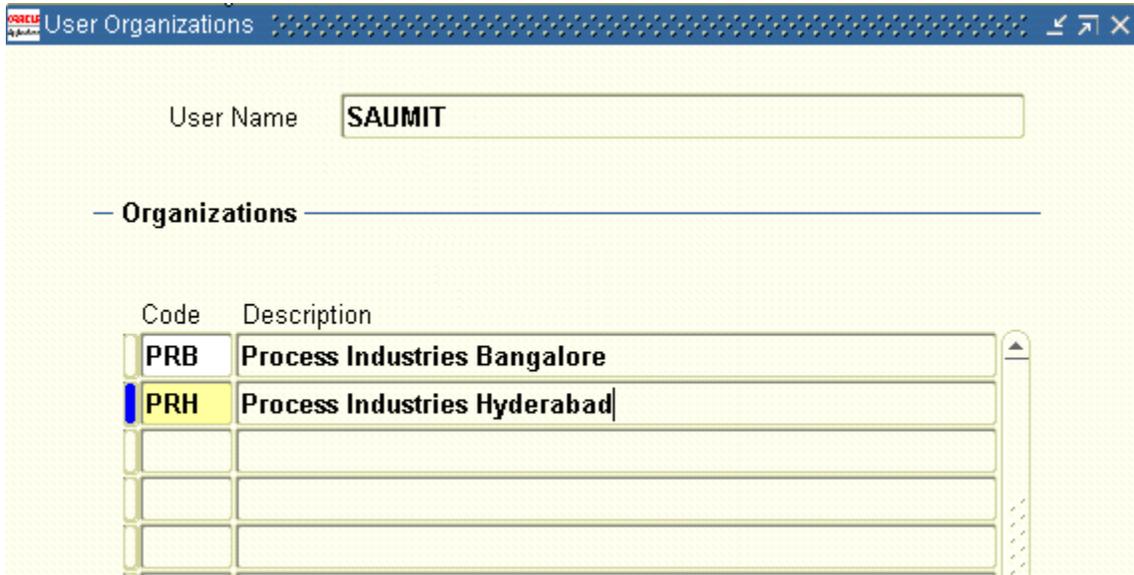
7.4 Defining our next OPM Organization – PRH

Fig 14. Our second OPM Organization

Note: (1) As shown in **Fig 1**, PRH and PRB are at the same level. And each of these intends to have a Fiscal Policy of its own and be established as an OPM Company. This is why PRH is its own **Parent** just as PRB was defined as its own **Parent**.
 (2) PRH is being defined as its own **Company**. We shall soon find out, why.
 (3) Lastly, we want to maintain PRH as a Non Manufacturing Plant.

7.5 Assigning PRH to the relevant user

OPM System Setup > User Organizations



User Name: SAUMIT

— Organizations —

Code	Description
PRB	Process Industries Bangalore
PRH	Process Industries Hyderabad

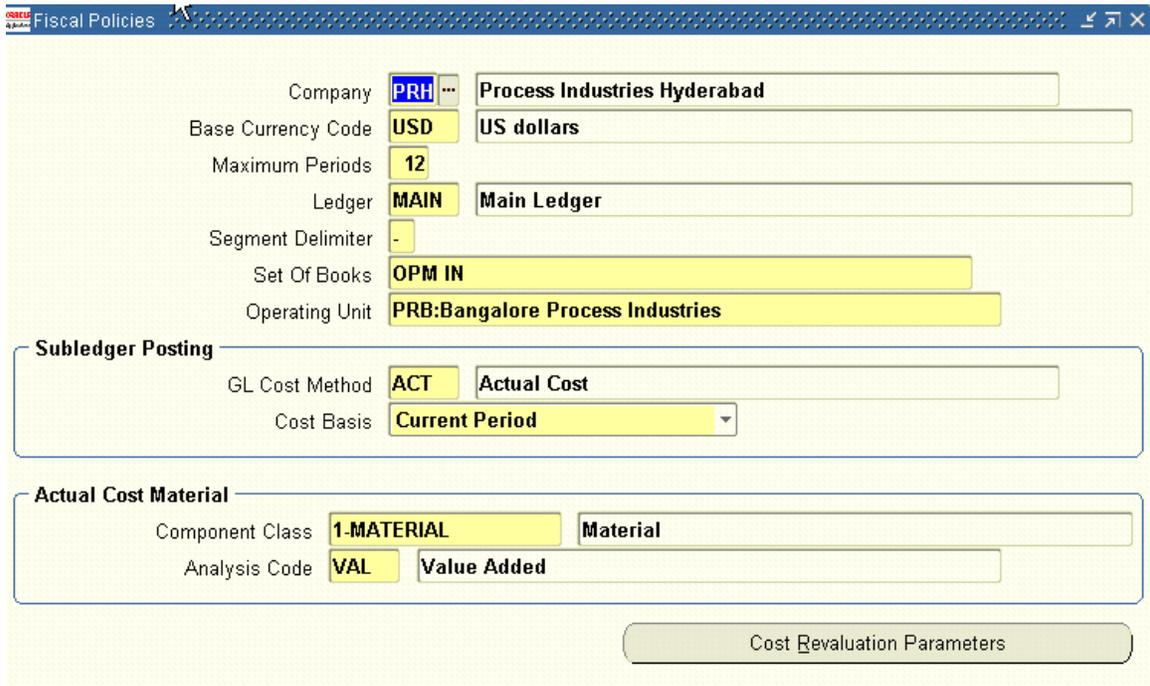
Fig 15. Assigning PRH to the relevant user

7.6 Defining a Fiscal Policy for PRH

Select OPM Financials as the Responsibility.

Mfg. Acctg Controller > Setup > Fiscal Policies

We have defined the Fiscal Policy as shown in Fig 16.



Fiscal Policies

Company: PRH Process Industries Hyderabad

Base Currency Code: USD US dollars

Maximum Periods: 12

Ledger: MAIN Main Ledger

Segment Delimiter: -

Set Of Books: OPM IN

Operating Unit: PRB:Bangalore Process Industries

Subledger Posting

GL Cost Method: ACT Actual Cost

Cost Basis: Current Period

Actual Cost Material

Component Class: 1-MATERIAL Material

Analysis Code: VAL Value Added

Cost Revaluation Parameters

Fig 16. Fiscal Policy for PRH

8. The Profile GMA: Default Organization

When a user logs in to define a Formula or a Recipe or a Routing there is a field, usually termed as *Owner Organization* on the forms where an organization code (to which the user is supposed to belong) defaults. This is the default organization associated with that user.

The default organization for a user can be defined by assigning an organization code to the profile option **GMA: Default Organization** under Personal Profiles. The LOV that a user will get to see when selecting his default organization against this profile option will contain the list of OPM Organizations that have been assigned to that user through the User Organizations form.

Let us define that for our user.

Responsibility: OPM Inventory
OPM Inventory Control > Other > Profile Options

Query for the profile option GMA: Default Organization. The **Default Organization** window pops up as shown in **Fig 17**. Since PRB and PRH are the only two organizations assigned to this user SAUMIT, we see only these two organizations in the pop up window. Assuming the user SAUMIT works at the Bangalore unit, he selects PRB as his default organization. The result is shown in **Fig 18**.

Note: The default organization can be changed using the Session Parameters window. Also, the user can override the organization value that defaults from the above profile option into the **Owner Organization** field in the Formula, Routing, and Recipe forms.

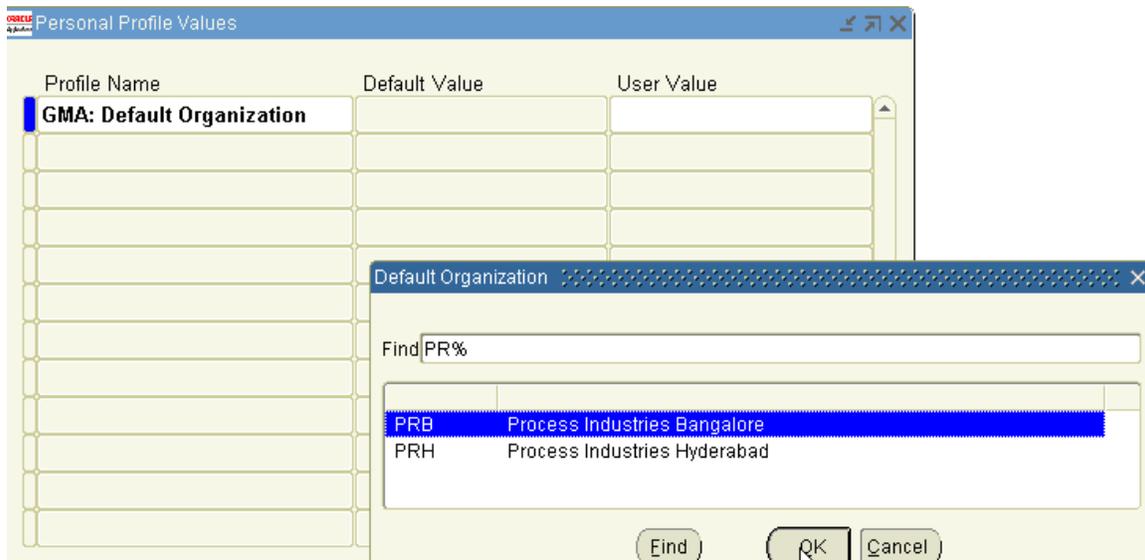


Fig 17. Selecting the Default Organization for this user

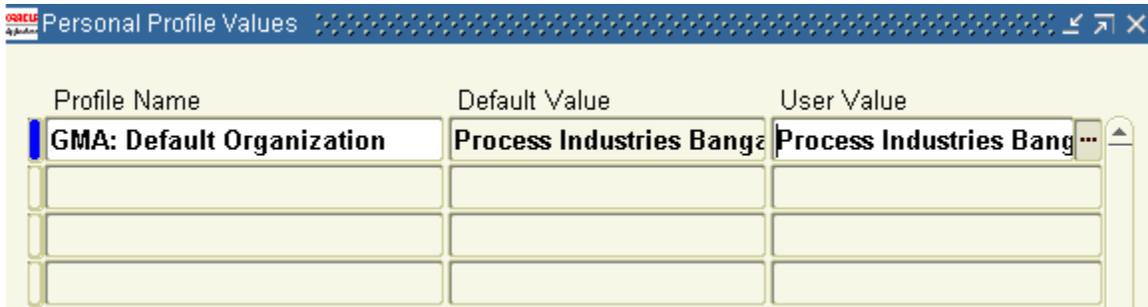


Fig 18. Selecting PRB as the Default Organization

9. OPM Warehouses

9.1 Defining the OPM Warehouses under OPM Company PRB

We can now get down to the task of defining our OPM Warehouses. To do this we have to revisit the HR Organizations form and classify our proposed OPM Warehouses as Inventory Organizations. Picking up the analogy, OPM Warehouses correspond to Inventory Organizations in Discrete Manufacturing. The steps we take to define both these kinds of organizations are also identical except for the **Process Enabled** checkbox that we come across in creating an OPM Warehouse.

The design proposed in this paper (Fig 1) suggests we have to define two OPM Warehouses under Company PRB. The portion that we are now going to set up is isolated and shown in Fig 19.

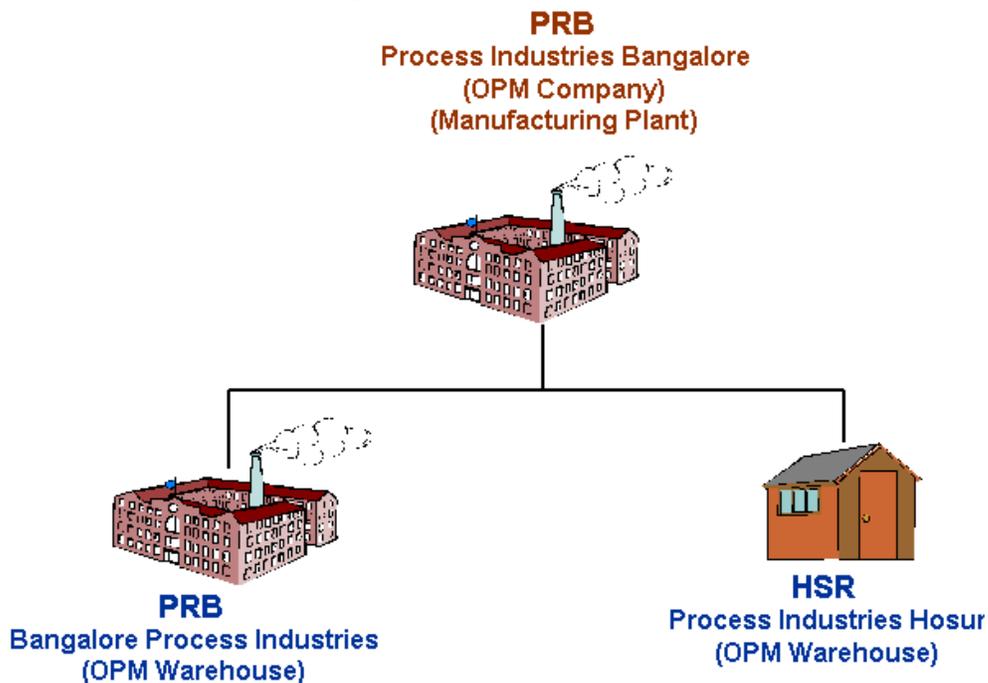


Fig 19. The Warehouses under OPM Company PRB

9.1.1 Defining PRB as an OPM Warehouse

OPM System Setup > HR Organizations

Name **PRB:Bangalore Process Industrie** Type

Dates
From **11-MAY-2004** To

Location **PR-Bangalore** Internal or External **Internal**

Location Address **Process Industries Technology Park.1919, Bannerghatta Road...Bangalore..**

Internal Address []

Organization Classifications

Name	Enabled
GRE / Legal Entity	<input checked="" type="checkbox"/>
Inventory Organization	<input checked="" type="checkbox"/>
Operating Unit	<input checked="" type="checkbox"/>

Fig 20. Classifying PRB as an Inventory Organization

Additional Organization Information

Accounting Information
OPM IN|PRB:Bangalore Process Industries|PRB:Bangalore Process Industr []

Fig 21. Set of Books = OPM IN; Legal Entity = PRB; Operating Unit = PRB

In the Inventory Parameters form, we select (from the LOV) **Item Master Organization** as PRB. When we check the **Process Enabled** checkbox, the **Process Organization** field becomes mandatory. If we check the LOV in this field we find two organizations appearing – PRB and PRH.

Reason: OPM Warehouse PRB is attached to the Operating Unit PRB. The Operating Unit PRB is in turn attached to two OPM Companies through Fiscal Policy definition – PRB and PRH. Hence, we find only these two organizations appearing here.

Note: Suppose we did not define a Fiscal Policy for PRH, then only PRB would have appeared in the LOV. In that case if PRH had had other OPM organizations as its child orgs, then those OPM Organizations would also not have appeared on the LOV. On the other hand if PRB and PRH had Fiscal Policies (as they already do) and in addition to that, were **each** Parents to two more OPM Organizations, then the LOV would have displayed PRB, PRH and the four child OPM Organizations.

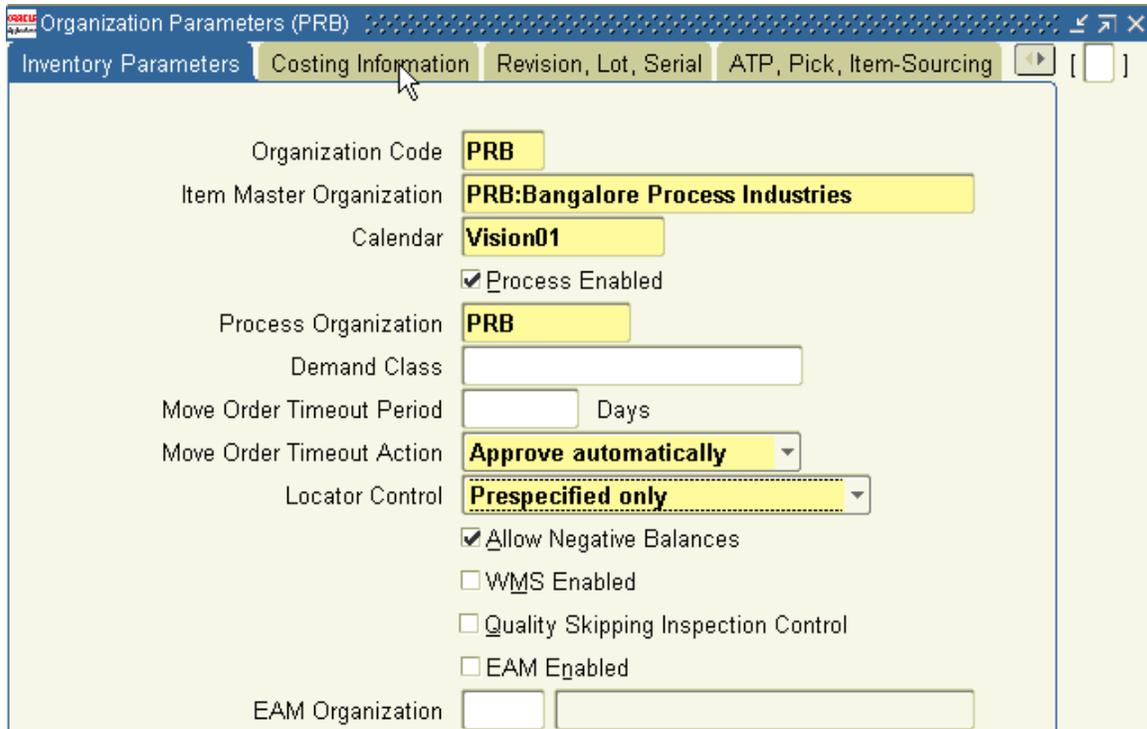


Fig 22. PRB becomes a process-enabled organization

Therefore, when defining an OPM Warehouse (i.e. the **Process Enabled** box is checked), the **Process Organization** field will display only those organizations which satisfy either (1) and (2) or (1) and (3) of the following criteria:

- (1) The organization is an OPM Organization that is, it has been defined under OPM System Setup > Organizations
It does not matter whether it is a Manufacturing Plant or a Non Manufacturing Plant.
- (2) The organization is a Company that is, it has a Fiscal Policy defined for it in OPM Financials and that Fiscal Policy is attached to the same Operating Unit as that of the OPM Warehouse that is being set up.
- (3) The organization is not a Company, but satisfies (1), and is child to a Company whose Fiscal Policy is attached to the same Operating Unit as that of the OPM Warehouse that is being set up.

Now, we shall define the Costing Information. OPM Warehouse PRB will be following the Standard Costing Method.

Note: The costing method we choose here should not contradict the **GL Cost Method** that we had selected when defining the Fiscal Policy for PRB (refer Fig 13).

Organization Parameters (PRB)

Inventory Parameters | Costing Information | Revision, Lot, Serial | ATP, Pick, Item-Sourcing

Costing Organization: PRB:Bangalore Process Industries

Costing Method: Standard

Rates Cost Type: []

Transfer to GL: Detail

Reverse Encumbrance

Project Cost Collect. Enabled

Cost Cutoff Date: []

Default Material Sub-Element: []

Default Material Overhead Sub-Element: []

Default Cost Group: []

Valuation Accounts

Material: 100-0000-1420-0000-0000

Outside Processing: 100-0000-1420-0000-0000

Material Overhead: 100-0000-1420-0000-0000

Overhead: 100-0000-1420-0000-0000

Resource: 100-0000-1420-0000-0000

Expense: 100-0000-5100-0000-0000

Fig 23. Costing Parameters for OPM Warehouse PRB

Having discussed the nuances of the parameters that matter the most, we shall skip the details of the other tabs in the Organization Parameters window, as they are not of much consequence for the areas this paper focuses on.

9.1.2 Defining our second OPM Warehouse - HSR:Process Industries Hosur

Organization

Name: HSR:Process Industries Hosur | Type: []

Dates

From: 14-MAY-2004 | To: []

Location: PR-Hosur | Internal or External: Internal

Location Address: Process Industries Hosur.212, Hosur Industrial Road...Hosur.....India

Internal Address: []

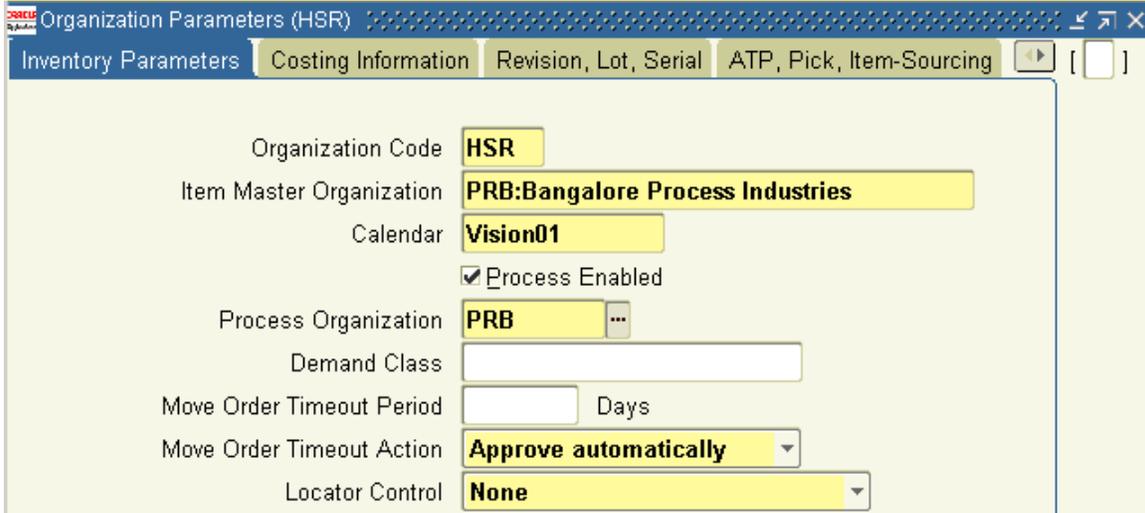
Organization Classifications

Name	Enabled
Inventory Organization	<input checked="" type="checkbox"/>
[]	<input type="checkbox"/>
[]	<input type="checkbox"/>

Fig 24. The second OPM Warehouse under Company PRB

We had defined a Location (PR-Hosur) for this warehouse. We have attached this Location with this OPM Warehouse as seen in **Fig 24**. The **Accounting Information** implying the Set of Books (OPM IN), Legal Entity (PRB) and Operating Unit (PRB) will be the same for all our OPM Warehouses.

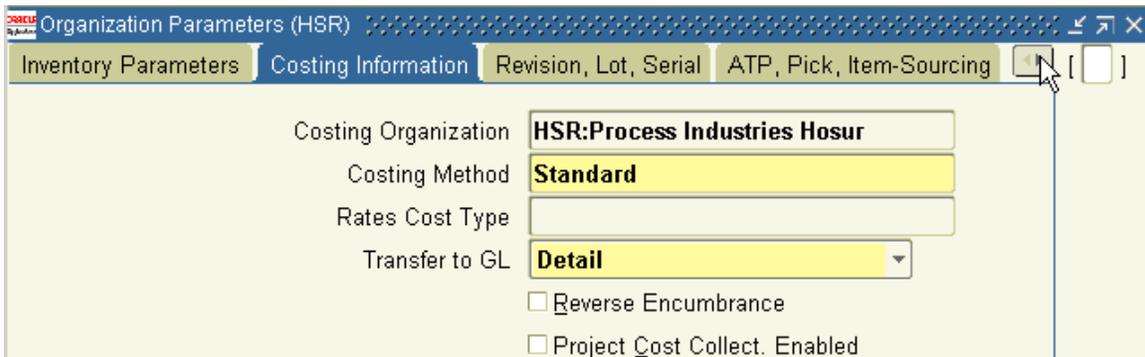
The remaining setup for HSR is shown in **Fig 25** and **Fig 26**.



The screenshot shows the SAP 'Organization Parameters (HSR)' window with the 'Costing Information' tab selected. The following fields are visible:

Organization Code	HSR
Item Master Organization	PRB:Bangalore Process Industries
Calendar	Vision01
<input checked="" type="checkbox"/> Process Enabled	
Process Organization	PRB
Demand Class	
Move Order Timeout Period	Days
Move Order Timeout Action	Approve automatically
Locator Control	None

Fig 25. Making PRB the Process Organization for OPM Warehouse HSR



The screenshot shows the SAP 'Organization Parameters (HSR)' window with the 'Costing Information' tab selected. The following fields are visible:

Costing Organization	HSR:Process Industries Hosur
Costing Method	Standard
Rates Cost Type	
Transfer to GL	Detail
<input type="checkbox"/> Reverse Encumbrance	
<input type="checkbox"/> Project Cost Collect. Enabled	

Fig 26. HSR follows Standard Costing in congruence with the Fiscal Policy for PRB

9.2 Defining the OPM Warehouses for OPM Company PRH

We shall now focus on completing the structure shown in **Fig 27**.

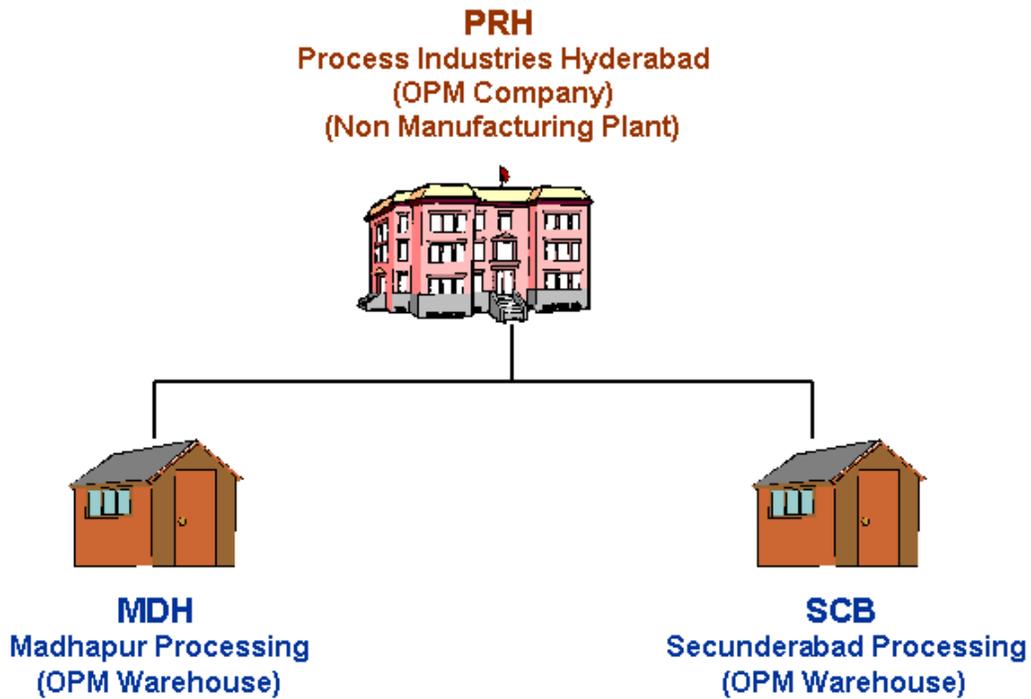


Fig 27. The structure under OPM Company PRH

9.2.1 Setting up OPM Warehouse MDH

As before, the first step to creating OPM Warehouse would be to define its location.

OPM System Setup > HR Locations

This is shown in **Fig 28**.

Location

Scope: Global Local

Name: **PR-Madhapur**

Description: **Madhapur Processing Location**

Inactive Date:

Address Details | Shipping Details | Other Details

Address Style: **Oracle Process Manufacturing**

Address: **Oracle Location Address**

Address Line 1: **1-200/10 Hi-Tech City Main Road**

Address Line 2: **Madhapur**

Address Line 3:

Address Line 4:

City: **Hyderabad**

Province:

County:

State:

Postal:

Country: **INDIA**

Extra Inform...

Fig 28. The Location for OPM Warehouse MDH

The next step is to define the OPM Warehouse or the Inventory organization.

OPM System Setup > HR Organizations

Organization

Name: **MDH:Madhapur Processing** Type:

Dates: From: **14-MAY-2004** To:

Location: **PR-Madhapur** Internal or External: **Internal**

Location Address: **1-200/10 Hi-Tech City Main Road.Madhapur...Hyderabad.....India**

Internal Address:

Organization Classifications:

Name	Enabled
Inventory Organization	<input checked="" type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>

Fig 29. Establishing Madhapur Processing as our new OPM Warehouse

The Set of Books, Legal Entity and Operating Unit association is as displayed in Fig 30.

The screenshot shows a window titled "Accounting Information" with a close button (X) in the top right corner. The window contains three input fields: "Set of Books" with the value "OPM IN", "Legal Entity" with the value "PRB:Bangalore Process Industries", and "Operating Unit" with the value "PRB:Bangalore Process Industries". Below these fields is a horizontal scrollbar. At the bottom right of the window are four buttons: "OK", "Cancel", "Clear", and "Help". A mouse cursor is pointing at the "OK" button.

Fig 30. Accounting Information for MDH

The screenshot shows a window titled "Organization Parameters (MDH)" with standard window controls (minimize, maximize, close) in the top right corner. Below the title bar are several tabs: "Inventory Parameters", "Costing Information", "Revision, Lot, Serial", and "ATP, Pick, Item-Sourcing". The "Costing Information" tab is selected. The main area of the window contains several parameters: "Organization Code" (MDH), "Item Master Organization" (PRB:Bangalore Process Industries), "Calendar" (Vision01), a checked checkbox for "Process Enabled", "Process Organization" (PRH), "Demand Class" (empty), "Move Order Timeout Period" (empty) with "Days" next to it, "Move Order Timeout Action" (Approve automatically), "Locator Control" (None), and a checked checkbox for "Allow Negative Balances".

Fig 31. In accordance with the structure in Fig 27, the PRH is the Process Organization for MDH

The Costing Method employed by MDH is Average Costing. This was made possible by selecting the **GL Cost Method** as **Actual Costing** (Fig 16) when defining the Fiscal Policy for PRH. This is shown in Fig 32.

Note: We wanted to have Average Costing for two of our OPM Warehouses (MDH and SCB). But the Fiscal Policy for OPM Company PRB had a **GL Cost Method** as **Standard**. It is precisely for this reason that we had to define a separate Fiscal Policy for the OPM Organization PRH, which governs the warehouses MDH and SCB. And in the Fiscal Policy for PRH we chose Actual Costing as the GL Cost Method. The **GL Cost Method** specified in the Fiscal Policy definition form for PRH would be used to populate journal entries from OPM Warehouses MDH and SCB. A detailed discussion on the costing implications of OPM System Setup is beyond the scope of this paper and deserves a separate treatment per se.

Organization Parameters (MDH)

Inventory Parameters Costing Information Revision, Lot, Serial ATP, Pick, Item-Sourcing

Costing Organization **MDH:Madhapur Processing**

Costing Method **Average**

Rates Cost Type **AvgRates**

Transfer to GL **Detail**

Reverse Encumbrance

Project Cost Collect. Enabled

Cost Cutoff Date

Default Material Sub-Element

Default Material Overhead Sub-Element

Default Cost Group

Valuation Accounts

Material	100-0000-1420-0000-0000
Outside Processing	100-0000-1420-0000-0000
Material Overhead	100-0000-1420-0000-0000
Overhead	100-0000-1420-0000-0000
Resource	100-0000-1420-0000-0000
Expense	100-0000-5100-0000-0000

Fig 32. MDH uses Average Costing

9.2.2 Setting up the last OPM Warehouse – SCB

The steps are the same as employed in setting up MDH.

Figs 33 to Fig 37 demonstrate the setting up of SCB.

Location

Scope
 Global Local

Name: **PR-Secunderabad**

Description: **Secunderabad Processing Location**

Inactive Date:

Address Details | Shipping Details | Other Details

Address Style: **Oracle Process Manufacturing**

Address: **Oracle Location Address**

Address Line 1: **188, Phase-2**

Address Line 2: **IT Center**

Address Line 3: **Gunrock Enclave**

Address Line 4:

City: **Secunderabad**

Province:

County:

State:

Postal:

Country: **INDIA**

Extra Inform...

Fig 33. The Location for OPM Warehouse SCB

Organization

Name: **SCB:Secunderabad Processing** Type:

Dates
 From: **17-MAY-2004** To:

Location: **PR-Secunderabad** Internal or External: **Internal**

Location Address: **188, Phase-2.IT Center.Gunrock Enclave..Secunderabad.....India**

Internal Address: []

Organization Classifications

Name	Enabled
Inventory Organization	<input checked="" type="checkbox"/>

Fig 34. Establishing Secunderabad Processing as our fourth OPM Warehouse

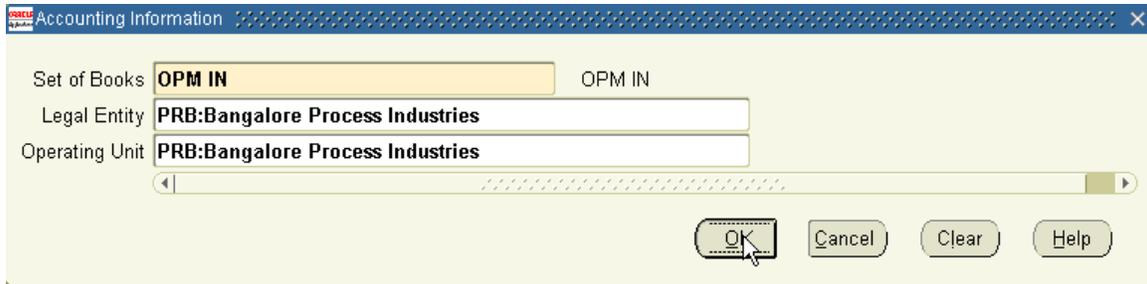


Fig 35. Accounting Information for SCB

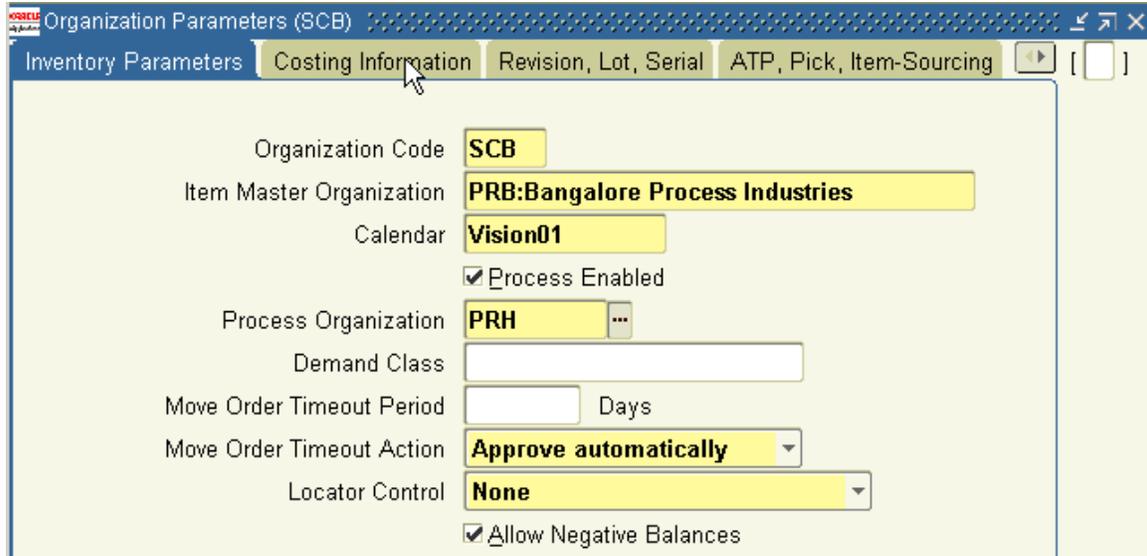


Fig 36. Placing OPM Warehouse SCB under OPM Organization PRH

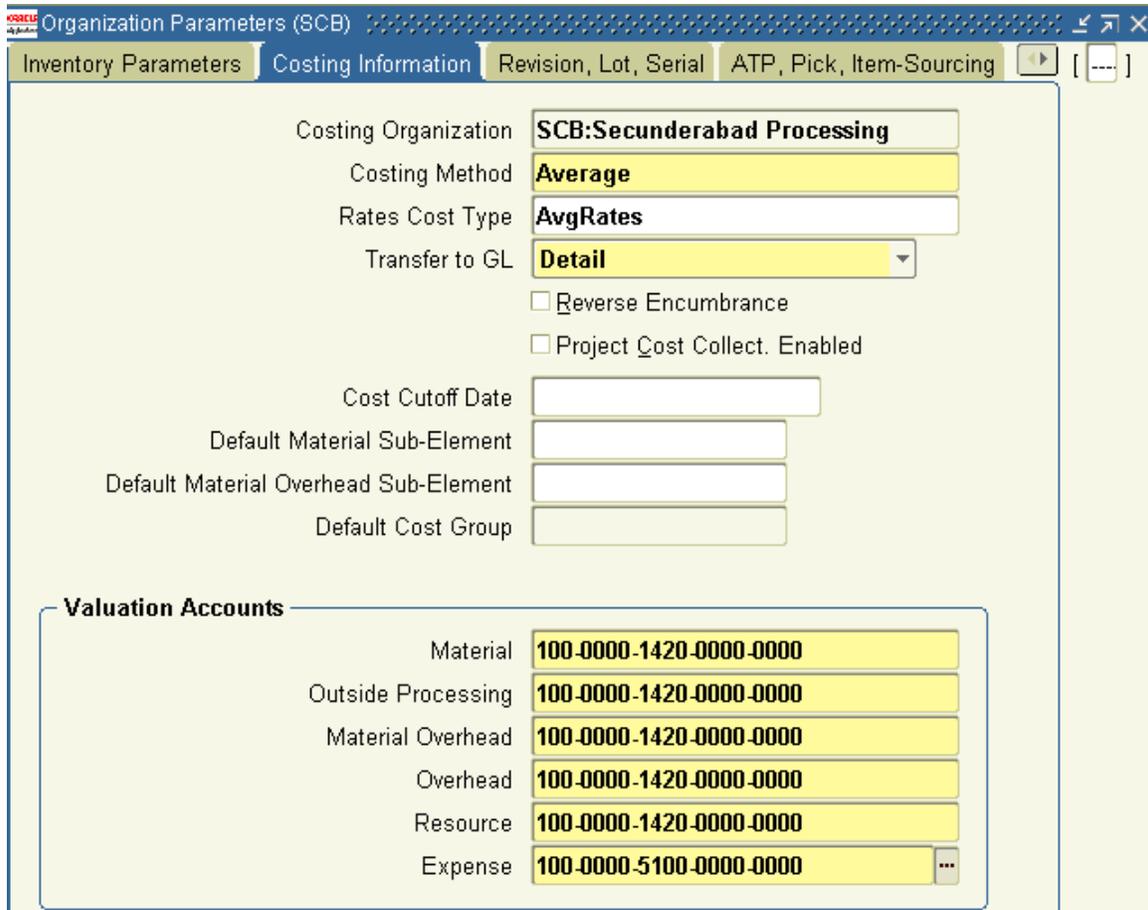


Fig 37. SCB employs Average Costing in tandem with the Fiscal Policy for PRH

10. Defining a Unit of Measure

Defining units of measure (UOM) that we will require in other applications in OPM is an integral part of OPM System Setup.

Responsibility: OPM System Administration
 OPM System Setup > Units of Measure > Units of Measure

The **Organizations** window that pops up displays the LOV of all organizations that have been defined as Inventory Organizations. We will find PRB, HSR, MDH and SCB among others, in this LOV. Select PRB.

In the **Units of Measure** window that comes up, we shall define a UOM called **Milliliter** or **ML**. We shall assign this UOM to the seeded UOM Class called **VOL**. Before we proceed any further we need to save our work. This is shown in **Fig 38** below.

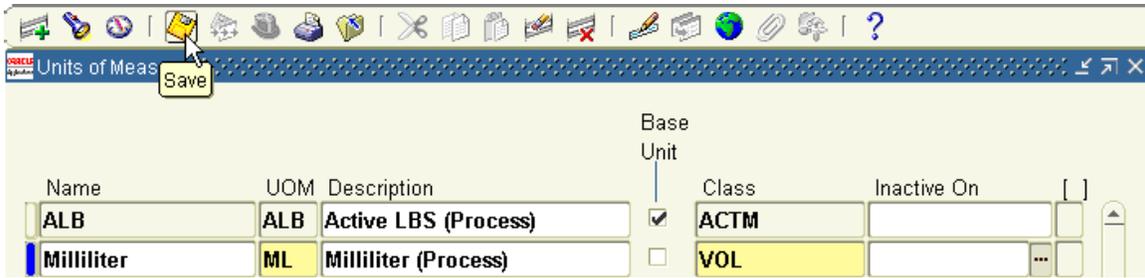


Fig 38. Defining a UOM for our future use

What we now need to do is to specify how **Milliliter** translates into the Base Unit of Measure of the UOM Class **VOL**. The Base UOM for **VOL** is **Gallon (Process)** or **GL**. Click on the **Conversions** button, at the bottom right of the **Units of Measure** screen.

OPM System Setup > Units of Measure > Units of Measure > (B) Conversions

We now need to specify the conversion between **ML** and **GL**. This has been done and saved, as shown in **Fig 39** below.

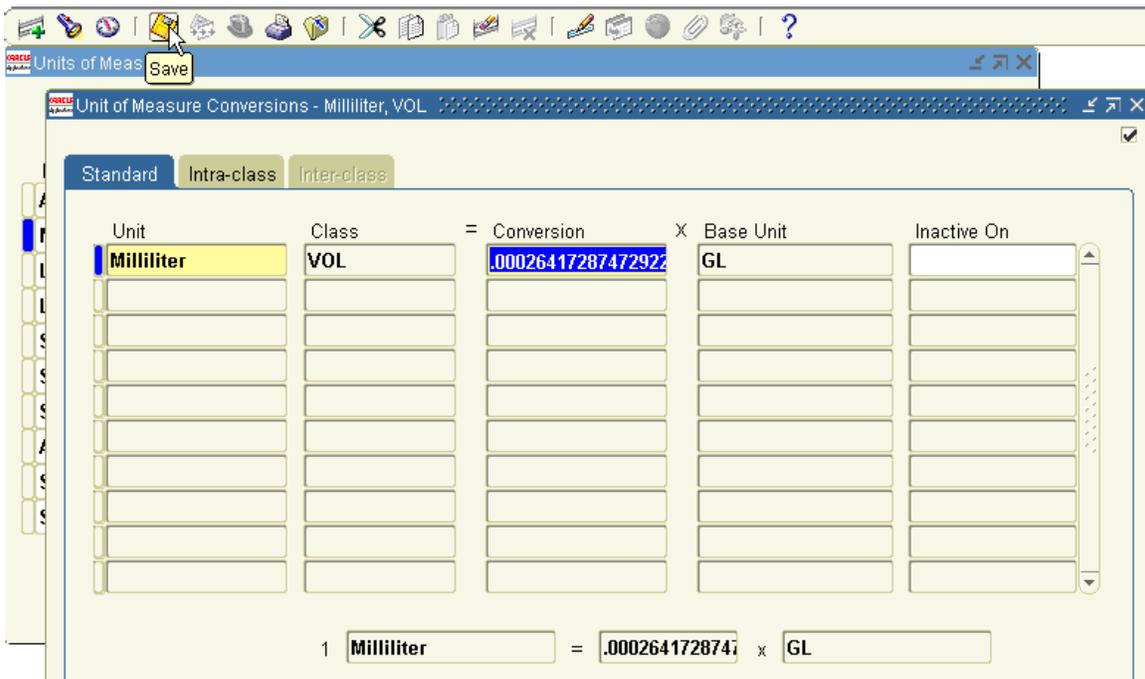


Fig 39. Defining the conversion between Milliliter and Gallon (Process)

1 **ML** = 0.000264172874729222803403 **GL**

With this, we have successfully defined the unit of measure **ML**.

11. Document Ordering

We have so far created two OPM Organizations PRB and PRH, which are attached to the user SAUMIT. We will need to assign Manual or Automatic numbering system to the types of documents seeded in the application. This exercise needs to be performed for each of these OPM Organizations. The existing literature provides adequate details on this topic.

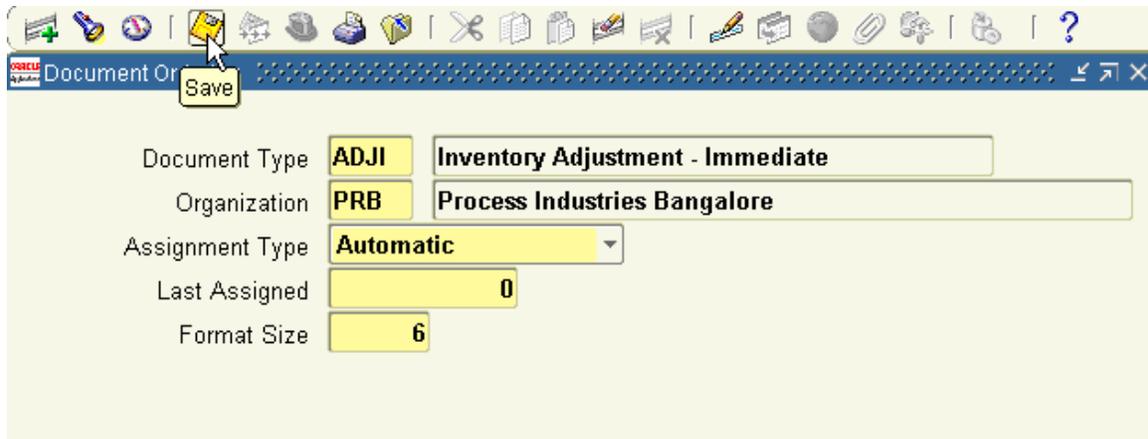


Fig 40. An example for Document Ordering

12. Defining Paragraphs

This topic comes under optional settings in OPM System Setup. However, it is being covered in this paper to demonstrate with the aid of a few examples of how this is done.

Paragraphs in OPM are structures that are used to store and categorize text. OPM is installed with one default paragraph per database table, the **General Text**.

Using the Paragraph window, we can specify different paragraphs that can be associated with tables. The examples that follow, illustrate this point.

In this paper we would be defining paragraphs for some specific tables that are referenced in OPM modules – OPM Inventory (GMI) and OPM Product Development (GMD).

OPM System Setup > Paragraphs

Query for the table IC_ITEM_MST, as shown in **Fig 41**.

This is the Item definition table in OPM. It contains all information relating to an item, such as lot/sublot control, unit of measure information, and all class and type designations.

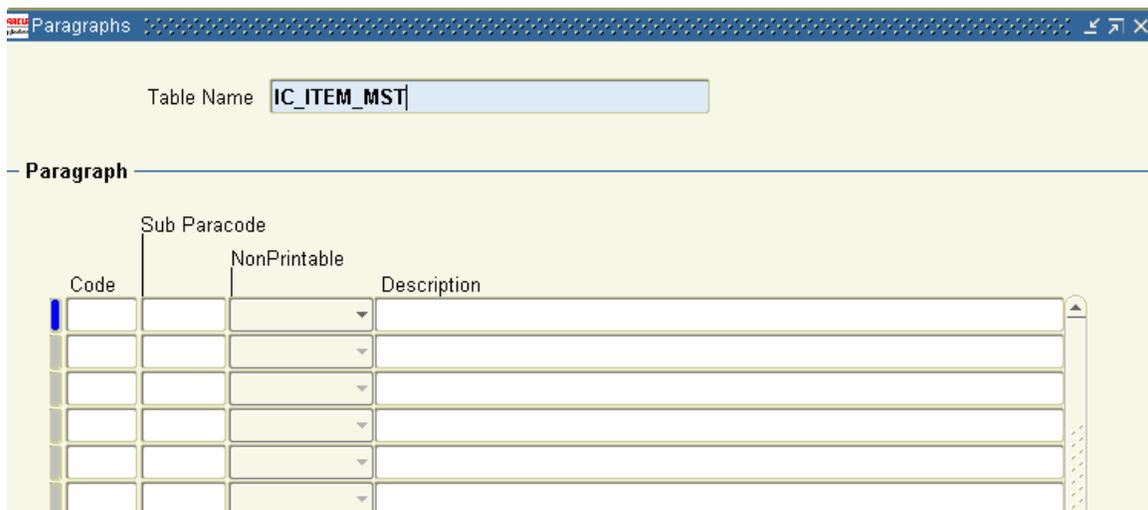


Fig 41. Querying for the Item Master table

Once the existing values are retrieved, add a new record as shown in **Fig 42**.

Table Name

Paragraph

Code	Sub Paracode	NonPrintable	Description
0001	1	Yes	xx-item comments
DXZZ	0	No	General Text
DXZZ	0	No	General Text
0002	0	No	Notes on Item Storage

Fig 42. Creating a Paragraph name for future use

We can check if this Paragraph is now available to us, in the form where IC_ITEM_MST is referenced.

Using the OPM Inventory responsibility navigate to Inventory > OPM Inventory Control > Setup > Item Master

Query for and retrieve an existing item.

Navigate to Actions > Edit Text, as shown in **Fig 43**.

As **Fig 44** shows, the Paragraph we had just defined comes up in the Select Text Paragraph window.

File Edit View Folder Tools **Actions** Window Help

Mark for Purge
Edit Text
 Additional Information
 Conversions
 Specification
 Samples
 Costing
 Customer Generics
 Assign Categories

Item

Description

Comment

Alternate Item A

Alternate Item B

Warehouse Item

Inactive

Experimental

Unit of Measure

Dual Control

UOM Dual

Deviation Factor+

Deviation Factor -

Codes

Type

ABC Rank

UPC Code

Controls

Non Inventory

Location

Lot

Indivisible

Sublot

Grade Default

Status

Default

Matching

Pricing Source

Fig 43. Calling the Edit Text Feature in the OPM Item definition form

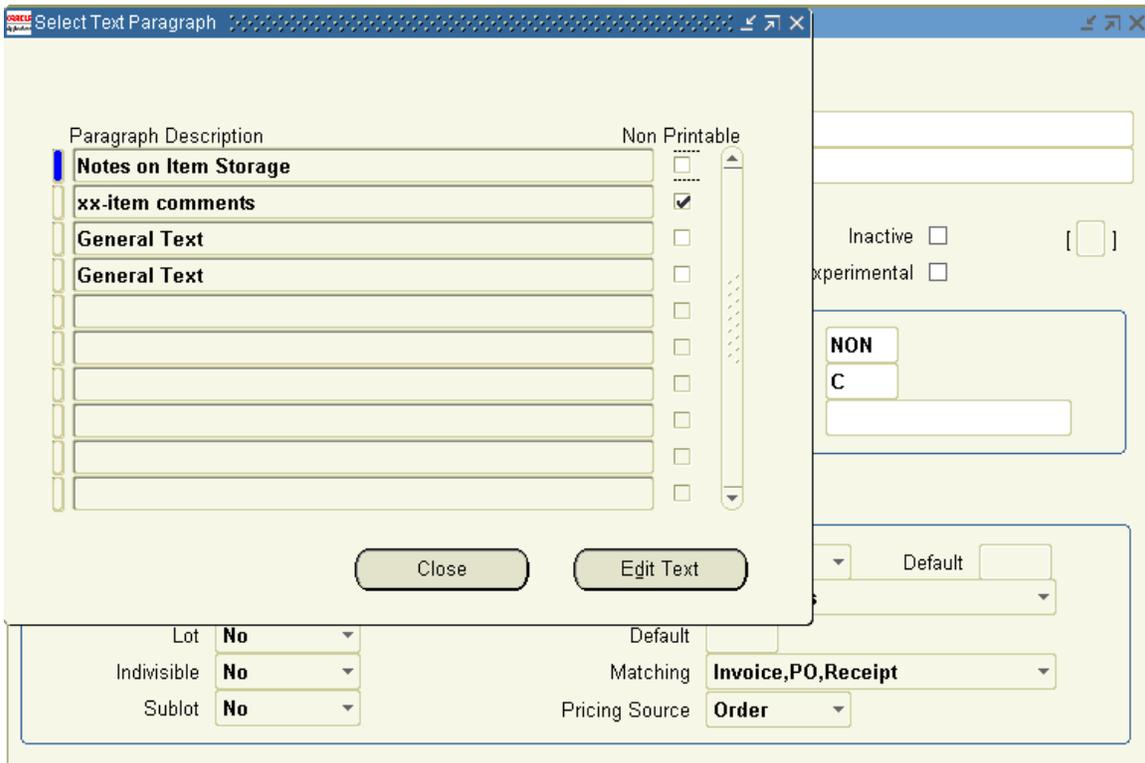


Fig 44. The Paragraph we had just defined is now available

Similarly, we have defined the paragraphs against the following tables.

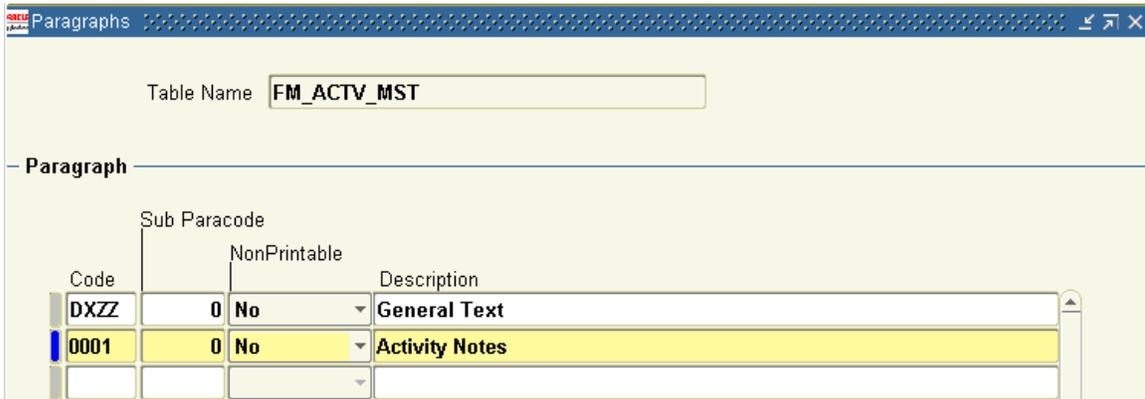


Fig 45. Paragraph "Activity Notes" defined for the Activity Master table

FM_ACTV_MST is the Activity master table. It defines activities, which are performed in operations.

The paragraph **Activity Notes** can be referenced when defining Activities in Process Engineer > Setup > Activities

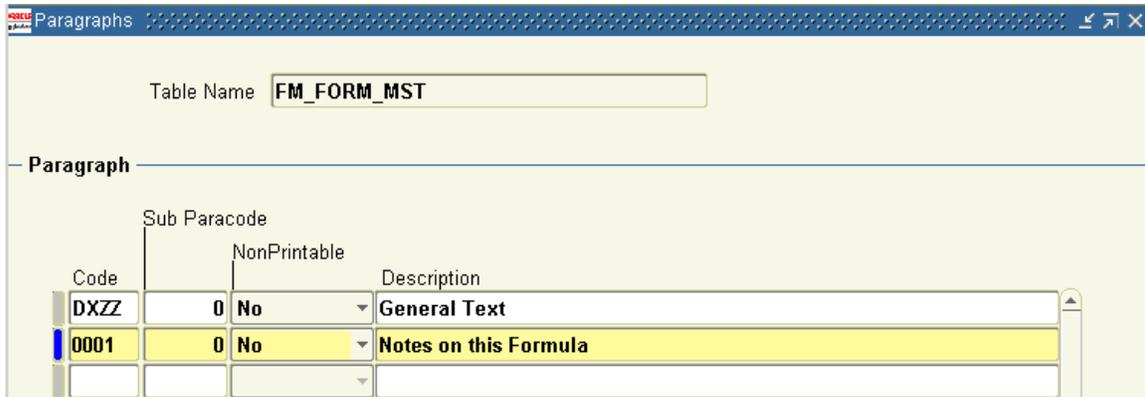


Fig 46. Paragraph "Notes on this Formula" defined for the Formula Header

FM_FORM_MST is the Formula Header table.

The paragraph **Notes on this Formula** can be referenced when defining a Formula and the cursor is in the Formula Header region. The navigation would be Formulator > Formulas

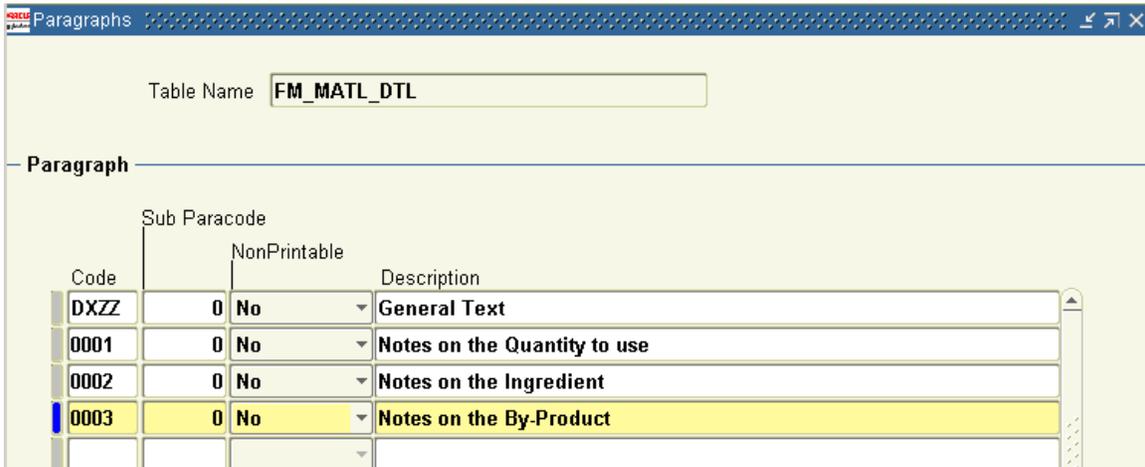


Fig 47. Paragraphs defined for Formula Details

FM_MATL_DTL is the formula details table. It stores the details of product, ingredient and by-product. This is also evident from the paragraph names we have chosen here. To reference the paragraphs as defined in Fig 47 the navigation would be

Formulator > Formulas

and the cursor would need to be in the **Products, By-products** or **Ingredients** region.

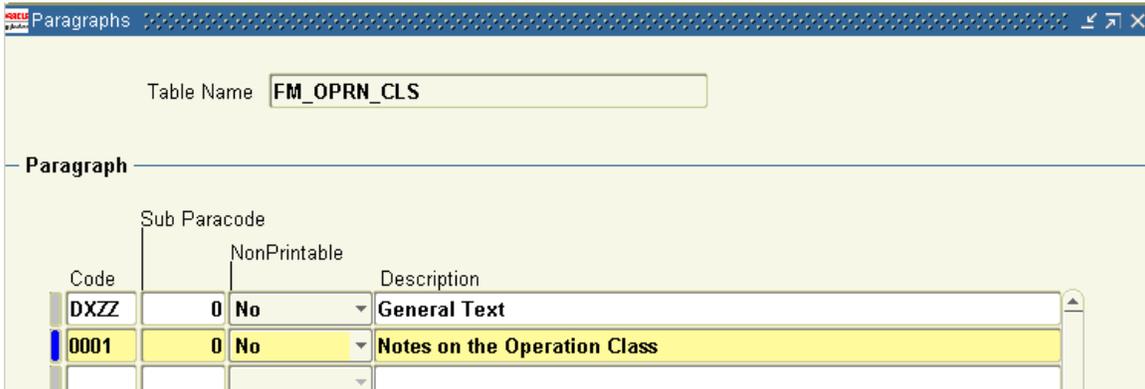


Fig 48. Paragraph defined for Operation Class

FM_OPRN_CLS is table that stores details of operation classes that are used to group operations. This is also evident from the paragraph names we have chosen here. To reference the paragraph defined in **Fig 48**, the navigation would be Process Engineer > Setup > Operation Classes

The screenshot shows the SAP Paragraphs configuration window for the table GMD_OPERATION_ACTIVITIES. The 'Table Name' field is set to GMD_OPERATION_ACTIVITIES. Below the table name, there is a section for defining paragraphs. The first paragraph is defined with the following details:

Code	Sub Paracode	NonPrintable	Description
0001	0	No	Notes on Activities for this Operation

Fig 49. Paragraph defined for Activities associated with an Operation

GMD_OPERATION_ACTIVITIES stores details of Activities for each Operation. This is also evident from the paragraph names we have chosen here. To reference the paragraph we have defined in **Fig 49**, the navigation would be Process Engineer > Operations And the cursor needs to be in the **Activities** region.

The screenshot shows the SAP Paragraphs configuration window for the table GMD_OPERATION_RESOURCES. The 'Table Name' field is set to GMD_OPERATION_RESOURCES. Below the table name, there is a section for defining paragraphs. The first paragraph is defined with the following details:

Code	Sub Paracode	NonPrintable	Description
0001	0	No	Notes on the Resources for this Operation

Fig 50. Paragraph defined for Resources associated with an Operation

GMD_OPERATION_RESOURCES stores details of the Resources we define against each Activity within an Operation.

To reference the paragraph in **Fig 50**, the navigation would be Process Engineer > Operations > (B) Resources

Note: When defining Paragraphs to be referenced in the Activities definition form (FMACTVED), if the paragraphs are defined against the table FM_ACTV_MST then these Paragraphs can be used in the form FMACTVED using Actions > Edit Text. However, if Paragraphs are defined against the table GMD_ACTIVITIES_B, then these paragraphs are not available for use on the form FMACTVED. Similarly, if we want to define Paragraphs to be referenced by the Operation Header in the Operations definition form (GMDOPRED), then defining paragraphs against the table GMD_OPERATIONS_B has no effect. In concurrence with the OPM GMD Development

team, internal **bug 3768618** has been logged with Development to initiate the code-fix for resolving this anomaly.

13. Defining and using a Text Token

Now, that we have understood how to define Paragraphs and use them to our advantage, it is time to take a quick look at another **text management** utility available in OPM System Setup.

Text tokens embody long sentences or messages in the form of a short description. Once a text token has been defined, it can be used repeatedly (wherever the message which the token encapsulates, is required).

Let us define one token for this paper.

Using OPM System Administration responsibility, navigate to System Admin > OPM System Setup > Text Tokens

Enter the data as shown in **Fig 51**.

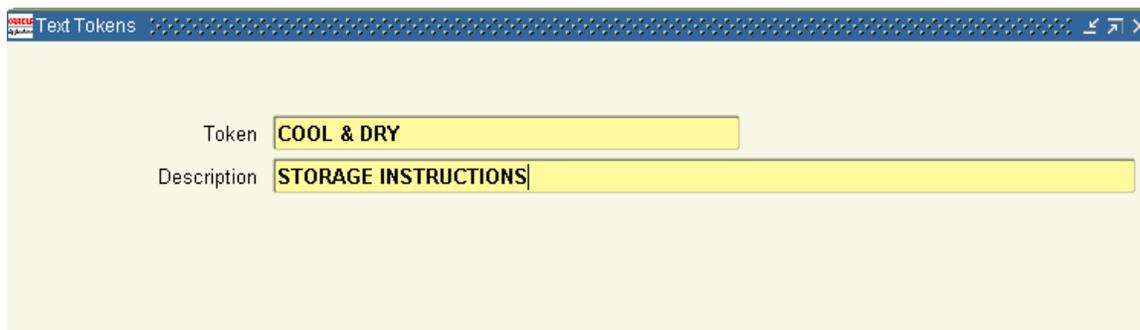


Fig 51. Creating our first text token – entering the *Token Name* and *Description*

Now use Actions > Edit Text as shown in **Fig 52**.

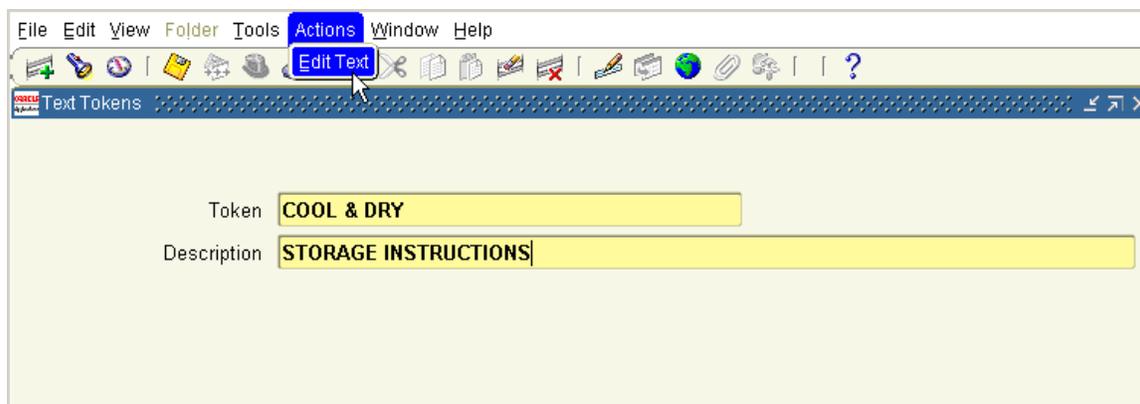


Fig 52. Creating our first text token – we need to enter the message/long description

This brings us to the window shown in **Fig 53**.

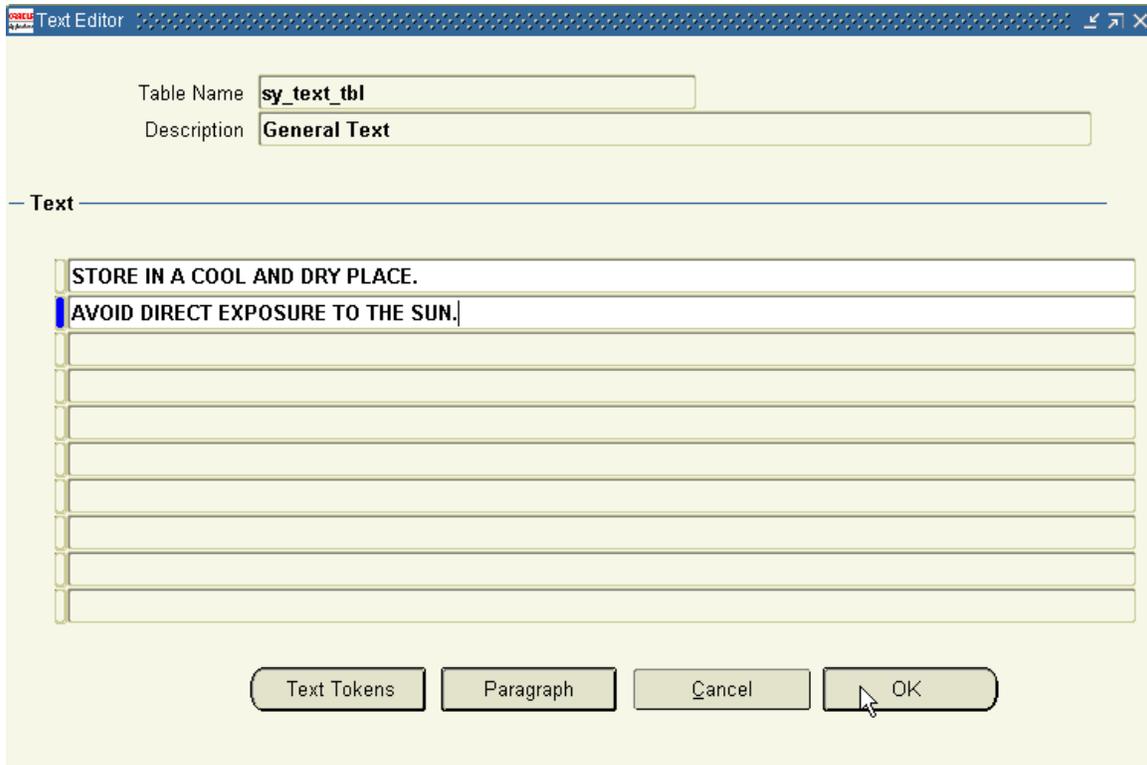


Fig 53. Creating our first text token – entering the text message for the token to encapsulate

Once we are through with the data entry as shown in **Fig 53**, click **OK**. This will bring us back to the Text Tokens opening window. We now need to save our work.

We shall now run a short test on using this newly created Text Token in one of our previously defined paragraphs.

Using OPM Inventory responsibility, navigate to OPM Inventory Control > Setup > Item Master

Query and retrieve an existing item.
Navigate to Actions > Edit Text, as shown in **Fig 43**.

This brings us to the window shown in **Fig 54**.
Select the **Notes on Item Storage** paragraph that we had previously defined.
Click on the **Edit Text** button as shown in **Fig 54**.

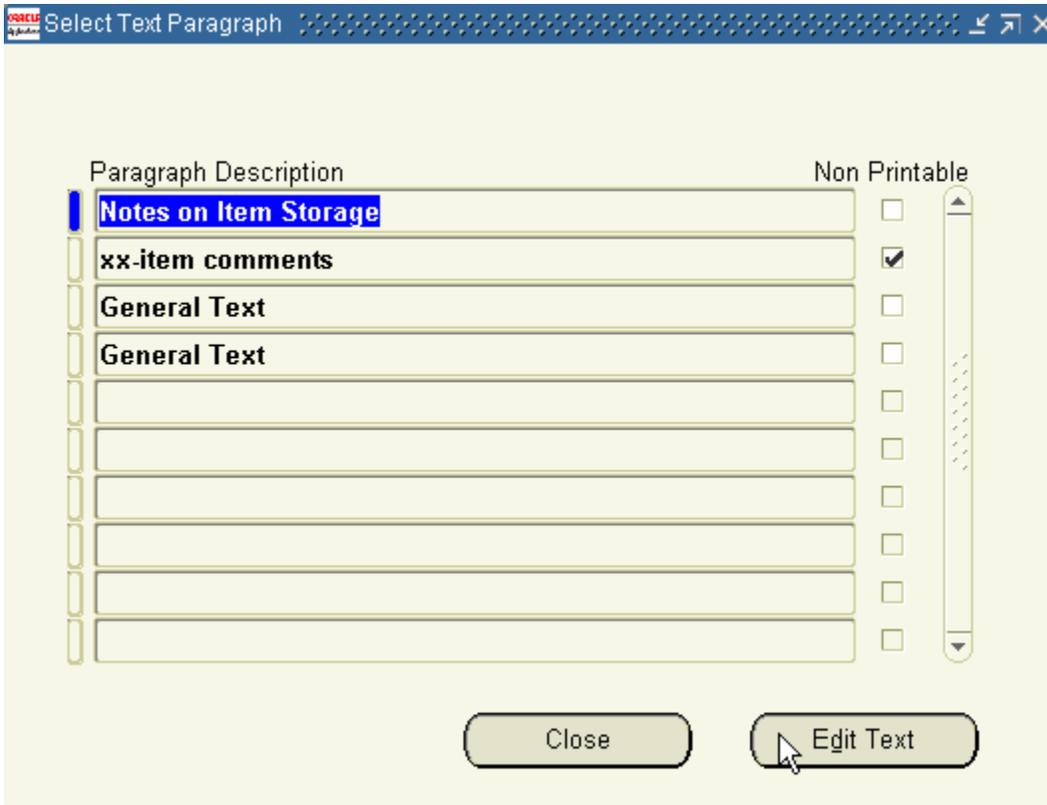


Fig 54. Select the Paragraph we had defined earlier and click *Edit Text*

This brings us to the **Text Editor** screen.
Click on the **Text Tokens** button, as shown in **Fig 55**.

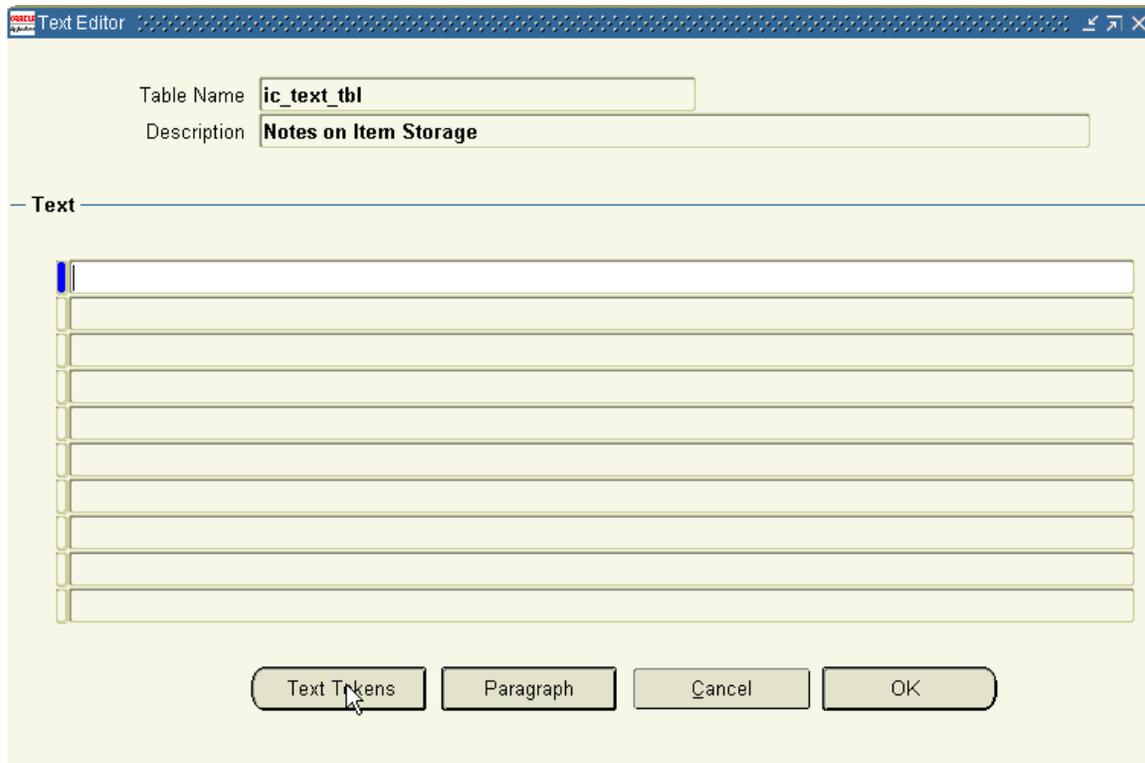


Fig 55. Click on the *Text Tokens* button

The moment we click on the **Text Tokens** button, two possibilities exist

- (1) A LOV pops up displaying the existing Text Tokens, if more than one Text Token has been defined
- (2) If only one text token has been defined, that Text Token gets populated in the Text section preceded by a period(.). This is what happens for us as shown in **Fig 56**.

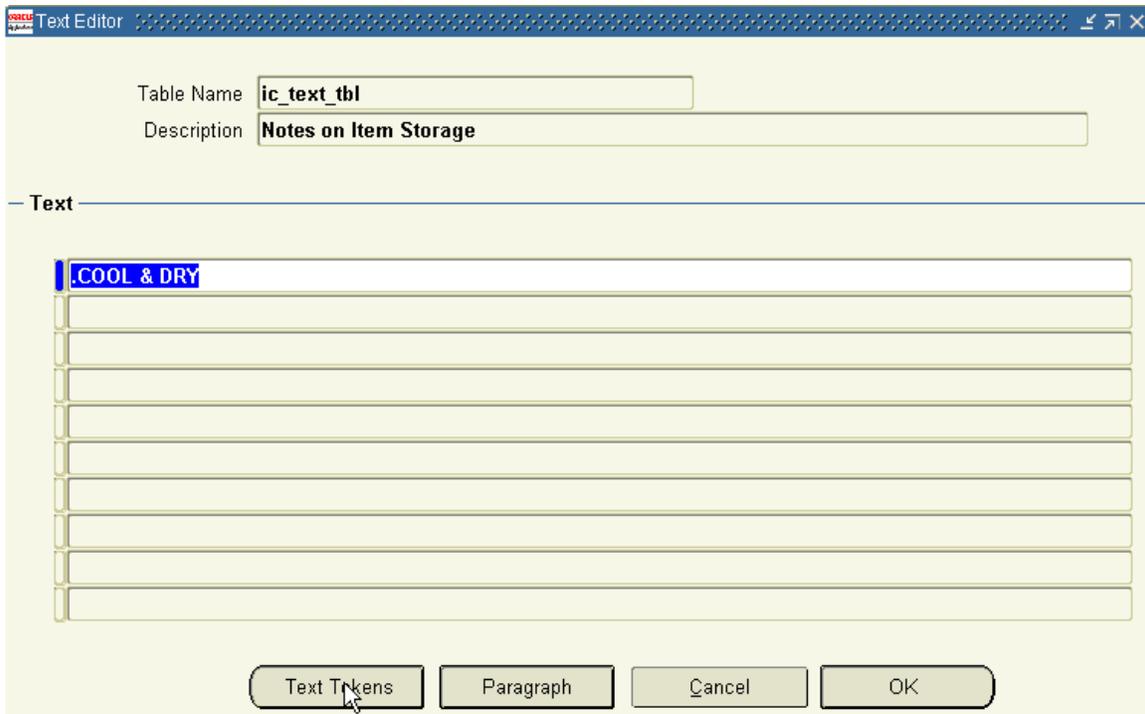


Fig 56. The only pre-defined Text Token pops up

The text token is always preceded by a (.). Press Tab. This will convert the Text Token into the text message it embodies. This is shown in **Fig 57**.

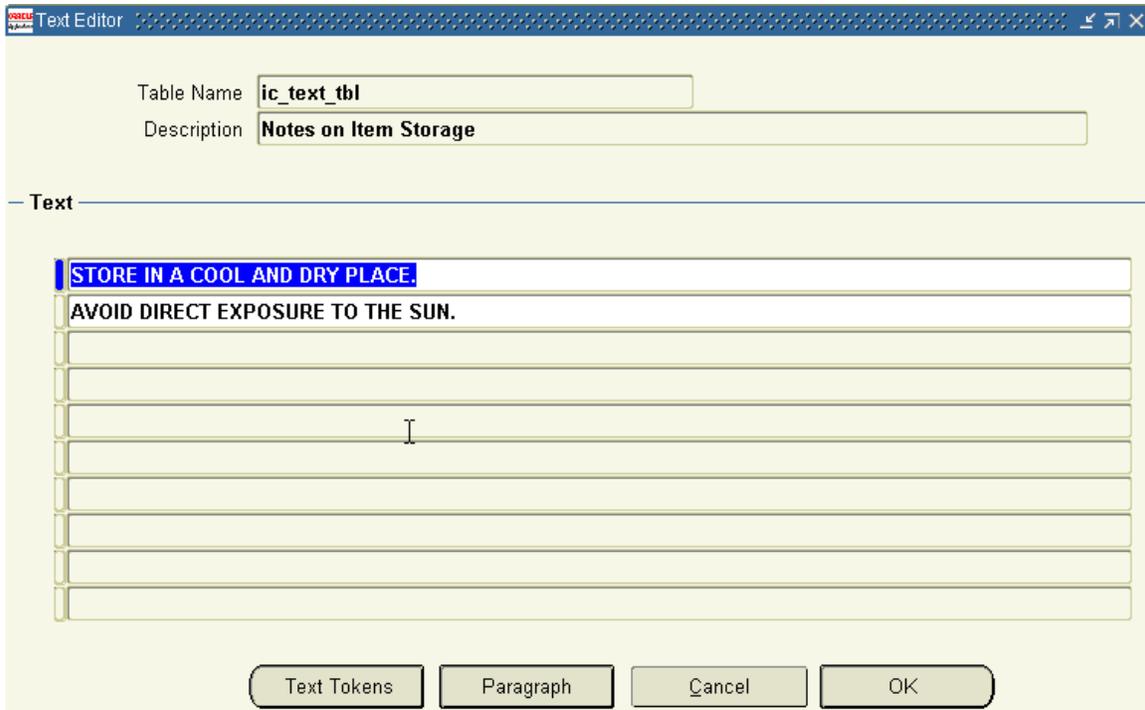


Fig 57. The entire text under the token gets displayed when we tab out from the token name

Now, click **OK**. This will bring us back to the Item definition form.

We need to save our work. The entire text is now saved for this item under the paragraph **Notes on Item Storage**.

Summary

OPM System Setup essentially follows the same rules for defining Set of Books, Legal Entities and Operating Units, as does Discrete Manufacturing. The differences emerge where the concept of an OPM Organization comes in – an entity, which has no equivalent in Discrete Manufacturing. There are three vital coordinates that determine the frame of reference of the OPM Organization in the overall OPM Organizational hierarchy. These are - Parent, Company and Plant. A Company in OPM corresponds to an Operating Unit in Oracle Financials. However, the user can define multiple companies in OPM and map them to a single Set of Books and a single Operating Unit. In such a case, the Data Synchronization process must be run multiple times (once for each Company) in order to integrate the data between OPM and Financials. OPM Warehouses are the Inventory Organizations in Process Manufacturing. In OPM System Setup, we define units of measure that we foresee, as our requirement in defining entities in other OPM modules. Textual data that needs to be repetitively used across OPM modules can be categorized using the Paragraph feature and encapsulated using the Text Token utilities.

Acknowledgements

I wish to record my sincere appreciation towards:

- **Michele-Andrea Fields**, Senior Technical Product Manager, Process Manufacturing, for reviewing this paper and for making it complete with her feedback.
- **Duane Hope, Robert Vanderhagen, Sathya Sundar, Sudha Seshadri and Mohan Rupanagudi**. These individuals have, with their invaluable feedback (which was readily provided whenever requested for by the author), ensured that the paper proceeds on the right track with its factual accuracy intact.

I am deeply indebted to **Adiraju Sastry** and **Srikant Bevara**, for providing me with the opportunity to personally interact with the OPM Support and Development community at Tarrytown, NY and for their constant encouragement and support for this project.

My gratitude goes out to **Mark Yingling, Venkata Putcha, Lea DiPentima, Lisa Siapanides, Henry Bretts** and **Christopher Munsey** for all the help extended to me during the period of my stay at Tarrytown.

I am deeply grateful to **Diane Comforti** and to **Venkata Putcha** for providing me with insight on how sustenance and development activities impact product improvement.

Last but not the least, my heartfelt thanks are reserved for **Diane Davis** for her invaluable help with the review and the publishing process.

This paper would not have been possible without the timely assistance received from these individuals.

About the Author

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References:

1. Oracle Process Manufacturing System Administration User's Guide Release 11i (Part No. A77222-07).
2. Oracle Process Manufacturing and Oracle Financials Integration User's Guide Release 11i (Part No. A77486-06)

ORACLE

White Paper: A Guide to Oracle Process Manufacturing System Setup

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