2025

Oracle E-Business Suite R12 Inventory Application

Setup Document

Study Project for Oracle E-Business Suite R12: SCM Training Program Conducted by NEXT Academy under the DEPI Initiative

Project Information

- **Project Title:** Oracle E-Business Suite (EBS) R12 Implementation in T3 Company
- **Course/Track:** Oracle E-Business Suite R12 Supply Chain Management
- **Instructor:** Eng. Ahmed Bakar
- **Training Group Code:** NXT11_ONL2_ERP3_G1
- **Team Members: Team #3**
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    - Peter Atef Rotby
    - Nourhan Mohamed
    - Salwa Ahmed Mohamed

1. Oracle EBS R12 Inventory Configuration Tasks

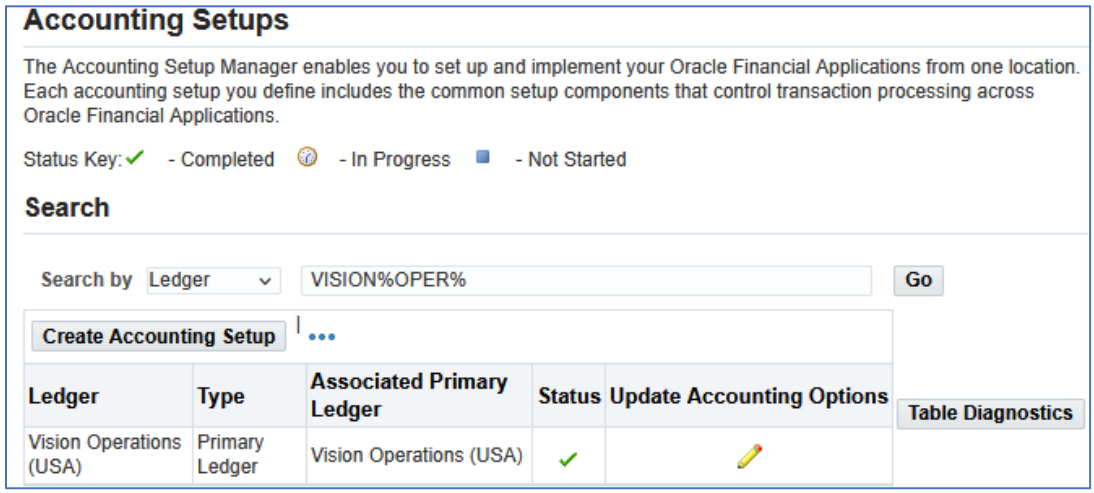
Section	Task	Purpose	Key Steps
Prerequisite	Review Chart of Accounts (COA) Flexfield Structure	Ensure financial integration and proper costing.	- Validate the COA flexfield structure, ensuring segments align with financial reporting needs. - Review valuation accounts (e.g., Inventory, Cost of Goods Sold, Variances).
A. Global & Foundational Setup	1. Define Locations	Establish physical site for inventory and related modules.	- Create location. Then, confirm shipping attributes for this location.
	2. Create Calendar & Review Currency	Align operations with financial planning and support multi-currency environments.	- Workday Calendar: Define working days, weekends, and holidays; establish exception periods. - Review Currency: confirm that Egypt currency is defined and set conversion rates if multi-currency is enabled.
	3. Define Inventory Organizations	Create logical entities tied to locations.	- Create inventory organizations. Then, link it to location. - Assign proper operating unit in multi-organization environments.
B. Organization-Specific Parameters	4. Define Organization Parameters	Set operational rules for T3 inventory organization.	- Select costing method (Average). - Configure default accounts for material valuation and expenses.
	5. Change to a Valid Organization	Ensure correct configurations are applied to the intended inventory organization.	- Use the “Change Organization” option to switch before further setups.
C. Flexfields & Master Data Setup	6. Configure System Items Key Flexfield	Structure item master by segmenting item numbers.	- Design key flexfield with segments (e.g., Product Line, Material, Size). - Compile the flexfield for item creation.
	7. Configure Item Categories Key Flexfield	Classify items for reporting, costing, and analysis.	- Define segments reflecting the business hierarchy. - Map segments to category codes and sets.
	8. Define Unit of Measure (UOM) Setup	Standardize measurement units and conversions.	- Create UOM classes (e.g., Quantity). - Define base and derived units with conversion rates.
	9. Define Item Attributes & Templates	Establish item behaviors and simplify bulk item creation.	- Define item attributes at master and organization levels. - Create item templates to pre-populate common attribute values. - Define item Status Codes to classify items as active or in hold for transactions
	10. Define Stock Locator Key Flexfield	Enable detailed tracking of inventory.	- Design a locator hierarchy matching the facility layout.
D. Subinventory & Locator Design	11. Define Subinventories	Create storage areas within an inventory organization.	- Create subinventories with unique names. - Configure locator control options.
	12. Define Stock Locators	Enable detailed tracking of inventory.	- Assign locators to appropriate subinventories.

E. Costing & Accounting Setup	13. Define Cost Types	Establish how item costs are tracked and updated.	- Create and configure cost types. - Assign cost types to inventory organizations and populate initial item costs.
	14. Define Account Aliases	to facilitate transactions mapping to proper accounts	-Define a new Shorthand Aliase
	15. Open Accounting Periods	Allow transactions to be posted within valid periods.	- Open required periods in Inventory. - Close periods post-reconciliation.
F. Custom Transaction Handling & Source-Specific Customizations	16. Configure Custom Transaction Types & Implement Custom Validations	-Enforce business rules based on warehouse operations. -Prevent invalid item issues.	- Create custom transaction types. - Configure rules to regulate inventory transactions and ensure stock accuracy.
G. Receiving Options	17. Define Receiving Options	Ensure proper receiving configurations that aligns with company policies.	- Set Receiving options.
H. Testing, Reporting & Finalization	18. Finalize Profile Options	Ensure system behavior aligns with policies and users are prepared.	- Set profile options. - Conduct user training and document settings.

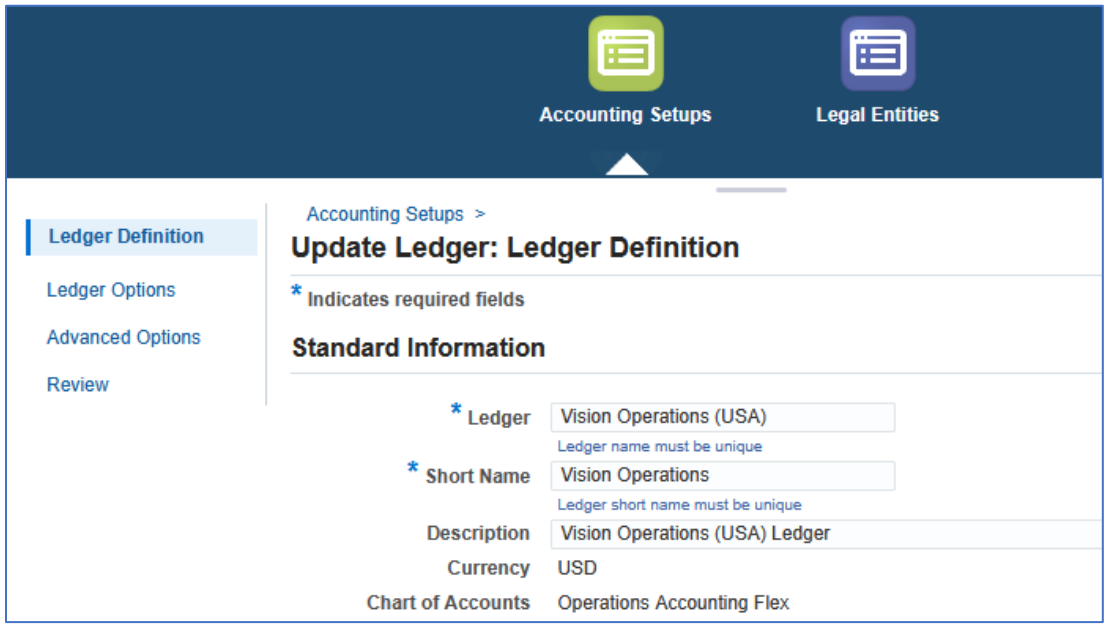
Section	Task	Purpose	Key Steps
Prerequisite	Review Chart of Accounts (COA) Flexfield Structure	Ensure financial integration and proper costing.	- Validate the COA flexfield structure, ensuring segments align with financial reporting needs. - Review valuation accounts (e.g., Inventory, Cost of Goods Sold, Variances).

Step 1: Identify the COA Flexfield Structure

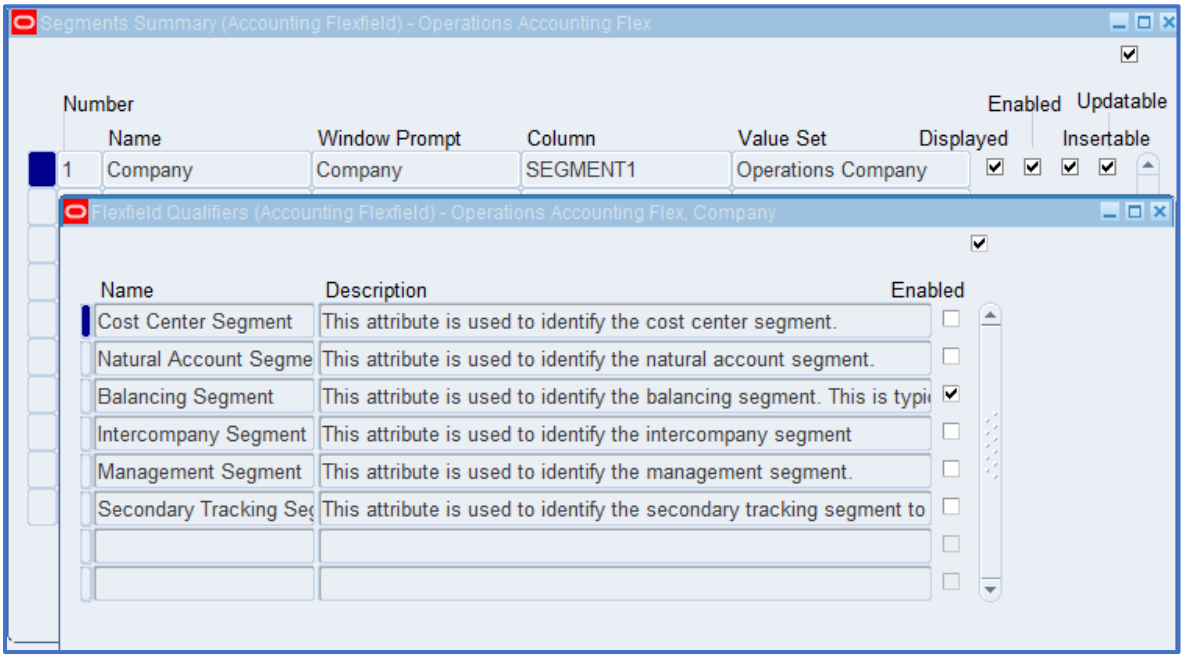
1. **COA Structure Assignment**
   - **Navigation:**
     - Go to **General Ledger Responsibility → Setup → Financials → Accounting Setup Manager → Accounting Setups**.
     - Search for the ledger assigned to the operating unit (*Vision Operations (USA)*).



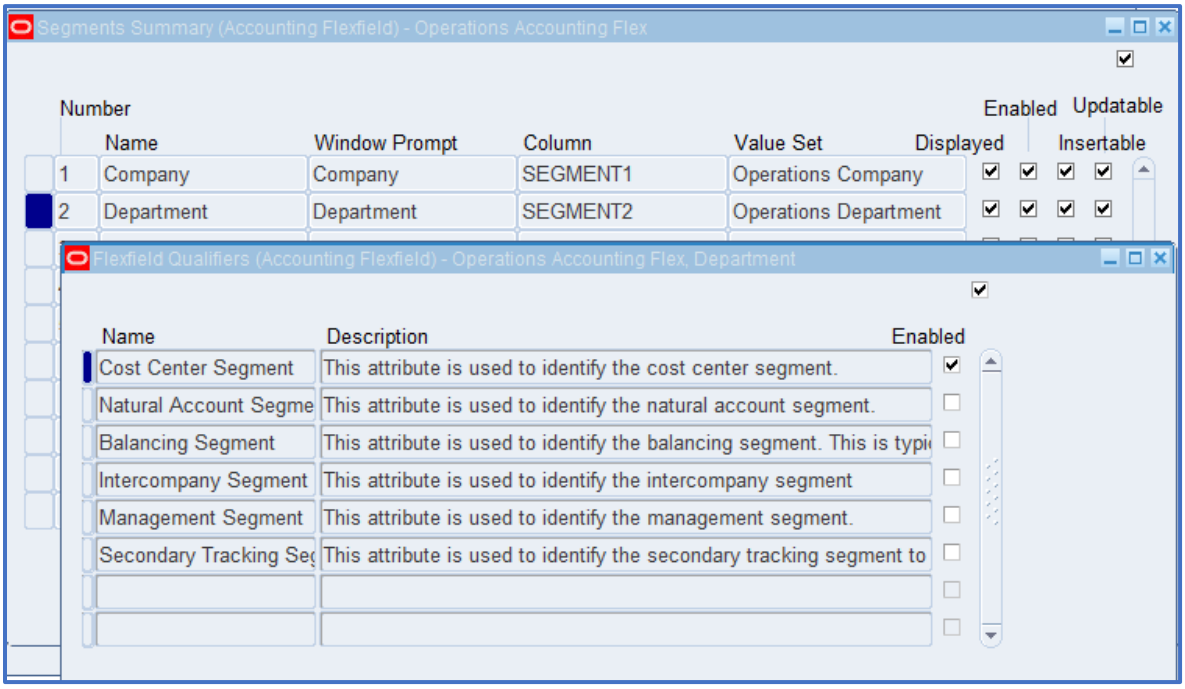
     - Confirm that the COA structure appears under the "Update Ledger" section.



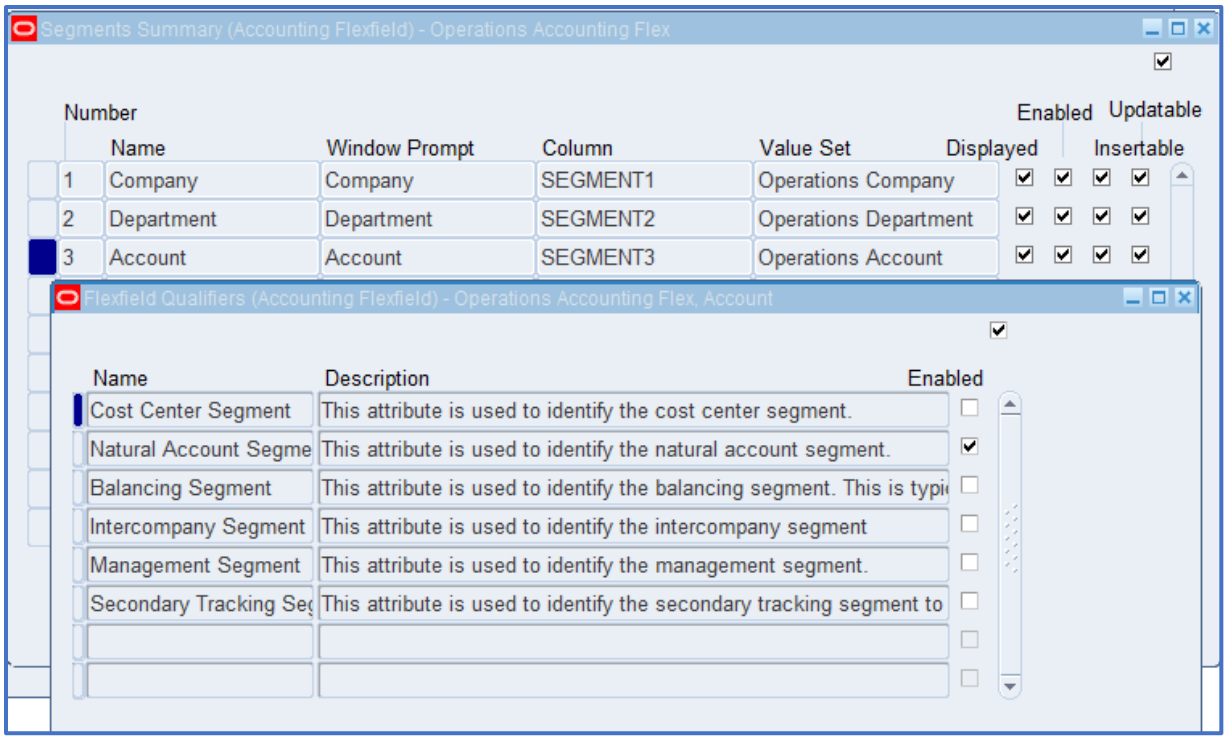
2. **Review Segments and Predefined Value Sets**
    - **Overview:**
      Review the segments defined in the *OPERATIONS_ACCOUNTING_FLEX* structure and ensure that the value sets align with financial reporting requirements.
    - **Segments:**



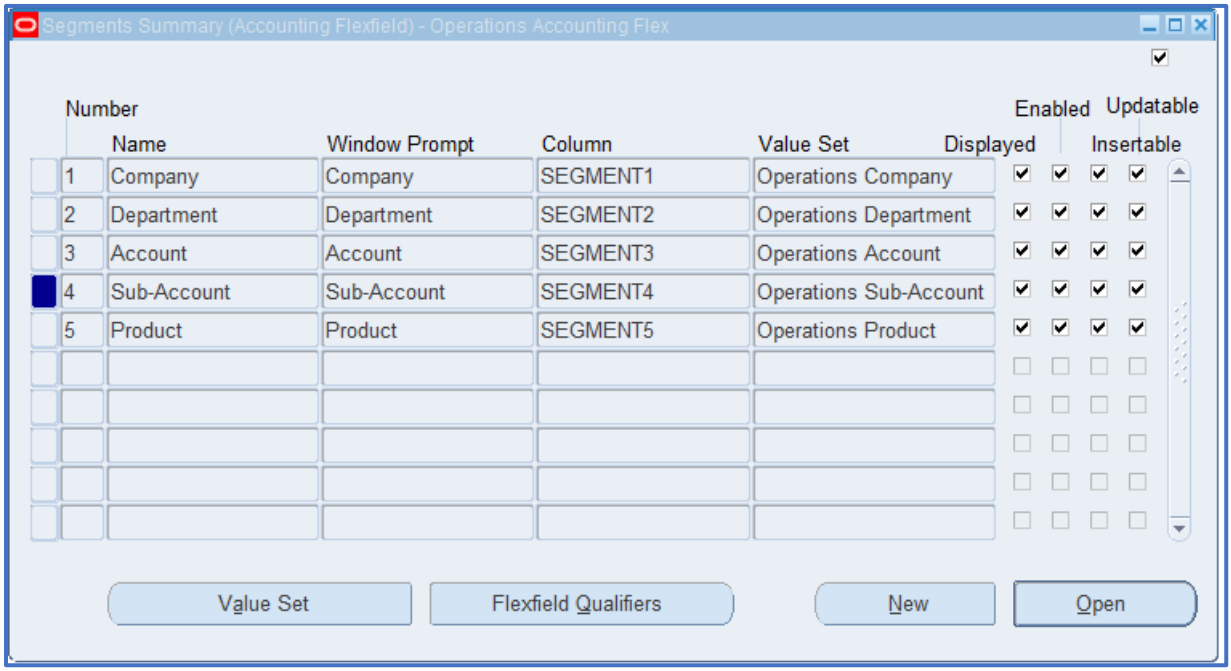
First Segment (Company) & Qualifier: Balancing Segment



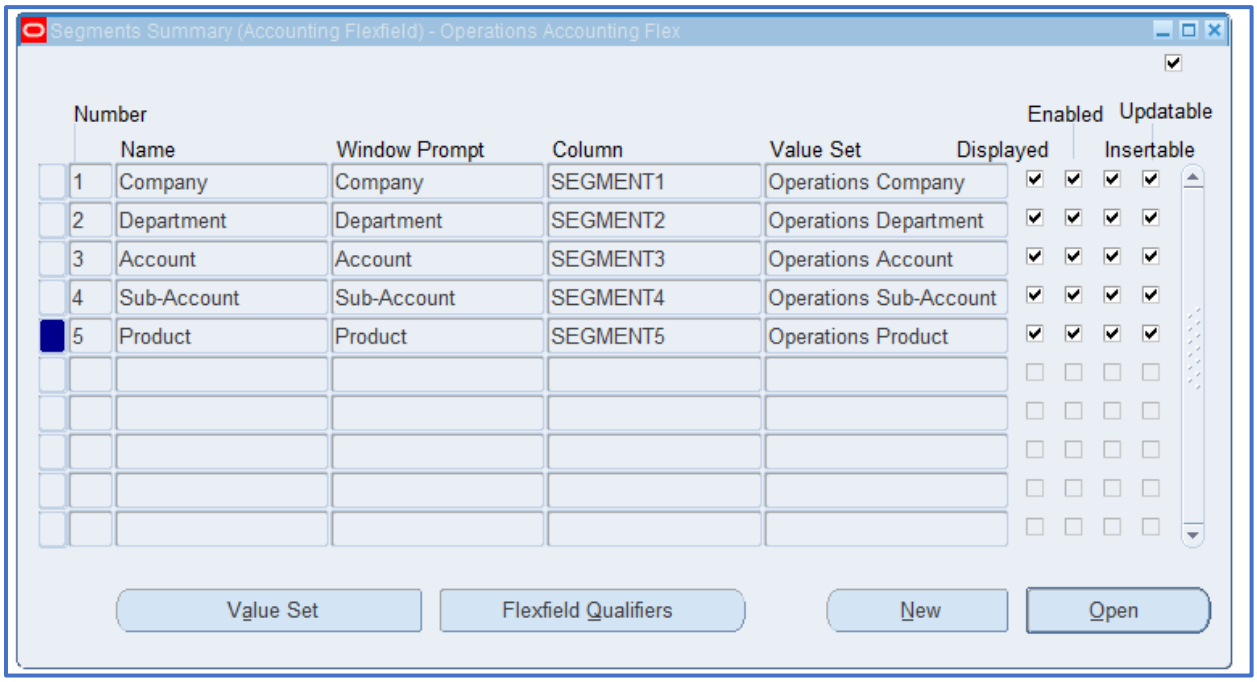
Second Segment (Department) & Qualifier: *Cost Center*



Third Segment (Account) & Qualifier: *Natural Account*



Fourth Segment (Sub-Account) & Qualifier: *None*



Fifth Segment (Product) & Qualifier: *None*

Step 2: Review Valuation Accounts & Predefined Value Sets

1. **Identify Key Valuation Accounts**
    - **Action:** Review essential valuation accounts, including:
        - **Inventory Accounts:** Inventory Valuation, Cost of Goods Sold, Material Overhead, etc.
        - **Purchasing Accounts:** AP Accrual, Invoice Price Variance, etc.
        - **Order Management Accounts:** Deferred Revenue, Sales Revenue, etc.
    - Inventory Valuation Accounts

Account Name	Purpose
Material	Records the purchase cost of all on-hand inventory.
Outside Processing	Captures costs for outsourced services such as repackaging or inspections.
Material Overhead	Accumulates indirect costs like freight, customs, and handling incurred during inventory acquisition and storage.
Overhead	Records additional indirect costs such as facility and administrative expenses allocated to inventory management.
Resource	Tracks internal labor and equipment costs related to receiving and handling inventory.
Expense	Records non-capitalized costs and write-offs that do not add to the inventory asset value.

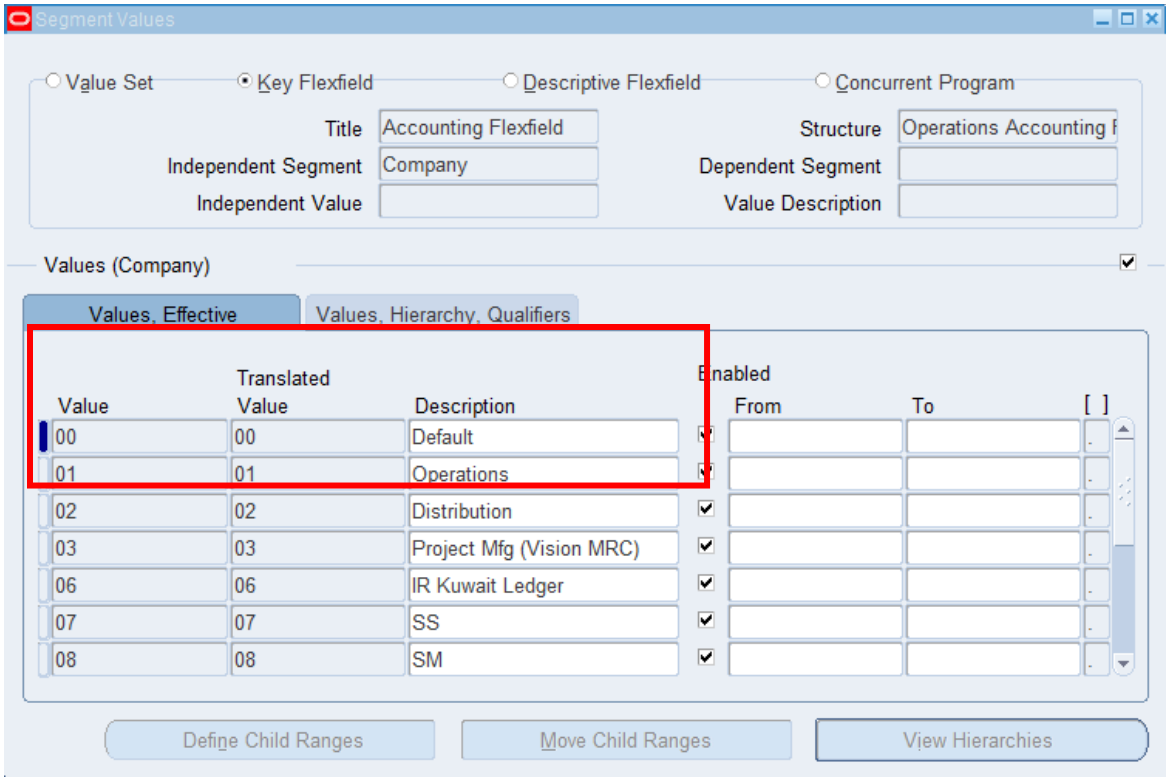
    - Receiving / Other Accounts

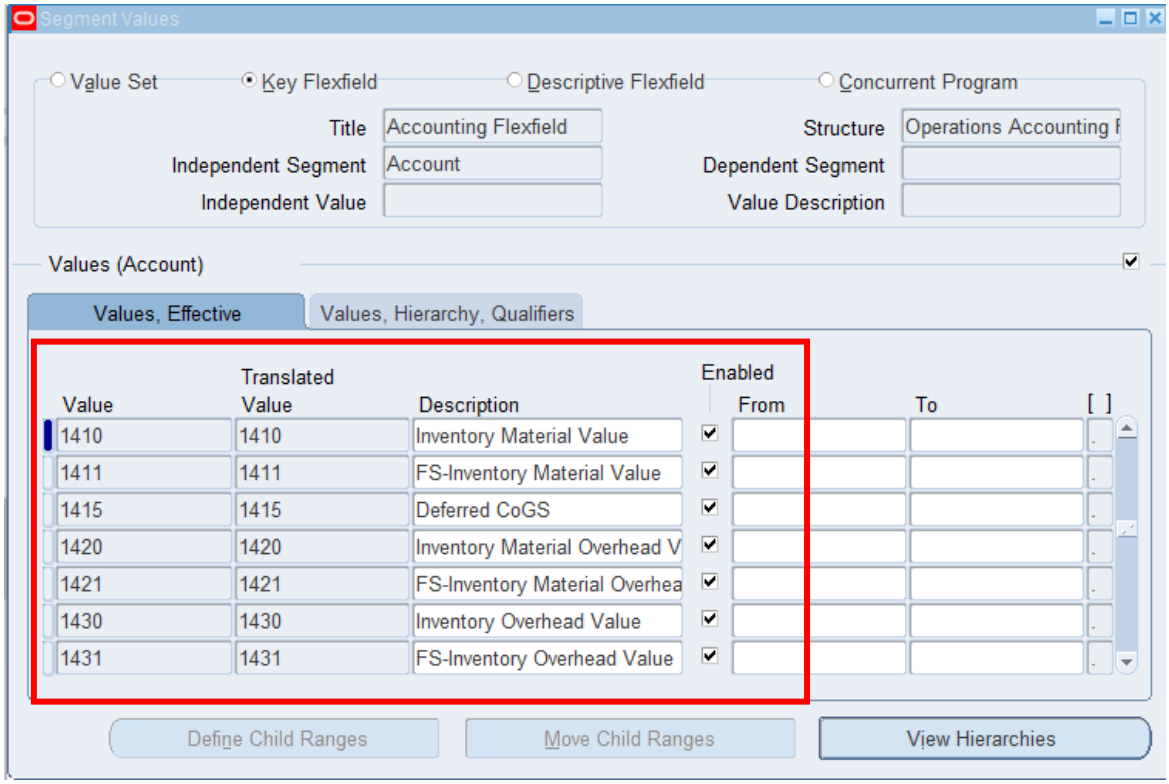
Account Name	Purpose
Purchase Price Variance	Captures variance between PO price and cost at receipt
Invoice Price Variance	Captures variance between PO price and invoice price
Inventory AP Accrual	Represents liability for inventory receipts not yet invoiced
Sales	Recognizes revenue from product sales
Cost of Goods Sold	Records the cost of goods sold upon shipment
Project Clearance	Used for miscellaneous issues to capital projects
Deferred COGS	Represents cost of shipped goods with revenue deferred

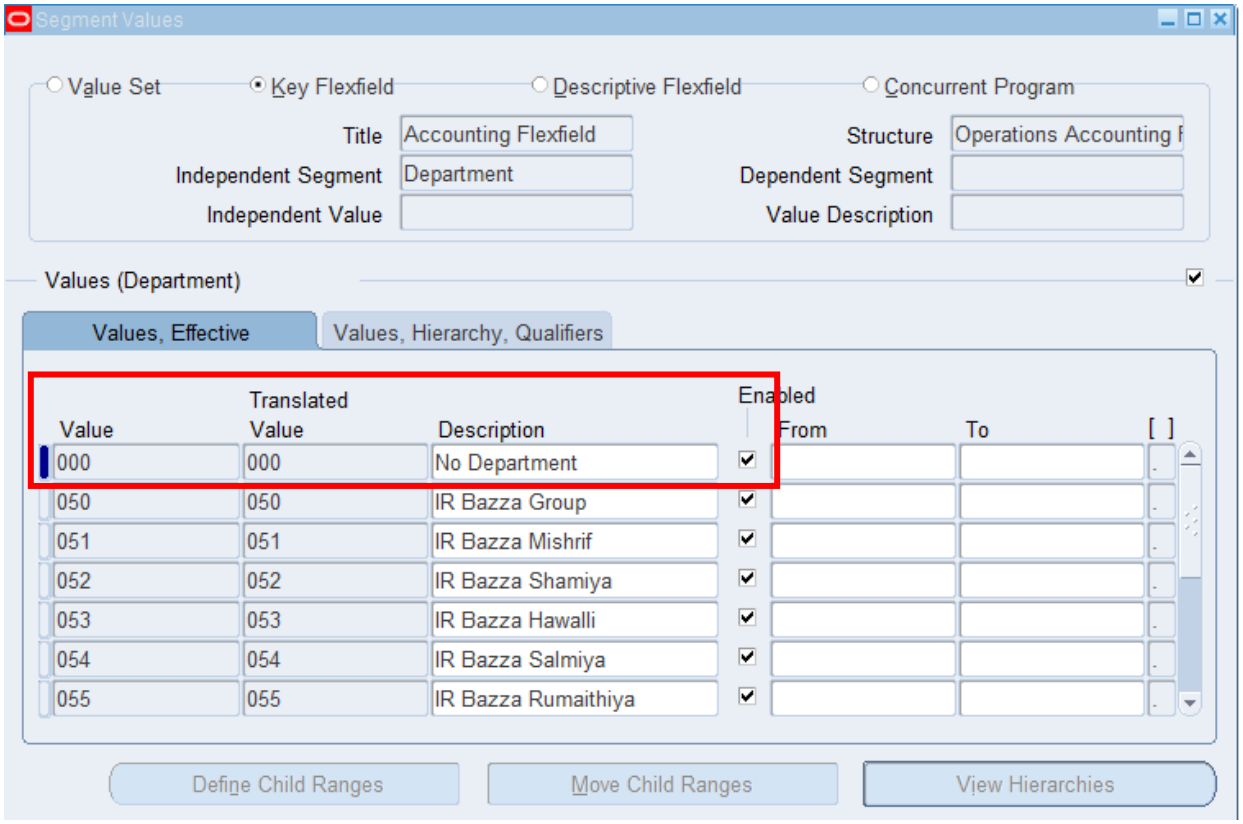
    - Purchasing Accounts

Account Name	Purpose
Liability	Represents the default liability for goods/services received but not invoiced
Prepayment	Represents prepayments for suppliers
Bills Payable	Represents payable liabilities for bills
Discount Taken	Captures discounts taken on payments
PO Rate Variance Gain	Records exchange rate variance gains on purchase orders
PO Rate Variance Loss	Records exchange rate variance losses on purchase orders

2. **Retrieve Predefined Value Sets**
   - **Action:** Obtain the value sets defined for each COA flexfield segment.






Segment Values
Value Set
Key Flexfield
Descriptive Flexfield
Concurrent Program
Title
Accounting Flexfield
Structure
Operations Accounting F
Independent Segment
Department
Dependent Segment
Independent Value
Value Description
Values (Department)
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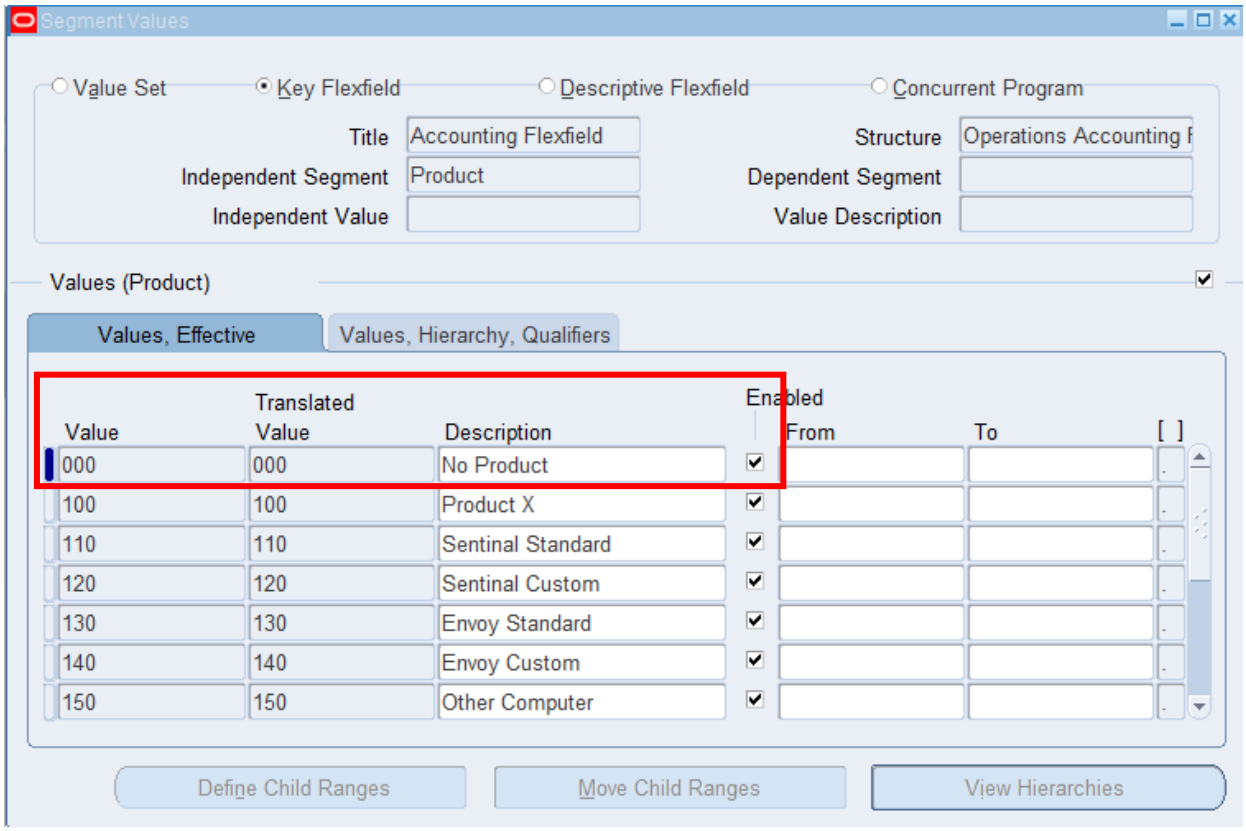
051 051 IR Bazza Mishrif
052 052 IR Bazza Shamiya
053 053 IR Bazza Hawalli
054 054 IR Bazza Salmiya
055 055 IR Bazza Rumaithiya
Define Child Ranges
Move Child Ranges
View Hierarchies


Segment Values
Value Set
Key Flexfield
Descriptive Flexfield
Concurrent Program
Title
Accounting Flexfield
Structure
Operations Accounting F
Independent Segment
Product
Dependent Segment
Independent Value
Value Description
Values (Product)
Values, Effective
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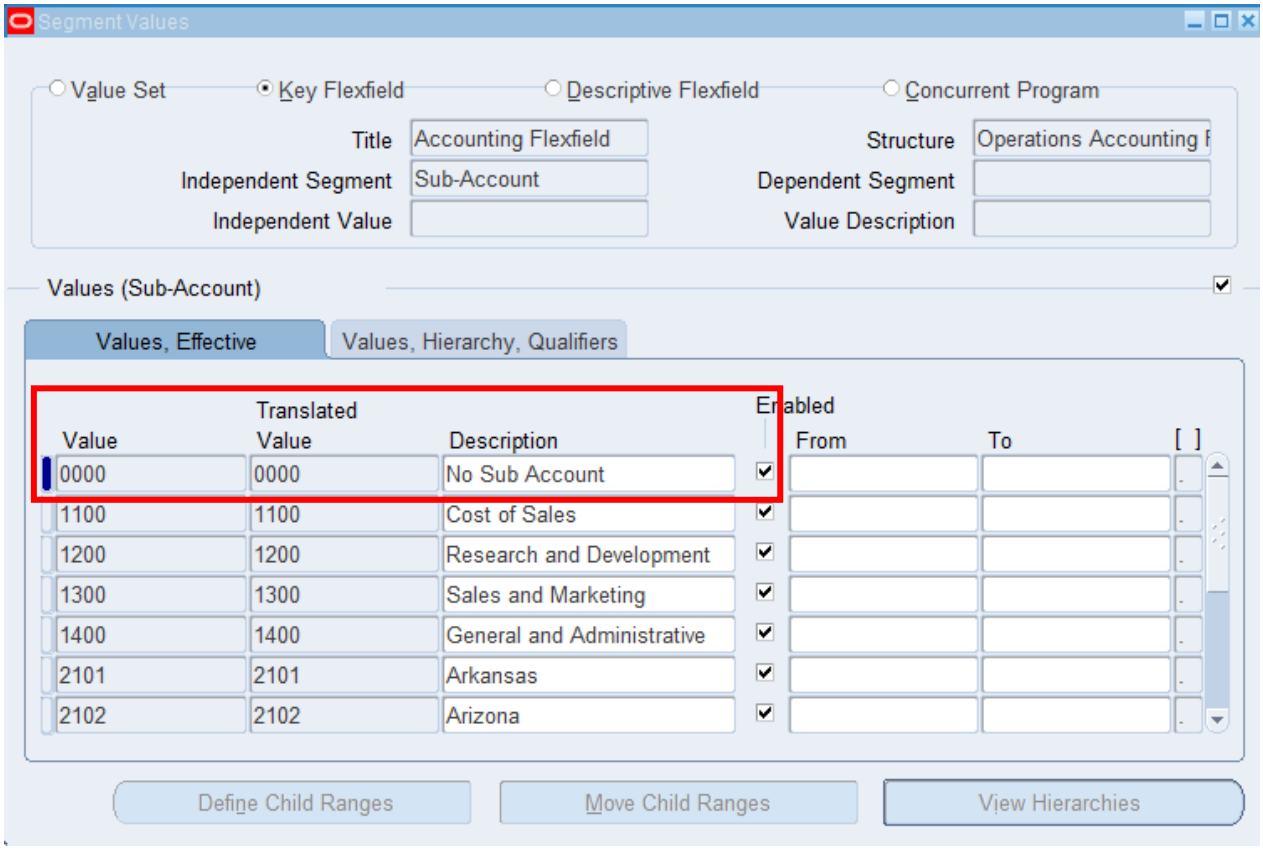
100 100 Product X
110 110 Sentinal Standard
120 120 Sentinal Custom
130 130 Envoy Standard
140 140 Envoy Custom
150 150 Other Computer
Define Child Ranges
Move Child Ranges
View Hierarchies


Segment Values
Value Set
Key Flexfield
Descriptive Flexfield
Concurrent Program
Title
Accounting Flexfield
Structure
Operations Accounting F
Independent Segment
Sub-Account
Dependent Segment
Independent Value
Value Description
Values (Sub-Account)
Values, Effective
Values, Hierarchy, Qualifiers
Value
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Cost of Sales
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1200
Research and Development
1300
1300
Sales and Marketing
1400
1400
General and Administrative
2101
2101
Arkansas
2102
2102
Arizona
Define Child Ranges
Move Child Ranges
View Hierarchies

3. **Document key Account Combinations**
    - **Action:** Capture the typical account combinations derived from the predefined value sets.

4. Inventory Valuation Accounts

Account Name	Purpose	Value (Segments Combination)
Material	Tracks the asset value of on-hand inventory	01-000-1410-0000-000
Outside Processing	Tracks costs related to external processing	01-000-1450-0000-000
Material Overhead	Captures material overhead costs	01-000-1420-0000-000
Overhead	Captures overhead costs associated with inventory management	01-000-1430-0000-000
Resource	Tracks resource-related costs	01-000-1440-0000-000
Expense	Used for recording expenses for non–asset items	01-000-7530-0000-000

5. Receiving / Other Accounts

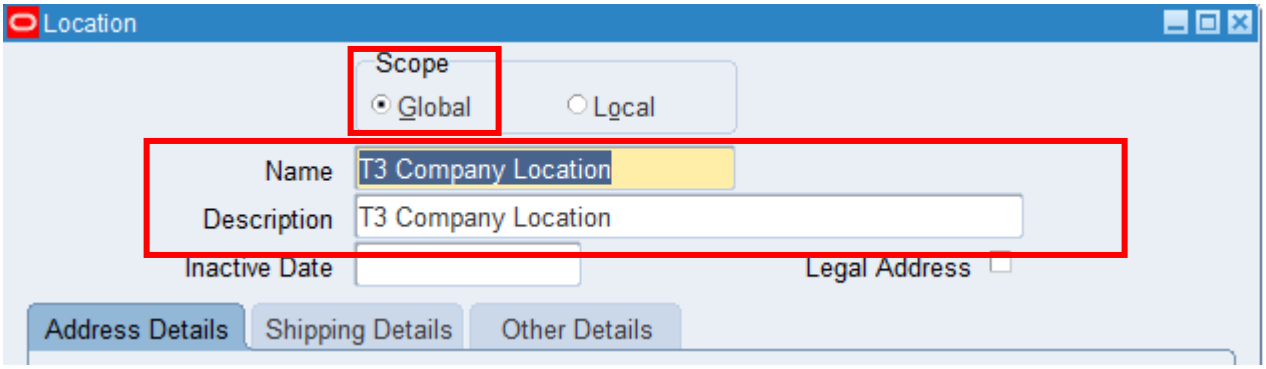
Account Name	Purpose	Value (Segments Combination)
Purchase Price Variance	Captures variance between PO price and cost at receipt	01-000-5220-0000-000
Invoice Price Variance	Captures variance between PO price and invoice price	01-000-5210-0000-000
Inventory AP Accrual	Represents liability for inventory receipts not yet invoiced	01-000-2210-0000-000
Sales	Recognizes revenue from product sales	01-000-4110-0000-000
Cost of Goods Sold	Records the cost of goods sold upon shipment	01-000-1410-0000-000
Project Clearance	Used for miscellaneous issues to capital projects	01-000-1415-0000-000
Deferred COGS	Represents cost of shipped goods with revenue deferred	01-000-5315-0000-000

6. Purchasing Accounts

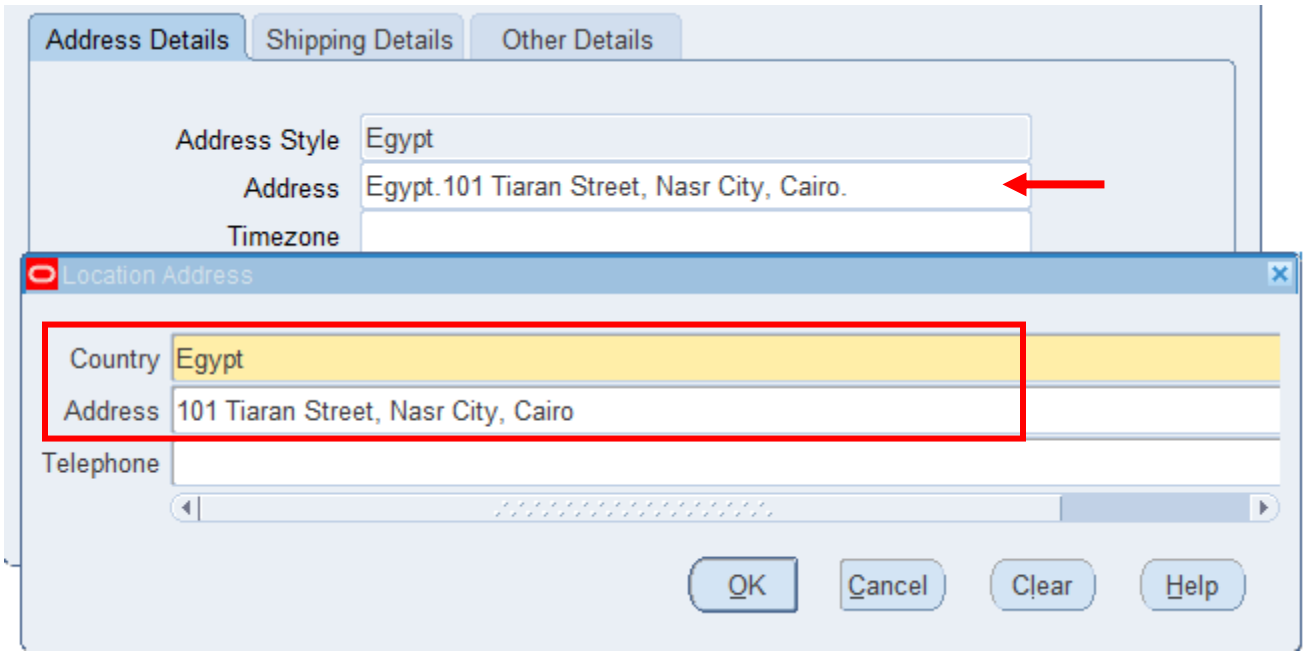
Account Name	Purpose	Value (Segments Combination)
Liability	Represents the default liability for goods/services received but not invoiced	01-000-2210-0000-000
Prepayment	Represents prepayments for suppliers	01-000-1340-0000-000
Bills Payable	Represents payable liabilities for bills	01-000-2580-0000-000
Discount Taken	Captures discounts taken on payments	01-740-7825-0000-000
PO Rate Variance Gain	Records exchange rate variance gains on purchase orders	01-740-7842-0000-000
PO Rate Variance Loss	Records exchange rate variance losses on purchase orders	01-740-7844-0000-000

Section	Task	Purpose	Key Steps
A. Global & Foundational Setup	1. Define Locations	Establish physical site for inventory and related modules.	- Create location. Then, confirm shipping attributes for this location.

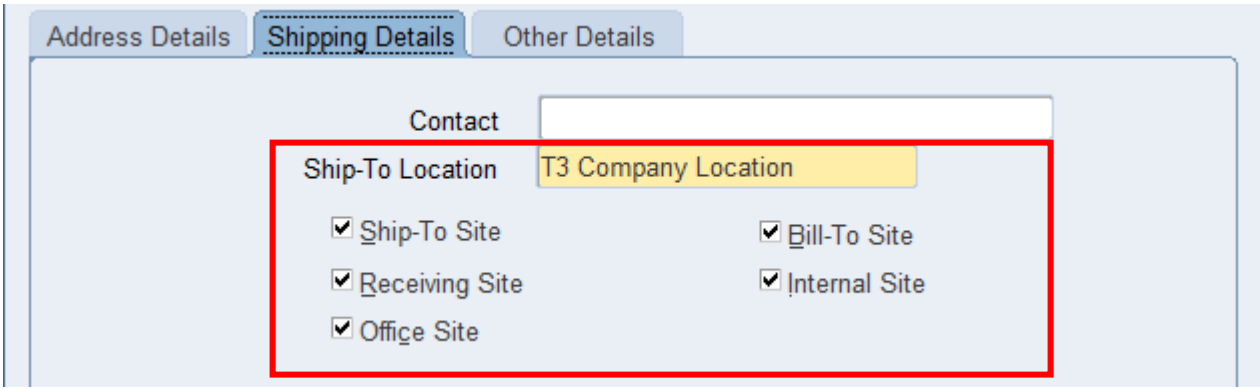
1. Navigate to Inventory > Setup > Organizations > Locations.
2. **Location** window open by default to create a new location.
3. Enter the following details in the form header:
   - Scope: Global
   - Name: T3 Company Location
   - Description: T3 Company Location



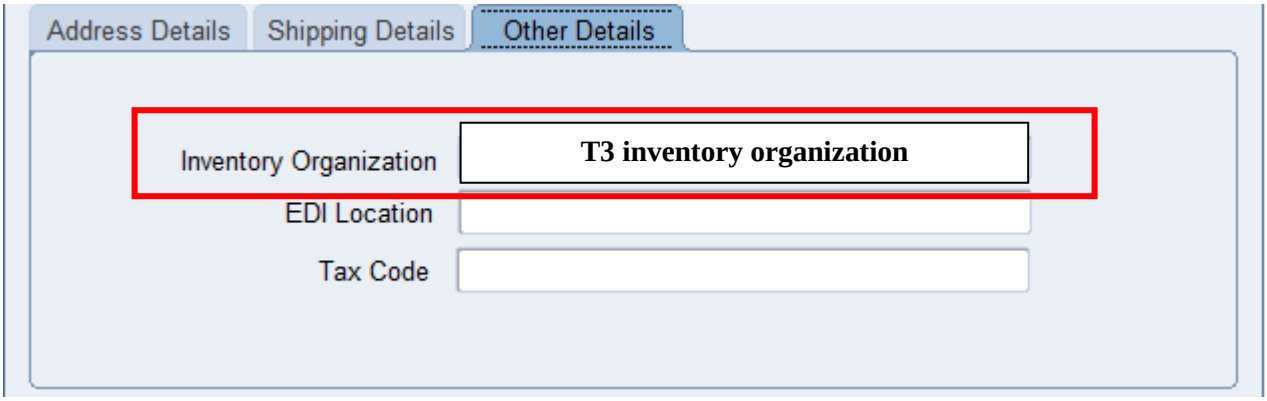
4. Enter the following details in the Address details tab by press on address value that popup:
   - Country: Egypt
   - Address: 101 Tiaran Street, Nasr City, Cairo



5. Enable all attributes in the shipping details tab



6. After Definition of T3 inventory organization, we will assign the location to T3 Inventory Org as following within the Other Details Tab .

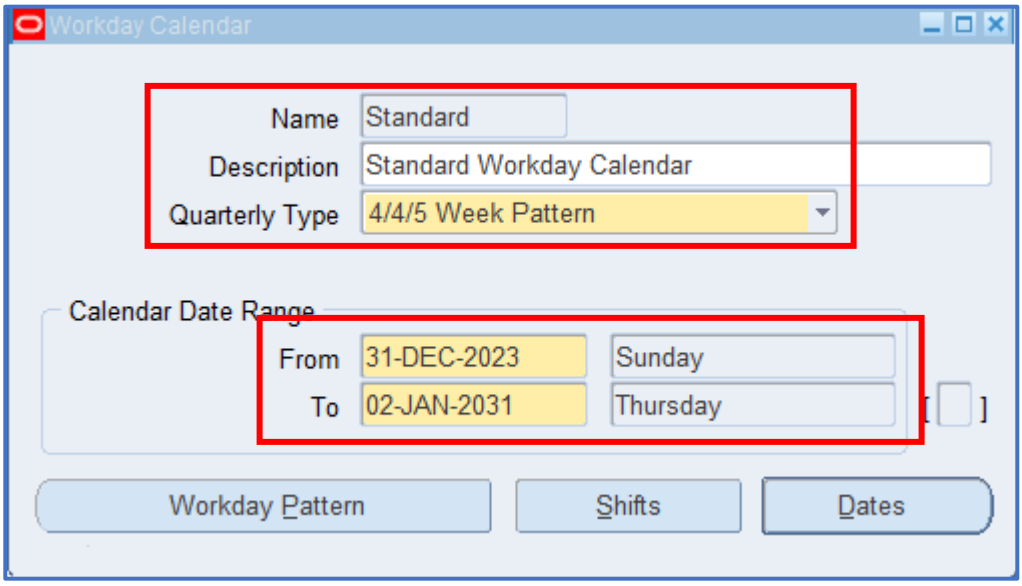


7. Click Save (Ctrl+S).

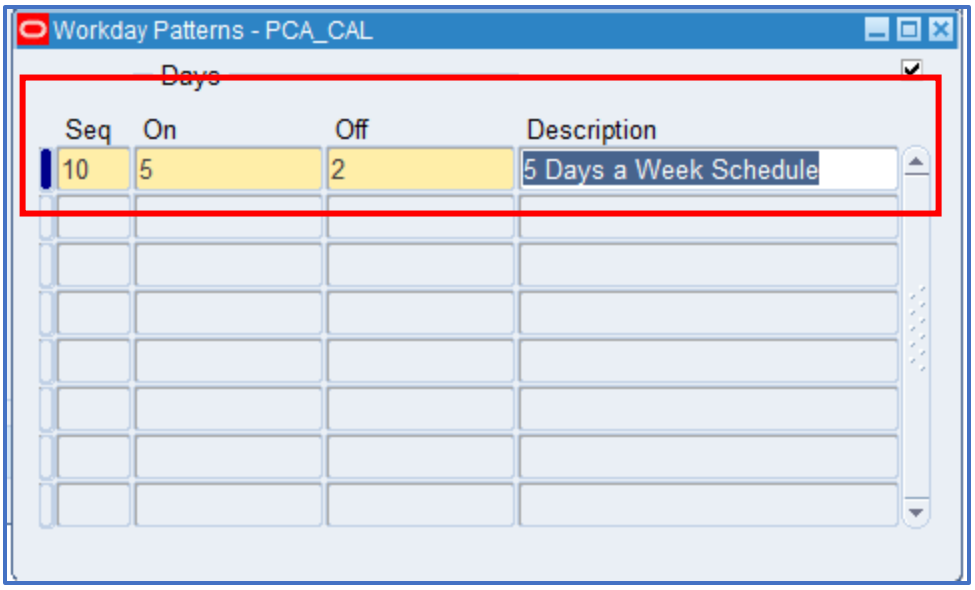
Section	Task	Purpose	Key Steps
A. Global & Foundational Setup	2. Create Calendar & Review Currency	Align operations with financial planning and support multi-currency environments.	- Workday Calendar: Define working days, weekends, and holidays; establish exception periods. - Review Currency: confirm that Egypt currency is defined and set conversion rates if multi-currency is enabled.

Firstly, Create Workday Calendar

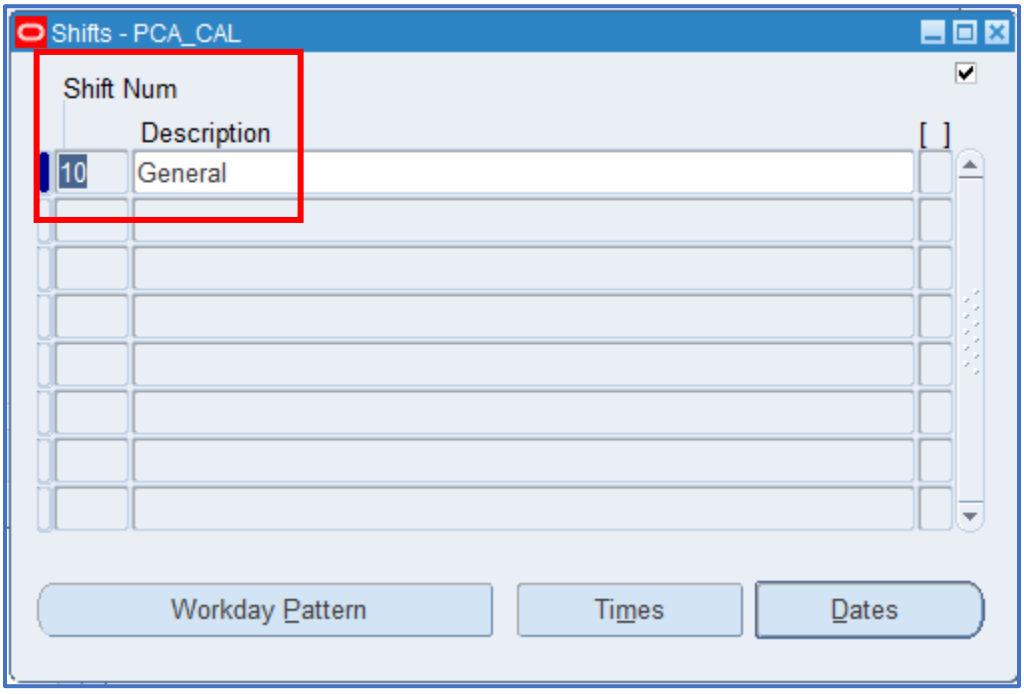
1. Navigate to **Inventory > Setup > Organizations > Calendars**.
2. **Calendar** window open by default to create a new calendar.
3. Enter the following details:
    - **Name:** Standard
    - **Description:** Standard Workday Calendar
    - **Quarterly Type:** 4/4/5 Week Pattern



4. Define **Workday Patterns**:
    - **Sequence:** 10
    - **Days On:** 5
    - **Days Off:** 2 (Friday, Saturday)
    - **Description:** 5 Days a Week Schedule



5. Define **Shifts**:
   - **Shift Number:** 10
   - **Description:** General



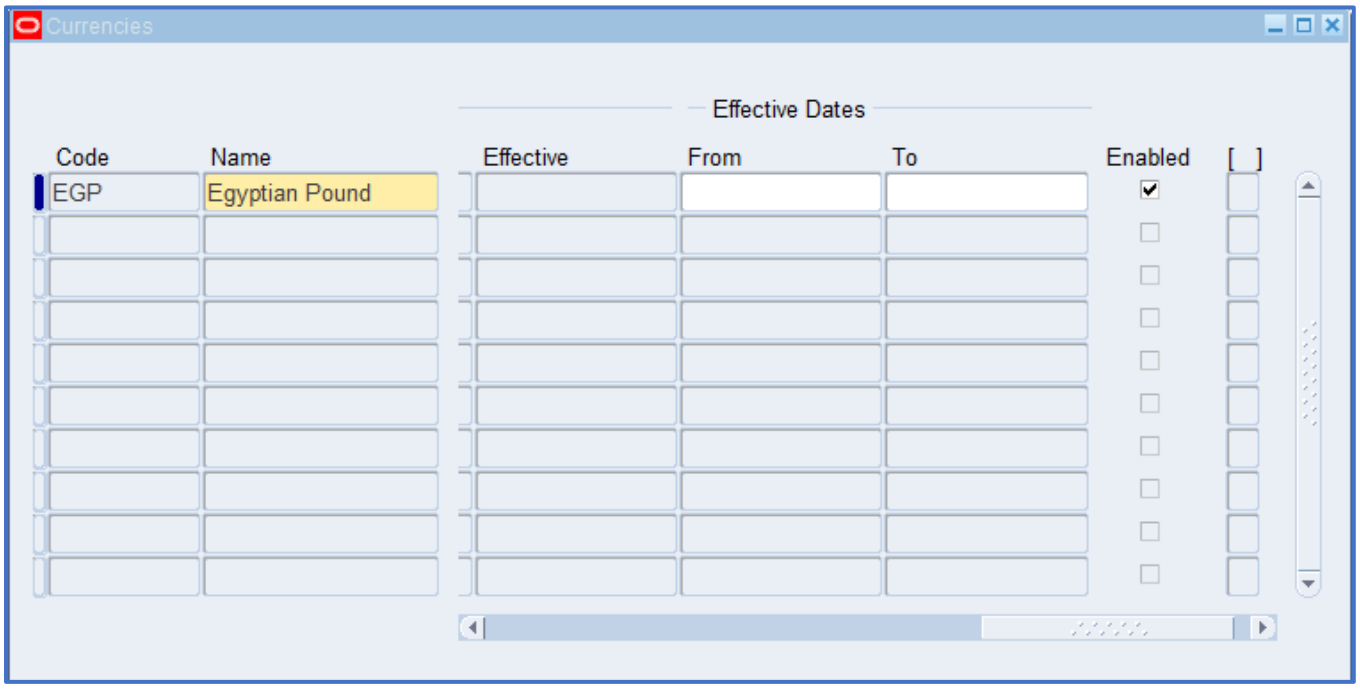
6. Click **Save (Ctrl+S)**.

Secondly, Review Currency

Step 1: Verify Currency Definition

Navigate to: General Ledger (GL) Responsibility. Then, **Go to** Setup > Currencies > Define

- Query for "Egyptian Pound" (EGP). Then, verify that it is enabled.

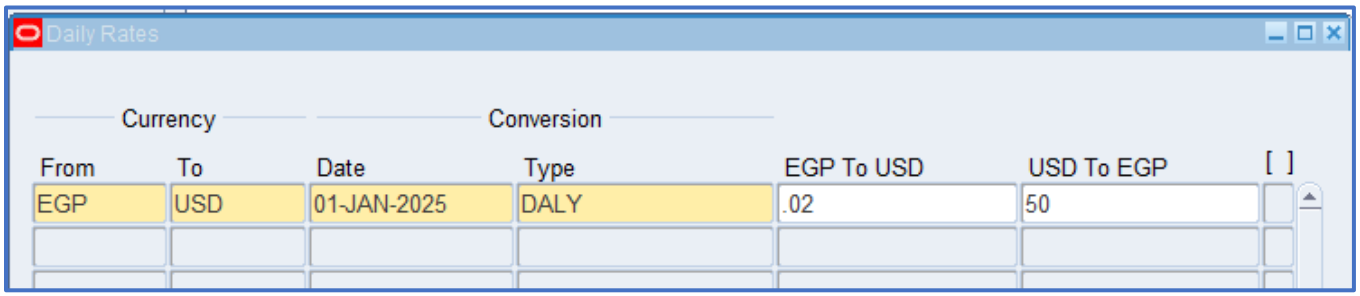


Step 2: Verify Conversion Rates

Due to the fact that business transactions often involve foreign currencies, we need to verify currency conversion rates.

Navigate to: **General Ledger Responsibility. Then,** Go to **Setup > Currencies > Rates > Daily**

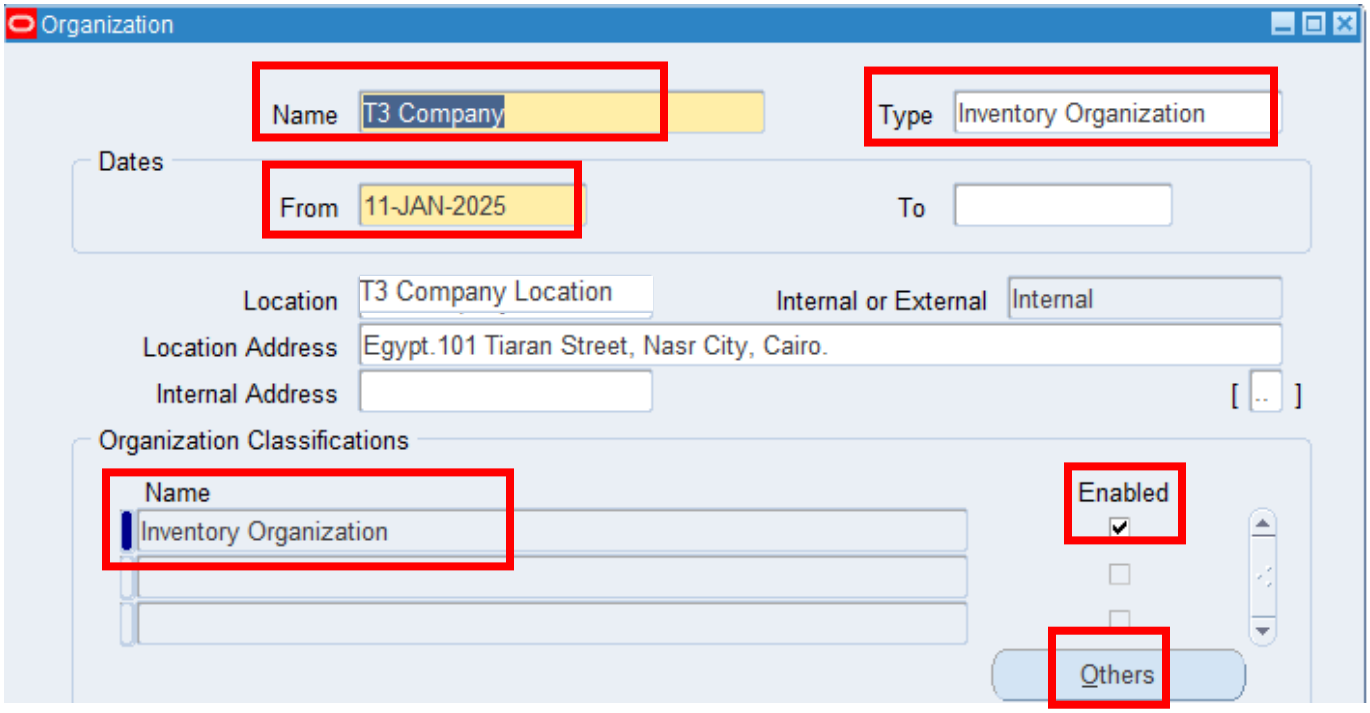
- Check if exchange rates are already defined for EGP against the primary foreign currency (USD). If not, we would enter it.



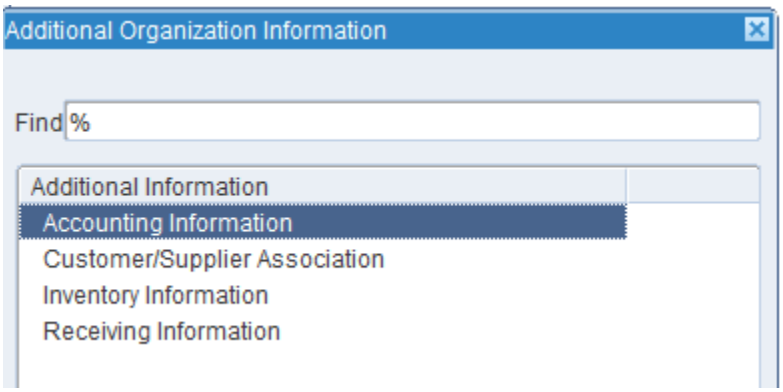
Section	Task	Purpose	Key Steps
A. Global & Foundational Setup	3. Define Inventory Organizations	Create logical entities tied to locations.	- Create inventory organizations. Then, link it to location. - Assign proper operating unit in multi-organization environments.

Navigation Path: Inventory > Setup > Organizations > Organizations

1. Go to **Inventory > Setup > Organizations > Organizations.**
2. Click on **New(A).**
3. Enter the following details:
   - **Organization Name:** T3 Company.
   - **From Date:** 11-JAN-2025.
   - **Type**: Inventory Organization.
   - **Organization Classifications**: Inventory Organization, and Check on **Enabled** Check-button.
4. Click **Save** to save the organization.
5. Click on **Others.**

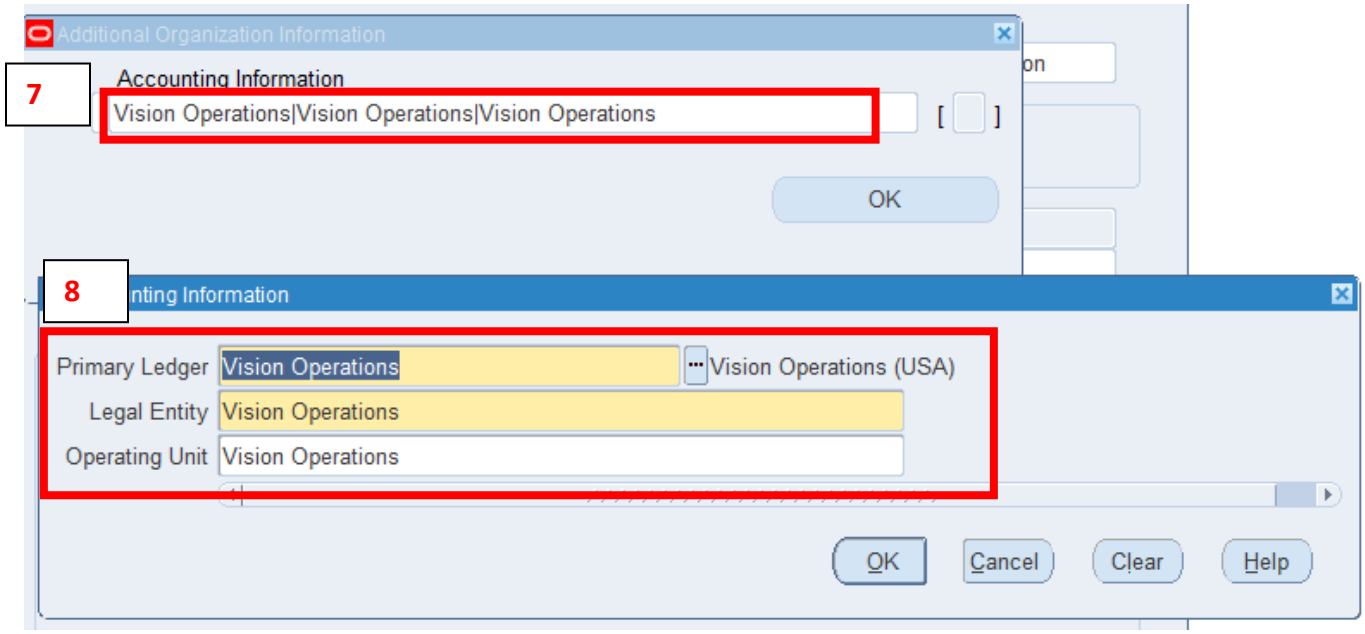


6. Click on **Accounting Information.**



A new window popup as in the following screenshot.

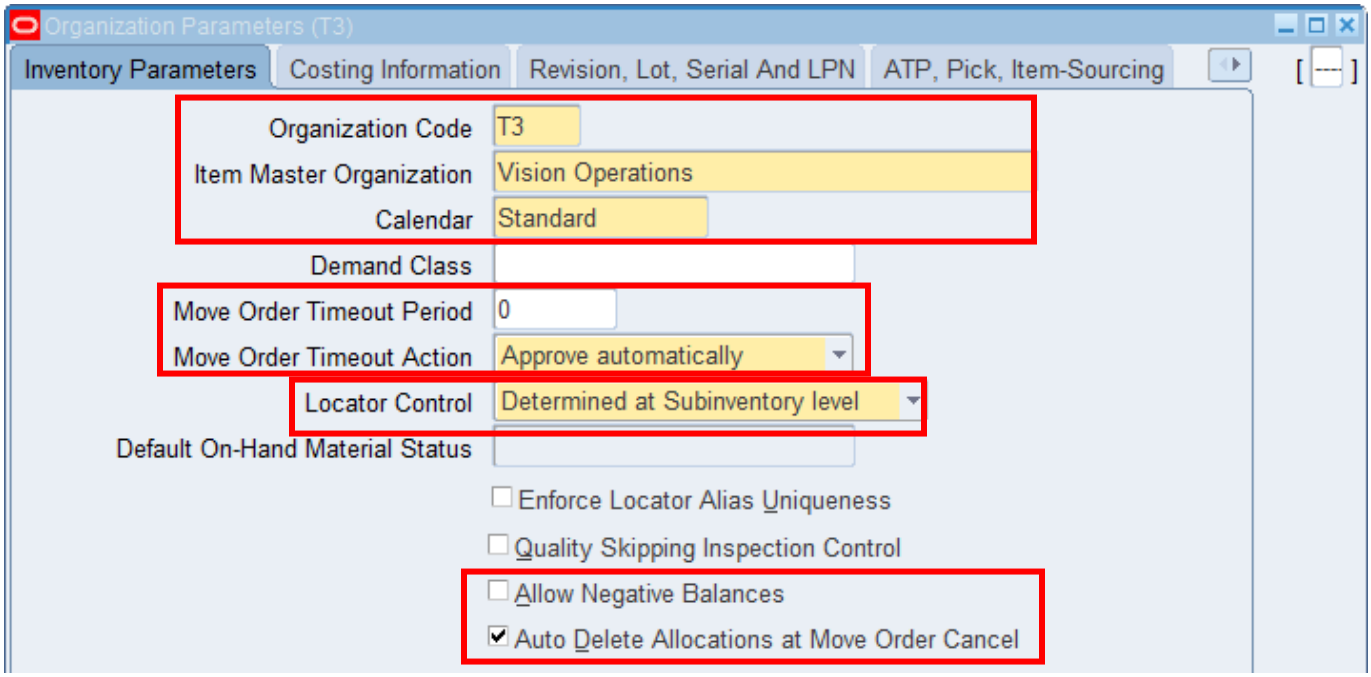
7. Click on **Accounting Information** field. A new window appears.
8. Enter the following details:
    - **Primary Ledger**: Vision Operations.
    - **Legal Entity**: Vision Operations.
    - **Operating Unit**: Vision Operations.



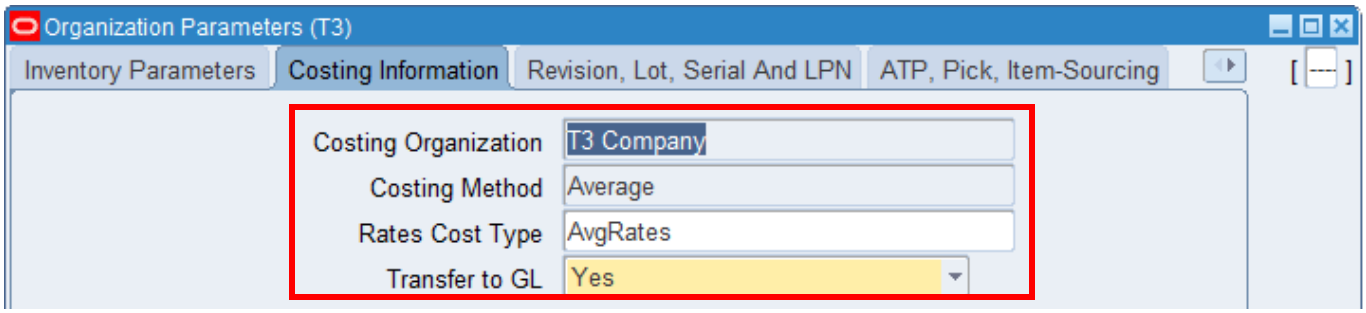
Section	Task	Purpose	Key Steps
B. Organization-Specific Parameters	4. Define Organization Parameters	Set operational rules for T3 inventory organization.	- Select costing method (Average). - Configure default accounts for material valuation and expenses.

Navigation Path: Inventory > Setup > Organizations > Parameters

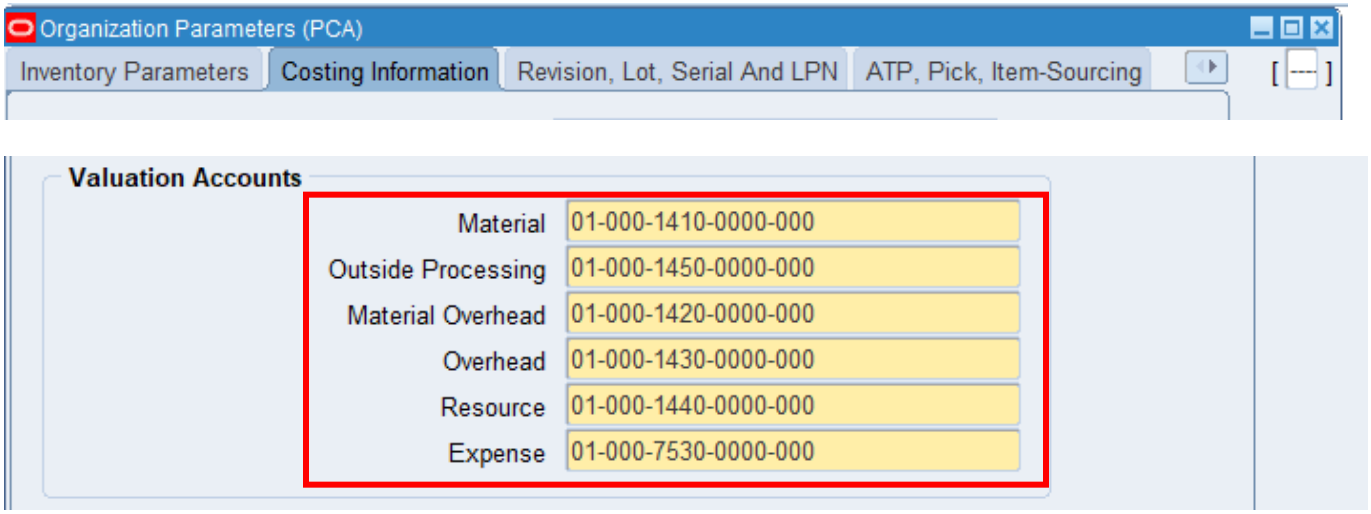
1. Navigate to **Inventory > Setup > Organizations > Parameters.**
2. Set the following **Inventory Parameters**:
    - **Organization Code**: T3
    - **Item Master Organization**: Vision Operations
    - **Calendar**: Standard
    - **Move Order Timeout Period**: 0
    - **Move Order Timeout Action**: Approve automatically
    - **Locator Control**: Determined at Sub-inventory level
    - **Auto Delete Allocations at Move Order Cancel**: Yes
    - **Allow Negative Quantity:** No
3. Click **Save** to save the parameters.



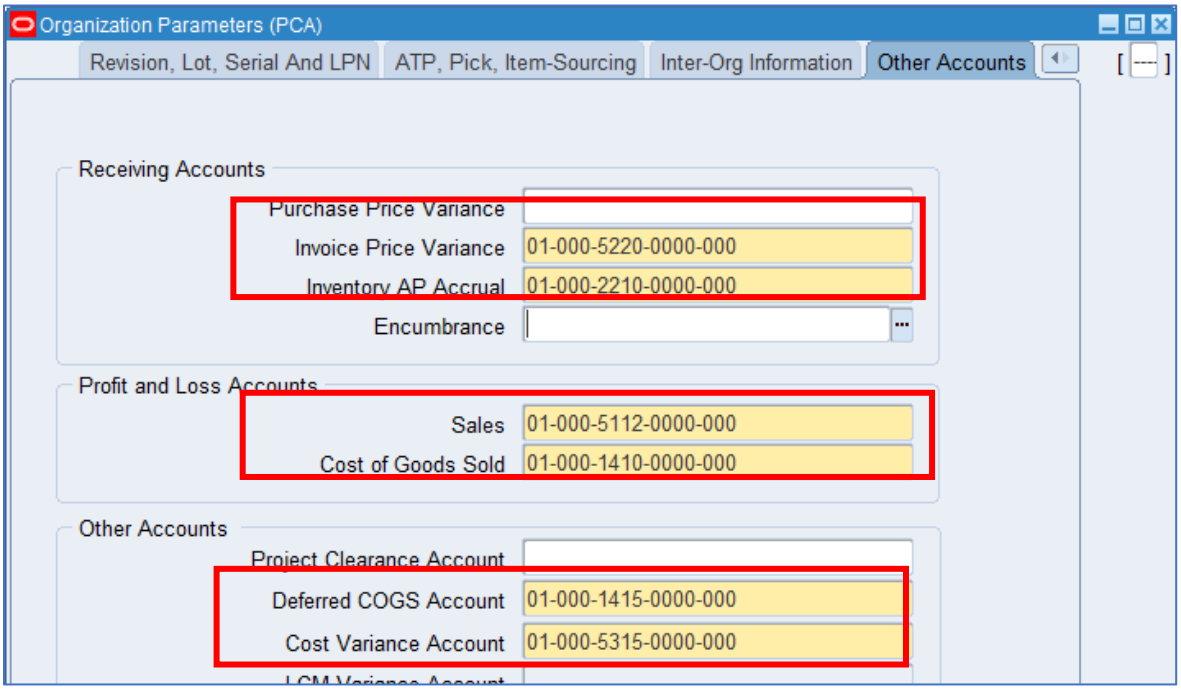
4. Switch to the **Costing Parameters.** Set it as the following:
    - **Costing Organization**: T3 Company
    - **Costing Method:** Average
    - **Rates Cost Type:** AvgRates
    - **Transfer to GL**: Yes



5. In the same **Costing** tab, enter the **Accounts** given from the financial consultant:

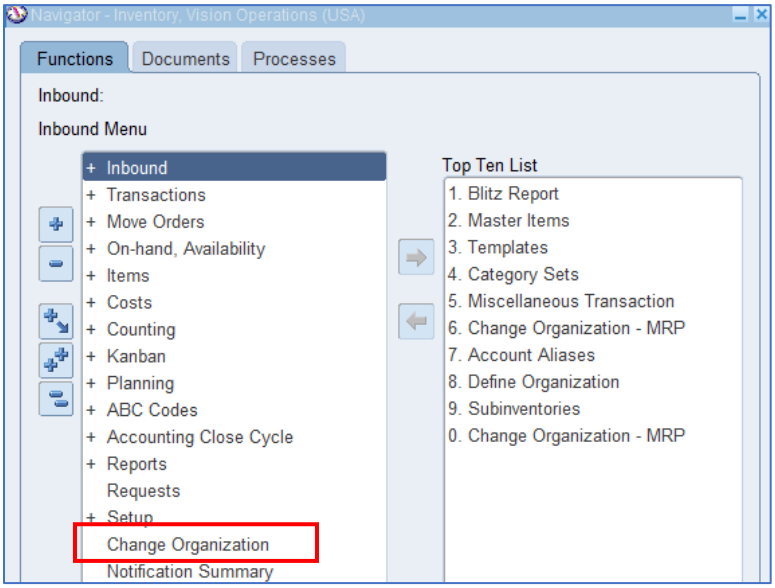


6. Switch to the **other accounts tab.** Set it according to what given by the financial consultant:

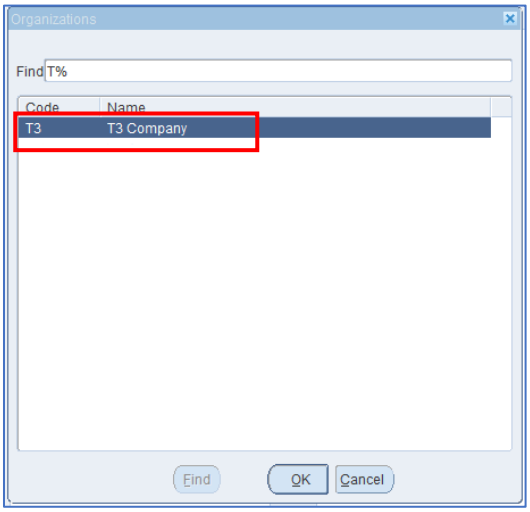


Section	Task	Purpose	Key Steps
B. Organization-Specific Parameters	5. Change to a Valid Organization	Ensure correct configurations are applied to the intended inventory organization.	- Use the “Change Organization” option to switch before further setups.

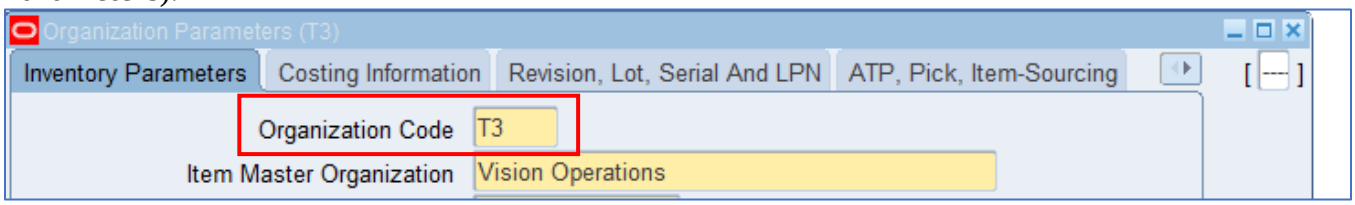
1. **Navigate to: Inventory → Change Organization**



2. Select the correct **Organization Code/Name [T3 : T3 Company]** and click **OK**.



3. Verify the active organization (**Navigate to: Inventory → Setup → Organizations → Parameters**).



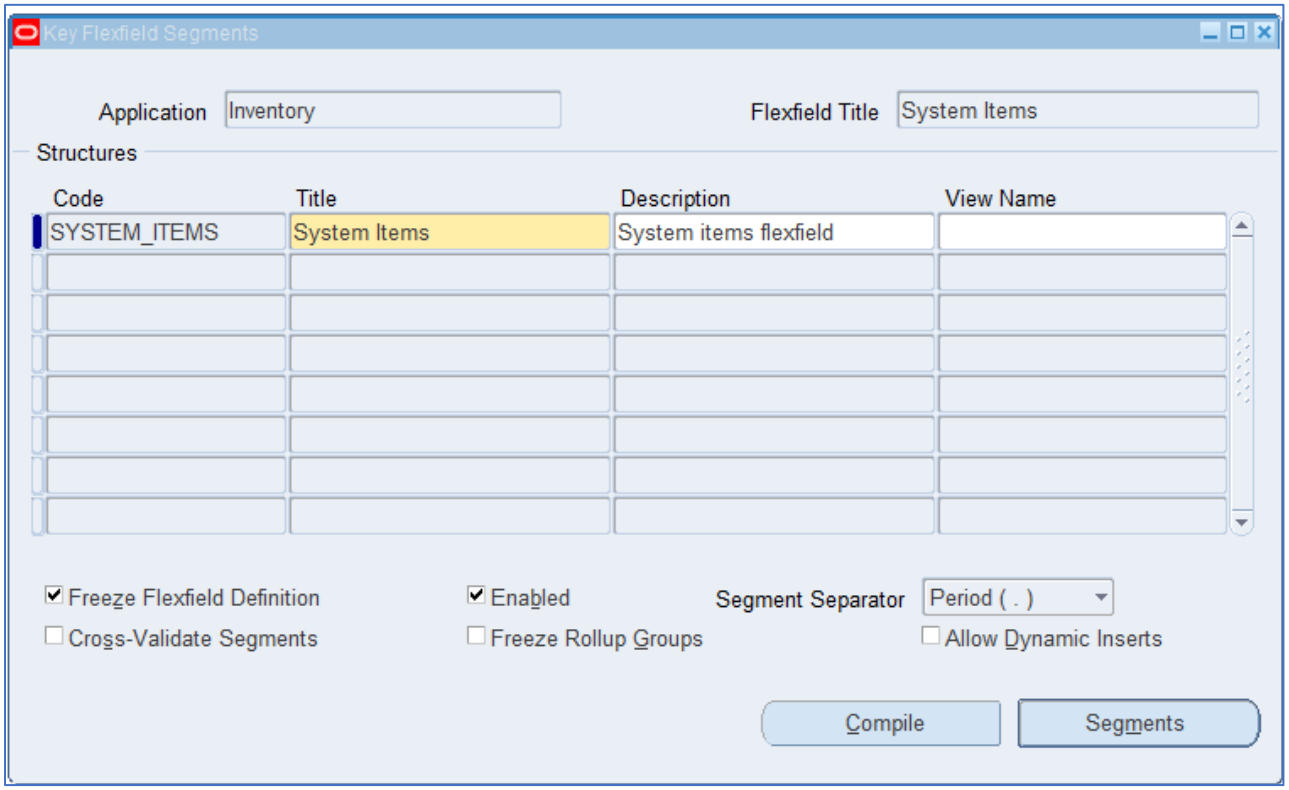
Section	Task	Purpose	Key Steps
C. Flexfields & Master Data Setup	6. Configure System Items Key Flexfield	Structure item master by segmenting item numbers.	- Design key flexfield with segments (e.g., Product Line, Material, Size). - Compile the flexfield for item creation.

1. Understanding Key Flexfields (KFF)

Key Flexfields allow businesses to define custom structures for data entry. The **System Items KFF** determines how items are entered and validated within Oracle Inventory.

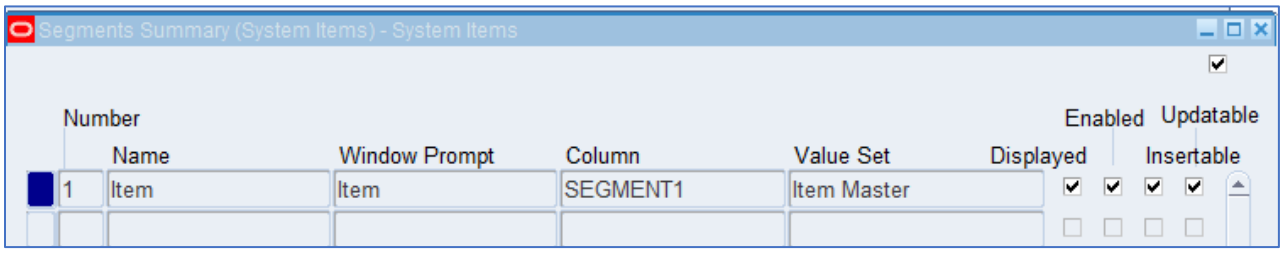
2. Define the Flexfield Structure

- **Navigate to:** Inventory → Setup → Flexfield → Key → Segments
- Query for SYSTEM_ITEMS **Flexfield.**



3. Define Segments

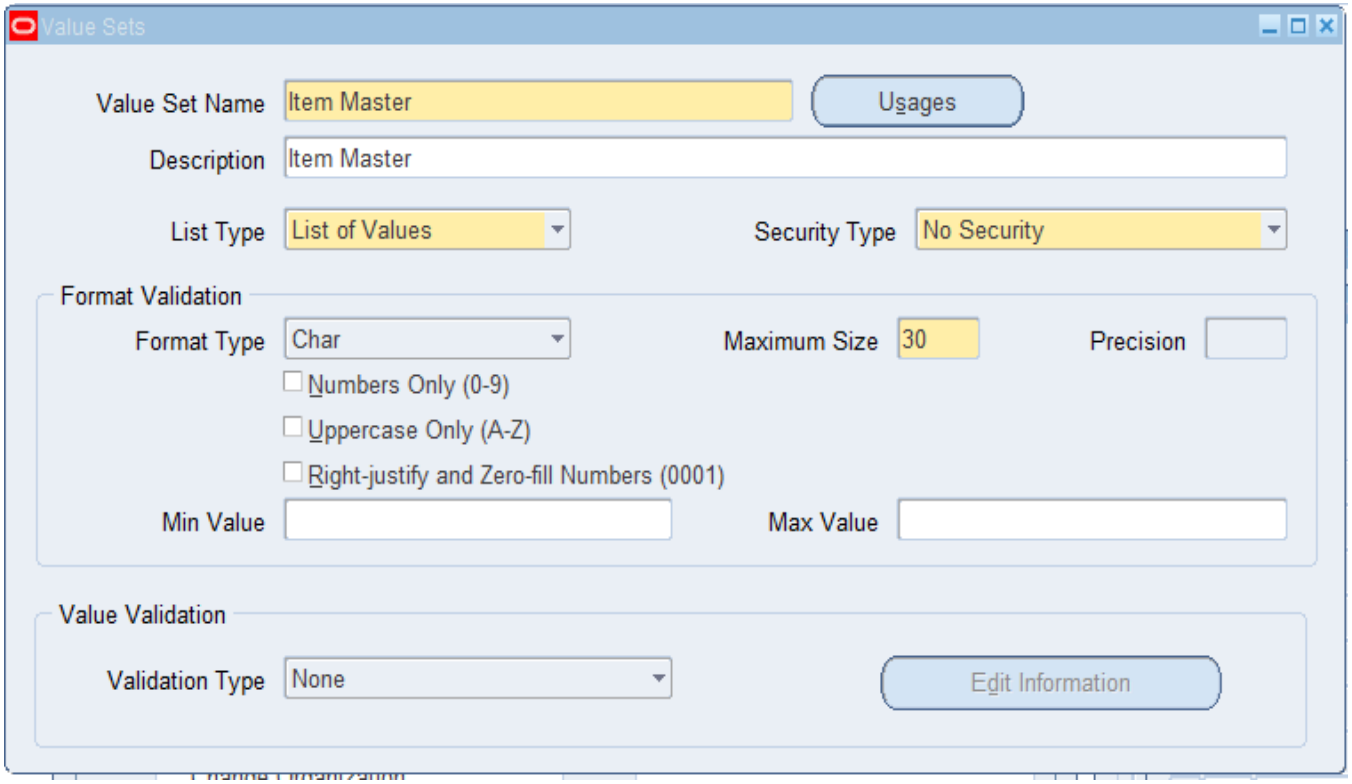
In the **Segments window** section, one segment is defined to structure item numbering.



4. Configure the Value Set

The **Item Master** value set controls input for the "Item" segment, enforcing data consistency according to the following validation setting.

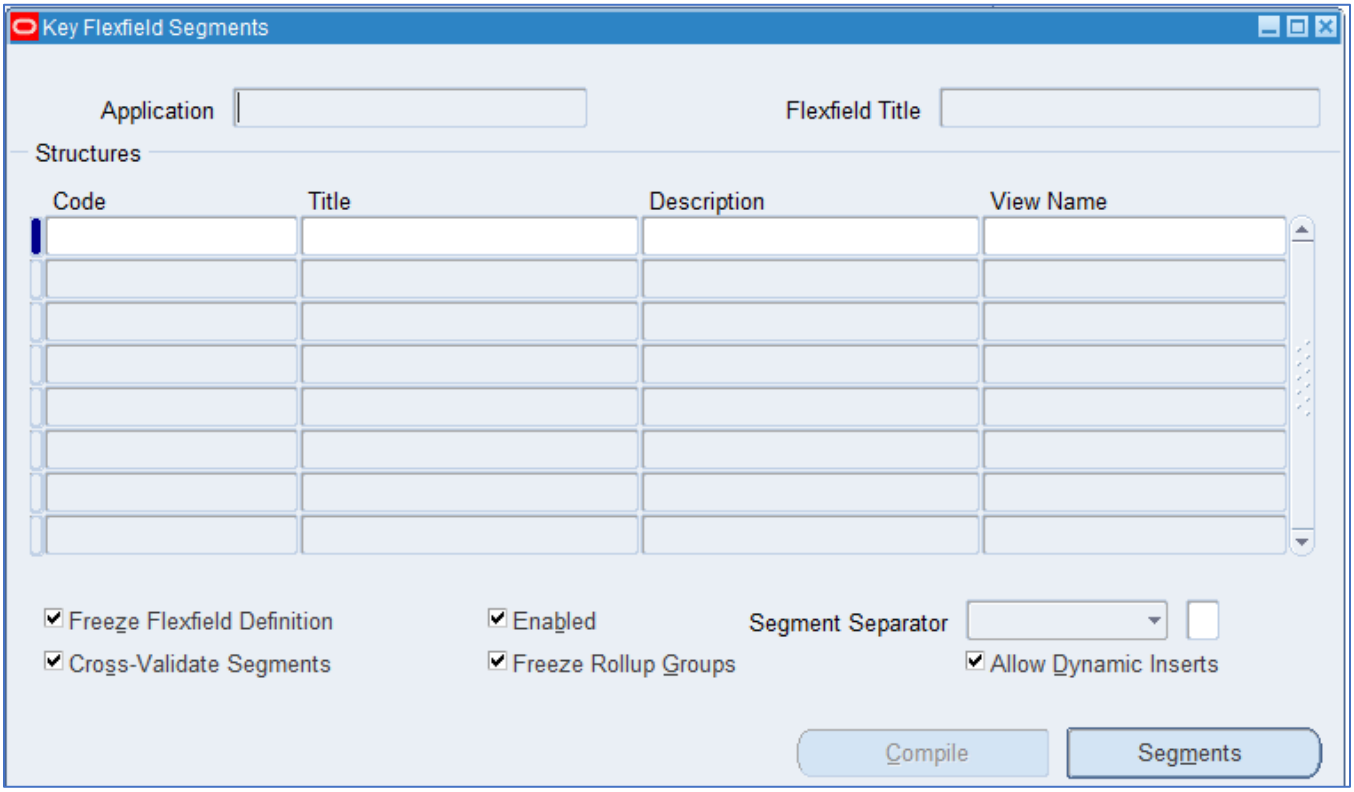
Field	Value
Format Type	Char
Maximum Size	30



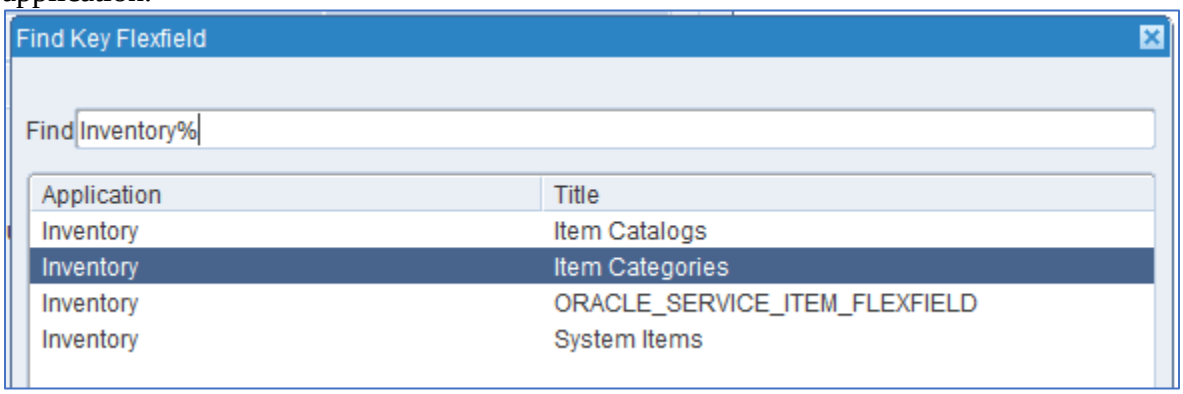
Section	Task	Purpose	Key Steps
C. Flexfields & Master Data Setup	7. Configure Item Categories Key Flexfield	Classify items for reporting, costing, and analysis.	- Define segments reflecting the business hierarchy. - Map segments to category sets and compile the flexfield.

Firstly, Configure Item Categories Key Flexfield Segments**:**

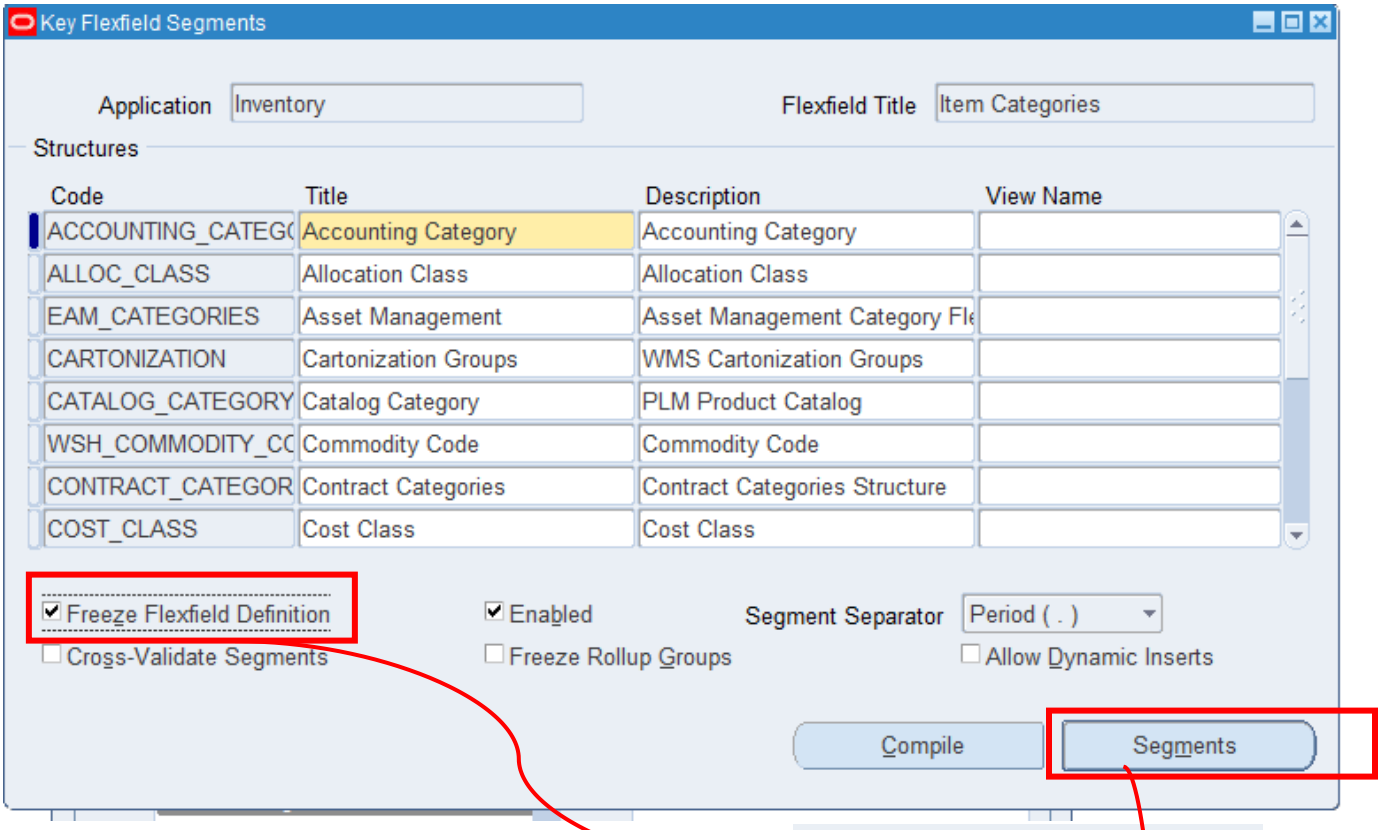
Navigation Path: Inventory > Setup > Flexfields > Key > Segments.



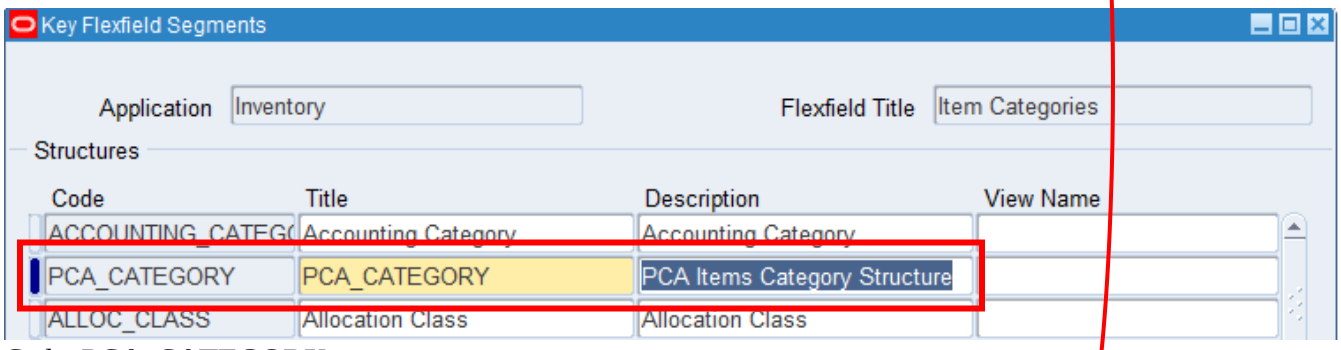
- Press on torch button to search for the Flexfield.
- In Find Prompt: Write the word "**inventory**" to view only the Flexfields related to the inventory application.



- Select the **Item Category Flexfield**. A new window appears showing all the item categories structures defined already in the system.

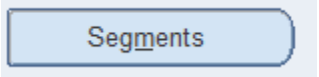


- Uncheck Freeze Flexfield Definition to define a new structure for our case study.
- Insert **A new record**  . A new line opened for the definition of new category structure.
- A new category structure is defined as shown in the following screenshot.



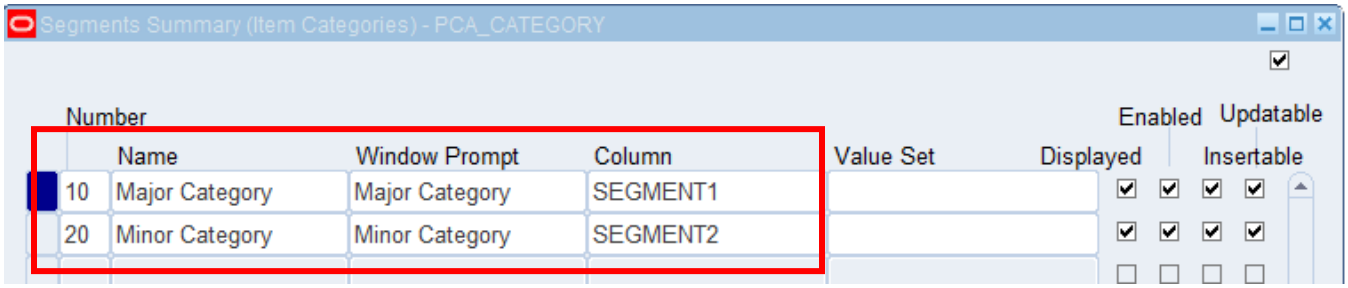
Code: **PCA_CATEGORY**
Description: **PCA Items Category Structure**

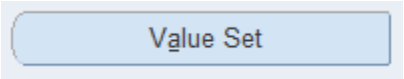
- Click on **Segments** to define the fields inside this structure.



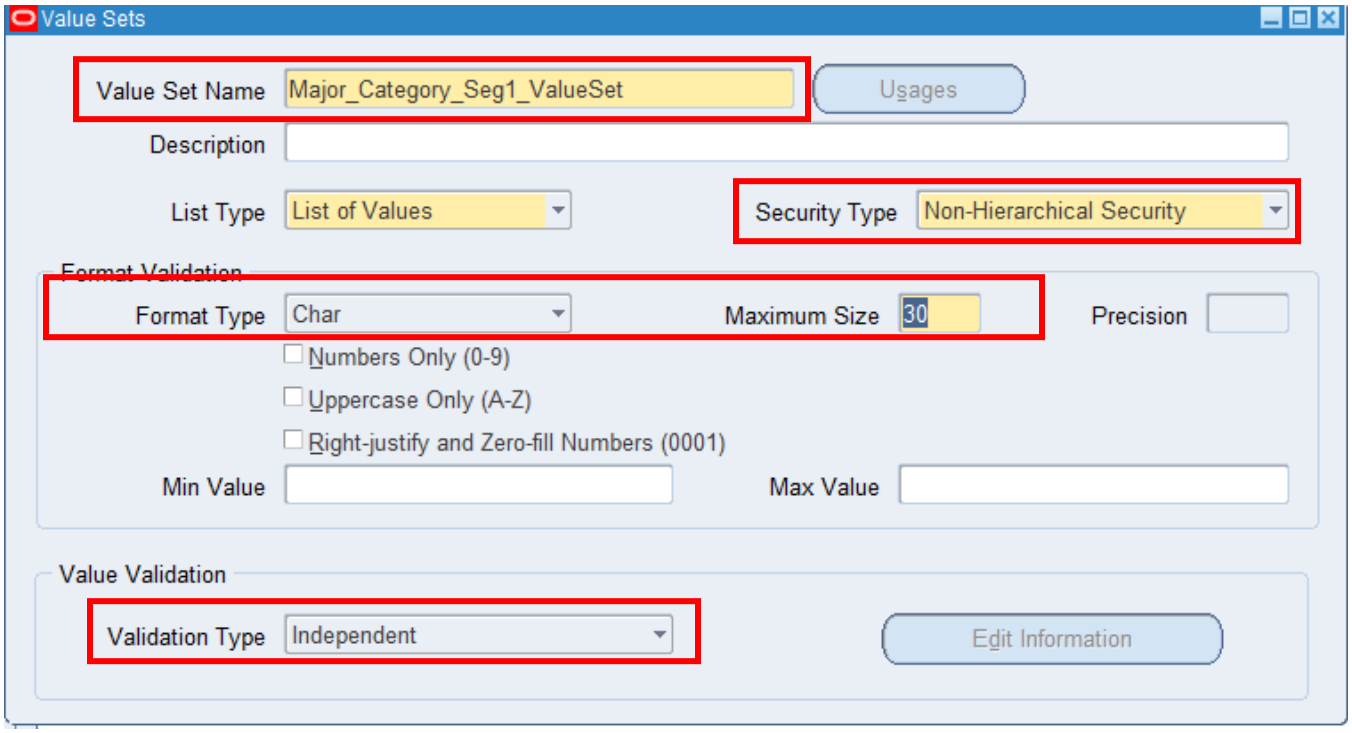
- Define two Segments for the Item Categories Flexfield structure as following:

- **Segment 1:** Major Category – Broad classification of items.
- **Segment 2:** Minor Category – Detailed classification under each Major Category.



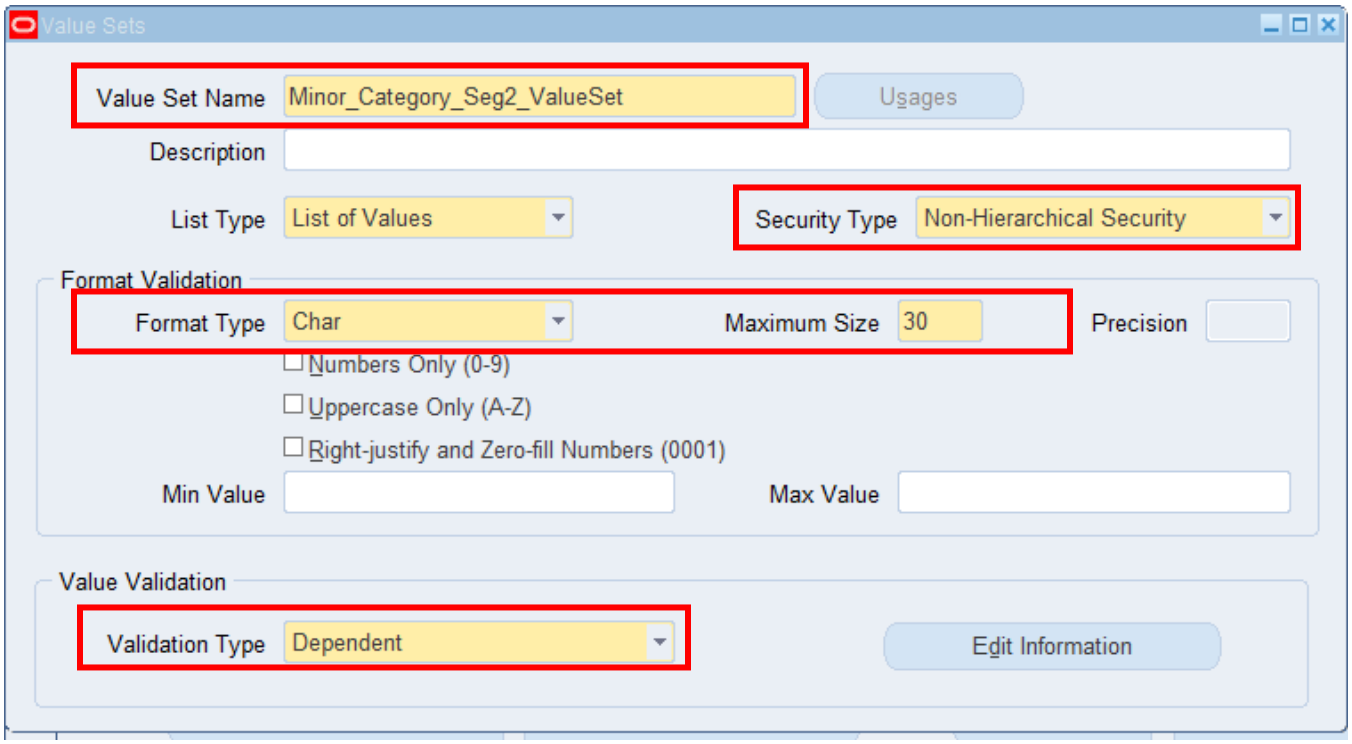
- Press on value set button 

- Define the value set of the major category segment as following:
    - **Value Set Name**: Major_Category_Seg1_ValueSet
    - **Security Type**: Non-Hierarchical Security
    - **Format Type**: Char
    - **Maximum Size**: 30
    - **Validation Type**: Independent

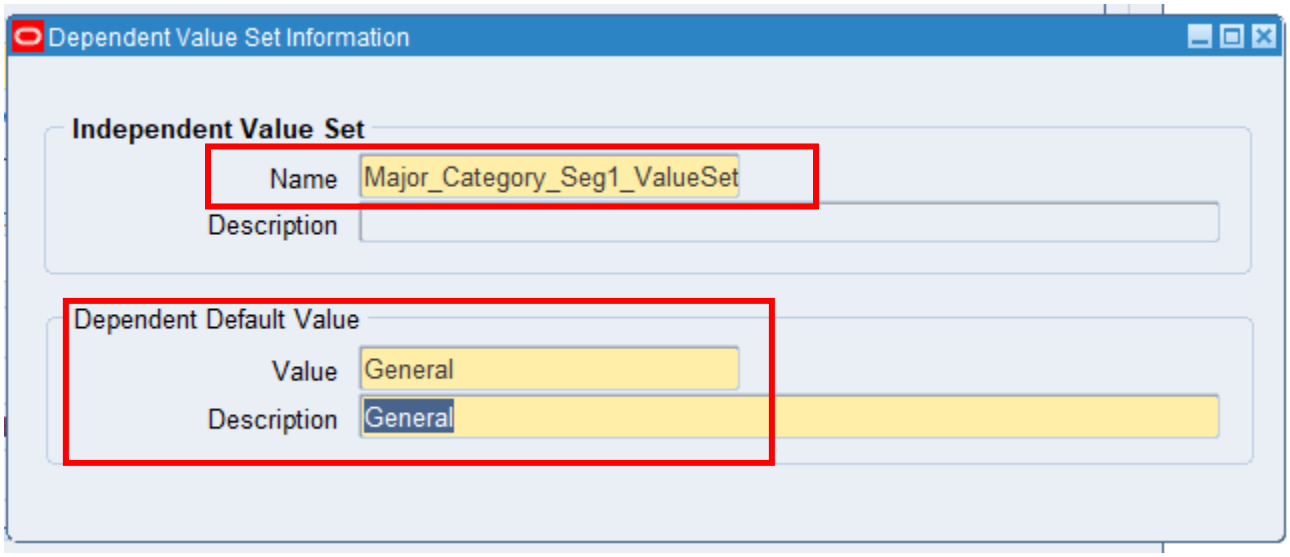


Then Click Save.

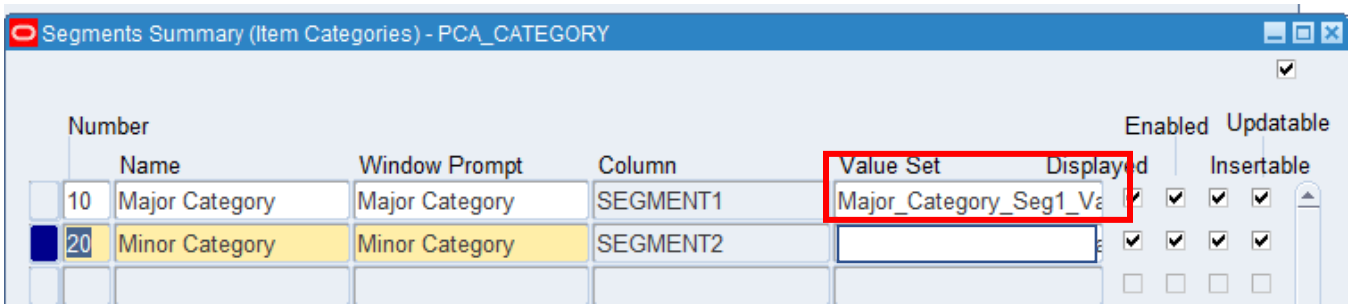
- Define the value set of the minor category segment as following:
    - **Value Set Name**: Minor_Category_Seg2_ValueSet
    - **Security Type**: Non-Hierarchical Security
    - **Format Type**: Char
    - **Maximum Size**: 30
    - **Validation Type**: Dependent



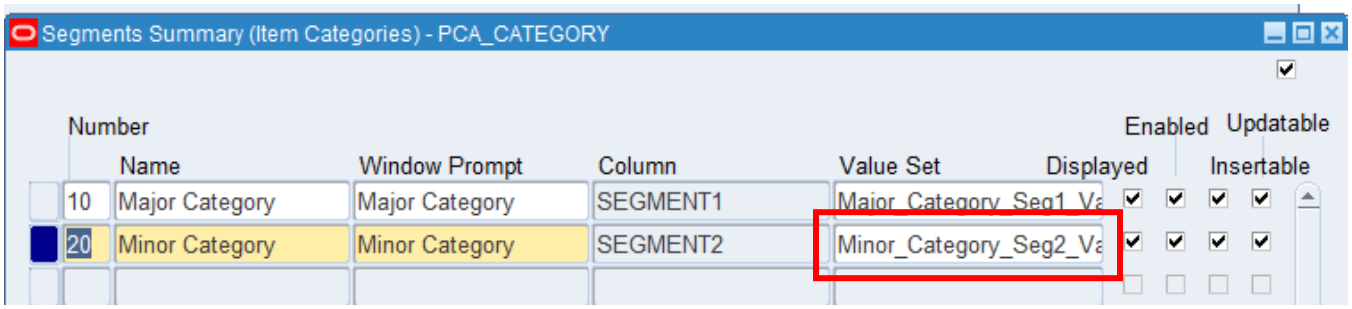
Then Click Save. A new window popup to enter the information of the independent ValueSet that it depends on. Simply, Enter the Name of the ValueSet of the major category segment.



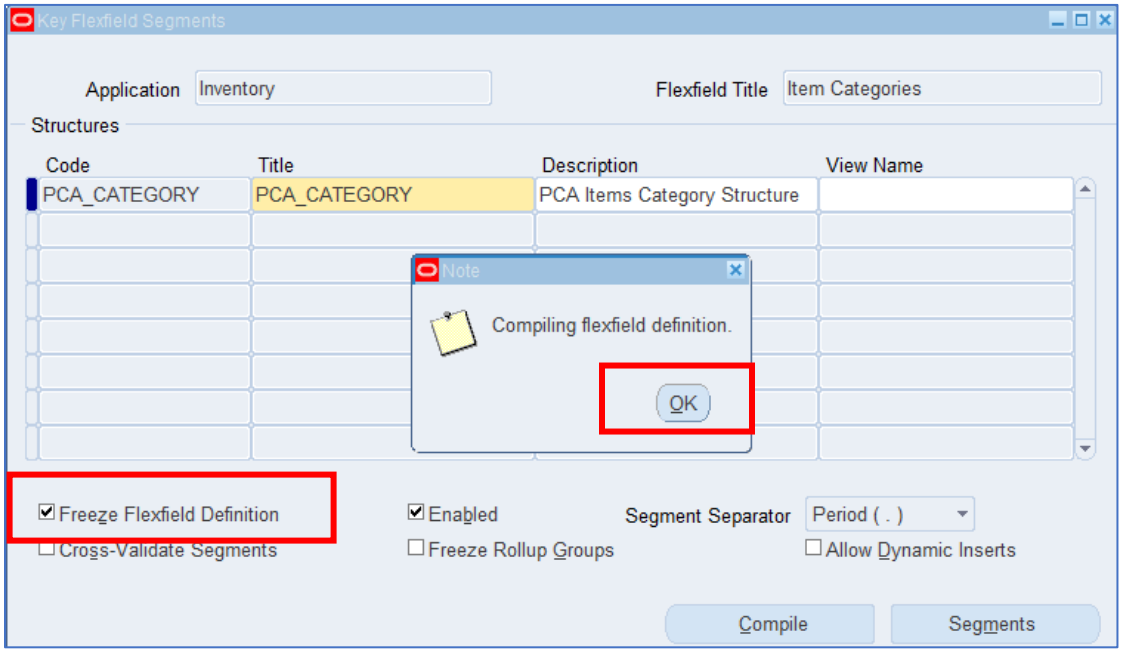
- **Insert** the value set of the major category in its field and click **Save**.



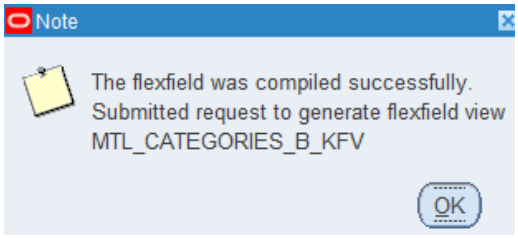
- **Then, Insert** the value set of the minor category in its field and click **Save**.



- Now, **Freeze the Flexfield Definition**, and click on **Save**. A new window popup, click **Ok**.



A new popup window appear that show that the Flexfield structure was created successfully.



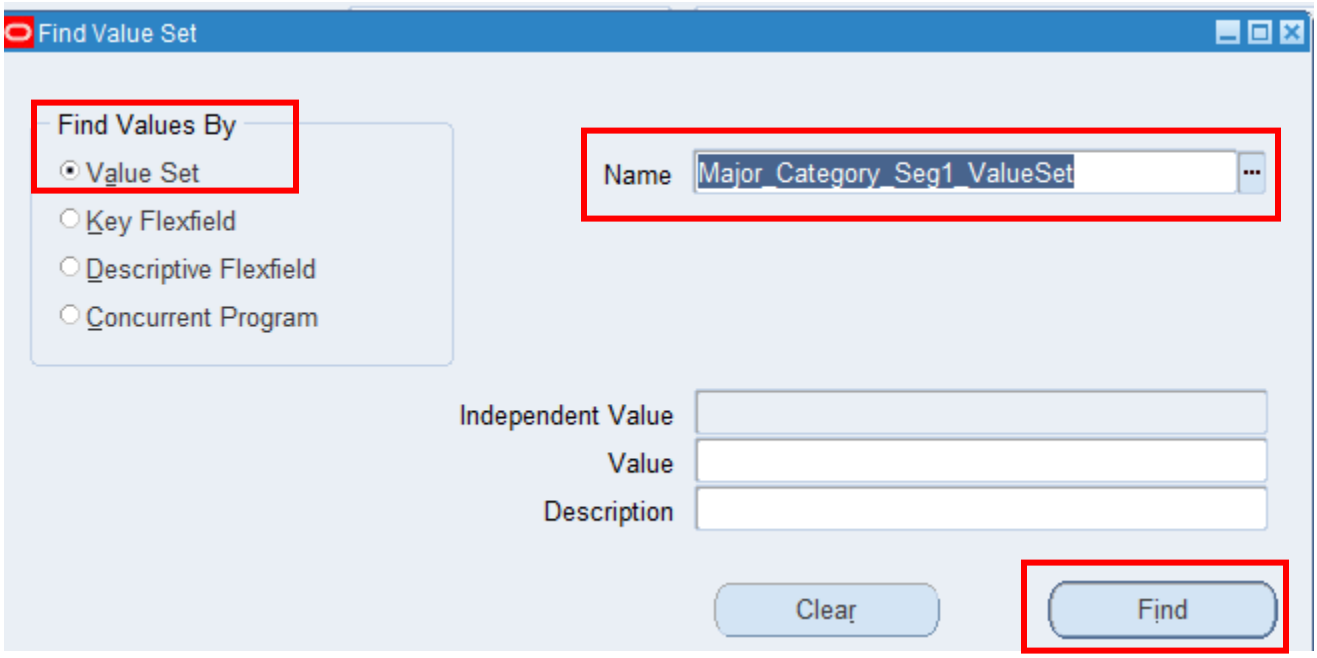
Secondly, Define Key Flexfield Categories Value Sets**:**

Table of Values for Item Categories Flexfield

Major Category	Minor Category	Description
General	General	Default Value as a Non-Classification
COMPONENTS	CPU	Central Processing Units (e.g., Intel, AMD)
	MOTHERBOARD	Mainboards for various socket types
	RAM	Memory modules (e.g., DDR4, DDR5)
	STORAGE	SSDs, HDDs, and other storage devices
	GPU	Graphics cards for gaming or professional use
	POWER_SUPPLY	Power Supply Units (PSUs)
	CASE	PC chassis and related components
	COOLING	Fans, liquid cooling solutions, thermal paste
ASSEMBLED_PCS	GAMING_PC	High-performance PCs for gaming
	OFFICE_PC	PCs optimized for office productivity
	WORKSTATION	High-end workstations for professionals
	ALL_IN_ONE	Integrated systems with built-in displays
PERIPHERALS	KEYBOARD	Mechanical and membrane keyboards
	MOUSE	Standard and gaming mice
	MONITOR	Display units with various resolutions
	HEADSET	Audio peripherals including headsets and microphones

Go to Navigation Path: Inventory > Setup > Flexfields > Key > Values.

- Select **Find Values By**: Value Set
- In the **Name** field, search for the **Major Category ValueSet**.
- Click **Find**.



- Now, insert the major categories **Value** name and **Description**.

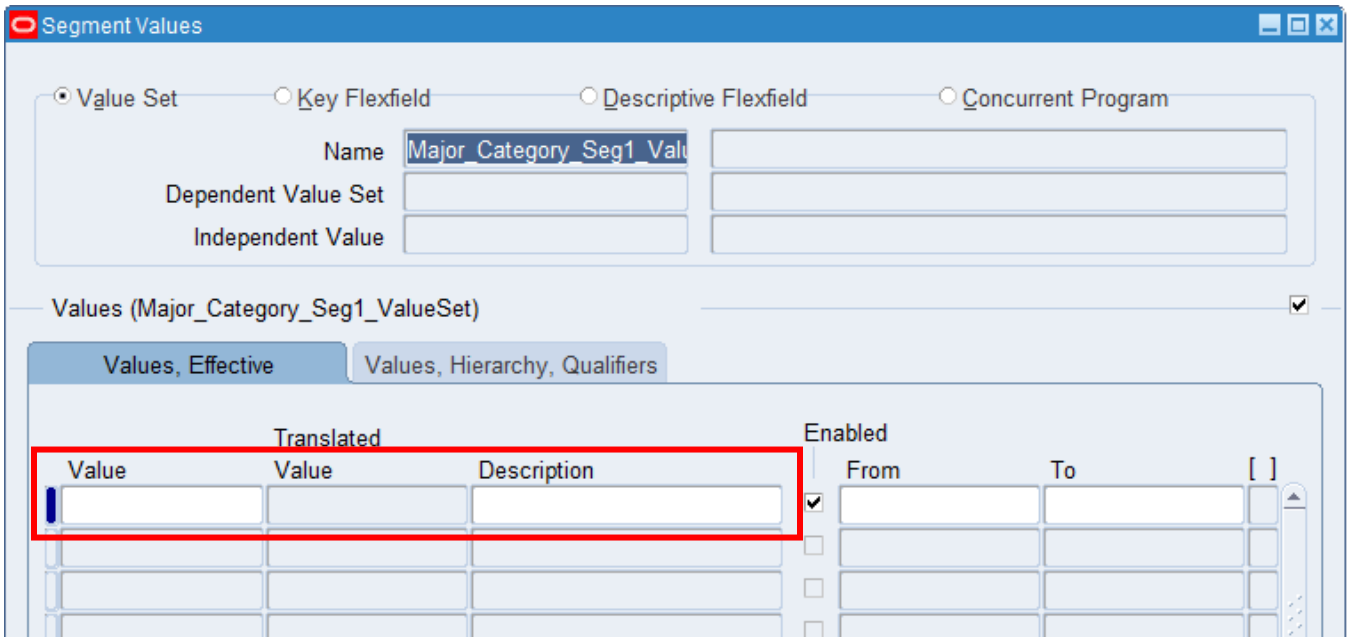


Figure: Before Major Category Value insertion

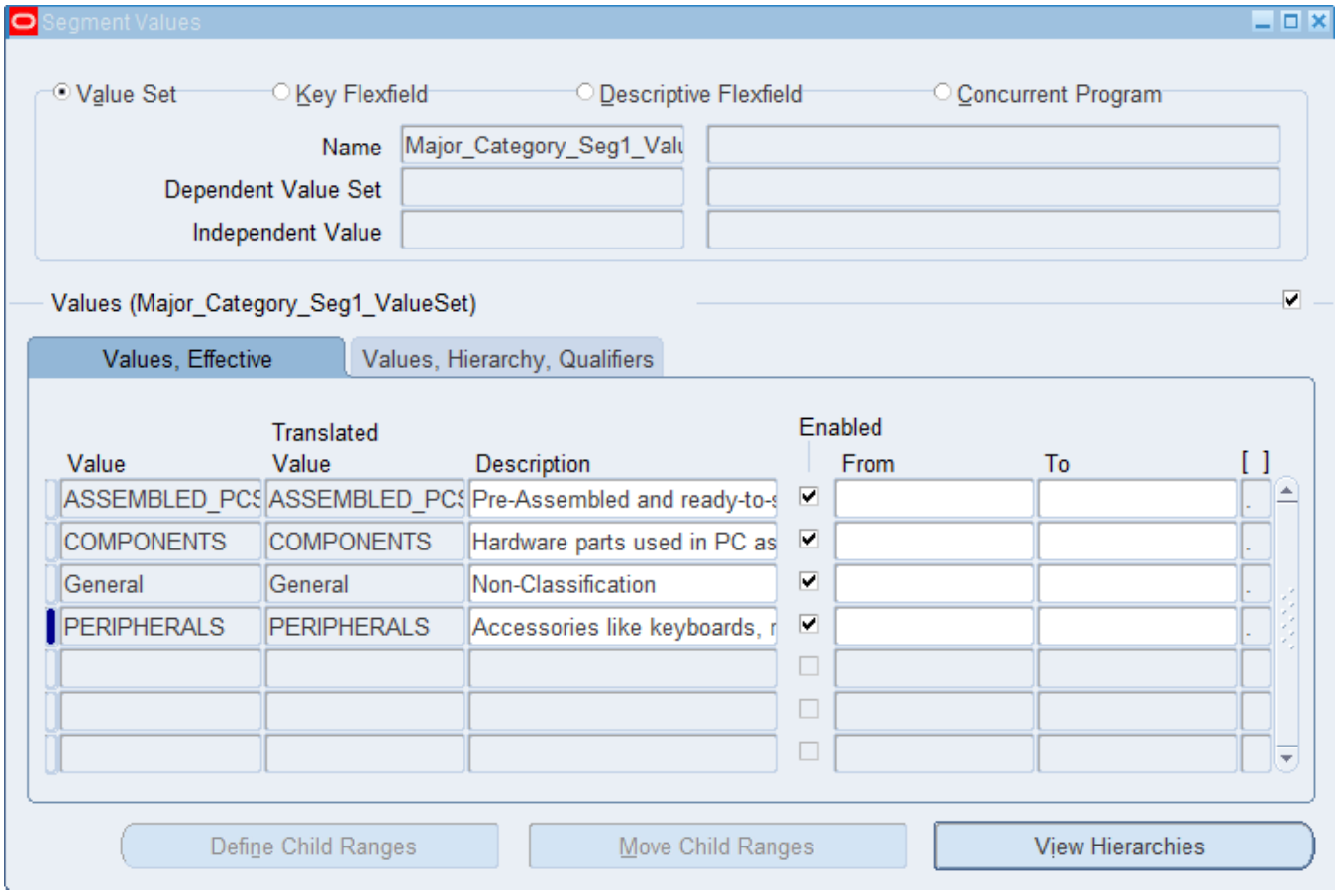
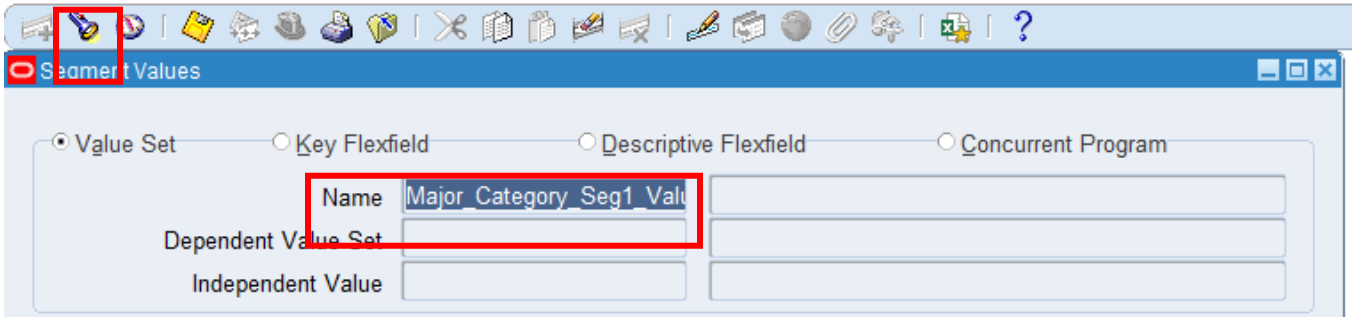
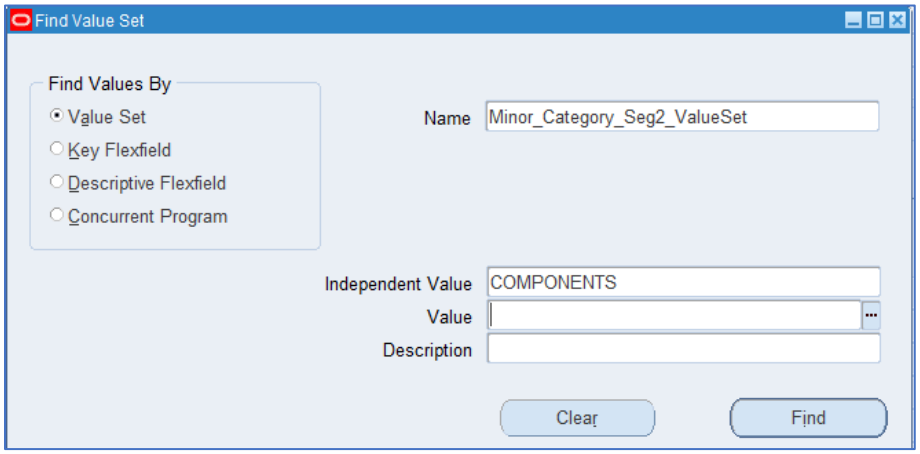


Figure: After Major Category Value insertion

- Return again to ValueSet query window, simply put the mouse selector in the name field, then click on search torch



  - A new window popup. **Search** for the ValueSet of minor category segment. Then, **Select** the independent value to define its child categories



  - Enter the values of this minor category that depends on "components" category.

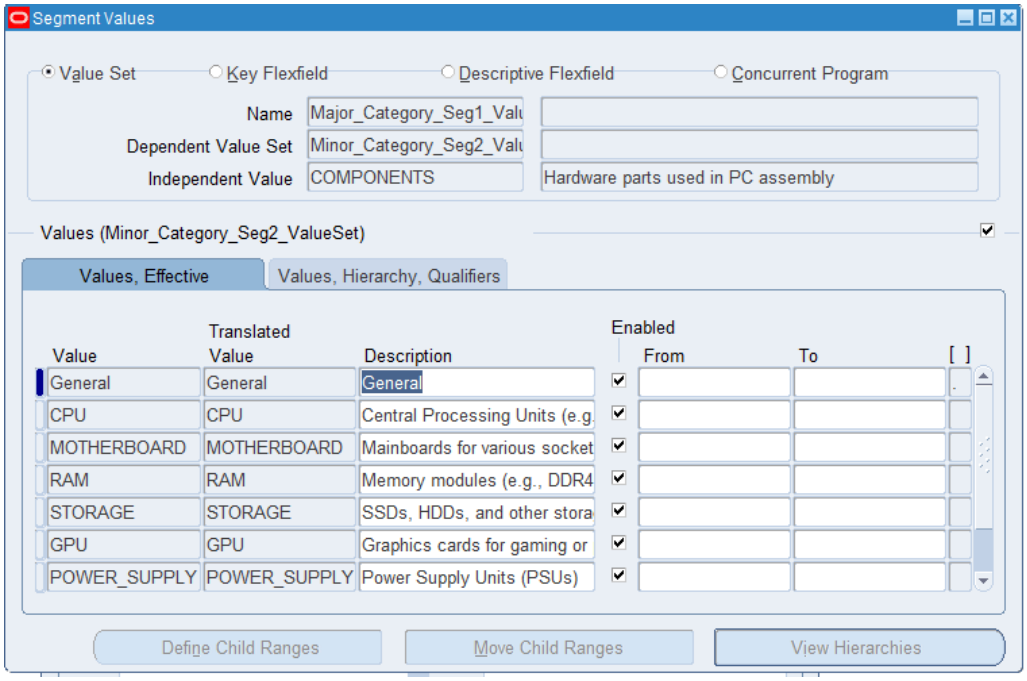


Figure: After Minor Category Values insertion under COMPONENTS Parent Category

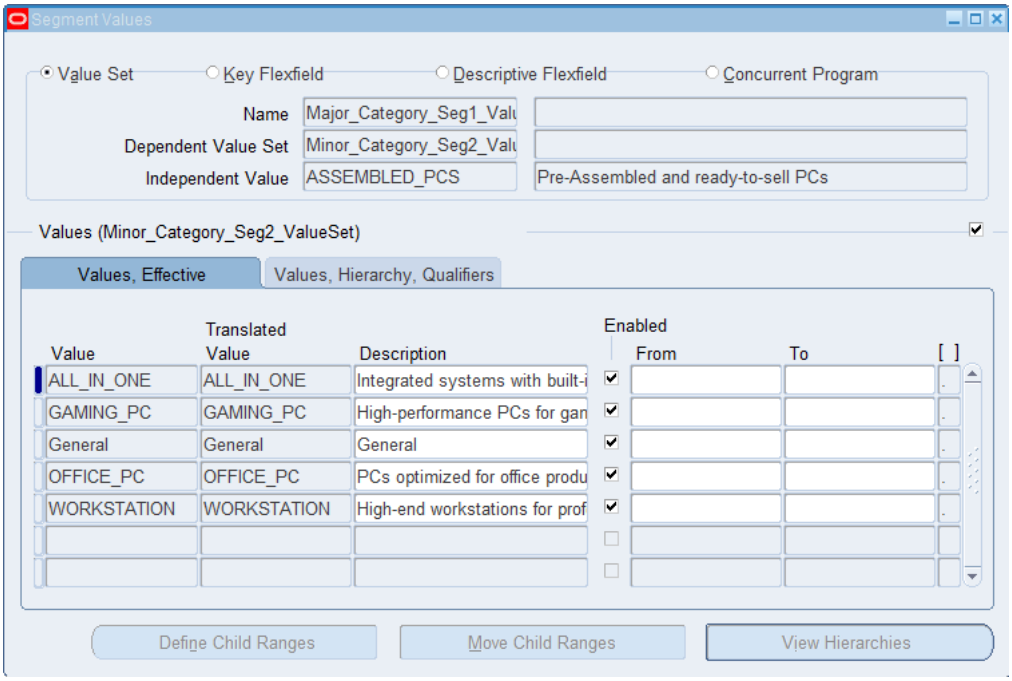


Figure: After Minor Category Values insertion under ASSEMBLED_PCS Parent Category

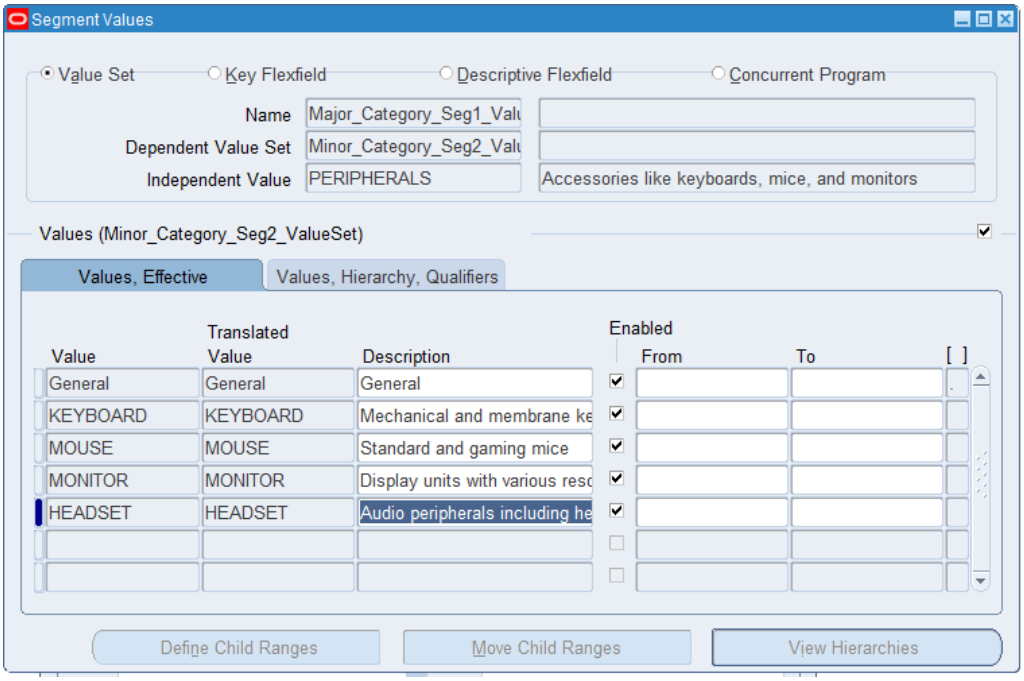


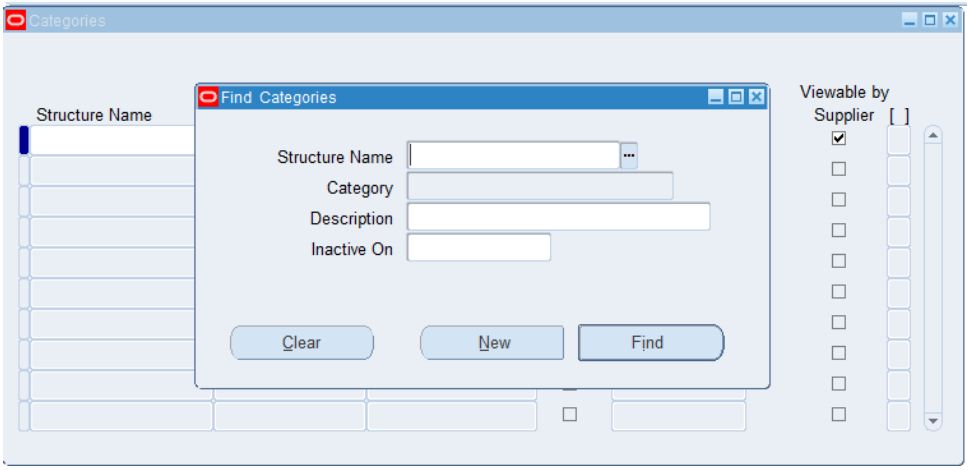
Figure: After Minor Category Values insertion under PERIPHERALS Parent Category

Thirdly, Define Category Codes

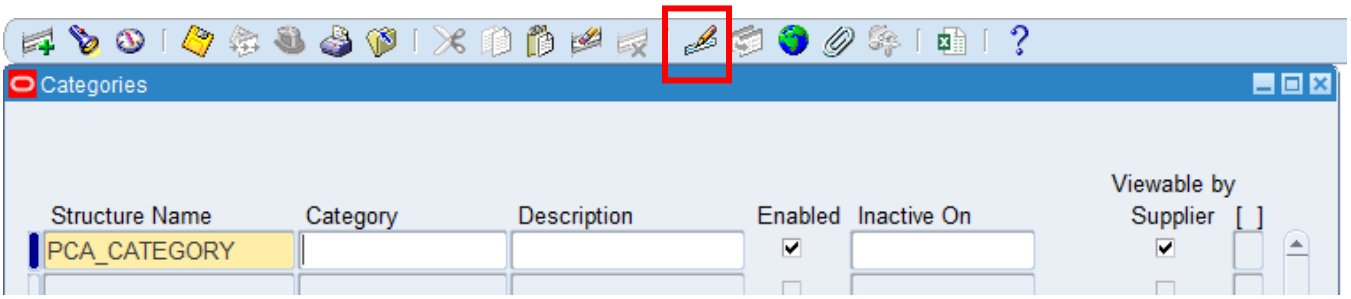
Category Codes are used to organize inventory items into logical groups for better management and reporting. This setup will implement Category Codes for the following:

- **Major Category:** High-level classification of items (e.g., Components, Assembled PCs).
- **Minor Category:** Detailed classification under each Major Category (e.g., CPU, Motherboard).

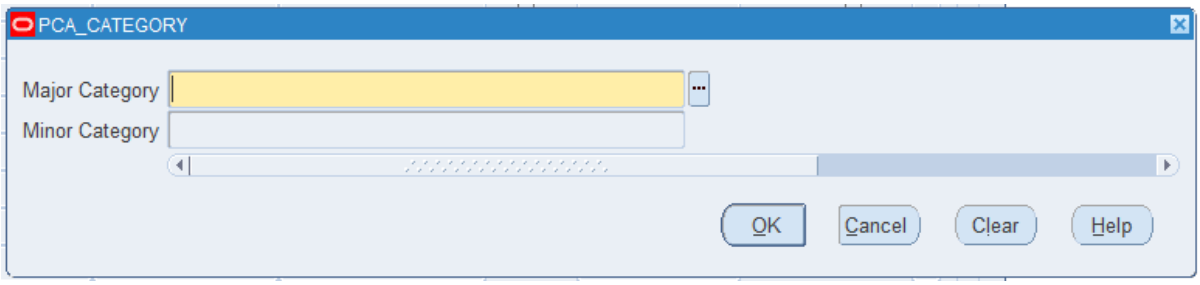
1. Navigate to **Inventory > Setup > Categories > Category Codes.**
2. The **Category Codes** screen will appear.



3. **Click on New.**
4. **Enter the Structure Name:** PCA_CATEGORY
5. **In Category:** Press on Edit field



6. The PCA_CATEGORY screen appears. Enter the first Category Combination.



Major Category: Select the corresponding Major Category from **`MAJOR_CATEGORY`** value set.

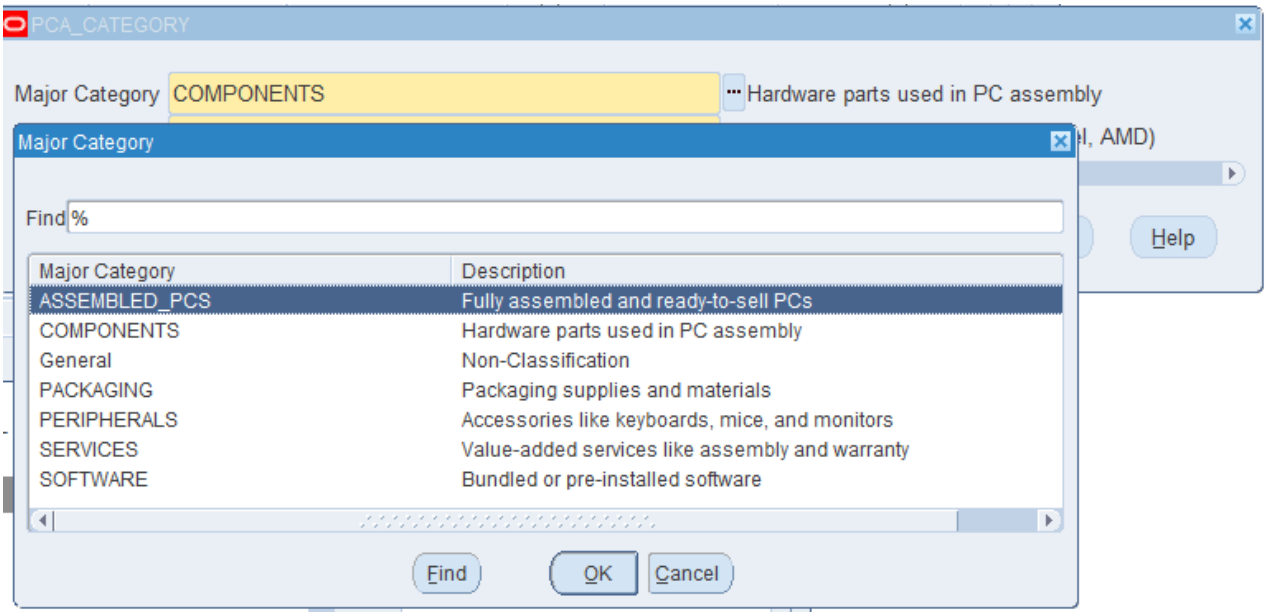


Figure: from the list of Major Categories, select COMPONENTS.

Minor Category: Select a corresponding Minor Category.

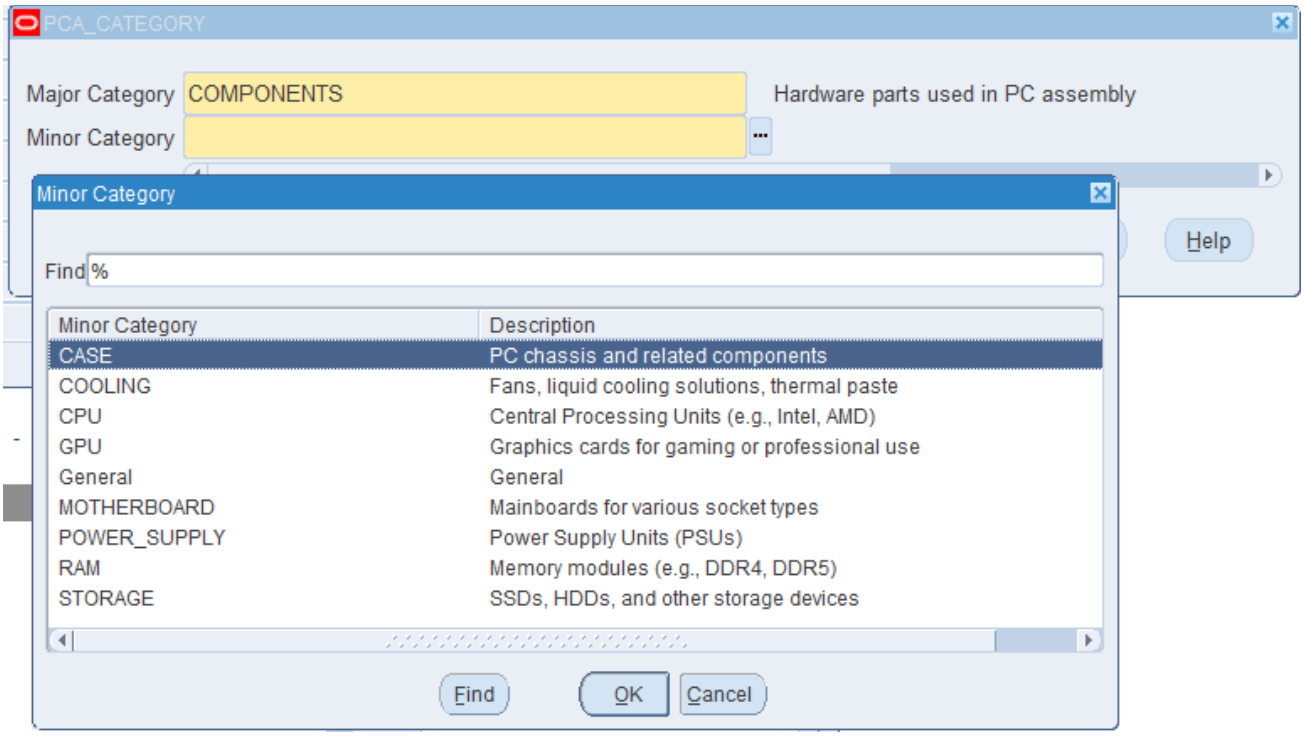


Figure: from the list of Minor Categories, select CPU.

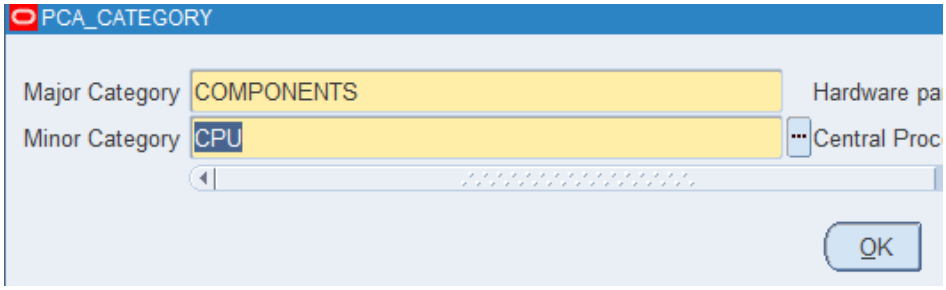


Figure: Click OK to define the first Category Combination.

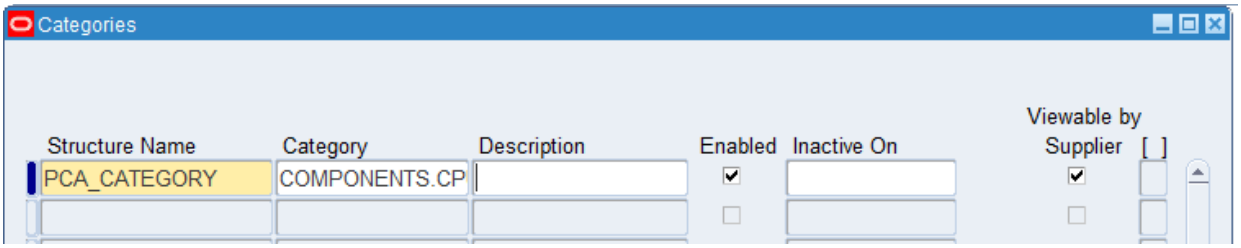


Figure: The first Category Combination "COMPONENTS.CPU" is defined.

7. **Repeat** the above steps for the following Category Combination:

For COMPONENTS	For ASSEMBLED_PCS	For PERIPHERALS
COMPONENTS_MOTHERBOARD	ASSEMBLED_PCS_GAMING_PC	PERIPHERALS_KEYBOARD
COMPONENTS_RAM	ASSEMBLED_PCS_OFFICE_PC	PERIPHERALS_MOUSE
COMPONENTS_STORAGE	ASSEMBLED_PCS_WORKSTATION	PERIPHERALS_MONITOR
COMPONENTS_GPU	ASSEMBLED_PCS_ALL_IN_ONE	PERIPHERALS_HEADSET
COMPONENTS_POWER_SUPPLY		
COMPONENTS_CASE		
COMPONENTS_COOLING		

8. **Save** the Category Codes.

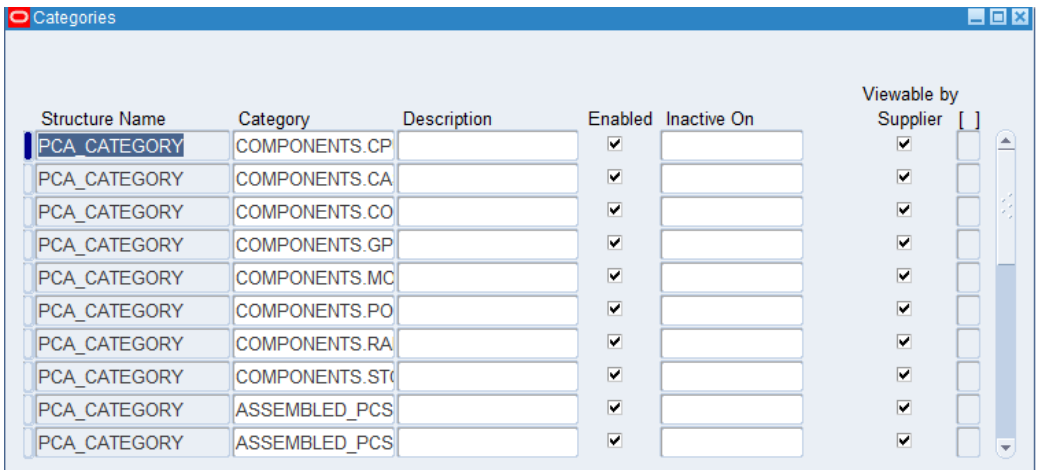


Figure: The Category Combinations is defined.

Lastly, Define Category Sets

Navigation Path: Inventory > Setup > Items > Categories > Category Sets

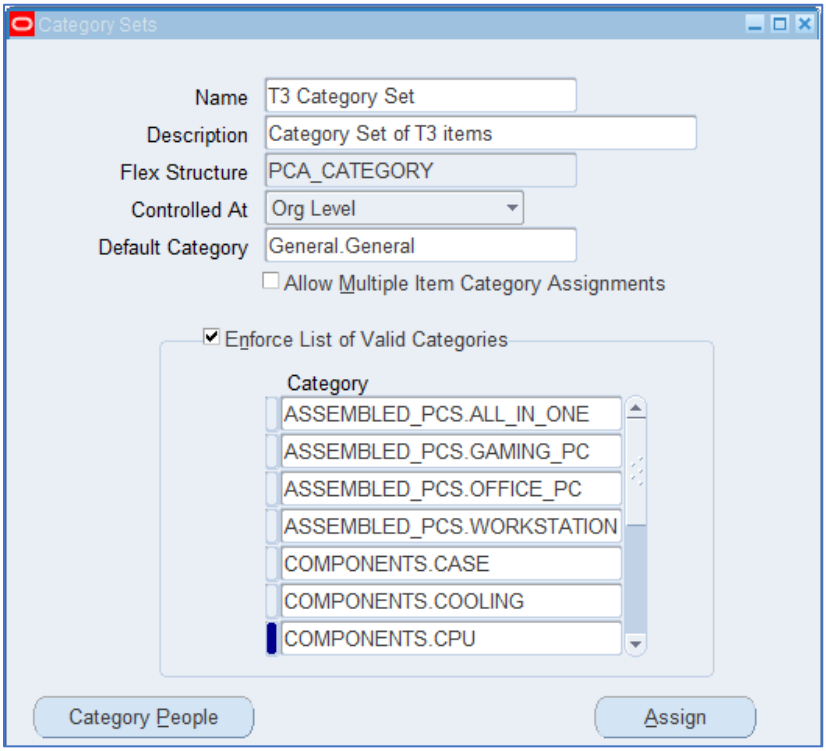
1. **Enter Category Set Details:**

- **Name:** *T3 Category Set*
- **Description:** *Category Set of T3 items*
- **Flex Structure:** *PCA_CATEGORY*
- **Controlled At: Organization Level**
- **Default Category:** *General.General*

2. **Ensure Single Category Assignment:**

- **Uncheck** the option **"Allow Multiple Item Category Assignments"** to ensure that each item can belong to only one category within this set because it may leads to reporting errors.

3. **Enforce Valid Categories and define the categories combinations**
4. Click **Save** to finalize the setup.



*Note: when trying to set the **Default Category Set** for a functional area (such as Inventory), The error **APP-INV-05115: You must assign all items of this type to the new set first** occurs in Oracle EBS because there are items that are already assigned to another category set. To resolve **APP-INV-05115 Error**, we could update the item category set assignment to the newly defined category set. This can be done using an **SQL query** executed through **Toad or Oracle SQL Developer**.*

- ***Possible solution in new implementation**: this **APP-INV-05115** error **will not happen** in a **new production system setup** if **no items or categories are defined**.*

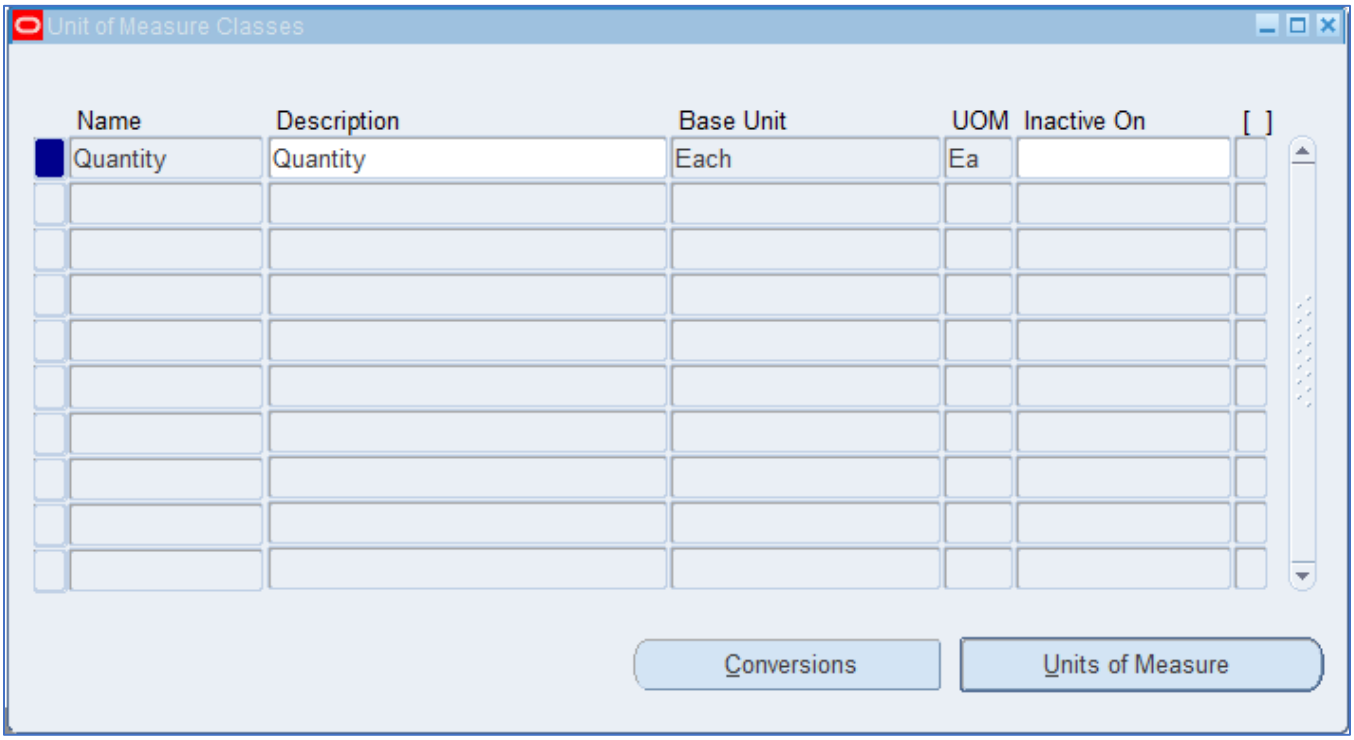
Section	Task	Purpose	Key Steps
C. Flexfields & Master Data Setup	8. Define Unit of Measure (UOM) Setup	Standardize measurement units and conversions.	- Create UOM classes (e.g., Weight, Volume, Quantity). - Define base and derived units with conversion rates.

Step 1: Verify/Create UOM Classes

Purpose:
Ensure that UOM classes exist to categorize UOMs by type. For a distributor dealing with discrete items (like keyboards, cables, etc.), a class such as **Quantity** is ideal.

Steps:

1. **Navigate:**
    - **Responsibility:** Inventory
    - **Path: Setup > Units of Measure > Classes**
2. **Verify Existing Classes:**
    - Look for the **Quantity** class (commonly predefined for discrete items).
    - **If Missing, Create a New Class:**
        - **UOM Class Name:** `Quantity`
        - **Base Unit:** `EA` (Each)
        - **Description:** For tracking discrete items (e.g., keyboards, cables).
3. **Save** your changes.

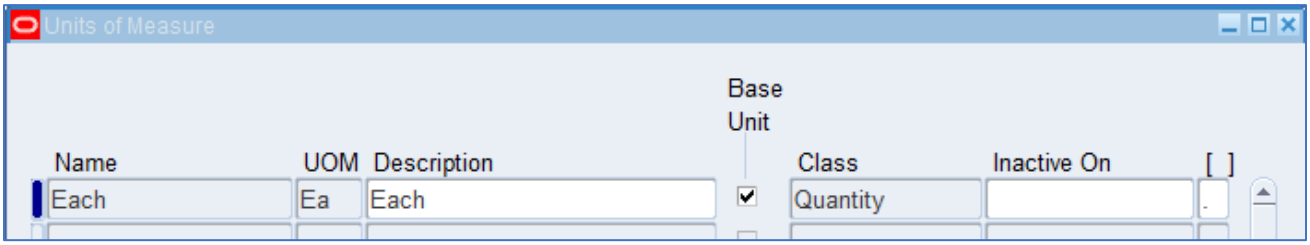


Step 2: Define Base and Derived UOMs

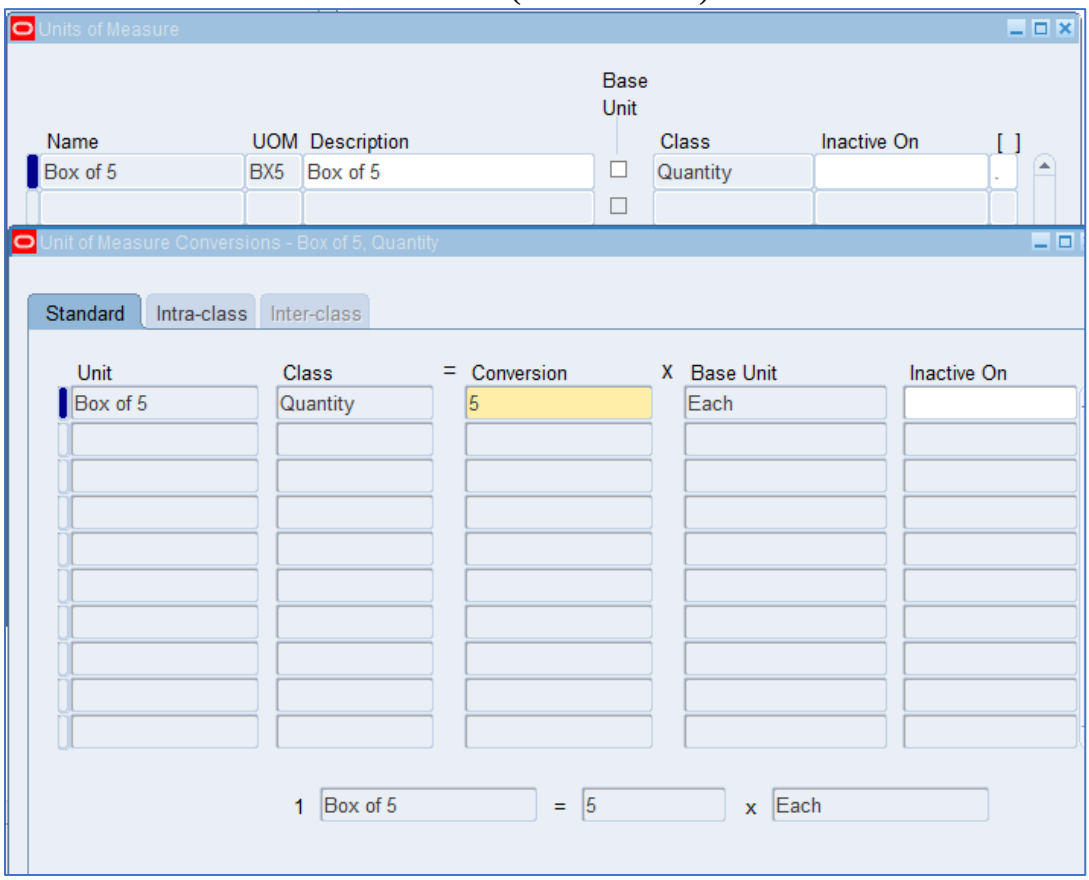
Purpose:
Create the necessary UOMs under the **Quantity** class. For a computer hardware distributor, typical units might include Each, Box , and Case.

Steps:

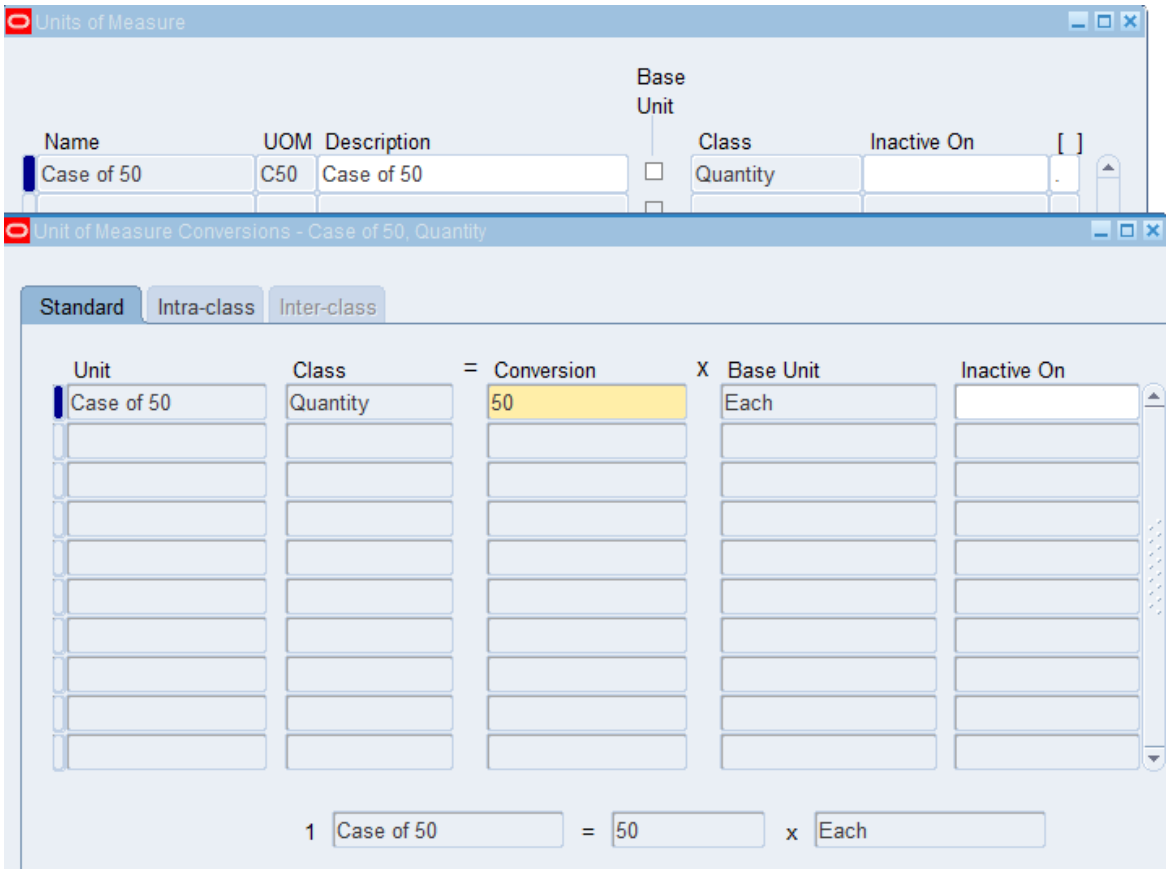
1. **Navigate:**
    - **Path: Setup > Units of Measure > Units**
2. **Define UOMs:**
    - **Each (EA) – Base UOM:**



- **Box of 5 (BX5):**
    - **Conversion Rate:** Enter 5 (1 Box = 5 EA).



- **Case of 50 (C50):**
  - **Conversion Rate:** Enter `50` (1 Case = 50 EA or equivalent to 10 Boxes).



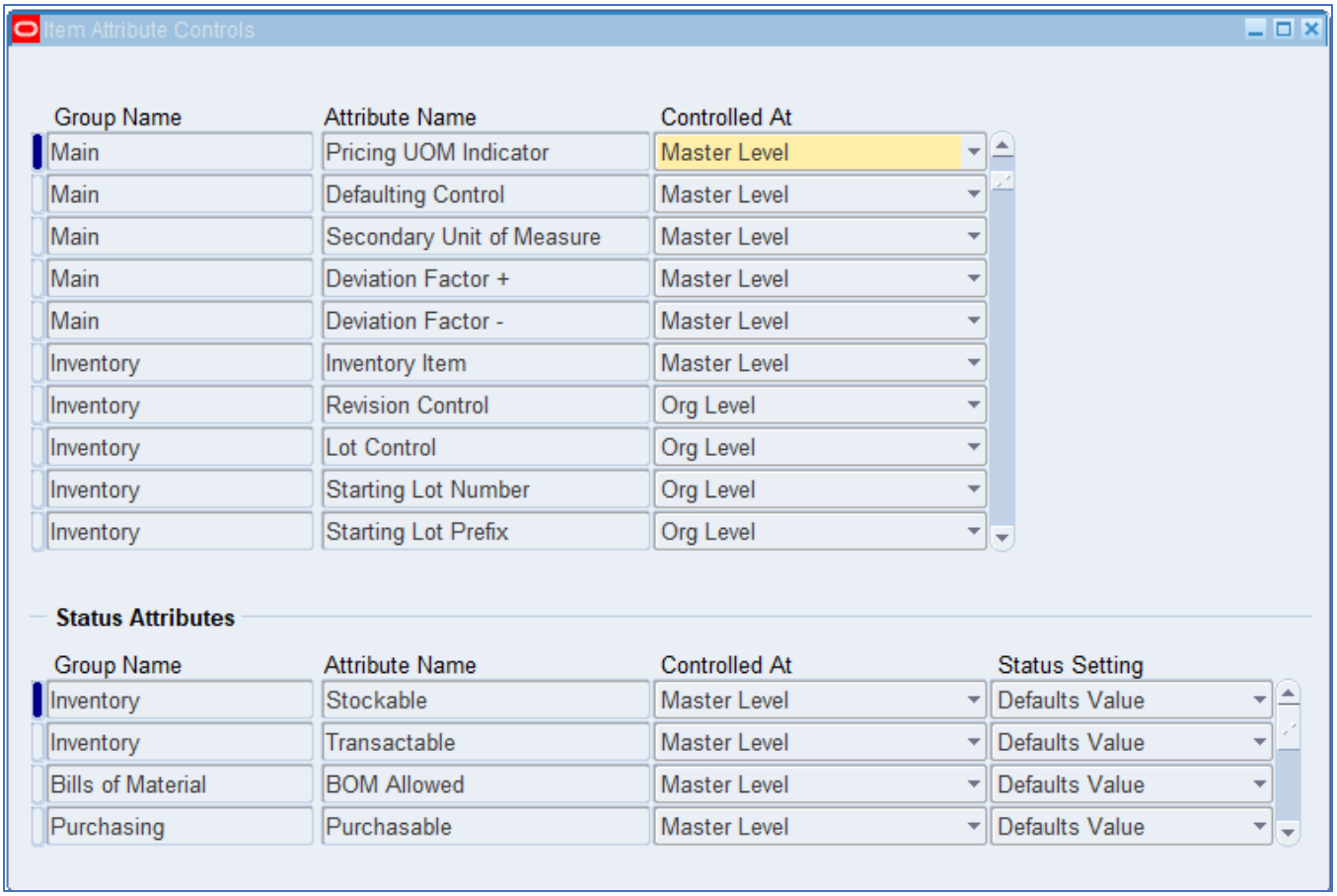
3. **Save** each UOM after entering the details.

Section	Task	Purpose	Key Steps
C. Flexfields & Master Data Setup	9. Define Item Attributes & Templates	Establish item behaviors and simplify bulk item creation.	- Define item attributes at master and organization levels. - Create item templates to pre-populate common attribute values. - Define item Status Codes to classify items as active or in hold for transactions

Firstly, Define item attributes at master and organization levels:

In this setup—with only one transactional inventory organization ([T3])- core item attributes are managed at the Master level, offering:

1. **Single Source of Truth:**
   - Core attributes (Primary UOM, Description, Conversion Factors) are defined centrally.
   - [T3] automatically inherits all Master-level defaults, ensuring consistency in UOM, cost, and planning.
2. **Simplified Change Management:**
   - Centralized review and updates mean changes apply directly to [T3] without additional adjustments.
   - Future updates require no organization-level overrides.



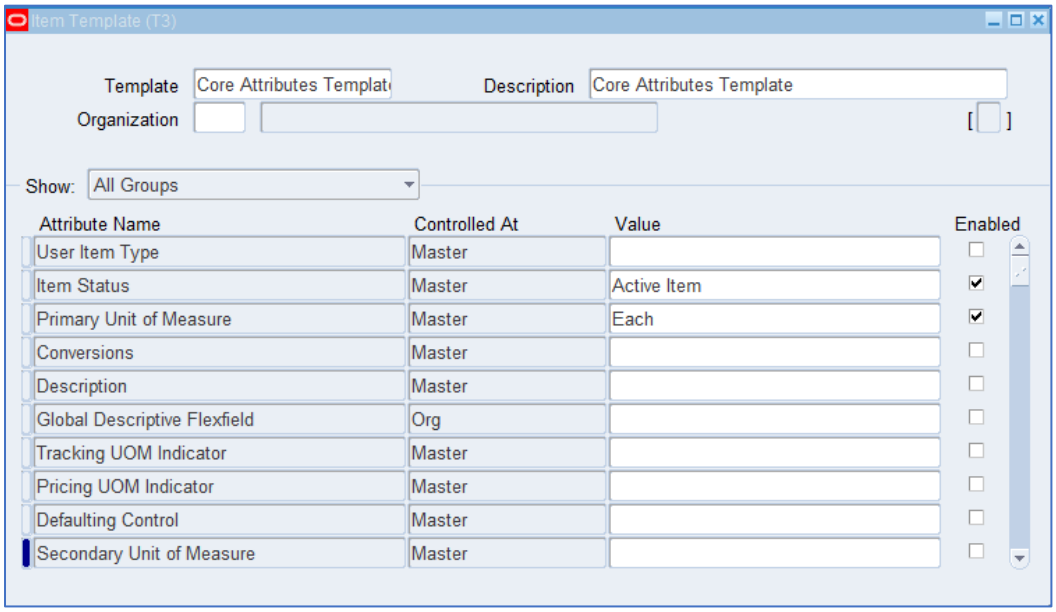
Secondly, define item templates to pre-populate common attribute values:

1. Go to **Inventory > Setup > Items > Templates.**
2. Click on **New** button**.**
3. Input the following item template attributes:
    - **Template name:** Core Attributes Template

Selected Attributes for Core Attributes Template

Attribute Name	**Value/Setting**	**Description**
Item Status	Active	Item is active and available for transactions
Item Type	Inventory Item	Standard inventory item
Unit of Measure	Each	Default UOM for standard items
Inventory Item	Yes	Item is tracked in inventory
Stockable	Yes	Item is stockable
Transactable	Yes	Item can be issued or received
Reservable	Yes	Item can be reserved for sales orders
Asset Item	Yes	Considered as an asset in financial reporting
Purchasable	Yes	Item can be procured
Costing Enabled	Yes	Costing enabled to calculate configuration cost
Customer Order Enabled	Yes	Available for customer orders
Shippable Item	Yes	Shipped as a complete assembled product

4. Save the template.



Lastly, define item Status Codes to classify items as active or in hold for transactions:

Item Status codes control the allowed actions on an item, such as purchasing, shipping, or updating attributes. This Setup Task we are verifying whether **Active** and **Hold (**Inactive**)** statuses already exist in the system.

Step 1: Navigate to the Item Status Form

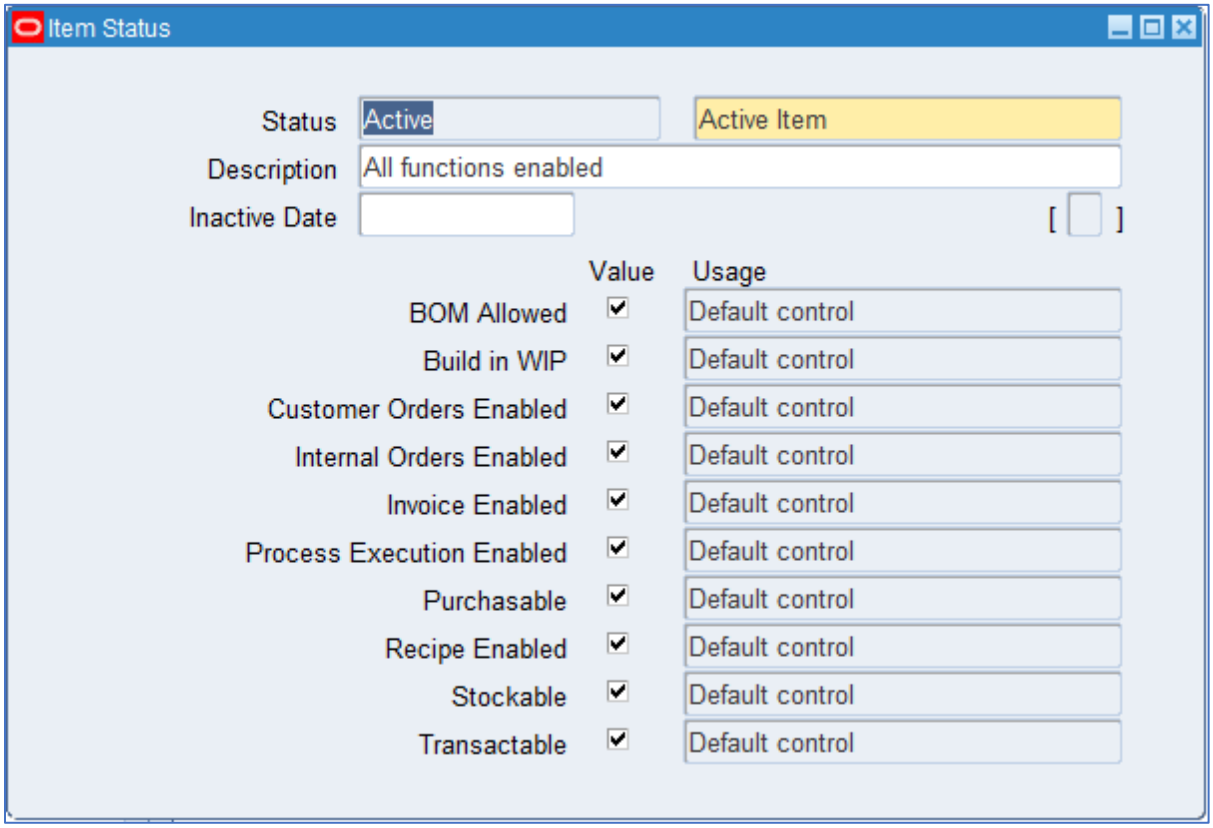
1. Login to **Oracle EBS R12**.
2. Go to **Inventory Responsibility** → Setup → Items → **Status Codes**.

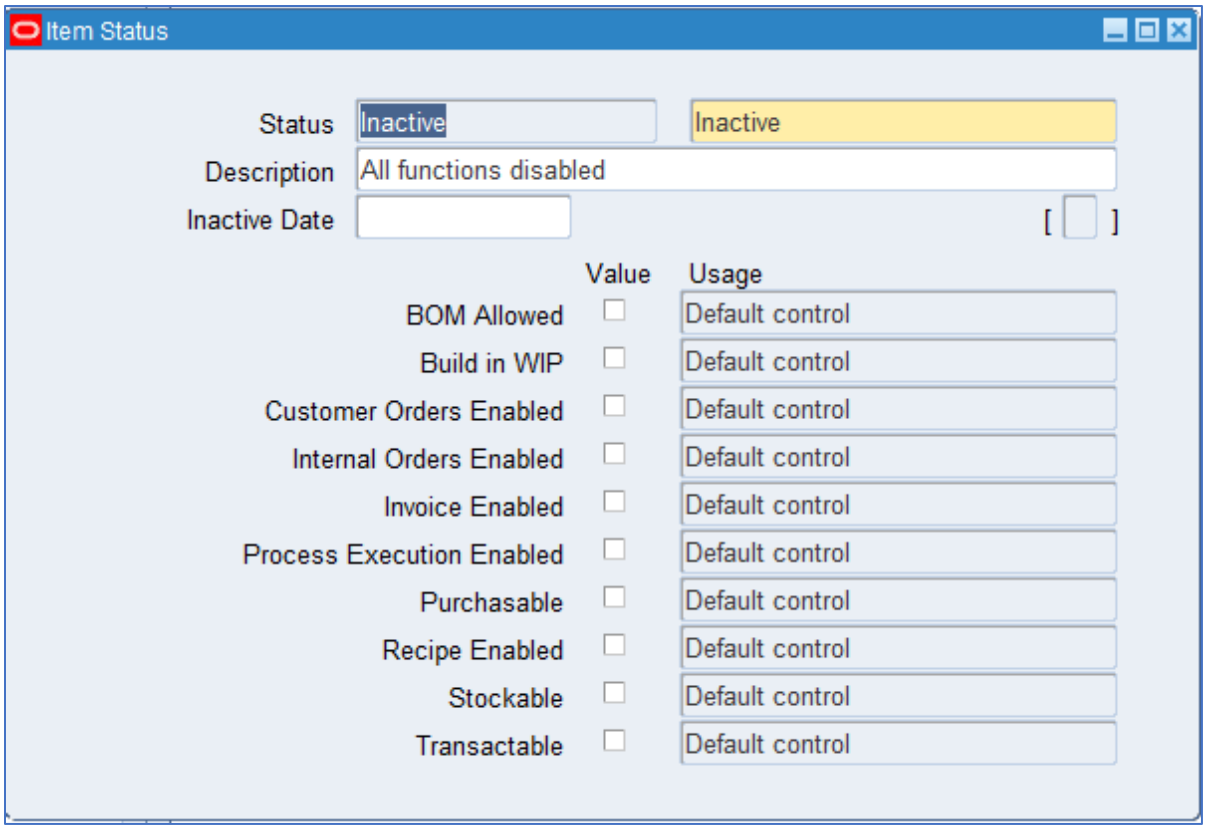
Step 2: Query Existing Item Status Codes

1. In the **Find Item Status Codes** window, leave fields blank and click **Find** to display all statuses.
2. Alternatively, enter:
    - **Status Code**: Active or Inactive
    - Click **Find** to check if it exists.

Step 3: Review Status Code Details

1. If the **ACTIVE** or **HOLD** status appears, check its settings:
    - Ensure the correct **Description** is assigned.
    - Review which checkboxes (e.g., Purchasable, Transactable, Stockable) are enabled/disabled.
2. If changes are needed, update the settings and click **Save (Ctrl+S)**.

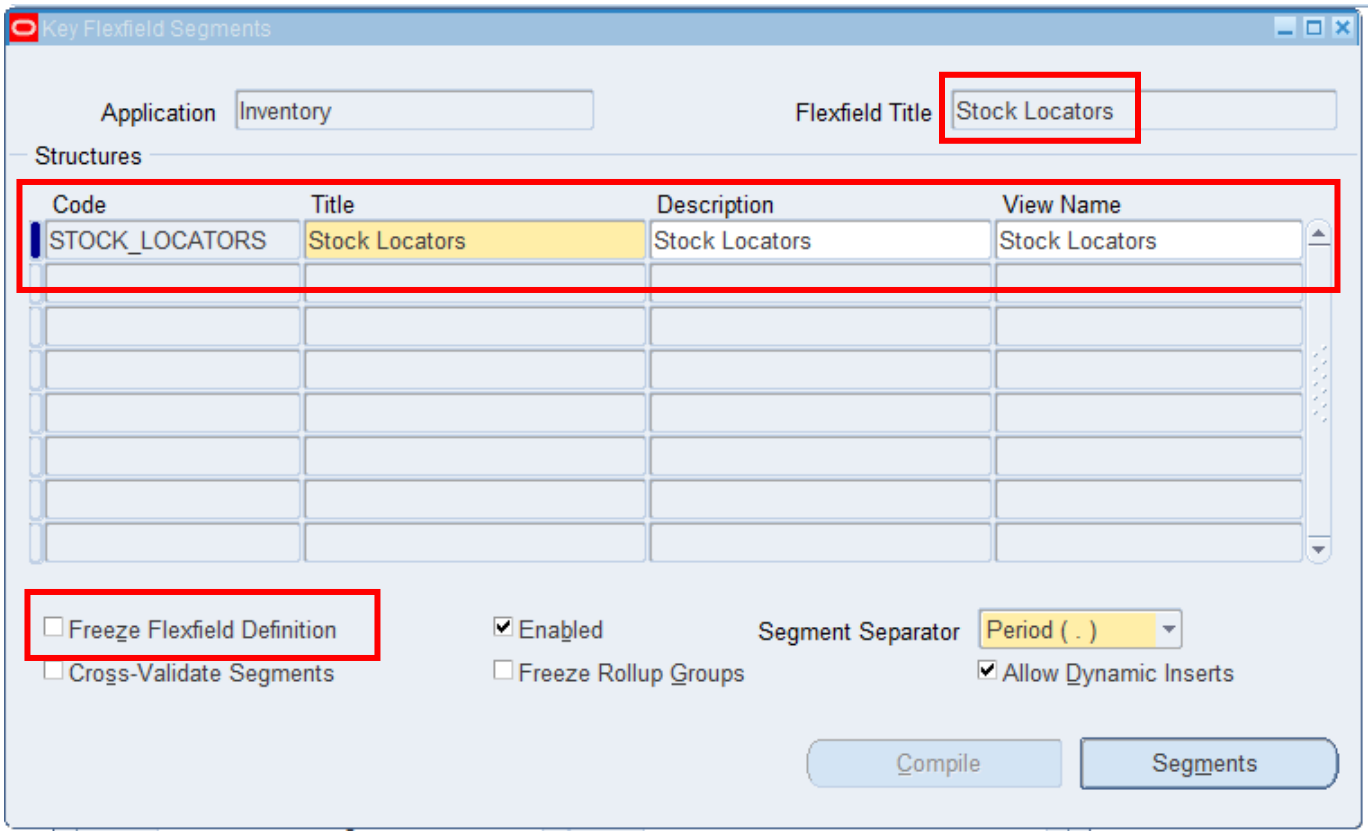



Item Status
Status
Inactive
Inactive
Description
All functions disabled
Inactive Date
[ ]
Value
Usage
BOM Allowed
Default control
Build in WIP
Default control
Customer Orders Enabled
Default control
Internal Orders Enabled
Default control
Invoice Enabled
Default control
Process Execution Enabled
Default control
Purchasable
Default control
Recipe Enabled
Default control
Stockable
Default control
Transactable
Default control

Section	Task	Purpose	Key Steps
C. Flexfields & Master Data Setup	10. Define Stock Locator Key Flexfield	Enable detailed tracking of inventory.	- Design a locator hierarchy matching the facility layout.

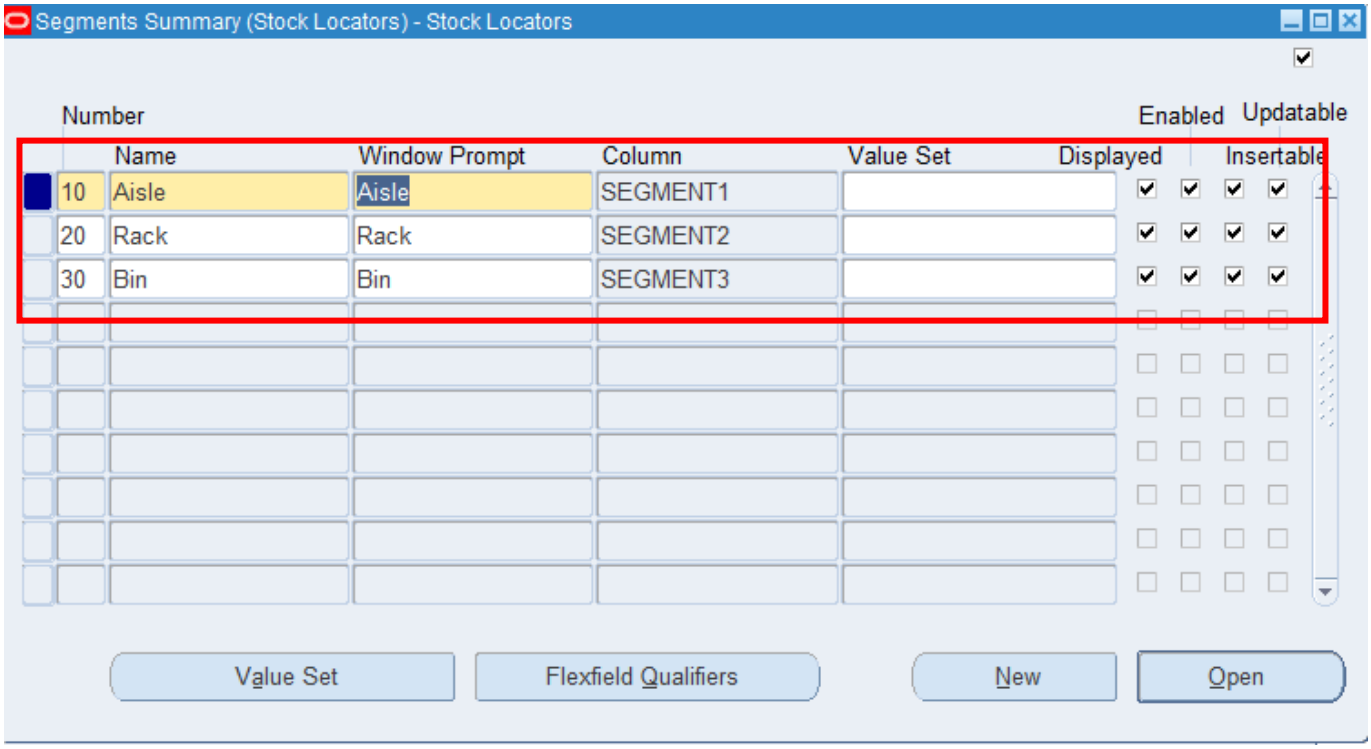
Firstly, define Stock Locator Key Flexfield segments**:**

1. Navigate to **Inventory > Setup > Flexfields > Key > Segments**.
2. Search for **"Stock Locators"** and open the definition.
3. Unfreeze the Flexfield.



4. Define segments for warehouse organization:

Segment Name	Description	Value Set Type	Example Values
Aisle	Identifies the aisle where inventory is stored	Independent	A1, A2, B1, B2, C1
Rack	Defines the rack within the aisle	Independent	R1, R2, R3, R4
Bin	Specifies the exact bin/shelf within the rack	Dependent	01, 02, 03, 04



5. Define a **Value Sets for each segment:**

   - **Value set of Aisle Segment:**

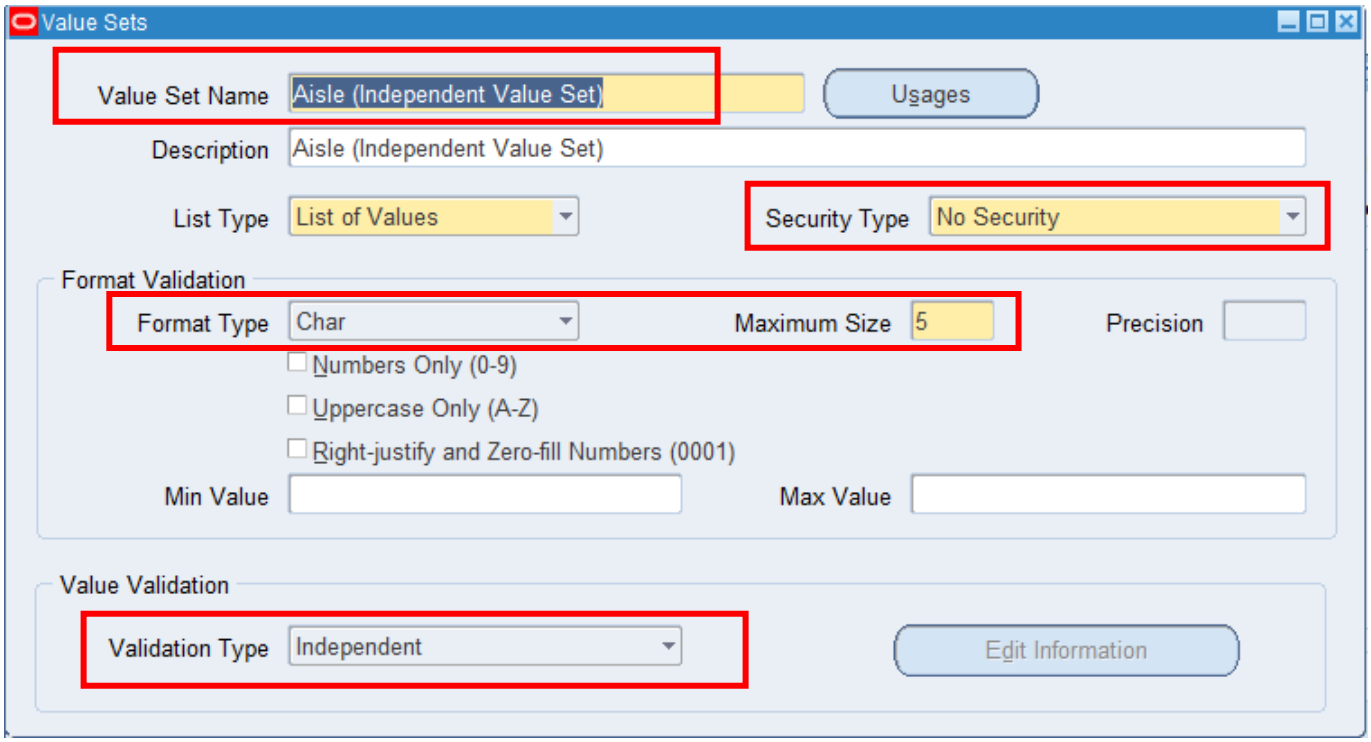


Figure: Definition of Value set for the first segment (Aisle)

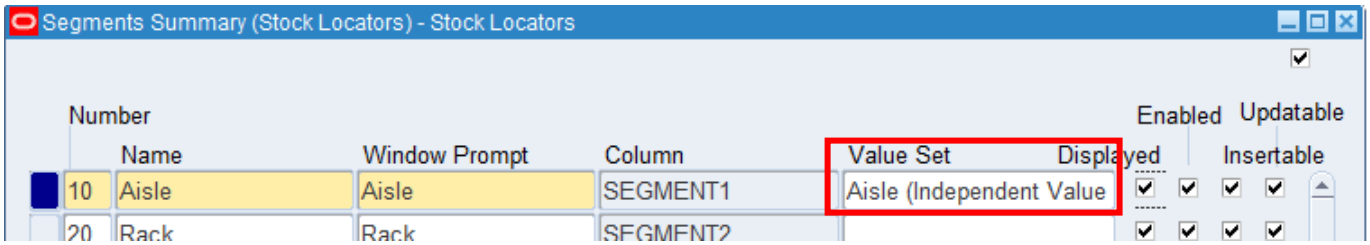


Figure: Assign the defined value set to its segment

- **Value set of Rack Segment:**

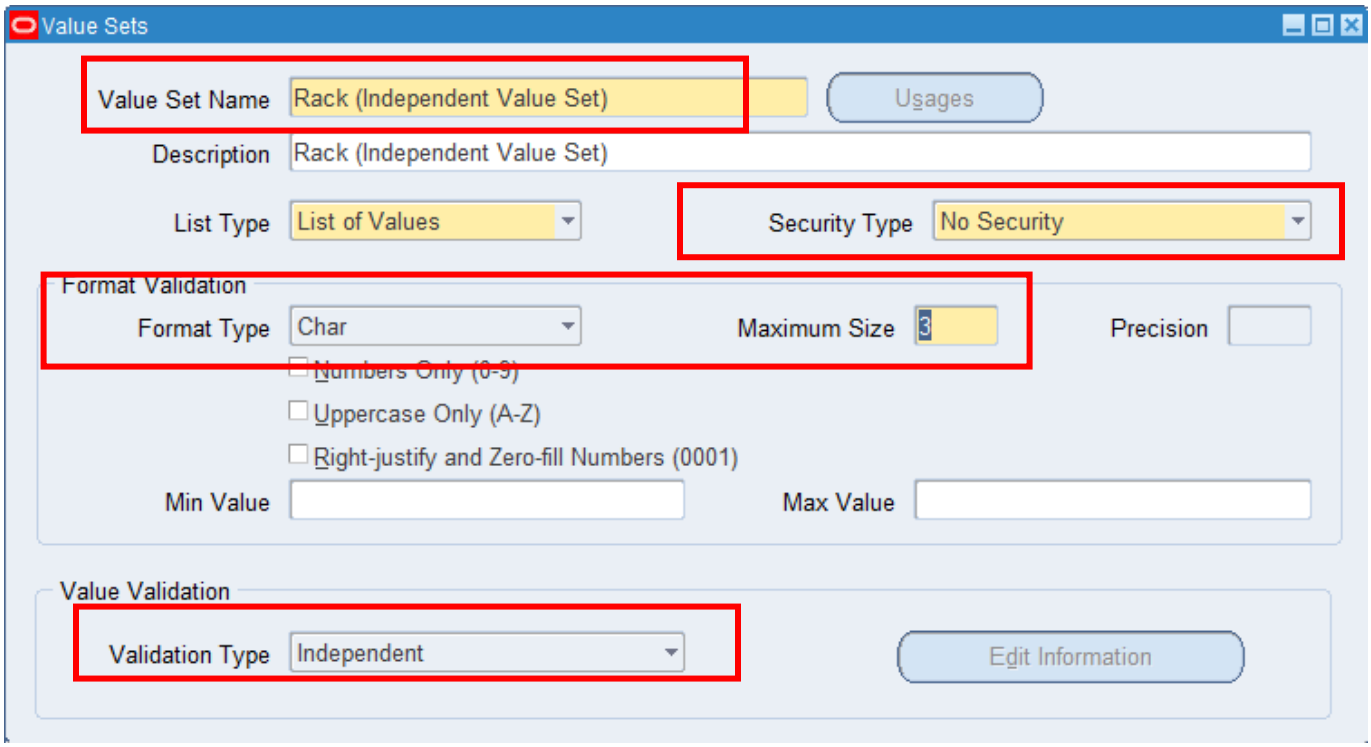


Figure: Definition of Value set for the second segment (Rack)

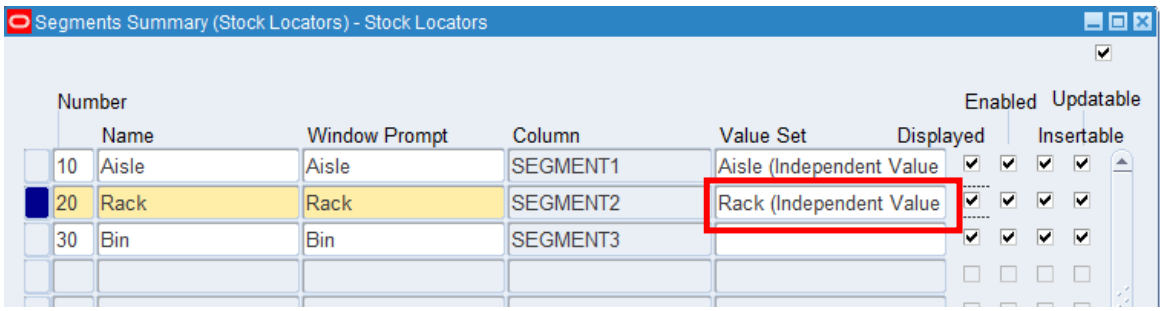


Figure: Assign the defined value set to its segment

- **Value set of Bin Segment:**

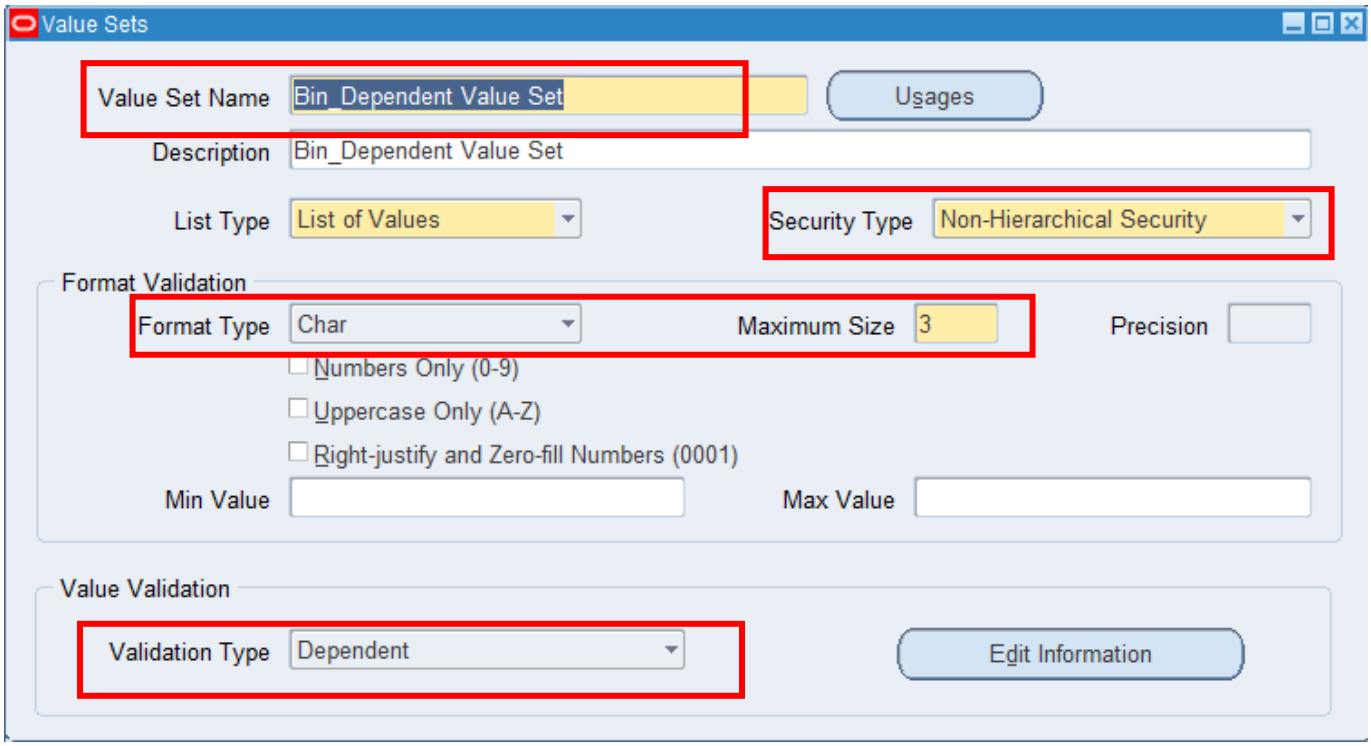


Figure: Definition of Value set for the third segment (Bin)

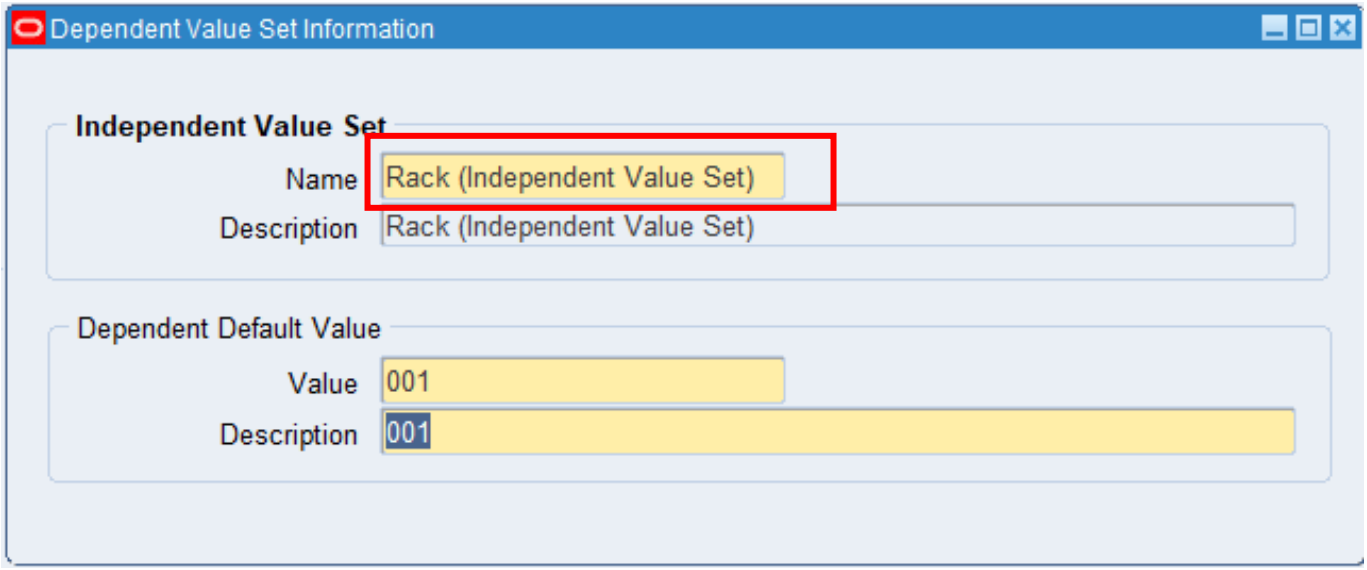


Figure: link the Bin value set to the independent value set

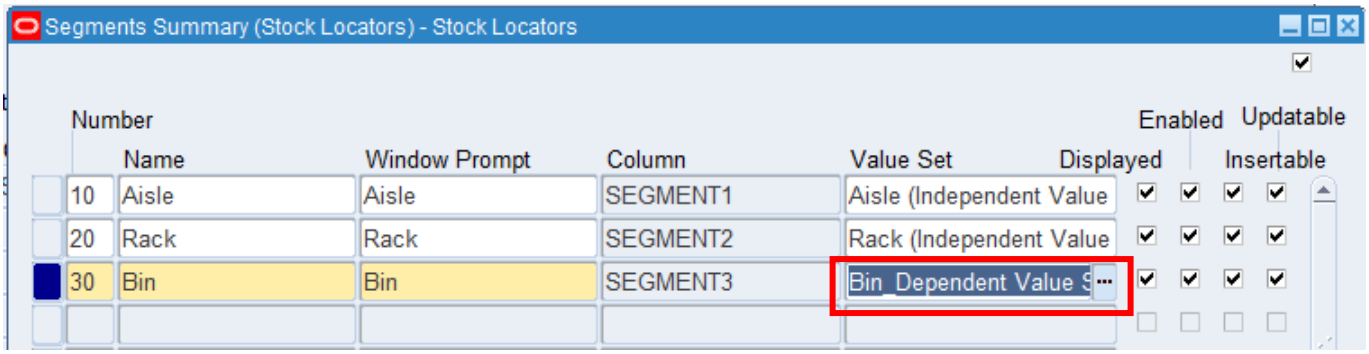


Figure: Assign the defined value set to its segment

6. Freeze and compile the flexfield.

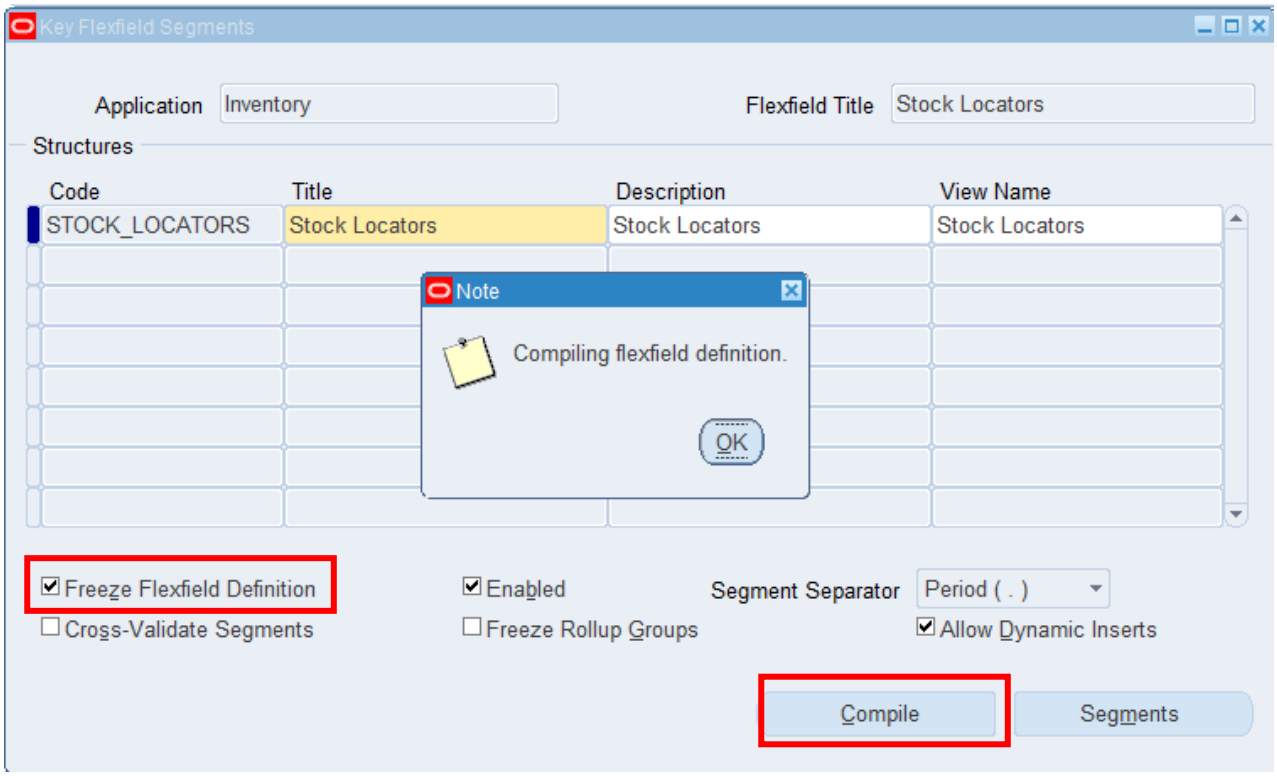


Figure: Freeze the Flexfield and Compile

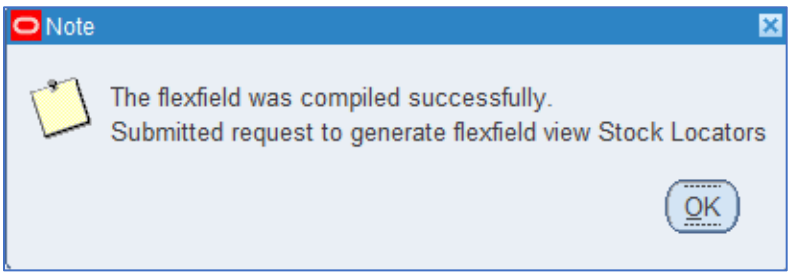


Figure: Done Successfully

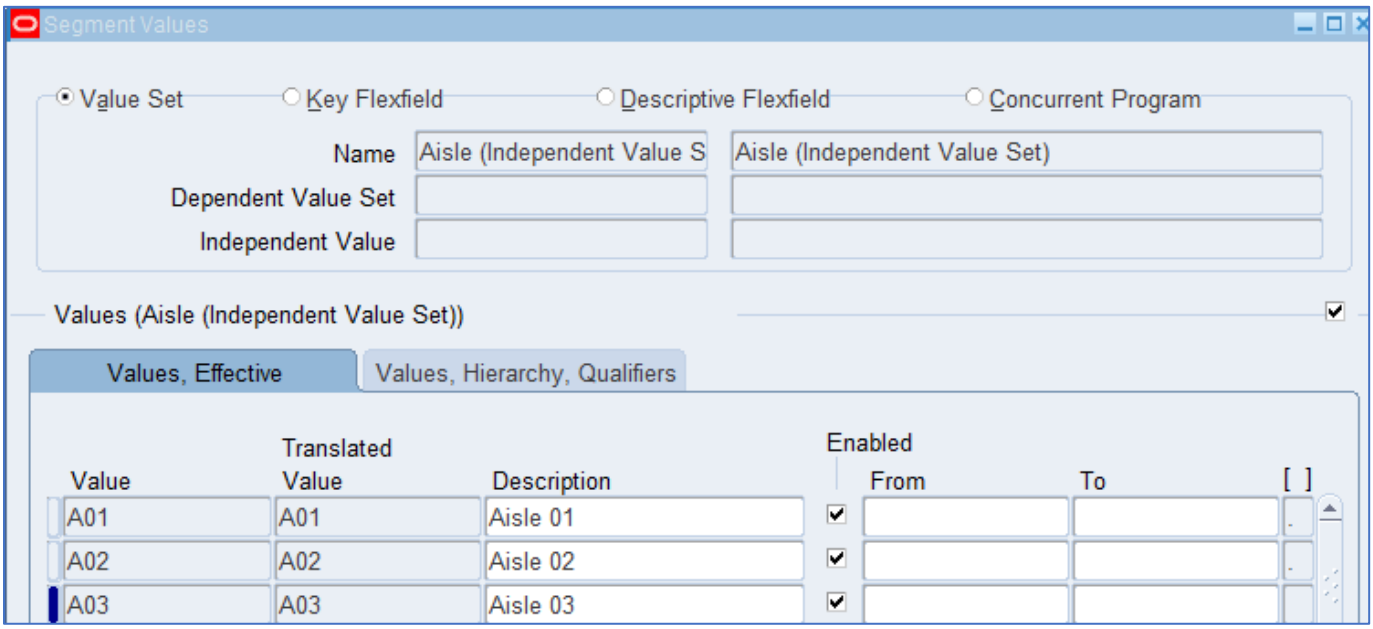
Secondly, Define Flexfield Values (For Stock Locator Key Flexfield: Aisle, Rack, Bin)

1. Define aisle values

1. Navigate to **Inventory > Setup > Flexfields > Key > Values**.
2. In the **Find Values By** field, select **Value Set**.
3. Search for the **Aisle Value Set.**
4. Click **Find** to open the value entry screen.
5. Click **New (A)** and enter the following values:

Value	Description
A01	Aisle 01
A02	Aisle 02
A03	Aisle 03

6. Click **Save (Ctrl + S)**.

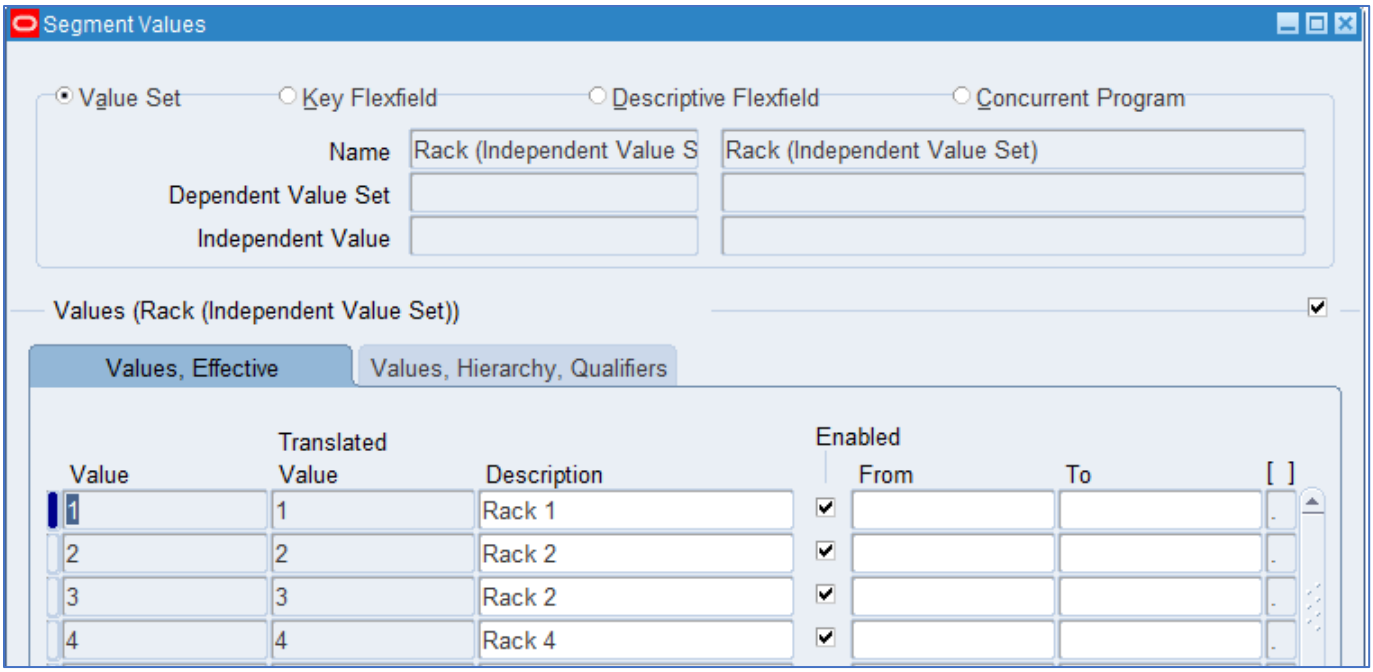


2. Define Rack Values

1. In the **Find Values By** field, search for **Rack Value Set**.
2. Click **Find**.
3. Click **New (A)** and enter the following values:

Value	Description
1	Rack 01
2	Rack 02
3	Rack 03
4	Rack 04

4. Click **Save (Ctrl + S)**.

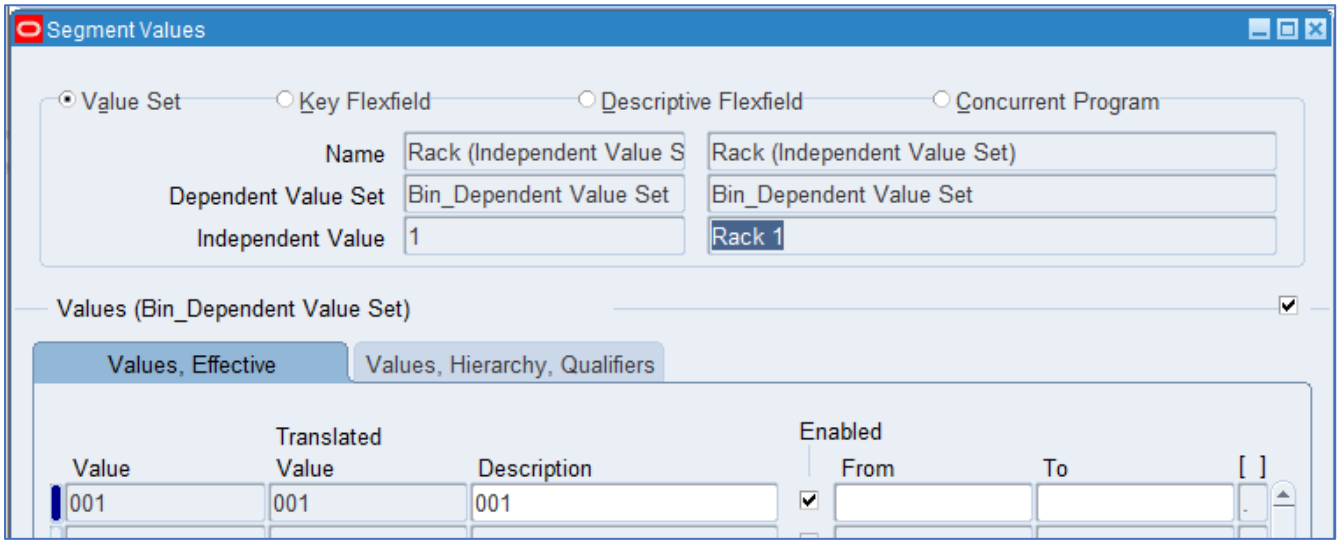


3. Define Bin Values

1. In the **Find Values By** field, search for **Bin Value Set**.
2. Click **Find**.
3. Click **New (A)** and enter the following values:

Value	Description	Parent Value (Rack)
001	001	Rack 1

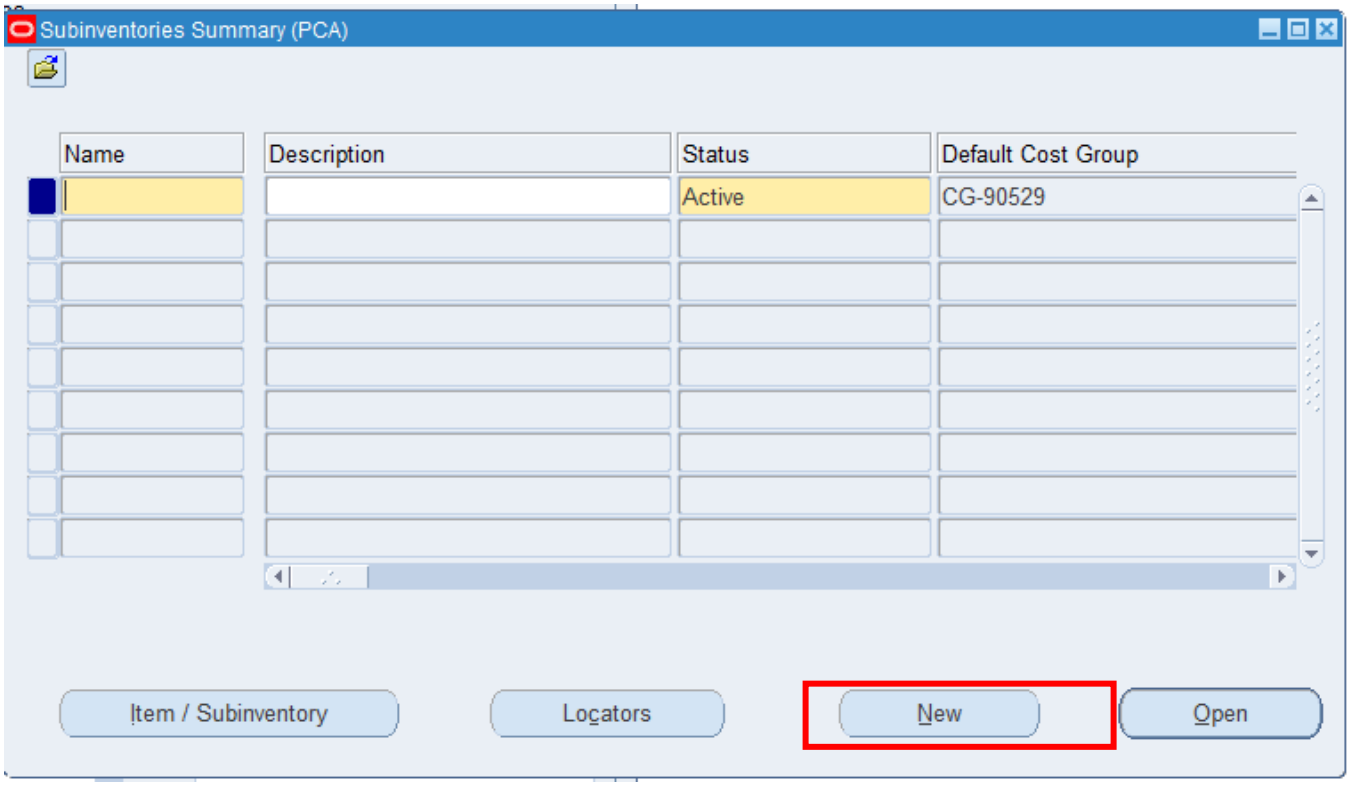
4. Click **Save (Ctrl + S)**.



Section	Task	Purpose	Key Steps
D. Subinventory & Locator Design	11. Define Subinventories	Create storage areas within an inventory organization.	- Create subinventories with unique names. - Configure locator control options.

Let's Define Sub-inventories Within T3 Inv. Org:

1. Navigate to **Inventory > Setup > Organizations > Subinventories.**
2. Subinventories summary window popups. Click on **New** to define the warehouses.



3. Create the following subinventories under **T3 Inv Org:**
   - **Main Warehouse** (Subinventory ID: MW)
   - **Receiving Area** (Subinventory ID: RA)
   - **Stage Area** (Subinventory ID: SA)
   - **Moving Vehicle 1 (**Subinventory ID: MV1**)**
   - **Moving Vehicle 2 (**Subinventory ID: MV2**)**
   - **Moving Vehicle 3 (**Subinventory ID: MV3**)**

For each Subinventory:- Enter the required data

4. Save each subinventory.

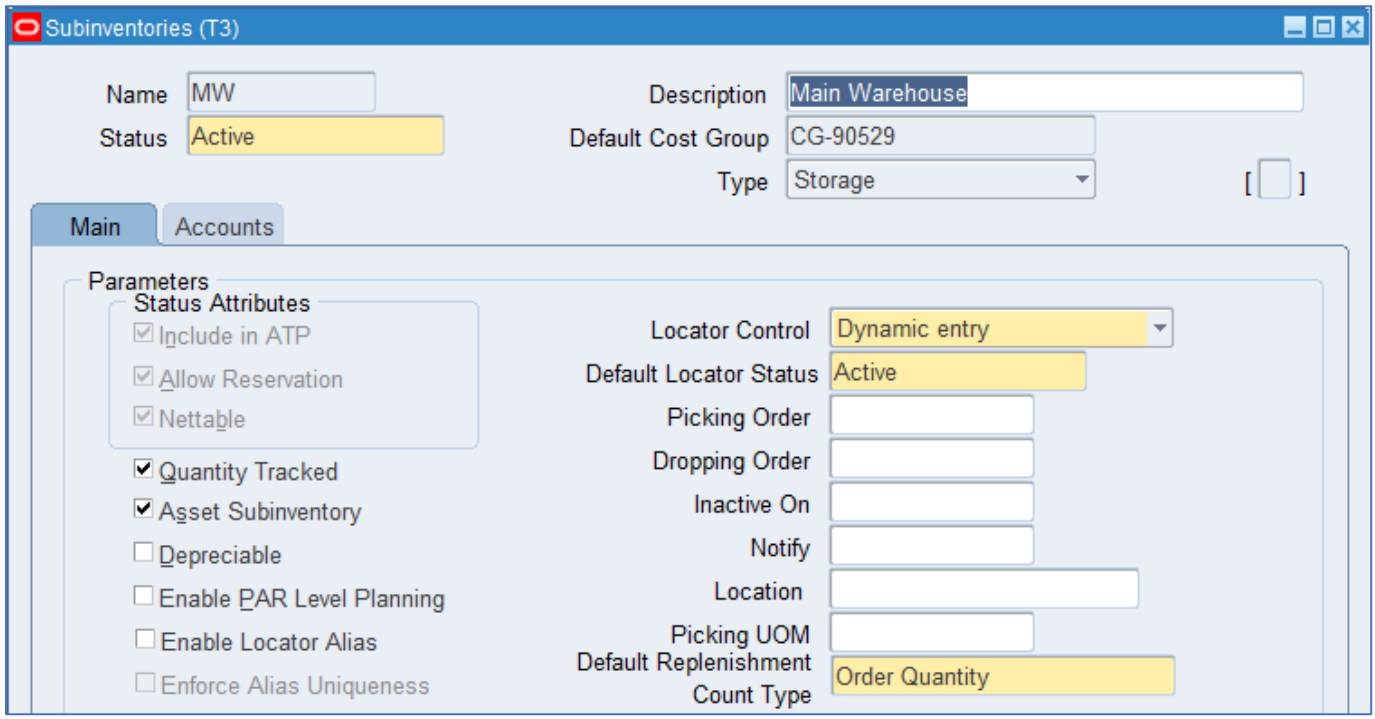


Figure: ***Main Warehouse*** *Setup*

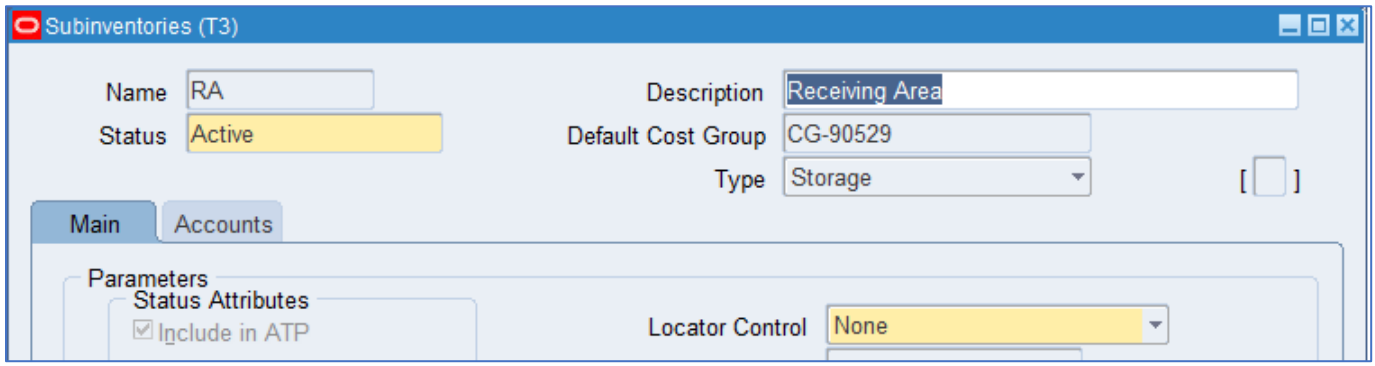


Figure: ***Receiving Area*** *Setup*

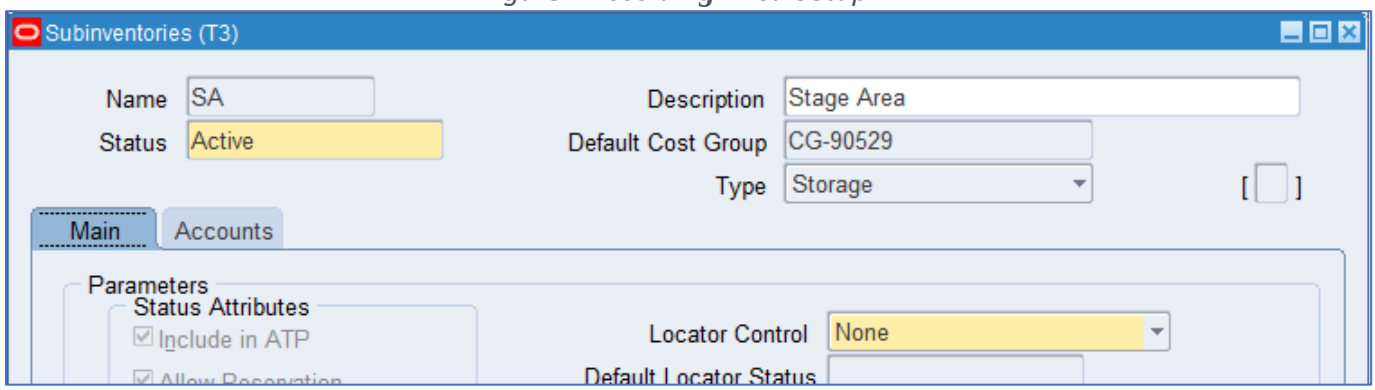


Figure: ***Stage Area*** *Setup*

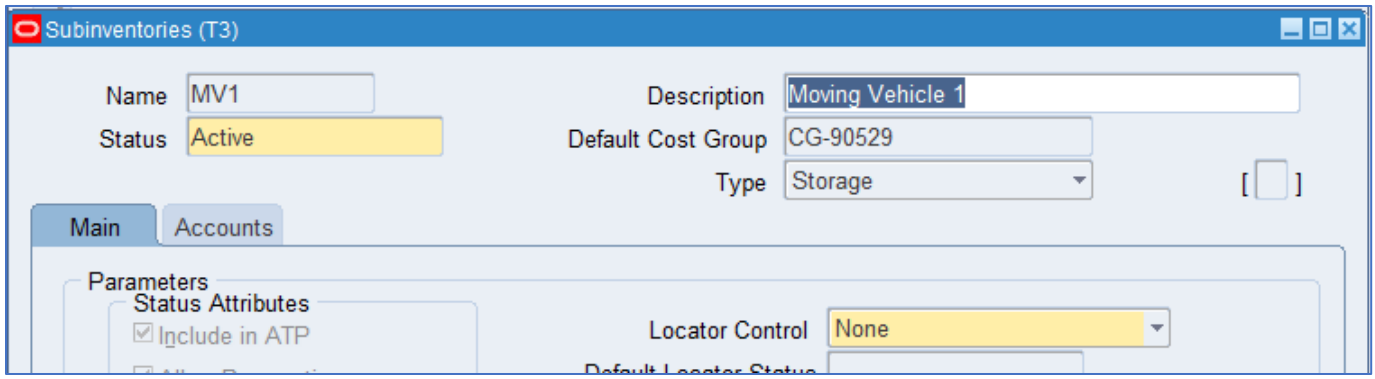


Figure: ***Moving Vehicle 1*** *Setup*

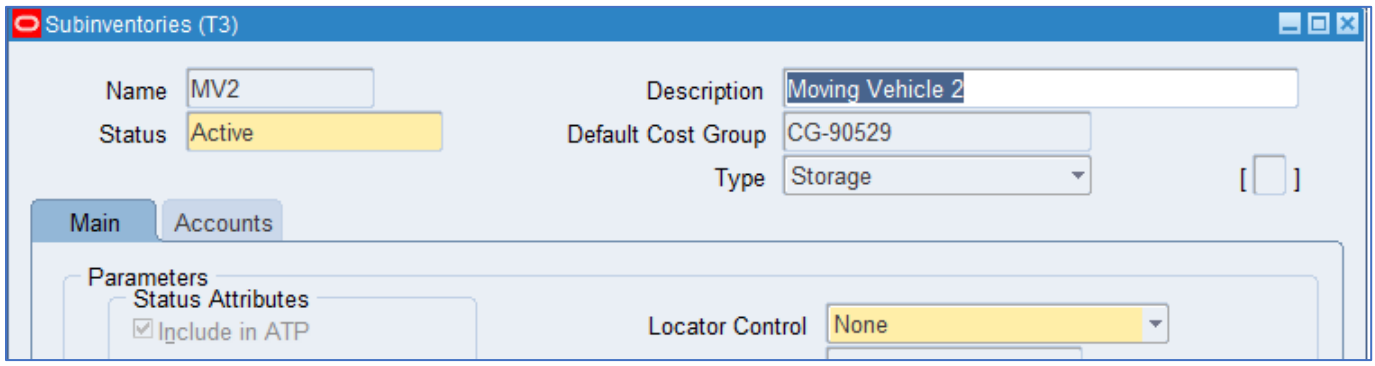


Figure: ***Moving Vehicle 2*** *Setup*

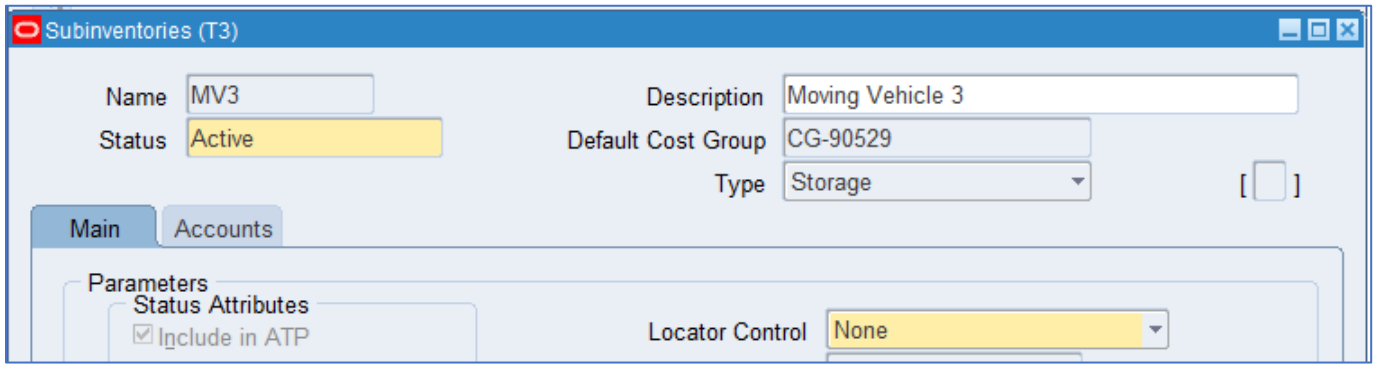


Figure: ***Moving Vehicle 3*** *Setup*

Section	Task	Purpose	Key Steps
D. Subinventory & Locator Design	12. Define Stock Locators	Enable detailed tracking of inventory.	- Assign locators to appropriate subinventories.

Let's define Stock Locators combinations at the main warehouse:

1. Navigate to **Inventory > Setup > Organizations > Stock Locators**.
2. Try to create a **New** Stock Locator using the defined **Aisle, Rack, and Bin values**.
3. Ensure that the **values appear in the dropdown lists** correctly.
4. Save the new locator and verify successful creation.

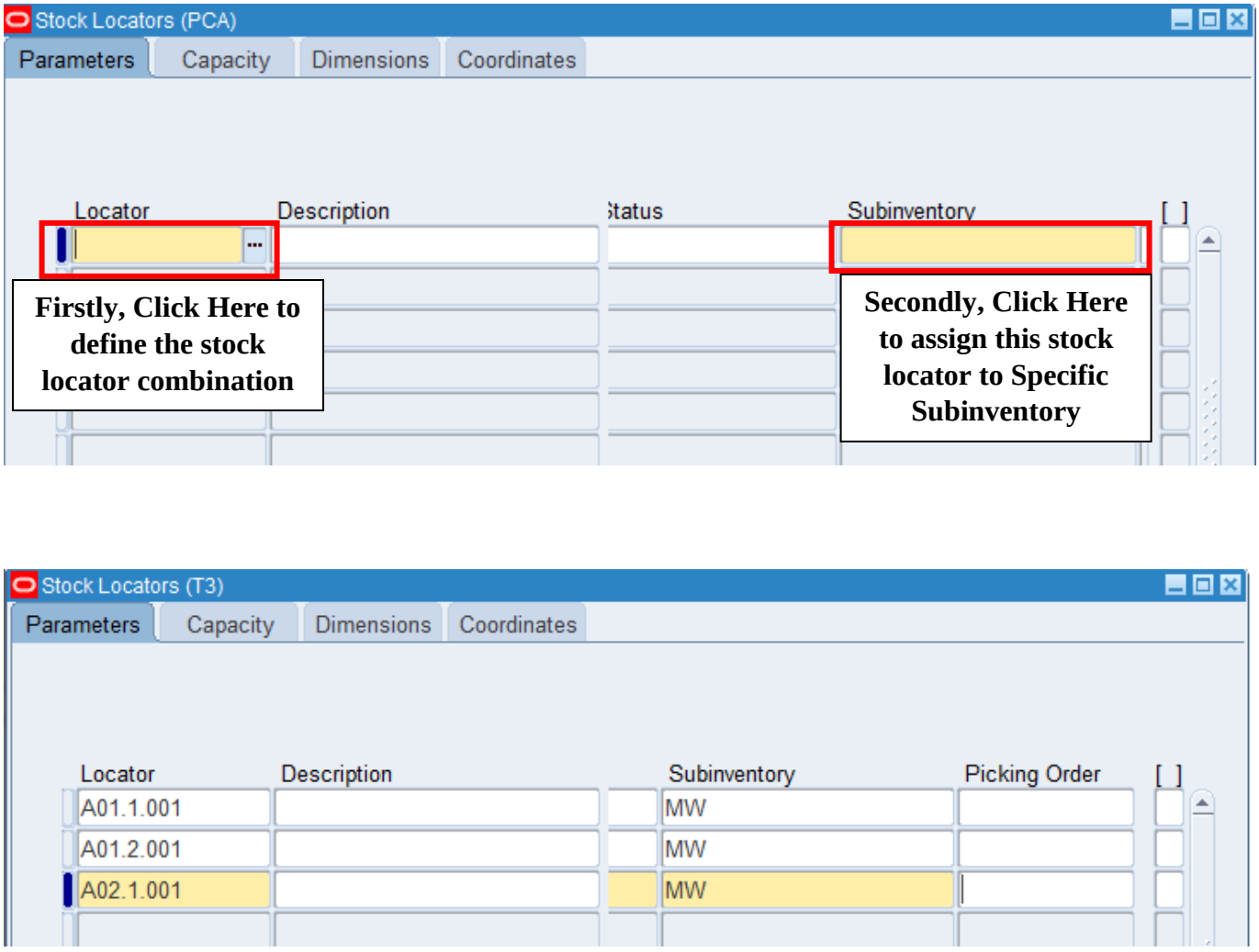
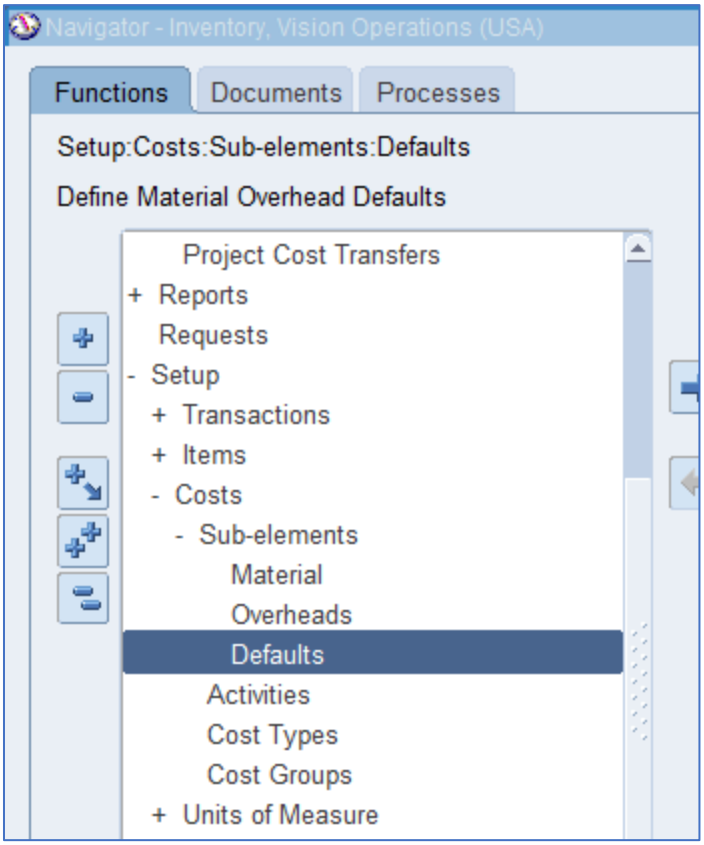


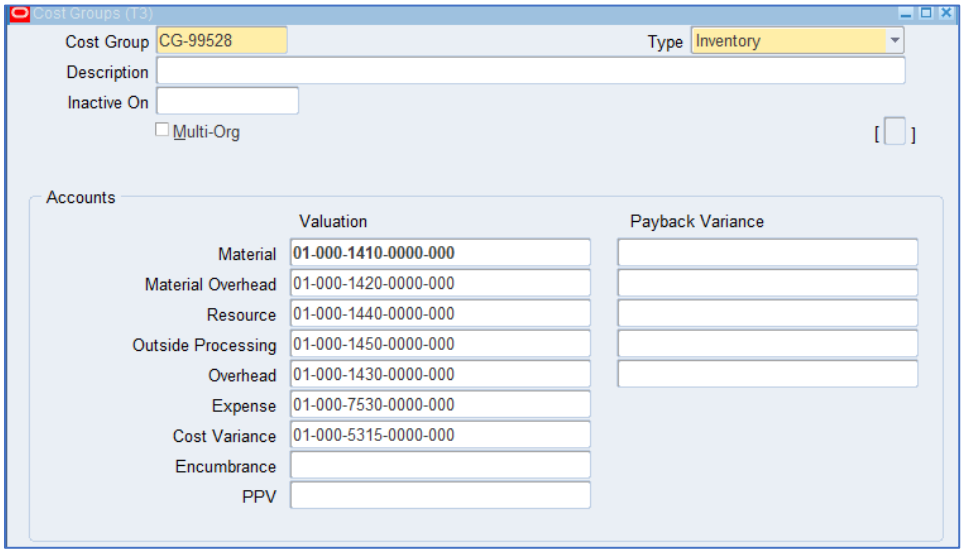
Figure: *Stock Locator Combination Successfully defined*

Section	Task	Purpose	Key Steps
E. Costing & Accounting Setup	13. Define Cost Types and Elements.	Establish how item costs are tracked and updated.	- Create and configure cost types and Elements. - Assign cost types to inventory organizations and populate initial item costs.

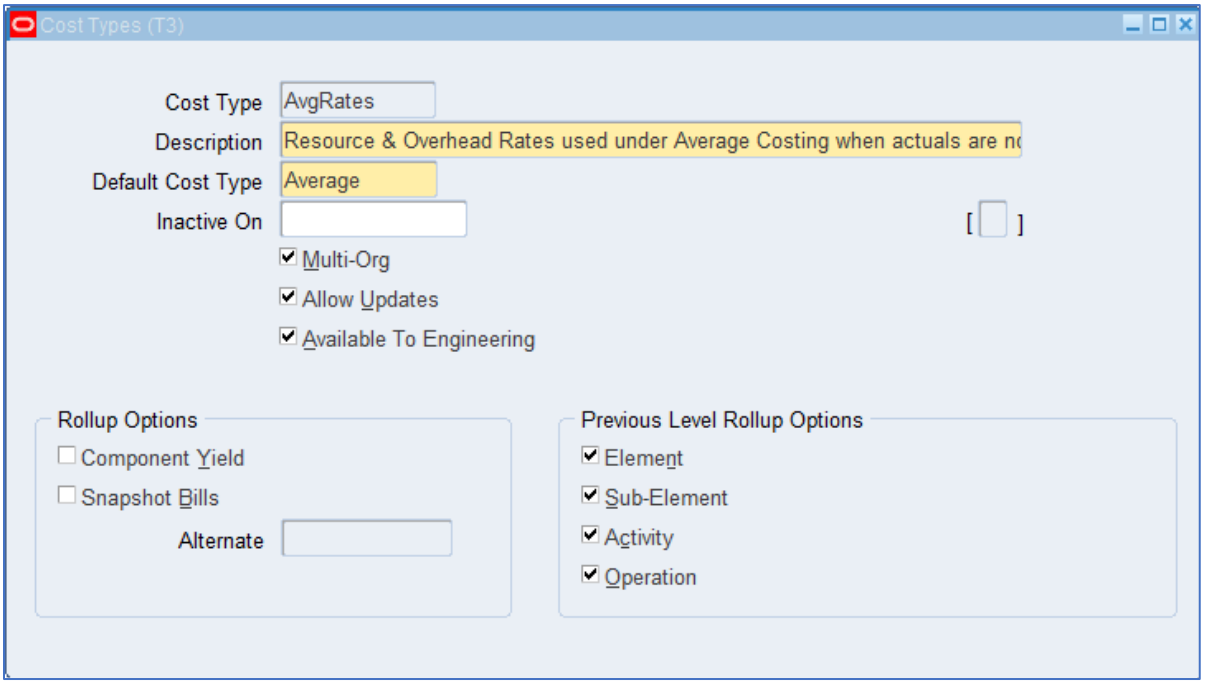
- *Navigation path*: Inventory Responsibility – Setup – Costs Menu



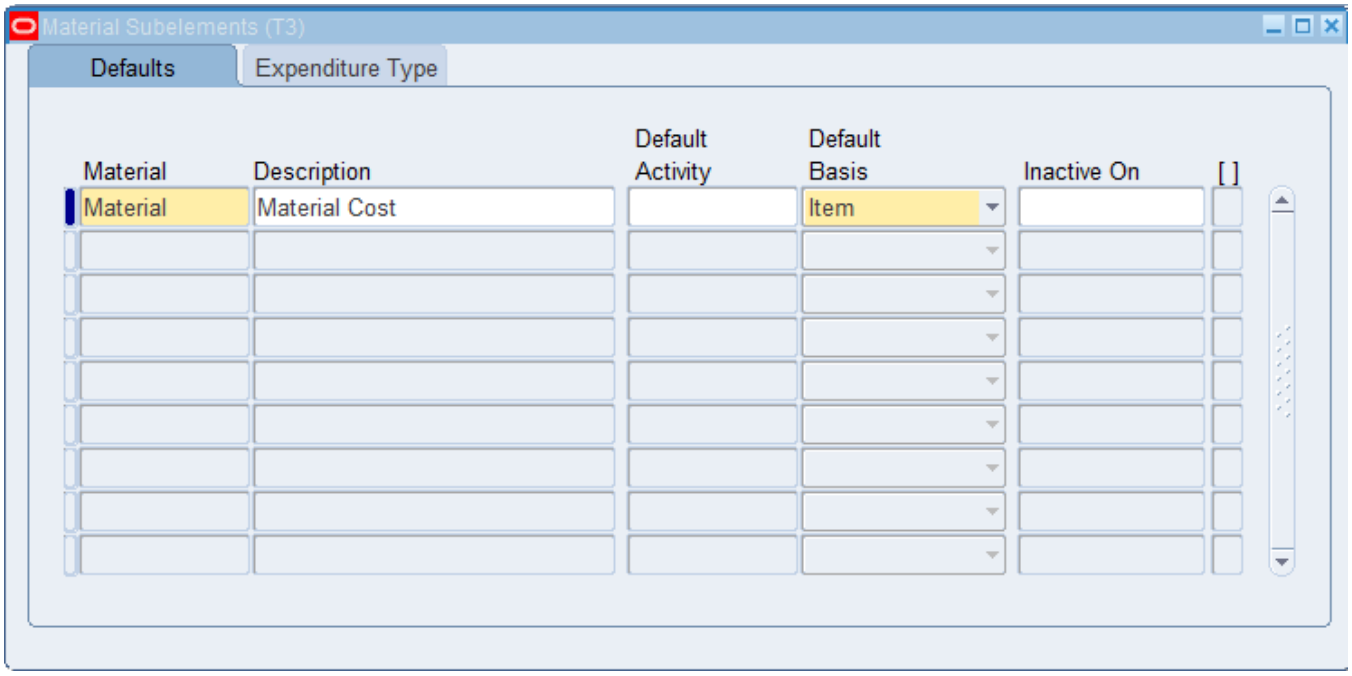
- Review Cost Group valuation accounts: CG-99528



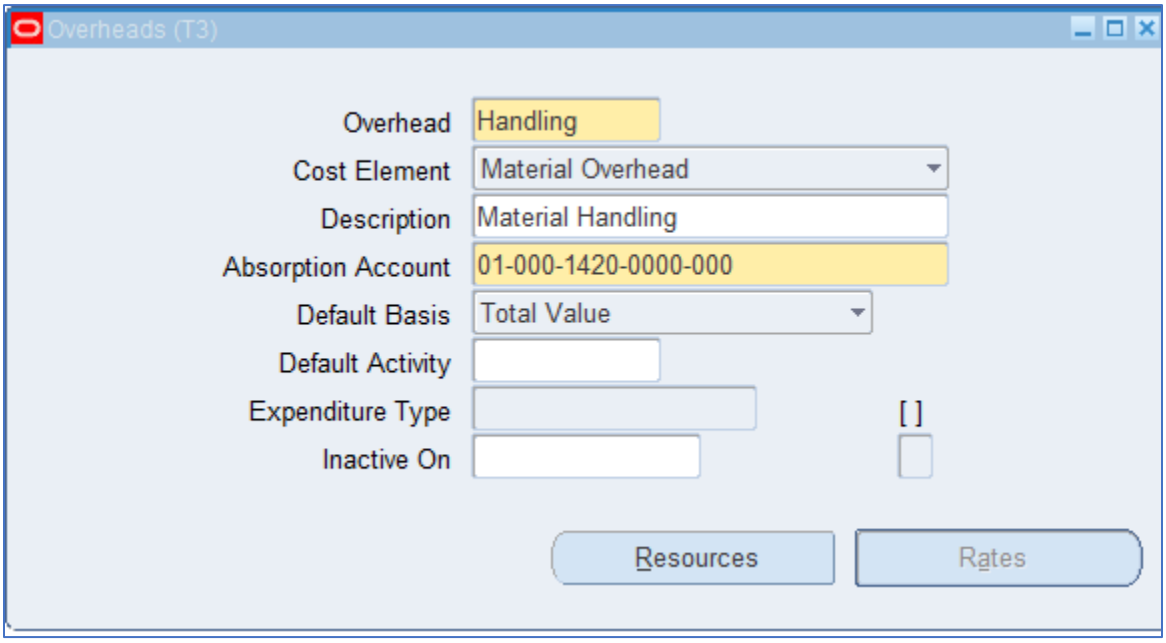
- Review Predefined Cost Type: **AvgRates**



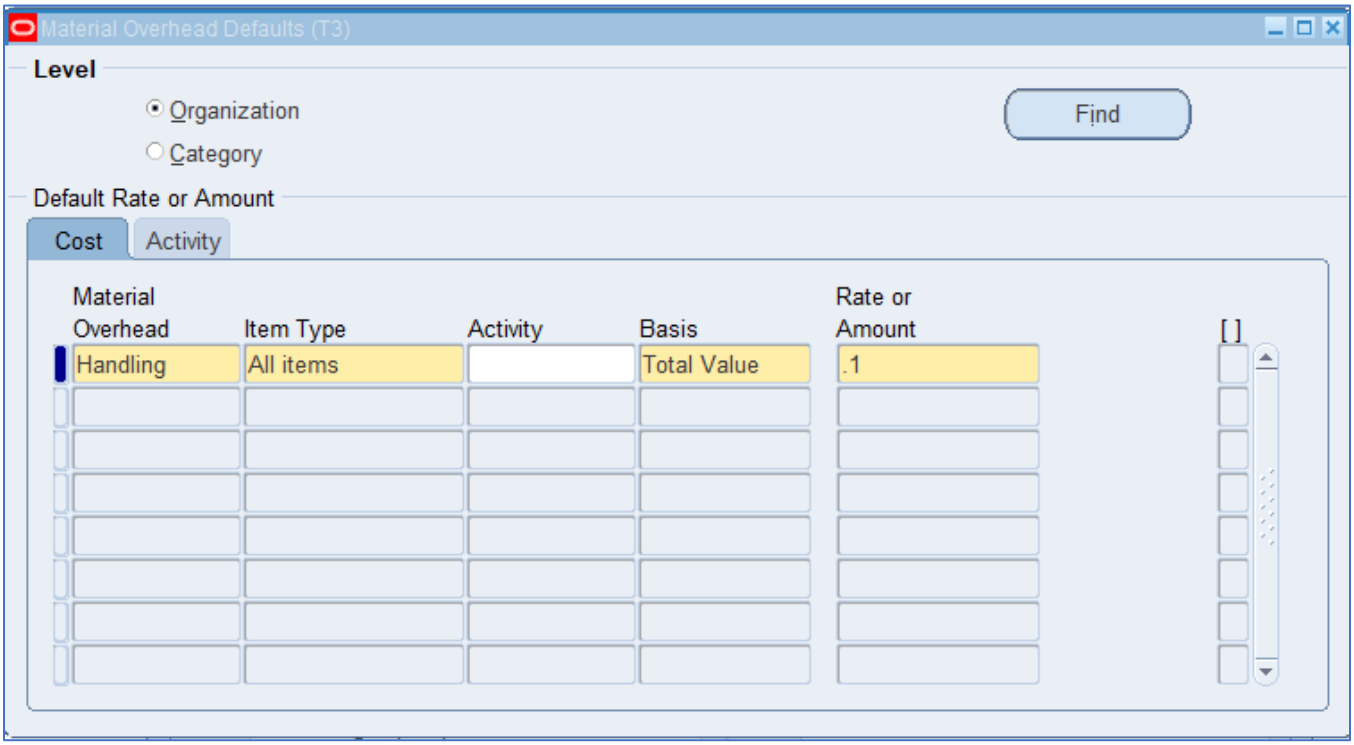
- Define Material Cost Sub-Element:



- Define Material Overhead Cost Sub-Element:

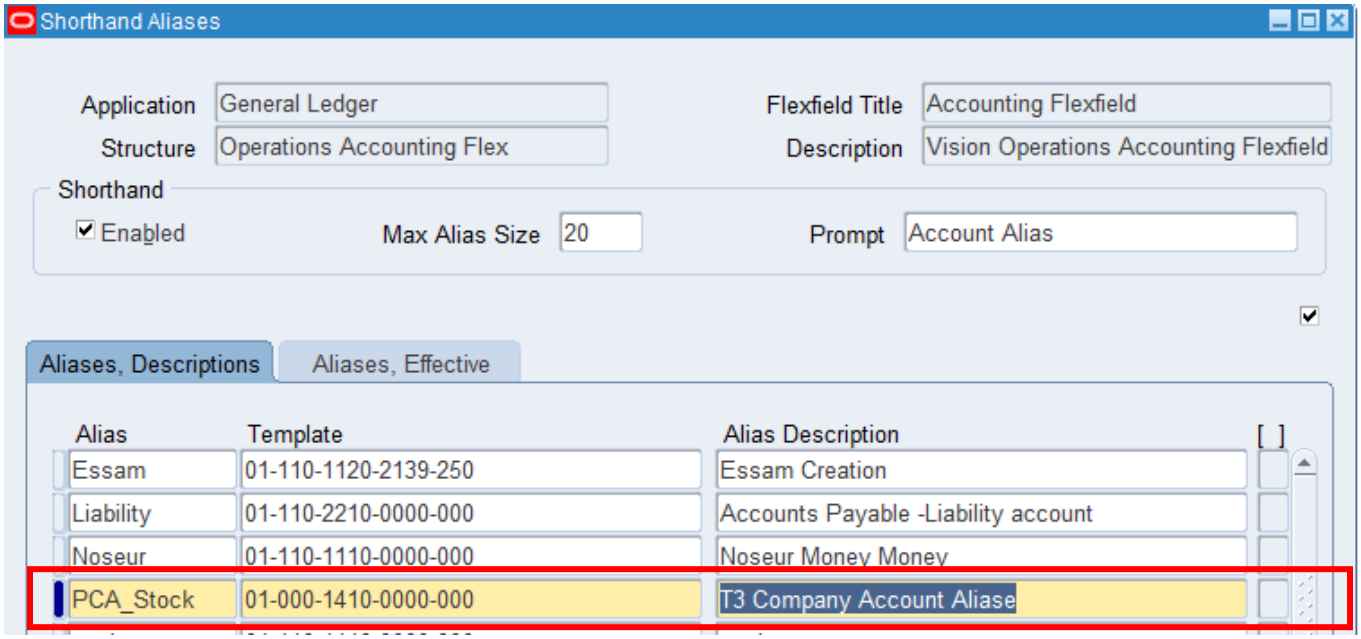


- Define material overhead default rate at the organization level:



Section	Task	Purpose	Key Steps
E. Costing & Accounting Setup	14. Define Account Aliases	to facilitate transactions mapping to proper accounts	-Define a new Shorthand Aliase

- Go to **Navigation Path:** Inventory > Setup > Flexfields > Key > Aliase.
- Search for *Flexfield***:** 'Operations Accounting Flex'. Then, Select it.
- Add a new Shorthand Aliase named "PCA_Stock".

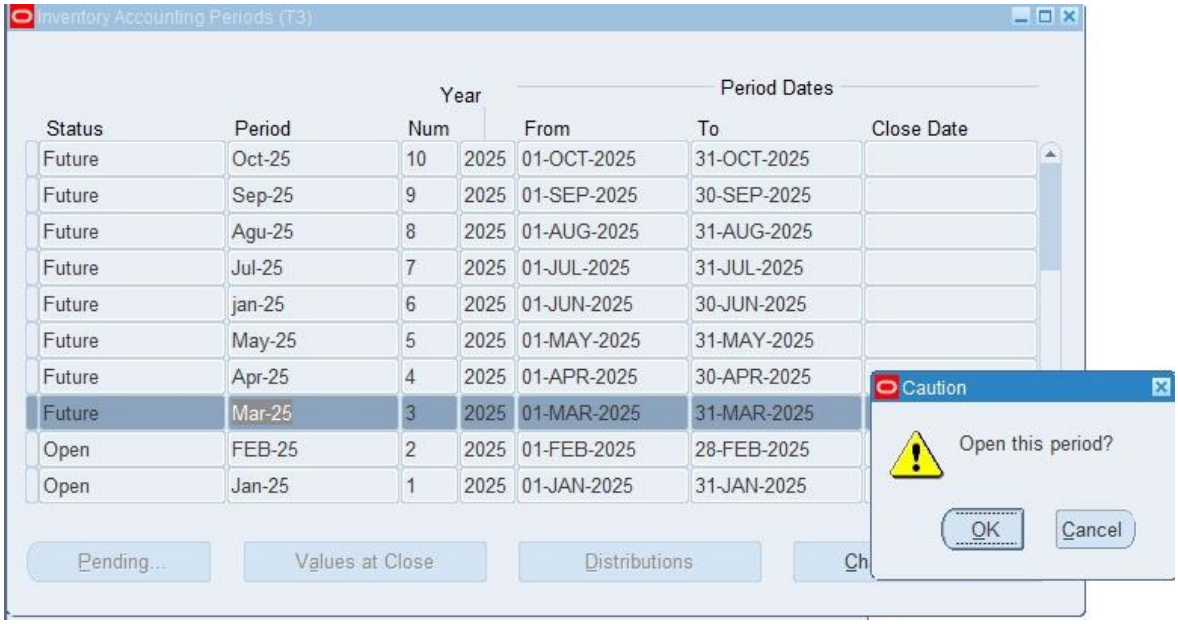


Section	Task	Purpose	Key Steps
E. Costing & Accounting Setup	15. Open Accounting Periods	Allow transactions to be posted within valid periods.	- Open required periods in Inventory. - Close periods post-reconciliation.

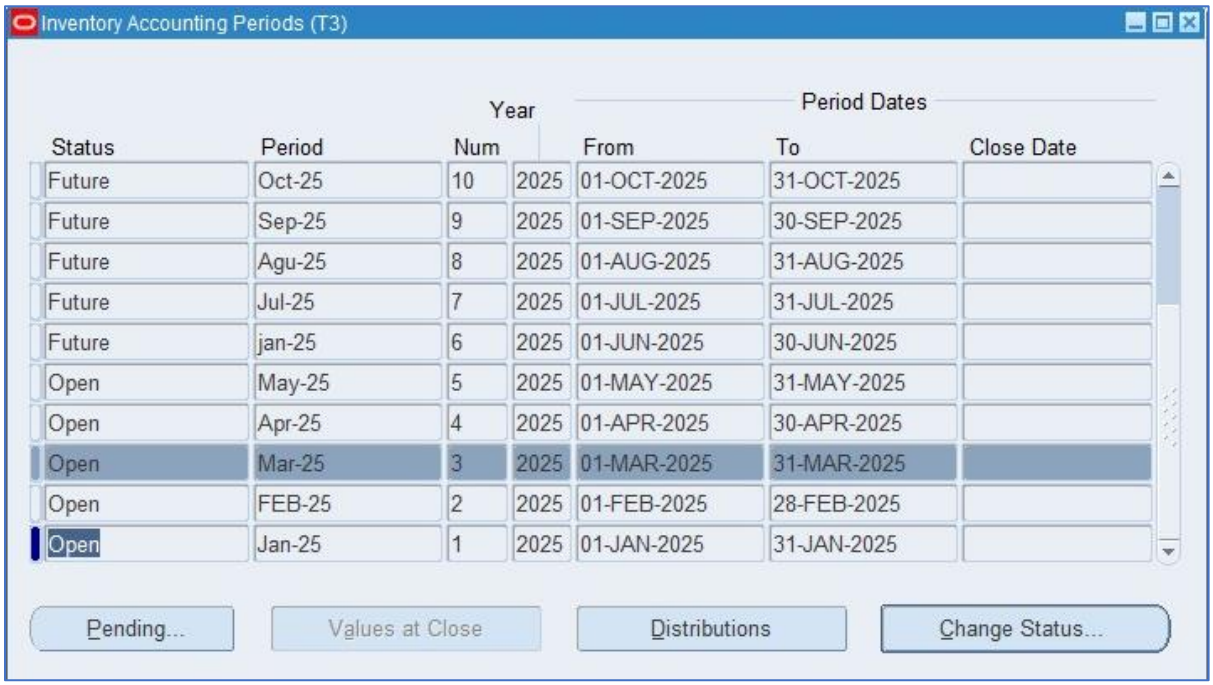
Step 1: Navigate to: ***Inventory Responsibility*** *→* ***Accounting Close Cycle*** *→* ***Inventory Accounting Periods***

Step 2: Check Period Status up to May-2025

Step 3: Open the Period



Step 4: Verify & Save Changes



Section	Task	Purpose	Key Steps
F. Custom Transaction Handling & Source-Specific Customizations	16. Configure Custom Transaction Types & Implement Custom Validations	-Enforce business rules based on warehouse operations. -Prevent invalid item issues.	- Create custom transaction types. - Configure rules to regulate inventory transactions and ensure stock accuracy.

1. Business Requirements

T3's current inventory management processes require control in the following key areas:

- Restriction of Specific Transactions: The ability to restrict certain transaction types based on the specific inventory function being performed. For example, limiting the use of physical count adjustments, donations, sample issues, and temporary transactions to authorized personnel and specific scenarios.
- Control of Internal Stock Movement: Improved control over internal stock movements within the Main Warehouse, specifically between its locators. This includes validation of locators and restricting access to authorized users.
- Approval-Based Inventory Transactions: Implementation of approval workflows for specific inventory transactions, such as subinventory transfers, to ensure proper authorization and audit trails. This necessitates the ability to validate source documents related to these transactions.

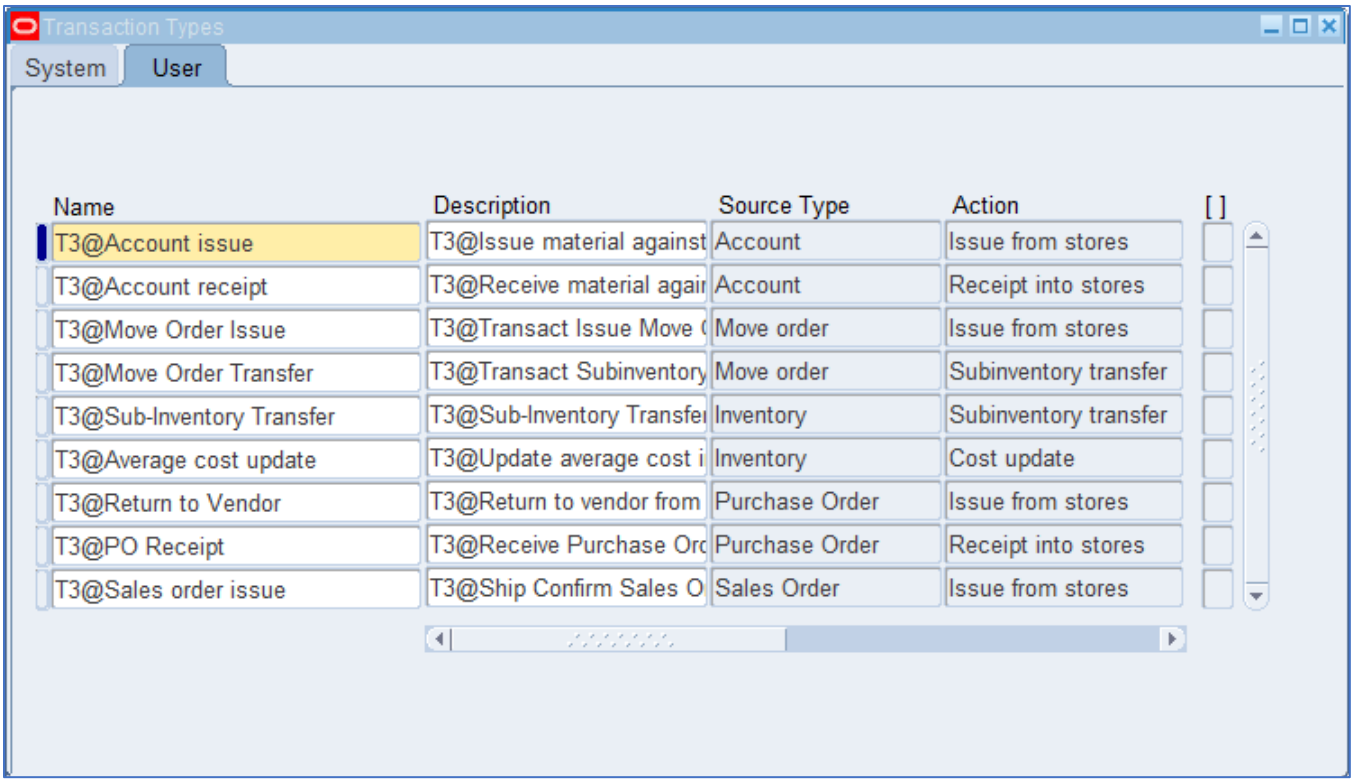
2. Proposed Solution: Implementing Custom Transaction Types and Material Status Control

To address these requirements, we propose the following solution within Oracle EBS R12:

- **Custom Transaction Type Definitions**: We will define custom transaction types tailored to specific inventory processes. This will provide a clear categorization and control point for each type of transaction.
    - The following custom transaction types will be created:

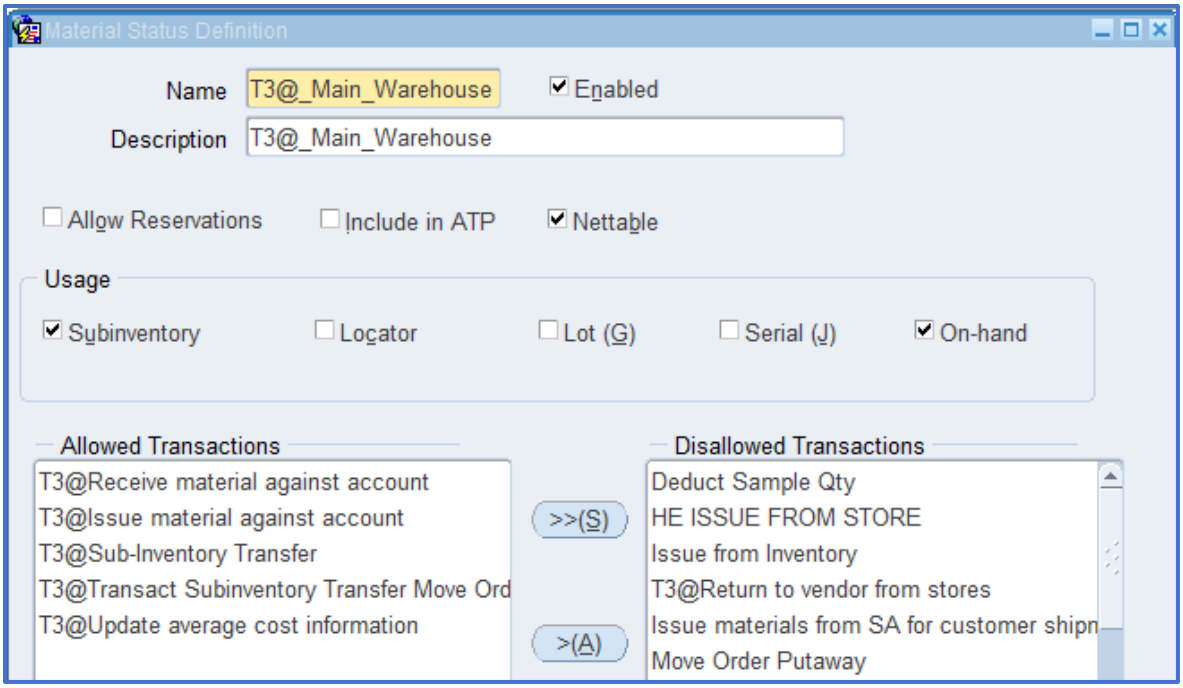
Transaction Type	Description	Source Type	Action
T3@Return to Vendor	For returns to vendors from stores	Purchase order	Issue from stores
T3@PO Receipt	For receiving purchase orders into stores	Purchase order	Receipt into stores
T3@Account issue	For issuing material against an account	Account	Issue from stores
T3@Account receipt	For receiving material against an account	Account	Receipt into stores
T3@Sales order issue	For ship confirming sales orders	Sales order	Issue from stores
T3@Move Order Issue	For transacting issue move orders	Move order	Issue from stores
T3@Move Order Transfer	For transacting subinventory transfer move orders	Move order	Subinventory transfer
T3@Sub-Inventory Transfer	For general sub-inventory transfers	Inventory	Subinventory transfer
T3@Average cost update	For updating average cost information	Inventory	Cost update

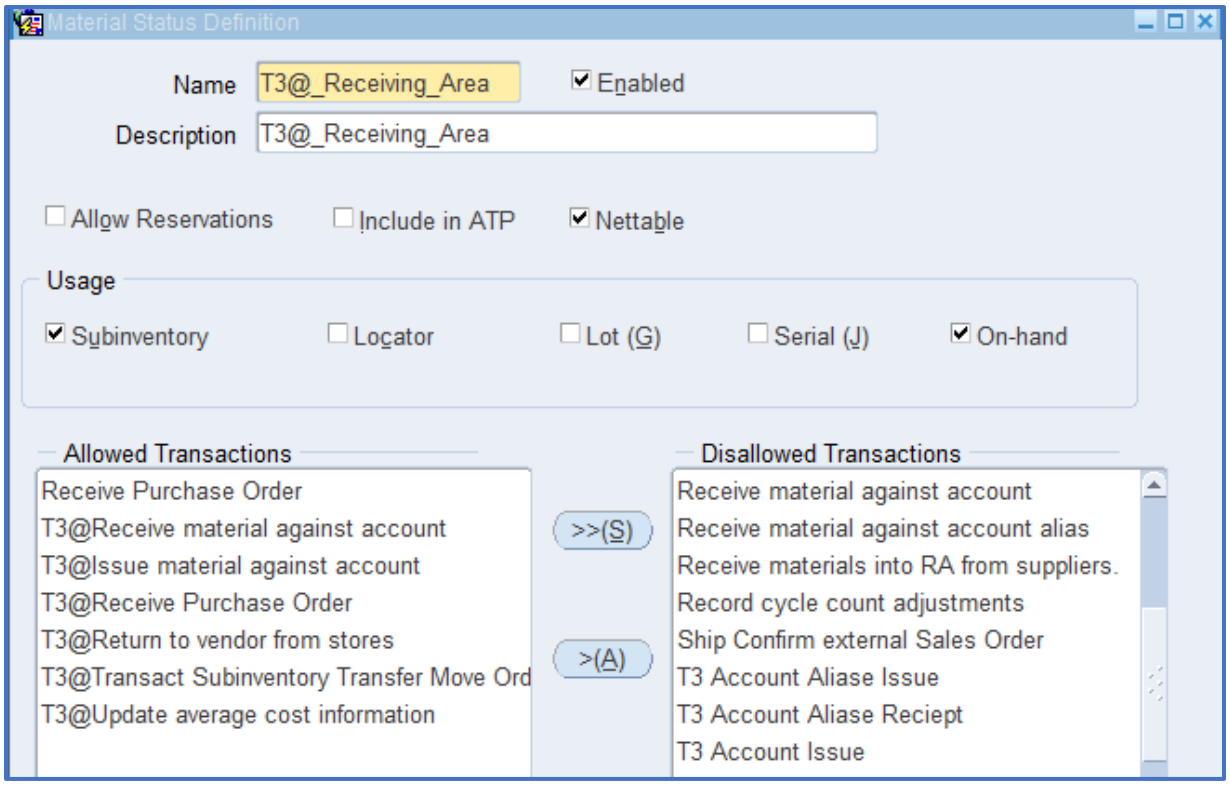
1. Navigate to: Inventory → Setup → Transactions → Source Types.
2. Select User Tab.
3. Insert new record.
4. Define new Transaction Types as following:

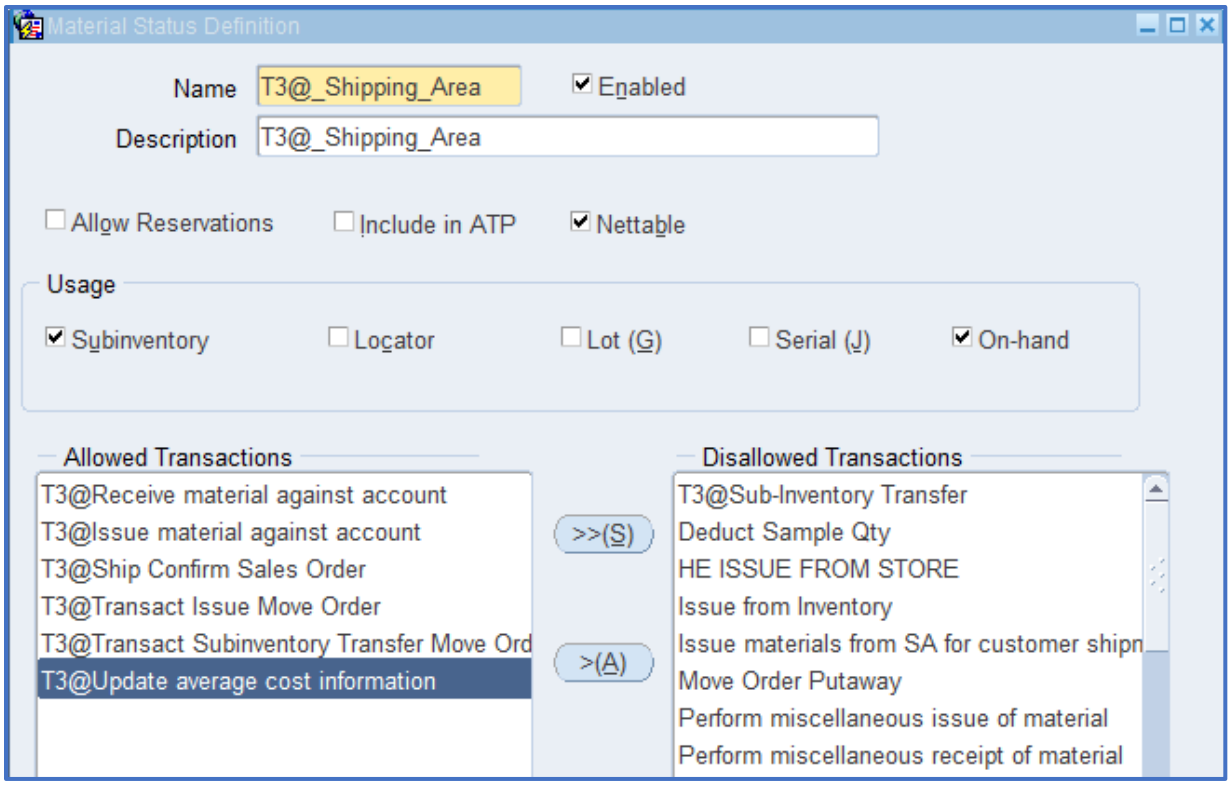


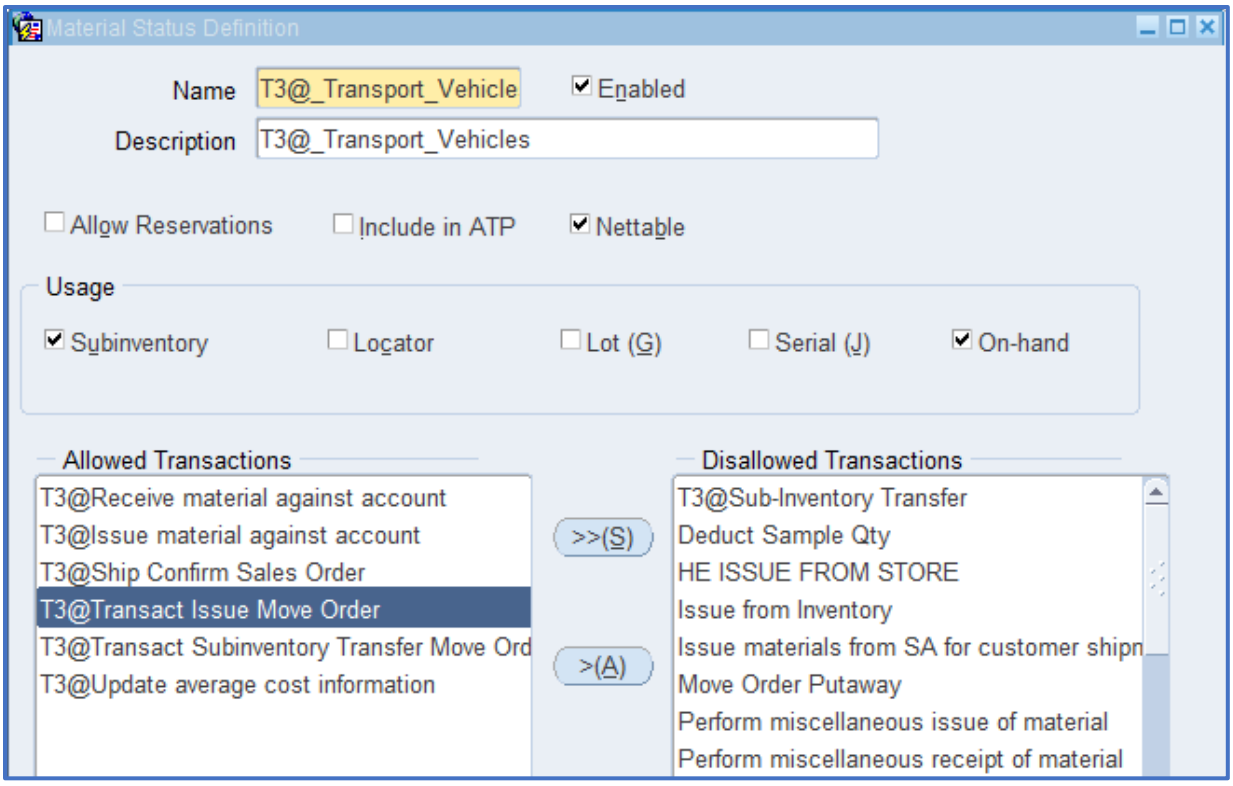
5. Save**.**

- **Material Status Implementation**: We will implement material status control to restrict specific transaction types on designated subinventories.
  - Define Material Statuses:
    - Navigate to Inventory → Setup → Transactions → Material Status.
    - Define new material status as following:

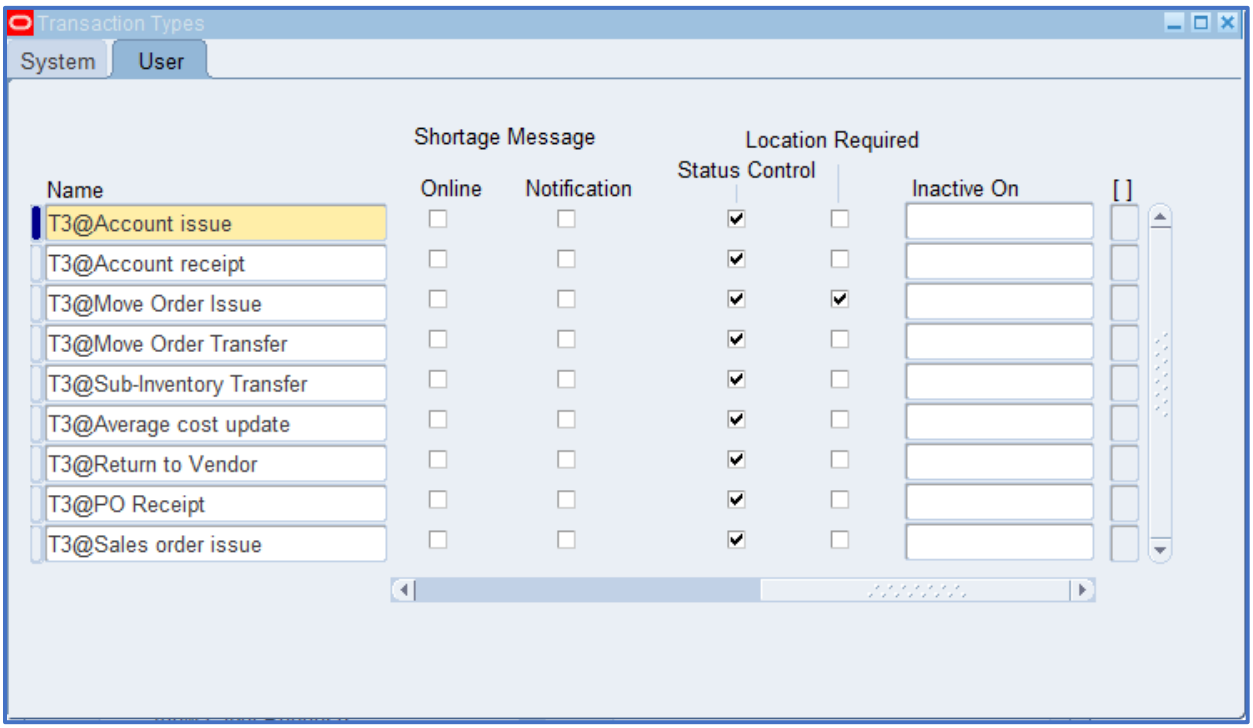



Material Status Definition
Name
T3@_Receiving_Area
Enabled
Description
T3@_Receiving_Area
Allow Reservations
Include in ATP
Nettable
Usage
Subinventory
Locator
Lot (G)
Serial (J)
On-hand
Allowed Transactions
Receive Purchase Order
T3@Receive material against account
T3@Issue material against account
T3@Receive Purchase Order
T3@Return to vendor from stores
T3@Transact Subinventory Transfer Move Ord
T3@Update average cost information
>>(S)
>(A)
Disallowed Transactions
Receive material against account
Receive material against account alias
Receive materials into RA from suppliers.
Record cycle count adjustments
Ship Confirm external Sales Order
T3 Account Aliase Issue
T3 Account Aliase Reciept
T3 Account Issue

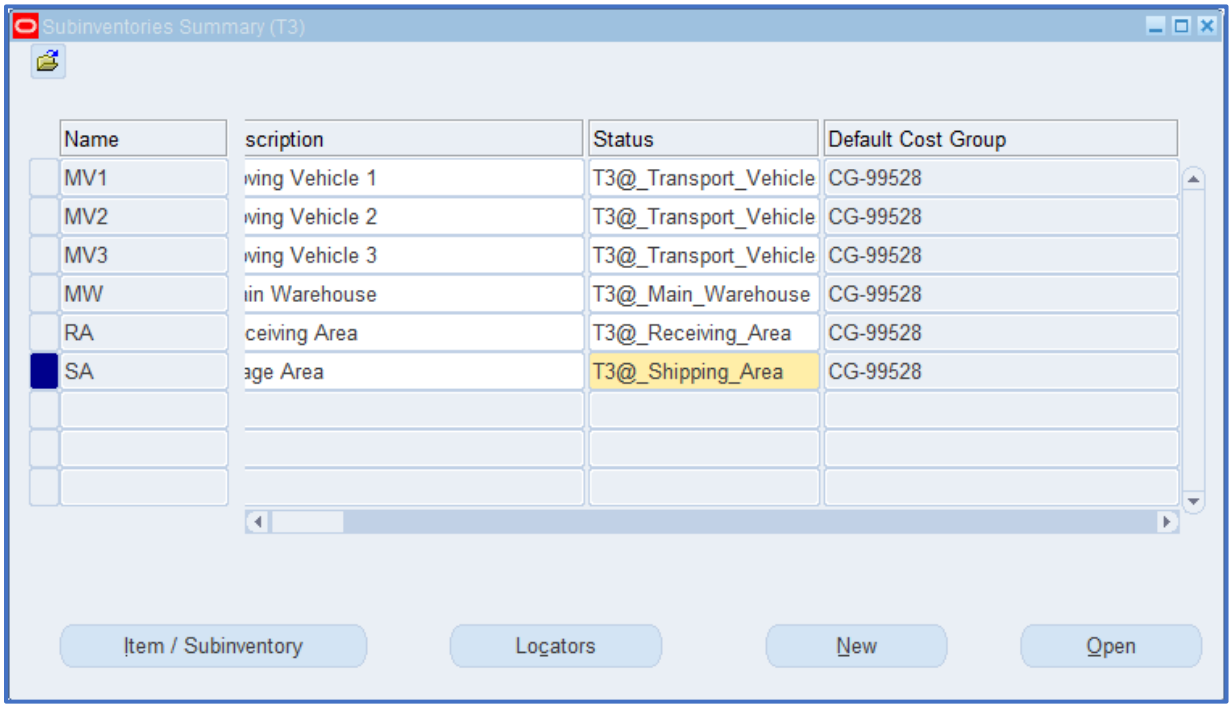

Material Status Definition
Name
T3@_Shipping_Area
Enabled
Description
T3@_Shipping_Area
Allow Reservations
Include in ATP
Nettable
Usage
Subinventory
Locator
Lot (G)
Serial (J)
On-hand
Allowed Transactions
T3@Receive material against account
T3@Issue material against account
T3@Ship Confirm Sales Order
T3@Transact Issue Move Order
T3@Transact Subinventory Transfer Move Ord
T3@Update average cost information
>>(S)
>(A)
Disallowed Transactions
T3@Sub-Inventory Transfer
Deduct Sample Qty
HE ISSUE FROM STORE
Issue from Inventory
Issue materials from SA for customer shipn
Move Order Putaway
Perform miscellaneous issue of material
Perform miscellaneous receipt of material



- Enable Material Status Control: Material status control will be enabled for each custom transaction type by checking the "Status Control" checkbox in Inventory → Setup → Transactions → Transaction Types.
-



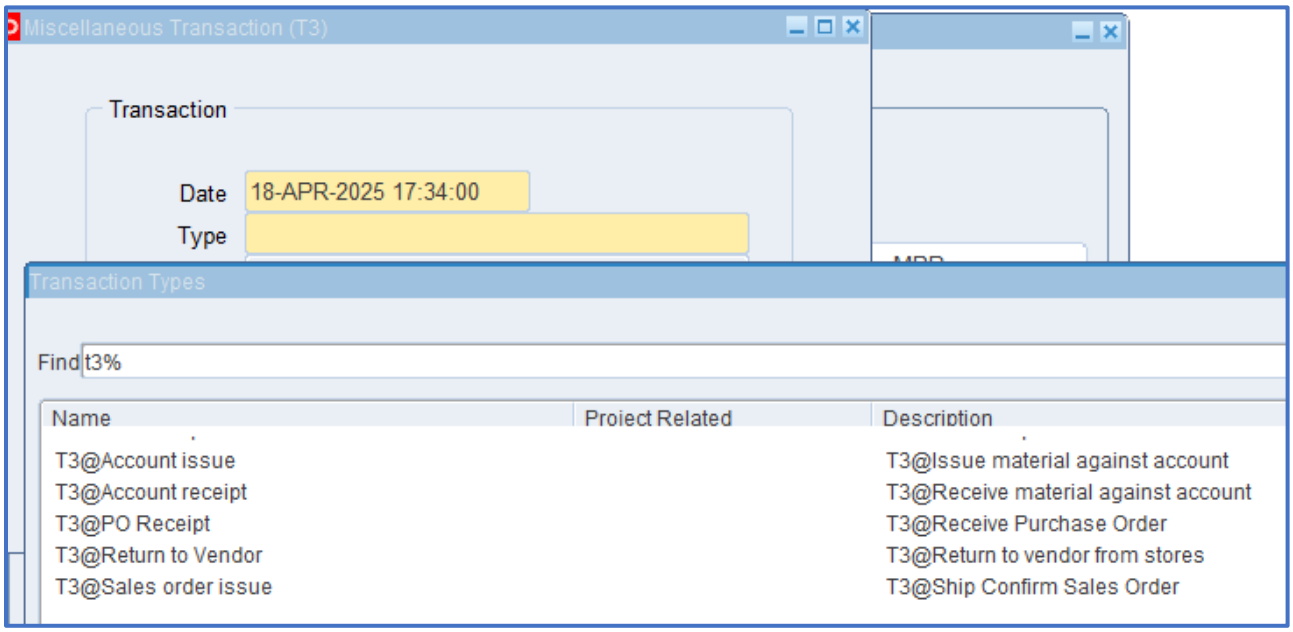
- Assign Material Statuses to Subinventories: Predefined material statuses will be assigned to specific subinventories via Inventory → Setup → Organizations → Subinventories.



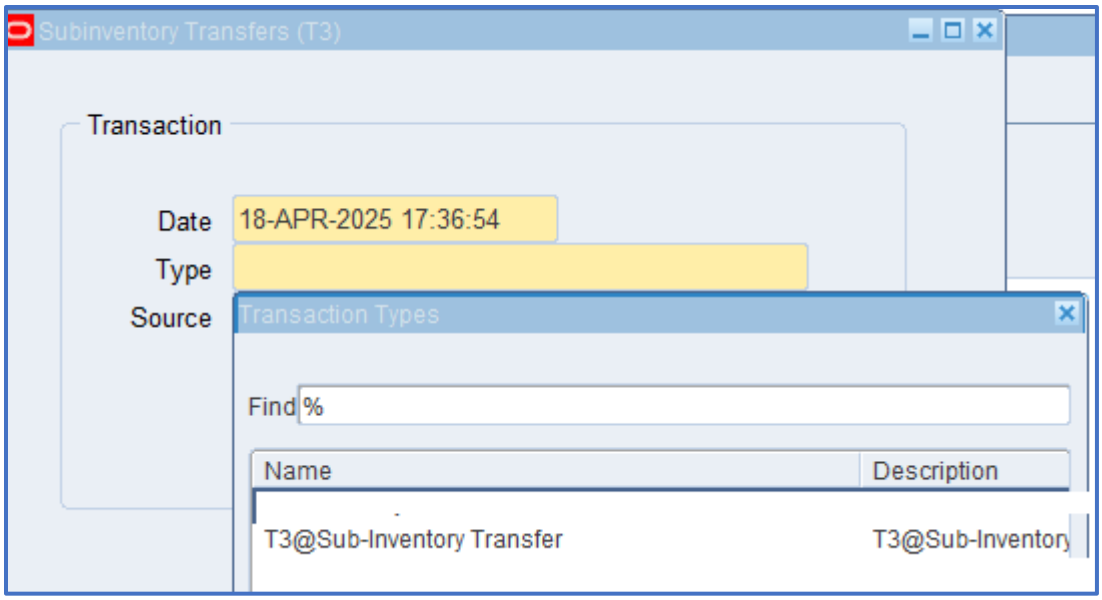
3. Configurations Outcomes

The implementation of this solution will yield the following key outcomes:

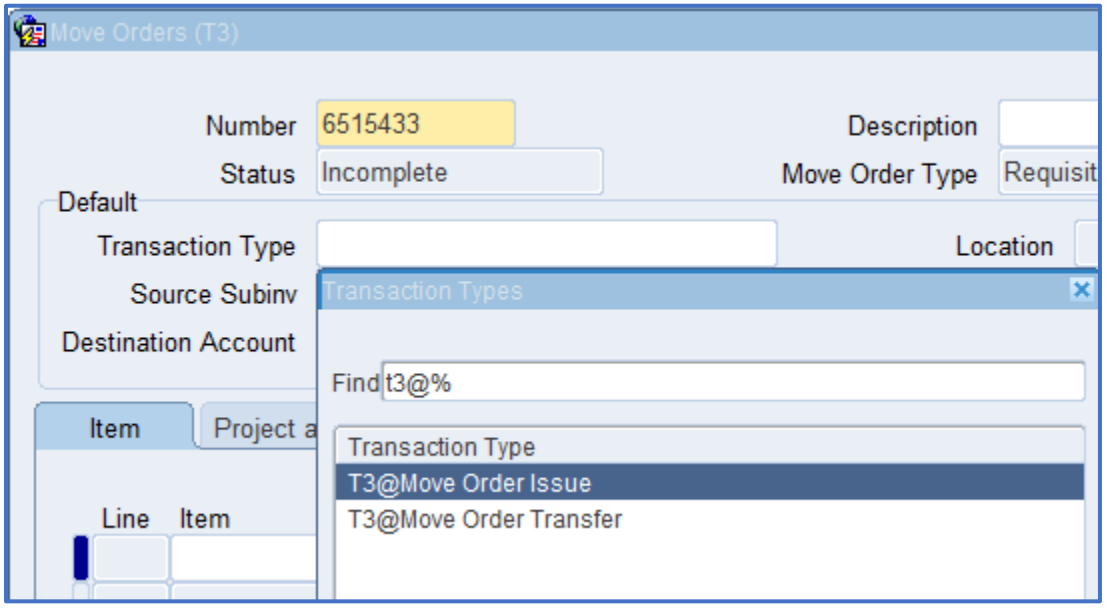
- Transaction Restriction by Function: The system will enforce restrictions on transaction types based on the inventory function being performed (e.g., miscellaneous transactions, subinventory transfers, move orders).



1 Miscellaneous transaction: Available Custom Transaction Types

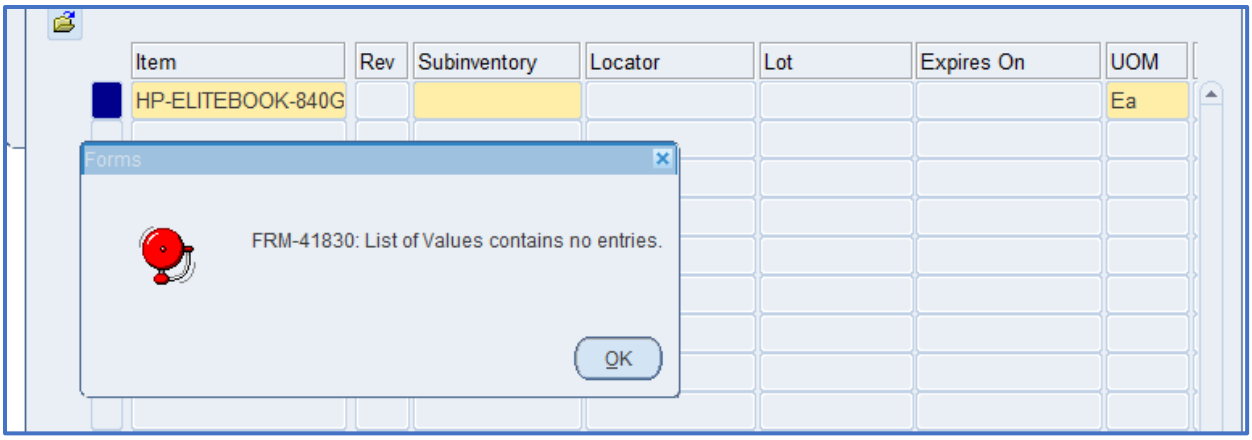


2 Sub-inventory transfer: Available Custom Transaction Types

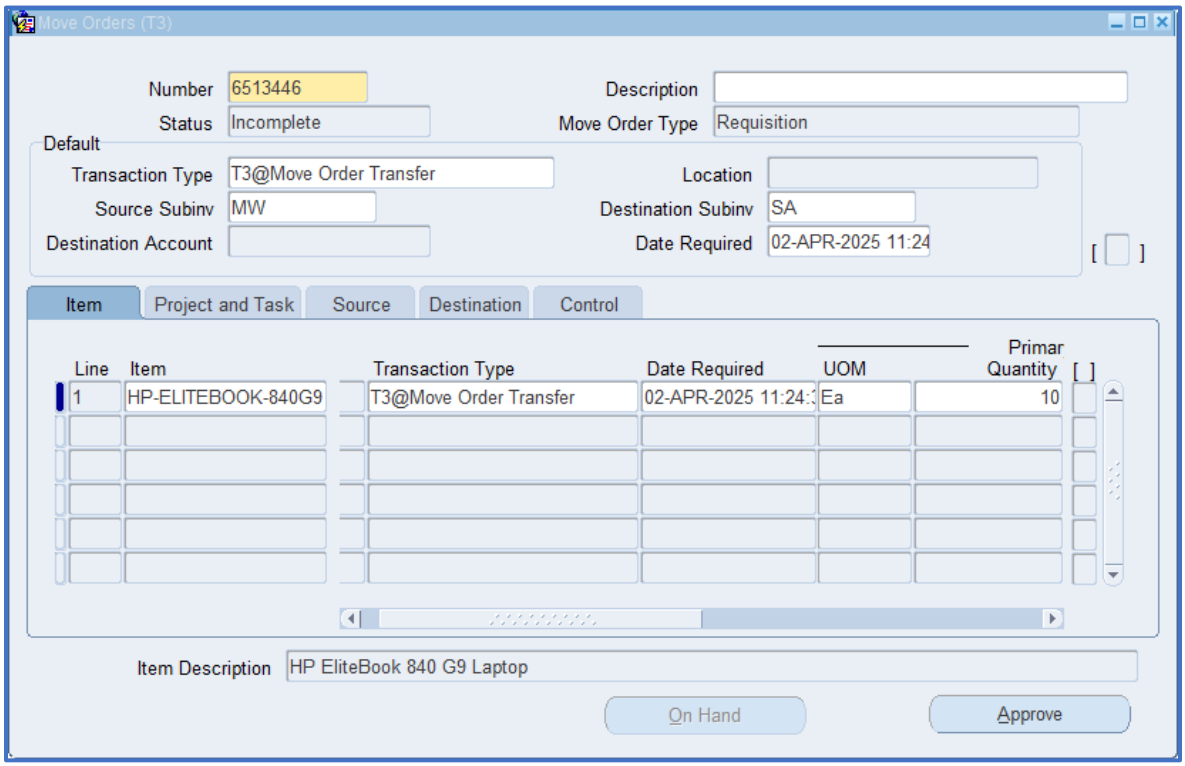


3 Move Order: Available Custom Transaction Types

- Subinventory Restriction by Transaction Type and Material Status: The list of available subinventories will be dynamically restricted based on the selected transaction type and the material status assigned to those subinventories.



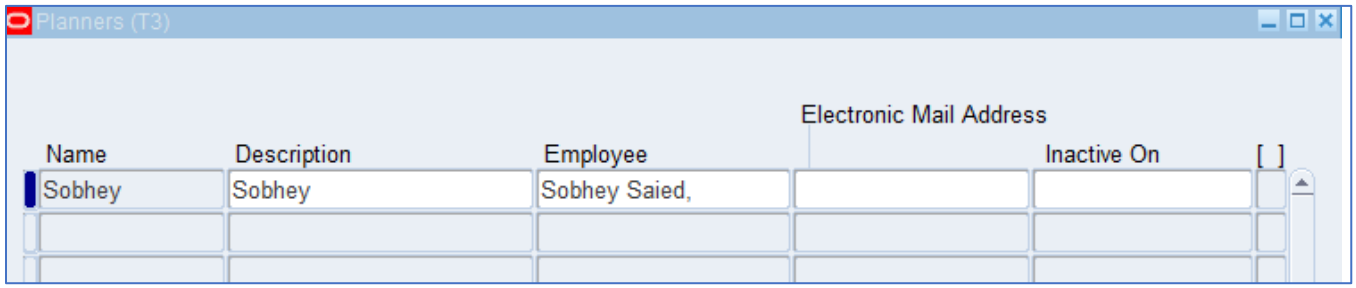
Sub-Inventories Not Listed for The Selected Transaction Type



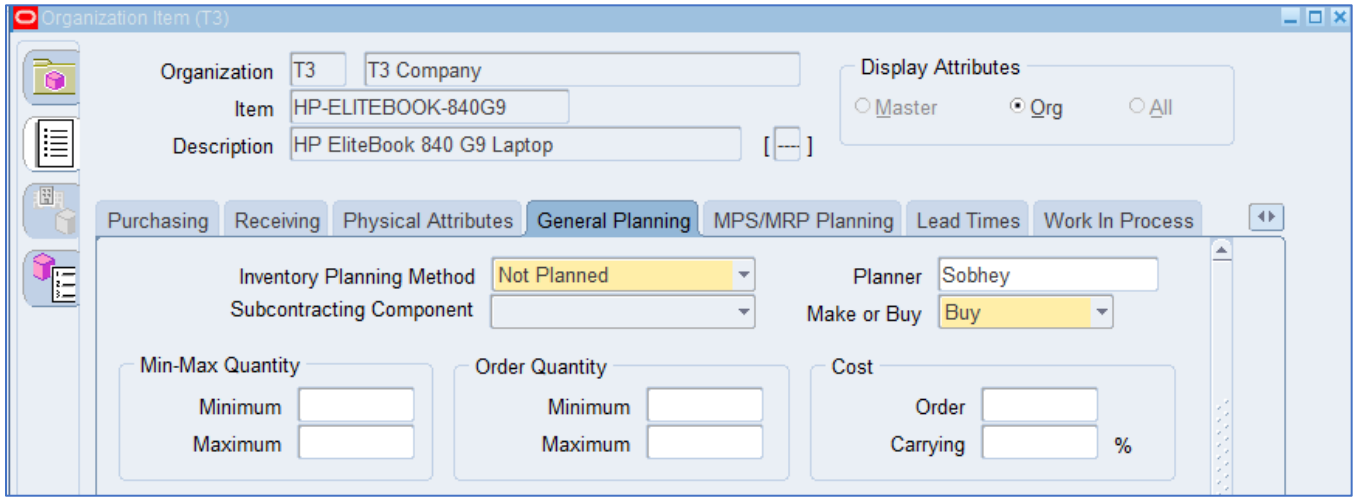
Sub-Inventories Listed for The Selected Transaction Type

Lastly, Implement the **Item Planner** to automatically send move orders for critical items for approval before the transfer occurs. This prevents unauthorized transfers by ensuring that only authorized planners can approve stock movements for high-value or sensitive items.

1. **Define planner for T3 Inventory Organization:**
   - Navigate to: Inventory → Setup → Planners
   - Add define an employee as planner.

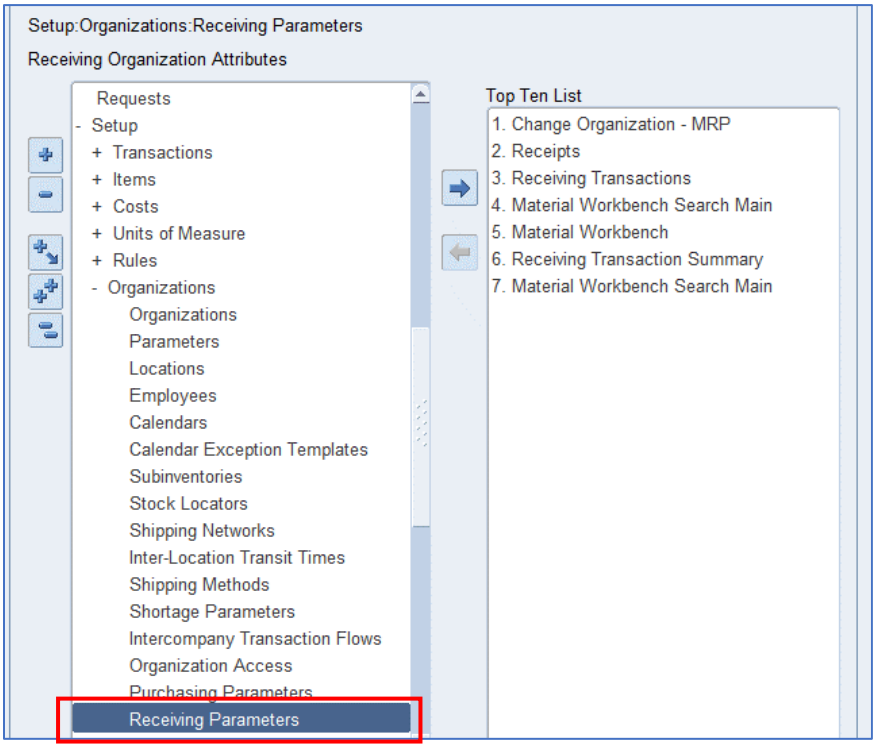


2. **Assign this planner at specific critical or high value item:**
   - Navigate to: Inventory → Items → Organization Items
   - Query the critical items (e.g., HP-ELITEBOOK-840G9).
   - Go to the General Planning tab.
   - In the Planner field, assign a responsible person.
   - Save the changes.



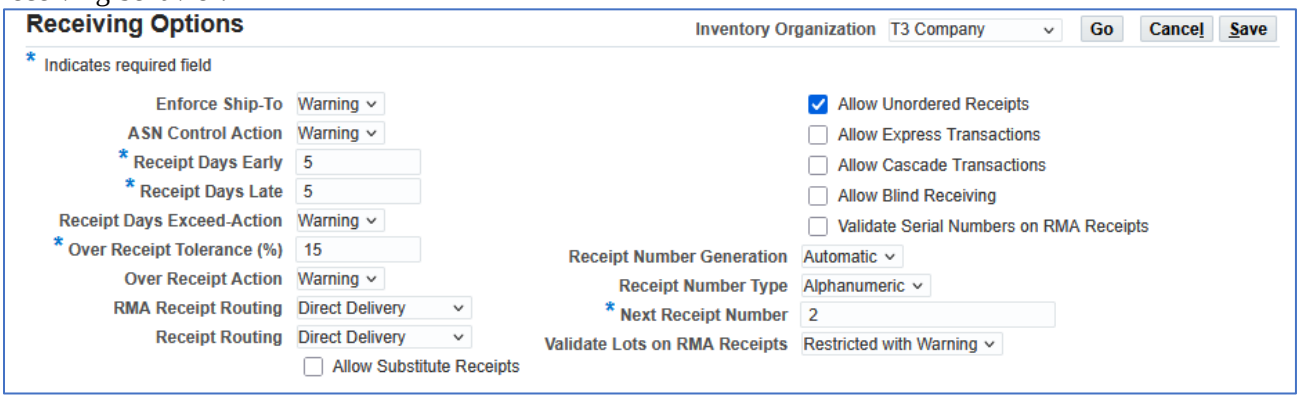
Section	Task	Purpose	Key Steps
G. Receiving Options	17. Define Receiving Options	Ensure proper receiving configurations that aligns with company policies.	- Set Receiving options.

1. From the ***Inventory*** responsibility, go to: **Setup > Organizations > Receiving Parameters.** Alternatively, this function could be accessed from purchasing responsibility: **Setup > Organizations > Receiving Options.**

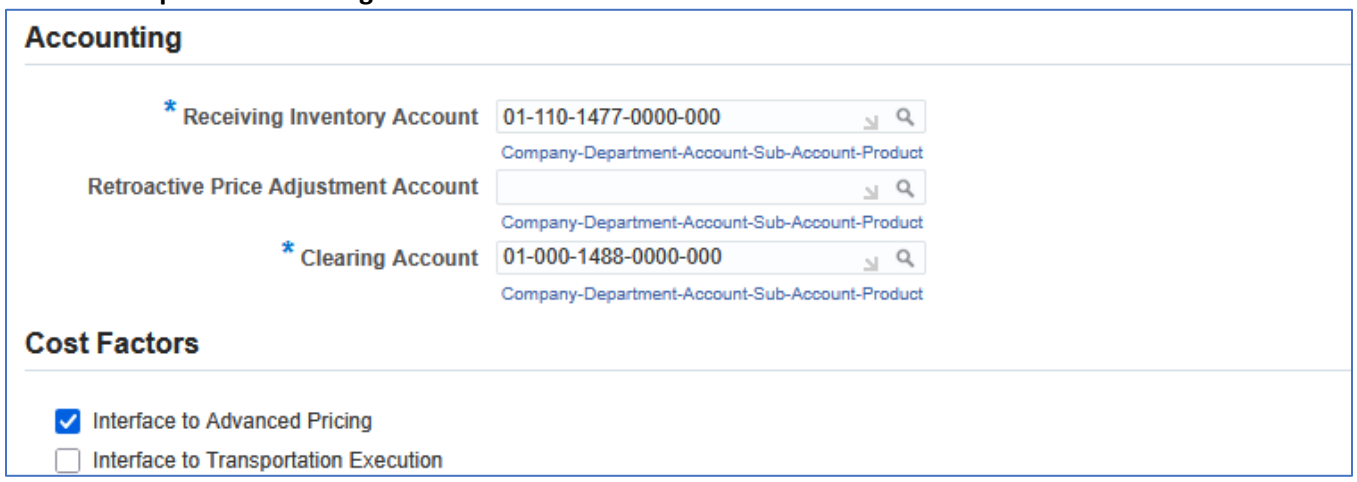


2. On the **Receiving Options** page, use the **Inventory Organization** drop-down list (lov) to select "T3 Company" organization to define its receiving options.

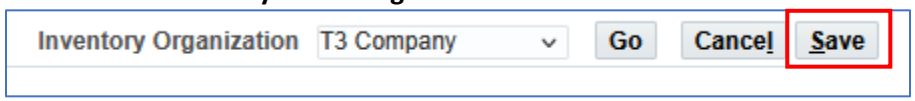
3. Configure Receiving Options: Once we select the organization, the form will display various fields that control receiving behavior.



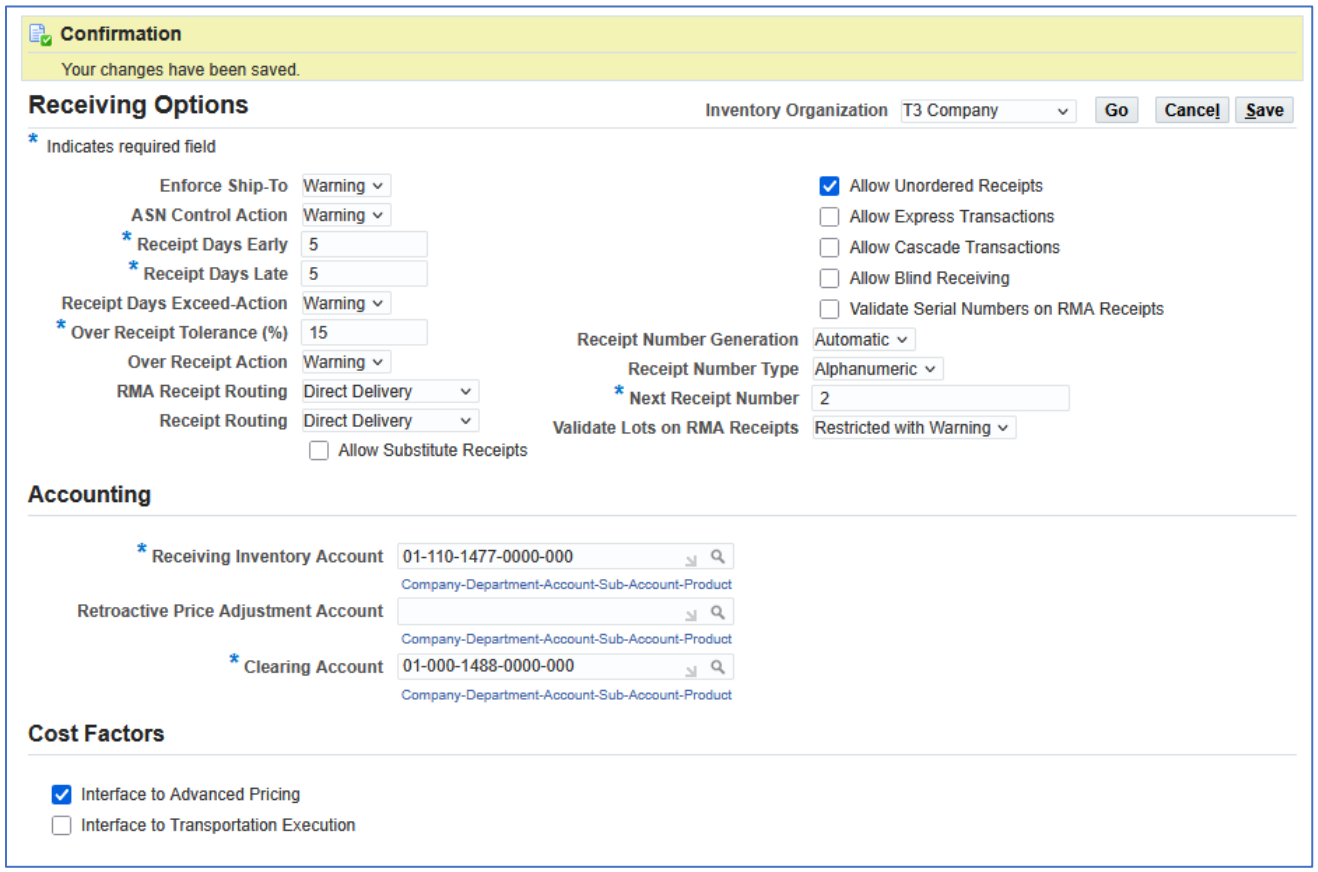
4. Define Required Accounting Fields



5. Click save to store your settings.



Here are the final options after saving:



Section	Task	Purpose	Key Steps
H. Testing, Reporting & Finalization	18. Finalize Profile Options	Ensure system behavior aligns with policies.	- Set profile options.

- Navigate to: inventory responsibility > setup > profiles > personal
- Verify and Set Profile Options

1. INV: Material Status Support → Set to "Yes"

- The system will enforce Material Status restrictions on transactions.
- Material Status controls which inventory transactions (issues, receipts, moves, etc.) are allowed or restricted for subinventories.

2. INV: Transaction Date Validation → Provide Warning when Date in Past Period

- If users enter a transaction date in a past (closed) accounting period, Oracle displays a warning message but still allows the transaction if the period is open.
- If this profile option were set to "Error," the system would block the transaction instead of just warning.