



Multi-Organization Within Oracle Applications

Student Guide

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Matching Enterprise Needs to Multi-Org

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Objectives

At the end of this lesson, you should be able to define:

- **The business reasons for Multi-Org**
- **The types of organizations**
- **The new organization model**
- **How Multi-Org secures data**
- **How Multi-Org enables the process of selling and shipping from different legal entities**

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Lesson Aim

In this lesson, you will learn the business reasons for the multiple organization feature in Oracle Applications and what Multi-Org is and *is not*. You learn about the Multi-Org organization model and its types of organizations and as well as how Multi-Org secures data. Finally, the lesson introduces functionality that takes advantage of the Multi-Org architecture; selling and shipping from different organizations.

Basic Business Needs

- **Use subledger products in a single installation**
- **Support any number of operating units**
- **Secure access to data**
- **Sell and ship from different operating units**

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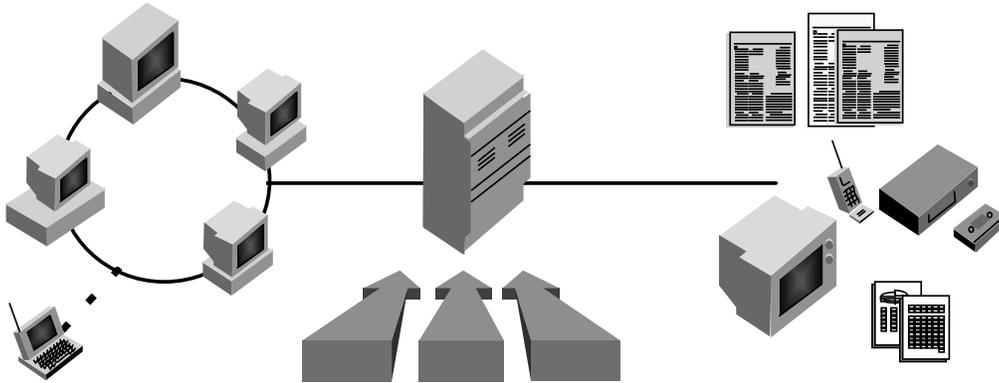
Business Reasons for the Multi-Org Enhancement

The Multi-Org enhancement to Oracle Applications provides features necessary to satisfy the following basic business needs. You should be able to:

- Use a single installation of any Oracle Applications product to support any number of business units, even if those business units use different sets of books.
- Support any number of operating units within a single installation of Oracle Applications.
- Secure access to data so that users can access only information that is relevant to them.
- Sell products from an operating unit that uses one set of books, but ship them from another operating unit using a different set of books, automatically recording the appropriate intercompany sales by posting intercompany accounts payable and accounts receivable invoices.

What Is Multi-Org?

An applications server-side enhancement



1-4

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What Is Multi-Org?

Multi-Org is an applications server-side *enhancement* that enables multiple business units in an enterprise to use a single installation of Oracle Applications products while keeping transaction data separate and secure. The Multi-Org enhancement uses native database views to build a security layer on top of a single installation of Oracle Applications. In Oracle Applications Release 11, the following products support Multi-Org capabilities:

- Oracle Receivables
- Oracle Payables
- Oracle Order Entry
- Oracle Purchasing
- Oracle Cash Management
- Oracle Projects
- Oracle Sales Compensation
- Oracle Sales and Marketing
- Oracle Service

Multi-Org Features

- **Architectural model that supports multiple financial sets of books in a single installation**
- **Data security by operating unit**
- **Global customer and supplier registries**
- **Automatic *intercompany* accounting entries for sales transactions booked in one organization and shipped out of another related organization**

Architectural Model

- **Serves as cornerstone for all Oracle Applications products**
- **Dictates how transactions flow through organizations**
- **Defines organizations and relationships between them**
- **Provides for multiple organizations in a single installation**

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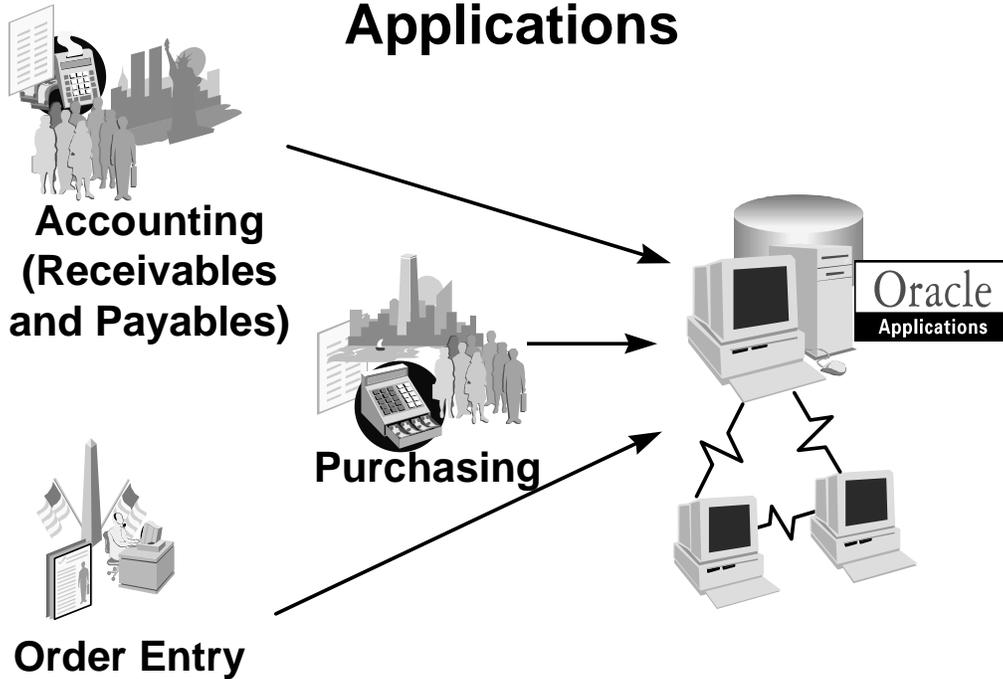
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How Multi-Org Models a Multibusiness Unit Enterprise

The Oracle Applications organization model defines business units and the relationships between them in an arbitrarily complex enterprise. This organization model serves as the cornerstone for all of the Oracle Applications products. The model dictates how transactions flow through different business units and how those business units interact.

Using a Single Installation of Oracle Applications



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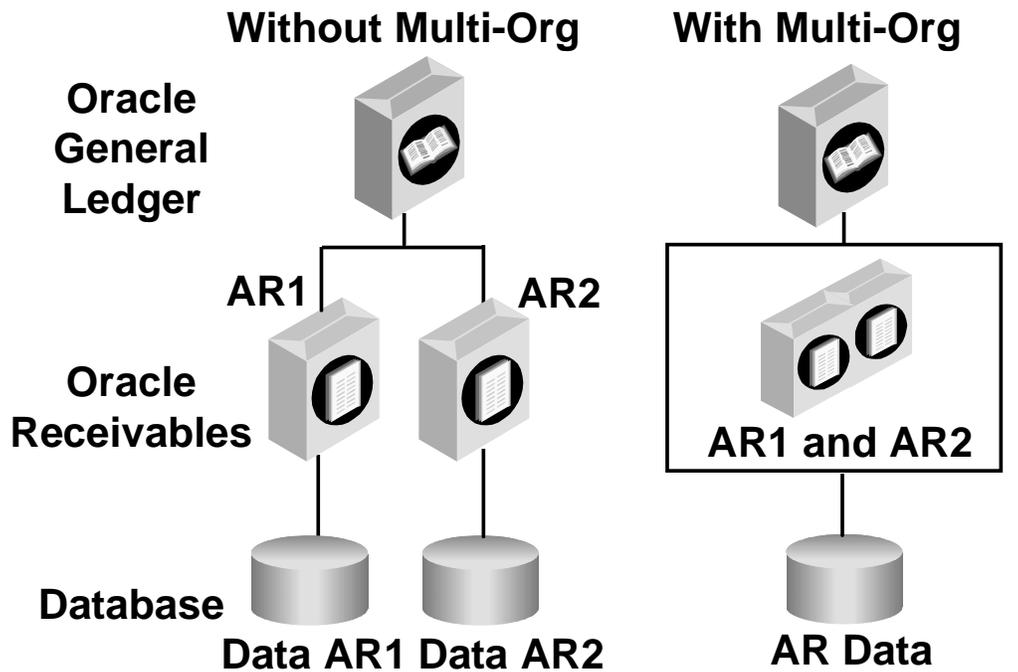
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Multiple Organizations in a Single Installation

With the Multi-Org enhancement, you can support with a single installation multiple organizations running most Oracle Applications products. When you run most Oracle Applications products, you first choose an organization. Do this either implicitly by choosing a responsibility or explicitly in a Choose Organization window. Each window and report then displays information for your organization only.

Organizations that share the same functional currency, accounting flexfield structure, and calendar can post to the same set of books.

Architectural Model Comparison



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Architectural Comparison

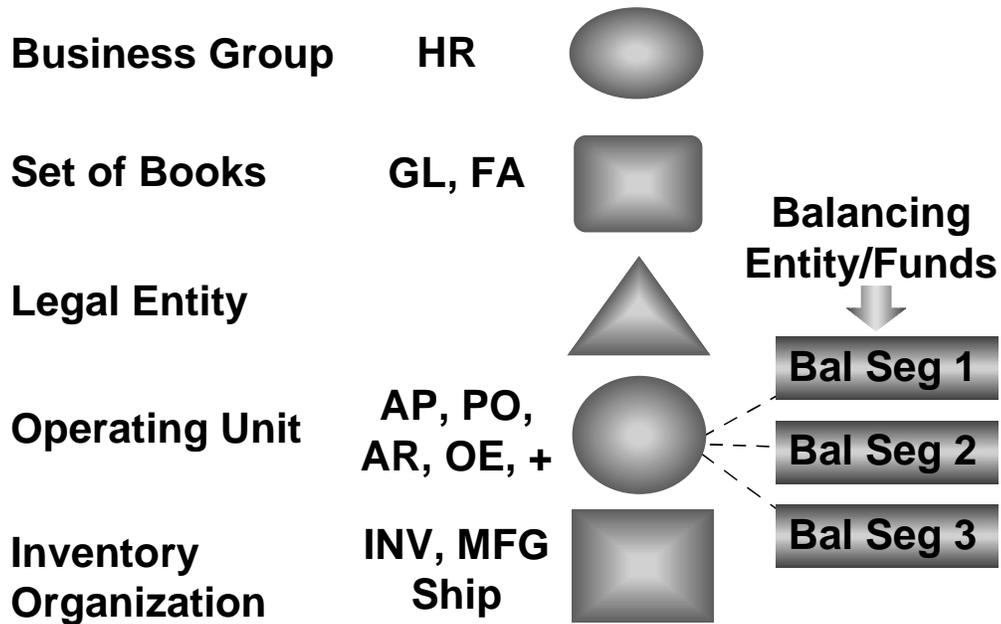
This simple representation illustrates the changes made with Multi-Org. Lesson 3 discusses system architecture in greater detail.

The primary objective of the Multi-Org feature is to eliminate the requirement of multiple installations. Before Multi-Org, you had to perform two installations of the Oracle Receivables application in order to keep business information separate in two parts of the accounts receivable data. This provided the security between the two parts of AR data. It was impossible to combine the AR data.

With Multi-Org, you can still keep the two parts of accounts receivable data separate *and* install just one copy of the Oracle Receivables application. There is still security between the two parts as before, but it is now handled by the application and the database.

The Oracle Receivables application has not been enhanced to provide the option of seeing the accounts receivable data parts combined. However, you can add custom reporting or views that look at the combined data.

Organization Model



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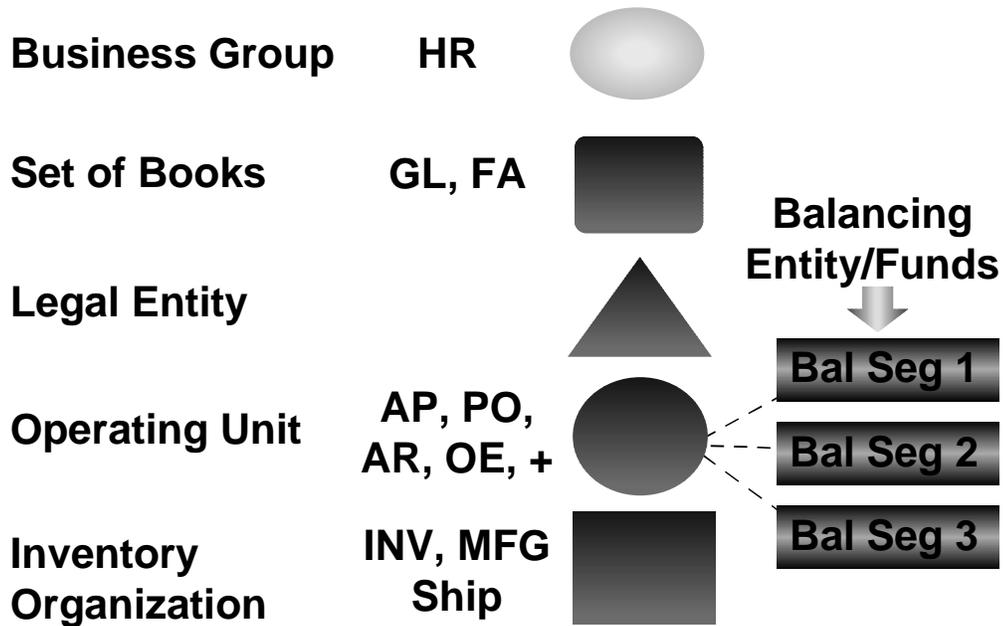
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Organization Types

The Multi-Org model provides a hierarchy that dictates how transactions flow through different business units and how those business units interact. You define the organizations and the relationships between them. In the diagram above, note the different shapes used for each organization type. The shapes are helpful when drawing multiple organization diagrams.

Organization Model



1-10

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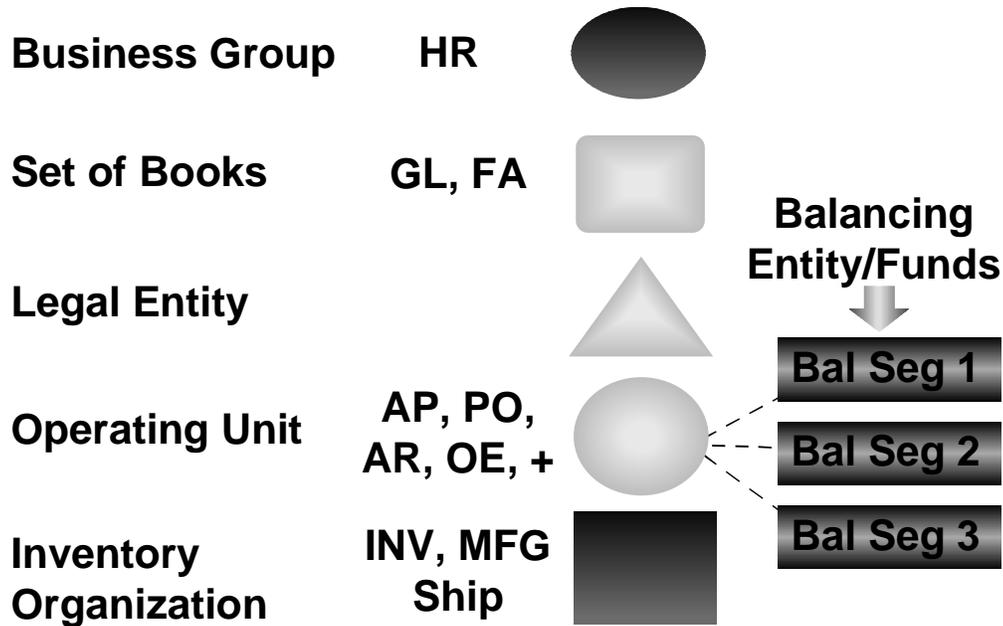
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Business Group

This is an Organization that represents the consolidated enterprise, a major division, or an operation company and has no accounting impact. The Business Group partitions Human Resources information and the Purchasing Approval Hierarchy. If you request a list of employees (in any module) you will see only those employees in the Business Group of which your Operating Unit is a part. Multiple Legal Entities can relate to a single Business Group.

You must have at least one Business Group. For a new installation, Oracle Applications provides a default business group, Setup Business Group. You can define additional business groups as required for your enterprise.

Organization Model



1-11

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Set of Books

A set of books (SOB) is a financial reporting entity that shares the three Cs: a particular chart of accounts (accounting flexfield structure), functional currency, and accounting calendar. The SOB concept is similar in a Multi-Org environment. Oracle General Ledger secures transaction information (journal entries, balances) by set of books. When you use Oracle General Ledger, you choose a responsibility that specifies a set of books. You then see information only for that set of books.

You create sets of books using the Set of Books window in Oracle General Ledger. You define all other types of organizations using the Organizations window.

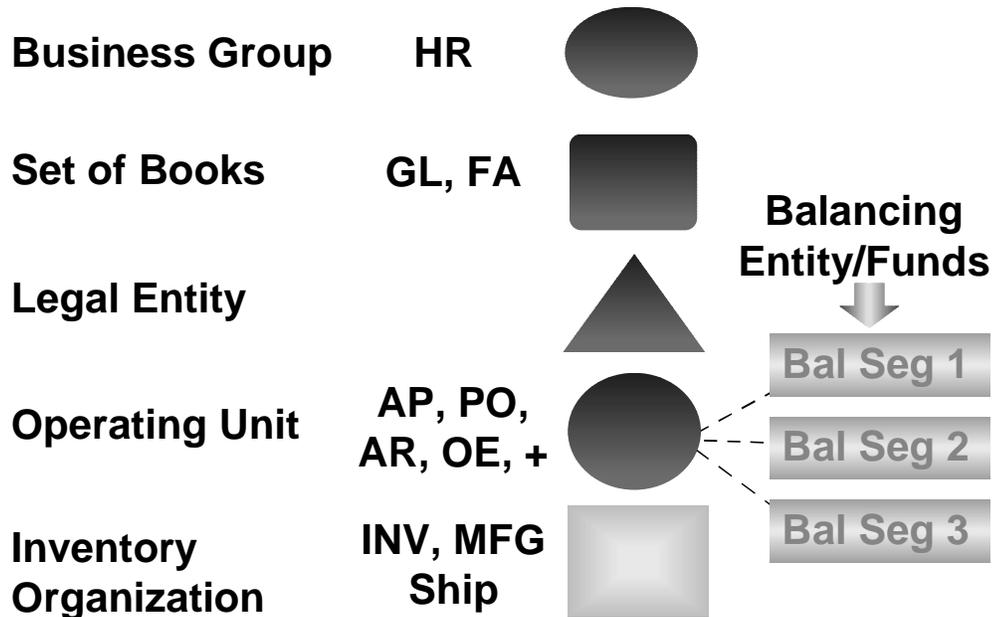
Legal Entity

A legal entity represents a legal company for which you prepare fiscal or tax reports. You assign tax identifiers and other legal entity information to these types of organizations. Future enhancements will include greater functionality at this organization level.

Operating Unit

An operating unit represents an organization that uses any Oracle subledger application, for example, Order Entry, Oracle Payables. It may be a sales office, a division, or a department. An operating unit is associated with a legal entity. Information is secured by operating unit for these applications. Each user sees information only for their operating unit. To run any of these applications, choose a responsibility associated with an organization classified as an operating unit.

Organization Model



1-12

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Inventory Organization

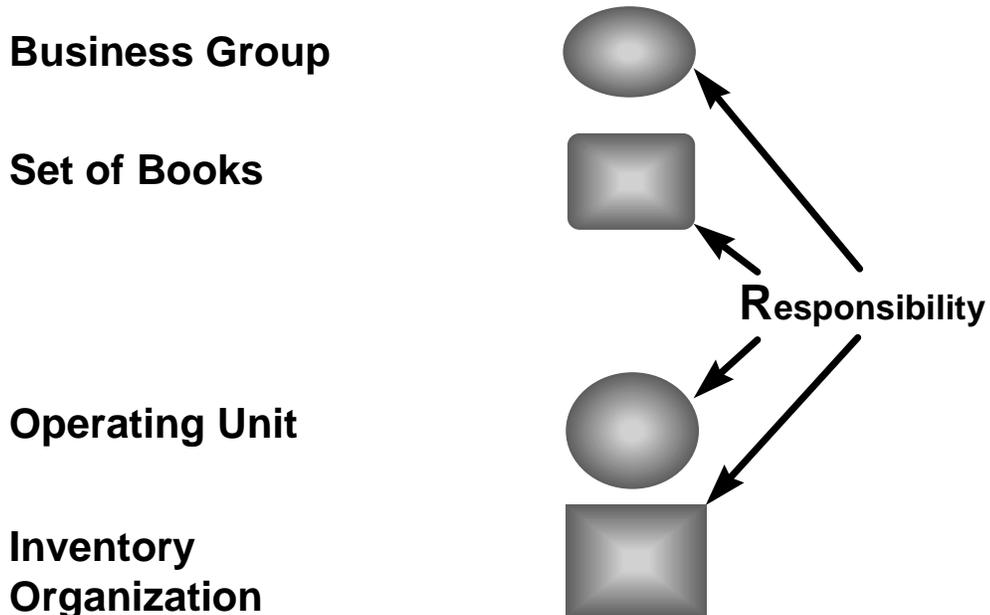
An inventory organization represents an organization for which you track inventory transactions and balances, and manufactures or distributes products. Examples include manufacturing plants, warehouses, distribution centers, and sales offices. The following products and functions secure information by inventory organization: Oracle Inventory, Oracle Bills of Material, Oracle Engineering, Oracle Work in Process, Oracle Master Scheduling/MRP, Oracle Capacity, and purchasing receiving functions. To run any of these products or functions, you must choose an organization that is classified as an inventory organization.

With the Multi-Org enhancement, multiple sets of books can use the same “global” item master organization, since the item master organization is used for item definition and not item accounting information. All accounting related attributes in the Item Master are controlled at the item or organization level.

Balancing Entity

This is an entity for which you prepare a balance sheet, represented as a balancing segment value in the Accounting Flexfield structure. There can be multiple balancing entities within the same operating unit structure and each of these must balance within itself. All required inter-company entries will be automatically created within the Set of Books to ensure companies can never be out of balance.

Organization Model



1-13

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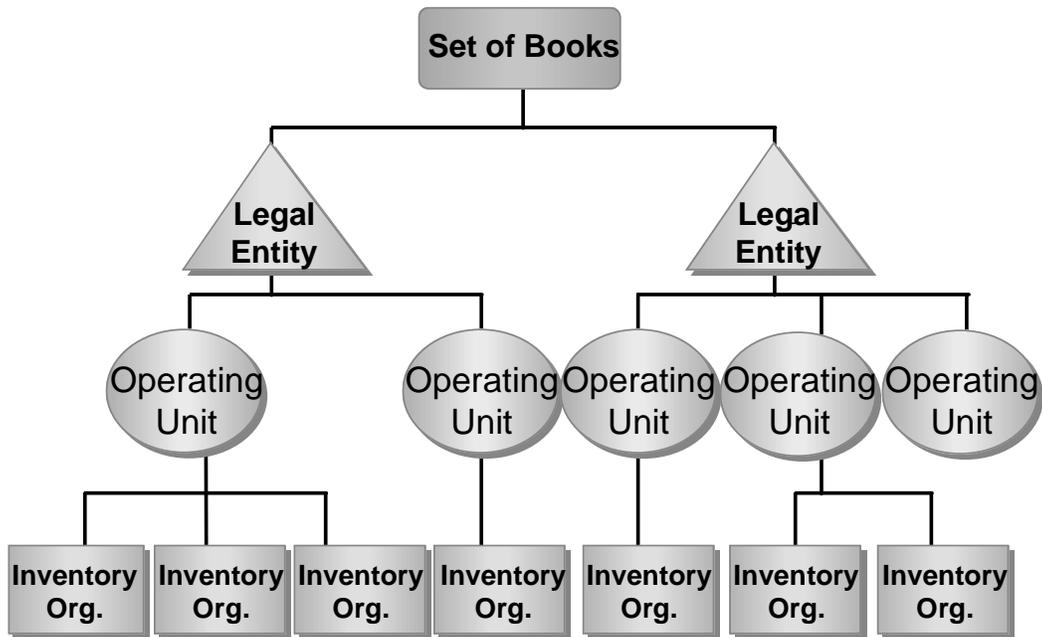
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Responsibility

This determines the data, forms, menus, reports, and concurrent programs you can access in Oracle Applications. It is directly linked to a data group. Several users can share the same responsibility, and a single user can have multiple responsibilities.

You can associate responsibilities with a Set of Books, Operating Unit, Business Group and Inventory Organizations by setting profile options and security rules (for example, MO:Operating Unit profile option defines the Operating Unit for that Responsibility).

Accounting/Distribution/Materials Management Organization Model



1-14

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Accounting, Distribution, and Materials Management Organization Model

With Oracle Applications accounting, distribution, and materials management functions, you define the relationships between inventory organizations, operating units, legal entities, and sets of books to create a multilevel company structure.

Legal Entities Post to a Set of Books

Each organization classified as a legal entity must specify a set of books to post accounting transactions.

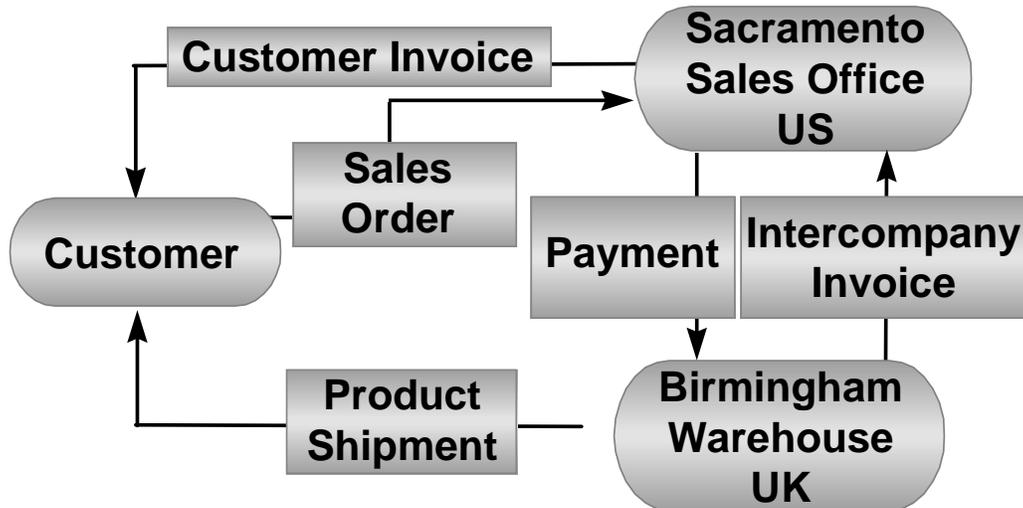
Operating Units are Part of a Legal Entity

Each organization that you classify as an operating unit must reference a legal entity.

Inventory Organizations are Part of an Operating Unit

Each organization that you classify as an inventory organization must reference an operating unit.

Selling and Shipping Products from Different Set of Books



1-15

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Selling from One Set of Books, Shipping from Another Set of Books

When you enter sales orders in Oracle Order Entry, you choose any inventory organization as the shipping warehouse. The shipping warehouse can be in a different set of books than the operating unit entering the sales order, and it can post to a different set of books.

With the new intercompany sales invoicing feature, sales orders which you create in one set of books and ship to the ordering customer from a different set of books will *automatically* generate an intercompany invoice and record an intercompany sale between the two organizations.

You can also define different accounts for trade and intercompany cost of goods sold and sales revenue to assist in the generation of consolidating journal entries.

Intercompany Sales Invoicing Features

- **Segregation of trade cost of goods sold (COGS) and intercompany COGS**
- **Transfer pricing established through ordinary price lists**
- **Automatic intercompany sales recognition**
- **Flexible architecture**

1-16

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Intercompany Sales Invoicing Features

Intercompany COGS and Revenue

Define different accounts for trade and intercompany cost of goods sold (COGS) and sales revenue to identify intercompany transactions.

Transfer Pricing

You will be able to establish your transfer pricing in intercompany invoices through Oracle Order Entry's price lists.

Automatic Intercompany Sales Recognition

You will be able to assign a shipping warehouse under a different operating unit to a sales order. The system will automatically record an intercompany sale between the shipping organization and the selling organization by generating intercompany invoices.

Flexible Architecture

As a customization to the transfer pricing feature, you can insert PL/SQL code to append or replace existing program logic to tailor to your specific business requirements.

Global Customer and Supplier Registries

- **Define customers and suppliers in a global registry that is shared by all organizations across the entire enterprise.**
- **Manage and secure customer addresses and supplier sites by operating unit.**

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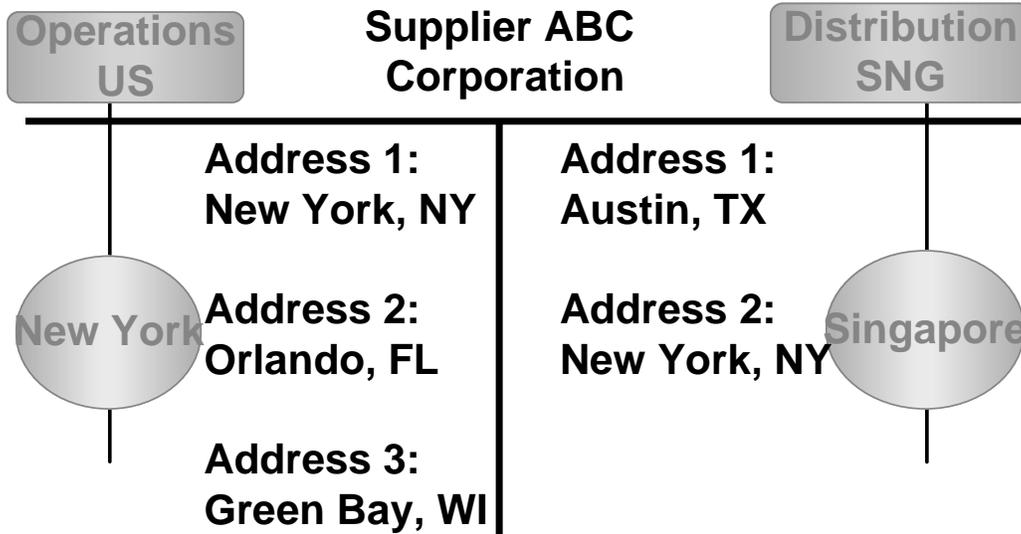
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Global Customer and Supplier Registries

Supplier and customer tables are shared across operating units. You define supplier sites and customer addresses for each operating unit.

Global Registries



Note the separation of sites by OU

1-18

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Global Registries

For the global registries of both customers and suppliers a “header” level of information is stored in an unpartitioned table for all entities within an instance. This allows for custom reports to consolidate information at either the Set of Books or Legal Entity levels.

Taxpayer ID, Federal and State reportable options are still at the customer or supplier level. If a global customer or supplier has subsidiaries in multiple countries, define a separate customer or supplier for each country.

In the above example, the supplier, ABC Corporation, is shared across the two Operating Units. Each Operating Unit has its own groupings of address information. If two Operating Units share the same address for a supplier, they must currently enter the information separately.

Summary

- **Multi-Org is a server-side enhancement**
- **Business Groups, Set of books, Legal Entity, Operating Unit, and Inventory Organization are the types of organization**
- **The new architectural model links the types of organizations together**
- **Enables selling and shipping from different legal entities with the proper accounting entries**

2

Developing the Organization Structure

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Objective

- **At the end of this lesson, you should be able to plan and develop the Multi-Org structure within Oracle Applications.**

2-2

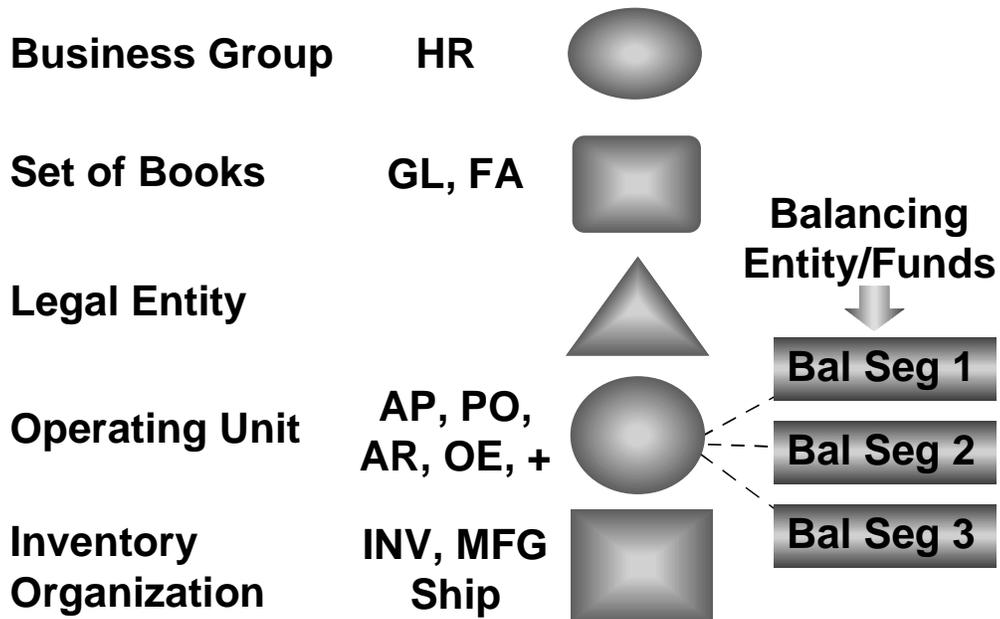
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Objective

In this lesson, you learn about the Multi-Org structure within Oracle Applications. The lesson includes a review of the different business organizations contained in an Oracle Applications Multi-Org environment, as well as guidelines for developing your Multi-Org structure at every level of organization. A technique for adding to or changing the organization structure is also covered. The lesson concludes with sample organization structures and a group discussion.

Review of the Organization Types



2-3

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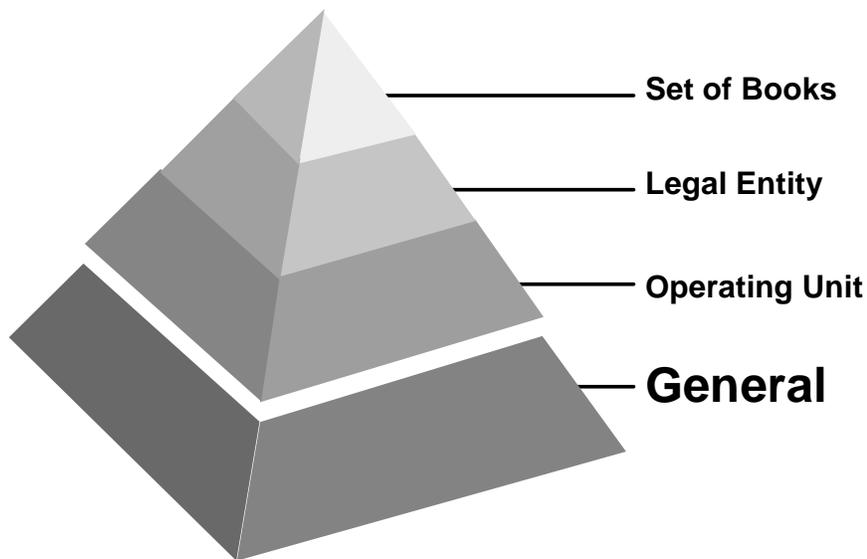
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Review of the Organization Types

The five types of Organizations are:

- Business Group
- Set of Books
- Legal Entity
- Operating Unit
- Inventory Organization

Guidelines



2-4

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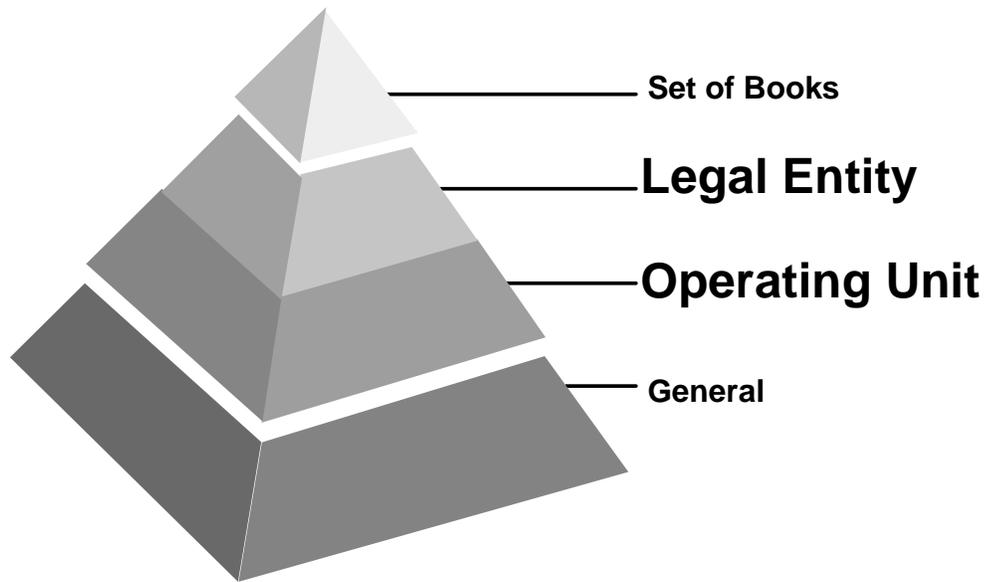
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General Guidelines

Ask the following questions as guidelines when developing the organization structure:

- What is the business environment relative to mergers, acquisitions, and divestitures?
How often does the business change, and how quickly must you react?
- How is the business structured? What is the number of different geographic locations?
- What degree of autonomy exists between the different locations, divisions, or departments?
- Are there specific concerns about data security?
- Is the industry highly regulated? Are there any unusual statutory reporting requirements?
What about standard financial/tax reporting requirements? What about the requirements in different countries, such as document sequencing in some European countries?
- How is purchasing handled by the enterprise? Are blanket PO's or contracts used to cover multiple business operations? How are supplier invoices approved and paid?
- Who takes customer orders? What are the procedures for cash application and receivables collection?

Guidelines



2-5

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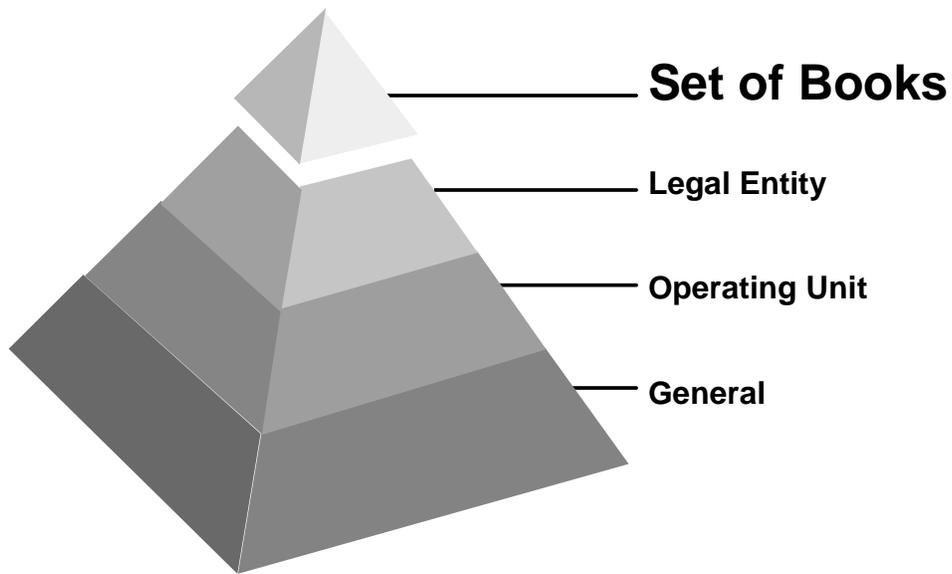
Operating Unit (OU) Guidelines

- Operating Unit is the reporting level in the subledgers.
- As good practice, each balancing segment value in the chart of accounts should be associated with one and only one operating unit. However, a single operating unit may consist of many balancing segments.
- In Oracle Receivables and Oracle Payables, the operating unit has a tax structure. If you need different tax structures, such as VAT and Sales Tax, then you must have two separate operating units.

Legal Entity (LE) Guidelines

- Intrastat reporting is at the legal entity level (material movement tracking in the European Community).
- Do any of the business units have a legal requirement for document sequencing (needed in some Southern European countries)? Although the requirement is at the legal-entity level, document sequencing is currently at the set of books level in Oracle Applications. If document sequencing is needed, you must have the following organizational relationship: 1 SOB to 1 LE to 1 OU.
- Identify the business units where fiscal or tax reports are prepared. As reporting in Multi-Org is at the operating unit level, these units will need a one-to-one relationship between the legal entity and operating unit or custom reporting will be required.

Guidelines



2-6

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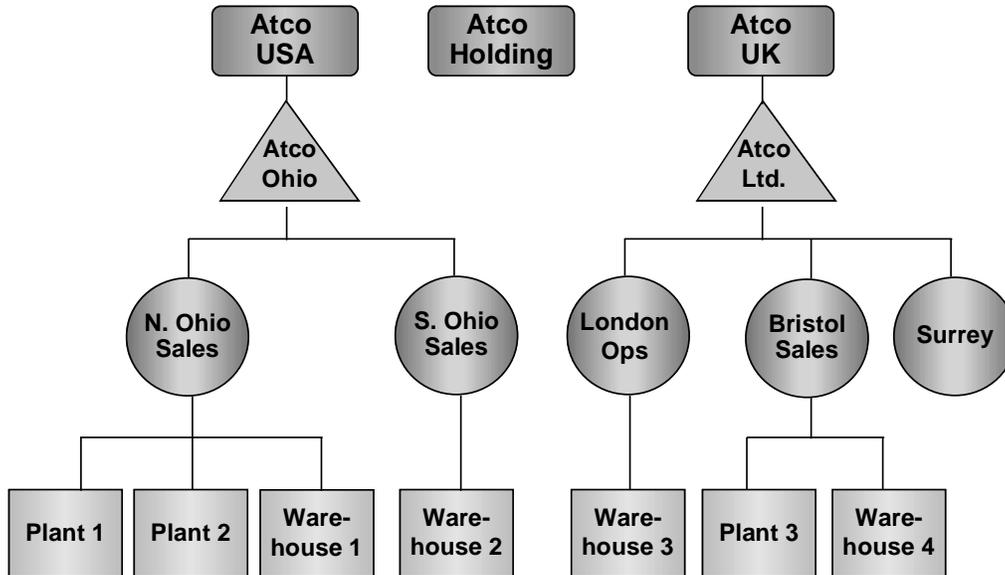
Set of Books (SOB) Guidelines

- Do the various business groups share the same:
 - Functional currency?
 - Accounting flexfield definition?
 - Calendar?

If not you will need more than one sets of books.

- The set of books concept is the same as in Oracle General Ledger.
- A new feature in Release 11 allows Reporting Sets of Books for reporting in currencies other than your functional currency.

Organization Model Example



2-7

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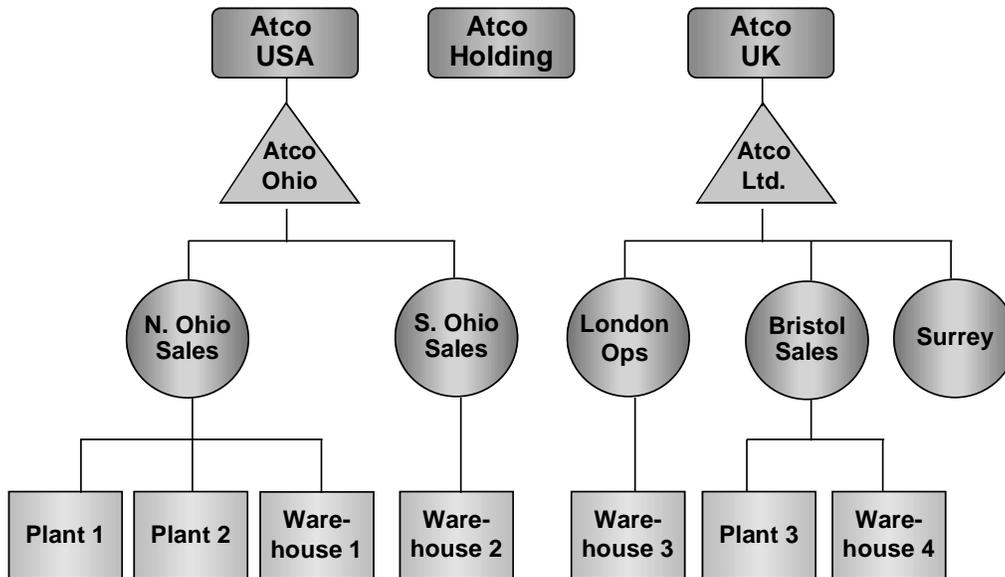
Organization Model Example

The following example shows an installation that includes a set of books for Atco Holding, Atco USA, and Atco UK, with Atco USA and Atco UK each having one legal entity: Atco Ohio and Atco Ltd.

Information is stored in one set of tables and each user sees information only for their operating unit or inventory organization. For example, if you perform accounts receivable functions for the S. Ohio Sales operating unit, you see only that operating unit's information.

The inventory organizations might be manufacturing plants, warehouses, distribution centers, and so on.

Organization Model Example



2-8

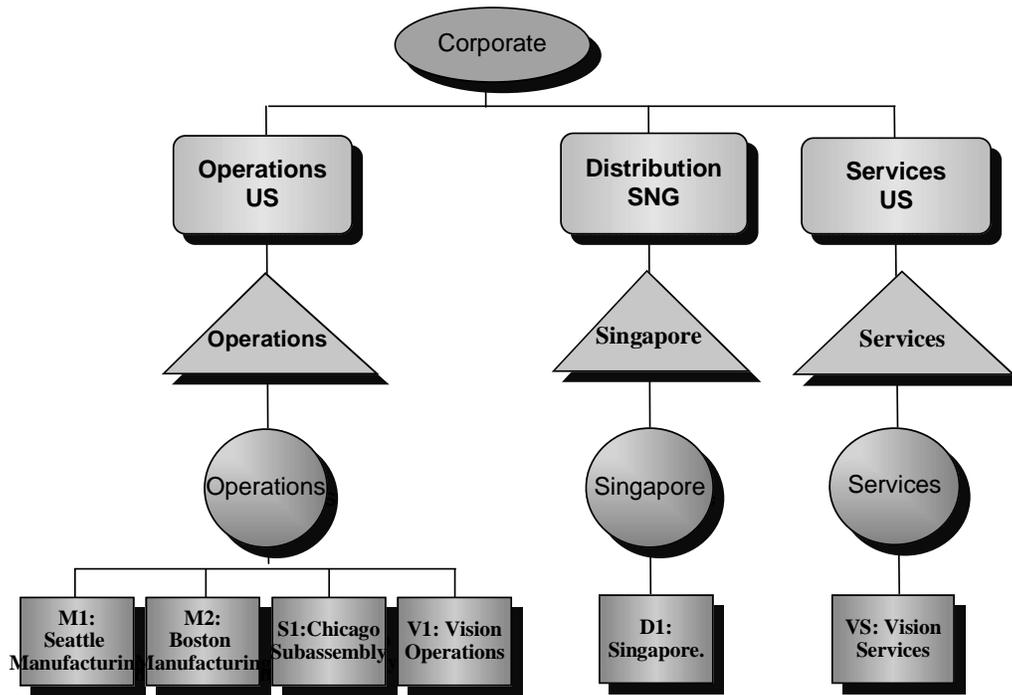
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Organization Model Example (continued)

Oracle Inventory, Oracle Bills of Material, Oracle Engineering, Oracle Work in Process, Oracle Master Scheduling/MRP, Oracle Capacity, and Purchasing receiving functions all secure their information by inventory organization. In order to run any of these products, you must explicitly choose an organization that is classified as an inventory organization.

Vision Organization Structure



2-9

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Vision Demonstration Database Model

With Oracle Applications accounting, distribution, and materials management functions, you define the relationships between Inventory Organizations, Operating Units, Legal Entities, and Sets of Books to create a multilevel company structure.

Legal Entities post to a Set of Books

Each organization classified as a Legal Entity must specify a Set of Books to post accounting transactions. A Legal Entity can point to one and only one Set of Books.

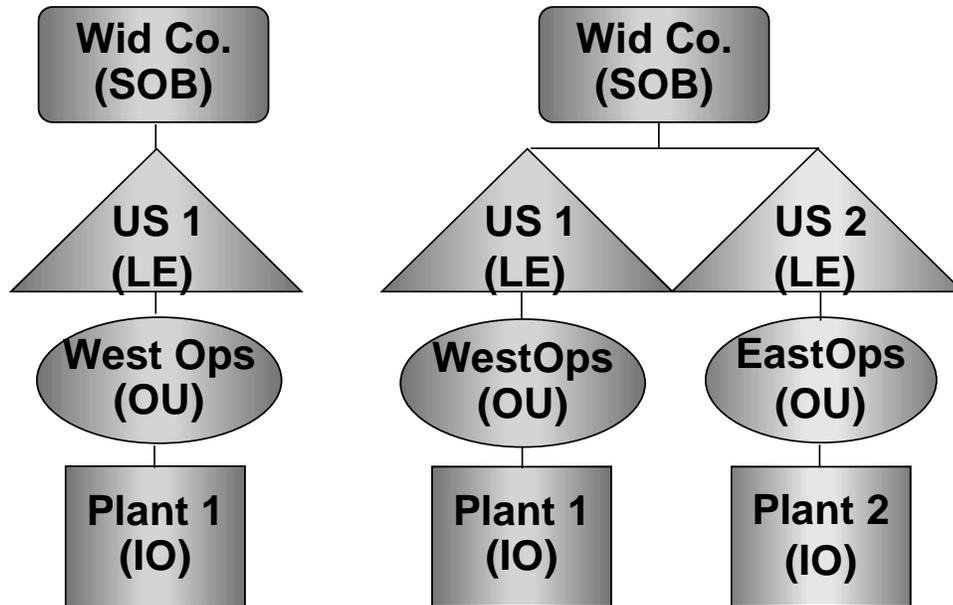
Operating Units are a part of a Legal Entity

Each organization that you classify as an Operating Unit must reference a legal entity. An Operating Unit can point to one and only one Legal Entity.

Inventory Organizations are a part of an Operating Unit

Each organization that you classify as an Inventory Organization must reference an operating unit. An Inventory Organization points to one and only one Operating Unit, but through standard functionality can be referenced by any Operating Unit having the same Set of Books as the attached Operating Unit.

Changing the Organization Structure



2-10

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Managing the Organization Structure in a Dynamic Business Environment

The Multi-Org enhancement allows you to add organizations at any time. Enterprises with substantial acquisition and divestiture activities, as well as businesses prone to re-organizations, are able to define new business units and disable old business units as required.

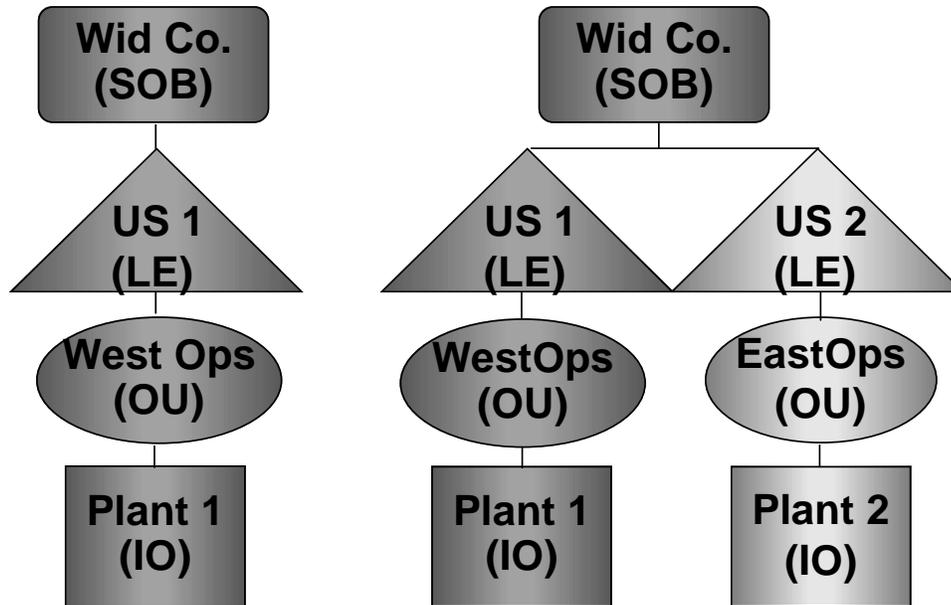
One approach for dynamic businesses that have legal entities and operating units continually moving around within the organizational structure is to define new business organizations as required, while leaving the old structure and data untouched. With this approach, it is easy to keep day-to-day business transactions recorded. If adding to, or changing, the organization structure, your setup should include notifying your database administrator so that the proper technical updates can be applied.

Seed Data Replication

Seed data is replicated under the following circumstances:

- Performing installation or upgrade
 - The seed data replication program is executed during AutoInstall which is executed during installation or upgrade.

Changing the Organization Structure



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Seed Data Replication (continued)

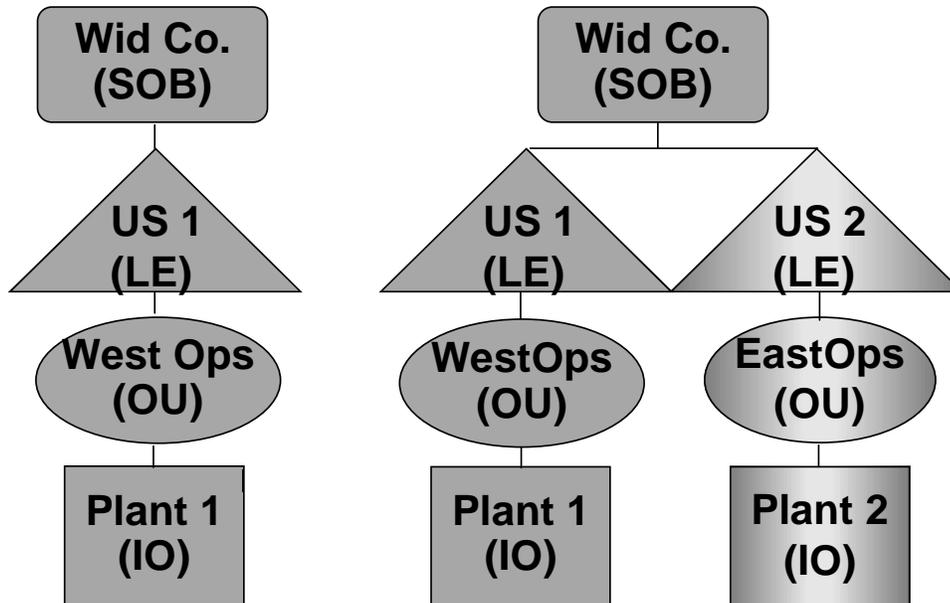
- Creating a new operating unit
 - When you define a new operating unit, the seed data replication program is automatically triggered as a concurrent program to replicate seed data to the new operating unit. This concurrent program is triggered from the Additional Organization Information zone in the define Organization form. You can also manually submit this concurrent request, Replicate Seed Data, via the System Administrator responsibility.
- Adadmin: Convert to Multiple Organization Architecture
 - When you select the adadmin option, Convert to Multiple Organization architecture, the Multi-Org switch is automatically turned on; a flag called multi_org_flag, is set to Y. The seed data replication program is then executed and processes according to the value of the multi_org_flag.

The seed data replication program works in two modes:

Single organization: This mode applies when the seed data replication program is executed within the context of a particular operating unit (or Org_ID).

All organizations: This mode applies when the seed data replication program is executed without an operating unit context.

Adding to the Organization Structure



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Adding a New Operating Unit

The following steps (discussed in lesson 3) are required to add new operating units to your Organizational Structure:

- Revise the Organization Structure
- Define Sets of Books (optional)
- Define Organizations and Relationships
- Define Responsibilities
- Set Profile Options for each Responsibility
- Define Inventory Organization Security (optional)
- Implement the Application products
- Secure Balancing Segment Values (optional)
- Run the Setup Validation Report (recommended)
- Implement Document Sequencing (optional)
- Define Intercompany Relations (optional)

Summary

- **In this lesson you learned how to plan and develop the Multi-Org structure within Oracle Applications.**

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Summary

In this lesson you learned the Multi-Org structure within Oracle Applications. You learned the guidelines for developing your multiple organization structure at every level of organization. You also learned a technique for adding to or changing the organization structure.

Group Discussion

Business Scenario

Vision Industries is a multinational computer hardware and software corporation. They will be using Oracle Applications (GL, AP, PO, OE, AR, and Manufacturing). They have read an announcement about the availability of Multi-Org and, although they do not know much about it, they think it is a perfect solution for them. You are meeting with the Vision management team specifically to discuss Multi-Org capabilities as they relate to their business needs.

Vision Industries is headquartered in San Francisco. San Francisco is the location of their Western Operations, which operates a purchasing and distribution office for a computer assembly facility in Fremont and a monitor manufacturing facility in Stockton. A Denver purchasing and distribution office reports to, and is a part of, Western Operations. Denver is also the site of a disk drive manufacturing facility. Eastern Operations is based in Philadelphia and operates a purchasing and distribution office for a software warehouse in Valley Forge. Vision's United Kingdom operations headquarters are in London. London has a purchasing and distribution office and is also the site of a printer manufacturing facility. A Bristol office operates a purchasing and distribution office and is also the site of a modem manufacturing facility.

1. In the space below, draw Vision Industries' organizational structure using the notational format described in the lesson.
2. According to the Visions management team, in one year, the Stockton monitor manufacturing will be moved to a new manufacturing facility in Dover, England, with all of the purchasing and distribution operations handled by the Bristol office. How will these changes affect the organizational structure you have drawn? Will the system handle these changes? How? How would you respond to Vision's management? Make any necessary changes to your diagram.
3. An Asia Pacific management office (and Asia Pacific SOB) is being planned to handle purchasing and distribution for two additional disk drive manufacturing facilities. Since the start-up date is not yet known, Vision does not want to include it in the original setup but wants to make sure that Multi-Org is flexible enough to handle these types of changes. Is it flexible enough?

3

Multi-Org Setup and Implementation Considerations

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Objectives

- **At the end of this lesson you should be able to discuss the steps and considerations required to plan the implementation of a Multi-Org environment.**

3-2

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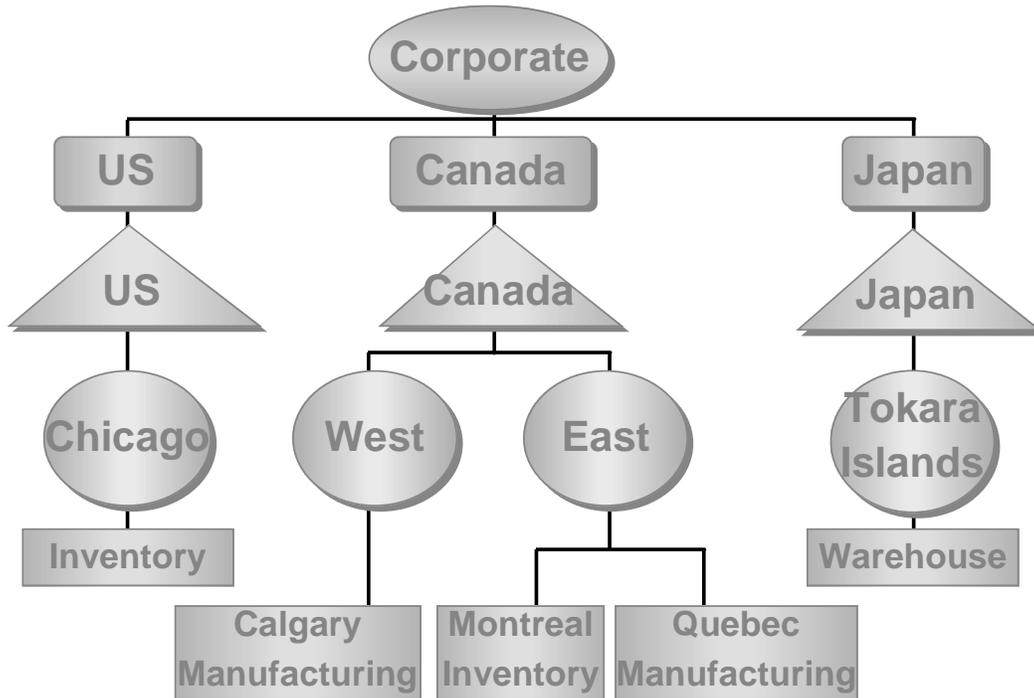
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Lesson Aim

In this lesson you learn about the considerations required to set up and implement a Multi-Org environment. The following steps are discussed:

- Develop the Organization Structure
- Define Set of Books
- Define Business Groups
- Define Organizations
- Organization Naming Considerations
- Define Organization Relationships
- Define Responsibilities
- Set Profile Options for Each Responsibility
- Define Inventory Organization Security
- Secure Balancing Segment Values
- Setup Validation Report
- Document Sequencing
- Considerations for individual Application Products

Example of Organization Structure



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Develop the Organization Structure

A successful implementation of Multiple Organization Support in Oracle Applications primarily depends on correctly defining your organization structure in the five-level hierarchy used by Oracle Applications. A careful analysis and design of a company's organization structure is critical for future success.

The following points describe how the Multi-Org model relates organizations:

- A Business Group is the highest level of the structure and has no accounting impact. The Business Group determines which employees will be available to Sets of Books and Operating Units related to that Business Group.
- Set of Books is the highest level which impacts the accounting side of business.
- Set of Books is associated with a single Business Group, multiple Sets of Books may be associated with a single Business Group.
- Each Set of Books may have a different chart of accounts structure, calendar, or functional currency.
- Each Legal Entity is associated with a single Set of Books, multiple Legal Entities may be associated with a single Set of Books.
- Each Operating Unit is associated with a single Legal Entity, multiple Operating Units may be associated with a single Legal Entity.
- An Inventory Organization may be associated with any Operating Unit within the same Set of Books.

Define Set of Books

Account Name	Account Number	Description
Retained Earnings	01-000-3310-0000-000	Operations-Balance Sheet-Retained
Suspense	01-000-2990-0000-000	Operations-Balance Sheet-Suspens
Intercompany	01-000-2980-0000-000	Operations-Balance Sheet-Intercom
Translation Adjustment	01-000-3500-0000-000	Operations-Balance Sheet-Cumulat
Reserve for Encumbrance		
Net Income		

3-4

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Define Set of Books

Use the Define Set of Books form in Oracle General Ledger to enter your set of books.

Note: If your enterprise structure requires that you define multiple business groups, you should define your set of books before business groups.

For additional setup information, please refer to the General Ledger reference documentation.

Defining Organizations

The screenshot shows the 'Organization' window with the following fields and values:

- Name: Vision Operations
- Type: Division
- Dates: From 01-JAN-1987, To (empty)
- Location: V1- New York City
- Internal or External: Internal
- Location Address: 90 Fifth Avenue...New York.New York.NY.10022-3422.United States..
- Internal Address: (empty)
- Organization Classifications:
 - GRE / Legal Entity (Enabled:)
 - HR Organization (Enabled:)
 - Inventory Organization (Enabled:)
 - Others (button)

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Defining Organizations

Use the Organization window to define your organizations. You define your organizations and the relationships between organizations in this window.

Organization Hierarchy

You should specify your organizational classifications in the following order:

1. Legal entities
2. Operating units
3. Inventory organizations

When you enable or disable an organization classification, the Organization window does not revalidate the relationship between legal entities, operating units, and inventory organizations.

Defining Business Groups

The screenshot shows the Oracle Organization window with the Business Group Info dialog box open. The main window has a menu bar (Action, Edit, Query, Go, Folder, Special, Help) and a main area with fields for Name (Vision Corporation) and Type (Corporate Headquarters). The Business Group Info dialog box contains the following fields:

Short Name	Vision Corp.
Employee Number Generation	Automatic
Applicant Number Generation	Automatic
Grade Flexfield Structure	Grade Flexfield
Group Flexfield Structure	People Group Flexfield
Job Flexfield Structure	Job Flexfield
Costing Flexfield Structure	Cost Allocation Flexfield
Position Flexfield Structure	Position Flexfield
Legislation Code	United States
Currency	USD US dollars
Fiscal Year Start	
Minimum Working Age	
Maximum Working Age	

Buttons: Clear, Cancel, OK

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Define a Business Group

Oracle Applications secures human resources information, including organization definition, by business group. You must have at least one Business Group. For a fresh installation, Oracle Applications provides a default business group, Setup Business Group. If you are upgrading to Release 11 or 10.7, you will already have your first business group defined.

For additional information on Business Groups, please refer to the Human Resource reference documentation.

Defining Legal Entities

The screenshot shows the Oracle Organization form with the following data:

- Name: Vision Operations
- Type: Division
- Dates: From 01-JAN-1987, To (empty)
- Location: V1- New York City
- Internal or External: Internal
- Location Address: 90 Fifth Avenue...New York.New York.NY.10022-3422.United States..
- Internal Address: (empty)
- Organization Classifications:
 - GRE / Legal Entity (Enabled)
 - HR Organization (Enabled)
 - Inventory Organization (Enabled)
 - Others (button)

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Defining Legal Entities

Assign your highest level organization as the legal entity. Your legal entities must have a location. In other words, *where is it physically?*

Specifying Legal Entity Accounting

The screenshot shows the Oracle Organization window for 'Vision Operations'. The main window has the following fields:

- Name: Vision Operations
- Dates From: 01-JAN-1987
- Location: V1- New York City
- Location Address: 90 Fifth Avenue...New
- Internal Address: (empty)
- Organization Classifications:
 - GRE / Legal Entity (selected)
 - HR Organization
 - Inventory Organization

The 'Additional Organization Information' window is open, showing a list of categories with 'Legal Entity Accounting' selected. The 'Legal Entity Accounting' window is also open, showing:

- Set of Books: Vision Operations (USA)
- VAT Registration Number: (empty)
- Buttons: Clear, Cancel, OK

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Assigning a Set of Books to Your Legal Entity

After you have defined your legal entities, you must assign a set of books to each legal entity. In the list of values under Additional Organization Information, choose Legal Entity Accounting and enter the set of books for the legal entity.

Defining Operating Units

The screenshot shows the 'Organization' form in Oracle Applications. The main form has the following fields: Name: Vision Operations, Type: Division, Dates: From: 01, Location: V1, Location Address: 90, Internal Address: (empty). Under 'Organization Classification', there is a list with 'HR Organization', 'Inventory Organization', and 'Operating Unit'. Two sub-forms are open: 'Additional Organization Information' with a text field containing 'Vision Operations', and 'Operating Unit Information' with a 'Legal Entity' field containing 'Vision Operations'. Buttons for 'Clear', 'Cancel', 'OK', and 'Others' are visible at the bottom right of the sub-forms.

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Defining Operating Units and Assigning Operating Units to Legal Entities

After you have defined your operating units, you must assign them to a legal entity. In the list of values under Additional Organization Information, choose Operating Unit Information and enter the legal entity to associate with the operating unit.

Defining Inventory Organizations

The screenshot displays the Oracle Organization form with the following fields and values:

- Name: Seattle Manufacturing
- Dates From: 01-JAN-1987
- Location: M1- Seattle
- Location Address: 3455 108th
- Internal Address: [Empty]
- Organization Classifications:
 - HR Organization
 - Inventory Organization
- Additional Organization Information:
 - Accounting Information: Vision Operations (USA)
 - Legal Entity: Vision Operations
 - Operating Unit: Vision Operations

Buttons: Clear, Cancel, OK, Others

3-10

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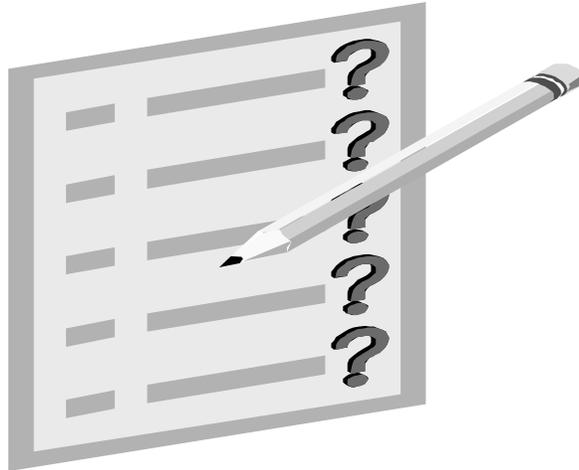
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Defining Inventory Organizations and Assigning Inventory Organizations to Operating Units

After you have defined your inventory organizations, you must assign an operating unit to each inventory organization. In the list of values under Additional Organization Information, choose Accounting Information and enter the Set of Books, Legal Entity, and Operating Unit to associate with the inventory organization.

For additional information on Inventory Organizations, please refer to the Inventory reference documentation.

Organization Naming Considerations



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Organization Naming Consideration

Multi-Org naming conventions should be used to identify the Oracle Organizations Classification (for example, Set of Books, Operating Unit, Inventory Organization) and its unique characteristics like country or currency, location name, and usage.

The following are general guidelines for creating Organization Names:

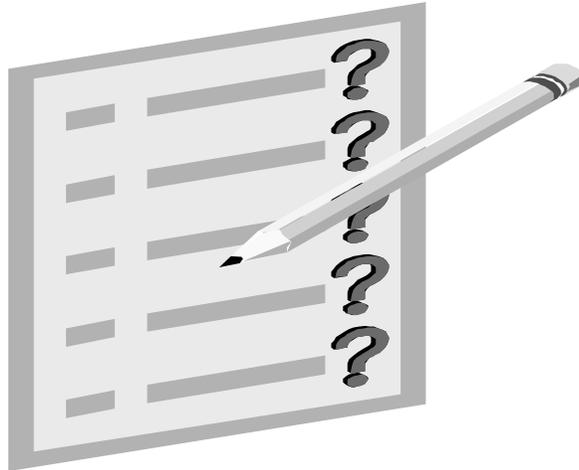
Sets of Books where:

- SOB_; is an operational book that obtains journal entries directly from a subledger system (for example, accounts payable, inventory).
- COB_; is a consolidation set of books.
- ROB_; is a reporting set of books when using Oracle Multiple Reporting Currency (MRC) feature.
- Business Group: BG_
- Human Resources Organization: HR_
- Legal Entity: LE_
- Operating Unit: OU_

Inventory Organizations where:

- IO_; is an Inventory Organization intended to be a subledger in the Oracle applications or a planning entity. This organization will contain either inventory transactions or Master Demand Schedule entries, or both.
- GM_ ; is the Global Item Master. If more are than one Item Master is used (which is not advised) then follow with a currency designation (for example, USD).

Organization Naming Considerations



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Organization Naming Considerations (continued)

- VO_; is an Inventory Organization used only for validation purposes (for example, for maintaining VAT rates by item) and is not an Inventory subledger. It will never contain inventory transactions.
- PO_; used for planning purposes only with no transactions. For example, a DRP schedule, with planning processes, and related setups for particular product lines crossing many plants and distribution centers, could be established and controlled from this Organization.)

Country codes, Locations, Business Names, Functions and (corporate) Proper Names are used in the Organization naming conventions to distinguish the actual site location and country ownership, for example:

- Country Codes; are abbreviations used to identify the Organization's country of registration and residence. They are usually three characters in length followed by a sequentially numbered digit for the country, for example, USA1, USA2.
- Locations; are the City and State or Province address of the Organization. They are delineated by an "_" between the City and State and sometimes abbreviated to fit into the 30 character suggested Name length, for example, DALLAS_TX).

Example

SOB_USA1_ABC OU_USA1_MILWAUKEE_ABCCORP

Defining Inventory Organization Access

The screenshot shows a window titled "Organization Access" with a "Responsibility" dropdown menu. Below it is a table with four columns: "Org", "Application", "Name", and "Comments". The table contains the following data:

Org	Application	Name	Comments
M1	Oracle Purchasing	Purchasing Super User	
M1	Oracle Purchasing	Purchasing Receiver	
M2	Oracle Master Scheduling	Distribution Planner	
M3	Oracle Inventory	Inventory, Vision Enterpris	
M3	Oracle Bills of Material	Cost Manager GUI US1	
P1	Oracle Engineering	Engineering	

At the bottom of the window, there is a text field labeled "Organization Name" with the value "Atlanta Manufacturing" entered.

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Defining Inventory Organization Access (Optional)

Security at the inventory organization level is optional. However, you can restrict access to inventory organizations to specific responsibilities. For example, you may want to restrict your manufacturing users to certain organizations according to your organizational hierarchy.

Note the following characteristics of this feature:

- Until you assign an organization to a responsibility in this window, all responsibilities have access to all organizations. Once you have restricted any responsibility to an organization, you must then explicitly define the organizations which all responsibilities can access.
- This feature does not restrict access once the user is in the product. Users with access to functions that cross multiple organizations (such as ATP and Item Search) can still specify any valid organization when running those functions.

Define Responsibilities

Type	Name	Description
Function	AP Employees GUI	
Function		

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Define Responsibilities

Use the define responsibility form to define the responsibilities for each operating unit. A responsibility's MO:Operating Unit profile option determines its operating unit. When you sign on to Oracle Applications, the responsibility you choose determines the data, forms, menus, reports, and concurrent programs you can access. Start with the highest level responsibilities needed for setup and develop the more restricted responsibilities as needed.

If you have multiple business groups, you must associate each of your responsibilities to one and only one business group. You associate a business group with a responsibility via the system profile HR:Business Group. If you are upgrading to Multi-Org, you must associate any previously created responsibilities to their appropriate business groups.

Set Profile Option for Each Responsibility

Profile	Site	Application	Responsibility	User
MO: Operating Unit			Vision Operations	

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Set Profile Options for Each Responsibility

Profile options specify default values that affect system processes, system controls, and data entry. In a multiple organization environment you may want to confine the effect to a specific operating unit. Therefore, you may want to change your profile options to be visible and updateable at the responsibility level.

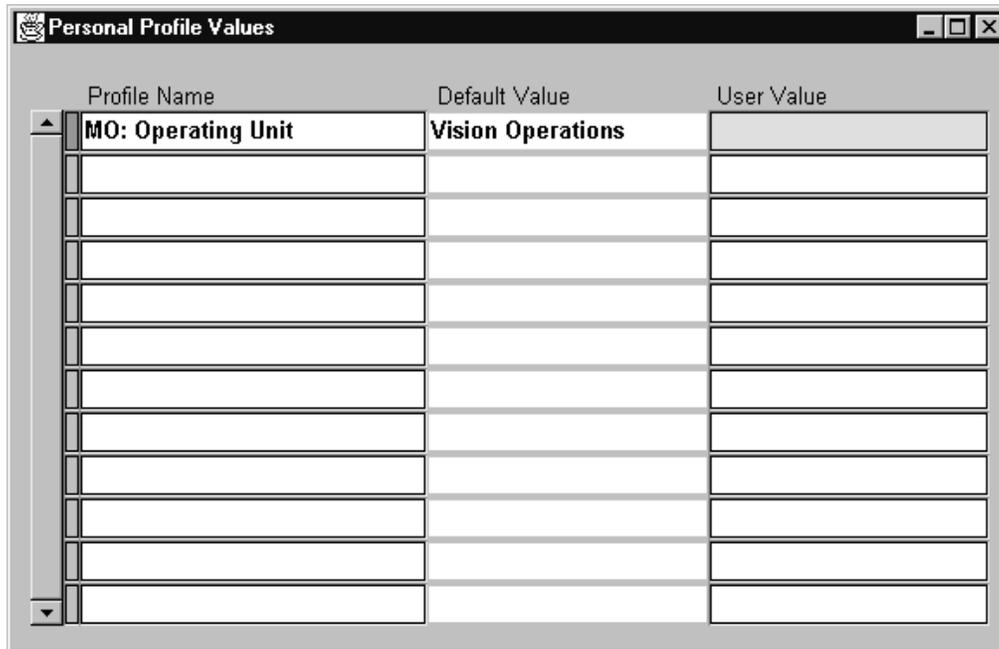
For example, if you have different item validation organizations for your operating units, change the level characteristics of your OE:Item Validation Organization profile option so they are visible and updateable at the responsibility level. If you have different sets of books for your operating units, do the same for OE:Set of Books.

You should set the following profile options for each responsibility prior to its use:

- GL:Set of Books
- MO:Operating Unit
- HR:Business Group
- OE:Item Validation Organization, if using an Item Master

All responsibilities in one operating unit must share the same profile option values and the same sequence numbering option.

Define Default Operating Unit



Profile Name	Default Value	User Value
MO: Operating Unit	Vision Operations	

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Define Default Operating Unit

You also will need to define the default operating unit by setting the MO:Operating Unit profile at the site level. If it is a fresh installment, the default operating can be any operating unit you have previously defined. If this is an existing installation, the default operating unit should be the operating unit to which all existing data should belong.

Secure Balancing Segment Values

Define Security Rules

Action Edit Query Go Folder Special Help

Value Set
 Key Flexfield
 Descriptive Flexfield
 Concurrent Program

Title **Accounting Flexfield** Structure **Distribution Accounting**
 Independent Segment **Department** Dependent Segment
 Independent Value Value Description

Name	Description	Message
Department Security	Restrict Department to 110 thru 130	Department Security: Department is restricted to 110 thru
Single Department	Restrict Department to ONLY 110	Single Department: Department is restricted to ONLY dep

Type	From	To
Include	000	ZZZ
Exclude	000	109
Exclude	131	ZZZ

Assign

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Secure Balancing Segment Values

Use the Define Security Rule form to create rules that secure data entry of balancing segment values for each legal entity. Each security rule is composed of one or more security rule elements that specify a range of values to include or exclude.

Assign Security Rules

Assign Security Rules

Action Edit Query Go Folder Special Help

Value Set
 Key Flexfield
 Descriptive Flexfield
 Concurrent Program

Title **Accounting Flexfield** Structure **Distribution Accounting**
 Independent Segment **Department** Dependent Segment
 Independent Value Value Description

Security Rules

Application	Responsibility	Name
Oracle Payables	Payables, Vision Operations (USA)	Single Department

Description **Restrict Department to ONLY 110**

Message **Single Department: Department is restricted to ONLY department 110**

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Assign Security Rules

Use the Assign Security Rules form to assign the same rules to all responsibilities associated with the legal entity's operating units. If you need further to secure balancing segment values for each operating unit of a legal entity, you can define additional rules and assign them to all responsibilities associated with the relevant operating units. When you assign multiple rules to the same responsibility, only the overlapping values of the rules are available to users of the responsibility.

Setup Validation Report

The screenshot shows a window titled "All Reports (M1)" with a menu bar (Action, Edit, Query, Go, Folder, Special, Help) and a toolbar with a question mark icon. The main area is divided into three sections:

- Run this Request...**: Contains three input fields: "Request Name" (filled with "Setup Validation Report"), "Parameters", and "Language".
- At these Times...**: Contains a dropdown menu (filled with "As Soon As Possible") and a "Schedule..." button.
- Upon Completion...**: Contains a checked checkbox "Save all Output Files", "Notify" and "Print To" input fields, and a "Completion Options..." button.

At the bottom, there are three buttons: "Copy a Prior Request...", "Cancel", and "Submit Request".

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Run the Setup Validation Report

After you have implemented Multi-Org, you can optionally run the Setup Validation report to identify any setup problems. Some of the errors that the report finds can be deleted optionally via the report form, while others require you change your setup. All suggested changes can be confirmed optionally so that you may retain your implementation even if it fails validation.

Some of the errors that may be identified on the report include:

- Disabled fields on Customer and Supplier forms such as Order Type, Dunning Site, Liability Account, and Distribution Set. The data for these fields is partitioned by operating unit. Because header information is shared across operating units, the data for these fields must be deleted from the database. If you do not choose to have the report delete the data, you must edit your data manually.
- Consistency of Profile Option Values for each operating unit.

Document Sequencing

- **Business Requirements**
- **Automatic or Gapless or Manual Sequence**

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Document Sequencing

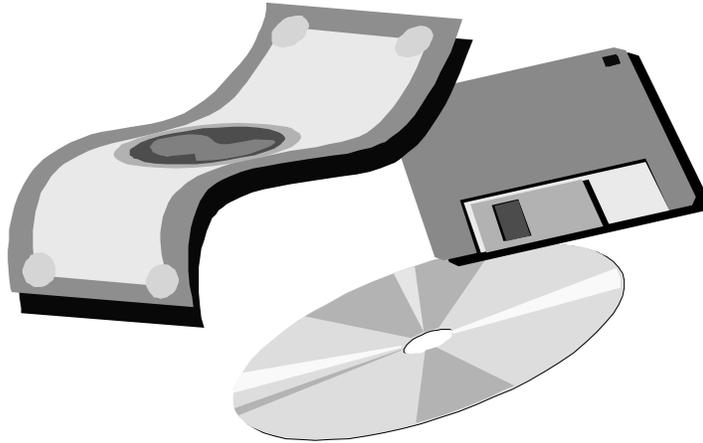
Document sequencing in Oracle Applications is a method to assign unique numbers to documents you create. Each time you enter a transaction, you create a document. For example, when you enter an invoice, you create an invoice document. By assigning unique numbers to documents you can account for each transaction you enter and the document that accompanies it. By assigning the sequence number to documents, even documents that are not successfully entered, can be audited. You can use document sequences to account for every transaction, even those that failed or were deleted. All sequences are controlled at the set of books level.

There are three possible sequences:

- **Automatic** Automatically assigns each document a unique number that is generated by the date and time of creation of the document.
- **Gapless** Automatically generates a unique number for each document but ensures that the document was successfully generated before assigning the number.
- **Manual** Requires the user to assign a unique number to the document. Numerical ordering and completeness are not enforced.

Although the requirement is at the legal-entity level, document sequencing is currently at the set of books level in Oracle Applications. If document sequencing is needed, you must have the following organizational relationship: 1 SOB to 1 LE to 1 OU.

Considerations When Implementing Individual Applications



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Implementation of the Application Products

Once the Multi-Org setup steps are completed you need to go into each operating unit and set up the Oracle Application products. The following products need to be set up for each operating unit in which you intend to perform the functions; Oracle Order Entry, Oracle Projects, Oracle Sales and Marketing, Oracle Service, Oracle Sales Compensation, Oracle Receivables, Oracle Payables, Oracle Cash Management, and Oracle Purchasing.

The following setup data is only setup once for the Enterprise:

- Flexfield Definitions
- Customer Header
- Supplier Header

The following pages show the setup that must occur in each operating unit per application.

Note

For a complete list of the forms that are set up in each operating unit, check the tables for each application. Any tables with `_ALL` added are partitioned by operating unit, and data needs to be set up by the operating unit.

Oracle Order Entry



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Order Entry

The following setup data must be setup for each operating unit:

- Hold Source
- Order Types
- Holds

Oracle Purchasing



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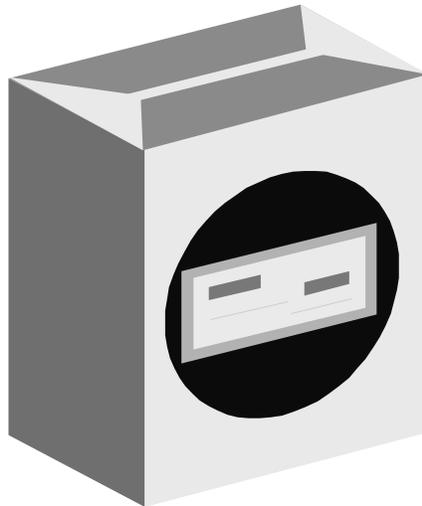
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Oracle Purchasing

The following setup data must be set up for each operating unit:

- Control rules and groups
- System parameters
- Position Controls
- Financial options
- Job or Position Controls
- Document controls
- Purchasing options
- Receiving options

Oracle Payables



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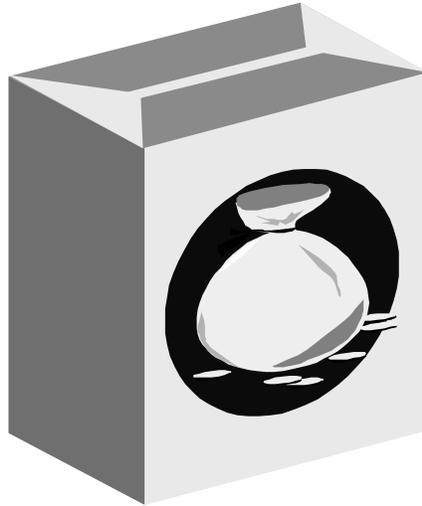
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Oracle Payables

The following setup data must be set up for each operating unit:

- Matching Tolerances
- Distribution Sets
- Bank Accounts
- Tax Names and Groups
- Reporting Entities
- Financial Options
- Expense Detail Report Format
- System Options

Oracle Cash Management



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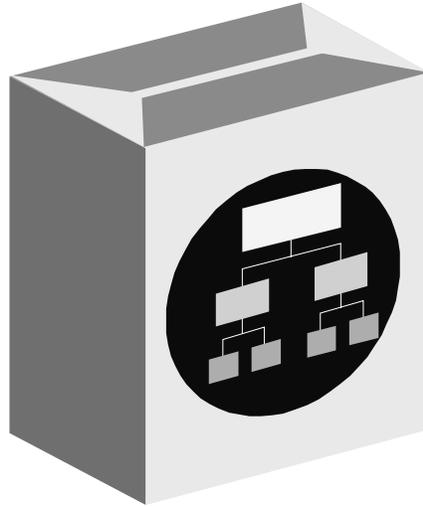
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Oracle Cash Management

The following setup data must be set up for each operating unit:

- System Parameters
- Bank Accounts

Oracle Projects



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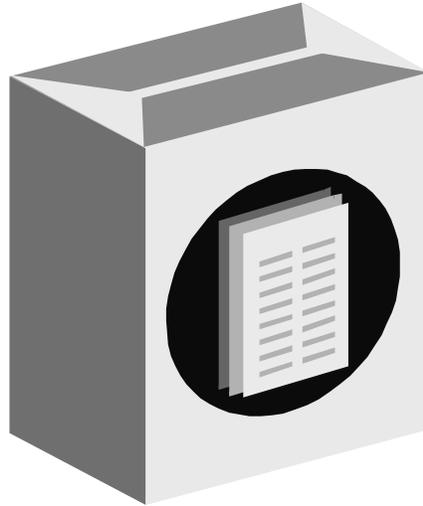
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Oracle Projects

The following setup data must be set up for each operating unit:

- Implementation Options
- PA Periods
- Cost Rates for Expenditure Types
- Usage Cost Rates Overrides
- Employee Cost Rates
- Bill Rate Schedules
- Project Types
- Project Templates
- AutoAccounting for Costs
- AutoAccounting for Revenue and Billing
- Indirect Projects for Cost Collection

Oracle Receivables



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Oracle Receivables

The following setup data must be set up for each operating unit:

- System Options
- Transaction Types
- Remit to Address
- Salespersons
- Tax Exemptions and Exceptions
- Batch Sources
- VAT Taxes
- Distribution Sets
- Memo Lines
- AutoAccounting
- Invoice Sources
- Receivable Types
- Receipt Sources
- Payment Method
- Customer Relationships

Summary

- **In this lesson we learned about the steps and considerations for the setup and implementation of a Multi-Org environment.**

Summary

In this lesson we discussed many considerations in the setup and implementation of a Multi-Org environment. We stressed the importance of developing the organization structure, and learned to define set of books, business groups, legal entities, operating units and inventory organizations. We learned of common conventions in the naming of your organizations. We then learned of responsibilities, profile options, and the benefits of document sequencing. Finally we looked at setup considerations per application product.

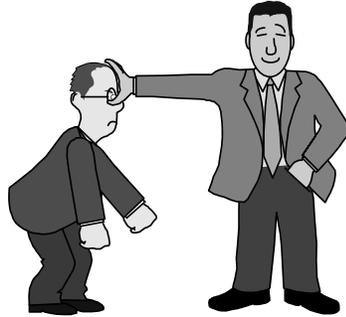
4

Securing Access to Data with Multi-Org

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Objective

- **At the end of this lesson you should be able to secure access to data through responsibilities.**



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Objective

In this lesson, you will learn how Oracle Applications lets you set up separate and distinct responsibilities in order to secure access to data. From both an internal and external audit standpoint, good internal control over organizational data involves the separation of duties or responsibilities. Oracle Applications and the Multi-Org enhancement enable the separation of duties through the establishment of user responsibilities. In addition, you will learn how the Multi-Org enhancement takes the separation of duties concept to the next level, enabling you to completely control access to data.

Controlling Access

- **Data security**
 - **Responsibility determines the operating unit**
 - **Inventory organization security by responsibility**

Data Security

You can limit users to information relevant to their organization. For example, order administration clerks can view sales orders associated exclusively with their sales office.

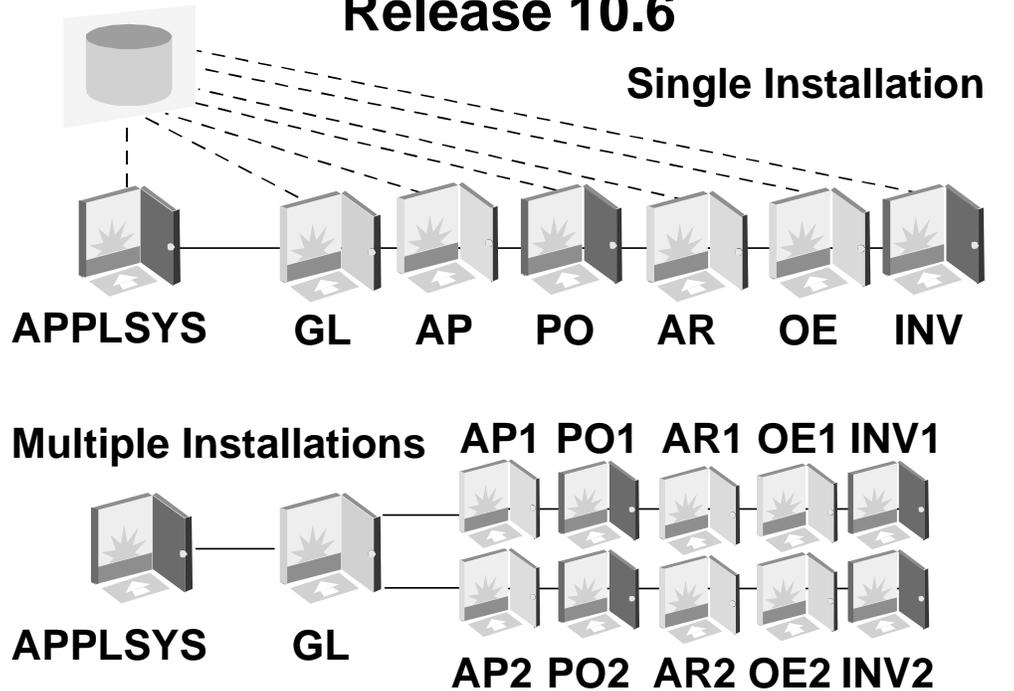
Responsibility Determines the Operating Unit

Your responsibility determines the operating unit you access when you use Oracle Applications. You see information that is only relevant to your operating unit. All transactions you create are automatically assigned to your operating unit.

Inventory Organization Security by Responsibility

You can specify inventory organizations that are available to users in a particular responsibility. The Choose Inventory Organization window automatically limits the inventory organizations available to those authorized for the current responsibility.

Schema Architecture Before Release 10.6



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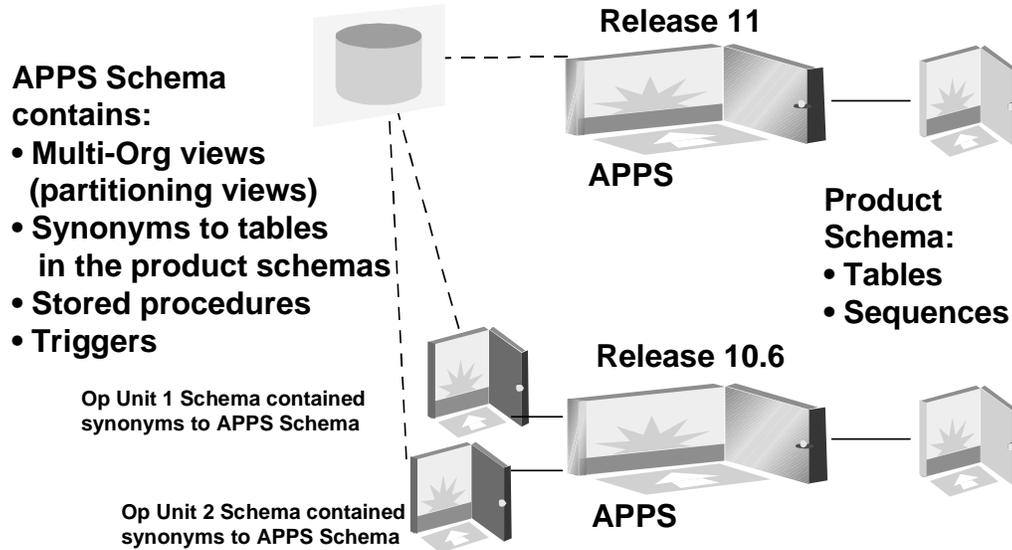
Schema Architecture Before Release 10.6

The graphic above is an architectural schematic of the single versus multiple installation approach in an Oracle Applications environment prior to release 10.6. In the diagram, the open door icon represents the application code, forms, database schema (including definition of tables, views, procedures, triggers, and sequences), and the database tables themselves.

Note

The term *schema* is used to mean Oracle Account.

Release 11 and 10.6 Multiorganization Architecture



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The APPS Schema

In a Multi-Org environment, data partitioning is performed by database views. These views reside in the APPS Oracle schema and derive the appropriate operating unit context from an RDBMS variable introduced in Release 10.7.

Release 11 Database Design

Releases 11 and 10.7 do not have operating unit schemas; all applications code run out of the APPS schema. Therefore, the Oracle database architecture is the same for a Multi-Org and a non-Multi-Org implementation. The diagram illustrates the difference between the Release 11 and Release 10.6 database architecture.

Release 10.6 Database Design

In Release 10.6, the Multiple Organization Support feature added operating unit schemas to the standard APPS schema. These operating unit schemas contained synonyms to all of the objects in the APPS schema, and all application code was executed out of these operating unit schemas.

Data Partitioning

- **In general, tables are partitioned according to the following criteria:**
 - **Tables contain a GL Account Code (CCID).**
 - **There is a business reason for the table to be partitioned.**
 - **Tables contain transaction data.**

Data Partitioning with ORG_ID

The ORG_ID column has been added to most of the application tables and is used to partition the data in the tables. The ORG_ID column value represents the operating units in an enterprise. Default capability has been added to the ORG_ID column so that the column is automatically populated when you add a row to a partitioned table.

Oracle Manufacturing products are already partitioned by inventory organization by using the ORGANIZATION_ID column as an identifier..

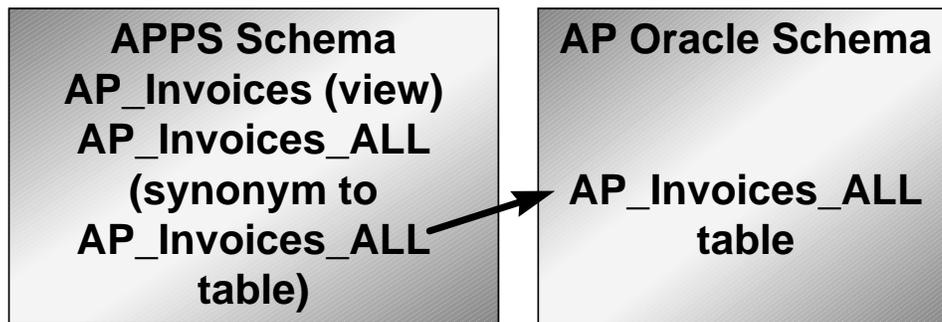
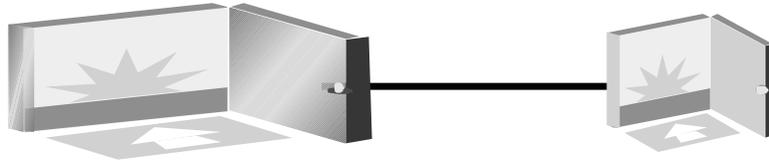
Data Partitioning (Continued)

- **In general, tables are partitioned according to the following criteria:**
 - **All interface tables where data is being loaded are partitioned.**
 - **Table includes a foreign key to a partitioned table and is accessed independently.**

Data Partitioning with ORG_ID (Continued)

Oracle Receivables, Oracle Order Entry, Oracle Payables, Oracle Purchasing, Oracle Cash Management, Oracle Sales and Marketing, Oracle Sales Compensation, Oracle Projects, and Oracle Service secure tables by operating unit. Some tables must be secured by operating unit, others are shared. You can create custom reports or windows to view secured data across operating units by using the full-table views.

Table Name Changes



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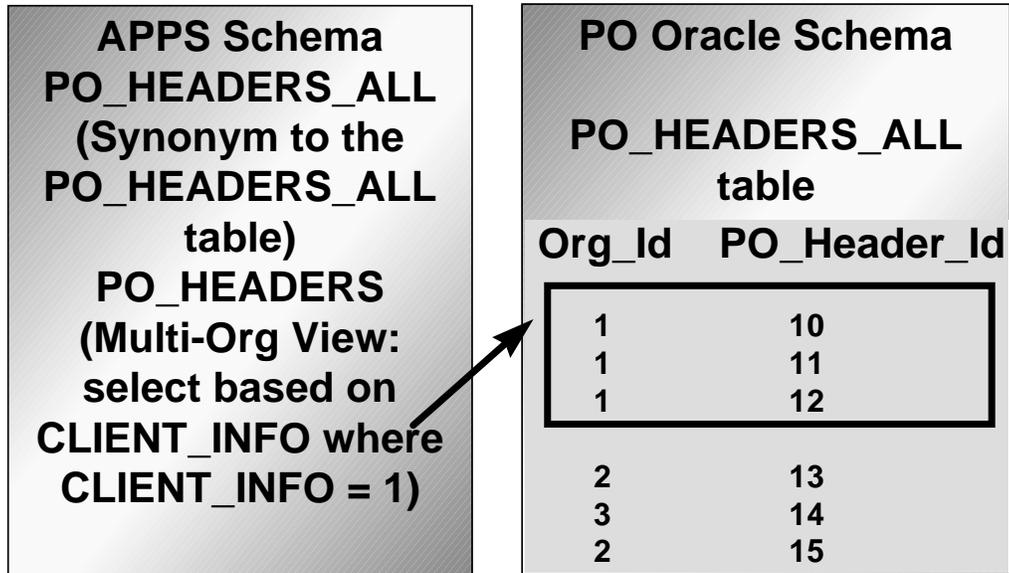
Table Name Changes

Beginning with Release 10.7, the secured base product tables were renamed as *Release 10.6 table name_All*. This change ensures that the database architecture is the same for a Multi-Org and a non-Multi-Org installation.

In a new installation, standard installation tools will now automatically create synonyms in the APPS schema for each base product table and create these synonyms with the same name as the base product tables.

For example, the AP Oracle schema has a table named AP_Invoices_ALL (previously named AP_Invoices in Release 10.6), and the APPS schema has a corresponding synonym of the same name, AP_Invoices_ALL.

The RDBMS Variable



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New RDBMS Variable

With Multi-Org enabled, a global variable exists in the Oracle database (RDBMS 8) called **CLIENT_INFO**, which is 64 bytes long. The first 10 bytes are used to store the operating unit ID (or **ORG_ID**) for the Multiple Organization Support feature. The **CLIENT_INFO** context is derived from a profile option that the user sets for each responsibility as part of the Multi-Org setup steps.

The static view below is used to identify the appropriate operating unit.

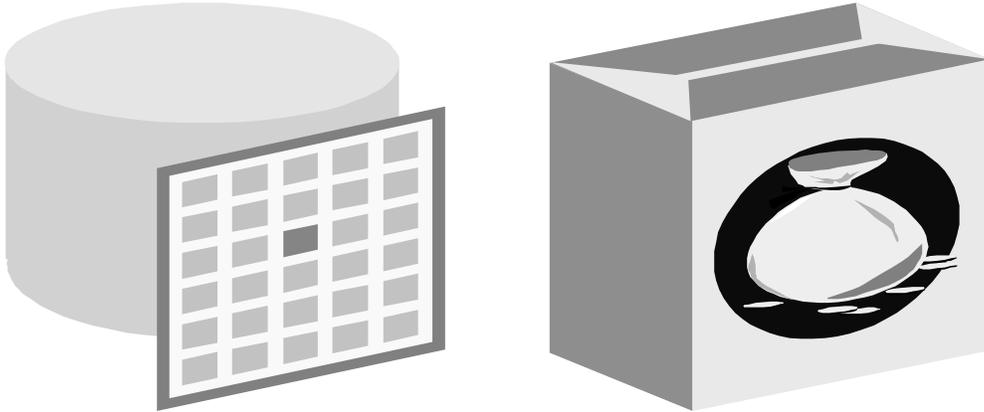
```

Select * from <table name>_ALL
where
NVL(ORG_ID,NVL(TO_NUMBER(DECODE(SUBSTR(USERENV('CLIENT_INFO'),1,1,1)
,
\ \, NULL, SUBSTR(USERENV('CLIENT_INFO'),1,10))),-99)) =
NVL(TO_NUMBER(DECODE(SUBSTR(USERENV('CLIENT_INFO'),1,1),
\ \,
NULL,
SUBSTR(USERENV('CLIENT_INFO'),1,10))),-99)

```

This is a partitioned Multi-Org view, partitioned by the **ORG_ID** that is stored in the **CLIENT_INFO** variable.

Partitioned Tables for Oracle Cash Management Example



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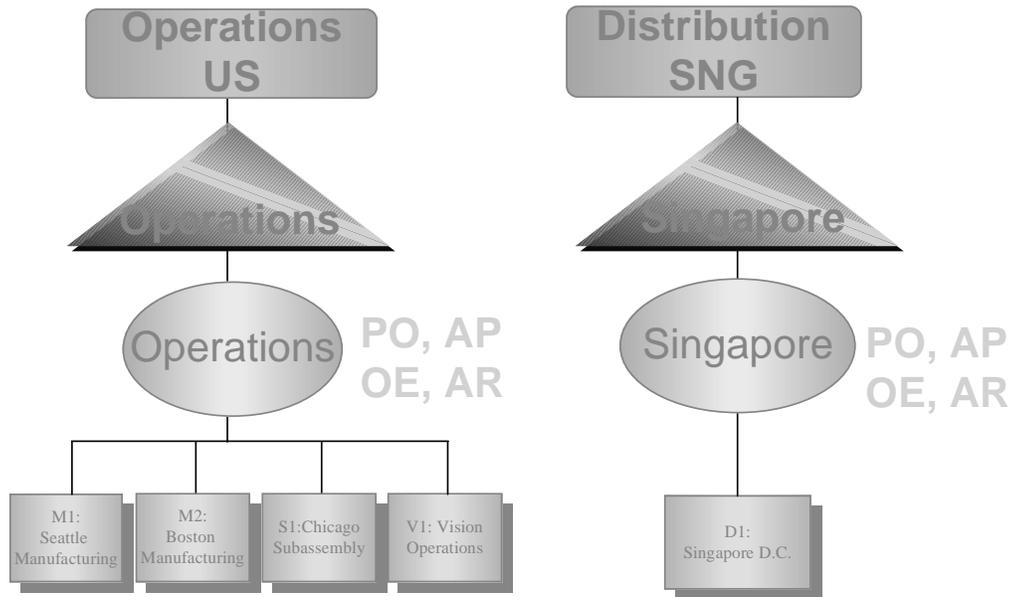
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Partitioned Tables for Oracle Cash Management Application

As an example of data partitioning, the following list includes all database tables for Oracle Cash Management that are secured by Operating Unit:

- CE_Arch_Headers_All
- CE_Arch_Interface_Headers_All
- CE_Arch_Reconciliations_All
- CE_Statement_Headers_All
- CE_Statement_Headers_Int_All
- CE_Statements_Reconcils_All
- CE_System_Parameters_All

Security by Operating Unit



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Separation of Transactional Data

All transactional data is separated by the operating unit in which the transaction originated. The identifier in each case is stored by `ORG_ID` (not to be confused with the Inventory Organization assignment: `ORGANIZATION_ID`). `ORG_ID` is the new Multi-Org designation for an operating unit. `ORGANIZATION_ID` is the inventory organization ID. These two identifiers are not the same and are not interchangeable.

This identifier allows Oracle to partition the data and restrict access by responsibility to data that contains the same `ORG_ID`. In the above example from the Vision Demo environment, the Singapore OU will not access a purchase order created in the Operations OU and vice versa.

This contrasts with the Set of Books information, which can be consolidated using standard functionality in the General Ledger module. Multi-Org information (`ORG_ID`) is not stored within the General Ledger module.

Data Security by Application

Application	Partitioned By	Secure
GL	Set of books	Yes
FA	Corp book	No
HR	Business group	Yes
OE, AR, AP, PO, CE, PA, AS, SC	Operating unit	Yes
INV, MFG	Inventory organization	Yes

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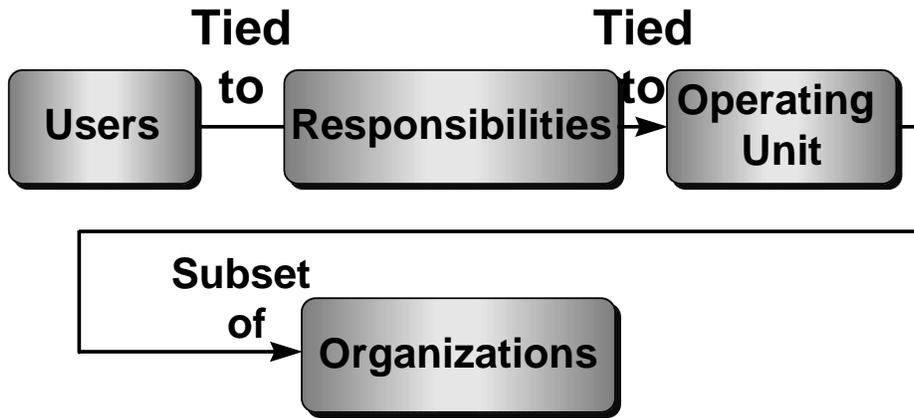
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Data Security by Application

- General Ledger and Fixed Assets are already partitioned by Set of Books.
- Human Resources is partitioned by Business Group.
- Oracle Order Entry, Oracle Accounts Receivables, Oracle Accounts Payables, Oracle Purchasing, Oracle Cash Management, Oracle Projects, Oracle Service, Oracle Sales Compensation, and Oracle Sales and Marketing are partitioned by Operating Unit.
- Manufacturing applications are partitioned by Inventory Organization.

Security Model



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How Security Is Defined and Set Up in Oracle Applications

The graphic above shows how security is defined within Oracle Applications. As shown in the diagram, users have responsibilities, which are attached to operating units (or inventory organizations), which are a subset of an enterprise's many organizations.

Defining Responsibilities

The screenshot shows the 'Responsibilities' window with the following fields:

- Responsibility Name: Payables, Vision Operations (USA)
- Application: Oracle Payables
- Responsibility Key: PAYABLES_OPERATIONS
- Description: Oracle Payables Superuser for Vision
- Effective Dates: From 07-DEC-1997, To (empty)
- Available From: Oracle Applications, Oracle Self Service Web Applications
- Data Group: Name Standard, Application Oracle Payables
- Request Group: Name All Reports, Application Oracle Payables
- Menu: AP_NAVIGATE_GUI12
- Web Host Name: (empty)
- Web Agent Name: (empty)
- Function and Menu Exclusions: (dropdown menu)
- Table with columns: Type, Name, Description. The first row is 'Function' with name 'AP Employees GUI'.

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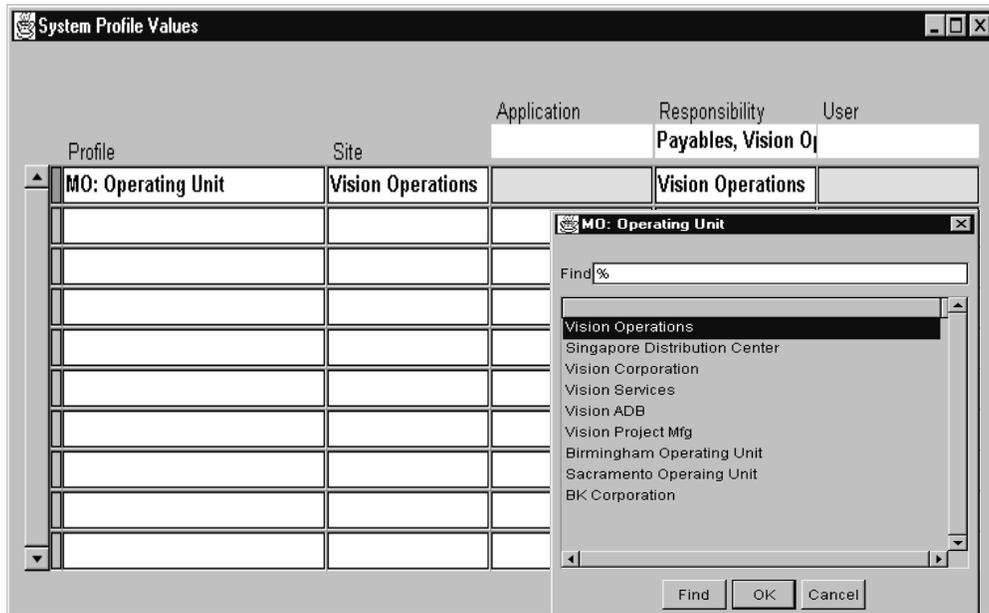
Defining Responsibilities

Use the Responsibilities window to define the responsibilities for each operating unit or inventory organization. When you log in to Oracle Applications, the responsibility you choose determines the data, windows, reports, and concurrent programs you can access.



Set up responsibilities with a prefix that is a unique identifier for that operating unit, for example, NW Purchasing or South Purchasing. That way, when a user who has access to multiple responsibilities logs in, they will see a list which identifies the responsibility and the operating unit.

Assigning an Operating Unit to a Responsibility



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This task is performed in Oracle System Administration using the System Profile Values window.

Defining Users

The screenshot shows the Oracle Users window with the following fields and values:

- User Name: RSMITH
- Description: Rusty Smith (VP Communication)
- Password: (empty)
- Person: Smith, Ms. Rusty
- Customer: (empty)
- Supplier: (empty)
- E-Mail: rsmith@reflex.com
- Fax: 488-990-0110
- Password Expiration:
 - Days
 - Accesses: 50
 - None
- Effective Dates:
 - From: 24-SEP-1994
 - To: (empty)
- Responsibilities: (dropdown menu)

Below the responsibilities dropdown is a table with the following data:

		Effective Dates			
Responsibility	Application	From	To	Description	
Receivables, Vision Operati	Oracle Receivables	24-SEP-1998			
Payables, Vision Operations	Oracle Payables	24-SEP-1998			
Sales and Marketing, Vision	Oracle Sales and Mark	24-SEP-1998			

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Defining Users

Use the Users window to define application users and to associate responsibilities with users.

Summary

- **In this lesson you learned how Multi-Org secures access to data through responsibilities.**

Summary

In this lesson, you learned how Oracle Applications enable you to set up separate and distinct responsibilities in order to secure access to data. From both an internal and external audit standpoint, good internal control over organizational data involves the separation of duties or responsibilities. Oracle Applications and the Multi-Org enhancement enable the separation of duties through the establishment of user responsibilities. You also learned how the Multi-Org enhancement takes the separation of duties concept to the next level, enabling you to completely control access to data.

5

Processing Intercompany Sales

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Objectives

At the end of this lesson, you should be able to:

- **Define intercompany invoicing.**
- **Describe the stages of the automatic accounting of the intercompany sales transactions process.**
- **Define Customers and Suppliers.**
- **Define Intercompany Relations.**

Objectives

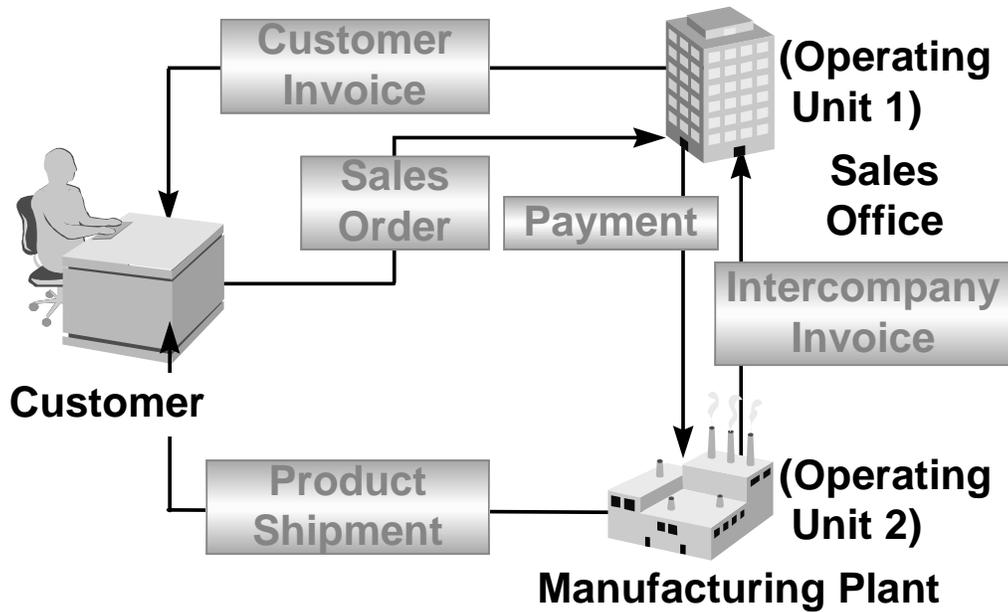
In this lesson, you learn, through a comprehensive example, the stages of the automatic intercompany invoicing process. You learn the definition of intercompany transactions and the accounting process for intercompany sales transactions. You will also learn how automatic intercompany invoicing enables automatic intercompany sales recognition. It also segregates trade and intercompany cost of goods sold accounts, allowing specific identification of intercompany transactions. You learn how to define intercompany relationships within Oracle Applications. Finally you will learn the process involved in creating intercompany invoices and the journal entries created in Oracle General Ledger.

Objectives

At the end of this lesson, you should be able to:

- **Define System and Profile Options in Oracle Receivables and Oracle Payables.**
- **Define Account Generator for Cost of Goods Sold.**
- **Review Journal Entries from Intercompany Sales.**

Example of Sales Transaction with Intercompany Element



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What are Intercompany Transactions?

The graphic above shows the business flow of a typical sales transaction where the product is shipped from a different operating unit than from where the order originated. Intercompany transactions are transactions between related organizations. The number of intercompany transactions can be quite large for an organization.

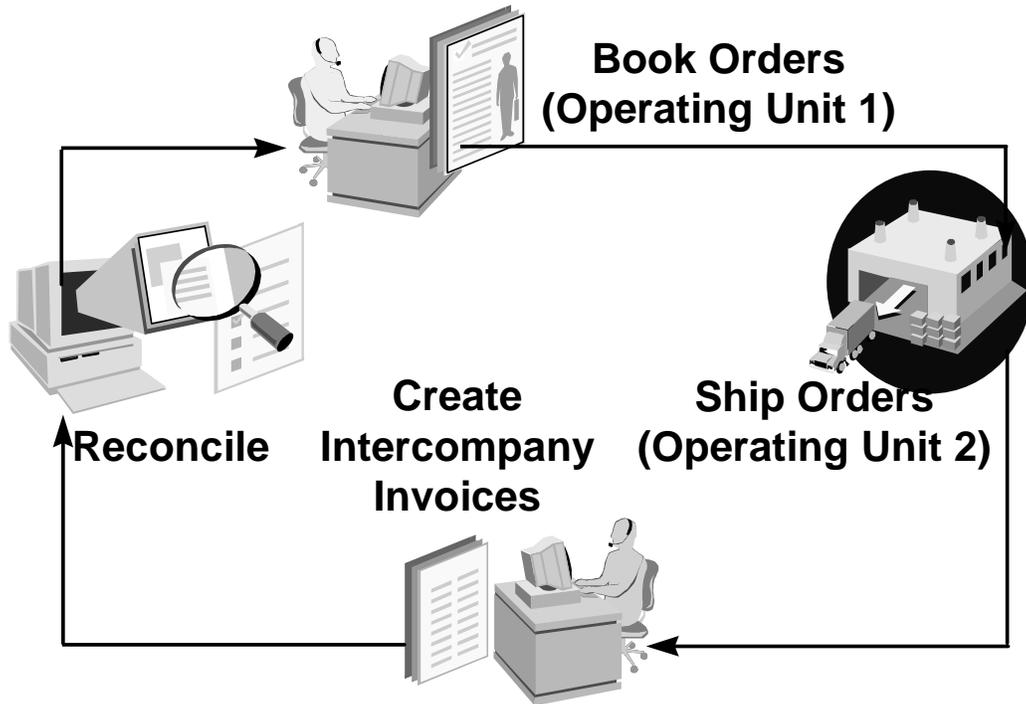
Examples of intercompany transactions include:

- Sales transactions
- Purchasing and expense transactions (one company buys or pays for another)
- Stock (equity) transactions

This lesson covers sales transactions.

Intercompany invoicing is the process of invoicing a related organization for goods or services that have been rendered to it.

Accounting Process



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Accounting Process of Intercompany Sales

The graphic above describes the automatic intercompany sales process from an accounting standpoint. Notice the four stages in the accounting process for intercompany sales transactions: Book orders, ship orders, create intercompany invoices, and reconcile.

The Create Intercompany Accounts Receivables (AR) Invoices and Create Intercompany Accounts Payables (AP) Invoices processes result in a formal AR/AP audit trail.

Automatic Intercompany Invoicing Features

- **Segregate trade cost of goods sold (COGS) and intercompany COGS**
- **Transfer pricing established through ordinary price lists**
- **Automatic intercompany sales recognition**
- **Flexible architecture**

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Automatic Intercompany Invoicing Features

Intercompany COGS and revenue: Define different accounts for Trade and Intercompany COGS and Sales Revenue to eliminate intercompany profits.

Transfer pricing: Establish your transfer pricing in intercompany invoices through Oracle Order Entry's price lists. You may want to use separate price lists for the intercompany sales orders.

Automatic intercompany sales recognition: Assign a shipping warehouse under a different operating unit to a sales order. Oracle Applications automatically records an intercompany sale between the shipping organization and the selling organization by generating intercompany invoices. The process starts after the product has shipped.

Flexible architecture: At key event points in the programs, stored procedure callbacks have been installed, including invoice and invoice line creations, and the transfer pricing algorithm. You can insert PL/SQL code to append or replace existing program logic to meet your specific business requirements.

Getting Started

- **Define Customers**
- **Define Suppliers**
- **Define Transaction Types**
- **Define Intercompany Relations**
- **Set Oracle Receivables system and profile options**
- **Define tax structures for Oracle Receivables**

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Getting Started

There are several setup steps that have to be performed before the intercompany sales process will work. These steps are discussed in the following pages.

Getting Started (Continued)

- **Set Oracle Payables system options**
- **Define tax structures for Oracle Payables**
- **Set up Account Generator for the Cost of Goods Sold account**

Define Customers

The screenshot shows the 'Customers - Standard' window with the following data:

Customer Name	Global SAC	Number	1000
Alternate Name	Sacramento Operating Unit	Taxpayer ID	68-98876532
Tax Registration Num		<input checked="" type="checkbox"/> Active	[]
Classification			
Use	Customer	Reference	1000
Profile Class	Average	Type	Internal
Class	High Technology	Category	
Tax Code		SIC Code	3000
Tax Rounding	Nearest	Tax Calculation	Line
<input type="checkbox"/> GSA		Ship Partial	Yes
Salesperson	Howard Sprague	Carrier	
FOB	Destination	Order Type	
Price List	Internal Price List	Freight Terms	
Warehouse	Seattle Manufacturing	Sales Channel	Commercial

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Define Customer (Oracle Receivables or Oracle Order Entry)

Ⓝ Customers-Standard

Use this window to define a customer and customer sites in the shipping organization's operating unit to represent each selling entity as a customer. This customer/customer site combination is used in intercompany receivable invoices.

Customer header data is shared information that is available to all operating units. Addresses, Bank Accounts, Contacts, Payment Methods, and Telephone data is partitioned by operating unit. Therefore, data specific to each operating unit must be entered using a responsibility that is attached to each operating unit.

One approach would be to define a customer named "Intercompany Invoices" and for each shipping operating unit define an address that corresponds to the selling operating unit. At the address level you would then associate a intercompany price list, a bill-to location, and any other desired defaults. If only one intercompany price list is used, you can associated this at the customer header level.

Price List

Price List		
Item	UOM	Cost
A	ea	\$50
B	ea	\$100
C	ea	\$150

Currency: USD

=



**Currency of
Price List**

Determines

**Transaction
Currency**

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How Oracle Applications Determines Transaction Currency

The currency defined in the price list is used as the transaction currency for the intercompany accounting distributions. The applicable exchange rates are applied by AutoInvoice if the currency of the price list is different from the functional currencies of the two legal entities.

Define Suppliers

Site Name	Alternate Name	Address
BIRMINGHAM		12 Long Court Ave, Suite 100, Birmingham, U

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Define Suppliers (Oracle Payables or Oracle Purchasing)

Ⓝ Suppliers-Entry

Use this window to define supplier and supplier sites in the order entry operating unit which corresponds to the shipping organization.

Supplier header data is shared information that is available to all operating units. Supplier sites and contacts are partitioned by operating unit. Therefore, data specific to each operating unit must be entered using a responsibility that is attached to that operating unit.

One approach would be to define a supplier named “Intercompany invoices” and for each selling operating unit define a site that corresponds to the shipping operating unit. At the site level you would then associate an intercompany liability account and any other desired defaults.

Define Transaction Types

Transaction Types

Name: Description:

Class: Open Receivable Post To GL

Terms: Printing Option: Transaction Status:

Allow Freight Tax Calculation

Creation Sign: Natural Application Only

Application Rule Set:

Allow Overapplication

Receivable Account: Freight Account:

Revenue Account: Clearing Account:

Unbilled Account: Unearned Account:

Tax Account:

Invoice Type: Credit Memo Type:

Start Date: End Date:

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Define Transaction Type (Oracle Receivables)

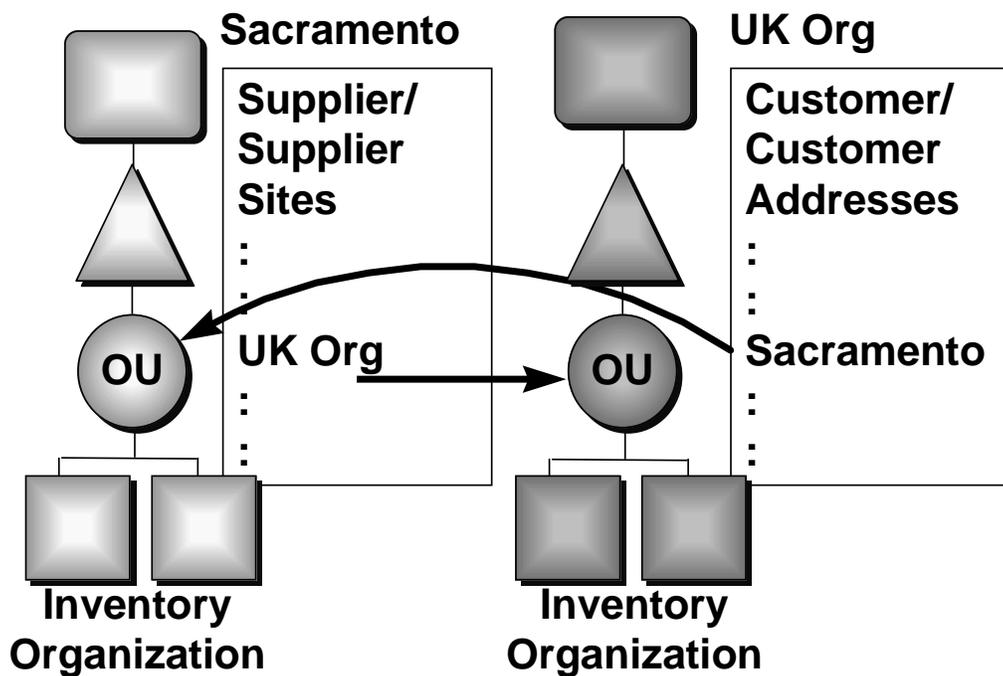
Ⓝ Setup-Transactions-Transaction Types

Use this window to define the invoice transaction type in the shipping organization's operating unit.

You need to define the transaction types you assign to your invoices, debit memos, commitments, chargebacks, credit memos, and on-account credits. Transaction types are used to default payment term, account, tax, freight, creation sign, posting, and receivables information. This data is partitioned by operating unit, therefore, data specific to each operating unit must be entered by a responsibility attached to each operating unit.

One approach would be to create an "Intercompany Invoice" type for each operating unit. You would then associate an intercompany receivable, freight, and revenue account to this invoice type.

Defining Intercompany Relations



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Defining Intercompany Relations

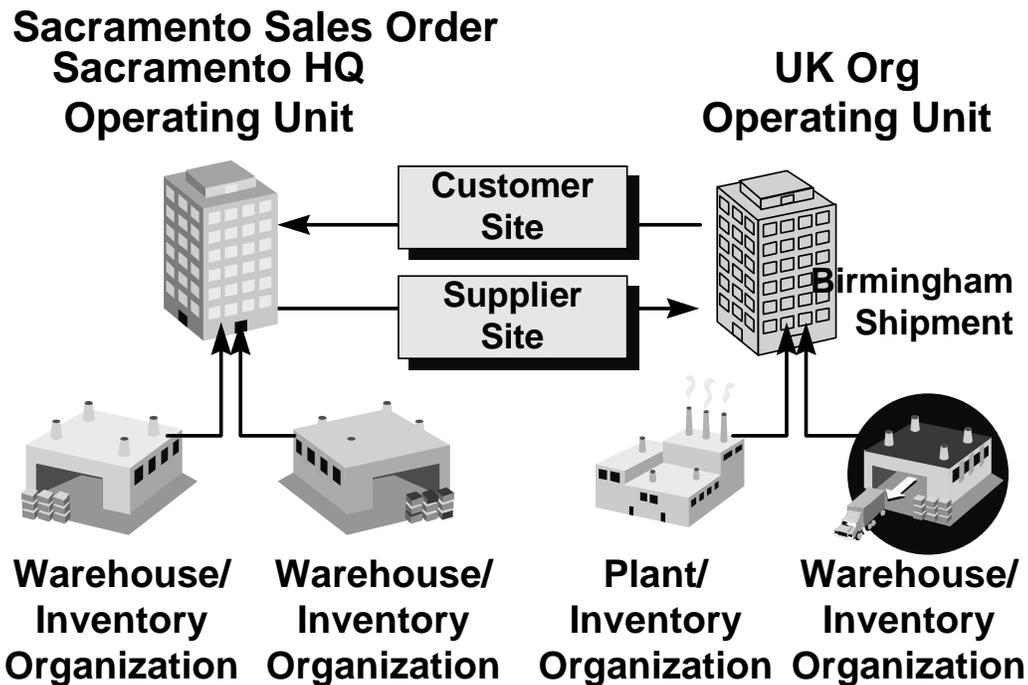
For each pair of selling and shipping operating units, you need to enter:

- A customer and customer address combination, defined in the shipping organization's operating unit, to represent each selling entity. This customer and customer address combination is used in intercompany receivable invoices.
- An invoice transaction type, defined in the shipping organization's operating unit.
- A supplier and supplier site combination, defined under the selling organization, to represent each shipping entity. This supplier and supplier site combination is used in intercompany payable invoices.

The customer address for the intercompany receivable invoice is then determined from the selling operating unit, and the supplier site for the intercompany payable invoice determined from the shipping operating unit.

The currency of the price list associated with the customer will be used as the currency in the intercompany invoices.

Intercompany Relations Example



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Example

In the graphic above, UK Org supplies some of the orders for the Sacramento operating unit. As noted earlier, the customer and supplier registries span the Multi-Org installation. Therefore, the UK Org operating unit needs to be on the global supplier list, and the Sacramento operating unit needs to be on the global customer list. Sacramento, the selling organization, must add UK Org as an intercompany supplier site to Sacramento's list of supplier sites.

From the perspective of UK Org, if it wants to be able to supply Sacramento, it must add Sacramento as a customer to UK Org's list of customers.

This allows one-way intercompany transactions.

Intercompany Relations Window

Intercompany Relations

Operating Unit

Shipping: Vision Operations

Selling: Vision Services

AR Invoicing for Shipping

Customer: Global Sac

Number: 1007

Location: San Jose

Transaction Type: Invoice-Intercompany

AP Invoicing for Selling

Supplier: Global Bir

Site: DANBURY

Freight Account: 01-000-7220-000

Revalue Average

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Intercompany Relationships (Oracle Inventory)

① Setup—>Organizations—>Intercompany Relations

Use the Intercompany Relations window to set up your intercompany relationships.

- Perform the setup from the perspective of the operating unit that is doing the shipping.
- Enter the selling operating unit, customer and customer location, supplier and supplier site, and the Oracle Receivables transaction type.
- The AR Invoicing for Shipping block represents the operating unit that places the order; not a trade customer.
- The AP Invoicing for Selling block represents the operating unit that ultimately ships the product to the trade customer.
- Select Revalue Average if you are using average costing.

This information must be entered for *all* combinations of operating units performing intercompany transactions.

Note: An intercompany relationship not defined here would prevent the creation of an automatic intercompany invoice for the transaction.

Oracle Receivables System Options

- **Do not modify Intercompany batch source**

Oracle Receivables System Options

In a Multi-Org environment, certain profile options, such as OE: Item Validation Organization and OE: Set of Books, are applicable at the *operating unit* level. As each responsibility is associated with an operating unit, define these profile options at the responsibility level, rather than the site or application level.

Receivables Invoice Batch Source: The batch source is not actually a system option, but you must ensure that the Intercompany source exists. An invoice batch source indicates the source of an invoice that you transfer to Oracle Receivables. It also determines how AutoInvoice processes an invoice. All intercompany invoices generated by the Create Intercompany AR Invoices process use the predefined Intercompany batch source. Modifying this invoice batch source might cause unexpected failures during the AutoInvoice process.

Profile Options

- **INV: Intercompany currency conversion**
- **Tax: Allow override of tax code**
- **Tax: Invoice freight as revenue**
- **Tax: Inventory item for freight**
- **OE: Item validation organization**

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Oracle Receivables Profile Options

Navigate to the Update System Profile Options window to enter or update options.

INV: Intercompany Currency Conversion: Determines the conversion type for foreign currency invoices

Note The intercompany invoicing programs do not prompt for a conversion rate. Therefore, make sure all required exchange rates are available in Oracle General Ledger.

Tax: Allow Override of Tax Code: Determines whether tax code information should apply for freight charges

Tax: Invoice Freight as Revenue: Indicates whether freight lines should be handled as revenue lines

Tax: Inventory Item for Freight: Uses the inventory item when freight lines are handled as revenue lines

The Create Intercompany AR Invoices program examines the profile option values of all the responsibilities for an operating unit. If only one responsibility has a profile option set, the value of that profile is used. If values exist for two or more responsibilities and the values are identical, the value is used. If the profile option values differ between responsibilities, the Create Intercompany AR Invoices program raises an error. Finally, if a specific profile option is not set for a responsibility, the site value is used.

Profile Options

- **INV: Intercompany currency conversion**
- **Tax: Allow override of tax code**
- **Tax: Invoice freight as revenue**
- **Tax: Inventory item for freight**
- **OE: Item validation organization**

Oracle Receivables Profile Options (Continued)

OE: Item Validation Organization: Inventory organization in which the freight item specified in the profile Tax: Inventory Item for Freight is defined.

The inventory organization determines items available to Oracle Order Entry. The OE: Item Validation Organization profile option specifies the inventory organization Oracle Order Entry uses to validate items. Some inventory item attributes for Oracle Receivables and Oracle Order Entry are specific to an operating unit or an accounting flexfield structure, including Tax Code and Sales Account. Therefore, you should define an item validation organization for each operating unit.

The inventory organization also determines which items are available to Oracle Purchasing. The inventory organization you specify in the financial options for each operating unit determines the items available in Purchasing. You can choose only an organization that uses the same set of books as your operating unit.

Oracle Receivables Tax Structures

Rate

Effective Dates

Tax Code	From	To	Tax Type	Tax Rate %	Sign
ABPST	01-JAN-1990		Sales Tax	0	Cr
BCPST	01-JAN-1990		Sales Tax	7	Cr
CST	01-NOV-1992		Sales Tax	5	Cr
Exempt	01-NOV-1992		Sales Tax	0	Cr
ExemptVAT	01-NOV-1992		VAT	0	Cr
GNABPST	01-JAN-1990		Sales Tax	0	Cr
GNBCPST	01-JAN-1990		Sales Tax	0	Cr
GNNBPST	01-JAN-1990	31-MAR-1997	Sales Tax	0	Cr
GNNFPST	01-JAN-1990	31-MAR-1997	Sales Tax	0	Cr

Account Descriptions

Tax Operations-Balance Sheet-State Sales and Use Tax P-No Sub Account-No Product

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Defining Tax Structures in Oracle Receivables

If you need to apply tax to intercompany invoices, you need to set up identical tax structures (tax codes and rates) in Oracle Receivables and Oracle Payables so that intercompany AR invoices can be correctly mirrored into intercompany AP invoices.

Oracle Accounts Payable System Options

- **INV: Intercompany Currency Conversion**

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Accounts Payable Options

The Create Intercompany AP Invoices process requires no special adjustment to the Oracle Payables system options. However, the following profile option affects the operation of the Create Intercompany AP Invoices process.

INV: Intercompany Currency Conversion: Determines the conversion type for foreign currency invoices

Oracle Payables Tax Structures

Enable for Self-Service Users

Tax Name	Tax Type	Rate	Description	Inactive Date
1099 - Backup	Withholding T		1099 Backup Withholding	
Non-Taxable	Non Taxable	0	Non-Taxable	
CA-Sales Tax	Sales	8.25	California Sales Tax - 8.25%	
VA-Sales Tax	Sales	4.5	Virginia Sales Tax - 4.5%	
VAT- 5%	Sales	5	Value Added Tax - 5%	
VAT-15%	Sales	15	Value Added Tax - 15%	

GL Account: 01-000-1332-0000-000

Account Description: Operations-Balance Sheet-Withholding Tax-No Sub Account-No Product

VAT Transaction Type:

[Withholding Tax Details](#)

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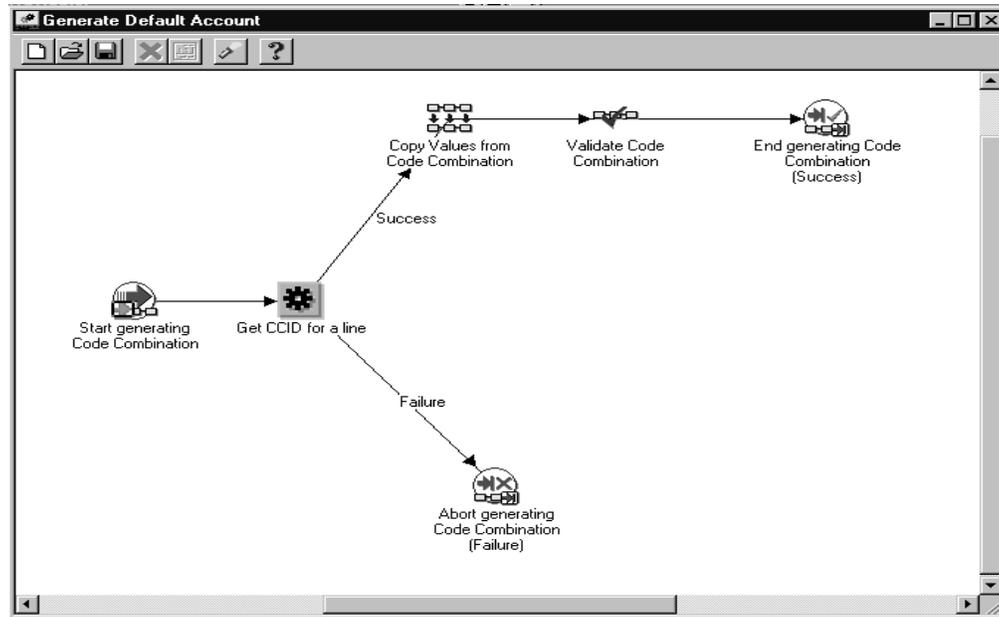
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Defining Tax Structures in Oracle Payables

If you need to apply tax to the intercompany invoices, you need to set up identical tax structures (tax codes and rates) in Oracle Receivables and Oracle Payables so that intercompany AR invoices can be correctly mirrored into intercompany AP invoices.

You can specify the invoice and offset tax names at the supplier level if you have identical tax names across operating units. In addition, you can specify tax names at the supplier site level.

Account Generator for Cost of Goods Sold Account



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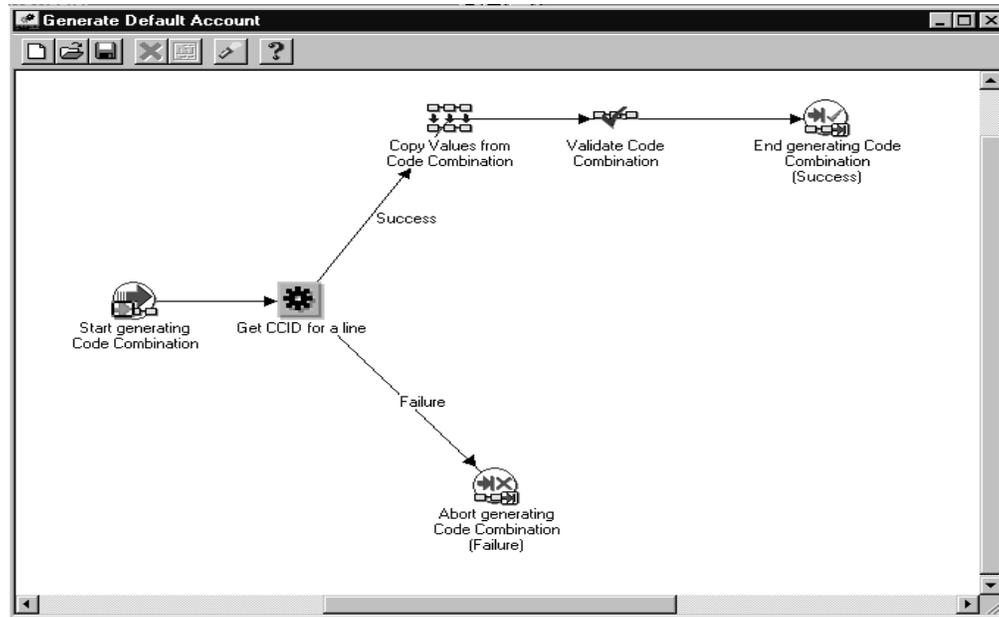
Account Generator and Intercompany Cost of Goods Sold

Oracle Applications constructs a cost of goods sold accounting flexfield combination (Intercompany COGS account) for each regular invoice line created by the Create Intercompany AP Invoices program using the Account Generator. The Standard Flexfield Workflow provides function activities that you can use to customize your own Account Generator.

The Generate Default Account process consists of six unique activities:

- **Start Generating Code Combination:** This function is used as a start activity of the top-level process that generates the code combination and should only be used in the top-level process.
- **Get Code Combination ID (CCID) for a line:** This determines a value that is used to derive the account identifier. The derivation of this identifier cannot be achieved using Oracle Workflow functions. Instead, a SQL function is used to derive the COGS Account ID.
- **Copy Values from Code Combination:** A standard function that copies all the segment values from a given code combination to the combination that is being generated. This function has two attributes:
 - Code Combination ID
 - Replace Existing Value: This is set to True to always copy segment values.

Account Generator for Cost of Goods Sold Account



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Account Generator and Intercompany Cost of Goods Sold (Continued)

- **Validate Code Combination:** Function to validate the code combination that has been generated. This function has two attributes:
 - Validation Types: Is set to Generate Code Combination ID to do a full validation and generates a code combination ID
 - New Code Combinations Are Allowed: Is set to True if dynamic inserts are allowed for this flexfield structure
- End Generating Code Combination: A standard activity is called to end the Generate Default Account process
- Abort Generating Code Combination: Is evoked if a fatal error occurs.

Standard Sales Example

- **Company has two operating units:**
 - **Sacramento HQ**
 - **UK Org**
- **Both manufacture and sell widgets**
- **Sacramento sells its last widget**

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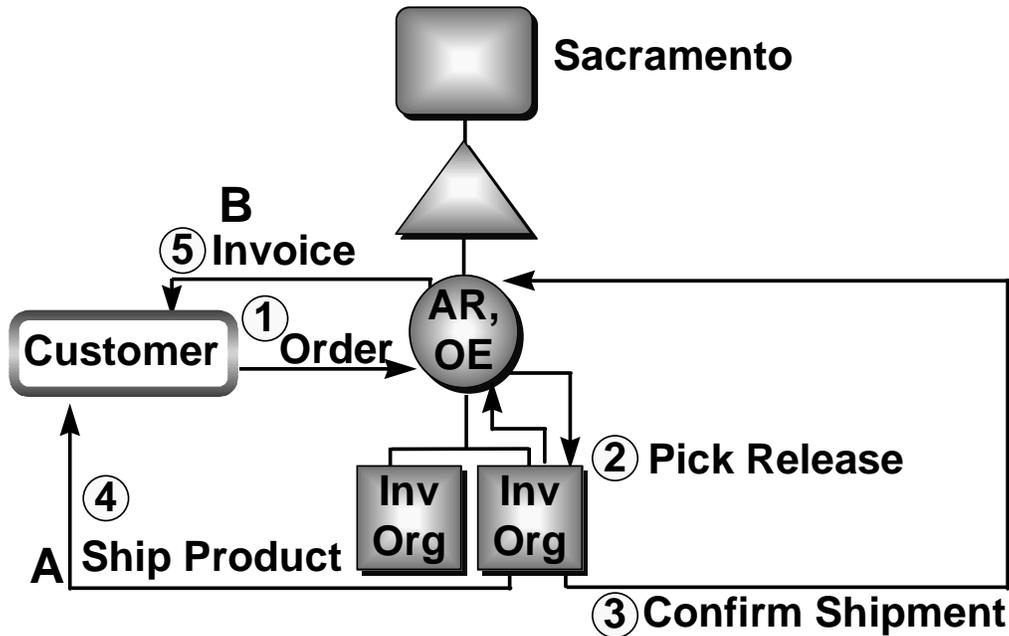
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Standard Sales Example

Following is a two-part example that illustrates how automatic intercompany invoicing works. The first example uses a standard sales transaction and shows the accounting that takes place. The second example includes an intercompany sales element and the resulting automatic intercompany accounting.

In the examples, a company has two operating units: Sacramento HQ and UK Operating Unit. Both operating units manufacture and sell widgets. In the second example, the Sacramento Organization operating unit books an order and will rely on the UK Organization operating unit to fill the order.

Business Flow for Sacramento's Last Widget



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Intercompany Sales Example (Continued)

The graphic above represents the sales order process in Oracle Applications. The flow and the events must happen regardless of how the business handles the accounting. The following scenario describes a generic process for selling and shipping from the *same* operating unit.

1. A customer places an order for one widget at \$1000. Tax will be \$75, and freight costs will be \$125, for a total of \$1200. There is no economic or accounting impact from the placement of the order.
2. Pick release is run.
3. Confirm Delivery/Departure.
4. The inventory organization ships the product to the customer and the Inventory Interface is run.
5. Receivables Interface/AutoInvoice run.

From an accounting standpoint, the sale and shipment occur simultaneously. However, in the computer system, different parts of the transaction take place in a sequence.

In the graphic above, the letters A and B help to track journal entries. You will also see these letters in T-accounts that follow.

Sacramento's Journal Entries Without Intercompany Element

A	DR	Cost of Goods Sold	500	
	CR	Inventory		500
B	DR	Customer Receivables	1200	
	CR	Product Sales		1000
	CR	Freight		125
	CR	Sales Tax		75

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Sacramento's Journal Entries

The graphic above shows the journal entries for the operating unit. Sacramento has a debit for Cost of Goods Sold at \$500 and a credit for Inventory at \$500. They will also have a debit for Customer Receivables at \$1200, with credits for Product Sales at \$1000, Freight at \$125, and Sales Tax at \$75.

Sacramento's T-Accounts Without Intercompany Element

<p>Customer Receivables</p> <hr style="width: 80%; margin: 0 auto;"/> <p>B 1200 </p>	<p>Intercompany Receivables</p> <hr style="width: 80%; margin: 0 auto;"/> <p> </p>	<p>Inventory</p> <hr style="width: 80%; margin: 0 auto;"/> <p> 500 A</p>	
<p>Intercompany Payables</p> <hr style="width: 80%; margin: 0 auto;"/> <p> </p>	<p>Sales Tax Liabilities</p> <hr style="width: 80%; margin: 0 auto;"/> <p> 75 B</p>	<p>Product Sales</p> <hr style="width: 80%; margin: 0 auto;"/> <p> 1000 B</p>	
<p>Intercompany Product Sales</p> <hr style="width: 80%; margin: 0 auto;"/> <p> </p>	<p>COGS</p> <hr style="width: 80%; margin: 0 auto;"/> <p> A 500</p>	<p>Intercompany COGS</p> <hr style="width: 80%; margin: 0 auto;"/> <p> </p>	<p>Freight Expense</p> <hr style="width: 80%; margin: 0 auto;"/> <p> 125 B</p>

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Sacramento's T-Accounts

The T-accounts show the same information in a slightly different way. You will see how the process, journal entries, and T-accounts are affected when we move to the intercompany example.

Intercompany Sales Example

- **Company has two operating units:**
 - **Sacramento HQ**
 - **UK Org**
- **Both manufacture and sell widgets**
- **Sacramento has sold its last widget**
- **Sacramento's next sale will rely on UK Org as the internal supplier**

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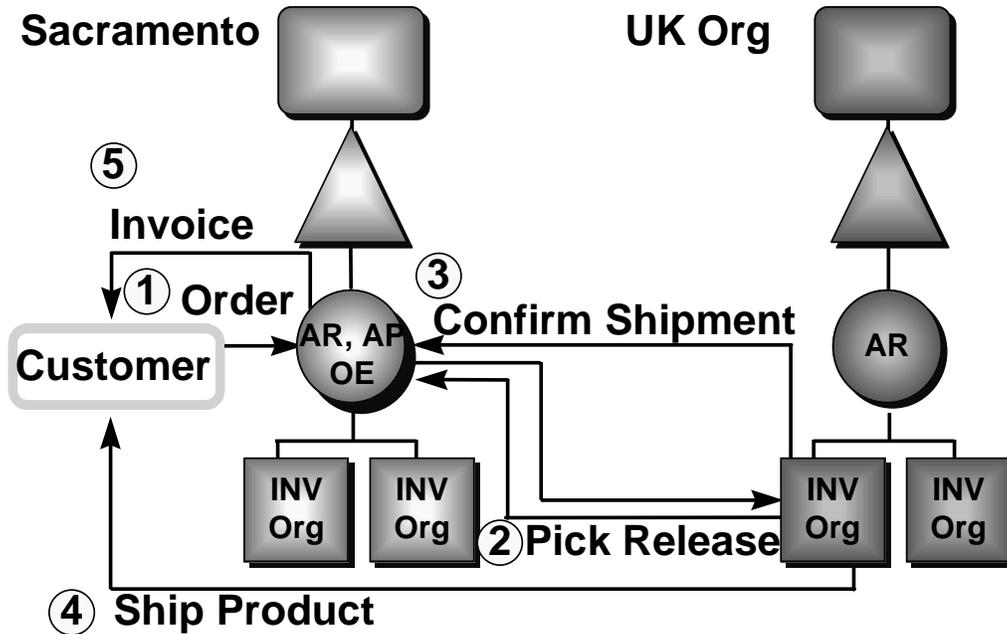
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Intercompany Sales Example

Sacramento operating unit has sold its last widget and will rely on the UK operating unit to supply the widgets to the customer. The example shows the automatic intercompany accounting entries.

Sacramento's Sale: UK Org as Supplier



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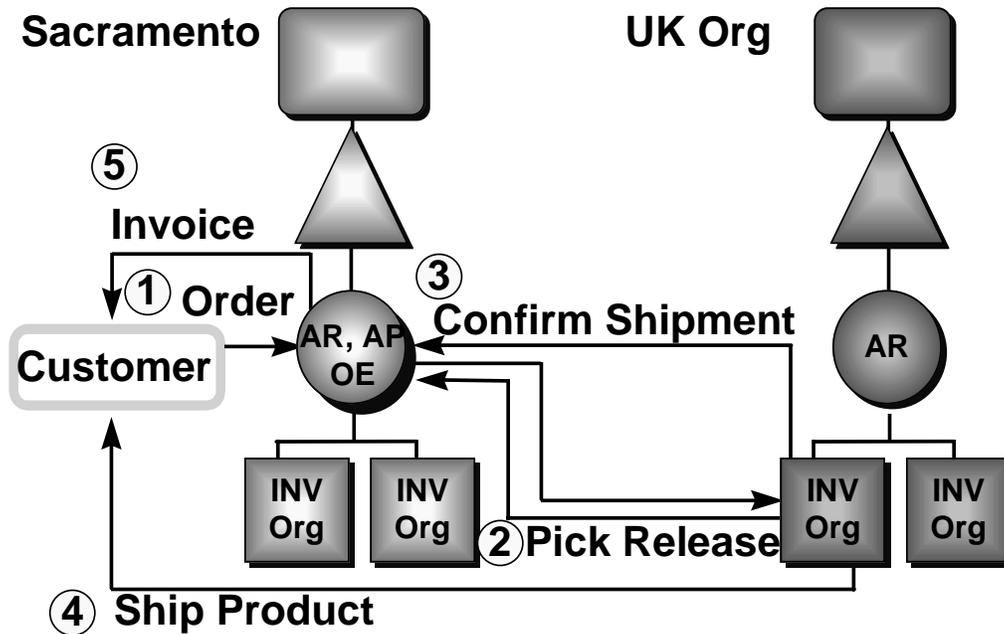
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Sacramento's Sale: UK Org as Supplier

The graphic above shows the same basic business flow, only it shows the process across two separate sets of books, and therefore, separate operating units. The graphic looks at the transaction between the customer and the consolidated entity of which both Sacramento and UK Org are a part. The next example shows the rest of the process, the internal accounting between Sacramento and UK Org.

Sacramento's Sale: UK Org as Supplier



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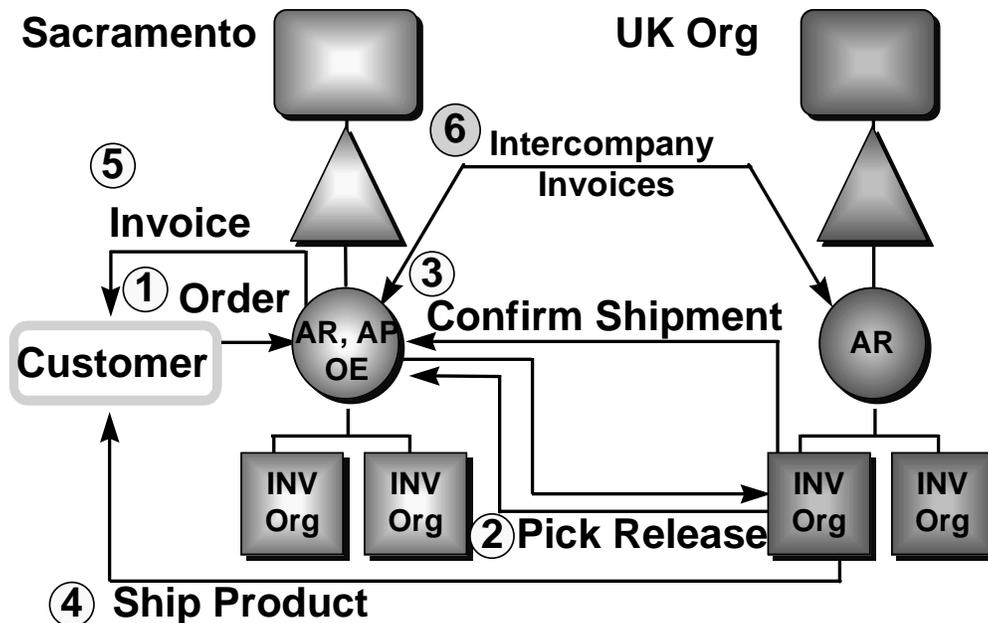
Sacramento's Sale: UK Org as Supplier (Continued)

At this point, the transaction is not represented in an accurate way in either set of books because:

- The selling operating unit made a sale but incurred no costs.
- The shipping operating unit made no sale but absorbed the cost of the inventory shipped.

The seller and supplier can use different currencies and the process still works.

Sacramento and UK Org Intercompany Transactions



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Sacramento and UK Org Intercompany Transactions

As the graphic above shows, the final part of the transaction is invoicing the intercompany sales transactions. The intercompany transactions are:

- The UK Org operating unit sends the Sacramento operating unit an invoice and records a receivable for one widget sold at the internal transfer price.
- The Sacramento operating unit receives the bill and records a payable, due to UK Org.

These entries will be reflected in the general ledger as well as in the subledgers.

- AutoInvoice generates an intercompany AR invoice of \$825.
- A second concurrent program, Create Intercompany A/P Invoices, generates an intercompany AP invoice of \$825.

Notes

- Sacramento's purchasing function does not have to create a purchase order.
- The process also works for return material authorizations (RMAs), which are ordered in one operating unit and received back in another operating unit.
- If operating in an assemble to order (ATO) environment, intercompany invoicing does not handle unique ATO items. Every step in the process works for ATO except when you try to create an intercompany invoice for a unique configuration item. (The unique item created during the typical ATO process does not exist in the intercompany transfer price list.)

Journal Entries with Intercompany Element

Sacramento:

DR Customer Receivables	1200	
CR Product Sales		1000
CR Freight		125
CR Sales Tax		75

DR Intercompany Cost of Goods Sold	825	
CR Intercompany Payables		825

UK Org:

DR Cost of Goods Sold	500	
CR Inventory		500
DR Intercompany Receivables	825	
CR Intercompany Revenue		825

Sacramento's T-Accounts with Intercompany Element

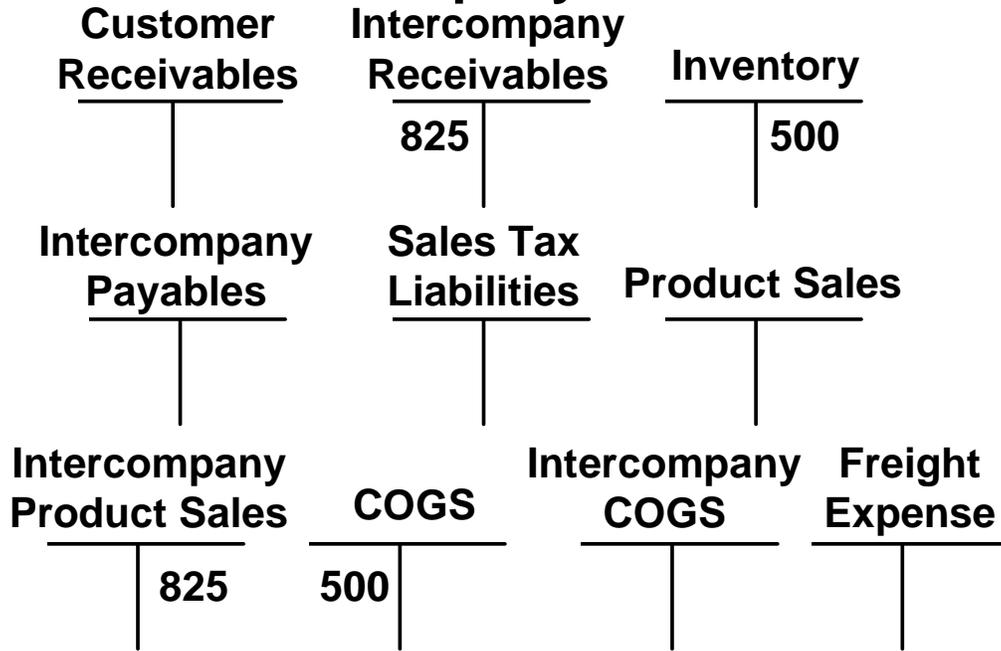
<p>Customer Receivables</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">1200</p>	<p>Intercompany Receivables</p> <hr style="width: 80%; margin: auto;"/>	<p>Inventory</p> <hr style="width: 80%; margin: auto;"/>	
<p>Intercompany Payables</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">825</p>	<p>Sales Tax Liabilities</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">75</p>	<p>Product Sales</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">1000</p>	
<p>Intercompany Product Sales</p> <hr style="width: 80%; margin: auto;"/>	<p>COGS</p> <hr style="width: 80%; margin: auto;"/>	<p>Intercompany COGS</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">825</p>	<p>Freight Expense</p> <hr style="width: 80%; margin: auto;"/> <p style="text-align: center;">125</p>

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UK Org's T-Accounts with Intercompany Element

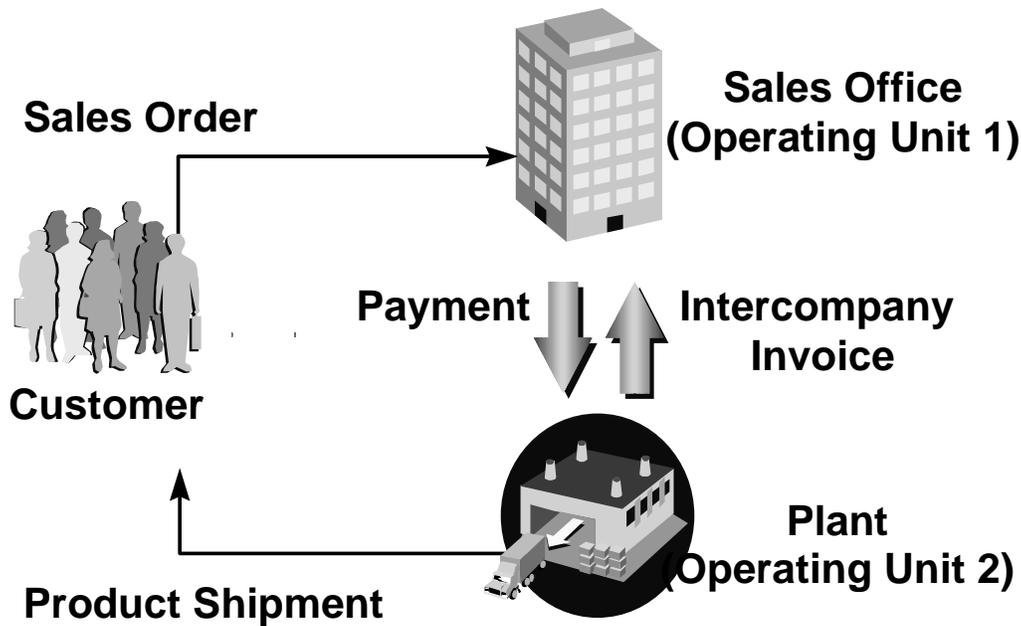


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Intercompany Sales Order Review



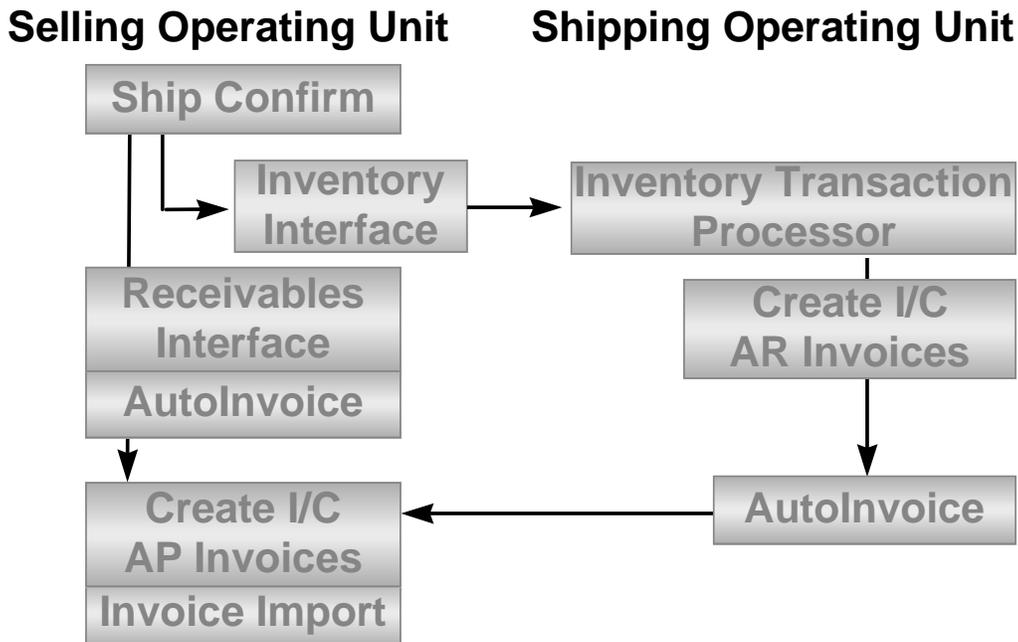
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	Selling Operating Unit—Sacramento	Shipping Operating Unit—UK Org
Set up customer		Yes
Set up supplier	Yes	
Set up price list (table not partitioned)		
Set up intercompany relationship		
Enter and book order	Yes	
Confirm available	Yes	
Pick release	Yes	
Ship confirm (done by shipping personnel)	Yes	
Ship product		Yes
Run Update Shipping	Yes	
Run Inventory Interface	Yes	
Run Inventory Transaction Processor		Yes
Run Receivables Interface	Yes	
Run AutoInvoice	Yes	
Run Intercompany AR		Yes
Run AutoInvoice		Yes
Run Intercompany AP		Yes
Run Invoice Import	Yes	

Process Flow Review



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Process Flow Review

Ship Confirm: The last step in order entry processing before generating an invoice to the customer.

Update Shipping Information: The Update Shipping Information program updates order lines with shipped quantity, sets the ship confirmation status, and backorders unshipped quantities on order lines you have pick released (picking lines).

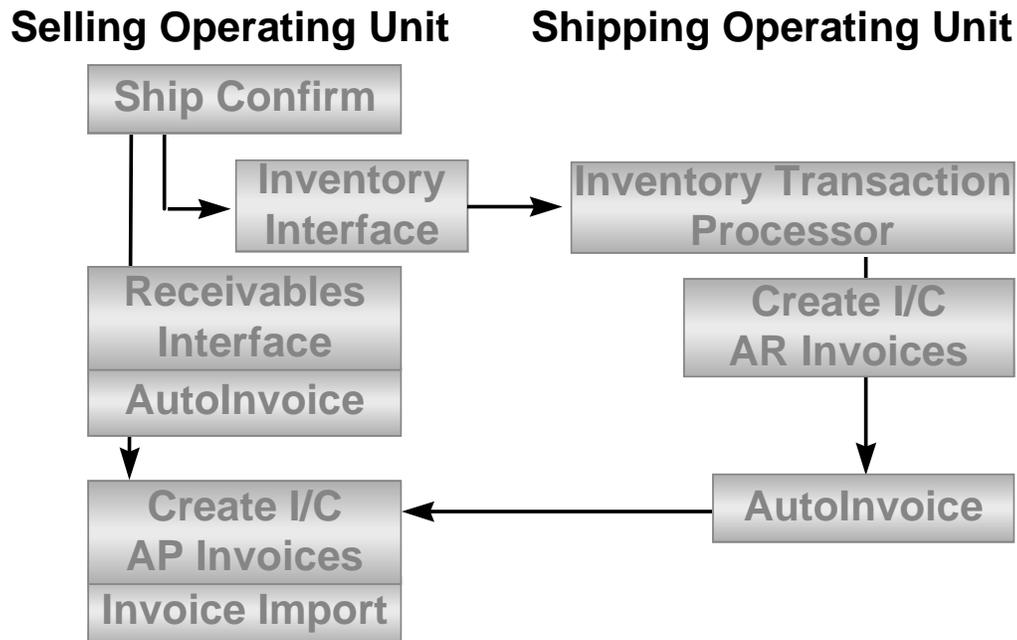
The Update Shipping Information program evaluates all pick slips that have a status of Closed, Pending Update Shipping Information. Oracle Order Entry / Shipping updates the order line associated with the picking lines on the pick slip with the accumulated shipped quantity. Until you run this program, the shipped quantities recorded in the Confirm Shipments window are not reflected in any windows or reports that display the quantity of order line shipped.

Inventory Interface: Places order entry shipment lines into the Inventory Interface tables for later processing by the Inventory Transaction Processor.

The Inventory Interface transfers information on the shipped picking lines for any eligible order lines. An order line is eligible for this interface when all prerequisite cycle actions have been successfully completed (usually Ship Confirm - Confirmed).

Inventory Transaction Processor: The Inventory Transaction Processor processes the records Oracle Order Entry inserts into the Inventory Interface table. The Inventory Transaction Processor creates inventory transaction records, updates the inventory balances on shippable items, and relieves demand and reservations on inventory items.

Process Flow Review



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Process Flow Review (Continued)

Receivables Interface: The Receivables Interface transfers shipped item information to Oracle Receivables. This includes quantities, selling prices, payment terms, and transaction dates. Additionally, you can process credit memos and credits on accounts created from returns using this program.

Create I/C AR Invoices: Creates intercompany invoice lines for shipment transactions and freight charges and inserts the invoice lines into the Oracle Receivables interface tables. These invoice lines will be processed by the AutoInvoice process in Oracle Receivables.

AutoInvoice: Processes the records inserted into the interface tables by the Receivables Interface program and the Create I/C AR Invoices program. AutoInvoice validates records and creates invoices (customer and intercompany), invoice line distributions, and payment schedules for both shipment transactions and freight charges.

Create I/C AP Invoices: This process copies intercompany receivable invoices created by the Create I/C AR Invoices process. This process creates invoices in the XpenseXpress tables with its own import source name, and is processed by the Oracle Payables Invoice Import process.

Invoice Import: The Oracle Payables Invoice Import program processes the records inserted into the interface tables by the Create I/C AP Invoices process.

Creating Intercompany Accounts Receivable Invoices

- **The Create Intercompany AR Invoices process is submitted as a concurrent program in Oracle Inventory.**

Creating Intercompany Accounts Receivable Invoices

Use this process to create intercompany receivable invoices for product shipments and freight charges that are initiated from sales orders belonging to a different operating unit. Each intercompany invoice line you create enters the Oracle Receivables invoice interface tables and will be processed by the Oracle Receivables AutoInvoice process. The Create Intercompany AR Invoices process uses its own batch source (Intercompany) and its own Transaction Line Flexfield definition. Other information required to create an invoice, such as customer, customer address, and transaction type, is retrieved from the intercompany relations.

Process Elements

- **Invoicing shipment transactions**
- **Invoicing freight charges**
- **AutoInvoice**

Process Elements

Invoicing Shipment Transactions: The Create Intercompany AR Invoices program creates invoice lines for order shipment transactions in Oracle Inventory when the shipping warehouse does not belong to the order entry operating unit.

Invoicing Freight Charges: The Create Intercompany AR Invoices program creates invoice lines for freight charges in Oracle Order Entry when the shipping warehouse on the pick slip does not belong to the order entry operating unit.

AutoInvoice: The Oracle Receivables AutoInvoice program processes the records inserted into the interface tables by the Create Intercompany AR Invoices process. The AutoInvoice program validates the records and creates invoices, invoice lines, distributions, and payment schedules for both shipment transactions and freight charges.

Process Submission

- **Use the Run Reports window.**
- **Select Create Intercompany AR Invoices.**
- **Choose process parameters.**

Process Submission

In the Run Reports window enter Create Intercompany AR Invoices in the Name field. Then choose the parameters and save your work to begin the process.

Process Parameters

Shipping Operating Unit: Enter the shipping operating unit for which you wish to generate intercompany AR invoices. Leave this field blank to generate invoices for all shipping operating units.

Line Description: Enter the description you want to appear on the invoice lines. Leave this field blank if you want to use the item description as the invoice line description.

Creating Intercompany Accounts Payable Invoices

- **The Create Intercompany AP Invoices process is submitted as a concurrent program in Oracle Inventory.**

Creating Intercompany Accounts Payable Invoices

Use this process to copy intercompany receivable invoices created by the Create Intercompany AR Invoices into Oracle Payables. This process creates invoices in the XpenseXpress tables with its own import source name and will be processed by the Oracle Payables Invoice Import process. Other information required to create an invoice, such as supplier and supplier site, is retrieved from the intercompany relations.

Payables Invoice Import

The Oracle Payables Invoice Import program processes the records inserted into the interface tables by the Create Intercompany AP Invoices process. The Invoice Import program validates the records and creates invoices, invoice distributions, and payment schedules. All invoices created by the Create Intercompany AP Invoices program have a source of Intercompany.

Process Submission

- **Use the Run Reports window.**
- **Select Create Intercompany AP Invoices.**
- **Choose process parameters.**

Process Submission

Use the Run Reports window and enter Create Intercompany AP Invoices in the Name field. Then choose the parameters and save your work to begin the process.

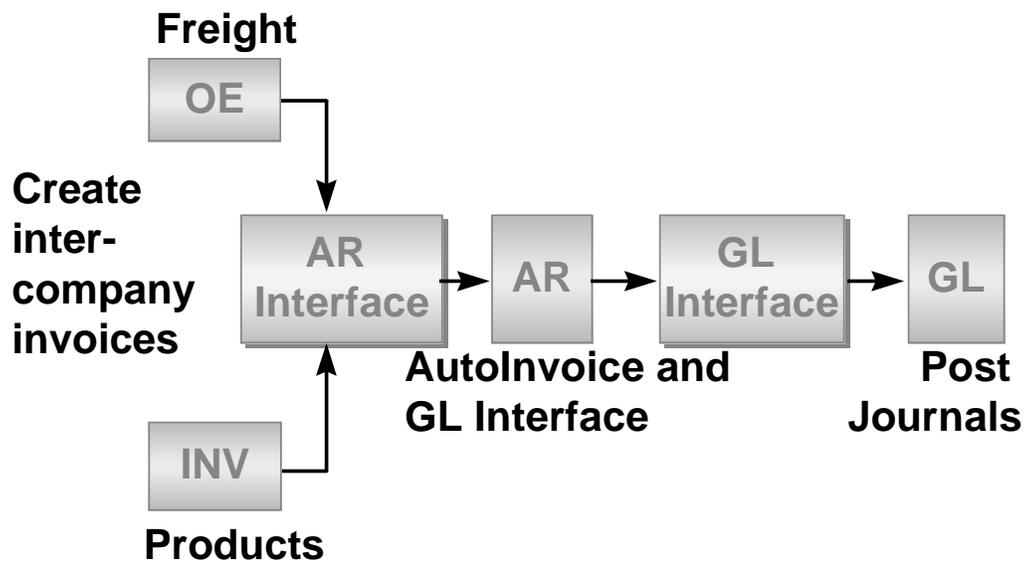
Process Parameters

Selling Operating Unit: Enter the selling operating unit for which you want to copy intercompany AR invoices and generate intercompany AP invoices. Leave this field blank to generate invoices for all selling operating units.

Header Description: Enter the description you want to have appear on the invoices. Leave this field blank if you do not want to have a description for the invoices.

Line Description: Enter the description you want to have appear on the invoice line. Leave this field blank if you want to copy the invoice line description from the Intercompany AR invoices.

AR Transaction Flow



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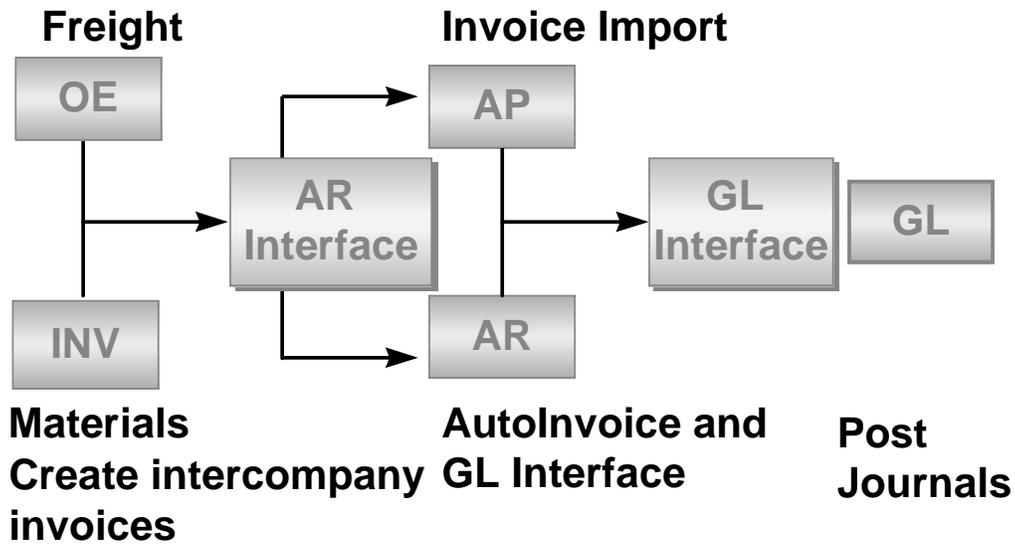
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AR Transaction Flow and Related Processes

The diagram above is a subset of the journal entry flow diagram. The diagram shows the origin and destination of transactions along with the related processes used in the applications.

AP Transaction Flow



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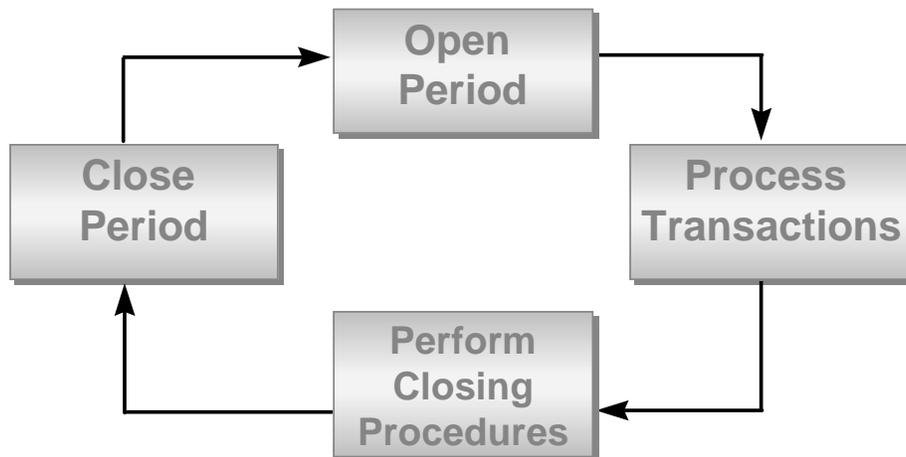
AP Transaction Flow and Related Processes

The graphic above shows how the Create Intercompany AP Invoices process mirrors the intercompany AR transactions residing in the AR interface table.

The Create Intercompany AP Invoices program copies intercompany receivable invoices created by the Create Intercompany AR Invoices process into Oracle Payables. The Create Intercompany AP Invoices program creates invoice lines in the Oracle Payables XpenseXpress tables with its own import source name and is later processed by the Oracle Payables Invoice Import program.

The Oracle Payables Invoice Import program processes the records inserted into the XpenseXpress interface tables by the Create Intercompany AP Invoices process. The Invoice Import program validates the records and creates invoices, invoice distributions, and payment schedules. All invoices created by the Create Intercompany AP Invoices program have a source of Intercompany.

Period Close Procedures



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Period Close Procedures

Before closing accounting periods in Oracle Inventory, Oracle Receivables, and Oracle Payables, submit the Create Intercompany AR Invoices process to process all outstanding intercompany shipment transactions before performing other period close procedures, including but not limited to, posting to Oracle General Ledger.

At a minimum, you must run this process as part of the closing procedures.

Summary

In this lesson you learned how to:

- **Define intercompany invoicing.**
- **Describe the stages of the automatic accounting of the intercompany sales transactions process.**
- **Define System and Profile Options in Oracle Receivables and Oracle Payables.**

Summary

In this lesson you learned, through a comprehensive example, the stages of the automatic intercompany invoicing process. The lesson started with defining the required setup steps for Intercompany sales. We then defined our customers and suppliers and the relationships between them. We then discussed the system options in Oracle Payables and Oracle Receivables as well as the required profile options. Finally you learned about the journal entries created from Intercompany Sales.



Migrating to Multi-Org

Migration Considerations for a Multiple Set of Books Architecture

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Objectives

At the end of this lesson you should have a understanding of:

- **MSOBA**
- **Issues of MSOBA**
- **Benefits of moving to Multi-Org**
- **Migration options**
- **The considerations of your current business environment**

6-2

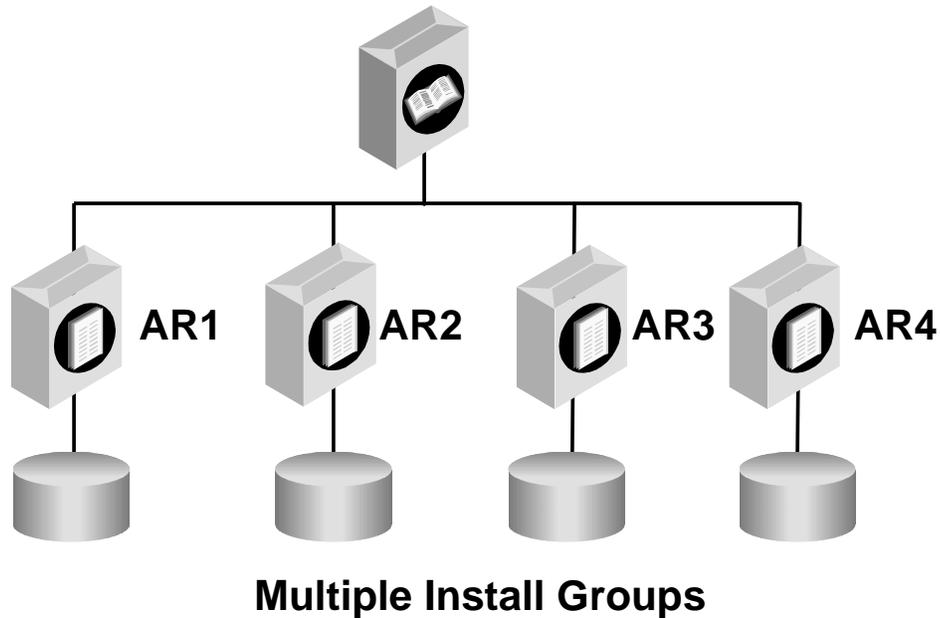
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Lesson Aim

In this lesson we will look at the considerations of migrating from a Multiple Sets of Books Architecture to Multi-Org. We will first look at what MSOBA is and the issues involved in it. We will then focus on the benefits of moving to Multi-Org and the options available to do so.

What is MSOBA?



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What is Multiple Sets of Books Architecture (MSOBA)?

MSOBA or Multiple Sets of Books Architecture refers to installing some products such as Oracle Payables or Oracle Receivables, multiple times in different schemas. This architecture was used by customers to secure data prior to the availability of Multi-Org functionality.

Oracle Manufacturing products have always been partitioned by Inventory Organization. However prior to release 10.7 there was not a way of partitioning the core Financial Application Products. In the absence of this partitioning ability now provided by Multi-Org, many companies installed multiple application schemas in one database for these products. This architecture is known as MSOBA.

Issues

- **Cannot simply upgrade from MSOBA to Multi-Org due to differences in architecture**
- **Data is stored and secured differently in Multi-Org**
- **New application configuration and additional steps are required in Multi-Org**
- **Interfaces and historical data**
- **Special handling is required**

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Issues

In MSOBA each schema can have the same supplier name. However in Multi-Org, since the supplier header is shared across operating units, multiple suppliers with the same name are not allowed.

Because access to operating units is at the responsibility level, every operating unit must have different responsibilities set up for each application.

Special handling is required to eliminate overlapping sequences and primary key conflicts and bring historical data into a new environment. Data which was once unique by virtue of being in its own schema must now be transformed in some way to prevent data conflicts when merging information into one schema.

Benefits of Moving to Multi-Org

- **Reduces time required for next upgrade**
- **Simplifies the day to day administration of the database**
- **Allows upgrade to Release 12**
- **Makes Multi-Org functionality available to functional users**
- **Simplifies the addition of new business operations**

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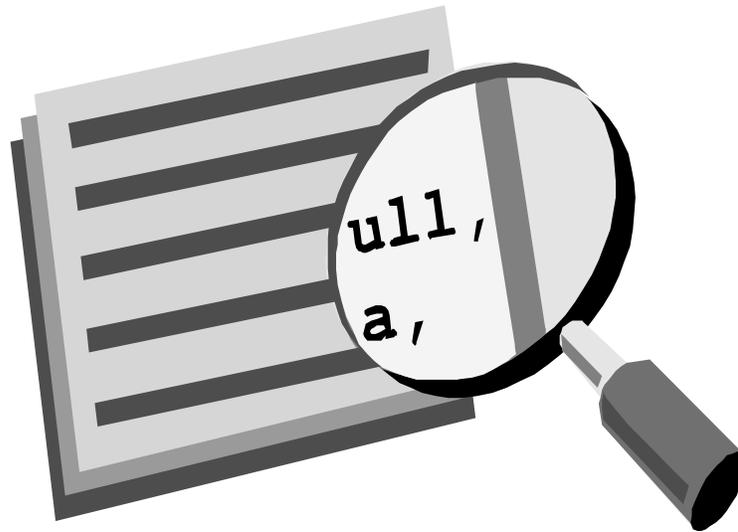
Benefits of Moving to Multi-Org

Upgrading in a MSOBA means each schema must be upgraded individually. If you had five schemas, you would have to upgrade each schema individually. In Multi-Org there is only one schema to upgrade. When there are multiple schemas, each patch must be applied multiple times.

MSOBA will not be supported in Release 12. This means that in order to take advantage of any new functionality customers must address the MSOBA.

When adding new business operations you would have to add a new schema for each new business operating. In Multi-Org you simply add a new operating unit, discussed in Lesson 2.

What Are My Migration Options?



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What Are My Migration Options?

Because each customer's database and business drivers are different, there is no single answer to how best to migrate. The correct approach is a business decision, not necessarily a technology decision.

In the next pages, we will explore the options available for migration.

Migration Options

- **Build a Multi-Org environment using APIs to convert transaction data**
- **Oracle development Quick Start Solution**
- **Transformation Toolkit**

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Migration Options

We will discuss the following three migration options:

- Build
- QuickStart
- Transformation Toolkit

Build Option

- **Create a new Multi-Org environment by completing a fresh install.**
- **Convert data from one environment to another for all schemas using open interfaces .(Options: All, None, or Only Transactions in Process)**
- **Make historical data available for inquiry by retaining MSOBA environment**

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Build Option

This option may be best if:

- Application configurations or chart of accounts need to be readdressed due to rapid growth, business combinations, or changes in business practices.
- New application products are being implemented as part of the migration to a new release.
- New hardware platform is required.

If the transition is being completed at the end of a calendar year, it may not be viable to convert any data.

Build Option

Pros



Cons



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Build Option Pros and Cons

Pros

- Available now
- Provides opportunity to re-examine setups, improving on the original implementation
- Converts only transactions in process instead of all history meaning fewer reconciliations for end users

Cons

- May need to maintain source schema for historical data inquiry
- Customizations may need to be reapplied
- Special procedures required to ensure invoices are not double paid
- May be disruptive to end users if not performed on a year end cutoff, because year-end reporting would have to be done out of two systems

QuickStart Option

- **Create Multi-Org environment using 'adadmin' for the primary schema.**
- **Convert data for Schemas 2 through 'N' using open interfaces. (Options: All, None or Only Transactions in Process)**
- **Make historical data available for inquiry only by retaining a copy of the MSOBA environment.**

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QuickStart Option

This option may be best if:

- Data in secondary schemas is no longer needed
- Majority of data is in the primary schema

QuickStart Requirements

- **Available for Release 10.4, 10.5, 10.6, and 10.7**
- **Only the initial AutoInstall configuration (i.e. PO) can be Multi-Org enabled (not PO2)**
- **Removes access to all non-primary books for inquiry or update**
- **Complete schema installs only, not partial with synonym references**

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QuickStart Requirements

If partial tables rather than entire schemas were installed multiple times, this solution may not work. The process only works for a complete schema.

When running AutoInstall, only the initial configuration can be Multi-Org enabled. If you currently have multiple schemas (PO1, PO2, PO3, etc.) only PO1 will be converted.

QuickStart Option

Pros



Cons



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QuickStart Option Pros and Cons

Pros

- Available now
- Allows customers to get to Multi-Org quickly
- Can combine this option with open APIs to move historical transaction data
- No charge for the product

Cons

- Does not bring historical data for schemas two through “N” into target schema. Online inquiry is available only by preserving a copy of the source schema.
- May be disruptive to end users if not performed on a year end cutoff, because year end reporting would have to be done from two systems

Transformation Toolkit Option

- **Create Multi-Org environment using 'adadmin' for the primary schema.**
- **Convert data for schemas 2 through 'N' using Transformation Toolkit's merge utility (Default Option: All).**
- **Historical data available for inquiry in new Multi-Org environment as in an upgrade.**

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Transformation Toolkit Option

This option may be best if:

- Multiple schemas are stored in one database.
- Schema translates to an operating unit in the Multi-Org sense.
- No setup, platform, or chart of accounts changes are required.
- Availability of the toolkit suits your time line.
- Customer meets the technical requirements for the toolkit.

Note

The Transformation Toolkit is only available through Oracle Consulting Services.

Transformation Toolkit Requirements

- **Oracle7 or Oracle8**
- **Release 10.7, Prod16.1 of Oracle Applications**
- **Unix Platform**
- **Schema translates to an operating unit**
- **Multiple schemas in one database**
- **No changes to setups in applications partitioned by book or hardware platform**

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Transformation Toolkit Requirements

If MSOBA was implemented, Multi-Org features should be able to address those business requirements. However, if a schema does not translate to an operating unit in a Multi-Org sense, then the Transformation Toolkit is not an option as that involves a one-to-many transformation.

Transformation Toolkit Option

Pros



Cons



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Transformation Toolkit Option Pros and Cons

Pros

- Provides the facility to bring all historical data into the new environment which:
 - Simplifies comparative reporting.
 - Makes it unnecessary to maintain the source schema for historical inquiry.
 - Is free to those engaging Oracle Consulting.

Cons

- Not available today
- Potentially long weekend downtime
- Some negative impact on performance expected as a result of increasing key size
- Cannot map one schema in MSOBA to multiple operating units without customization
- May require customization to address country-specific localizations, customizations, or third-part integrators

Pre-Configuration Analysis

- **Analyze rollback segment sizing**
- **Review database layout, sizing, space allocation and schema overview**
- **Database integrity, for example, no invalid objects**
- **Application integrity—no transactions in process in temporary or interface tables**

Pre-Configuration Analysis

The Preliminary Configuration Analysis Toolkit (PCAT) is a collection of scripts which are part of the Transformation Toolkit. The scripts are designed to assess the configuration of the source database including the primary schema and determine whether rollback segments and other parameters are adequate for transformation purposes.

Assessing Your Current Business Environment

- **Need for Multi-Org features**
- **Data security requirements**
- **Financial reporting requirements**
- **Desired or Required changes to chart of accounts or other setup parameters**
- **Requirement to report detail transaction history**
- **Ability to purge and archive data**

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Business Requirements

The first step in determining which migration option is best for you is a thorough assessment of your current business environment. All businesses are unique and one option may be better than another. You must evaluate all of the requirements listed above to determine the appropriate Multi-Org configuration. For example, as records are secured differently in a Multi-Org environment, companies may wish to move from a centralized to a decentralized environment to meet their security requirements.

If you need to change chart of accounts or other setup parameters, the Build option is most likely the best option. A requirement to report detailed transaction history from the new environment argues against the QuickStart option.

Strategic Direction Assessment

- **Acquisition and disposal activities**
- **Centralized shared services compared to decentralized organization**
- **Critical path**

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Assess Strategic Direction

There are many strategic direction decisions that may influence your migration option.

- The frequency with which you acquire, sell, or reorganize businesses may influence your setup parameters in a Multi-Org environment.
- Functionality available in Multi-Org may change the way a company does business, so that functional analysis and mapping precede any migration effort.
- Your time line compared to availability of the transformation toolkit can be a consideration when selecting a migration option.

Technical Environment Assessment

- **Degree of customization**
- **Number of automated interfaces in place**
- **Quantity of data in primary schema compared to other schemas**
- **Current version of applications**
- **Requirement to change platforms**
- **Requirement to implement new applications**

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Technical Environment Assessment

You should analyze the following technical environment decisions:

- If the environment is heavily customized, you will require more time to either extend the toolkit or reapply customizations in the new environment.
- You may need to modify interfaces to be Multi-Org compliant.
- For Release 10.6 or earlier, the Transformation Toolkit is not an option.
- If most of the data is in the primary schema, the convert to Multi-Org process will take care of most of the work as no transformation is needed for the primary schema.
- Changes to environment from a hardware, application configuration, or new product perspective make Build the most viable option.

What Can I Do Now?



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What Can I Do Now?

In preparing to migrate from a MSOBA environment to Multi-Org, the you should consider the following:

- Mapping business requirements to Multi-Org
- Evaluating interfaces for Multi-Org compatibility
- Documenting any existing customizations
- Analyzing and documenting existing database layout and the data stored in each schema.
- Beginning data cleanup for the Multi-Org environment.
- Preparing the plan for the migration effort:
 - Assembling project team and select project manager.
 - Developing the project plan.
 - Assessing Hardware and Software requirements.

Summary

- **In this lesson we learned about the options to migrate from a Multiple Set of Books Architecture to a Multi-Org environment.**

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Summary

In this lesson we learned about the available options to migrate from a Multiple Set of Books Architecture (MSOBA) to a Multi-Org environment. We discussed what MSOBA is and the issues facing a business operating in that environment. We then addressed the options of migrating to a Multi-Org environment. Finally we learned about the considerations required in assessing a current business to allow the selection of the best option.

