Oracle® Service

Concepts and Procedures

Release 11*i*

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Oracle Service Concepts and Procedures, Release 11*i*

Part No. A86273-01

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Oracle Service Concepts and Procedures Guide, Release 11*i*

Part No. A86273-01

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Preface

Welcome to **Oracle Service, Release 11*i***.

This Concepts and Procedures provides information and instructions to help you work effectively with Oracle Service.

This preface explains how Concepts and Procedures is organized and introduces other sources of information that can help you.

Intended Audience

This guide is aimed at the following users:

- Technical Service Representatives (TSR)
- Customer Service Representatives (CSR)
- System Administrators (SA), Database Administrators (DBA), and others with similar responsibility.

This guide assumes you have the following pre-requisites:

1. Understanding of the company business processes.
2. Knowledge of products and services as defined by your marketing policies.

Structure

This manual contains the following chapters:

“Understanding Installed Base" provides overviews of the application and its components, explanations of key concepts, as well as the application’s relationships to other Oracle or third-party applications.

“Using Installed Base” provides process-oriented, task-based procedures for using the application to perform essential business tasks.

“Understanding Knowledge Management" provides overviews of the application and its components, explanations of key concepts, as well as the application’s relationships to other Oracle or third-party applications.

“Using Knowledge Management” provides process-oriented, task-based procedures for using the application to perform essential business tasks.

“Understanding Charges" provides overviews of the application and its components, explanations of key concepts, features, as well as the application’s relationships to other Oracle or third-party applications.

“Using Charges” provides process-oriented, task-based procedures for using the application to perform essential business tasks.

“Understanding Counters" provides overviews of the application and its components, explanations of key concepts, features, as well as the application’s relationships to other Oracle or third-party applications.

“Using Counters” provides process-oriented, task-based procedures for using the application to perform essential business tasks.

Related Documents

For more information, see the following manuals:

- Oracle Support Implementation Guide
- Oracle Support Concepts and Procedures Guide
- Oracle Customer Care Concepts and Procedures Guide
- Oracle Customer Care Implementation Guide
- Oracle Service Implementation Guide

Understanding Installed Base Management

This topic group provides overviews of the application and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle or third-party applications.

Installed Base Overview

The Installed Base is a repository that contains vital information and details of a service provider's customers, products, and services. The service provider updates all data contained in the Installed Base.

Oracle Service shares its customer master information with Oracle Order Entry and Shipping, Oracle Receivables, and sales and marketing; hence, it is important to provide consistent customer information across applications.

Through Application Receivables, you can define customers, addresses, location codes, business purposes, contacts, and telephone numbers. Since Installed Base is a component of Oracle Service, it consolidates information for customer products in the Installed Base. Each customer product includes the following:

- Customer name and number
- Bill-to location code, address, and contact
- Ship-to location code, address, and contact
- Installation location, address, and technical and administrative contact
- Service Provider
- Any other user-defined contacts

You can also use the Installed Base to track your serviceable and customer products, order entries, and to determine processing flows.

Installed Base Tracks Your Serviceable and Customer Products

As you define items in Oracle Inventory, you can designate your items as serviceable products. When you designate an item as a serviceable product, Installed Base tracks them. Each time you sell a serviceable product in Oracle Order Entry, the Installed Base interface automatically creates a customer product record in the Oracle Service Installed Base.

You can define any item in Oracle Inventory as a serviceable product, including items that represent saleable products and services, spare parts, service exchange items, subassemblies, and components. Use the Service attribute group in Oracle Inventory, to flag items as serviceable products. You can define the service starting delay for each serviceable product, and Oracle Service adds the starting delay to the ship date of the serviceable product to set the start date for service programs and warranty activation. The service starting delay can be used to compensate for shipping and installation times; the customer's Start Service Coverage commences at the moment the customer possesses the product.

When defining the inventory attributes, make sure that the item attribute control level for the attributes Support Service and Serviceable Product is set at the Master level. By setting the attribute control level to the Master level, you ensure consistency in the definition of Support Services and Service Programs.

A customer product is an instance of a particular product you sold to an end customer or distributor. The customer product reference number uniquely identifies any customer product, with or without a serial number, in the Installed Base.

Quantity, serial number (the serviceable product must be under serial control in Oracle Inventory and assigned a serial number at the time of shipment), location code (bill-to, ship-to, and installation location), contacts, order information, and revision history further distinguishes the customer product.

You can use the Checks feature to track your product's transfer of ownership, contracts, service repairs, and service requests.

Installed Base Tabs

Installed Base has the following tabs:

Product Information: Use this tab to maintain product information, such as Unit of Measure (UOM), quantity, reference number, category, system, revision, location number, serial number, platform, version, return date, and actual date.

Configuration: Use this tab to configure Installed Base operations.

Addresses: Use this tab to maintain address information, such as billing, account number, ship to, installed at, city, state, and country. Depending on the view mode (e.g., Installed Base or Transfer), the Address tab changes to Transfer information -- both tabs provide the same type of information.

Contracts: Use this tab to maintain contract information, such as service names and descriptions, and warranty information.

Resources: Use this tab to maintain resource information, such as contact names, work, pager, fax, and cellular phone numbers, and home, work, and e-mail addresses.

Counters: Use this tab to activate counter information, such as product, type, Unit of Measure (UOM), readings, capture dates, product descriptions, counter descriptions, and serial, lot, reference, and parent product numbers.

Order Entry Allows You to Track Products and Service Programs

You can direct Oracle Order Entry and Shipping to populate the Installed Base automatically via the Service interface as you sell products and service programs. To accomplish this, you must define the products as serviceable products, and your order cycles must include the Service interface cycle action.

See also:

- Create Records for Your Products
- Defining a Customer Product Manually

Determine Processing Flow: Order Types, Cycles, and Actions

Order cycles, defined in Oracle Order Entry / Shipping, determine the processing flow of your sales orders. As you enter a sales order, you designate a user-defined order type, which determines the order cycle that will process that sales order.

For example, an order cycle for orders containing products that you typically ship and copy to the Installed Base might contain the following cycle actions:

- Enter
- Pick release
- Ship confirm
- Backorder release

- Service interface
- Inventory interface
- Receivables interface
- Complete line
- Complete order

The Service interface processes a particular sales order line only once; therefore, you should place the Service Interface cycle action after you change the sales order, such as pricing changes. Failing to place the Service Interface cycle action after you change the sales order, results in no changes to the installation detail. Generally, this is after the Pick Release or Ship Confirm cycle actions.

Furthermore, it is not necessary to place the Service Interface cycle action in order cycles for returned products. The Service Interface ignores RMAs.

Create Records for Your Products

If desired, you can enter customer product information directly into the Installed Base, without creating sales orders in Oracle Order Entry/Shipping. For example, you can define customer products that represent third-party products installed at your customers' sites.

Use the Define Customer Products window to:

- Create customer product records
- Manually differentiate defined customer products from those automatically created by the Installed Base interface

Locate and Maintain Customer Products

Oracle Service offers powerful search criteria for finding all customer products for a particular customer or a specific customer product serial number. You can apply various combinations of customer product attributes in your search, such as location, status, contact, and order number.

Access Historical Information Through the Installed Based

By using the History tab, you can retrieve service request and service repair information about your product. Also, you can view all service requests and repairs logged on a particular product in chronological order.

Using Installed Base Management

This topic group provides process-oriented, task-based procedures for using the application to perform essential business tasks.

Locating and Maintaining Customer Products

Use this procedure to locate and maintain your customer's products.

Prerequisites

None

Steps

1. Navigate to the **Find Customer Products** window.
2. Click **Installed Base**.
3. Click **Customer Products**.
4. The **Find Customer Products** window appears.
5. Enter or select information from one or more of the available fields to find the record to view or modify.
6. From the toolbar menu, click the **Save** icon.

   To reduce the number of records displayed, you can narrow the search by entering data specific to your customer. For example, choose an install location and a product, then select **yes** or **no** from the **Active** field.

   Check the **Include Related** option to find all customer products related to the customer product entered in the **Customer Name** or **Customer Number** fields. Checking the **Include Related** option widens the search to incorporate other

customers defined, as related by Oracle Receivables Customer Relationship setup.

For example, suppose you want to search for all assemblies that have, as a component (either immediate or embedded), the serial number AB12345 with the date, 15 April 1999. To execute this query enter AB12345 in the **Serial Number Field** and 15 Apr 1999 in the **As-of** field, and pick **Top-level Assemblies** from the **Show** field.

Defining a Customer Product Manually

Use this procedure to manually define your customer's product.

Prerequisites

None

Steps

1. Navigate to the **Define Customer Products** window.
2. Click **Installed Base**.
3. Click **Define Customer Products**.

When you open the **Attachments** window, you can only view attachments from the **Knowledge Base Search Results** window. However, when you open the **Attachments** window from any other previously listed windows, you can insert, update, or delete attachments.

Understanding Knowledge Management

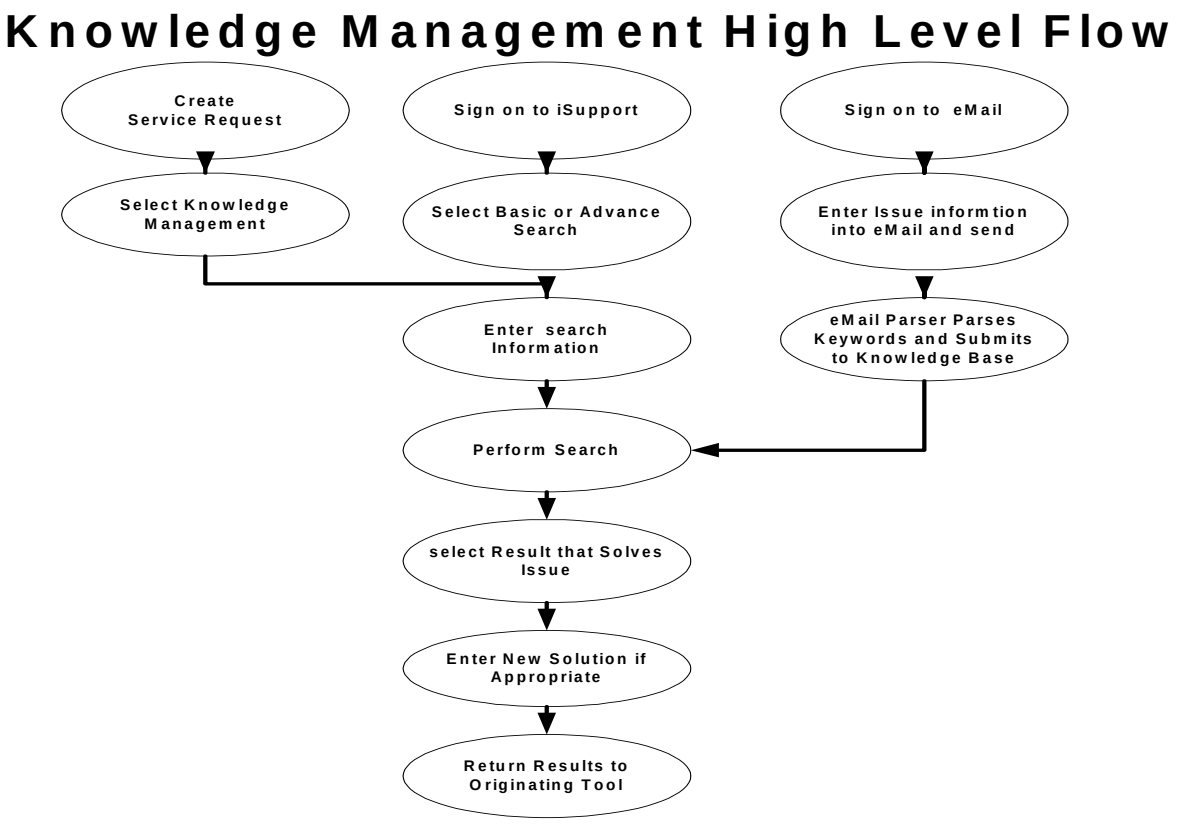
This topic group provides an overview of Knowledge Management and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle applications. setup which will tailor the application to the Spares Management solution.

Knowledge Management in CRM

Knowledge Management within CRM is accessed from several CRM products. It is designed to be used as a base level knowledge management tool for Customer Support Management. This base level tool can be replaced by a third party CAI partner such as ServiceWare or Primus if additional functionality is desired by the merchant. The API's for integrating the third party applications will be available in a future release. The CRM products which currently use the Knowledge Management tool are Support (which includes Defect Management, Field Service and Depot Repair), iSupport and iCenter.

The primary purpose for Knowledge Management within CRM for this release is to provide quick and easy access to information required to support Merchant product suites. It does this through both a text search (using InterMedia Text) and a relationship search process. The architecture provides the Merchant with a very flexible tool that will allow easy existing information insertion as well as the ability to use current Merchant terminology and processes. The ability to utilize existing Merchant terminology and processes (as desired) reduces user training requirements for quicker implementation at a Merchant's site.

The following high level flow describes a typical Knowledge Management access:



Using Knowledge Management

Knowledge Management within CRM provides a fully integrated solution support tool for Service Organizations that are committed to delivering a total service solution. The integration to agent supplied services such as Service Requests, Defect Management, Field Service and Depot Repair provides an easy to use and quick access to information required for the agents to perform their roles much more effectively. In addition, with the integration to CRM self-support products iSupport and iCenter it provides an easy to use tool for merchant customers to resolve their own issues, thus offloading agents to handle more difficult issues.

As mentioned in the previous section, the flexible architecture design allows Merchants to keep their same information base access terminology to reduce training requirements and user acceptance of the tool. As an integrated tool to the mentioned CRM products, it greatly enhances the usability and processing of information over any system that requires access to different non-integrated products. As an example, an agent can fill out a Service Request for a customer, access information in the knowledge base and have this information automatically transfer into the Service Request and even auto fill a Task management request for a Field Service technician to perform a task on the customer site.

Understanding Charges

This topic group provides overview of the application and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle or third-party applications.

Overview of Charges

Using the Charges capability, a service organization can bill customers for services provided in response to support service requests, field service request or depot repairs.

Charges also provide the functionality of creating an Return Material Authorization (RMA) to return a defective product for repair, loaner or replacement. Returns from a customer occur for a variety of reasons, including damage, shipment error, or repair. Return material processing capability of Charges allows you to manage customer expectations while controlling inventory receipts and customer credit processing.

For an example, a customer logs a service request for a malfunctioning computer system. After trying to correct the problem remotely for a few hours, a technician is dispatched to fix the problem on site. The technician works on the problem for some time, replaces some components, and finally ascertains that the problem lies with a major subcomponent that cannot be fixed in the field. The technician ships the subcomponent back to the repair depot for in-house repair, and the subcomponent is repaired and shipped back to the customer. At that point, a field engineer is dispatched again to install the subcomponent.

Charges allow consolidation of all labor, material, and expenses incurred during remote support, field service, and depot repair into a single charge with multiple lines. Customer can be billed for labor, materials and expenses either while a service request is being addressed or after one is resolved.

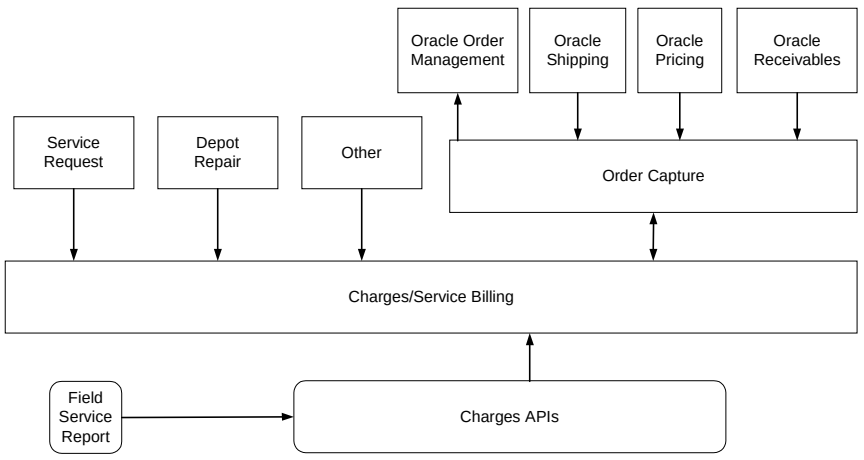
Before you bill customers for services rendered, you can use the Apply Contract feature to take into account and correctly apply the contract terms like discounts, labor rates, etc., to arrive at final charges for the customer. Alternatively you can choose to apply charges manually.

Charges also provides the ability to a user creating Charges to look at the coverage that the customer has as per his contract with the service organization.

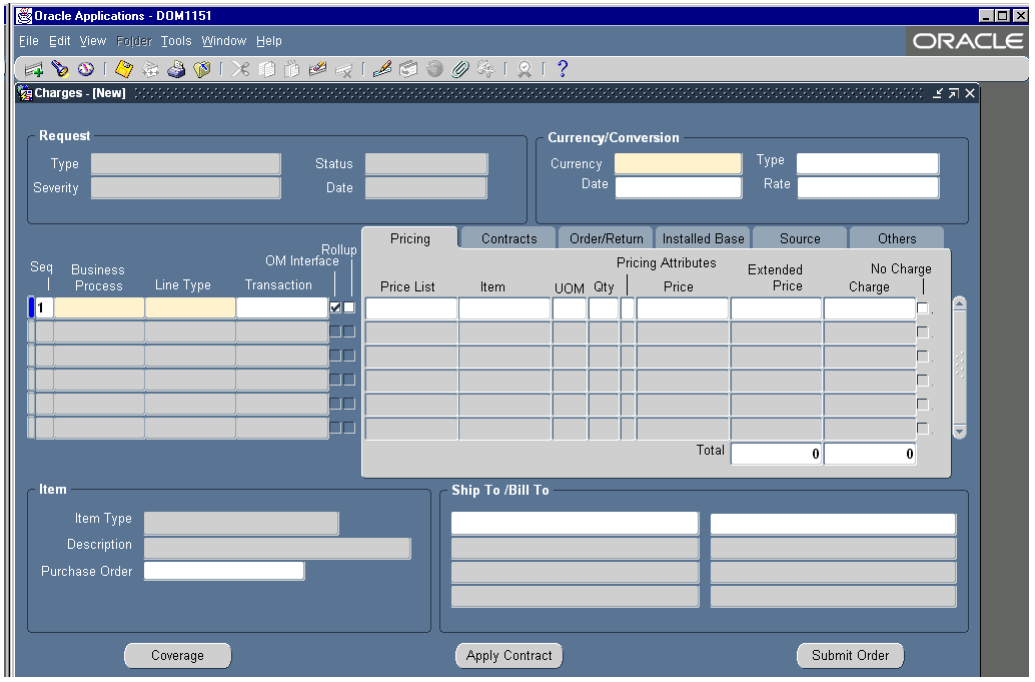
The Charges module uses Business Processes and Transaction Types to determine the impact of each charge line. Examples of Transaction Types include Repair, Replacement, Material Transaction, Labor Transaction, Expense Transaction, and Expense Travel. An unlimited number of Transaction Types can be defined.

The diagram below shows the Charges functional process flow which provides a high level overview of Charges and other modules integrations.

Charges Process Flow Diagram



The following Charges screen and the table details the various functions and the tabs in the Charges screen through which a user can use to enter and view charges.



Charges Tab Functionality (see Charges screen)

Tab Name	Function
Pricing	View and edit pricing information
Contracts	View and edit contract number, coverages rate type for the charges
Order / Return	Inclusion of a particular charge line in the charges, return reason for a RMA
Source	Links a service request as the source to the Charge line
Others	Enter a tax code and a Returned serial number in case of an RMA, shows estimated tax amount, functional currency and linked invoice details

Apply Contract Button: applies a selected contract's terms and conditions to calculate charges.

Coverage Button: allows a user to look at the coverage that a customer has under a contract.

Submit Charges: submits the charge lines to Order Management.

Using Charges

This topic group provides process-oriented, task-based procedures for using the application to perform essential business tasks.

Choosing a Charge Scenario

Choose the scenario that you want to follow

- Creating a Charge
- Viewing a Charge

For background and general features of Charges, refer to Overview of Charges in the Understanding section for the application.

Creating a Charge

You can a enter a Charge for a service request or for a repair order created against a service request. Charge records can be shared by linked service request and repair order lines.

Charges may be entered in the following ways:

4. The users may enter the information directly using the charges window
5. Using Field service / Mobile field service applications, a field service engineer can enter the information relating to their service call using Field Service Report form. Then they can use the update charges button on the Field Service Report Field Service Report form to send this information to charges directly

Prerequisites:

A service request needs to be created first before a charge can be created against it. See: Entering Service Requests

From the Depot repair application, charges can be created after creating a repair order in response to a service request.

Perform the following tasks in the recommended order to create a charge:

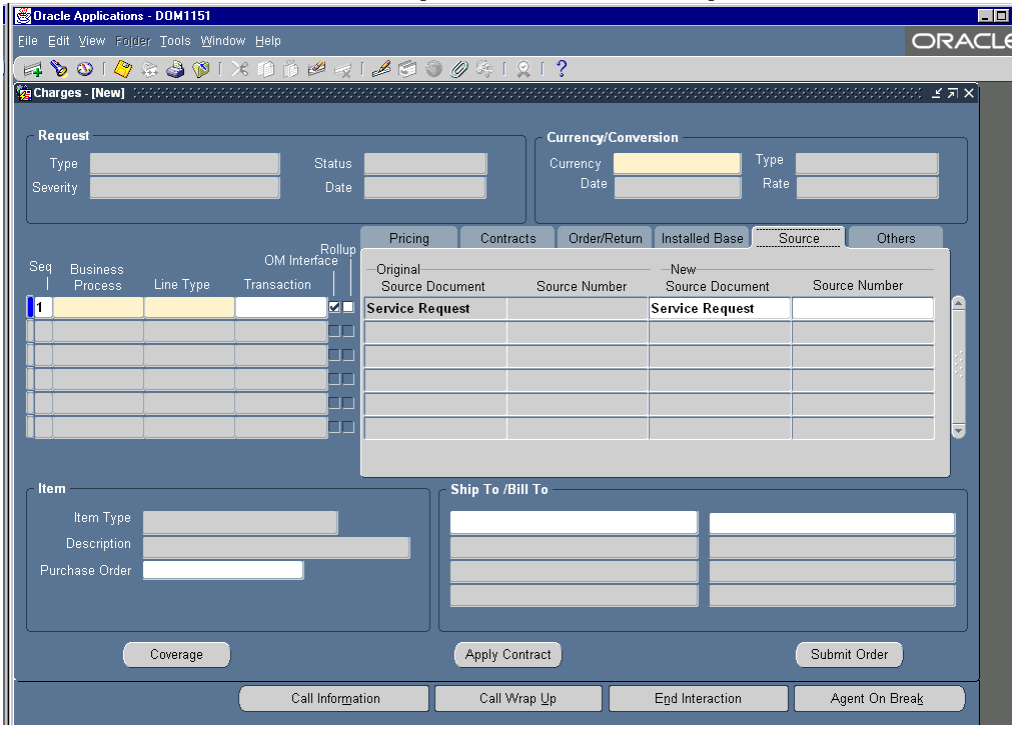
1. Navigate to Charges screen by either

   (a) clicking Service Requests from the navigator menu > Enter Service Requests (See Prerequisites for creating of a charge) > click on Tools menu on the tool bar > select charges

   (b) clicking on the Charges button on the repair orders screen

2. The service request details - Type, Status, Severity and Date are defaulted from the service request in the request area of the charges window

3. In the Source tab, the Source and the number fields under Original and New Sections default to Service Request and the Service Request Number.



The user can change the source document to Field service and Depot repair. If the charges window is called from the Depot repair form or field service, the charges will default Depot repair as the source and Repair order number and Field service and the field service document respectively

4. The Bill to and Ship to addresses also defaults from the customer master, which can be changed.

5. Choose a Currency in the currency / Conversion section of the charges window.

   If the currency selected is not the functional currency, then it will require a user to enter the currency conversion type, a date on which the currency conversion is done and a currency conversion rate between the currency chosen and the functional currency

6. Select a Business Process. Business processes are user definable.

7. Select a Line Type from the list of values. Line Types are derived from the Order Type specified in the Transaction Group setup form, for a specific Transaction Group / Business Process.

8. Select a Transaction Type from the transaction field. Transaction Types are user definable. Based on the transaction type, the item type and the description gets populated in the Item section of the charges window.

9. If you want this charge line to be passed to Order Management through Order Capture when you submit charges, select the OM Interface checkbox. This check box is selected by default.

10. If you want to have this line rolled up into one order, select Rollup checkbox. There are three profiles for Labor, material and expenses transactions which control rollup of the charges. The charges are rolled to the item which is defined in the respective profile for material, labor and expenses. The profile is invoked based on the transaction type which has a billing flag attached to it (same as item type). Rollup is available for three seeded billing flags; labor, material and expense.

11. On the Pricing tab, select a price list. Price lists are user defined.

12. Enter an item number.

13. From the UOM list, select a unit of measure.

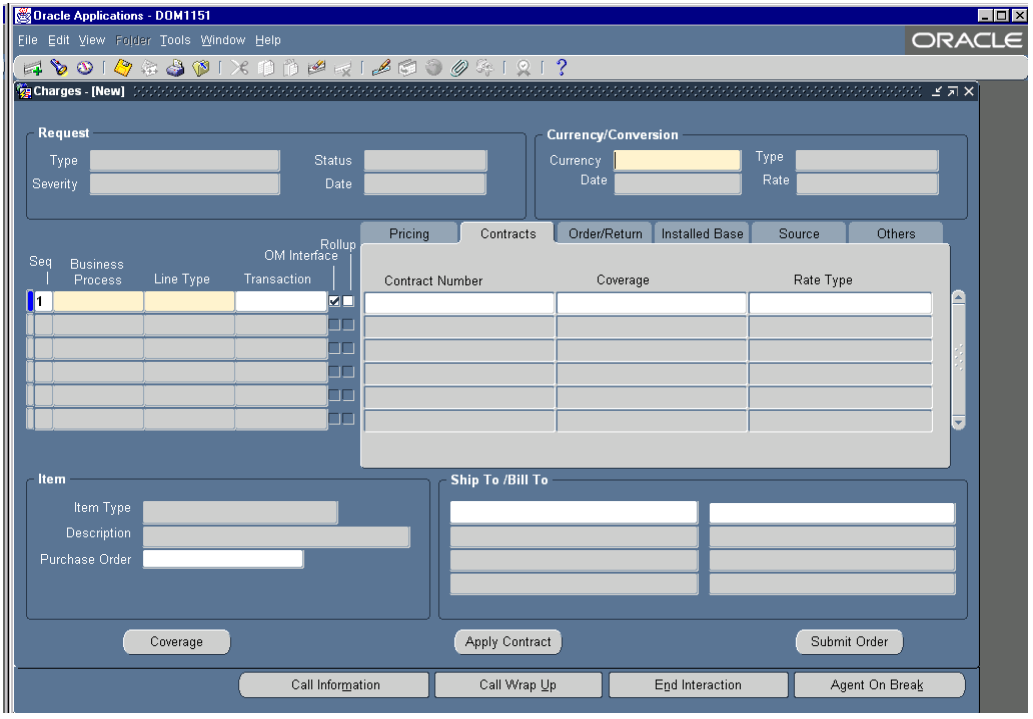
14. Enter a quantity of items for this line.

15. In the Price field, the price and the extended price appear. The charges are also calculated without considering any contract.

16. If there are any pricing attributes defined in pricing and if the pricing attributes descriptive flexfield is enabled, then the unit price as defined based on the pricing attributes is shown.

17. In case you do not want to charge the customer for this line, select the No charge checkbox. When you check this checkbox, the charges window will show a 0 in the charges field for this line.

18. On the Contracts tab, select a contract number and a coverage.The rate type field is enabled if the transaction type chosen is a labor transaction.



19. Clicking the Coverage button brings up the contracts coverage window and shows detailed information on coverage.

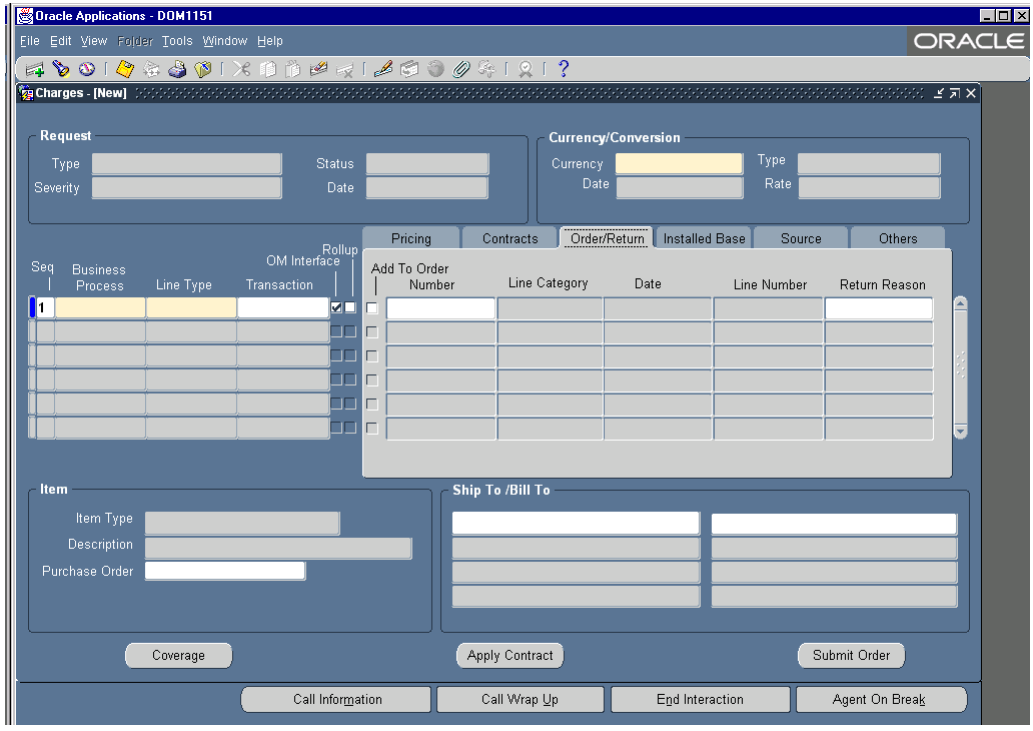
20. When you choose the Apply Contract button, the charges module recalculates the charges for the selected charge line, based on the terms and conditions of the selected contract and coverage.

21. If you want to have charge line to be added to a specific order, select the Add to Order checkbox and enter an order number.

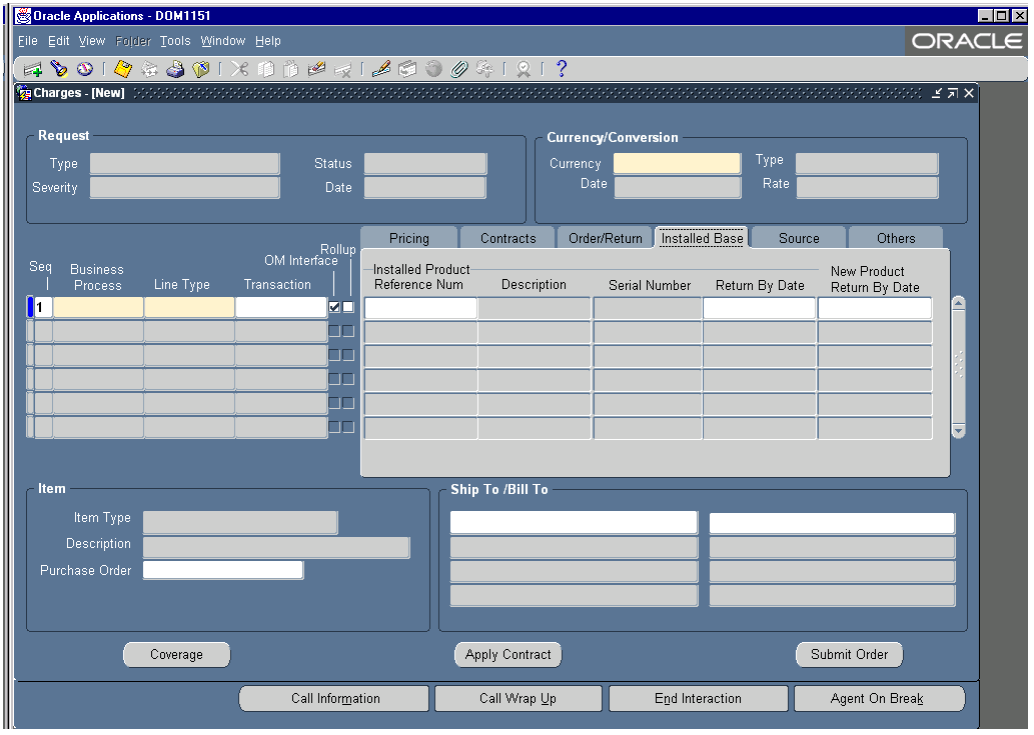
The fields Line category gets populated based on the Line Type Chosen. It will show order if the Line Type is an order while it will show return if the Line Type is return.

After the charges are submitted, the date shows the date when the charge was created and the line number fields shows a line number generated by the system.

In case of a transaction type RMA, the return reason field is enabled and a user can pick up an appropriate return reason code



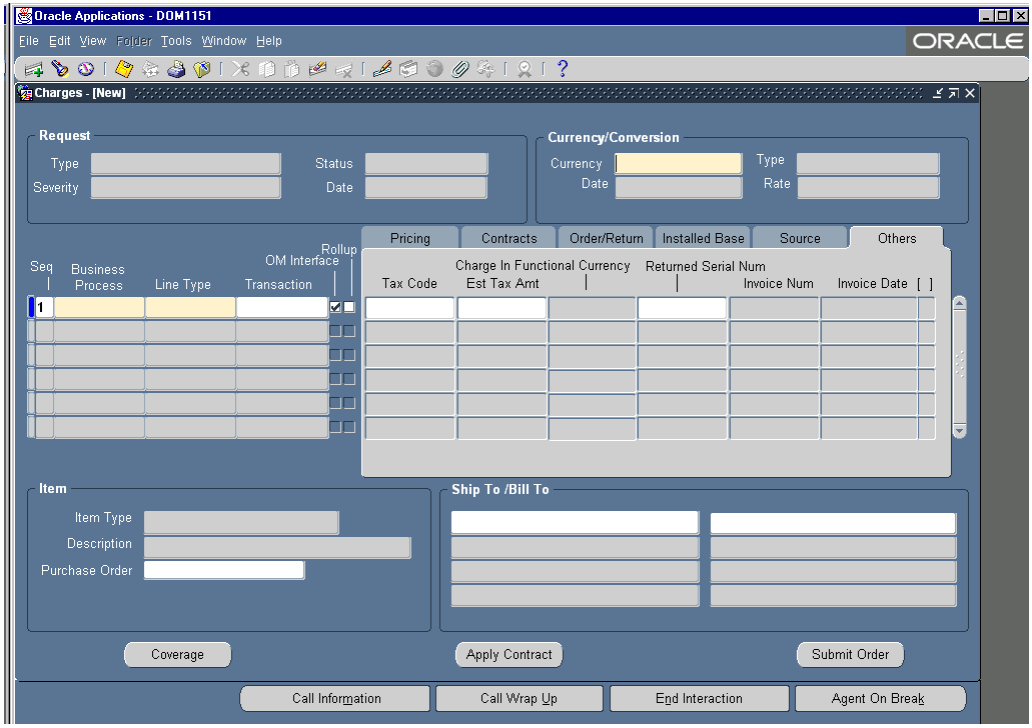
22. In case the transaction is of type Loaner, Advanced Replacement or Replacement, the field reference number is enabled. A user can pick up a customer product by entering the reference number. Based on the reference number selected, it shows the serial number and description of the customer product.



23. A user can enter the return date of the Customer product being returned and the new product return date. To estimate the expected tax for a charge line, enter a tax code on the Others tab, which will give you the estimated tax.

24. You can also enter the serial number of the returned item (not a customer product) by the customer in case of an RMA

25. The Others tab also shows the invoice Number and the invoice date for a particular charge line after the invoicing cycle is completed



Viewing or Editing a Charge

Use this procedure to view or edit a charge for a specific service request or repair order:

Prerequisites

To view a charge for a service request or repair order, it must have a charge recorded against it.

Steps

1. Navigate to Service Request window (see view Service Requests)
2. Query up an existing service request for which you need to view charges
3. From the Tools menu, choose Charges.

The Charges window appears with the Pricing tab active. They show the data for each line item.

4. Click each tab to view and verify the available information.
5. Alternatively, the charges for a particular repair order can be seen by invoking the charges screen from the repair order screen.

To edit an existing line or enter a new charge line, see Creating a Charge.

Understanding Counters

This topic group provides overviews of the application and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle or third-party applications.

Overview of Counters

You can define Counters to monitor the usage of customer products and services and execute business processes based upon the usage information. Common everyday objects that have counters are automobile (the odometer), a gas meter, a photo copy machine, etc. Counters provide a mechanism for tracking new product warranties, service contracts, support agreements and similar business needs.

There are two categories of Counters available for definition;

- Physical Counters
- Logical Counters

Physical Counters are an incremental electro-mechanical or software device built into a product which is used to track equipment usage. These counters are tangible and can rollover to a specified value, be reset to any value, or break.

Logical Counters are intangible derived counters which run inside a software application program that keep track of usage of a product or service. A common logical counter would be the number of service telephone calls made by a customer against a particular product or service. Logical counters can add or combine other counters to form a new counter.

Counter templates are defined for groups of counters and instantiated in the Installed Base Customer Products or Contract Lines. Templates are known as Counter Groups and are formed by grouping one or many Counters together. Counter Groups are Associated with a product or service. A product or service can

only have one Counter Group association. Counter Groups templates can be applied to multiple Installed Base Customer Products or Contract Lines. Once the Counter Group is instantiated it can be modified for a instance or for all instances

A Counter Group is instantiated with an Installed Base Customer Product or a Contract Line automatically. Counter Groups can not be manually instantiated.

The Counters readings can be captured manually from the Capture Counters User Interface (UI). The Capture Counter reading UI is available from the Service Request UI, Field Service UI, Service Contracts UI, Contracts Authoring, etc.

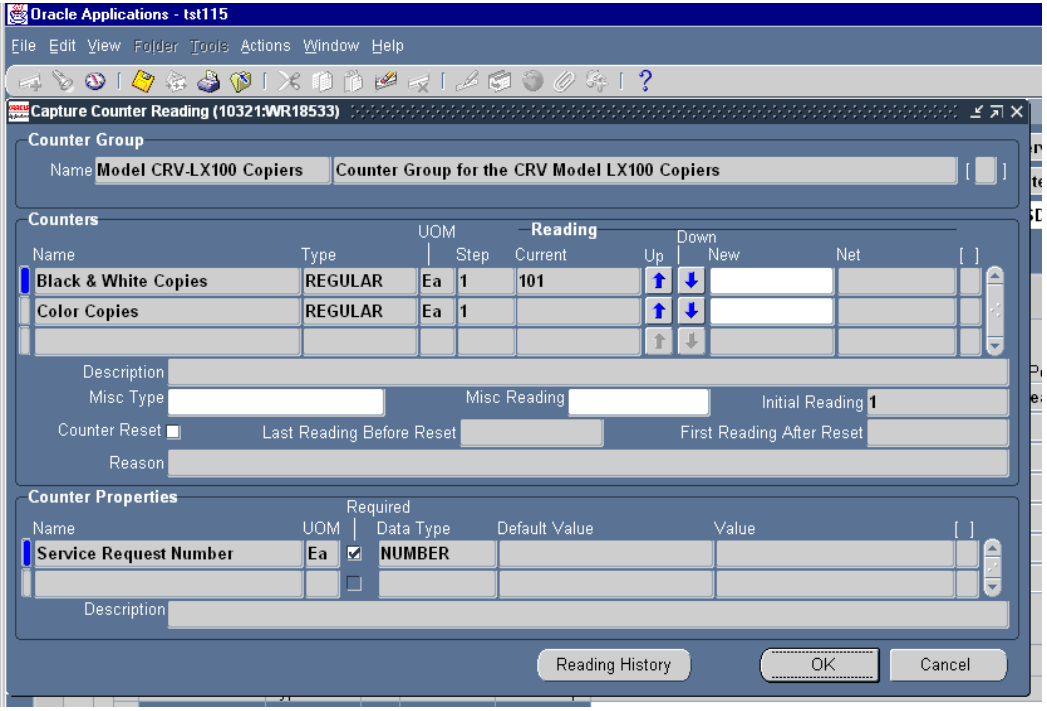
See also:

- Using Counters
- Implementing Counters

Using Counters

This topic group provides process-oriented, task-based procedures for using the application to perform essential business tasks.

The following screen is used to capture all counter readings.



Feature Name	Function
Counter Group	Defines the counter template used for associated with products, services and contract lines
Associate Button	Pops a window to link Counter Groups with Inventory Items that are Serviceable, Support Services, or Usage Item
Counters	Defines the individual counters in the Counter Group template. Counters can be Physical (Type Regular) or Logical (Type, Group Function, Formula, Time Based).
Validate Formula... Button	Validates entered formula as a valid SQL expression for Formula Counters
Formula Ref...Button	Pops a window to allow definition of the References used in the formula
Group Op... Button	
Properties	Defines additional counter reading properties for Regular Counters only

Capture Counter Readings

Counters are updated using the Capture Counter reading UI.

- Counters can also be updated using Application Program Interfaces (API) for counters.

Use this procedure to record a counter reading manually.

Prerequisites

A Counter Group must be setup and instantiated.

Steps

1. Navigate to the Capture Counter UI. The Capture Counter reading UI will show only the associated Counter Group instance.
2. Modify the Counters by entering a New counter value or by clicking the Up or Down Arrow buttons to increase or decrease the counter. When the Up and Down arrow buttons are pressed the Counter value will be based on the defined Step value. Users will only be able to update Counter of type Regular.

- See Implementing Counters, Defining Regular Counters for more information.

3. From the toolbar menu, click the Save icon.

Capture Misc. Counter Readings

Miscellaneous adjustment readings can be captured for counters. Miscellaneous readings types are defined for any kind of adjustment. For example, to adjust a counter due to repair work. Use this procedure to miscellaneous counter reading.

Prerequisites

A Counter Group must be setup and instantiated.

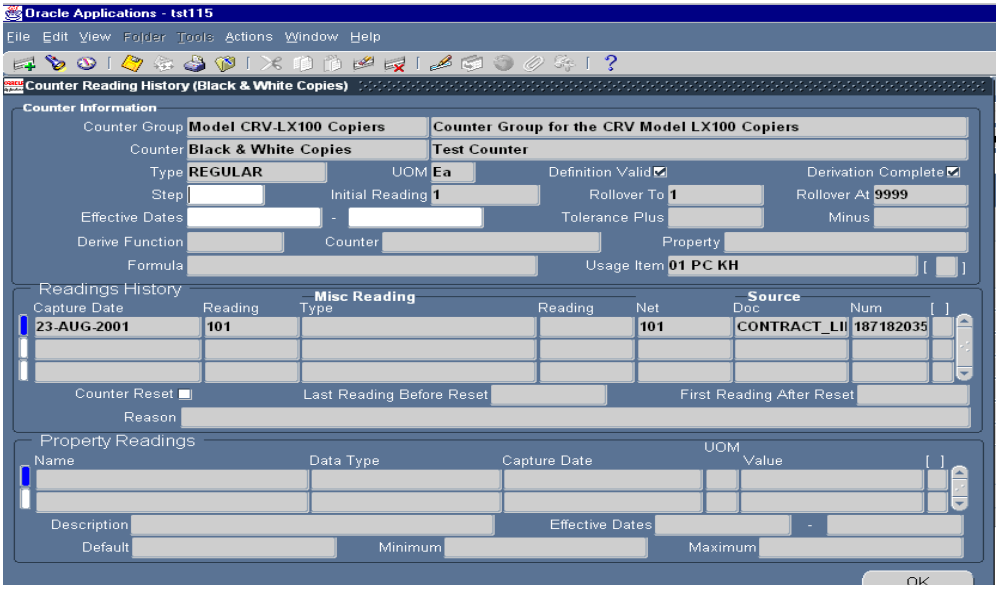
Steps

1. Navigate to the Capture Counter reading UI.
2. Click on the row that contains the Counter you wish to adjust.
3. Select a Misc. Type. For example, select Adjustment from the list of values.
   - See Implementing Counters, Defining Misc. Type for more information.
4. Enter the Misc. Reading. For example, enter 100 to adjust the net reading. The net reading is defined as
   - Net = New reading - Current reading - Misc. Reading
5. From the toolbar menu, click the Save icon.

View Reading History

Counter history can be viewed from the Capture Counter Reading UI. Use this procedure to view the counter history. No information can be updated.

The following screen is the Counters History used to view the tracking information for counter readings. This is a view only, no updating of counter history is available.



Prerequisites

A counter group must be established and readings captured.

Steps

1. Navigate to the Capture Counter Reading UI.
2. Click on the Reading History button.
3. Review the Counter Information.
4. Review the Reading History.
5. Review the Property Readings
6. Click OK when review is complete.

Resetting a Counter Instance

Counters can be reset from the Capture Counter UI.

Prerequisites

A Counter Group with a Counter Type of Regular must be setup and instantiate.

Steps

1. Navigate to the Capture Counter reading UI.
2. Click on the row that contains the Counter you wish to reset.
3. Enter the New value.
4. Enter a Misc. Type, if required.
5. Enter a Misc. Reading, if a Misc. Type was entered.
6. Click on the Counter Reset checkbox.
7. Enter the Last Reading After Reset. This is a mandatory field for resets.
8. Enter the First Reading After Reset. Default values from the Counter Setup definition for Rollover To will be used to populate the First Reading After Reset. If no values default you will have to manually enter the First Reading After Reset value. This is a mandatory field for resets. The Net reading will be calculated as follows
   - Net = New reading - Current reading - Misc. Reading + Last Reading After Reset - First Reading After Reset
   - See Implementing Counters, Defining Regular Counters for more information on Rollover To setup.
9. Enter the Reason the counter is being reset. This is a text field and can capture the readers comments on the reset.
10. From the toolbar menu, click the Save icon.

Modifying Counters

Counter Groups and Counters can be modified once they are instantiated.

To modify a counter instance navigate to the **Counter Setup** UI from the Install Base or Contract Line instance.

To modify a counter template and have the change take place for all instances navigate to the Define Counters from the Setup menu option.